

The Weirdness of Being in Time: Aristotle, Hegel, and Plants

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ABSTRACT

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In this short text, I analyze various senses of being in time. My claim is that time forms a weird interiority through an embrace of whatever is "in" it. I, then, flesh out this claim through a close reading of Book IV in Aristotle's *Physics*, while grafting each "measure of movement," through which the Greek philosopher defines time, onto the movements of plants. The result is a twisting and turning, ramified, wayward temporality that holds every sense of being in time in a vegetal embrace.

KEYWORDS: Aristotle, Hegel, time, space, plants

Whatever happens takes place in time. What kind of place? What does "in time" mean? Is time indifferent or minutely adjusted to "whatever happens" in it? How can a spatial preposition (*in*) apply to a temporal development? And does this strange interiority, presumably devoid of extension, imply the existence of an exteriority, the outside of time, where, perhaps, nothing happens?

These questions are so vast as to accommodate, embrace, and welcome in their disquietude an entire tradition of philosophy extending from Aristotle to Hegel, Bergson, and Husserl, the tradition Heidegger criticized in a famous footnote in *Being and Time* and Derrida revisited in an essay pretending to be no more than a note on that footnote.¹ While he was eager to admit that the essence of technology was nothing technological,

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Heidegger could never accept a parallel thesis that the essence of time was nothing temporal. For him, a geometrical conception of time boiled down to a baneful philosophical misconception, a vulgar everyday understanding that modeled within-timeness (*Innerzeitigkeit*) on the spatial sense of being-in as containment (1962, 338).² The entire argumentative thrust of his magnum opus was an attempt to formulate an existential (ecstatic) notion of time and its corollary, inwardness purged of any and all reminders of space.

Heidegger claims exclusive guardianship over the purity of time irreducible to spatial figures and numeric quotients. I show, however, that the impurity of time Heidegger rejects is vegetal and that the structure of existence he calls *ecstatic* is weird time, twisting and turning into the opposite of a pure conception. In what follows, Aristotle is my guide, notably the dense pages of Book IV in his *Physics*, which Heidegger skimmed over and all too quickly dismissed. This, to be sure, will be neither the Aristotle of the Western tradition nor that of Heidegger himself. Simply put, I propose to retrieve the weirdness of Aristotle in order to reactivate the weirdness of "being in time."

According to its etymology, weirdness, derived from Proto-Indo-European root *wer-, is a becoming that winds on, bending, turning, and, detour upon detour, turning *into* something else (Skeat 1888, 702).³ It absorbs the inward and the outward, while causing both to be wayward. And, at the same time, in the same breath, it signifies fate or destiny, a destination that is impossible to reach as intended, if only because every intention perverts itself all by itself. This is the sense we can glean from the earliest use of the word in English in the fourteenth-century alliterative poem ascribed to William Langland and titled *The Vision and Creed of Piers Ploughman*: "And out of wo into wele / Youre wyrdes shul chaunge" (Wright 1856, 540).⁴

To be fated is not to be subject to a fixed decree concerning one's life, known in advance and utterly unavoidable; fortunes often change in the most drastic way imaginable, and this change is folded into the word *weird*, together with fate. Weird time consists in twists and turns that turn things into their opposites: woes into good fortunes, growth into decay, the same into the other, the extended into the intended, and (why not?) space into time. Its inherent inversion and perversion, its essential pervertibility, is what distinguishes temporalized space from ecstatic temporality. To be in time is to perdure in the twisting and turning, to dwell nowhere but in the swerve that, by dislodging entities from their fixed places and identities, gives them

an opportunity to happen, to take place, to be welcomed in the moment said to be opportune, ripe, properly theirs. It is to experience a dislodging that dispenses to each their own and, conversely (this *vers*, too, is a turn of the weird), an ownness that brings to naught, that destroys and makes fritter away (*katatēkei o chronos* [*Physics* IV.xii.221a33]).⁵

How to interpret this tenuous ownness granted to every entity by its time? Observing the world of plants, we stumble upon the idea of seasonality (an appropriate period of the year for sowing and harvesting; of fruit that is in season or out of season)⁶ and extend this idea, in line with the wisdom of the Hebrew Kohelet (Ecclesiastes), to all existence: "There is a time [z'man] for everything and a season ['et] for every activity under the heavens: a season ['et] to be born and a season ['et] to die, a season to plant and a season to uproot" (Eccl. 3:1-2). The seasons combine planetary and cosmic time with the temporalities of vegetal growth and agricultural practices: sublunar and supralunar rotations, the circular time of repetition and the linearity of growth extending in all directions at once, beginnings and ends that morph into new beginnings. Modernity, in turn, is subtly defined by being out of season-a condition, in which it espies the humanity of the human-by untimeliness, say, that of Nietzsche's meditations (Unzeitgemäße Betrachtungen). The straight line of progress it espouses does not recognize seasonal appropriateness, nor, indeed, other sorts of appropriateness besides the fit of an ideally posited goal and the result, in which it is attained without a modicum of respect to the context of existence.

But Aristotle says something else altogether, and it is worth listening carefully to the strangeness of his words without normalizing them by means of a "commonsense" translation or a conviction that his conception of time is ordinary, vulgar even.⁷ As he considers being "in time," *en chronō* (*Physics* IV.xii.221a19), Aristotle concludes that "all the things that are in time are embraced by time [*ta en chronō onta periechesthai hupo chronou*], just as with other kinds of being-in; for instance, things that are in places are embraced by place" (*Physics* IV.xii.221a28–30). Time is the most intimate of embraces, virtually inseparable from each thing it embraces. Prior to the distinction between passive and active voices, it is a twisting, a turning, bending into a circle, rounding off, including, encompassing (*periechein*) whatever is in it. It sets up a perimeter around each thing that, instead of being thrust unto or imposed, keeps to that very thing's shifting outlines. Rather than a firmly held possession, the thing that is in time's embrace is let go of, or, better, it is held *in such a manner that* the holding itself lets it

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go, sends it to meet its destiny in weird circles, the detours that outline the rounding of time. (Heidegger might have called this holding, which is a letting-go, *Gelassenheit*.)

Here, Aristotle goes further than *Kohelet*. Among the lines of that biblical text, we find: "a time to embrace and a time to maintain distance [*'et lekhabok v'et lerakhok*]" (3:5). (Is the situation of the COVID-19 pandemic, in which I find myself writing this text, not a distant echo of those words?) A rhythmic alternation of opposites (here: embracing and distancing) is disrupted by the Aristotelian notion of time itself as an embrace.⁸ What is "a time to maintain distance" in the context of time that embraces the embrace as much as distance? The quasi-seasonal timeliness of actions appropriate to a situation at hand, on which the biblical author insists, stands in contrast to the untimeliness of time. Or, rather, it stands in contrast to another regime of timeliness, more singularly attuned in its embrace of everything, even of distancing.

The embracing of what is in time by time seems to be a tautological expression repeating the same word, if preceded by a different preposition: "in time ... by time [en chrono ... hupo chronou]." The circle drawn by repetition is another instantiation of time's weirdness, superficially reflected in seasonality: it performs (repeats), right in the body of a philosophical text, the operations of time with its welcoming embrace, as open to receiving as to parting with what it receives. Repeating is doubling and doubling over that which is repeated. It is a strategy of weirding. The welcoming embrace of time is also doubled (unless it doubles) that of a place, which similarly, according to Aristotle, embraces whatever is in a place. And time counts begin, at minimum, with 2 (for instance, two nows), with doubles that, by virtue of a gap between them, are distinct from one another despite their identity. "There appears to be no time between two 'nows' when we fail to distinguish between them" (*Physics* IV.xi.218b30). All time is a meantime, a between-time (*metaxu chronos*) that unfurls and presses on from the doubled to a doubling different enough for someone to discern the difference.

If the two instances of *now* are akin to points in space (and Aristotle, indeed, calls them points, *stigmata* [*Physics* IV.xi.220a11]), then time is what passes—appears and disappears; appears in and as disappearing—between these points. Between them, Aristotle sketches a line (*grammē*: *Physics* IV.xi.220a16), and, millennia later, he is taken to task for this geometrico-philosophical gesture by Heidegger. Still, a straight line connecting two now-points would not be capable of embracing, circumscribing,

or welcoming anything unless it were bent, twisted, weirded. What warps it (and ultimately cuts it short) is that the *nows* are not only points but also limits admitting of a continuity that is markedly discontinuous or ruptured. In a word, punctuated. "Through the now, time is continuous [*sunecheia chronou*: literally, time is held-with, had or held together] . . . and, as a limit of time [*peras chronou*], the now-point is at once the beginning [of the future] and the end [of the past]" (*Physics* IV.xiii.222a10–13). At once linear and nonlinear, spatial and nonspatial, time is itself and its other (space). Its identity stemming from a perpetual casting off of fixed identities, it is particularly well suited for embracing everything that is with a liberating embrace, not detaining but releasing what is in time to its destiny, to its own weirdness.

Time is weird space without extension, the space that is twisted and twisting out of spatiality through an array of spatial figures: points, limits, lines, turns, curves. . . . That is the gist of Hegel's notion of time as the self-negation of space, its *Aufhebung* that, in a twisted way, cancels out and preserves spatiality.⁹ Inspired by Aristotle, he writes in *Philosophy of Nature*: "Negativity, as point, relates to space, in which it develops its determinations as line and plane; but, in the sphere of self-externality, negativity is equally *for itself* and so are its determinations; but, at the same time, these are posited in the sphere of self-externality, and negativity, in so doing, appears as indifferent to the inert side-by-sidedness of space. Negativity, thus posited for itself [*an sich selbst negative*], is time" (Hegel 2004, 33–34).

A chain of negations concretizes spatial existence. A determinate point negates the indeterminacy of space; the reflection of one point in another, from which it is different and in which it is still recognizable, negates the point and produces a line; the self-negation of a line is a plane; and so on. Space expresses "motionless coexistence," because it is given all at once, held or had together in sunecheia, as Aristotle would have said. Time, on the contrary, is movement, and a movement of a specific kind, notably that of negativity, which disrupts the perfect unity of spatiality. Far from a later addition to spatial reality (how to measure this belatedness outside of time, and not *in* it?), time is there all along in the determinate negations of space, punctuating the continuous and the contiguous.¹⁰ Time is the in-between of transitions from abstract spatiality to a point to a line to a plane, in the course of which space grows more richly differentiated and concrete. Ultimately, it embraces space as well. Perspective matters: to glimpse something of time, instead of focusing on those things between which transitions happen, we need to look at the

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in-between, where or when the happening of the transition negates that from which and that toward which it transitions. This happening *is* time, "negativity, thus posited for itself."

Time, then, is weird or weirded space, but the movement of *Aufhebung* is no less weird; it is dialectical weirdness par excellence, the twisting and turning, the destructive-generative perversion of a beginning. One trait of their shared weirdness is the ruptured continuity and the continued rupture of becoming, which Aristotle transposes onto a lapse between two *nows*: "Whenever we recognize that there has been a lapse of time, by that act we recognize that something has been going on [*alla mēn kai hotan ge chronos dokē gegonenai*]" (*Physics* IV.xi.219a7–8). We become aware of the passage of time when we take note of the fact that we have not taken note, that inexorable and ongoing changes have escaped our attention and are now finally blatant. In other words, our inner chronometers (*chronos metron* [*Physics* IV.xii.221a1]) are set off when we concentrate on a lacuna between the two now-points we are comparing, that is, on "negativity posited for itself," as Hegel has it, not on the seamless plenitude of one and the same *now*.

The time of vegetal growth (and of decay, too) illuminates this character of time as such. The increase or decrease of a plant's extension may be observed only across an interval of not attending to it, a gap, in which something has been imperceptibly going on. Time-lapse photography reveals the movements of plants, because it plays with the lapses, the intervals of vegetal events, to which our perceptual apparatus is unable to attend "in real time."¹¹ Beyond these empirical and technical observations, though, the ancient meaning of plants as *growing beings*—the meaning we find in the Greek *phuta* and the one preserved in a semantic afterglow of Greek in the Russian *rasteniya*, for instance—situates them at the forefront of time as measure movement (here, of the movements of growth and, unavoidably, decay). Hence, the conceptual knot, tying together vegetal time with time as such.

At the level of the concept, in turn, the negation of space within space and its negation *tout court* dovetail, making time weird. For Hegel, "the point, the being-for-self, is consequently rather the *negation* of space, a negation, which is posited in space" (2004, 29). It is a determination in space that occupies no space. Time is also a negation of space that preserves, concretizes, and elevates what it negates, albeit as "negativity posited for itself." It shares with the point not only the activity of negating space but also the quality of being-for-self, and this makes the point (as a *now*) weirdly spatiotemporal, spanning space and time. Difference *in* space morphs into

difference *from* space. As soon as the abstract indifference and nondifferentiation of "pure" space are negated, being in space becomes indistinguishable from being in time.

The very language of time is borrowed from the science of space and, in light of its quantification, from arithmetic. Hegel is adamant about this (and is worth citing at length here): "There is no *science of time* corresponding to the *science of space*, to *geometry*.... The differences of time have not this *indifference* of self-externality which constitutes the immediate determinateness of space, and they are consequently not capable of being expressed, like space, in configurations. The principle of time is only capable of being so expressed when understanding has paralyzed it and reduced its negativity to a *unit*. This inert One ... can be used to form external combinations, and these, the numbers of *arithmetic*, can in turn be brought by the understanding under the categories of equality and inequality, of identity and difference" (2004, 37–38).

Spatial figures and numbers express nothing other than a certain understanding of time, one that has paralyzed temporal flux, congealing it in lines or numbers, and that has reduced the negativity of a transition (or what we have earlier designated as "between-time") to an arithmetically measurable (countable) unit. But the problem goes deeper than identifying an erroneous understanding of time, which could be corrected by another mode of understanding. Given the place of understanding in Hegel's *Phenomenology*, it would stand to reason that time is better appreciated in what comes after this stage of consciousness, namely self-consciousness. To understand time is, thus, to fail to understand it within the static schemes and molds at the disposal of this faculty (namely, understanding) best equipped for dealing with spatial realities.

So, what does self-consciousness bring to the table that is absent from mere consciousness? Self-consciousness is the torsion or the twisting of consciousness that attends to itself at the same time that it attends to the outside world. Its doubling, its distribution between itself and the other, a repetition that occurs simultaneously with what is repeated, is indicative of the between-time that flourishes in and as self-consciousness.¹² The "at the same time" of self-conscious hyperattention torn between the object *consciousness* and an external object is, therefore, time itself.

Besides a shift to self-consciousness, another possibility—one that is strongly supported by the spirit and the letter of Hegel's text—is that time expressed in spatial terms is, indeed, inauthentic, but that it is an inauthenticity without an authentic flipside. Dialectically, nothing can be

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understood through itself; everything is to be conceptualized through a negation of itself. In its first determinateness (as a point), space is "the *nega-tion* of space itself" (2004, 31). In its final determinateness (as time), space is again the negation of space itself, if no longer belonging strictly within the ambit of space, as it was in the case of the point. Simply put, to inscribe time in spatial categories is to betray it in the two senses of betrayal: expression and a break of trust.

The ambiguity of time supplements its weirdness, taken strictly as a turning or a bending, if not as a turning around in a drastic change of fortunes. "Both its continuity and its dividedness are due to the *now*" (*Physics* IV.xii.220a5); it "is not the same as movement" (*Physics* IV.x.218b19), yet it is inseparable from movement, being a "measure of movement according to 'before' and 'after" (*Physics* IV.xi.219b2–3);¹³ "perpetually different [*aei heteron*]" (*Physics* IV.x.218a11), it is "everywhere the same and all at once [*autos dē pantachou háma*]" (*Physics* IV.xii.220b6). As the in-between, time is *both*... and ... and *neither*... nor... with respect to these and other opposites.

Thanks to its weirdness and ambiguity, time is bound to stay *adelon*: unclear, murky, invisible, opaque (Physics IV.x.218a33), regardless of how intensely we contemplate and analyze it. It is what elapses by lapsing between two limit-points and is accessible only in retrospect, in the rearview mirror of accomplished change or in an unavoidable delay between the two objects of self-consciousness (namely, consciousness and an external object). Despite what Husserl believes or has to say on the subject, phenomenological time-consciousness is weirdly dialectical. If we are to experience time in the fullness of intuition, we cannot be stuck in the present of perception; we must, rather, circle back to a *now* that belongs to the past, an event or a process that has already happened. We become aware of time's passage when something is no longer present in a redoubled present, when it has twisted free from the tyranny of the now, between the limits that now-points set for a temporal stretch. The straight arrow of phenomenological intentionality bends in such a way that time is displayed before consciousness as what has elapsed: there in not-being-there. It is constituted, for the very first time, through a repetition, a return or a replay of the lapse. Being "in" time is being in what is not itself (in what is not identical to itself) and in what is not in itself (in what "in" itself is already outside or beside itself).

Amplifying this murkiness, as a measure of movement (*arithmos kinēseōs*), time is heterogeneous. In the preceding book (III) of *Physics*,

Aristotle pinpoints four types of movement, corresponding to the categories of substance, quantity, quality, and place. Locomotion, which we conflate with movement as such, pivots on placeness and implies dislocation, a passage from one place to another. The remaining kinds of motion are vegetal: substantive generation and passing away (birth or germination and death); quantitative expansion and contraction (growth and decay); and qualitative change (metamorphosis and metabolism) (*Physics* III.i.201a).¹⁴ Would these not be disparate measures of motion, corresponding to various temporalities? Would "being in time" not lend itself to different experiences depending on whether it is the time of generation and passing away, of growth and decay, of metamorphosis and metabolism, and, finally, of displacement?

In my weird reading of Aristotle on the weirdness of being in time, the vegetality of movements measured according to their corresponding categorial types (substance, quantity, quality) builds toward the vegetalization of time. Let us take these types one by one and ascertain their embeddedness in plant life that transforms time's embrace into the twist of a vine. (I am leaving the category of place out, because plants interact with the places of their growth without negating them and also because displacement has served as the most reliable—human—measure of time ever since the earliest epics.)

The substantive emergence and dissolution of a plant concentrates the discontinuous continuity of time in a seed. "A point," Aristotle writes, "both constitutes the continuity of the line it traces and also marks the end of the line that is behind and the beginning of the line in front" (Physics IV.xi.220a15-17). Hegel analogizes a seed to a point ("the subjective point of life") in his Philosophy of Nature (2004, 303),15 implying that the line, which culminates in it, refers to previous vegetal growth (and the fruit this growth has yielded), while "the line in front" is the growth of a plant to-come. This future growth is not assured: the seed may never germinate or it may do so after an indefinite delay (Marder 2015b). Continuous with respect to the "mother-plant," it is discontinuous in relation to a plant to-come. The seed's being in time is expressed in a suspension between these two lines or limits, where, as Aristotle's text shows, the end as *telos* vacillates on the edge of the end as eschaton, accomplishment passing over into incompletion, the teleological process cut short. But this seriously complicates time counts meant to measure movement: in spite of being one, each point/seed (tēs autēs stigmēs) counts as two-as the beginning and the end, archē kai teleute, even as the end splits, as I have just mentioned, into telos and eschaton (*Physics* IV.xi.220a13–16).

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The hiatus embodied in a seed spells out the sense of intra-temporality: "the generable and the destructible ... are necessarily in time [*phtharta kai* genēta ... anagkē en chronō einai]" (*Physics* IV.xii.221b29–30). The generable and the destructible are "embraced," periechei, by time (*Physics* IV.xii.222a3), which encompasses, as their innermost measure, movements that are logically opposed to one another; it welcomes the one and the other, the one in and as the other. The necessity of this embrace hinges on the interrelation of opposites, confounded and kept apart, piled together and counted in keeping with the singularity of each. *Kairos* is chronos and it is emphatically not chronos. The innermost measure coexists in time with a count that is utterly indifferent to that which is counted. Time is always just right, or simply just, and totally unjust, one-size-fits-all that is expressly unfitting.

Quantitative growth and decay seem to chart a linear increase and decrease of vegetal extension in a movement Hegel associates with the essentially incomplete "bad" infinity. This is the time we are well acquainted with in modernity: the cumulative open-endedness of progress that eschews any inherent limits. Nevertheless, Aristotle encrusts these vegetal movements in seasonality: "Note further that there may be movement that covers the same course over and over again; in like manner, we mark off time by the year or by spring or autumn" (*Physics* IV.xii.220b13–14). Seasonality and the annual cycle bring the seasons together (and maintain them apart), depending on the turning or circling that marries the terrestrial time of plant growth and decay to the cosmic temporality governed by the rotations of celestial bodies. The weird coincidence of a straight line and a circle is the situation of growth and decay: these lines turn out to be the tangents of a seasonal cycle, whose perimeter they graze at a point that germinates in a seed or starts decomposing back into the earth. To be embraced by time in this sense is to stand at the point of tangency between a circle and a straight line.

Seasonality is the appropriate time for the development of beings in season—say, of ripe apples at the end of the summer or in early autumn. Nonetheless, being out of season is not the same as being out of time; it is *still* being in time, if not at the right, opportune moment, propitious to one's developmental course. If "out of season" twists untimeliness into time, that is because the tangent still touches the circle, only at another point, where it should not have been present. The twisting and turning of what is out (of season) into what is in (time) reflects the weirdness of being in time.

Qualitative change is the movement of becoming, conveyed in Greek with two words: metamorphosis and metabolism. In time, the othering of

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the same happens hand in hand with the saming of the other, rendering these opposite tendencies mutually complementary in becoming. Time's embrace means that "movement dislodges an entity from its present state [kinēsis existēsi to huparchon]" (Physics IV.xii.221b2). The dislodgement of the origin is, literally, existence as a coming-out-of-a-state (ex-istēsi) and transitioning to another state, which will be equally provisory. A seedling casts off the form of the seed; a fruit—that of a flower; a seed—that of the fruit that harbored it. Lending a body to becoming in its spatial aspect, metamorphosis constitutes a plant in an exemplary way, applicable to the rest of existence. Here, the same (thing) is othered, and the pace, rhythm, cadence of its othering is time as the measure of movement according to one type of qualitative change.

Whereas metamorphosis is a parade of shapes that, supplanting one another, weave the fabric of ex-istence, metabolism is a throw of whatever or whoever is in time along the vectors of ex-stasis: "Change is in its nature ecstatic [*metabolē de pasa phusei ekstatikon*]" (*Physics* IV.xiii.222b16). The ground rule of metabolic change (of change viewed under the lens of metabolism, which is irreducible to—if, again, exemplified in—the physiology of digestion and the absorption of nutrients that, according to Aristotle, falls under the heading of the nutritive vegetal soul, *to threptikon*) is a transcription of the other into the same, the assimilation of the other that causes it to stand beside or outside (*ekstatikon*) of "itself." Heidegger's ecstatic temporality will have been preempted by the Aristotelian *metabolē*, just as the German philosopher's notion of existence will have been anticipated by *kinēsis existēsi*, the dislodging movement of metamorphosis.

More importantly, though, the nature of metabolism is such that the assimilating, the assimilated, and the movement of assimilation are all metabolized into time. So, "it becomes clear [*phaneron*] that all that changes [*pasa metabolē*] and everything that moves is in time [*en chronē*]" (*Physics* IV.xiv.222b30). The clarity Aristotle refers to here as well as in numerous other instances in his writings has nothing to do with the sterile light of Enlightenment reason. His is, indeed, a light (*phaneron* derived from the verb *phainō*: "I shine")¹⁶ shared with the plants, the solar energy received and transformed on the outer surface of vegetal being and thinking. What we are dealing with here is a photosynthesizing and a photosynthesized thought, phenomenality at its most vegetal, precisely under the aegis of time, in which everything (including thinking) moves and changes. Evidently so.

Still, the turn of the weird cannot leave us (and least of all can it leave plants) bathed in light without a smidgen of darkness. Being in time is

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inching toward nonbeing, passing away, or having already, at least in part, passed away, given that the emergent time-consciousness should have attended to a minimal gap between two *nows*. This ambiguous being-in ought to be rigorously distinguished from an external imposition. If time metabolizes everything, then it is not a gigantic immaterial stomach or intestines that digest beings, but that through which all that changes and moves metabolizes itself. The interiority of *in time* coincides with the exposure of finite existence to its own finitude, and the deeper we delve "into" it, the sooner we surface on the other side devoid of any depth. In this sense, we might speak of the vegetality of time, the movements of plants writ large in the features and essential processes of temporality, where the inner is the outer.

To return to Aristotle's text and the word I have already touched upon, phaneron (obvious, evident, clear) is a counterpart to his earlier complaint about the thinking of time as *adelon* (murky, invisible, unclear). In fact, these two words form the frame, in which the philosophical account of time in *Physics* unfolds. Yet, newly gained clarity does little to make time itself apparent; after all, time is *that in which* the changing and the moving are-"pasa metabolē kai pasa kinēsis en chronō estin," as Aristotle reiterates (Physics IV.xiv.223a15), adding that "time is in the earth, and in the sea, and in the sky [einai o chronos kai en gē kai en thalattē kai en ouranō]" (Physics IV.xiv.223a17-18). A double fold, then, materializes: time is *that in which* the moving and the changing are, even as it is *in* the elements of the earth, the sea, and the sky. A twin of the temporal embrace is the elemental embrace of earthly things and of time by the earth, of marine things and of time by the sea, of celestial things and of time by the sky. Each embrace (the temporal and the elemental) not only clasps and holds tight whatever it embraces, but also embraces the other embrace until, amidst all the apparent obviousness, it is no longer clear where the outside and the inside are; which one is more capacious, roomier, and capable of enveloping the other; where (and if) immanence begins and where (and if) it ends.

And the series of embraces does not stop there. In the concluding pages of Book IV of his *Physics*, Aristotle puts his finger on an aporia—"it would be puzzling, impossible, or a non-starter [*aporēseien*]," he writes—that there would be time without a soul (*psuchē*), because time is a measure of movement and, as such, it requires someone who would be doing the measuring or the counting (xiv.223a20–25). The mutual embrace of time and the elements is embraced by the psyche; "in time" comes to mean, elliptically, "in the soul." Although Aristotle explicitly limits this first and last embrace to

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the intellectual part of the soul, *psuchēs nous* (*Physics* xiv.223a25–26), a vegetal soul also measures time, whether by using red and far-red light "to measure the length of the night" (Chamovitz 2012, 20), whether by resorting to cryptochromes and to circadian clocks in order to regulate leaf movements and photosynthesis (Chamovitz 2012, 30), or whether by discerning the times of year (Chamovitz 2012, 157). Since vegetal movements need to be perfectly timed and plugged into the seasonal cycle, the plant is a groundbreaking chronometer (recall Aristotle's *chronos metron*), *and that is why it is a fitting candidate for the first ensoulment*.

Viewed from the opposite angle, the arithmetic of time where 2 is the smallest possible number belongs in the soul, but—a wild proliferation of embraces and interiorizations notwithstanding—it winds up *weirdly* on the outside. The exposure of finite existence to its own finitude, which is how I have interpreted being in time, comes into its own in the vegetal soul that, like time itself, thrives in and on exteriority. So, what if, rather than a soul starting to pay attention to time in a gap between now-points, it is time itself that germinates when a plant's *psuchē* comes along on the scene of existence? In that case, the inside-out image of temporality I have sketched would be part and parcel of an indelibly vegetal heritage.

Ikerbasque: Basque Foundation for Science & Department of Philosophy University of the Basque Country (UPV/EHU)

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I. Jacques Derrida's essay in question is titled "*Ousia* and *Grammē*: Note on a Note from *Being and Time*" (1982). Heidegger's note is included at the very end of the book, in a section on "Within-timeness and the genesis of the ordinary conception of time." Marked as note xxx in the English translation of *Being and Time* by Macquarrie and Robinson, it aligns Aristotle's and Hegel's respective prioritization of the *now* in the thinking of time and argues that the model for the comprehension of time is essentially spatial (1962, 500).

 Except for the pages of the notes, all numbers refer to the pagination of the books' German edition.

3. The Latin *vertere*, "to become," derives from the same root.

4. Later in *Macbeth*, Shakespeare refers to "the weird sisters" who resemble the Moirai, the three Fates of classical mythology, while also endowing the word with one of its hallmark significations, "wayward."

5. All references to this text follow the standard Greek pagination. Often, translations are mine.

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6. For more on seasonal time with respect to plants, refer to chapter 3 in Marder 2013. This theme is further developed in Irigaray and Marder 2016.

7. The latter is Heidegger's take on Aristotle's notion of time in Book IV of Physics.

8. Claudia Baracchi is attentive to the integration of seasonal, planetary, and divine time with the temporality of human affairs in Aristotle's *Politics*: "The practice of the sacrifices to the gods, that is, the bond between the human sphere and the divine, is aligned with the bond between humans and nature. This mediation draws together the rhythms of nature as well as those of human beings, the cycles of fruit-bearing and barren seasons as well as the cycles of human effort and leisure. It presents nature as the theatre of divine manifestation as well as dictating the times of human gathering, celebration, and ritual" (2008, 289–90).

9. In this sense, Hegel's conception of time is anything but ordinary, the charge Heidegger levels against it: "No detailed discussion is needed to make plain that in Hegel's interpretation of time he is moving wholly in the direction of the way time is ordinarily understood" (1962, 431).

10. In an addition to the paragraph from *Philosophy of Nature* where he defines time, Hegel writes: "In pictorial thought, space and time are taken to be quite separate: we have space and *also* time; philosophy fights against this 'also" (2004, 34). Thus, time is there "all along" despite its emergence from the negation of space in dialectical logic.

11. On the primacy of technological mediation in our relation to plants, of which time-lapse photography is perhaps the best-known instance, consult Castro 2019.

12. This doubling, or speculative fission, is an important moment in the making of dialectical energy. Refer to Marder 2021.

13. Heidegger suggests that, in Aristotle, time "is what shows itself in . . . a makingpresent" by way of counting. Its domestication in the present thus neutralizes its initial weirdness: "This [Aristotelian] definition may seem strange at first glance; but if one defines the existential-ontological horizon from which Aristotle has taken it, one sees that it is as 'obvious' as it at first seems strange" (1962, 421).

14. For more on the vegetality of three out of the four types of movement identified by Aristotle, refer to Marder 2015a.

15. Hegel continues on the same page: "Plant-life therefore begins where the vital principle gathers itself into a point and this point sustains and produces itself, repels itself, and produces new points."

16. This observation has been received with gratitude from one of the article's anonymous reviewers.



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