THE ANARCHY OF JUSTICE: HESIOD'S *CHAOS*, ANAXIMANDER'S *APEIRON*, AND GEOMETRIC THOUGHT

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Abstract: This article examines Hesiod's *Chaos* and Anaximander's *apeiron* individually and in relation to each other through the frame of René Descartes' notion of natural geometry and through bounds and limits in Euclid and Immanuel Kant. Thanks to this frame, it shows that, in his poetic vision, Hesiod saw in *Chaos* the act of bounding such that different things can appear while, in his speculative vision, Anaximander saw in the *apeiron* the self-limiting limit of bounded things, which is to say, time as distinct from the temporality of bounded things resulting from *Chaos*. Thus, together, *Chaos* and the *apeiron* present the spatiotemporal order of the world. Finally, delving further into Anaximander's fragment shows that the justice (*dike*) ruling over all includes the *apeiron* as the time foundational to temporality, meaning justice is without foundation and therefore anarchic.

Keywords: *Chaos*, *Apeiron*, *Dike*, Bounds, Limit

ADALETİN ANARŞİSİ: HESİODOS'UN *KAOS'U*, ANAKSİMENDER'İN *APEİRON'U* VE GEOMETRİK DÜŞÜNCE

Öz: Bu çalışma Hesiodes'in Kaos ve Anaksimender'in *apeiron* kavramlarının hem tek tek hem de mukayeseli bir incelemesini yapmakta, bu incelemeyi ise Öklid ve Kant'ın sınır (*bound*) ve kısıtlılıkları (*limits*) ve René Descartes'ın doğal geometri kavramı çerçevesinde gerçekleştirmektedir. Çalışmanın söz konusu çerçeve bağlamında gösterdiği üzere, Hesiodes şiirsel bakışı ile *Kaos*'ta farklı şeylerin var olabildiği bir sınırlandırma eylemi görürken Anaksimender spekülatif bir bakış ile *apeiron*da sınırlandırılmış şeylerin aslında kendi özkısıtlılıkları nedeniyle kısıtlandırılmış olduğunu görmüştür. Başka bir deyişle, zaman, sınırlandırılmış şeylerin zamansallığından ayrıdır ve *Kaos*'un bir sonucudur. Dolayısıyla, *Kaos*

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ve *apeiron*, birlikte dünyanın uzay-zamansallığını ortaya koymaktadır. Çalışma, son olarak Anaksimender'in fragmanının detaylı bir incelemesi üzerinden *apeiron*un zamansallığın temeli olduğunu ve her şeye hükmeden adalet (*Dike*) tarafından zaman olarak kapsandığını, yani adaletin temelsiz ve dolayısıyla anarşik olduğunu göstermektedir.

Anahtar kelimeler: *Kaos*, *Apeiron*, Adalet (*Dike*), Sınır, Kısıtlılık

1. Introduction: What Did They See?

Two foundational moments in Western mythology and philosophy are, respectively, Hesiod's *Theogony* and the fragment of Anaximander's writing that has come down to us via Simplicius of Cilicia. Both Hesiod's poem and Anaximander's fragment concern the origins of the world as we know it. For the former, "first of all did Chaos come into being [*protista Chaos genet*]" (Hesiod, 2007, l. 116, as cited in Kirk & Raven, 2007, pp. 34-35). For the latter, everything generated, including the heavens, comes from "some other *apeiron* nature [*eteran tina phusin apeiron*]" (Simplicius, 1882, 24, 17, as cited in Kirk & Raven, 2007, pp. 117-118). The precise meaning of the words for each of these origins, *Chaos* and *apeiron*, have been the subject of debate. Though *Chaos* is by and large accepted as a gap, *apeiron* is variously translated as 'indefinite', 'unbounded', or 'unlimited'.

However, what does it mean that the first thing is a gap, a space between things, and what would be a thing that is without bounds, limits, or definition, and so seemingly not a thing at all? In other words, what exactly did Hesiod see in his poetic imagination when he spoke of *Chaos* or Anaximander in his speculative imagination when he referred to the *apeiron*? Since their times, geometry has developed more precise understandings of bounds and limits. It may be helpful, then, to look to some of that later geometric thinking to allow ourselves to see, with whatever clarity possible, what Hesiod and Anaximander saw.

We should of course be careful about relating later concepts to these early visions. As Martin Heidegger writes in "The Anaximander Fragment," "we must, before doing any actual translating, consciously cast aside all inadequate presuppositions." At the same time, "to cast aside presuppositions whenever we find them is inadequate so long as we fail to gain access to what comes to language" (Heidegger, 1984, p. 22). To translate these words through the frame of geometric thought does run the risk of bringing ahistorical interpretations to bear on *Chaos* and the *apeiron*. Still, insofar as Hesiod and Anaximander each posit as the origin of the world things connected to the difference between things, it seems appropriate to apply geometry, the measuring of the world of things and their differences, to those poetically and speculatively imagined origins.

Again, what did Hesiod and Anaximander see? And what can we see if we see with them in reading, if only in translation, of their visions of *Chaos* and *apeiron*? Let us first

look to geometric thought as found in René Descartes, Euclid, and Immanuel Kant to gain clarity on both what we do when we geometrize and the difference between bounds and limits. With that clarity, we can then examine the Greek texts and some of the interpretations of *Chaos* and *apeiron*. Doing so will reveal that *Chaos* is the very bounding of bounded things, i.e., the coming to be of spatial objects, while the *apeiron* is the self-limiting, unbounded limit of *Chaos*. As its limit, the *apeiron* is thereby that into which bounded things degenerate over the temporal course of their existence. In other words, by reading *Chaos* and *apeiron* together, we can see the spatiotemporal order of the world. Such a vision then allows us to see justice (*dike*) in Anaximander as the arch-rule over even the *apeiron*, as an arch-rule without foundation.

2. The Frame: Descartes, Euclid, Kant

René Descartes, in the Sixth Discourse of his *Optics*, discusses location (*situation*), distance, and shape as three of the six qualities we see of an object.[1] Calculating its distance depends not on its image, but our knowledge of its parts' locations as determined by their relations to our bodies according to straight lines (*lignes*) we imagine drawn from those parts to infinity. He calls this imagining "a natural geometry [*une Géometrie naturelle*]" in which our eyes serve as the points (*points*) of a triangle's base and the object the point of its height. Although an act of our imagination (*imagination*), this geometry "implicitly contains the reasoning" of the mathematics involved with surveying land. The purpose of the *Optics* is to improve our natural geometry so our sight can extend "farther than the imagination of our fathers" (Descartes, 2001b, pp. 65, 104, 106; 1897, pp. 81, 137-138).

But what are lines? What are those things we imagine between eyes and object? Part of Descartes' mission, as he says in the *Geometry*, is to show that, through algebra, we need not trace lines to calculate, for instance, a triangle's height (Descartes, 2001a, p. 178). According to Euclid's first definitions (*horoi*), however, a line (*gramme*) is a "breadthless length" whose extremities (*perata*) are points (*semeia*), which have no parts. Meanwhile, a surface (*epiphaneia*), the first thing to appear, has only length and breadth, and its *perata* are lines. Finally, boundaries (*horoi*) are things' *perata* (Euclid, 1956, pp. 153-154; 2008, p. 6; I.Defs. 1-3, 5, 6, 13). Unlike for Descartes, Euclid's lines do not cut or differentiate between things to mark out different appearances of different things. Rather, they are the conditions under or things through which it is possible for a surface to appear. Qua *perata*, they allow for the epiphany of an *epiphaneia*. *Horoi* hold a thing in its thingness so it can show itself as a thing, present its *perata*. The thing presents itself as bound.

This characteristic of *horoi* is why Immanuel Kant will say, "in all bounds [*Grenzen*] there is something positive." Bounds, necessarily plural (again, a point has no bound

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[1] The other three are light, color, and size (Descartes 2001b, pp. 101-104, 107).

since it has no parts), are of their object or thing. In holding the object such that it appears, they constitute a positive element of it even if they only appear in the imagination, like a line. In this positivity, this being of their object, bounds for Kant "presuppose a space [*Raum*] existing outside a definite place [*Ort*] and enclosing it." For the object to appear as it does, it must appear within a realm for appearing. Thus, bounds are different from limits (*Schranken*), which "contain [*enhalten*]" negation alone, indicate only a thing's incompleteness, that toward which it reaches without being of it (Kant, 2001, pp. 86, 88; 1920, pp. 123, 126).[2]

Using these three thinkers to frame a reading of *Chaos* and the *apeiron*, we can thus far say that, if these terms indicate some kind of difference between things, they should be either limits (*Schranken*), the negation of the things differentiated by *Chaos* or *apeiron*, or bounds (*Grenzen*), that positive element through which things come to appear as they do. If Euclid's language is any guide, the *apeiron* should be related to extremities, *perata* (which Heidegger translates as *Grenzen* [Heidegger, 1977, p. 368]), if only as their negation. The question, then, is what Hesiod's and Anaximander's natural geometries saw, or what can we see in their visions using these later conceptual tools.

3. Epiphanies of the Bounding and the Unlimited: *Chaos* and *Apeiron*

Thus, what did Hesiod and Anaximander see? What was the natural geometry involved, the imaginary triangulation that looked at the world and poetically or speculatively imagined the distance between that world, those things, that world of things, and their origin? When they saw, imagined those origins, as *Chaos* or *apeiron*, did they see a bound or a limit?

A. "protista Chaos genet"

G. S. Kirk and J. E. Raven consider four passages in the *Theogony* where *Chaos* appears, the first being its generation as the first thing. The second appearance speaks of it being burned by the Titans' blast, while the third and fourth of their dwelling across it (Hesiod, 2007, ll. 700, 739, 811, as cited in Kirk & Raven, 2007, pp. 37, 39-40). For them, that first *Chaos* is "a vast gap between earth and sky," which began the world of things,

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[2] To my knowledge, Kant draws this distinction between bounds and limits from G. W. Leibniz. However, for Leibniz bounds (*termini*) "are not things" (Leibniz, 2001b, pp. 244-245), but "a kind of addition [*accessio*]" (Leibniz, 2001a, pp. 96-97). He does not specify to what they are additions, but it cannot be to an unbounded space if "space itself [*ipsum spatium*]," i.e., Kant's *Raum*, is abstracted "from those things that are in it" (Leibniz, 2001c, pp. 270-271).

Because Leibniz refers to bounds as additions, they seem potentially subject to the deconstruction of the supplement to which Jacques Derrida's *Of Grammatology* subjects Jean-Jacques Rousseau (Derrida, 1997, pp. 141-174). Worthwhile though such a deconstruction would be, I prefer to remain with Kant, for whom bounds are positive rather than wavering between a "culminating" and a "Compensatory and vicarious" function for bounded things (Derrida, 1997, p. 145).

plural. They dismiss out of hand its Aristotelian interpretation as space, the Stoic interpretation as water, and the contemporary idea of chaos as disorder (Kirk & Raven, 2007, pp. 36-37, 41). Drawing on an etymology of *cha-* as from *chasko* (yawn or gape [Liddell & Scott, 1940b]),[3] they understand *Chaos* as "a *bounded* interval, not 'void' or anything like that" (Kirk & Raven, 2007, p. 38; my emph.). If it is a thing, an object, *Chaos* would seem to appear as an *epiphaneia*, does thanks to its *perata*. For this reason, they turn to F. M. Cornford's reading (Cornford, 1950, pp. 98-100) where it is the separation between earth and sky, such that it "was not the eternal precondition of a differentiated world, but a modification of that precondition" (Kirk & Raven, 2007, p. 39).

What do they mean by 'modification' and 'separation'? *Chaos*, generated from out of a precondition, as a thing modifies that precondition such that the differentiated world can appear, such that things and objects, plural, can appear and the world come to be as a world, singular. *Chaos* thus does not seem to be itself a thing of the world, but rather the world's appearing as a world of things, the appearing of *epiphanai*, the singular thing through which plural things emerge into view. Thus, while it may have been generated, *Chaos* remains first. And yet, it cannot have itself appeared if it is that through which things appeared. It is, in other words, the original and originary bound of the world of things. As original, it is that through which the world of things appears as a world. However, as originary it is not itself one of that world's things but their bounds such that those things appear as the *epiphanai* they are. What is more, as an originary bound of the things of the world modifying those things' precondition, *Chaos* should not be thought a principle of differentiation, but rather the differentiating itself; a verb, not a noun. The bounding of a precondition is itself that toward which this world can move but never reach without losing itself qua bounded, qua held in itself by *Chaos*. *Chaos* bounds the world as a world of things.

Michael C. Stokes, however, argues that Hesiod's *Chaos* is "both above and below the earth" as well as in "the far West." It thus surrounds the earth, like *aer*.[4] However, he agrees with Kirk and Raven that *Chaos* is between earth and sky. On this agreement, there are two differences. First, *Chaos* is for him "situated," placed, located between earth and sky. Second, this is the location of "*at least an important part*" of *Chaos* (Stokes, 1963, pp. 20-21). For him, *Chaos*, even as gap, is over there, in the far West. It is located

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[3] For Kirk and Raven, the other appearances of *Chaos* refer to Tartaros "considered in terms of, or actually as part of, the original gap." Its later appearances in the *Theogony* leave it as either a part of the underworld or "the region between earth and *aither*." They reject the first option because for them it makes little sense for the heat of the Titans' blast to penetrate to Tartaros (Kirk & Raven, 2007, pp. 38, 41).

[4] He sees no reason why the heat of the Titans' blast should not have been felt in the underworld and claims that the mention of *aither* in reference to what the blast moved across means only that *Chaos* has already been mentioned. Therefore, its specific mention is unnecessary if *Chaos* is earth and sky's gap (Stokes, 1963, p. 19).

in a specific place in relation to our bodies, which our natural geometry may determine by imagining lines drawn from ourselves to it.

It is, then, a thing, and more of thing than for Kirk and Raven. It cannot be taken as the bound according to which things come to light. It seems to be for Stokes like other objects, something that itself comes to light, enough that, even as gap, the points of its extremeties can be identified and discerned, measured in how they bound the lines that bound the shape of *Chaos*. However, Stokes appears not to have taken account of either how those lines are drawn or how *Chaos* itself takes shape, how it emerges or is generated. If it is, like *aer*, what surrounds the world, he does not explain how *Chaos* came to be bounded. Like Descartes, Stokes seems to have presumed the Euclidean conceptions of *gramme*, *perata*, and *horos* without asking what they are, how they are in some sense things without being objects, or to what extent this may apply to Hesiod's *Chaos*.

Somewhat more recently, Robert Mondi agrees with Stokes that *Chaos* is an "existent entity reather than merely the absence of the familiar entities of human experience," taking it as the opposite, not the negation, of the structured world like dark is the opposite of light. However, similarly to Kirk and Raven, he understands it as the mediation of existence and non-existence, "the state or condition of undifferentiated formlessness regarded as an entity in itself." As formless, it is unbounded. As opposite of bounded things, it remains in itself a thing. Mondi argues that his understanding is not anachronistic because only our tendency to reduce such questions to matter and space makes it seem so. What for us is abstract is "a positive state, something akin to an active force" for Hesiod. In this way, and against Kirk and Raven, *Chaos* is not a modification of a pre-existing state, but the pre-existing state itself. As a thing of opposition to structured things, it remains in the world, but "in the mythical twilight," "out of sight but not out of mind" after being limited or bounded (Mondi uses both words) to the underworld once the things of our common experience came to light (Mondi, 1989, pp. 22, 25-26, 35-36, 38).

Yet he may be closer to Kirk and Raven than he believes. If *Chaos* is an active force, it would seem to be, as a thing, not just the mediation of but the mediating between existence and non-existence, the action whereby the ontological difference emerges into view. However, if this link holds sway, just because *Chaos* is formless does not mean it is unbounded. That is, if *Chaos* is the bound or bounding of things, it would not itself have form since bounds form shapes. Yet *Chaos* as a thing, even if formless and in fact because a verb rather than a noun, can be understood as bound: by bounds themselves, i.e., by itself. Such would not mean *Chaos* is self-generated, but that it came to be out of the unbounded of non-existence. Thus, it would be both what Mondi calls the pre-existing state and what Kirk and Raven refer to as a modification of a precondition. Rather than opposed to structured things, it would be their emerging

qua things even while not itself appearing as a structured thing. In this way, it would remain in the world though not appearing insofar as it is the appearing itself, would be out of sight without being out of mind. Each time a structured thing appears qua structured or bound, we are reminded of *Chaos*.

Let us return to Kant, for whom all bounds have something positive about them. Surface, *epiphaneia*, as the space of things, "is itself a space [*Raum*]" (Kant, 2001, p. 88; 1920, p. 126). Hesiod's *Chaos* is this bound, indeed the bounding of that bound, the spatialization of space. It is not a limit (*Schranke*) because it is reached, achieved, even comes to be, albeit not as a thing that appears but that through which things appear as things. Yet, if it is a non-appearing thing through which things of the world come to light as things, plural, of a world, singular, it must remain a verb, an action or acting, an occurring. *Protista Chaos genet* not from nothing but from itself, as itself. *Chaos* generated itself as the generating of generated things. It is the generation of generation, the coming to light of things coming to light, the first and last of things, remaining present and repeating itself with each appearance of each thing until *Chaos* fails to hold them anymore and they reach their limits. This is what Hesiod saw: the bounding act of bounds.

B. "eteran tina phusin apeiron"

Yet as generated, *Chaos* is not so protean. As Charles Kahn points out, by Anaximander's time, over 100 years after Hesiod's, generation "was taken as an obvious fact of nature." Only after Parmenides does genuinely novel generation become impossible to conceptualize. Thus, Hesiod will use *apeiros* and its variants to indicate "what cannot be crossed over or traversed from end to end." Not until philosophy proper, not until Anaximander does *apeiros* become a matter of speculative imagination as opposed to implying "concrete bulk, magnitude, and expression" (Kahn, 1960, pp. 232-233, 236).

If Hesiod saw in *Chaos* the bounding of bounds, what did Anaximander see in the *apeiron*? How to translate this word into our language(s)? Is the *apeiron* unbounded, unlimited, or something else entirely?

> ...some other *apeiron* nature, from which come into being [*ginesthai*] all the heavens and the worlds in them. And the source of coming-to-be [*genesis*] for existing things is that into which destruction, too, happens, "according to necessity; for they pay penalty and retribution [*diken*] to each other for their injustice [*adikias*] according to the assessment of Time [*chronou*]," as he describes it in these rather poetical terms. (Simplicius, 1882, 24, 17, as cited in Kirk & Raven, 2007, pp. 117-118)

Kirk and Raven doubt that by *apeiron* Anaximander could have meant spatially infinite. For them, his use of the word—to the extent we can claim that he used it rather

than Simplicius[5] —indicates either spatially indefinite (i.e., large beyond human imagination) or the material that formed the world, taken as different in kind from the world's elements and so qualitatively indefinite (Kirk & Raven, 2007, p. 110). Turning to Aristotle, who in the *Physics* argues against Anaximander in that one thing's destruction can be another's generation (Aristotle, 1980, 208a), Kirk and Raven argue for Anaximander's *apeiron* as spatially indefinite. Indeed, they point out that Aristotle's argument is in fact Anaximander's since the substances "make retribution *to each other*" (Kirk & Raven, 2007, pp. 114-115).

As to how this *apeiron* operates or where it is, they again turn to the *Physics*, which says it enfolds and steers all things (Aristotle, 1980, 203b). Presenting three possibilities for this enfolding and steering—as 1) an enclosure or a recycling system of things, 2) an immanent power or a principle of change, and 3) what provides the law of change— they reject 1) because, again, substances' retribution is to each other and 2) because it seems closer to Thales or Heraclitus. Thus, they conclude, the *apeiron* is the control of things through a law of retribution operating between opposites, a law that began when the opposite appeared within the *apeiron*, which they translate as "Indefinite" (Kirk & Raven, 2007, pp. 116-117).

If the *apeiron* is not spatially infinite but indefinite and if it lies beyond human imagination, we can still think it in terms of natural geometry. That is to say, the things of the world show themselves to the imagination and therefore as subject to geometry, natural or otherwise. They appear as bounded. But bounds are positive, are things even if not appearing except through the bounded things of the world. As such, bounds are limited by the limit, by that toward which a thing tends without crossing over into it and losing itself qua thing, that is, without the degeneration of what it is. The limit is then something beyond our natural geometry because it is the negation, the beyond, of the things whose location, distance, and shape we measure by our imagination, whose thingness we can imagine.

Yet, the beyond-ness of the limit is itself limited, by the things that degenerate into the limit if they cross into it. In other words, the limit is limited by the very limit it is of the things of the world. As a result, insofar as beyond our imagination, the limit qua limited can be spatial, if indefinitely, can enfold all that is generated, including the world as a world, singular. Such is the *apeiron*, the enfolding beyond of the being-generated of things and world qua bounded.

For Kahn, though, the *apeiron* as enfolding means it is circular, even spherical. Following the *Metaphysics* (Aristotle, 1979, 1012b), it is the starting point of a line, and so the source from which other things emerge. Kahn argues that it was obvious to

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[5] This possibility may be why Heidegger does not cite *apeiron* (Heidegger, 1984, pp. 13, 16).

Anaximander that a thing's generation be different in essence from what generates it, so he concluded that there must be some inexhaustible source of these transformations, giving it the best name "he or any man of his time could *imagine*." Kahn thus translates *apeiron* as "that which is inexhaustible." For him, the *apeiron* stands outside the world, holding it in place in space and time. It is both unbounded and bounded, *apeiron* and *periechon*, distinct even from "the *limited* and perishable structure of the heavens" (Kahn, 1960, pp. 236-237; my emphs.). Although more concrete than later conceptions of a first cause, the *apeiron* remains irreducible to the material or quantitative. Even more, turning to the *Physics* (Aristotle, 1980, 203b), it is also for Kahn "ungenerated," disinct from the gods who might not die but are born, who are generated, as the *Theogony* recounts. The *apeiron* is for him the material rhythm of the world's generation and degeneration of things, enclosing them in their totality such that they are things of a world (Kahn, 1960, pp. 237-238).

However, Kahn may be too loose. Anaximander saw what he imagined as well as a man of his time could. Being distinct from the limited heavens does not mean, though, that the *apeiron* is bounded. If it stands outside the world in order to hold that world in its boundedness, it would not seem to be something positive, as bounds are, and so might be essentially different from what it generates. It cannot be exhausted because it is not a thing to which exhaustion, degeneration, or crossing beyond boundedness applies. Yet it can be more concrete than historically later conceptions of such a source because it is limited by itself, by its being the limit from which all things arise and toward which they all tend on their paths of boundedness, their bounded paths, and their paths as bounded—a circular road. The spatial implies the temporal here.

The fact of being bounded, i.e., generated, is a clue to a thing's path, whether a specific thing or the world as such. But the *apeiron* as distinct even from those most long-lasting bounded things, the heavens, is not of this temporal, bounded order. It is not something positive even while being a thing in some sense. It is not temporal but time, not *egchronios* but *chronos* (Liddell & Scott, 1940d, 1940c), that which assesses the necessity for things' degeneration in their very generation from out of itself. It thus would not appear to be the material rhythm of generation and degeneration, but that from out of which this rhythm emerges.

If this seems anachronistically abstract, that does not mean that it is not what Anaximander saw. As Kahn himself says, he gave what he saw the best name he could imagine. Our forebears' natural geometry always worked with the available tools, even if more sophisticated tools make things clearer down the road.

More recently, Kurt Pritzl holds that the *apeiron* is "'round' or 'spherical'" and neither unbounded nor unlimited, partly to make more historical sense of the difference between Anaximander and Anaximenes such that the latter's *aer* is not taken as a retrogression to a pre-philosohical mythology of elements. However, as round or

spherical, the *apeiron* can for Pritzl be considered a spatial indefinite without making anachronistic appeal to a linear form of infinity (Pritzl, 2013, pp. 26-27). He draws attention to Kahn's two citations of Xenophanes' fragment 28 to argue that, prior to philosophy's emergence, *apeiron* indicated concrete immensity (Kahn, 1960, pp. 146, 233).[6] On this reading, Xenophanes' use of the word means only that "the earth goes all the way down to the surrounding and encompassing limit of the universe." In other words, Anaximander could not conceive of an indefinitely extended *apeiron*, but only the universe's encompassing and ruling spherical *peras*. The *apeiron* is for Pritzl boundless and limitless because it is ageless and cannot be crossed, but it is not spatially unbounded. The ancient circularity of time between generation and degeneration only further confirms this point for him. The *apeiron* is time itself, the force surrounding the world (Pritzl, 2013, pp. 29, 34-35).

Let us return to Euclid. *Horoi* and *perata*, boundaries and extremities, definitions and limits, appear identical in the *Elements*, book I, definition 13.[7] An *apeiron* would thus seem to be what has no extremity or boundary, what continues without definition, or what goes beyond the universe's limit. However, such a concrete immensity need not be material in the literal sense Pritzl indicates, especially if it is time. What goes beyond the universe's limits is its degeneration, the unbounding of the things of the world and the world itself as things and as world, the indefinite whence they came to be. Beyond this material cycle of generation and degeneration, bounding and unbounding, the *apeiron* is seen in Anaximander's speculative imagination. As time, as the beyond and source of generation and degeneration, it need not be immaterial or purely conceptual, but rather the very movement of coming to be and disappearing. As time, it can be beyond the temporal order without being immaterial insofar as it is the *arche* and *telos* of matter understood as bounded.

An-horic and a-peratic, without bound, extremity, or definition, it seems that Anaximander saw the beyond of things and their world. He saw time. Not the circular, cyclical, or spherical temporality of the appearance and disappearance of the world and its things, but time as the condition of their appearing and disappearing, their bounding and unbounding. Thus, the *apeiron* can present no bounds because it is unbounded, but it does not present no limits because it is itself the limit, and is therefore limited by both itself and the difference between itself and bounded things. What Anaximander saw, then, was the condition and limit of temporal action.

4. The Archaic Economy: *Dike* Between *Chaos* and *Apeiron*

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[6] "Of earth this is the upper limit [*peiras*] which we see by our feet, in contact with air; but its underneath continues indefinitely [*apeiron*]" (Xenophanes, 2007, fr. 28, as cited in Kirk & Raven, 2007, p. 175).

[7] "A **boundary** [*horos*] is that which is an extremity [*peras*] of anything" (Euclid, 1956, p. 153; 2008, p. 6).

Chaos and *apeiron*, bounding and the unbounded, generation and its beyond, space and time, bound and limit. These are what Hesiod and Anaximander saw in their natural geometries, in their poetic and speculative imaginations.

If Hesiod's poetic imagination could not, perhaps, exceed the world as things insofar as *Chaos* was generated, he did see that what allows those things to be seen is something itself unseen yet remaining in the world with each appearance of each thing. He saw their bounds insofar as he saw the coming to be of those bounds.

Anaximander's speculative imagination saw farther, to that out of which *Chaos* performed its bounding, to the unbounded precondition of bounding. Insofar as things qua generated are bounded and come to be through *Chaos*, they already imply their unbounding for Anaximander. Every generation of each thing, every return of *Chaos* already hints at degeneration and disappearance beyond bounds, the cross into the limit. In this way, the temporal line as the cycle of appearance, existence, and disappearance—the difference between *Chaos* and its generative precondition—is the non-appearing appearance of that limit, itself not temporal since limits have nothing positive about them.

Hesiod's *Chaos* is a bound, Anaximander's *apeiron* a limit. Between them, so to speak, the spatiotemporal order of the cosmos, of the world and its things, seen by the natural geometries of a poetic and a speculative imagination.

But what of that other important word that appears in the Anaximander fragment, *dike*, 'justice' or, as translated by Kirk and Raven, 'retribution'? If justice is retribution for Anaximander and a retribution that generated things pay to each other according to time's assessment, what kind of exchange or economy is at work here? What mediation between things occurs qua *dike*?

Following Jean-Pierre Vernant (2006), Stathis Gourgouris argues that the pre-democratic *polis* emerged in Ionia from out of the Homeric circle of warriors "in which a man who speaks takes a position at the center of the circle of equals and returns to the circle for the next man to step into the middle, and so on," and that the *agora* is the politicization of the domestic hearth, now "devoted to no divinity." This is, for him, a "geometrics of *meson*, of mediation and middle" because he and Vernant take the infinite to be the mediation of the elements. The infinite as *apeiron* is both what is without limit and what cannot be completed. That is, its non-appearing completion is itself the end of the infinite *apeiron* as limit. Or, the emergence of bounded and finite things is "a disturbance of the infinite" (Gourgouris, 2018, pp. 10, 12, 15). In this way, the *apeiron* is, like the world itself, "incomplete," for their completions are the ends of what they are as unbounded limit and as limited, bounded things (Gourgouris, 2013, p. 115).

However, if we understand the *apeiron* as neither temporal nor limited but rather as time qua the unbounded, self-limited limit of the temporal, bounded world, then the incompleteness of the world and its things is justice, the retribution things pay to each other for crossing limits. That is, incompleteness is the price we pay for being bounded, generated things that appear complete qua bounded yet must, by virtue of that boundedness, cross the limits and degenerate.

Moreover, it is the price the *apeiron* pays as a thing without bounds, as a thing that limits itself to being unbounded, the cost to time of the emergence of temporality and temporal things. Time may be the judge assessing this retributive justice, but the justice applies to time, to the *apeiron* as well. It seems that justice, *dike*, rules over time, *apeiron*, as well. The *apeiron* is the magistrate, *dike* the *arche*. Between *Chaos* and the *apeiron*, between the bounds of the spatiotemporal order and time as that order's limit, there is *dike*, an unbounded, unlimited *arche* of all.

5. Conclusion: Retribution and *Anarchos*

What does it mean for *dike* to rule over *Chaos* and *apeiron*, spatiotemporality and time alike? For it to be the arch-rule?

If it is unbounded and non-bounding, *dike* is not a thing, not even a thing through which things appear. If unlimited, it is not that whence those things are generated and into which they degenerate. It is, rather, that whence both limits limit themselves and things bound and are bounded. As the *arche* of *arche*, *dike* would be that thanks to which there is anything at all, even the limit of things and of limits. No rule without *dike* and nothing to rule without it either. For this reason, it is not distributive but, as Anaximander or at least Kirk and Raven put it, retributive. This retribution is not vengeance or penalty, as Heidegger points out (Heidegger, 1984, p. 42; 1977, p. 356), but the return of a tribute. Here, what is first appears to come second.

If *dike* is the *arche* of even the *apeiron* qua limited, then the limit of the cycle of generation, bounded existence, degeneration is founded on an unlimited ground of justice. The *arche* thus would seem to be found not in founding or on grounds, but as the condition for the atemporal condition for foundations. *Dike* as *arche* founds all in their being limited, the unlimited source of the appearance of justice in a limited, spatially and temporally bounded world of bounded things bound within the limits of a self-limiting, unbounded time. The degenerative return to the *apeiron* is retribution, but not because existence is unjust. It is rather the appearance of the foundation for that which allows for anything to be.

It seems, then, that Heidegger misreads *dike*. For him, "The fragment says: what is present as such…is out of joint" because it has become present, while *dike* is "the ordering and enjoining Order [*der fugend-fügende Fug*]" and *adikias* its opposite (*Un-*

Fuge). The injustice for which substances pay retribution is, on this reading, the disjunction between the things of the world as things, plural, and the between of things as the temporality of being joined in a world, singular (Heidegger, 1984, pp. 40-42; 1977, pp. 354-356). Yet this reading can be turned on its head if we read *dike* as the *arche* of the *apeiron*. That is, if *dike* is the return of an unbounded and unlimited tribute, the tribute was originally paid by an unbounded *apeiron* to *dike* as retribution such that Heidegger's *Fug* can open itself onto the *Un-Fuge* of *adikias* (Heidegger, 1984, p. 43; 1977, p. 357). Again, the second appears first, but there never was a first, never an origin. Retribution, the return of tribute, i.e., *dike*, has no foundation.

Indeed, *dike* as *arche* is an un-founding and the justice found in the world the appearance of that which is without foundation, ground, or *arche*. *Dike* is *anarchos*, without head or foundation or the time between magistrates (Liddell & Scott, 1940a), the foundation for what founds itself as the limited limit of the *Chaos* that bounds the world, singular, of bounded things, plural.[8] *Dike*, then, appears as a retribution for coming to be because it is that which allows the limits of existence to themselves exist. It is always already there, in the un-founded drawing of bounds and the limits whence those bounds may be drawn as the drawing out of order and world. *Dike*, unbounded and unlimited, founds in the de-foundation, un-founds by founding. The *arche* is anarchic, as is, we imagine, only just.

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[8] Similar to Gourgouris and Vernant, for Kōjin Karatani if the *agora* emerged from the circle of warriors, this resulted from Ionia's roots as colonies of the Greek mainland. Dislodged from the latter's social and religious hierarchies, which were "an extension of the old tribal authority," in the former "the priestly caste had no special authority" (Karatani, 2017, p. 55). Karatani makes no distinction between 'unlimited', 'boundless', and 'infinite' for *apeiron*, though he favors 'boundless', presumably because of Daniel W. Graham's reasoning (Graham, 2010, pp. 66-67). What is most important about the *apeiron* as an Ionian *arche* is that "it moves of itself," that in nature matter is not distinct from motion (Karatani, 2017, p. 58).

While I cannot do justice, retributive or otherwise, to his work, in using Graham's translation (Graham, 2010, pp. 50-51), *dike* is for Karatani "*recompense* and *restitution*" and "a call for restitution of isonomia," of Ionian politics as "no-rule" (Karatani, 2017, pp. 15, 57), as without *arche*, following Hannah Arendt's distinction between isonomia and both the *kratein* of democracy as well as the *arche* of monarchy and oligarchy (Arendt, 1963, p. 20). In taking the *apeiron* as an *arche*, even if in motion or as "an abstract idea," Karatani may be betraying his isonomic principles. His *dike*, as a return to nature, remains the restitution of "a substratum or *hypokeimenon*," and therefore to a transcendent *arche* if not to a *kratein* (Karatani, 2017, p. 59).

Distinct from Karatani's reading, *dike* as the anarchic foundation of the *apeiron* that itself limits *Chaos* qua the bounding of the things of the world, as the return of a tribute that was originally a return, seems to be an *anarchos* immanent to all *archai*. This retribution would not be a return to something seemingly instable like self-moving matter or matter qua motion, which is to say, to temporality, an instability limited by the metastability of time. Rather, it would be akin to Derrida's abyss of historiological thresholds in *The Beast and the Sovereign* (Derrida, 2009, pp. 333-334).

Thanks

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