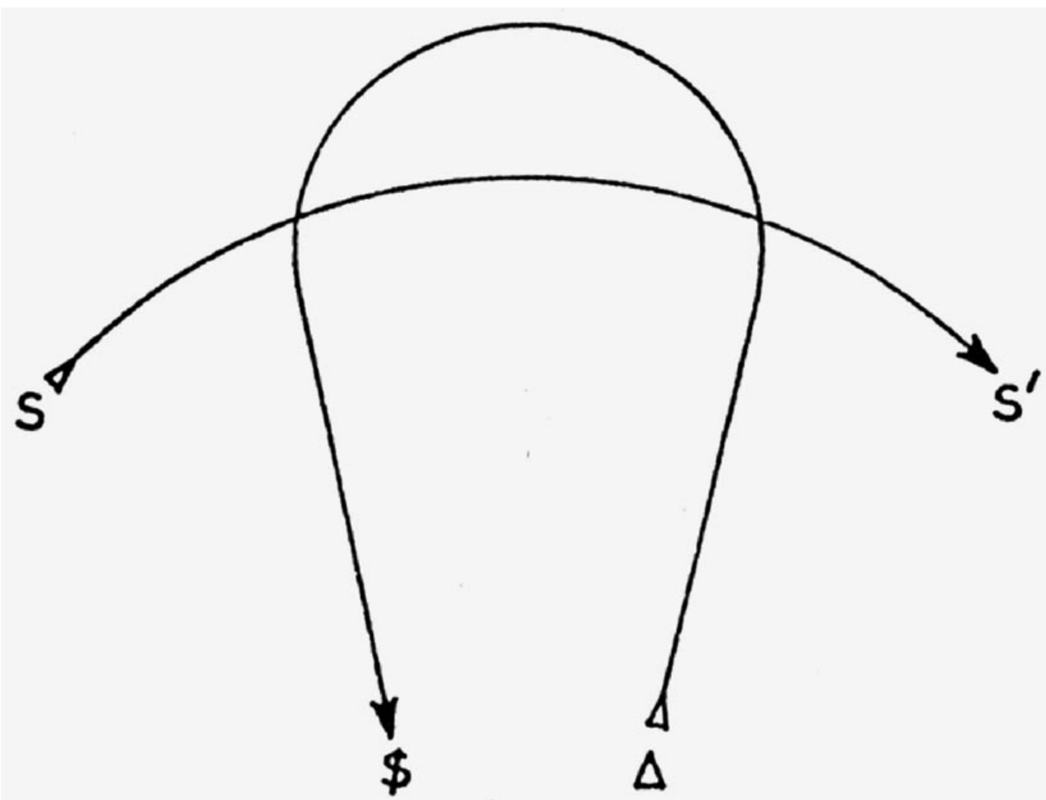
Graph of Desire (Graph I).
From Jacques Lacan, *Écrits*
(1966).



 https://doi.org/10.1162/grey_a_00335

The Origin of Geometry

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The first term in Euclid's *Elements* came as a surprise to me. The first term in Euclid's hefty treatise on geometry is not number or line, not triangle or sphere, not mathematics, and not even geometry itself. The first term in Euclid's elements is *point*: "A point is that which has no part."[1]

Is this the origin of geometry, this the first term in the first major omnibus of geometry? The question has been posed before, by Jacques Derrida famously. But he was upstaging another voice, that of Edmund Husserl writing just prior to the onset of World War II.[2] Why not upstage them both, as Michel Serres did, first in his sketches on the "Origin of Geometry," then later shifting the frame slightly, not "Origin" but *Origins*.[3]

Who would not be a little disappointed by Husserl's text, that tedious appendix, forever dancing around the topic of geometry but never addressing it head on? The general attitude—voiced by Derrida with his characteristic condescension—has been to discount the question itself, to invert Husserl, and to investigate not the origin of geometry but the *geometry of origin*, origin now having been recast as the cardinal sin of all philosophy. But was that not just another distraction? In trying to unseat origin, one risks naturalizing geometry, a new structure to replace the old, even if that structure is, in some sense, deconstructed. So instead of discarding the question, let us retain it. Let us return to Husserl's investigation and try to look for a different answer. Let us ask the question again. *What is the origin of geometry?*

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Points are elusive, if not also ambiguous. As one story would have it, a point is dimensionless and indivisible. Points constitute the real fabric of the world, arrayed with infinite density in precise spatial locations. Yet, following another story, points are more like bits of sand, tiny particles serving as the microscopic atoms of nature. From this perspective points are little unities, monads that assemble and synthesize into wholes. So is a point more like a dimensionless location in space or more like a grain of sand? Is a point a place or a particle? Perhaps both? (With points, one will encounter many such intersections.)

Aristotle addressed this elusive ambiguity in a passage from his *Metaphysics* on the question of "the one" [*to hen*]. What does it mean,

Grey Room 86, Winter 2022, pp. 6–27.

Aristotle asked, for something to be one? Is a one a simple unity or *monas*? Or does the one mean *stigmē*, a dimensionless point? How does number begin? Does number begin from an aggregation of small unities or from a dense array of points? Is the world arithmetical or geometric at its core? And would the origin of arithmetic not be fundamentally different from the origin of geometry?

> The essence of "one" [*to heni*] is to be a kind of starting point [*archēi*] of number [*arithmou*]; for the first measure [*prōton metron*] is a starting point, because that by which first we gain knowledge of a thing is the first measure of each class [*genous*] of objects. [20] "The one" [*to hen*], then, is the starting-point of what is knowable in respect of each particular thing. But "the one" is not the same in all classes, for in one it is the quarter-tone, and in another the vowel or consonant; gravity has another unit, and motion another. But in all cases "the one" is indivisible [*adiaireton*], either quantitatively or formally. Thus that which is quantitatively and qua quantitative wholly indivisible and has no position [*atheton*] is called a unit [*monas*]; and that which is wholly indivisible and has position, a point [*stigmē*]; that which is divisible in one sense, a line; in two senses, a plane; and that which is quantitatively divisible in all three senses, a body [*sōma*]. And reversely that which is divisible in two senses is a plane, and in one sense a line; and that which is in no sense quantitatively divisible is a point or a unit; if it has no position, a unit, and if it has position, a point.[4]

In this complicated thicket of ideas, we find the lines and planes of geometry, even as Aristotle begins from arithmetical number [*arithmou*]. We find Aristotle returning to the notion of family or class [*genous*] as a way to conceive of what things are. We have "the one" as an origin [*archēi*], even as each "one" will be different depending on the class of thing in question (music, speech, gravity, motion). The archaic principle of indivisibility appears here as well, with Aristotle taking for granted that there are indivisible things (conventionally called "atoms"). Yet Aristotle ultimately favored the notion of a "natural minimum" of things, the *minima naturalia*, rather than atoms per se, which he rejected.

Focus, though, on the heart of the passage, which depends on the definition of two terms, *monas* and *stigmē*. Is the one in fact two?

Aristotle claimed that both *monas* and *stigmē* were instances of "the one" and that they were both indivisible. Division here seems to be a question not so much of uncuttability (atomism) but of *dimension*, as demonstrated by Aristotle's reference to line, plane, and body, the characteristic elements of one, two, and three dimensions. Hence a line is divisible, but only because it has a dimension, while a point, having no dimension, is by that same token not divisible. So what is the difference between *monas* and *stigmē*? Aristotle, that great categorizer, had a thesis for distinguishing between *monas* and *stigmē*, or, we should say, the distinguishing mark *was thesis itself*. A unit was *atheton* for Aristotle, meaning unpositioned or "without a thesis." A point, by contrast, had a thesis; it was oriented and positioned within a space or continuous series. Plutarch would later explicitly intertwine the two terms, defining the point, *stigmē*, as a "unity in position" (*monas en thesei*) or, more literally, *a monad with a thesis*.[5]

What Aristotle meant by "having a position" or "not having a position" is not entirely clear. Martin Heidegger offered an important gloss on the term *monas* by tying it etymologically to adjacent terms meaning "alone" and "remain." The *monas* or unit is "related to *monon*, 'unique,' 'alone,'" Heidegger explained. *Monas* "is what simply remains, *menein*, what is 'alone,' 'for itself.'"[6] This is important for understanding the positioned/unpositioned distinction. Question: Do monads have a position? Answer: No, they are "alone." Every unit (*monas*) is a lone unit. Every unit remains, is a remainer, embodies the remainder. But the point (*stigmē*) is never alone, because it carries a prosthetic, a thesis point. So while the point might seem to be the lesser of the two because it is not yet and never a unity, nevertheless the point *has something added*.

Does this furnish the origin of geometry? Are we already at the end of the journey? Is *stigmē* the origin of geometry, just as *monas* is the origin of arithmetic? Heidegger thought so, and I am inclined to agree, even if this conclusion signals the onset of a conversation not its terminus. "The basic element of arithmetic is *monas*, the unit," Heidegger stated unambiguously, while "the basic element of geometry is *stigmē*, the point."[7] So the *monas* mathematics was the mathematics of arithmetic, and the *stigmē* mathematics was the mathematics of geometry, the former a construction of monads in an order (an order that yet remains "unpositioned"), and the latter a construction of points placed and oriented in zero, one, two, or more dimensions. We postmoderns might easily add the words *digital* and *analog* to these definitions: *Monas* is the natural condition of arithmetic and hence also of the digital, while *stigmē* is the real fabric of geometry and hence also of the analog. But I am getting ahead of myself. Let us take the two in turn.

***Monas*, or the Song of Arithmetic**

"That which has no part" was Euclid's definition of *point*. Leibniz offered a similar opening definition, not for the point but for its cousin concept, *monas*, what Leibniz dubbed in his native French *la monade* (the monad). "*The monad* . . . is nothing other than a simple substance which enters into compounds, 'simple' meaning 'without parts.'"[8] Yet while Leibniz added an important chapter to the biography of *monas* in his *Monadology*, what he meant by *monad* is not entirely clear. "Monads are the true atoms of nature," he proclaimed. And yet these atomic monads "are not mathematical points." Meanwhile, "monads have no windows" and instead operate more like mirrors, since every monad is "a mirror of the universe."[9] A mirror, and also an atom, but certainly not a point, Leibniz's monads were strange beasts.

So *monas* is a unity, a lone unity, without a position, or at least prior to or in anticipation of a position. This provides a peek into the general logic of the monad, which could be termed *the logic of genetic construction*. Look again at Plutarch's expression, this time with a bit more context: "numbers are prior to figures, for the unit [*monas*] is itself prior to the point because the point is a unity in position."[10]

Numbers are prior to figures and unities are prior to points. Perhaps no grounds for controversy. But consider the same general argument with even more context, here recounted by Diogenes Laertius in a section of his *Lives of the Eminent Philosophers* devoted to Pythagoras: "The first principle of all things is the monad; arising from the monad, the indeterminate dyad serves as the substrate of the monad, which is cause. From the monad and the indeterminate dyad arise numbers; from numbers, points; from points, lines; from lines, plane figures; from plane figures, solid figures."[11]

A particularly spectacular brand of digital philosophy, this, but how exactly? First, begin by asserting the one as pure dogma. *The monad is*. Hence the first principle is unity. (How to contest this? On what grounds?) Yet there is nothing digital or arithmetical about unity. In fact, unity is borrowed from the geometric manifold, from the continuity of a line, from a pure magnitude, even from the enclosed circle, outline, or envelope. (And the digital acts as a source input for the analog as well, just as the analog acts as an input for the digital, each interfacing the other in alternation.) Still, the great Pythagorean foundation is not so much unity but unity-as-dyad, where every monadic number x is really a dyadic ratio of two whole numbers expressed as a/b. The Pythagoreans relied on a kind of "Rule of Two" where, as in this example, a rational number would be defined by bringing together two whole numbers. The notion that "every number is a dyad" is as fitting a slogan for the Pythagoreans as it would be for mathematicians like Richard Dedekind so many centuries later. And the series continues: beyond monad and dyad, beyond number, arises the point, followed by the various dimensions of space via line, plane, and solid. The point thus follows from arithmetical number, just as the order of values on the number line marks a rhythm. The arithmetical point is ultimately not so much an instigating mark that embodies a contiguous magnitude but rather the consequence or side effect of an operation of repetition, as the monad iterates its own unity in a series of one, two, three, four, five.

The process of "arising from" is also crucial here. Construction and constructability are important in mathematics, particularly in the digital or arithmetical tradition but also in geometry, where proofs are quite literally enacted as a series of constructions with pencil and paper (and where, for instance, squaring a number entails drawing a box). The core definition of arithmetic involves the logic of "arising from" because each number is the result of the monad, which occupies the position of "one," being duplicated a specific number of times (or, alternately, being divided). The logic of genetic construction thus refers to the genetic element, the monad, participating in a process of construction, whereby the monad is constructed via the dyad, which itself constructs number, and so on. The process of construction is important. But also important is that it begins from a genetic element (*monas*). Start with a genetic entity, the monad, and, using a principle of genesis ("arising from"), iterate on the monad to generate the system of number. This operation constructs what can be properly called a *natural arithmetic*. It forms the natural infrastructure of the digital.

The logic of genetic construction could thus be summarized as a series of steps marking priority:

monad → dyad → number → point

The digital requires an arrangement like this, or at least something close to it. That the monad would necessarily precipitate the dyad—and that every "one" has as its substrate "the indeterminate dyad"—is a fitting picture of what François Laruelle calls the standard model of philosophy.[12] (This is, of course, only the digital version of the story. The analoggers will reverse the narrative by starting with points and ending with real unities or wholes.) In the end, the arithmetic logic of genetic construction puts monad prior to point and, by extension, makes arithmetic the origin of geometry.

Here we reach an interesting if not also ironic conclusion; namely, that *one is not a number* within digitality. Heidegger claimed that the *monas* or one-unit was "not yet number" and that, in fact, "the first number is the number two"![13] The classicist Jacob Klein reported something similar, that the *monas* unit was itself not arithmetical, that the smallest number of things was *two* (not one), and that *monas* served as "a 'beginning' or 'source' (*archēi*)" facilitating the system of counting while nevertheless remaining outside the count.[14] In this sense one is something like a pre-number, something prior to digital arithmetic. One is the ingredient through which the other numbers are constructed. But by that same token, one is somehow not an arithmetical number strictly speaking. But how can the digital be understood as numeric representation using "zeros and ones" if one is not a number?[15]

Stigmē, or the Song of Geometry

What are the basic elements of things? Are they microscopic wholes like cells or particles? Or are they dimensionless infinitesimals like abstract locations in space? Is the world made up of wholes or holes? The digital tradition, relying on *monas* or the unit-whole, claims the former, that the world is a set of small monadic unities. These may be integers for mathematicians and computer scientists or small particles or even discrete energy states for physicists. The analog tradition claims the latter: that the world consists of a purely continuous substance, marked not through pixels or particles but through a real infinity of points. In this sense the analogger offers no positive element as example, only the negative condition necessary to sustain any element whatsoever. The analogger does not serve up whole unities for inspection; the analogger *cuts into the real*.

In Aristotle this cut is called *stigmē*. Wolfgang Schäffner describes the *stigmē* point as "the Aristotelian hole in which time and space disappear."[16] A hole? A cut? This *stigmē* point is a mysterious thing. Aristotle described *stigmē* as an indivisible point with a "thesis"; that is, with an orientation or position. Yet that does not exactly clear up the meaning of *stigmē*. Maybe that is why Aristotle did not particularly like the term, why Plato was somewhat ambivalent, and why the word eventually fell out of use to be replaced with another.[17] What does it mean to think not in terms of discrete atoms isolated by cuts but rather to foreground the cut itself? Turned inside out, *what if the cut's the thing?*

"That accident which pricks me" was how Roland Barthes described *stigmē*, by way of its Latin counterpart, *punctum*. The *punctum* "bruises me" and "is poignant to me," he added (in parentheses).[18] Let us shift then from a little particle to a puncture point. Let us shift from a monadic unity to a bruise, a laceration. To bruise a body is to leave a mark. To prick the skin is to penetrate it but also to write on it. *Stigmē* means point, but not just any point. *Stigmē* means point as puncture, spot, speck, or dot. In this sense *stigmē* could refer to a "spot on a bird's plumage" or "a speck of blood."[19] The word is derived from *stizō*, meaning to mark with a pointed instrument, to scribe, to tattoo, or to brand. A *stigmē* point is thus a *stinging*, a mark left by a sharp point. The *stigmē* point is a *scarification*, a marking by needle or knife. Christ's injuries were called *stigmata* because they were made by sharp points and because they remained legible as marks.

Stigmē is aesthetic and bound to bodies and objects, whatever might be poked or stuck with a sharp stick. A cut or a hole marks a point, but it does so via absence rather than presence. For this reason *stigmē* has long been attractive to anyone wishing to deviate from monadic coherency. A monad is a whole, but a point that pierces or pricks disrupts the whole. A monad presents itself as a positive unity, but the cut intrudes negatively as non-unity. If monadic digitality sees the world as a series of things, stigmatic analogicity sees the world as *nothing but the breaks between things*. If a natural arithmetic issues from the logic of genetic construction, a real geometry flows from *the continuity of cutting*.

The modern apotheosis of *stigmē* can be dated precisely. Math became fully linguistic—fully literate—only on November 24, 1858, when Richard Dedekind closed a door first opened by Zeno more than two millennia prior.[20] Many have tried to understand the digital revolution by looking to *computers* in the *1940s*, when they might more easily find their answers by looking at *mathematics* from the late *1800s*. In 1858, Dedekind finalized his theory of real and irrational numbers by proposing a *Schnitt*, a cutting or sectioning of the number line. (*Dedekindscher Schnitt* is typically translated as "Dedekind Cut" but *Schnitt* can also mean "section" as in the German term *Goldener Schnitt*, "golden section," or what in English is called the Golden Ratio. This helps reveal how section, cut, and ratio share a fundamental operation.) With no rigorous construction of the real numbers yet available in mathematics, Dedekind proposed a "severing of the straight line into two portions," where "we shall call such a separation a *cut* [*Schnitt*] and we shall designate it by (A_1, A_2)."[21] What made Dedekind's discovery so powerful was that he flipped the concept of number on its head, taking a perceived vulnerability and making it a strength. No longer would the elusive absence of real numbers be a liability (i.e., that *pi*, which represents the ratio of the circumference of a circle to its diameter, cannot be found on the rational number line, that *pi* is absent); rather, this absence itself would be redirected into a positive characteristic (*pi* is a cut, not a unit; the absence between two sets of rationals *will positively construct* the real).[22]

Sarah Pourciau describes the Dedekind Cut as reiterating the same gesture as the ancient definition of rational numbers; that is, to define a number using a pair of values, a/b in the case of rationals, or (A_1, A_2) in the case of Dedekind's reals.[23] The Dedekind Cut thus creates a new kind of ratio-number—and hence also enacts the aforementioned Rule of Two—only this time the ratio is able to account for irrational numbers as well as rational numbers.

To reiterate: if the digital requires the point as *monas*, as a minimal unity, the analog requires the point as *stigmē*, the point as cut, puncture, or piercing. But Dedekind was working in the service of the digital; in the end his allegiance lay firmly in the digital science of arithmetic. His goal was not to enter the real but, as it were, to capture and colonize it, to make the real safe for discrete rationality. Therein lies the appealing ambiguity of *stigmē*. In one sense, the point is the archetypical analog technology, the dimensionless substance of the real. But in another sense the point is the minimal precondition for the digital, because the point represents the cut that makes discretization possible. Perhaps this is why *stigmē* was the operative technology for two different extremes: for Barthes's romantic real but also for Dedekind's rigorous arithmetic.

Giving a Sign

The first term in Euclid's *Elements* came as a surprise to me. The first term in Euclid's treatise is *point*. But which one, since we already have more than one point? Was Euclid's point a cutting-point like *stigmē* or a unit-point like *monas*? Was it a particle or a piercing? A cell or a tattoo? Was the origin of geometry an arithmetical origin or a properly geometric one? Consider again book 1, definition 1 of the *Elements*: "*Sēmeion estin, hou meros outhen* [A point is that which has no part]."[24] Is this an infelicitous omen, this *sēmeion*? What is this "mark," and what does it portend? Is Euclid not the perfect embodiment of that oracular figure described in Heraclitus's eleventh fragment, he who "neither speaks out nor conceals, but gives a sign [*sēmainei*]."[25] Until now Euclid had neither spoken nor concealed but only given a sign.

In point of fact, Euclid did not use *stigmē* to mean point. And he delayed his discussion of *monas* until book 7 of the treatise, where he turned his attention to arithmetic and discrete numbers. "Has it been noted," Michel Serres inquired dryly in his work on the origin of geometry, "that the very first word of [Euclid's] text is *sēmeion*, meaning 'the sign'?"[26] The first term introduced in the *Elements*—the first word of the first definition—is another word for *point* altogether, not *monas* or *stigmē* but *sēmeion*.

A significant development, this *sēmeion*. But what does it portend? And why did Euclid shift to new terminology when *stigmē* was readily available? In contrast to the monadic unity (*monas*) and the piercing point (*stigmē*), *sēmeion* represented the point as *sign* or *mark*. A point can be a scar or a tattoo, but it can also be a signal, a signifying mark. English terms like *semiotic* and *semantic* harken back to the Greek *sēma*, meaning sign, mark, token, or portent. Thus *sēmeion* reinterpreted the point neither as hole nor as unity but as a tidbit of meaning, what Giorgio Agamben calls a "quantum of signification":

> [W]e know it was precisely Plato and the members of his school who claimed the necessity of replacing the more ancient term for "point," *stigmē* (the trace left by an object through the act of *stizein*, "stinging") with *sēmeion*, in order to stress the connection with linguistic signification: the point is not a material entity, but a quantum of signification.[27]

In fact, "Plato had no single term with which to express the notion of a point," Charles Mugler explains. "The Greeks used two terms:

stigmē was the more ancient term, and *sēmeion* was the more recent."[28] And yet "before, during, and after Plato, up until Aristotle, the universally adopted term for point was *hē stigmē*."[29] Only later, after Aristotle and Euclid, did *sēmeion* become canonical.

As classicist Thomas Heath notes,

> the word for "point" generally used by Aristotle (*stigmē*) was replaced by *sēmeion* (the regular term used by Euclid, Archimedes and later writers), the latter term (= *nota*, a conventional mark) probably being considered more suitable than *stigmē* (a *puncture*) which might appear to claim greater *reality* for a point.[30]

Greater reality! Here again the point betrayed its elemental relation to the analog real. Did these stigmata hurt too much? Was it necessary to "purge" the foundations of geometry from some of the vocabulary that had prevailed with Plato and his school?[31]

In Mugler's estimation, ancient authors like Plato were ambivalent about *stigmē* because it would have connoted the work of carpenters not mathematicians. "The word *stigmē* too obviously connoted the activity of *stizein* [to mark with a pointed instrument]," Mugler explains, "which was how carpenters, surveyors, and other tradesmen scribed points into their materials."[32] In a sense *stigmē* was too empirical, too freighted with the materiality and tactility of the craft professions. A carpenter might use chalk or pencil to mark a board, but ancient carpenters (along with a few modern ones) would just as readily have scribed wood using a knife or awl. Sometimes a mark is better made by cutting rather than by drawing. Sometimes the sword is mightier than the pen.

But not for the geometers. It is true that when two lines intersect, one line "pierces" the other. Yet the work of geometry typically advances by way of drawing rather than cutting. The geometer does not cut the paper with a knife, at least not regularly, but instead uses a dot-maker (chalk, charcoal, graphite, ink) to draw lines and arcs. The mark is *deposited* not *excised*. By discarding *stigmē* in favor of *sēmeion*, Euclid moved mathematics a bit closer to writing, a bit closer to the art of mark-making.

As a practical consequence, the point-as-sign also allowed Euclid to conceive of the point explicitly as a *symbol* or *letter*. Hence, points could be designated in geometrical figures using labels like "Point A" or "Point B," points of signification with spatial and semantic meaning, greatly facilitating proofs and demonstrations.[33] In this sense, the point became explicitly interchangeable with alphanumeric characters and thereby conceivable as a kind of proto-algebraic variable (a precondition for what René Descartes would later develop into algebraic geometry). This is one of the benefits of thinking the point as sign rather than the point as cut. It constitutes a key moment of "cardinality" for the point, where what was formerly an operation transformed into a name, where a cut became a sign. At the same time, *sēmeion* helped Euclid prioritize geometry—at least geometry's claim to some sort of real presence—because it explicitly inserted the sign (the "quantum of signification") back into the basis of geometry, while excluding wobbly notions like cuts or infinitesimals.[34]

"In the beginning was the sign," David Hilbert claimed in 1922.[35] But his timing was off. In the end was the sign. The sign was the end point of a longer trajectory that began with the cut-point and the unit-point. From a unity to a prick to a sign. And there is poetry along the way, as David Kutzko points out. For if a point leads to a sign, then "a portent (*sēmeion*) leads to an epiphany (*epiphaneia*)."[36]

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Husserl's inquiry into "the origin of geometry" was thus fraught from the outset. He might rather have anticipated Derrida's question, pursuing "the geometry of origin." Or he might have simply admitted that the origin *is* geometry, since these two terms occupy the same structural position. Gottlob Frege's "foundations of arithmetic" was equally bold, given the fact that no mathematician, Frege included, has ever found the foundations of arithmetic except by founding it in logic (an arithmetic-variant for my purposes), as Frege did, or by recourse to various categories drawn from the domain of geometry, such as magnitude, extension, arrangement, or intuition. Recall how Immanuel Kant turned to his "fingers" (his digits) to explain number, or how Euclid relied on a *monas* (a "unity") to explain arithmetic.

Is that not what math means in the end, to abdicate the question of origin, siding instead with pure logic? Or to rephrase in philosophical terms: to abdicate genesis and side with structure? The mathematician is the person who possesses minimum knowledge of origins but maximum knowledge of operations. The mathematician is the one with minimum knowledge of semantics but maximum knowledge of syntax. Did not David Hilbert say as much? Did not Claude Shannon? Mathematicians often take great pride in touting this trait of their profession. Origin and meaning, they will say, are better left to philosophy, if not to theology! Math tends to avoid the question of origins because mathematical origins, when they exist, consist in axioms so self-evident that they need not be questioned. Not that they are unquestionable in an absolute sense, merely that their questionability is thought to be unnecessary for the task at hand.

Nevertheless, geometry has an origin, and the origin has been found. The origin of geometry is found in the *point*. But a point is a complex if not also ambiguous thing. As *stigmatic mark*, the point is, in one sense, a cut or a puncture (*stigmē*), while also, in another sense, the point is a sign or an indication (*sēmeion*). The point is also closely related to the unit-point as *monas*, or the enunciation "there is a one."

The unity-point, the puncture-point, and the mark-point—together the three epithets of the point reveal its true meaning. The point might be a unit or a sign. But it might also be a cut. The point has a special relationship to geometry, but it also furnishes an interface into arithmetic. If *monas* is born from the geometric impulse (bounding a unity), it ends in the construction of an arithmetic series. And if *stigmē* is born from the arithmetic impulse (instituting distinction), it ends up as the substrate for real continuity. In one sense the point is thoroughly and stubbornly analog. But in another sense the point is the intervention that makes discretization possible.

That is, the point harbors a number of conflicting vectors, two of which may be summarized before continuing.

monad → point

In what might be labeled the *standard model of natural digitality*, the monad precedes the point. In the standard model the monad is foundational. The monad is given axiomatically or intuitively. Then, following the Rule of Two, the monad is reconceived as a dyad. This allows the monad to form an iterative series both externally and internally (constructing the whole numbers and the rational numbers, respectively). Monadic sets are also sufficient to grasp real continuity, whether it be in Leibniz's calculus or Dedekind's real numbers. Ultimately the point reappears, now reformed as pure value, as "just" a sign. Under natural digitality, arithmetic precedes and, in fact, constructs geometry.

The Euclidean scandal was to introduce *sēmeion*, to give it priority over *monas*, while also striking *stigmē*. Euclid's intervention was scientific and sensible, of course, in that it erased the romantic term (*stigmē*). Yet at the same time Euclid regrounded mathematics firmly in the intuitive sciences, placing geometry before arithmetic. This was reflected in the hierarchy of the treatise, which put the geometric point at the head but delayed the arithmetic monad until book 7. It was also reflected in the specific concepts themselves: *sēmeion* as sense-quantum prioritized over *monas* as arithmetic-quantum. And ultimately, as we have seen, *stigmē* reemerged in the modern period—whether it be Dedekind's *cut* or Barthes's *punctum*—at the dawn of the "kingdom of the sign."

mark → monad

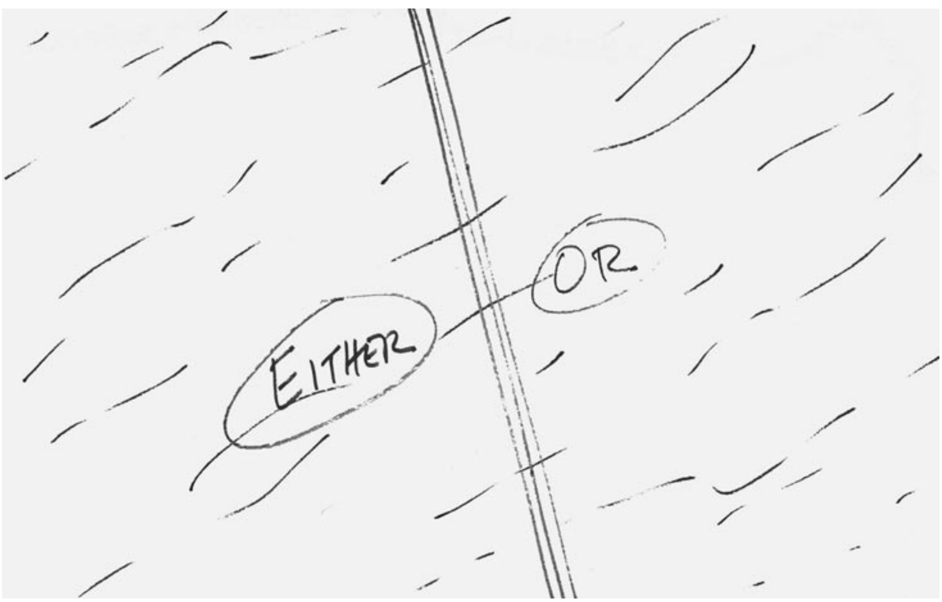
"The point marks an absence, but is always a marker," wrote Wolfgang Schäffner.[37] Such is the paradox of the point. From cut to sign, from puncture-point to mark-point, we are left with that most digital of digital technologies. But why is the point a sign? If not a monadic unity, and if not a puncture point, *how is a point a quantum of signification*? To answer this question we need to turn to the twentieth century and follow the story of the point through the heyday of actually existing digital machines.

From Badiou Back to Lacan, and Back Again to Saussure

If not a monadic unity and if not a piercing laceration, how is a point a *quantum of signification*, in Agamben's felicitous phrase? One answer to this question is found in a theoretical series spanning the twentieth century, which we will re-create in reverse, beginning with Alain Badiou, then back to Jacques Lacan, and ultimately to Ferdinand de Saussure.

In an important section of his 2006 book *Logics of Worlds*, Alain Badiou elaborates what he calls a "Theory of Points."[38] Badiou argues that a point generates meaning because *a point reduces a complex field and galvanizes it around a decision*. Begin with a complex field of relations, a sociopolitical landscape of whatever kind—for example, the fight to increase the minimum wage, the Movement for Black Lives, the lived experience of queer people, or something else entirely. A "point" in Badiou's parlance is an intervention in that sociopolitical landscape such that all forces in the landscape are compelled to align themselves around a single pivot or decision. "A point is a transcendental testing-ground for the appearing of a truth," Badiou stipulates. "A point is the crystallization of the infinite in a figure—which Kierkegaard called 'the Alternative'—of the 'either/or,' what can also be called a choice or a decision."[39] A point, that is, is a way to generate either/or positions within a complex social field. *The crystallization of the infinite in a figure*: here Badiou is drawing on a technical sense of the infinite but also a more mundane sense of human being in its finitude. A point is the "correlation of the infinite and the Two, the filtering of the former by the latter," he explains.[40] A point filters infinity through the two.

Yet here Badiou faces an obvious problem. Why would, for example, a gender nonbinary person ever want to rebinarize their social field? Does Badiou's theory of points not run counter to today's pre-



vailing wisdom that reduction is bad and complexity is good, that doing responsible politics is about revealing the nuance of a situation, that ambiguous meaning is more interesting than fixed meaning, that distinctions should be disrupted or deconstructed? One ought to acknowledge that Badiou's theory of points runs counter to a certain kind of political thinking, a contemporary posture largely inherited from poststructuralism. For the most generous read, then, consider Badiou's theory of points directly in terms of a political encounter. If one attends a street protest, one enters a "pointy" space: the boys in blue carry the billy clubs, and then there is everyone else. Likewise, if a workers' collective decides to go on strike, the strike similarly creates a "pointy" world: the picket line has one side, and it has another side. "Which Side Are You On?" goes the old miners' song by Florence Reece.

Badiou's theory of points is thus less a kind of naive liberalism or existentialism—"I am radically free to choose!"—than it is a description of the limits imposed by world conditions. How are spaces always already "pointed" for the people in them? Are certain spaces impoverished by being bereft of points? Badiou states this clearly: "A point is that which the transcendental of a world imposes on a subject-body."[41]

This makes most sense in the context of what Badiou calls "atonal worlds" and "tense worlds," which he explicitly defines in terms of transcendental conditions rather than individual choice.[42] Atonal worlds are worlds that have no points. They are lifeless. No pivot or hinge exists around which one might try to live otherwise. Mark Fisher was describing an atonal world when he spoke of "the slow cancellation of the future."[43] Such worlds have been *neutralized*, to use Carl Schmitt's preferred descriptor. "Tense" worlds, by contrast, are worlds enriched by points. These are political worlds in the proper sense of the term. Tense worlds are worlds in which things can happen, because the conditions for decision have been furnished. Jean Baudrillard liked the expression "the perfect crime" as a way to describe the evil of frictionless symbolic exchange within a space of atonal abstraction. Tense worlds make it more difficult to perpetrate the perfect crime.

Badiou's theory of points is a compelling way to think about political fields. It shows how points provide subjects with structures of meaning, what Badiou simply calls *truths*. Yet his theory does not fully explain *sēmeion*; that is, how a point is a quantum of signification. So to enrich the theory even further, consider another theory of points, Lacan's notion of the "quilting point." Badiou did not explicitly cite Lacan in formulating his theory of points, but Badiou's point clearly seems to be, in some basic way, a rearticulation of Lacan's quilting point.

Alain Badiou's Theory of Points. Illustration by the author.

The quilting point was introduced in Lacan's 1956 seminar on psychosis. He defined the quilting point as a kind of "anchor" or "button" that *stitches together* the flux of signification.[44] We can understand this in both a general and specific sense. Most generally, the quilting point is a way to *punctuate* or *mark* a chain of words.[45] This happens frequently in ordinary language, where words in a sentence accumulate one after another, conferring their meaning only with the arrival of . . . the . . . last . . . *word*. The final punctuating signifier acts as a *sēmeion* point that retroactively fixes the meaning of all the signifiers that came before it. Lacan made this clear in his diagram for the "graph of desire."[46] In that diagram the chain of signification—for example, words in a sentence—precedes temporally from left to right in a horizontal arc (S to S'). At the same time, the subjective process of meaning-making intervenes from the bottom and runs counter to the arc. Bruce Fink teases out the metaphor in literal terms: the S–S' signifying chain is "fabric," while the horseshoe arc of meaning-making piercing upward from the bottom is "thread." Meaning emerges by stitching upward, pulling taut leftward against the flow of signifiers, then anchoring the stitch downward.[47] Making meaning is thus a retroactive suture requiring two puncture points; meaning does not simply issue linearly from the act of speaking or writing. The quilting point is a knot that holds and fixes the flux of signification.

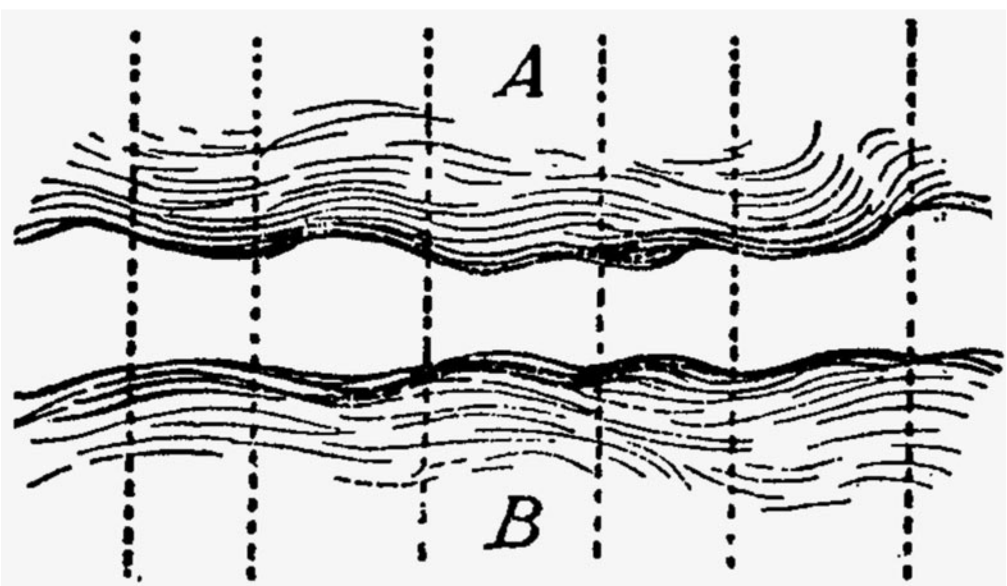
With the quilting point Lacan bucked the logic of the arithmetic series discussed above in the context of *monas*, or the monadic unity. The logic of the arithmetic series stipulates an inaugural monad, followed by subsequent repetitions of the monad to construct the series of whole numbers.[48] In the monadic logic, the arithmetic series is thus constructed from a genetic kernel, proceeding linearly from the inaugural monad, one, through two, three, and on up to natural infinity, or what is called in transfinite mathematics "aleph zero." Lacan embraced the digital method even as he deployed *a different arithmetic*. For Lacan, there was no such thing as an inaugural monad; instead he simply began from preexisting chains of signification; for example, those of written text or circulating discourse. Then, rather than issuing linearly toward a culminating terminus, Lacan reversed the causality, so that meaning-making ran against the flow of signification. For Lacan, signification was not so much a consequence of the series as it was a piercing or suturing into the series.[49] The chain of signification is pierced or cut, and the point of the cut is the quilting point.

Which brings us to the more specific definition of *quilting point*. In its fullest sense the quilting point is not just about creating order out of disorder within a signifying chain. The quilting point also *bonds the two halves of the semiotic sign together*. This is an example of metonymic slippage: the quilting point constitutes the sign, as part, but it also makes up the signifying chain, as whole. To understand

Ferdinand de Saussure's "uncharted nebula." From Ferdinand de Saussure, *Cours de linguistique generale* (1916).

how exactly, we must recall that Lacan was relying on a description of the sign introduced years earlier by Saussure in his *Course in General Linguistics*.[50] Toward the beginning of those transcribed lectures, Saussure defined the linguistic sign as a whole entity split in half, one half being the concept carried by the sign (the "signified"; what the sign *means*), the other half being the sound-image of the sign (the "signifier"; how the sign *looks and sounds*). Later in the text Saussure marshaled metaphor to help explain this linguistic atom. The signified and the signifier were like the wind blowing across the surface of a lake, Saussure explained with a touch of poetry. "If the atmospheric pressure changes, the surface of the water will be broken up into a series of divisions, waves; the waves resemble the union or coupling of thought with phonic substance"; that is, signified with signifier.[51] Then, reining in his rhetoric slightly, Saussure proposed that the linguistic sign is like two sides of a sheet of paper, signifier and signified remaining inseparable yet perfectly distinct, wherein "one cannot cut the front without cutting the back at the same time."[52] The sign is split when it is not also being cut.

While Saussure's wafer-shape diagram of the sign is the most well-known, signifier and signified forming two halves of a circle, he also offers a "nebula" diagram later in the work. The signifieds of thinking form an "indefinite plane of jumbled ideas," while the domain of signifiers is an "equally vague plane of sounds."[53] The "arbitrary" nature of the sign had already been introduced pages earlier, yet here Saussure expounded just how arbitrary it is to be a thinking and speaking subject. "Our thought . . . is only a shapeless and indistinct mass," he contended; "without language, thought is a vague, uncharted nebula [*la pensée est comme une nébuleuse où rien n'est nécessairement délimité*]."[54] What were wind and waves in one sense were now also undelimited clouds in another. The transcription of Saussure's lectures offers a rich jargon of analogicity on these pages: not just "waves" and "nebula" but also words like *floating*, *jumbled*, *chaotic*, and *shapeless*.[55]



A series of vertical lines pierce through Saussure's nebula, punctuating the diagram with cuts in series from left to right. The lines indicate how ideas and sounds are bound together, how the two halves of the sign become anchored together. In Saussure's lectures these lines are described as "a series of contiguous subdivisions" that mark off the two planes, signifieds up above and signifiers down below.[56] This is Lacan's inspiration for the quilting point. This is why he adopted the metaphor of quilting or upholstery. Just as with "the upholsterer's needle," Lacan explained in his seminar from the summer of 1956, "this is the point at which the signified and the signifier are knotted together."[57] Lacan literalized Saussure's diagram, imagining the two nebulae as horizontal skeins of fabric, punctured and bound at specific points by suturing filament. Yet Saussure's diagram was not simply a drawing of the nebulous interaction of idea and sound but a diagram *of the sign itself*. Hence the quilting point makes the sign and in fact *is* the sign in a very real sense.

In his masterful account of puncturing and punctuation, Peter Szendy notes the humor of such an interpretation. Lacan, in essence, was pretending that Saussure's diagram is "the cross-section of a mattress," thereby giving Lacan license to deploy metaphors drawn from upholstery and quilting. "Lacan therefore describes the movement of a needle that *enters and exits*: the button point, like all sewing [*points de couture*], thus seems to involve a multiplicity of stitches—at least two—in order to '[knot] the signified to the signifier.'"[58] For his part, Slavoj Žižek pushes the interpretation even further, stressing that, for Lacan, it was not a balanced bond formed between two equal terms (signifier and signified). Rather, the signifier is the guilty party, the instigator of the puncture. Hence the signifier does not so much anchor itself to the signified as *disrupt* it. Mimicking Lacan's language, Žižek describes this action as a "falling": "the 'quilting point' . . . [is] the point at which the signifier falls into the signified."[59] This, again, requires a creative interpretation of Saussure's nebula, because the signifier (at bottom point "B" in the diagram) would need to defy gravity and fall upward into the signified (at top position "A"). Nevertheless the gist is clear. The quilting point is a piercing or puncturing of an existing signifying chain, which results in the fixing of meaning, no matter how temporary or arbitrary.

Together Saussure, Lacan, and Badiou help conclude an intellectual journey begun in Euclid. The signifying capacities of sounds and images, though endlessly complex, are at least plausible. But what is the signifying capacity of a mere point, dimensionless and infinitesimal? How can a dimensionless point furnish a quantum of signification? Or, to return to the vocabulary in question, how can a point be *sēmeion* (point as sign or mark) in addition to *stigmē* (point as puncture or cut)? In a sense Saussure, Lacan, and Badiou reverse the question. It is not that the point is a sign, as in Euclid, but that the sign is a point. Whether as the marking points within Saussure's semiotic nebula, or Lacan's quilting point for fixing the chain of signification, or Badiou's anchor points that facilitate a subject's fidelity to truth, the point is both a cut that punctuates meaning and also a mark that portends it.

A Melancholy Conclusion

We have sought the origin of geometry, and we have found it in the point. The story is satisfying in one sense: a variety of point-concepts, both core and adjunct (*monas*, *stigmē*, *sēmeion*), come together to explain how an analog point can become a digital quantum. Yet, in a different sense, this origin of geometry is necessarily conservative, even reactionary. I do not mean this in the typical sense of the critique of metaphysics, where any quest for origin is admonished as reactionary, perhaps even explicitly harmful. Rather, the origin of geometry exhumed in Lacan and the others offers a conservative posture on the digital and the analog; namely, that *points are always violent, that language is lack, and hence that digitality can only ever be a form of castration*. Recall how Barthes once characterized language as *oppressive, subjugating, and fascist*.[60] If that is true, then digitality is in trouble, given that the digital so closely mimics language—and the worst parts of language to boot (discrete rationality, the waning of ambiguity and redundancy, favoring syntax over semantics, maximization of function and efficiency, etc.). Shall we not remonstrate against a kind of "analog chauvinism," against all those who put the analog real at the base and rely on some mystical analog cut to disrupt the staid confines of digital rationality? A certain theoretical stance glamorizes real contingency and denigrates linguistic structure. (Gilles Deleuze is one version of this; there are many others.) While this stance is often quite seductive, I object to the notion that politics is always on the side of real analogicity and that digitality can only ever be an oppressive force. Conservatives in particular frequently leverage this notion of the "disruptive real" as a way to rationalize their reactionary realpolitik. "Après moi le déluge" and "the war of all against all" quickly slip into capitalist realism, where "there is no alternative." Here is where Badiou offers an interesting way out. (And certainly Žižek, always eager to mention "my good friend Badiou," understands this as well.) For Badiou, the political always happens in the symbolic, which is to say in the digital. The political for Badiou is a forcing from within the symbolic order, never a poetic or mystical eruption from without it. Thus, if Lacan defined the digital point as castration or lack, Badiou is willing to embrace the point as non-lacking point, what we might call the "compressive" or generic point. And it is to that point that we ought to devote our attention.

Notes

1. Euclid, *Elements*, vol. 1, trans. Thomas Heath (New York: Dover, 1956), 153 (bk. 1, definition 1).

2. Edmund Husserl, "The Origin of Geometry," in *The Crisis of European Sciences and Transcendental Phenomenology: An Introduction to Phenomenological Philosophy*, trans. David Carr (Evanston, IL: Northwestern University Press, 1970), 353–378; and Jacques Derrida, *Edmund Husserl's Origin of Geometry: An Introduction*, trans. John P. Leavey Jr. (Lincoln: University of Nebraska Press, 1989).

3. Michel Serres, "The Origin of Geometry," in *Hermes: Literature, Science, Philosophy*, trans. Josué V. Harari and David F. Bell (Baltimore: Johns Hopkins University Press, 1982), 125–133, which was ultimately integrated into Michel Serres, *Geometry*, trans. Randolph Burks (London: Bloomsbury, 2017), the English title having been modified from the French *Les origines de la géométrie* [The origins of geometry] (Paris: Flammarion, 1993).

4. Aristotle, *Metaphysics*, trans. Hugh Tredennick (Cambridge: Harvard University Press, 1933), bk. 5, line 1016b; translation modified. For a useful gloss of this passage, see Stuart Elden, "Another Sense of *Demos*: Kleisthenes and the Greek Division of the *Polis*," *Democratization* 10, no. 1 (Spring 2003): 135–156.

5. Plutarch, *Moralia*, vol. 13, pt. 1, *Platonic Essays*, trans. Harold Cherniss (Cambridge: Harvard University Press, 1976), 57 (line 1003e).

6. Martin Heidegger, *Plato's Sophist*, trans. Richard Rojcewicz and André Schuwer (Bloomington: Indiana University Press, 1997), 71.

7. Heidegger, *Plato's Sophist*, 71.

8. Gottfried Wilhelm Leibniz, *Monadology*, in Lloyd Strickland, *Leibniz's* Monadology*: A New Translation and Guide* (Edinburgh: Edinburgh University Press, 2014), 14. While Leibniz composed his text in French, a Latin edition also circulated soon afterward in which the French *monade* was rendered using the Latin *monas*, itself a rearticulation of the Greek *monas*.

9. Leibniz, *Monadology*, 14–15, 27. The reference to "mathematical points" from paragraph 8 of the *Monadology* was deleted from Leibniz's final draft, yet I include it here given how well it illustrates Leibniz's preference for digital arithmetic: "Monads are not mathematical points, for these points are only extremities *and the line cannot be composed of points*" (15; emphasis added).

10. Plutarch, 57 (line 1003e).

11. Diogenes Laertius, *Lives of the Eminent Philosophers*, trans. Pamela Mensch (Oxford, UK: Oxford University Press, 2018), 405–406.

12. The sequence of monad-dyad-number-point illustrates the intimate relation between digitality and philosophy and particularly the specific arrangement that Laruelle terms the philosophical decision. See François Laruelle, *Principles of Non-philosophy*, trans. Nicola Rubczak and Anthony Paul Smith (London: Bloomsbury, 2013).

13. Heidegger, 76.

14. Jacob Klein, *Greek Mathematical Thought and the Origin of Algebra*, trans. Eva Brann (Cambridge: MIT Press, 1968), 49.

15. To say nothing of the status of zero, a relatively late discovery tied up with complex topics like nothingness, void, absence, lack, and negation. See in particular Brian Rotman, *Signifying Nothing: The Semiotics of Zero* (Stanford, CA: Stanford University Press, 1993).

16. Wolfgang Schäffner, "The Point: The Smallest Venue of Knowledge in the 17th Century (1585–1665)," in *Collection, Laboratory, Theater: Scenes of Knowledge in*

the 17th Century, ed. Helmar Schramm, Ludger Schwarte, and Jan Lazardzig (Berlin: Walter de Gruyter, 2005), 66.

17. As Charles Mugler explained, *stigmē* is the "name used for geometrical points prior to Plato . . . Plato, who himself avoided using a single word to designate a point." This precipitated terminological shifts, first in Aristotle, followed later by Euclid replacing the term with another. See Charles Mugler, *Dictionnaire historique de la terminologie géométrique des Grecs* (Paris: Klincksieck, 1958), 379. All translations by the author unless otherwise noted.

18. Roland Barthes, *Camera Lucida: Reflections on Photography* (New York: Hill and Wang, 1981), 27. The point as *stigmē* or *punctum* could be interestingly compared to the notion of "break" in Fred Moten's work. See in particular Fred Moten, *In the Break: The Aesthetics of the Black Radical Tradition* (Minneapolis: University of Minnesota Press, 2003); and Fred Moten, "The Case of Blackness," *Criticism* 50, no. 2 (Spring 2008): 177–218.

19. Henry Liddell et al., *A Greek-English Lexicon* (Oxford, UK: Clarendon, 1996), 1645.

20. "I succeeded on November 24, 1858," Richard Dedekind recalled, referring to his arithmetic definition of real numbers. Richard Dedekind, "Continuity and Irrational Numbers," in *From Kant to Hilbert: A Sourcebook in the Foundations of Mathematics*, vol. 2, ed. William Ewald (Oxford, UK: Oxford University Press, 1996), 767. Although he explained a few years later that the main efforts had already been "worked out in the fall of 1853." Richard Dedekind, "Was sind und was sollen die Zahlen?," in *From Kant to Hilbert*, 793.

21. Dedekind, "Continuity and Irrational Numbers," 771–772.

22. Construction and what he called "free creation" were very much part of Dedekind's method. After first proving that not all cuts were cuts from rational numbers, Dedekind asserted that such cuts must therefore correspond to nonrational numbers, this correspondence being sufficient to construct them: "whenever we have a cut (A_1, A_2) produced by no rational number, we *create* a new number, an *irrational* number α, which we regard as completely defined by this cut (A_1, A_2); we shall say that the number α corresponds to this cut, or that it produces this cut." Dedekind, "Continuity and Irrational Numbers," 773.

23. Sarah Pourciau, "*A/logos*: An Anomalous Episode in the History of Number," *MLN* 134, no. 3 (April 2019): 616–642.

24. Euclid, 153.

25. Heraclitus in John Burnet, *Early Greek Philosophy* (London: Adam & Charles Black, 1920), 56, translation modified; fragment 11 from Ingram Bywater's 1877 Greek edition is sometimes numbered 93 in other editions. Jacques Lacan provided a provocative albeit brief gloss on this fragment in his Seminar 20. See Jacques Lacan, *The Seminar of Jacques Lacan: Book XX, On Feminine Sexuality, the Limits of Love and Knowledge 1972–1973*, trans. Bruce Fink (New York: Norton, 1998), 114.

26. Michel Serres, *Hermès V: Le Passage du Nord-Ouest* (Paris: Minuit, 1980), 165.

27. Giorgio Agamben, *What Is Philosophy?*, trans. Lorenzo Chiesa (Stanford, CA: Stanford University Press, 2018), 78.

28. Charles Mugler, *Platon et la recherche mathématique de son époque* (Strasbourg: P.H. Heitz, 1948), 17.

29. Mugler, *Platon*, 19–20.

30. Thomas Heath in Euclid, 156.

31. Mugler, *Dictionnaire historique*, 376.

32. Mugler, *Platon*, 21. Mugler is referring here to Plato's dialogue *Meno*.

33. On the designation of points as letters, see Mugler, *Dictionnaire historique*, 377.

34. Euclid's definitions "successfully excluded from geometry all questions regarding the inscrutable nature of the point in the sense of *peras* [limit, boundary] and *apeiron* [boundless, infinite], of a limit that is nothing in itself but is still something or an infinite entity that breaks every continuity, i.e. questions that had been brought up a few decades earlier, mainly by Zeno's paradoxes and Aristotle's physics." Schäffner, "The Point," 58.

35. David Hilbert, "The New Grounding of Mathematics: First Report," in *From Kant to Hilbert*, 1122.

36. David Kutzko, "The World in a Point: Euclid's Alexandrian Engagement with Philosophy and Poetry" (paper presented at the 109th Annual Meeting of the Classical Association of the Middle West and South, University of Iowa, Iowa City, 17 April 2013), 2. In Euclid, *sēmeion* is the word for *point* while *epiphaneia* is the word for *plane*.

37. Schäffner, "The Point," 69.

38. Alain Badiou, *Logics of Worlds: Being and Event, 2*, trans. Alberto Toscano (London: Continuum, 2009), 399–424.

39. Badiou, 399–400.

40. Badiou, 400.

41. Badiou, 400.

42. Translator Alberto Toscano renders Badiou's *atone* as "atonic" and *tendu* as "tensed." I prefer the slightly more common English words *atonal* and *tense*.

43. Mark Fisher, *Ghosts of My Life: Writings on Depression, Hauntology and Lost Futures* (Alresford, UK: Zero, 2014), 2.

44. Lacan's *point de capiton* has been translated in different ways, from "quilting point" (Russell Grigg) to "anchoring point" (Alan Sheridan) to "button tie" (Bruce Fink). I am convinced by Fink's argument that "button tie" has a certain technical accuracy. But "quilting point" has greater appeal in English. To explore the nuance of the term, see Bruce Fink, *Lacan to the Letter: Reading* Écrits *Closely* (Minneapolis: University of Minnesota Press, 2004), 88–89, 113–114.

45. Punctuation is not infrequently the object of theoretical inquiry, as demonstrated by two recent books. Peter Szendy, *Of Stigmatology: Punctuation as Experience*, trans. Jan Plug (New York: Fordham University Press, 2018); and Rebecca Comay and Frank Ruda, *The Dash—The Other Side of Absolute Knowing* (Cambridge: MIT Press, 2018), a meditation on Hegel that uses punctuation not so much as point or cut but as hiatus, extension, interruption, and incompletion. To be sure, punctuation harbors a complex politics, if not also an entire theory of literary genre. For instance, Eugene Thacker in *Infinite Resignation* (London: Repeater, 2018) shows how pessimist philosophy and literature tends to favor the ellipsis . . .

46. Jacques Lacan, *Écrits*, trans. Bruce Fink (New York: Norton, 2005), 681. Lacan made the graph of desire more complex on subsequent pages as he expanded and modified the graph.

47. Fink, 114.

48. Several models exist, including the so-called Peano arithmetic, which defines a starting number, for instance zero, and the concept of "successor," which generates the successor of the starting number.

49. Jacques-Alain Miller brought out this Lacanian logic nicely in his essay "Suture (Elements of the Logic of the Signifier)," trans. Jacqueline Rose, *Screen* 18, no. 4 (Winter 1977–1978): 24–34.

50. Ferdinand de Saussure, *Course in General Linguistics*, trans. Wade Baskin

(New York: Columbia University Press, 2011). Based on Saussure's lectures at the University of Geneva during the years 1906–1911, the book was compiled posthumously by his students and first published in 1916.

51. Saussure, 112.

52. Saussure, 113. I remark on Saussure's rhetorical style with some hesitation, cognizant that the text was compiled by others.

53. Saussure, 112.

54. Saussure, 111–112.

55. Saussure, 112. The French text has "flottant," "confuses," "chaotique," and "amorphe."

56. Saussure, 112.

57. Jacques Lacan, *The Seminar of Jacques Lacan: Book III, The Psychoses 1955–1956*, trans. Russell Grigg (New York: Norton, 1993), 268.

58. Szendy, 33–34.

59. Slavoj Žižek, *Less Than Nothing: Hegel and the Shadow of Dialectical Materialism* (London: Verso, 2012), 599.

60. Or, to provide a bit more context: "Language—the performance of a language system—is neither reactionary nor progressive; it is quite simply fascist; for fascism does not prevent speech, it compels speech." "Language is legislation," Barthes also stipulated, "all classifications are oppressive." And "to speak . . . is to subjugate." Roland Barthes, "Lecture in Inauguration of the Chair of Literary Semiology, Collège de France, January 7, 1977," trans. Richard Howard, *October*, no. 8 (Spring 1979): 5.