# The Goldfish Variations, a Cartography Love Story 

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#### Abstract

No one to date has correlated the issue of architecture's inherently political unconscious ${ }^{1}$ in a way that connects to matters of perception, virtuality, or sites created by folk ritual, religion, the arts, or popular culture - sites that, on account of their liminality and relation to the uncanny, have resisted theoretical description. The allegory of the atlas as a compendium of human knowledge is well known. Where the ideological function of knowledge corresponds to the atlas's "zenithal authority," the phenomena that are invisible to that authority call for an "orthogonally" shift to a "horizontal" viewpoint able to access phenomena that resist ideology. In the terminology of Mladen Dolar, the ideological subject is succeeded by the "psychoanalytical subject."2 This essay shows how this subject can be defined cartographically and analogically, combining themes of the uncanny, liminality, the political, and the unconscious within a single notational system.


## 1 / The Goldfish Memory Myth

It is a lie that goldfish have bad memories. ${ }^{3}$ Compared to other small animals, their memory is not astounding but is more than expected. Exacting scientific studies have shown that goldfish can remember things not just for three minutes, as the fable would have it, but over a three-month span and, furthermore, that they can be trained using standard techniques of operant conditioning. The myth that the goldfish forgets what it encounters while swimming around its bowl before it completes a $360^{\circ}$ circuit has possibly comforted guilty goldfish owners sensitive to their tiny pet's hopeless situation.

The goldfish "three-minute memory" fable, though proven false, is nonetheless a gold mine for critical thinking about the (human, Freudian-Lacanian) unconscious and its relationship to experience of space and time. Although goldfish memory in reality continues well past the $360^{\circ}$ mark, the point by which popular belief holds that goldfish memory has already given out is a significant marker for human consciousness. So, let's go along with the fiction of the forgetful goldfish. Let's even consider how, in some ways, we are like this goldfish.

If we can equate memory with an ability to "journal" experience (represent it in a durable way that makes it accessible to meaning later on), sanity depends on the "journal point" never quite reaching the limit of the "atlas" of map representations, formalized by the glass bowl; that is, the journal point must always be $<360^{\circ}$ if the fish is to avoid the uncanny feeling that it's "been there before." The $360^{\circ}$ mark is dangerous in the sense that it is the fish's first sign that its travel has been curved rather than straight. It is the point at which the first and last maps of the bowl are be stitched together to complete a "circular atlas." The journal-mind imagines the atlas to be organized in relation to itself. The atlas, evidence of durable reality, stretches on past the end-point of death or forgetting. Journal consciousness finds the $360^{\circ}$ mark troublesome if its memory is still working. The atlas has served as a consistent framework for the journal's varied experiences. It has served as a guarantee that variety can always be

[^0]described in relation to a neutral field of opportunity that continues in every direction. Experience has to be able to turn make turns and reverse direction. The atlas makes sure this is so, even if the terrain is varied. If the goldfish forgets past experiences before the $360^{\circ}$ mark, there is no problem. The atlas can continue to honor this guarantee. If, however, the goldfish swims on with memory intact past this point, there is bound to be a crisis.

Let's make a Lacanian distinction between "reality" and "the Real." Reality is constructed; it's what we think is happening. It is the sum total of our networks of symbolic relationships and their representations. The Real, however, resists our constructions. It goes beyond the sayable and thinkable. The curvature and finitude of the atlas is the Real of the atlas, as opposed to the "constructed reality" of the journal experience. The journal thinks that the atlas will go on forever - not doing so would confuse the figure-ground relationship, where the journal can have its ups and downs as long as the spatial ground remains regular, predictable, and potentially infinite. The journal wants to know that the world will not vanish after it dies.

A journal's end is, like the end of life, a cutting off of a line that might hypothetically extend a bit further in the same way but generally adds a flourish to its conclusion. Mortality gives life its own curvature, its sense of accomplishment. The world goes on without us; the atlas goes on without the journal, or at least a particular journal. Without the atlas's indifferent extension, the journal's event-based variations cannot be properly framed.

As long as there are maps past the journal's last page, space can pretend to be infinite. But, what are these maps like once the journal ceases to experience them directly? They are imaginary maps, projected from the "not just yet" position. They exist in the same way we imagine Paris to look before we actually visit it at a particular time. Before we actually get there, Paris lives in an imaginary place; the "possible Paris" is essential to our ability to stay put in some other place. The power of these imaginary maps is that they promise to produce a ground for experience using the same rules as established for the journal's actual and past experiences. And, if some day, the goldfish gets some free time and a little extra cash ...

We are comforted by the belief that our finite lives will not exhaust the possibilities. ${ }^{4}$ We are used to, and rely on, the map-space that is "aligned" to our journals to provide near-1:1 views of reality. We do not want our journal to encounter the earlier stages of itself, but not under any circumstances do we want the journal to "start over." It is acceptable that a terrestrial atlas mapping the surface of a spherical globe will offer again its starting point as it reaches its end, but this is only for the case where we are modeling a spherical surface in the context with a non-spherical space, in which a globe hangs suspended like a Christmas tree ornament. For the same dejà vu encounter to happen in space itself would collapse our idea of dimensionality as a whole. While we can imagine circular motion as long as it takes place in reference to a non-circular Cartesian space, we cannot imagine curved motion within a curved space; it would appear straight. The question of whether a motion is circular or straight is depend on the nature of the field in which it occurs. A straight motion in a curved field would appear to be curved. A motion that goes "straight to the heart" would look radically curved, whatever that means.

Space becomes - this is possibly space's most generic definition - whatever it takes to keep our memory-journal from running out of maps to provide experience its solid ground. The cartoon example of the Road Runner comes to mind, in the memorable sequence where Wile E. Coyote, in hot pursuit,

[^1]accidentally runs over the edge of a cliff. The cartoon character does not notice this, and for a while remains suspended in empty space before recognition kicks in. It is as if reality itself requires recognition of those it would support, and if the character is not paying attention, reality will work frantically to supply it with the illusion necessary to suspend it in space. The predication by which possible actions are supported within environmental reality is suddenly flipped. The reality itself "requires" out input, our confirmation. The coyote begins to fall, but not immediately at the $360^{\circ}$ cliff edge. Only where reality has run out of its emergency supply of phony maps does the animal begin to descend, as if gravity reveals that it works on a credit basis, supplying those who cannot pay as long as it can. At this point, when credit has run out, the "exception" of the cliff edge has become the "rule" of falling, the limit of the reversed predication of belief and reality.


Figure 1. The forgetful goldfish memory system. The fish reaches a point where its mental "journal" is filled but there is yet more unvisited bowl to see. At the $360^{\circ}$ mark, in the case that the journal>atlas, the goldfish must confront the Real of the bowl's spatiality in terms of new "fantasies" about virtuality. Where the journal<atlas, space and its representations could aspire to a $1: 1$ relationship. Past the tipping point, however, space and time are allowed to fold, twist, skip, and dig tunnels.

Apart from cartoon gimmicks, we have other experiences - mostly frightening and uncanny of other reversed predication of environment and behavior. The goldfish paradigm offers us a simple diagram of the basics. It is important to stop at this point and ask the most important questions: (1) how do the main features of this simple model contribute to the understanding of the experiences under the two very different conditions of journal<atlas or the alternative, journal>atlas? Specifically, (2) how much the fright and uncanniness of the journal>atlas zone owes can be explained in terms of cartography? And, (3) how much can cartography say about the nature of that fright and uncanniness? Is it not also true that cartography, revealed by the fish-bowl example, has much to say about anxiety in general? Vico, quoting the Renaissance mythographer Varro, always liked to say that the gods begin with fear.

The most obvious situation revealed by cartography is this: anxiety is provoked by the perception of errors where technically there are none. At this point it is necessary to explain, at least minimally, Jacques Lacan's system of three interlocking domains, the Symbolic, the Imaginary, and the Real. The goldfish's "perception of" component is taken up by the Symbolic and the Imaginary. The Symbolic reconciles experience to rationalized accounts of experience. The Imaginary addresses things that are "virtual" - not immediately present but technically accessible to experience. The Real component is the fish-bowl, which we know about but the goldfish doesn't. The fish-bowl allows us, standing as we are, god-like, outside of the goldfish's experience, to speculate about the extrinsic features of things that in goldfish terms have no extrinsic features. The Real as Real cannot be symbolized and is hard to imagine in the special sense that the Real is that which resists the Symbolic and traumatizes the Imaginary. We
can imagine the Real but the goldfish cannot. We can see how the Real is actually the Real for the goldfish, while for us, in our deus ex machine privileged position, the Real is a part of our knowledge schemata. We can extrapolate from the goldfish's Real to ours. We, too, live in a bowl we cannot imagine or symbolize. The Real is what has no content. It is "pure resistance," "pure curvature." We can easily see that the goldfish atlas is finite and curved. We can barely imagine how our bowl is finite and curved. We cannot forget our advantage, of being able to symbolize and imagine the Real that the goldfish cannot. The fabled forgetful goldfish may accidentally remember more than usual and encounter the unsettling Real Bowl, but it must remain blind to the cartography we can use to describe the situation.

Lacan used the analogy of the Borromeo knot to describe the interlocking relationships of the Imaginary, Symbolic and Real. One ring goes down, another is placed on top of it; another is placed on top of that one, but instead of the third ring lying above both previously placed rings, it paradoxically lies beneath the first ring, locking the rings into a group. The last ring has "always and already" been superseded by the first ring. If any ring is removed, the other two are unlocked. The last ring - let us imagine that it is the Real, the ring that represents the $>360^{\circ}$ region of the goldfish bowl - invades a space that it also creates. Before the invasion there was nothing; afterwards everything, but only in the form of fear.

What the goldfish cannot journal, it may project through imagination; and, what it does journal presumes and depends on these projections. This Imaginary "guarantees" reality, the goldfish's ability to make sense of what happens. If the goldfish were human, this reality would be reinforced in true Symbolic ways, through language, social networks, systems of knowledge, etc. The human lived world is Symbolic, built on these structures and guaranteed by the Imaginary as a virtual presence. The Imaginary uses pro-jections, a means of "throwing something out there": dimensions, models, and literal images. Although the subject's home is within networks of Symbolic relationships - society, family, the economy, language, etc. -subjective ideals are based on images and the power of the Imaginary as a projective, speculative capability. This is the meaning of "dimensionalizing" in both spatial and temporal terms. The Symbolic relates what is happening in the Imaginary by dimensionalizing it, giving it coherent schemata that allow the seamless attachment of potentiality to reality.

It is at this point that we can bring the Lacanian triad down to earth via the fish-bowl situation. Between the immediacies experienced and taken up into the Symbolic (the "known") and the hypothetical experiences projected inside the Imaginary, we have not just a contrast such as that between words and images but a relationship mediated by a specific type of virtuality (Fig. 1). "Contiguous virtuality" is the anticipation of that what is not immediate to experience can be plausibly added. We see one side of an object but fully expect to encounter much of the same kind of thing if we walk around it. The same rules will apply to the unseen sides of things, and by extension unvisited territories and unlived futures, as apply now. The future will touch the present in a seamless way. Our lines of passage through the landscape will have unvisited parts left over, but we bank on the idea that these parts, if visited, would correspond to what we already know.

There are, however, important exceptions to contiguous virtuality. We might begin by grading the cases of exceptions, from "mild" to "severe." A mild exception is evident in visiting someone else's house. We cannot enter without permission; and even if we enter we cannot enter some rooms, cannot handle certain objects, without being rude or criminal. The "do not enter" convention prevents us from trespassing. A severe exception to contiguous virtuality can be illustrated by the popular culture idea of a radically hidden place, such as "Shangri-La," portrayed in James Hilton's 1933 novel, Lost Horizon, made into a film in 1937 by Frank Capra. Admission to such spaces is more than a matter of packing the right gear or locating it properly on a map. One must be approved to enter; the criteria are intellectual and spiritual. It's not just a question of being there. One has to be in some way blessed.

Places like the isolated kingdom portrayed in Lost Horizon are "sites of exception" to the contiguous virtuality rule mainly on the tune of entry conditions. Once inside things are "normal," if one
gets used to the nudge toward utopia. Entry and exit require knowledge as well as the correct ethical status. But, things inside seem larger than one would expect from the outside. We cannot represent them as sitting inside the general framework established by the Cartesian-style atlas, where navigation is assisted by a "zenithal" reference point that moves as the traveler moves. The GPS does not show the site of exception. ${ }^{5}$ There must therefore be a different kind of virtuality at work. This virtuality is "detached" in contrast with contiguous virtuality's tendency to attach new unvisited domains to existing ones into a smooth, unified, expanding space. Detachment relates to the trial of getting inside such sites, and we can realize, in the Iron Age fortresses that were protected by labyrinthine mounds and trenches to force any would-be visitors into single file, a cultural common denominators, abjection and askesis. In historical terms, human conception of space and time is more familiar with detached virtuality than contiguous virtuality. Before the enhancement of travel by mechanical devices such as the astrolabe and compass, and before the corresponding graphic representations afforded by these mechanical devices, there was only a partial appreciation of spatial-temporal unity. The terrestrial globe was a hypothetical, not something that could be immediately experienced. Global navigation was theoretically possible, but the real thing was plagued with difficulties, practical and magical.

Sites of exception, with their non-contiguous rules of "detached virtuality," put the resistance feature of the Real into perspective. Resistance is worked into the boundary conditions of the sites of exception, and in historical-cultural examples we see how exception is conceived in terms of tests, trials, and spiritual conditions. Because the Real cannot be symbolized, the site of exception cannot be related logically to the mapped domains of the Symbolic and Imaginary. Rather, "getting there" (and getting out again) is a matter of ingenuity, purity, trial - remember the example of the Sphinx who questions Edipus at the gates of Thebes - where the Symbolic is confounded by negation and paradox and where the Imaginary is bent, twisted, puzzled, and password-protected.


Figure 2. The goldfish swims in a Cartesian space directed by the authority of a navigational zenith, a positioning device that calibrates the journal and allows the goldfish to project beyond the practical limits of its journal. Past journal mark, however, this zenith weakens, and its "vertical" authority begins to fade; mapping continues, but speculatively and without confidence. Past the $360^{\circ}$ mark, the control point will be the Real, as a kind of fulcrum of the field of negation and exception. Access to the Real will not be, as it was for the zenith, projective, but rather through some restricted dimensionality that "squeezes" space and distorts time.

[^2]Now, a rule of reversibility: Just as the Real exceeds the Imaginary and the Symbolic, whatever exceeds experience automatically lies in the province of the Real, as if to say that the Real is another name for exception. Subjectivity at first comes to terms with the Real through fantasy, where it may postpone, transpose, disguise, or avoid the Real. When it must confront the trauma of the Real directly, it must fall into a black hole of the purely negative. And, whatever is in this hole is a part of the Real.

The first stage of this fall has to do with time. We already know the standard forms. With déjà $v u$ we encounter the past as a present. With premonition we see signs of a future we are warned against. Although we act according to "free choice," there seems to be some Unseen Hand outside of this field of opportunities, guiding events to a predetermined end. We are blind to the buried treasures and crouching dragons. The sophisticated versions of the Unseen Hand require free choice itself to be the machinery of fate. Unlawful time travel shakes us up.

Thus, we are already well acquainted with the goldfish principle, even if we are not aware of the phony thesis about goldfish memory. Without seeing The Matrix, either, we know all about how the blue pill guarantees the illusion of the journal<map and red pill opens up the horrible realities of journal>map. The goldfish "problem" could be summarize, in fact, as a combination of less than and greater than, <>, the symbol (called the poinçon) Jacques Lacan used in his "matheme" of the barred subject to the "object cause of desire" ( $\$ \diamond a$, the matheme for fantasy). Being both greater than or less than is the Goldfish Variation, so to speak: the implicit potentiality of the goldfish being able to swim past the mark of its memory, which can on good days extend past the $360^{\circ}$ limit of a trip around the bowl. The poinçon, as "both less than and greater than," creates a scale dysfunction, but it is directly related to what we might call "motility dysfunction" and "identity dysfunction." Something is wrong with a trip, presumed to be in a constant straight line, that encounters itself. Its scale violation interrupts motion. The failure of travel is also a failure of personal identity. It reveals one's own role in constructing the illusion that the trip out has actually curved in on itself. The three dysfunctions, scale, motion/motility, and identity, always turn up as a triad, a breakdown trio; and one is reminded of other famous breakdown trios - the Marx Brothers, the Three Stooges, the Disney duck characters Huey, Duey, and Louie.


Figure 3. The Marx Brothers, classic representatives of the three-part Freudian ego: Chico (ego), Harpo (id), and Groucho (super-ego). Groucho's compressed powers of identity as the super-ego figure manipulate the already-calculating Chico, who must navigate his companions with the alacrity of a tour-guide. Scale jokes are Harpo's specialty. He invades others' personal space, pulls impossibly large objects out of his pockets, and fits into ridiculously tiny spaces.

So, the forgetful goldfish myth is something we need as a monogram of the kind of story we must tell ourselves about our perceptual, imaginary, and symbolic lives. We need the goldfish trapped within its

Real, and we need our own awareness of the bowl from our "zenithal" perspective outside the bowl. And, in this need to make sense of the gibberish we encounter when we reach the journal>atlas point, we must incorporate an antipodal condition, the possibility of the $\langle>$,$\rangle , the poinçon: where space and time seem to$ turn inside out as we encounter, before us, what we thought we had left far behind, and in that encounter the full repertoire of the uncanny. The goldfish generates two primary conditions: (1) the belief that our experience can be represented by various kinds of maps - symbolic networks of relationships, ideas, clichés, concepts - which, though not always in the ideal 1:1 relationship, serve to present the world as understandable; and (2) the topsy-turvey world, with surprising reversals and inversions, where the stability of space extending along its Cartesian $x-y-z$ axes and time running along in a line - in other words, the "Lucretian" idea of reality moving smoothly in a temporal forward flow - is bent, flipped, surgically opened up, obverted, diverted, and converted. Where the Lucretian world's stability is a kind of ideology of literalism, a no-nonsense matter-of-fact mentality, the flipped world both resists ideology and mocks it. It is the subject's escape from masters and mastery into misrule and mystery - all from the simple situation of overlaps and gaps between the journal and the map.

It is surprising that, out of this simple goldfish bowl analogy, multiple ideas about human subjectivity spring forth, all based on the (scale dysfunctional) conditions of $<$ and $>$. The swimming fish of fabled short memory swims to a point where memory give out and any new experience of the bowl is fresh. This state of the model guarantees that there will always be more territory to experience, that space, extending (for all the fish knows) infinitely, will always be "out there." When the fish remembers more than $360^{\circ}$ of the bowl, however, a different condition results. The fish encounters a span, $>360^{\circ}$, which it knows as a kind of Platonic anamnesis, but it is still unaware of the curvature of the bowl, so the unexpected appearance of its journey's origin at this end-point is entirely puzzling.

There is a shift, not only in goldfish expectations, but in the methods of representing space not directly perceived. Before the $360^{\circ}$ point, while the atlas is still greater than the journal, the fish expects space not yet visited to be like the space already experienced: the "virtuality" is contiguous. The unseen is presumed to be much like the seen - up to a point. At some limit, the beyond gives rise to our idea of the Other, the hypothetical demon of spaces we can never exhaustively explore. Standing at the edge of the known world, we attribute magic capabilities and wild customs to this demon. Already in an "impossible" space, he/she can move at impossible speeds, appear and disappear at will, and live off the flesh of strangers.


Figure 3. Because it never reaches the point of closure, the forgetful goldfish believes itself to be in a "Lucretian" universe, where causes and effects mesh in a "Cartesian" space and "if-then" propositions have clear logical outcomes. If the journal exceeds the allowable map-space, however, this logic, along with its representative spaces organizational atlas, falls apart.

At the point where the journal runs well past the atlas's ability to present it with predictable experiences, the old style of virtuality must change radically. In place of continuity, the new has the uncanny quality of being something both old and new. The informal a-synchronicity of this zone is readily converted into formal instances of time travel. In myth and religious practices, it becomes the "eternal return" celebrated annually in rituals of renewal (Mircea Eliade). In literature and film, it is the dream of visiting the past or future. Less formal cases of anachronism occur when fire or other disasters "accelerate" buildings or landscapes to a premature end, or when obsolescence pulls them out of step with their synchronized surroundings. Mimicking the former kind of ruination, festivals call for the decoration of buildings "as if" they were exploding in celebratory fireworks. Festarchitektur is in fact simultaneously an acceleration to the end of things and return to the beginning of things, where the idea of a "site of exception" opens a temporal escape from the present to origins or ends.


Figure 4. Past the point where the atlas can no longer supply fresh experiences, the goldfish swims into a space calling for "detached virtuality" - where relationships between representation and the represented are no longer transitive. Direct confrontations of the comparatively irrational nature of this anti-Lucretian order can be condensed and elaborated in "sites of exception" - places that have evolved in cultures where irrational "holes" have opened up access to a different kind of "beyond."

## Love as Resistance

The new virtuality required by the $>360^{\circ}$ point involves breaking the rules of contiguous virtuality. Instead of extending the known into the region of the not-yet-known, the boundary between known and unknown is reified and made portable. This is not a hypothetical situation belonging only to the goldfish bowl paradigm. Myth, poetry, literature, art - the imagination in general - is replete with examples of how the boundary between visible and invisible, known and unknown, can be materialized and given a life of its own. The virtuality of the "detached" allows the reflection in the mirror to escape its reciprocity with the subject standing before it; it allows the dreamer to wander and the dream to invade waking life. It encourages the line of time to bend, fold, and tangle. It converts orderly concentric containments, such as the story in the story, to reverse causal directions.

If the $<360^{\circ}$ situation can be summarized in terms of the continuity of the conventional causal chain that links signifiers into networks of symbolic relations, the $>360^{\circ}$ zone is dominated by disruptions to that causal chain, what Jacques Lacan identified as the "sinthome." This is synchronized with the transition of the "ideological subject" - the subject who is in thrall with the received idea of reality maintained by the social/political Other - to the "psychoanalytical subject," who is able to maintain a dimensionality extrinsic to the "diagetic" reality of ideology. Realizing that reality is little more than a cover for the often less-than-adequate constructions necessary to sustain the social-political order, the psychoanalytical subject moves past his/her dissatisfaction to a condition of doubt that can be channeled
into wonder, reflection, resistance, or ... and this idea is put forward with particular trepidation, because its terminology is so extensively misrepresented ... love.

The danger of this characterization is that it resembles so many misconceptions that simplify the general conditions affecting subjectivity. The most dangerous term, love, must at first be restricted to a specific psychoanalytical meaning: the last stand taken by the analysand on the couch who, lacking any further defense against the forces of analysis, must believe in his/her own imagined love for the analyst. Love threatens to shut down analysis by placing the analyst in an impossible situation. The practical defensive use of love in the psychoanalytical situation is not the end of the story, however. It can - and must - be extended past analysis to include conditions where it drives the mechanisms of fantasy that, shaped by the devices of detached virtuality, specify the uncanny zones past the $360^{\circ}$ mark.

The key issue is that, without love, the unity and function of detached virtuality means little more than a technical variation on literary-artistic thematics. When love is returned to its mythic origins in the dcemonic identity of Eros, whose account in Apuleius's third century BCE novel, Transformations of Lucius, presents an algorithm of love in terms of visibility/invisibility, story symmetries, and key details. As Eros, the detached virtuality of $>360^{\circ}$ finds a basis in the most fundamental capacities of subjectivity that, in running "past ideology," finally confronts its own complex nature. What begins as a simplistic analogy based on a scientific untruth about a domestic pet concludes, potentially, in a discovery of self.


Figure 5. Dolar argues that the psychoanalytical subject that succeeds the ideological subject falls within a compass defined by love. This is first experienced, in clinical terms, as transference love felt by the analysand for the analyst. Expanded, love becomes the more universal idea of Eros, a demonic force that operates as a fulcrum-point for the "clinamen" of deviant motion defying the Lucretian flow. The love idea is made portable by the theme of "tesseræ," ceramic tokens of parting used in antiquity. The two parts of a broken disk would, on account of their common broken edge, share a single code decipherable only by the missing side. This logic extends to all aspects of detached virtuality but is particularly evident in the phenomenon of the double.

Where the ideological subject "resists" the Lucretian order by imagining an escape to some terra incognita, the psychoanalytical subject's unconscious resists discovery by personifying resistance itself in a figure that is synonymous with the unknown domain. This is most clearly seen in the historical phenomenon of the Wild Man, a spirit of the wilderness, forest, or desert who, in nearly all cultures, is valued for "what he knows." ${ }^{. "}$ The Wild Man marks the point where empirical experience of actual uncivilized, normally solitary inhabitants of generally uninhabited regions merges with idealized expectations about the nature of unknown spaces distributed around the inhabited cecumene. Terrce

[^3]incognitce can be idealized as a periphery surrounding the ecumene, or they can be conceived as local pockets, spaces whose inhabitants and their behaviors are strange and likely to be feared or despised.


Figure 6. Because the wild man and his un-homely domain both resist domestication, they serve as instructive analogies for the relationship of ideological (= domesticated) spaces and actions to the psychoanalytical (= "uncanny") stance of Eros coupled with knowledge. In every culture, the wild man is held to possess secret learning that can be forcibly extracted by torture or trickery.

The goldfish bowl model locates the wild domain at the point where the journal exceeds the atlas, past the $360^{\circ}$ mark. It is surprising to find out that the "accidents" of culture and folk superstition seem nonetheless obey the "rules" governing the transition from the ideological (i.e. domesticated) subject to the psychoanalytical subject. It is as if the naïve creators of folklore had been reading Lacan! What are the most informative points of coincidence? If we return to the Marx Brothers model of the three-part Freudian subject, what drops out in the excursion into terra incognita are the super-ego and ego, or Grouch and Chico. Harpo, the representative of the id, remains. If the super-ego can be correlated to the Imaginary (the ego-ideal) and the ego to the Symbolic, we are in Lacan's system of three domains, left with the Real. The "wild" is representative of the Real's incommensurability with the civilized features of the Imaginary and the Symbolic. Where these latter two domains are supported by a "Lucretian" reliability organizing space and time in "transitive" ways that guarantee a $1: 1$ match between the experiential journal and the ideological map, the Real is spatially and temporally perverse. Instead of the contiguous virtuality that structures a Cartesian solidity out of $x-y-z$ axes and linear time, the Real makes use of "detached virtuality."

Literature and art have provided us with standard forms of detached virtuality: (1) the double, well known to Western readers through the Robert Lewis Stevenson story of "Dr. Jekyll and Mr. Hyde," (2) travel through time - the fundamental motif breaking with the Lucretian model, (3) the contamination of waking experience by the dream, and (4) the story-in-the-story, where the concentric containment of fictionalized accounts loses its enforced consecutive order, "consecution," and a retold event within a "diagetic" story advances hierarchically to the level of the story's main reality. In David Mamet's 1987 film, House of Games, a psychologist treating a compulsive gambler is persuaded to extract her patient from a gambling debt owed to the mob, who threatens to kill him if he cannot pay. The psychologist believes she is successful, but she is drawn, in a series of stages, into a larger plot designed to fleece her and coopt her participation in a large-scale scam. We could diagram he story-in-the-story the same way we might the motif of travel through time, as a series of concentric frames, the last of which "re-enters the series," violating its own rules of containment/consecution.

In contrast to this kind of violation, the double and the contamination by the dream motifs create two things that should never merge or even meet - e.g. a subject and his/her shadow or reflection - but do, in uncanny interactions that give the advantage to the representation over the represented. Of course the two logics overlap. We can imagine, like Chuang-Tzu, that a man dreaming he is a butterfly might be a butterfly dreaming he is a man (violation of the consecution rule). Or, we might as easily see how travel-in-time leads to a double situation, as in science fiction stories where the time-traveler confronts
an earlier version of him/herself. Still, the two forces, one that operates according to a "rule of two's" and another that breaks a consecutive order, are fundamental. Not surprisingly, we might easily connect them to the primary types of magic, mimetic and contagious, identified by Marcel Mauss in his classic study. ${ }^{7}$ Mimetic magic is known commonly through the creation of likenesses, such as the voudoun "doll," which can be used as a surrogate to transfer actions to its real-life original. Contagious magic involves the use of an actual object belonging to the object of the curse or blessing, but this "object" can be a shadow or reflection. Anthropologists were quick to connect contagious magic to the rhetorical figure of metonymy because of its part-to-whole logic; and mimetic magic to metaphor, which deals more with resemblances and picture constructions. This link afforded a further generalization that seemed to confirm the first, the relation of contagion to the "contiguity function" and mimesis to the "semblance function," the two major categories of mental functionality identified by the gestalt psychologist Adhémar Gelb and the neurologist Kurt Goldstein in their studies of brain-damaged war veterans. ${ }^{8}$ Despite extensive loss of tissue, patients in their studies maintained a sense of self that not only allowed them to work around lost functions but to be completely unaware of their loss. Gelb and Goldstein were able to generalize two related but polar abilities - to relate parts to other parts and to wholes and to be able to recognize patterns and faces. Here there seemed to be a neurological basis for ethnological practices as well as the development of the arts and literature in modern societies. To summarize, the contrasting "consecution logic" and "doubles logic," clearly related to metonymy as a matter of parts and metaphor as a strategy of resemblance, seem to carry forward this primary double functionality.

How does this double functionality relate to the wild man? The wild man, in short, instructs us about the relationship connecting the idea of the edge, i.e. the point at which the human mental "journal" reaches an end point while the "atlas" of potentialities continues - for all the human knows - to infinity. This edge is a circular boundary of the idealized cecumene, but the wild man shows how the boundary itself can be miniaturized and imported into the interior. Just as many cities have a "Chinatown," "Little Italy," "Korea Town," etc., territories can function as "partial objects" - truncated versions of a larger organic whole, able to survive in a "partial" or miniaturized state. Just as the wild man can be found wandering, homeless, in a modern city more readily than in the mostly extinct forest wilds, the boundary marking the edge of the journal appears everywhere journal-experience reaches an impasse.

## Love and the Site of Exception

There are three ways of thinking through the Freudian/Dolarian love situation. The first aspect of love is that it is deployed as a resistance, the unconscious's last-ditch effort to save its secrets. In this it resembles the wild man directly, both in terms of what it knows (the form of knowledge known as kenosis), the status of the knower as a "nobody" (thus the silence of the analyst is directly engaged - only a nobody can claim kenosis), and in terms of the paradoxical identity of the knower with the known (the wild man and his domain are the same; the wild is a personal quality plus an uninhabited, undomesticatable area).

The wild-erness cannot be mapped vertically, since this would involve a contradiction. It is by definition the limit of zenithal authority. If it can be mapped, it must be mapped horizontally; in comparison to the parallel lines of Lucretian-Cartesian mapping, the map's plumb lines and transits would appear to be curved, if not spiral and circular. As resistance, the demonic aspect of the wild man is apparent in his wild body, and this physicality challenges the nonetheless widespread belief that the wild man possesses secrets. Secrets of the body are symptoms, and symptoms are, in Lacanian terms, disruptions of the causal order of the chain of signifiers. Specifically, an effect becomes a cause. If this is put in Spencer-Brown terms, the expression is B)B, the middle term of the enthymeme that serves first as that which is predicated but then becomes the predicator. From predicated to predicating, the reversal is

[^4]precisely what love-transference attempts to accomplish in psychoanalysis. It aims to put the analyst "on the spot," to provoke a response to the love suddenly and involuntarily felt by the analysand.

This sudden defense brings about two obvious situations. The first is based on Freud's idea of love in general, that it involves at the minimum two "persons" in addition to the original pair. Each lover loves because of the ideal ego he/she has constructed out of the empirical other. At the same time, the constructing lover is him/herself constructed by the other, and the two fantasmic persons are the ones actually in love. In a sense, there are two sets of lovers: (1) the "reality lovers," who maintain their positions within the networks of symbolic relationships they share; and (2) the projected "fantasmic lovers," who are like puppets animated by the reality lovers to introduce, paradoxically, the element of the unpredictable although they are in every sense "dummies" (automata). The symmetries involved in these two sets of lovers are not simple. They are "idiotic" in the sense that they involve "circular argument." One has to assume what it later proves, and so the vicious circle is set in motion. The predicator is him/herself predicated, but then must predicate. This quality has long been recognized. Dante described the famous tragic lovers of Rimini, Paolo and Francesca. Dante shows how the dummy role can be reversed. Paolo Malatesta was commanded to stand in for his deformed brother as a proxy in an arranged marriage to Francesca da Polente to cement a political alliance. Francesca, ignorant of the deception, fell in love with Paolo after both of them fell under the influence of the story they were reading together, the romance of Lancelot and Guinevere. In effect, they became "puppets of the puppets." ${ }^{9}$ The detached virtuality of the "contamination of reality by the dream/story" took effect. To punish this "first sin," lovers are tortured by the loss of sweetness made sweeter by their current wretchedness. Sweetness is sweet twice over, first as predicate of love, second as predicator of loss. The two-theme structures Paolo and Francesca's story from the beginning, where Paolo is a stand-in for his deformed brother, Gianciotto. They fall in love thanks to the magic resonance of the distant story of Lancelot and Guinevere, who serve as metonymy and metalepsis. The lovers are killed simultaneously by one sword, as Francesca rushes to separate Paolo and Gianciotto. The two are buried together in a famous tomb in Rimini. ${ }^{10}$

Reversed predication lies at the heart of the "lock" set up by the sequential negation of denial (Verneinung), renunciation (Verleugnung), and foreclosure (Verwerfung) that Hegel cited as key to dialectic logic. In the classic case of the borrowed kettle returned with a hole in it, the borrower at first denies ever borrowing the kettle, then claims it was returned undamaged, and then (to "take the cake")

[^5]claims that when it was borrowed it already had a hole. Each claim involves a negation of the previous claim(s) and, by extension, the whole series that it has "locked" through reversed predication. Love is like this, a lot like this. In the case of Paolo and Francesca, denial is the switch of the brothers, renunciation is the contamination of reality by the fiction, and foreclosure is the substitution of the beloved for the traitor in Gianciotto's double killing.

What do we have left, as the hypothetical loaner of the damaged kettle or the stupefied, unloved, deformed assassin? We are the audience of a tour-de-force demonstration of nothing by nobody. A rabbit has been produced out of a hat, and the rabbit wears the hat, to boot. The "nothing" of reversed predication translates geographically to the "noplace" that resists vertical mapping, the site of exception. The curve that motion into this site appears to take from a point-of-view outside, in Lucretian space, is actually a straight line. It "goes straight to the heart," in the same way a symptom points straight at the heart, the unconscious, but appears to the non-symptomatic viewer as a chain of disruptions to the chain of signifiers. Only the analyst, who remains silent in a special way, can tune his ear to the "acousmatic" and "stochastic" resonance - the metonymy to be more accurate but the metalepsis to be very precise to the other half of the symptom, the half that, when joined to the violent disruption of reversed predication, will constitute kenosis, the return of the lost lover, via voice, a voice of the dead: apophrades.

It must be clear at this point why Dante's Vita Nova involves calling the dead Beatrice back from the grave, and why the number nine, which by Dante's time had been regarded as the mythical key to the decimal number system, was so involved. Nova is both new and nine, a coincidence not lost on Giambattista Vico, whose New Science involved nine key elements displayed in the mysterious frontispiece (he describes only eight of them, leaving the Helmet of Hermes to play the role of the 9). ${ }^{11}$ In Vita Nova Dante recovers the lost inheritance of the troubadours, about which Lacan has written much. ${ }^{12}$ At the same time, he offers us a key insight into the relation of love to exception and, in particular, geographic and cartographic exception. If kenosis is a half-knowledge, the "half" component involves reversed predication, the "lock" which, in ordinary circumstances, binds literal lovers who meet accidentally ("our eyes met, across a crowded room") but believe their union to have been determined by fate. The flip between predicating and being predicated creates the line of travel that appears to be curved, spiraled, or circular when viewed from a position in zenithally determined space. This flip is "pure convertability." It has no content. It is a no-place place. The woods. The hills. Terrain vague. ${ }^{13}$

Materialization of the theme of halves is the tesserce, the ceramic tokens used by parting friends to promise a future re-union. The broken edge, uniquely "encoded" at the moment of breaking, provided a cipher, a password, to insure a singularity, like the parting of twins. One half predicated the other, but the symmetry as well as the negation/liquidation of absence was "idiotic," just as love had been in specifying ego ideals. Tesserce bring the lock theme into the curvature of the entry-way into the site of exception, and their cipher aspect engages the mystery of the number 9 as something present through its non-presence in the number system. Summarizing, we have three themes (defense, symmetry, and negation) and three sets of sub-themes (1-resistance, silence; 2-predication, symptom; and 3-lock, lack, cipher, and curve). The number 9 spectacularly lives up to the "expectations" of all three ways of thinking about love, and we would have, if our scholarship had permitted it, the support of Dante on the matter. The mystery of 9 has nothing to do with the symbolic aspect of any nine things, in the same way that four is related to the four "corners" of the cosmos. Rather, it is a calculus carried out at the level of the "sigma" value $(\Sigma)$ of numbers, the sum of each of the digits of a number. The sigma of 486 is, for example, $18(4+8+6)$, further

[^6]reduced to $1+8,=9$. The sigma of any number is, with the addition of or multiplication by nine, unchanged: 23 (sigma value 5) remains 5 even when 9 or any multiple of 9 is added: $23+(18)=41, \sum=5$. Numbers from $1-5$ and $6-10$, placed side by side and multiplied by 9 yield products that are palindromes: $09 / 90,18 / 81,27 / 72,36 / 63,45 / 54 .{ }^{14}$ This fancy dancing by the number 9 produced two results relevant to our investigation of the site of exception: (1) nine is metaphorically both visible and invisible, present and absent, in the decimal number system; (2) 9 serves a kind of phi function $(\varphi /-\varphi)$ at the level of "sigma" values, which is to say that a number can be "also itself," i.e. a phenomenon of reversed predication. Forty-two may be forty-two "something," but it is also 6 "in itself" and relates to, for example, 7134, whose sigma is also 6 .

Thus, in terms of self-predication qualities, the number nine makes a love offering. It is a defense (like the wild man, it suddenly appears then vanishes), it is symmetrical (it can add and subtract itself "silently"), and it works through negation as a kind of cipher showing internal symmetries within the number system itself. It is easy to see how 9 has been used to organize poetic and visual works of art, and how these works of art, if not about love specifically, engage the kind of "stereognosis" that brings two opposites together to appreciate a dimension of depth, just as the two eyes bring together two discordant images to create a stochastic effect neurologically. We might go further to formalize this "knowledge by halves" as a kind of "anamorphosis," as it is dependent on the discordance between vertical and horizontal expectations and representations.

The number 9's ability to organize other numbers through its disappearing and re-appearing acts has been noted by artists such as Jasper Johns, who in a 1957 painting, shows 11 rows of 11 numbers, ending with 9 .


Figure 7. A somewhat more readable facsimile of Jasper Johns, White Numbers, 1957. 34" x $28^{1 / 8^{\prime \prime}}$. Museum of Modern Art, Licensed by VAGA. The upper left-hand square is obscure, as it is on other Johns' paintings of single number sequences. Elsewhere Johns has represented numbers superimposed, as in the work, 0 through $9,1960$.

Like other "magic squares," there are many internal symmetries. The sequence reads left to right, in order, down the eleven rows. It can be read around the perimeter or in concentric perimeters inside the outer one. Diagonals running from lower left to upper right are all of the same number; in the other direction they alternate between odd and even numbers. There are 121 numbers in all, reminding us of the root value 11 and its relation to a sigma value of 4 , the number of the corners marked by the number 9 (the only square in which the corners have the same numeric value). The sigma of each outside row is 54,

[^7]or $5+4,9$, assuming the first number as, symbolically, 9 . The number nine appears also as the middle of the square. The numbers 4,9 , and 11 dominate; the 4 relates to the quadration, the 11 to summation, and the 9 to internal symmetries. Concentric squares drawn from the center out to enclose single rows of 1,8 , $16,24,32$, and 40 numbers. ${ }^{15}$ The sigma of this last enclosure is, of course, $9(1+8+0)$, the number of quarantine and weeks of gestation. Such is the stereognosis of the dark wood ruled by the wild man. There is no content, no numbers of things, just the resonances generated by the numbers themselves and then concealed by the numbers themselves.

On the subject of how many trees does it take to make a forest, the answer is, enigmatically, one; that is, if we have run into the issue of the "sorites" in logic. The sorites is a paradox about groups, specifically about how much it takes to have a group. Can you, for example, keep removing grains of sand and still have a pile even when you are down to only a few grains. This might seem to be an example of how great logicians go wrong, but if you see the issue as one of reversed predication the issues change. For example, each grain of sand becomes both an individual in a pile, which we expect, and a "guarantor" that the pile idea still exists. Removal strips down the idea of askesis to the bare minimum. If one sees how askesis appears in many forms, it will come as no surprise that the late paintings of Piet Mondrian play out the sorites idea. Thinking subtractively, from the pile to its possible vanishing, goes through the steps famously played out by the Chesire Cat, who in leaving his smile and nothing more, arrived at the Lacanian partial object and the Freudian Thing simultaneously.

Lewis Carroll was interested in the sorites and designed a series of curious puzzles listing single predications such as "I do not like animals who howl at the moon," "animals that love to gaze at the moon are carnivorous," etc. Reduced to constituent parts, we discover that all but two terms serve both as predicates and predicators. Like the mathematical short-cut of "casting out nines," these can be removed from the pile. There are two terms that remain, one predicate and one predicator ... the "answer" of the puzzle. George Spencer-Brown devised a non-Boolean method for quickly solving Carroll's sorites puzzles, and his method shows the close relationship between this logical conundrum and reversed predication. Each of the two paired terms, of the form B)B, is distanced, scattered about the cloud/forest of signifiers. This is one way to portray the Lacanian idea that the Symbolic is a series of overlapping chains of signifiers, and that the symptom is a disruption of the "causal order" of this chain.

The metaphoric role of Jasper Johns' 11x11 square of white numbers becomes slightly more evident. The 9 plays the role of the "solution" that is hidden by being scattered around. The 9 is scattered not only by this display strategy but by the function of the sigma values. The "delay" is a part of the askesis - directly indicated by Johns' use of white for the whole painting - just as the sorites solution is a matter of subtraction and thinning. The effect is to remove the superfluous predications that create a forest of signifiers and get down to pure structure, which in this case plays the role of the smile of the Cheshire Cat.

[^8]

Figure 8. The Wild Man (= "willed," "wind," "volute," "wood," "ogre," "Orcus," "revolve") provides a summation of the connections linking reversed predication and the logic of the sigma values of 9 . The equation of the woods of the Wild Man of Medieval lore and the $11 \times 11$ field of white numerals painted by Jasper Johns points to the love story of reversed predication. Involvement of Spencer-Brown's curved space calculus further shows how the arrow of Eros (dcemon) functions in the six-term system devised by Harold Bloom to calculate the ratios of anxiety involved in the young poet's relationship to the apophrades of the original. Paolo and Francesca's "original sin" harkens back to Eve and Adam's ("even atoms") and the topological inversion of Eden.

## The Punishment Fits the Crime

Paolo and Francesca's love, enacting the theme of "contamination of reality by the fiction," is given a matching punishment in Hades. We have to remember the classic roots of Dante's idea of the Inferno; Hades literally means "invisible." The Dantean principle that has the punishment fit the crime implies that the punishment is specified and fates at the very moment the crime is being committed. Paolo and Francesca thus have three sets of double relations: (1) their own companionship; (2) the coupling of reality and the story they are reading together; (3) the instant brand that fate places on their illicit love, to be played out in the eternity of the afterlife. The three doubles fit the pattern of Verneinung, Verleugnung, and Verwerfung in that their companionship denies the social convention that would separate wife and brother-in-law, the contaminating story violates the barrier separating reality and fiction, and Hades perpetuates the punishment concealed in these to previous "negations." So, this is love? It is necessary to consider Dante's comparison of love's punishments to the flight of birds. Lovers whose love was worthy of literary merit fly in the upper reaches of the air, in regular formations like the flight of cranes ( $E$ come $i$ gru van cantando lor lai, / faccendo in aere di sé lunga riga), but those caught up by lust itself are pulled in all directions by a whirlwind (di qua, di là, di giù, di sù li mena). There is no better image to be found contrasting the zenithal order to the cyclonic post $360^{\circ}$ experience, which must be horizontally mapped by the poetic line.

There are several reasons to look further into Dante's choice of a fluid medium for the theme of lust and its dominant number, two. First, the air is dimensionally unstable ("now here, now there, now down, now up, it drives them"). It pays no attention to the gravity that orders the vertical relations between the high-flying cranes, regarded in antiquity as magic semaphores, and earthly sign-readers (models for psychoanalysts?). The image of the labyrinth comes to mind, with its wild meanders that create tight turns and long arcs seemingly at random (but not). The matter goes deep into the heart of what the form of detached virtuality associated with the double, the cancellation of identity that is sometimes expressed in various forms of Nobody, amounts to when "reality" is contaminated by the "fiction." The fiction in this case is nothing less than the Lacanian symptom, present in an imminent way as a disruption
of the causal order of the chain of signifiers. It becomes the inflammatory Eros, the dermon by which Paolo and Francesca are led into mad passion. The virtuality of Eros-as-symptom is the disruption of the network of symbolic relationships by a "story" that is a fantasy, to be sure, but - and this is the key point - the fantasy of the Other. The Other presents itself through the virtuality of detachment so that the symptom may play the role of Fate, guiding these particular lovers through the same disastrous lock-steps that Guinevere and Lancelot had taken. The element of fate thus appears in the midst of love's contingency, its affordance: the bench on which the couple sit, the book they happen to be reading, the freedom from interruption.

As a symptom, the zenithal domestication of $<360^{\circ}$ is quickly dissipated and the cavernous multidimensional spaces of opportunity, resisting all projective attempts at paraphrase and contiguous mapping, open up. It is important to understand this expanded dimensionality not as a kind of brilliant fourth-dimensionalized Empyrean realm of perfect Platonic forms. ${ }^{16}$ The best analogy of this change can be found in the working principles of the street-artist, the pickpocket. The stage magician Apollo Robbins has created an act built around pickpocket techniques and


BARRINGTON: detected picking the Pocket of PRINCE ORLOW in the Frint Baxes at Covent Plarden Theatire, of a Pruff Box set with : Dirmonds suppased to be worth $\mathcal{L} 30,000$.
 collaborated with criminal pickpockets to formulate something of a "science of spatial invasion" and served as a consultant to the Department of Defense. ${ }^{17}$ Robbins' perfection of the arts of thievery are in keeping with the multiplicity of skills combined in the god Hermes. As a god of thieves, romantic love, messaging, and commerce, Hermes also conducted the souls of the dead to Hades and, as might be expected, held the secret of the ratios connecting the heavens with the earth. ${ }^{18}$ This multiplex deity demonstrates how, at the level of the symptom, horizontal functionality is a matter of virtual space, and vice versa.

To bring the theme of love full circle, as it were, it is necessary to remember the evidence of Adhémar Gelb and Kurt Goldstein, namely that those with even the most severe aphasia disorders were usually unaware of their disabilities. Unable to recognize faces, they used elaborate strategies to substitute voice recognition, gesture, clothing styles to identify close friends and family. Unable to combine parts into wholes (e.g. not recognizing the five pockets of leather as a single glove), they would talk about other functionalities, avoiding the need to combine the parts using a single name. The symptom in its relation to the unconscious demonstrates that we are all, as subjects within the "ideology space" of the Symbolic, to a

[^9]significant degree aphasiacs using just such "work-arounds." We are blind and deaf to the pockets exploited by adept artists such as Robbins. Even though our zenithal mentality finds it hard to describe and/or explain the workings of such pockets, they are nonetheless open to exploitation by descendants of Hermes who well understand their horizontal logic. Such artists are there to punish us at the same moment we commit the "crime" of blindness and ignorance.

Paolo and Francesca complete the thesis on the psychoanalytical subject in two ways. First, they are examples of the effectiveness of the virtuality of contamination. Reading the story of Lancelot and Guinevere is not a mere inducement to lust, it conveys lust directly in the act of mutual reading. It is proof of the effectiveness and autonomy of the process of reception. Second, however, the couple also embody Dante's thesis, that Hell is not the romanticized idea of a liminal space extending from the obscure wood to the center of the earth; rather it is implicit in the sin, simultaneous with the sin. Just as the form of the virtuality of contamination corresponds to the component in Lacan's discourse of the University (S2/S1 $\rightarrow a / \$$ ), the subordination of the barred subject to the objet petit $a$ is in this case the spell of the story over the pair of readers, the transfer of story logic across the bar of subjectivity. This is the obverse of the subjective figure of hysteria, where the body constitutes a field for the dynamic transfers of desire, converting body parts, behaviors, and organs to its projects and devices ( $\$ / a$ ). As in the case of dreams of flying, where the lungs' containment of air is obverted/extimated to the sensation of the body suspended in air, we have the pure experience of extimacy, which (coincidentally) presents as whirling-of-air in Dante's Inferno. Lacan's theory of discourse predicts what will happen. In normal dreams of flying, there is no anxiety. The dreamer wonders why he/she had not discovered how to fly before; the mechanics seem easy to master. Mastery itself is within reach and is the obverse of anxiety. In the whirlwind space of Paolo and Francesca the ratio is upside down ( $a / \$$ ). The lovers, seemingly within reach of each other, cannot embrace. The cyclonic wind (remember the virtuoso performances of $\sqrt{ }$ WEL, the root of "wild": volute, will, well, revolve, wind, etc.) interrupts the causal chain, gives it loft. It converts the straight line of pursuit into a curved line that, like the volute, pursues but never can achieve its goal.

Dante's idea of punishment's immanence within the sin shows that the poet was a reader of Lacan and had converted Lacan's idea of extimité into the geometry of the underworld. ${ }^{19}$ But, further, it makes a point that has not yet been made in the scholarship of either the poet or psychoanalyst, namely that in the universal figuration of the interval Lacan identified as "between the two deaths" is ruled by a precise geometry. Caution! This is not the projective geometry that perches the viewer above the design, with zenithal authority and detachment. This is a geometry of immediacy akin to that which creates poché spaces in and around the pickpocket's victim - a space uniting crime and punishment. This was what Lacan had in mind with his interest in "between the two deaths." It was not folklore reserved for the period of mourning, the advance of the soul past the literal moment of death, the trauma of the Real, to a final resting place within the Symbolic. It was the impossible space between the Real and Symbolic, one ring lying both on top of and beneath the one adjacent to it; the idea of impossibility itself, carried into the experiences enacted within the virtuality of detachment - experiences of reversed predication.

Lust is only one of the seven deadly sins. We might consider how "deadly," in the modalities of envy, gluttony, greed, pride, sloth, and wrath constitutes reversed predication, the punishment along with the crime, the immanence of Hades (literally, "the invisible") as a poché inside and around, extimate, the act. Sin, Dante proposes, is not something held at a distance, which mortals may choose to do or not do, but something present as fate is present in human choice, a consequence of Eve and Adam's original sin,

[^10]in the wilderness of "even atoms" where the dimensionality of exception is implicit in every perceived movement along a presumed straight line. The "return" of punishment is immediate because the invisible Hades is the curvature of the act, the virtuality of detachment. The interesting question has to do with the multiple modalities of this curvature, set within the canonical set of four types of detached virtuality. Why four? This might have to do with the necessity of division of a unity into a dialectical dynamic, evident in the separation of Paolo and Francesca by the whirlwind. Two becomes four "on reflection," and the sigma of the 121 numbers required to play out the essence of 9 is not only a palindrome, unity-duplicity-unity, but the 4 of four-square, the builder's square, which is also a triangle. The sigma force, "extimacy in the form of the numeric $9, "$ must be quadrated by the frame. This is a kind of mapping that runs past the $360^{\circ}$ mark of the goldfish's bowl, where the atlas's presumption of completion is cast in the future anterior of language, where history and prophecy become indistinguishable. To go forward is to go back.

Apollo Robbins notes that one of the "neurological mysteries" of his art is how the arc holds attention while the straight line does not. While a hand moving in a straight line nearly always compels the viewer to glance back to the point of origin, the eye will follow the hand moving in a curve without defecting. The curve is what we cannot resist, where going back is built in, immune from exposure by the literal. There is another, more disturbing aspect of the curve.

In the final version of "The Gates of Hell," Rodin's unhappy love couple was placed directly underneath the group of "Ugolino and his sons." The way Paolo is grasping Francesca with outstretched arms is like a formal echo of the gesture of Ugolino's son, clinging to his father.

Elsen made the interesting observation that in this composition, the postures of the characters do not really fit together; he supposes Rodin in this case - other than in "The Kiss" - had simply assembled two disparate figures. Between Paolo's pelvis and Francesca's thighs is a lump of inspecified material, bridging the gap between the partners. [Albert E.] Elsen specifies that this is no textile drapery. Since both are nude, like all sinners in the Inferno, this couldn't be expected anyway. Elsen's observation leaves us with the question how this substance should be understood, if not as clothes. ${ }^{20}$

This matter should not be allowed to be caught up in the general controversy over the display or concealment of Paolo's genitals at exhibitions of the work and its copies, most famously the copy made for Edward Perry Warren in 1900; nor should it be settled as a technical means of supporting the figures on the vertical surface of the "Gates of Hell." The lump, neither a representation of clothes or artifact of engineering, is the mass, the pure weight, of delay that keeps the lovers out of synch. Though small, the weight should be considered as infinite, as in the case of Jorge Luis Borges' heavy cone found by Borges and Amorim at the end of story, "Tlön, Uqbar, Orbis Tertius." Lois Parkinson Zamora writes: "The compass and metal cone are like the flies, the nails, the curtains and cucumbers in ... trompe l'oeil ...; they penetrate the normally sealed 'picture plane' of narrative realism, confusing the 'inside' and 'outside' of the realistic frame, causing multiple and contradictory orders of reality to intermingle in ways ordinarily forbidden by the conventional of narrative realism., ${ }^{21}$

The heavy lump should carry us back to the unusually heavy cover of the tomb whose lifting allows Lancelot to discover his name:

Early in Lancelot's career, he faces the Dolorous Guard. After setting out for adventure, Lancelot comes across a castle guarded by the Copper Knight. To meet this challenge, Lancelot must battle ten knights at the first wall, ten knights at the second wall, and finally the Copper Knight himself. However, after defeating many more than twenty knights (with the aid of his foster mother, the Lady of the Lake), he discovers that the Copper Knight has fled. The townspeople lead Lancelot to a cemetery, where he finds a

[^11]metal slab stating that only one knight can lift the slab and that this knight's name is written beneath the slab. Lancelot (who has heretofore been known as simply the "White Knight") is able to lift it and discovers that his name is, in fact, Lancelot. The name of the Dolorous Guard is changed to the Joyous Guard and becomes Lancelot's home. ${ }^{22}$

## Primary Justice of the Horizontal Atlas



Zenithal authority gives way to lateral discovery in the floating dreams of the horizontal atlas, but the geometry is not a simple distinction of the verticality of the zenith and the horizontality of the atlas. In early emblem books, Justizia is shown "headless," with the explanation that this apparent decapitation is in reality the result of viewing justice from below: the head will be invisible to those outside of the pure ethereal blue with which Justice must be in direct contact. Justice may in this sense be compared to the coelum that, Vico advises in his Autobiography, means both "heaven" and a "wedge." In effect, Justice is animus, the principle of penetration, none other than the "argute" or sharp angle of wit specified in the arts of aguteza, or Mannerist conceit as described by Luis de Góngora and Huesca Balthazar Gracián. ${ }^{23}$ Justice is represented as "La Donna Metafisica" in the frontispiece known as the dipintura of Giambattista Vico's New Science. It is even more reasonable, in this light, to consider Nuovo as an echo of nine, the number whose sigma value allows it to appear and withdraw silently at the mid-point: a principle both of infinitely heavy weight, a stone, and a mirror (reversed predication) with a middle content. In fact, Vico's Metafisica wears a jewel that reflects the divine gaze on to the statue of Homer, the blind poet, who in turn seems to be gesturing toward the one item in the dipintura that is not described (as are all other eight items in the image). The helmet of Hermes, which afforded the god invisibility as well as wisdom, reinforces the lower left corner of the quadration. It is, as in Johns’ "White Numbers," a nine. At the level of the sigma value, it is the "nothing but" of materiality, refusing to represent, insisting on silence. This silence, reinforced by Vico's own silence on the matter, delays the meaning of the New Science. As punishment seems to be delayed in life, postponed to the entry of souls to a space of judgment (the journey to which was one of Hermes' principal responsibilities), the meaning of the New Science is delayed through a series of diversions, inconsistencies, gaps, repetitions which earned Vico in his lifetime and after the reputation of an obscure and inept writer.

Just as Margherita Frankel argued that Vico's errors were errare, wanderings in the form of an actual labyrinth, the matter that concerned Dante should concern us here. ${ }^{24}$ The delay that supports the notion of a separate zone, a formal geography/geometry of Hades, is a part of the "Lucretian" problem of sin. Within the domain of "Eve and Adam's," the Lucretian parallel flow prescribes a horizontal flow subject to a vertical law. Sin, the cause, is balanced by the equal and opposite force of punishment, but the

[^12]logic of the chain requires spatial division and temporal delay. Dante's point is that delay is, paradoxically, the immediacy of cause and effect, an imminence that is a loft, a lifting wind, that opens up a site of exception, a clinamen, where the invisibility of true azure creates, within the curve, an immediacy. Poché is a pocket made for $\sin$, and the straight line reality of the mark is layered, the layers can be separated by a slight lofting wind, a word (afflatus), a name, the name written beneath the impossibly heavy metal lid of the tomb, Lancelot, a name that enchants and directs the named to Guinevere. So, this is love?

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This essay is dedicated to Marco Frascari, colleague, teacher, and friend and presented on the occasion of a symposium held in his honor, February 2013.


[^0]:    ${ }^{1}$ This expression may seem strange to most readers. See, however, the compelling argument for why and how architecture, the political, and the unconscious should be as familiar a triad as firmitas, utilitas, and venustas: Nadir Lahiji, ed. The Political Unconscious of Architecture: Reopening Jameson's Narrative (Farnham, Surray, UK, and Burlington, VT: Ashgate Press, 2011).
    ${ }^{2}$ Mladen Dolar, "Beyond Interpellation," Qui Parle 6, 2 (Spring/Summer 1993): 75-96.
    ${ }^{3}$ Philip Gee, David Stephenson, and Donald E. Wright, "Temporal Discrimination Learning of Operant Feeding in Goldfish (Carassius auratus)," Journal of the Experimental Analysis of Behavior 62, 1 (July 1994): 1-13. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1334363/, accessed January 2013. The author is grateful to Aparna Parikh and Crista Livecchi for suggesting and developing the goldfish memory analogy.

[^1]:    ${ }^{4}$ The fear that this may not be the case is the basis of Giovanni Piranesi's series of engravings known as the Carceri, the Prisons. Generically subterranean spaces fold and unfold, contract and disperse. At first they seem to offer prisoners the freedom to wander anywhere they wish. The horror of Piranesi's sequencing is that this freedom is in fact the lock that, by foreclosing on the entire possibility of any externality, is a prison more horrific than any with literal iron doors. Piranesi has reversely predicated imprisonment itself but shown that space has refused to supply the prisoner with any further evidence of a world outside: repetition, the fate of unavoidable curvature.

[^2]:    ${ }^{5}$ The term "site of exception" comes from Eric L. Santner's On the Psychotheology of Everyday Life: Reflections on Freud and Rosenzweig (Chicago and London: University of Chicago, 2001). The site of exception, the idea of the horizontal atlas, and the notion of terrain vague should be considered as a loose confederation of diverse interests in anti-zenithal interests across multiple disciplines.

[^3]:    ${ }^{6}$ Richard Bernheimer, The Wild Man in the Middle Ages (Cambridge, MA: Harvard University Press, 1952).

[^4]:    ${ }^{7}$ Marcel Mauss, A General Theory of Magic, trans. Robert Brain (London: Routledge, 1972).
    ${ }^{8}$ See Kurt Goldstein, Language and Language Disturbances; Aphasic Symptom Complexes and Their Significance for Medicine and Theory of Language (New York: Grune \& Stratton, 1948).

[^5]:    ${ }^{9}$ Film enthusiasts will want to cite the 1945 anthology spook film, Dead of Night (Arturo Cavalcanti and others). In the final story told by guests at a country house party, a Dutch psychiatrist, van Straaten, recounts how a nightclub performer was dominated by his dummy, Hugo. What better way to show how the structure Lacanian formula for hysteria, divided into $\$ / a$ and $\mathrm{S} 1 / \mathrm{S} 2$, is an accurate picture of the symmetry connecting the ventriloquist's act (a divided subject, structured on behalf of the enjoyment of the other, $a$ ) to the psychotic suppression of reality, S2, by the master signifier, in this case Hugo. The zenithal state, $\$ / a$, is discovered by the analyst through "horizontal mapping" techniques. Van Straaten rotates the formula for hysteria one-quarter turn $\left(90^{\circ}\right)$ to reach the formula for analysis, where $\$ / S 1$ and its correlate fantasy theme, "the double," put the dummy in the role of the demon and literalize the function of the acousmatic voice as apophrades, the conclusion of the tale.
    ${ }^{10}$ Representations of Paolo and Francesca grapple with Dante's description of the whirlwind. The lovers attempt an embrace but are kept out of synch by the wind, an invisible but forceful "nothing." It is tempting to thematize this as the delay implicit in predicative strings which, exemplified by the sorites, achieve an internal causal stability that is disrupted by the presence of two isolated elements, a predicator and predicate, which will later be identified through a process of cancelling all single elements as they are paired as predicators and predicates. Francesca and Paolo remain. They are the remainders, but their singular trait is that they are in two separate time-spaces. They are the Lacanian barred subject, $\$$, beneath the rule of the remainder, the object-cause of desire, $a: a / \$$ is the "verso" component of Lacan's discourse of the University, where the subject is placed within the field of desire (a campus, literally), but where affordance (tuche$)$ is always interrupted, kept out of synch, through an automaton. We can identify this automaton as a kind of Fate operating in the guise of chance, and write it as $a$.

[^6]:    ${ }^{11}$ See the translator's notes in Dante Alighieri, , trans. Andrew Frisardi (Chicago: Northwestern University Press, 2012).
    ${ }^{12}$ Erin Felicia Labbie, Lacan's Medievalism (Minneapolis and London: University of Minnesota Press, 2006). Labbie involves Lacan's Seminar VII (on ethics) and Seminar XX (on feminine sexuality).
    ${ }^{13}$ The expression "terrain vague" comes from Ignasi Solà-Morales, "Terrain Vague," Quaderns Arquitectura I Urbanisme 212, Terra-Aigua = Eau-Terre (1996).

[^7]:    ${ }^{14}$ Cecil Belmond, Number 9:The Search for the Sigma Code. This lore is also a part of the curriculum of Vedic Mathematics, Public Schools, India.

[^8]:    ${ }^{15}$ Roberta Bernstein asserts that "... [I]n Johns's art ... numbers do not specify specific meanings. By detaching numerical signs from their context, Johns instead calls attention to their essence both as familiar signposts that permeate contemporary life and as potently charged entities embedded in memory." In Robert Bernstein and Carter E. Foster, Jasper Johns: Numbers (Cleveland, OH: The Cleveland Museum of Art, 2003). Bernstein's supreme confidence in rejecting any significance for the numbers themselves seems to be based on her unwillingness to connect Johns' number sequences to anything, including their own specific arrangement and Johns' own elaborations of the numbers theme. Like the $11 \times 11$ numbers square, Johns' alphabet squares obscure the identity of the first (upper-left-hand corner) position. In the alphabet case, this has the effect of aligning rows so that elements also form uniform diagonals.

[^9]:    ${ }^{16}$ It is more likely the case that the forms as presented in Plato's Timceus, though seemingly idealized as geometric solids, are more in keeping with the dynamic topography of the symptom. This would preserve Plato's overall program of putting truth into a downwardly digressive dramatic form, as exemplified in his other dialogues. This is a minority view, and one that cannot be expanded fully here, or by me.
    ${ }^{17}$ See Adam Greene, "Profiles: Apollo Robbins," The New Yorker Magazine (January 7, 2013). Robbins creates pleasureful entertainment out of what is normally a painful experience. His customary approach is to work with a volunteer, whom Robbins warns in advance of his intentions. One victim was told especially to mind his fountain pen, which we guarded until the end of the act. Confident that Robbins had not been able to take this treasured item, Robbins showed him the cartridge he had removed from the pen. Robbins finds, cultivates, and creates pockets of unsensed spaces that he is able to invade "horizontally," while at the same time tuning up his victim's "zenithal" vigilance.
    ${ }^{18}$ See Norman O. Brown's study, Hermes the Thief, the Evolution of a Myth (Madison, WI: University of Wisconsin Press, 1947).

[^10]:    ${ }^{19}$ The anachronism is justified on account of Lacan's Medievalism (see Labie, footnote 11) and Dante's considerable interest in troubadour tradition, especially as it compounded interest in the number 9 (footnote 10). As proof, one should consider the final remainder of the Inferno's volute, Satan, who puzzles Dante because he is upside down, i.e. in the position by which God had flung him from Paradise. When Dante grasps this point, which resembles nothing so much as an instance of the final moment of joining the predicated with the predicating forms of the same element (compare Hegel's $\mathrm{A}=\mathrm{A}$ in the Phenomenology of Spirit as a parallel revelation): B)B.

[^11]:    ${ }^{20}$ [Anonymous], "Rodin Works: Paolo and Francesca," accessed January 13, 2013, http://www.rodinweb.org/works/1884_paolo_francesca.htm.
    ${ }^{21}$ In other words, the "free radicals" of trompe-l'oeil are cases of the Lacanian extimate, pure reversed predication, the gap between X and non-X. "Trompe l'oeil Tricks: Borges' Baroque Illusionism," accessed January 13, 2013, http://www.uh.edu/~englmi/BorgesBaroquelllusionism/.

[^12]:    ${ }^{22}$ "Lancelot," Wikipedia, accessed January 13, 2013, http://en.wikipedia.org/wiki/Lancelot.
    ${ }^{23}$ See Ernst Robert Curtius, European Literature in the Latin Middle Ages, trans. Willard R. Trask (Princeton, NJ: Princeton University, 1967), 294.
    ${ }^{24}$ Frankel, Margherita, "The 'Dipintura' and the Structure of Vico's New Science as a Mirror of the World," in Vico: Past and Present, ed. Giorgio Tagliacozzo (Atlantic Highlands NJ: Humanities Press, 1981), 43-51.

