"Qu'entendent-ils donc par événement?", je lisais la question dans son mouvement de retraite.

Maurice Blanchot, *Le Dernier homme.*

„König Oedipus, der ein Auge zuviel vieleicht hat" [...] Dieser Gesang schließt
      Leben ist Tod, und Tod ist auch ein Leben

Martin Heidegger, *Erläuterung Hölderlins Dichtung.*

After Biodeconstruction in the Neganthropocene
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It's no understatement to write that the event of reading Francesco Vitale's *Biodeconstruction: Jacques Derrida and the Life Sciences* will affect those interested in deconstruction, continental philosophy and contemporary theory like the 'bomb' he once spoke of regarding Derrida's then still-unpublished seminar *La Vie la mort*. Like any worthy of the name for Derrida, whether traumatic or happy, an event constitutes something necessarily singular and unprecedented. Some 'thing' happens or takes place that nonetheless remains ineffable, unforeseeable, incomprehensible, inappropriable, denoting our powerlessness to make sense of it. Unlike Heidegger's *Ereignis*, Derrida explains, the event ought not only be thought in terms of appropriation or the proper, but as ex-propriation, *Enteignis*. "The undergoing of the event, that which in the undergoing or in the ordeal *at once opens itself up to and resists experience*, is, it seems to me, a certain *unappropriability* of what comes or happens. [...] the event is first of all *that which* I do not first of all comprehend" (2003, 90). But while Derrida also explains a traumatic event as the inflicting of a wound onto history, "a traumatic event is not only marked as an event by the memory, even if unconscious, of what took place" (96). It is not something that has merely happened once and for all, "for the wound remains open by our terror before the *future* and not only the past" (96). This upsets our usual understandings of chronology and temporalization: "it is the future that determines the unappropriability of the event, not the present or the past. Or at least, if it is the present or the past, it is only insofar as it bears on its body the terrible sign of what might or perhaps will take place, which will be *worse than anything that has ever taken place*" (97).

      It's difficult to think of a term that will have been subject to more calls for revision, critique or outright dismissal than 'Anthropocene' to name our current planetary disaster, from which the question concerning technics is not far – the 2019 *Global Risks Report* listing data fraud, theft and cyberattacks right alongside environmental and biospherical degradation, as well as climate chaos. Even though the event of the sixth mass extinction is already taking place, we have the terrifying sense that the worst is still to come, for example in our own alternation between mass extinction, Anthropocene, Holocene extinction, climate change, global warming, Capitalocene, Chthulucene, Trumpocene, etc. The immense, indeed *cosmic* unrest, ill-being or *mal-être* that has seized the world in our technological geological age devolves into terror for Bernard Stiegler. But it is thinking's very task, he borrows from Deleuze and Guattari, to constantly confront chaos, and in so doing to open an opportunity to bifurcate away from it. The event of Vitale's *Biodeconstruction* is its role in this very confrontation, in the tools and insights it offers to treat, care for and think – *panser*, to borrow Derrida and Stiegler's pun – the wound in time opened up by the Anthropocene disaster; in the opportunities it offers for rethinking bifurcation in the broader space of a

cosmo-deconstruction. Here, the earth as *planet*, outside any terrestrial rootedness or philosophical concept of 'world,' is revealed in the death and lack that makes it dear, its *dearth*. But as Maurice Blanchot's *Writing of the Disaster* puts it, "the unexperienced experience of the disaster, the retreat of the cosmic too easy to unmask as collapse (the lack of foundation where once and for all, without problems or questions, everything we have to think would be immobilized), obliges us to disengage ourselves from time as irreversible, without Return assuring its reversibility" (1995, 78).

The irreversibility of the arrow of time is at the heart of the question of entropy in the second law of thermodynamics: the tendency of all closed systems towards greater disorder, first observed by Sadi Carnot in 1824 and named by Rudolf Clausius in 1864. Erwin Schrödinger would define the negative entropy or negentropy of living organisms, whose survival depends on temporarily and locally drawing order from their environment through metabolic processes. For Stiegler, "the *relation entropy/negentropy is really the question of life par excellence*" (2018, 39). But as he also points out, negative entropy ought more precisely be referred to as anti-entropy. "There can be no negative entropy: entropy irreversibly increases, whereas negative entropy would imply a reversibility that Carnot, Clausius and Boltzmann all rejected" (305n416). Stiegler brings these notions from thermodynamics to bear on the Anthropocene question in the first volume of *Automatic Society*, developing the notion of the Neganthropocene in response to what Claude Lévi-Strauss might call the 'entropocene.' Lévi-Strauss writes that the world will both begin and end without the human, all of its institutions, morals and customs, cultivation, urbanization, agriculture and creations being "the transient efflorescence of a creation in relation to which they have no meaning, except perhaps that of allowing mankind to play its part in creation." (2012, 1079) Lévi-Strauss understands the human as the most effective means of accelerating entropic disintegration towards its final inertia and general chaos.

> From the time when he first began to breathe and eat, up to the invention of atomic and thermonuclear devices, by way of the discovery of fire – and except when he has been engaged in self-reproduction – what else has man done except blithely break down billions of structures and reduce them to a state in which they are no longer capable of integration? (1079-1080)

The function of civilization is the very production of inertia, at the heart of which lies the notion of information in written and verbal communication, evening out and introducing entropic disorder into a previously organized gap in information. "Anthropology could with advantage be changed into 'entropology,' as the name of the discipline concerned with the study of the highest manifestations of this process of disintegration." (1080-1081) Such an account is, for Stiegler, wholly melancholic, nihilistic and tragic, posing "the question of *becoming without being*, that is, of the *inevitably ephemeral character* of the cosmos in totality, as well as of the localities that form therein that are themselves always factors of entropic accelerations" (2016a, 242-3). To take Lévi-Strauss seriously means to annihilate and reduce to nothing the time or future that separates us from the 'end times,' the apocalypse, to discount the possibility of negentropic deferral simply on the grounds of its ephemerality. Expanding on the above passage in *The Neganthropocene*, "we would have to *dissolve the future into becoming*, to assess it as null and void [*non avenu*], as never coming, that is, *as having ultimately never happened*... We would be forced to conclude that what is ephemeral, because it *is* ephemeral, is merely *nothing*" (2018, 56).

And yet, Lévi-Strauss is tempted to see the incredibly complex mechanisms of civilization "as offering an opportunity of survival for the human world." (2012, 1080) The human for Stiegler has become the enemy both of humanity and life in general in its failure to think human technicity in terms of such a promise or opportunity. He thus poses two challenges to Lévi-Strauss' nihilism: first, "life in general, as 'negative entropy,' that is, as negentropy, is always produced *from* entropy, and invariably leads back there: it is a detour – as was said by Freud in *Beyond the Pleasure Principle* and by Blanchot in *The Infinite Conversation*" (2018, 57). Second, "*technical* life is an *amplified and hyperbolic form of negentropy*, that is, of an organization that is not just organic but *organological*, but which produces an *entropy that is equally hyperbolic*" (57). This dual response ties into a dual critique of Derrida in Stiegler, the first being that Derrida never wrote about entropy in his published work, and the second that he never wrote the history of technical supplementarity that would more rigorously account for the invention of the human. While the human would share with the living in general the reproductive capacity to bring about minor differences in degree through evolution – the negentropic deferral of entropy – as artificial, organological beings, humans can bring about a difference in kind, a bifurcation between closed, entropic, anthropic becoming and open, negentropic, neganthropological futures "that are not reducible to the laws of becoming, which are thus *différances of becoming*, because they counteract it by differing and deferring [*différant*] the 'law of becoming' that is entropy – ephemeral *différances* with respect to what henceforth constitutes the rule of the 'arrow of time,' and a new age of melancholy" (252). Stiegler rehabilitates différance for the purposes of Neganthropology by reading it in closer proximity to Gilbert Simondon's concept of individuation and Alfred North Whitehead's notion of process, as "first and foremost a matter of *economy* and *detour* [and] an arrangement of retentions and protentions" (57). But what would happen, to put it quickly, if 1) an *an-economic*, irreversible expenditure of energy occurs at the heart of différance, where an economic *detour* opens onto a *re-tour* or return without any promise of reversibility and 2) this aneconomy engages an *immemorial past* older than any historical or epochal arrangement of protentions and retentions as the sole condition of a just future?

This essay attempts to stage a dialogue between Vitale's *Biodeconstruction* and Stiegler's recent *The Neganthropocene* through the question of entropy in *La Vie la mort*, a dialogue Stiegler himself plans to engage in *La Société automatique II*.[1] Neganthropology brings together Georges Canguilhem's biology (a recurring theme in *La Vie la mort*), as well as Whitehead's speculative cosmological function of reason "as *functions of life* – against death, but also towards death, *zum Tode*, and through *the* dead, that is, within a life that is what Derrida would come to call *life/death*, which is also what underlies the *life and death drives*, that is, negentropy and entropy" (99). Vitale's *Biodeconstruction* allows us to approach many of Stiegler's key concerns in a new light regarding retention and entropy, particularly what the latter calls *quasi-causality* (after Nietzsche's Will to Power). Quasi-causality designates the originary default through which technics comes about and the *transition* to a Neganthropological future becomes possible. As I've argued elsewhere, however, the best and worst futures, extinction and sustainability, are themselves *effects without cause* of a *nonessential* life death. *La Vie la mort* deconstructs the *essence* of life defined by Aristotle, Spinoza's *conatus*, Leibniz' *appetitus* and Hegel in terms of *ousia*, *aitia*, the oppositions *energeia/dynamis*, agent/patient, act/passion, act/power and the possible, form/matter, etc, all of which ground the living's essence, the *cause* of its re-production, from within.[2] Derrida's readings of Jacob, as Vitale reminds us, present the living in terms of its originary exteriority, its ex-scription into the space of a material environment, its ex-propriation by temporalization and alterity, its relation to a death and irreversible loss of energy it cannot

survive. Stiegler's quasi-causality, by contrast, reads this exteriority historically, in terms of technics, where it falls upon the human to *make* the difference between *devenir* and *avenir*. But I argue that life death requires we rethink the entropocene through what Heidegger in calls a "non-causal meaning of 'letting'. . . something fundamentally different from doing" (2003, 59). As Vitale cites Derrida's *Rogues*, "if an event worthy of the name is to arrive or happen, it must, beyond all mastery, affect a passivity" (2018, 193). It's through *La Vie la mort*'s third session on the last man in Nietzsche and Blanchot– "Transition" – that we will broach this quasi-causal letting by way of Heidegger's notion of *Gelassenheit*. Here, the biodeconstructive event consists of a transition to the Neganthropocene that takes seriously its necessity and impossibility, both beyond the last man and in the impossibility of what François Laruelle might call '*en-après-dernière-humanité*.' We might thus rethink Stiegler's injunction to "become the quasi-cause of nothing – of *nihil*" through what Vitale calls the arche-performative of living-on, particularly its unconditioned, affirmative and testimonial structure "independent from any voluntary, conscious and self-present deliberation" (188). A 'yes,' as he cites Derrida, "without self-recollection [*sans mémoire de soi*] ... saying and describing nothing" (194). We must thus attempt to more clearly situate the problem of the living in relation to that of the immemorial.

I: Biodeconstruction: From Complexity to the Immemorial

Vitale's *Biodeconstruction* opens by outlining how the exteriorizing effects of différance, *grammē*, textuality and the trace – onto alterity in general, death and the outside environment – structure the evolutionary history of life from its most elementary forms, through consciousness and psychical individuality, to cultural and social relations, institutions and technical objects. Derrida had recognized the role of writing and the retentional trace in the constitution of ideal or mathematical objects as early as his introduction to Husserl's *Origin of Geometry*. His slightly later notion of arche-writing, by contrast, was generalized to reformulate Husserl's phenomenological concept of retention to account for the emergence of consciousness from its biological, natural and zoological origins, from passive retention in the lower forms of nature to active memory and recollection in consciousness. Key to this reformulation for Vitale (as well as for Stiegler, he notes) is Derrida's reading of André Leroi-Gourhan's *Gesture and Speech* in *Of Grammatology*, who dates the origin of writing to 30,000 years ago (20,000 years earlier than conventionally accepted). The capacity for writing would have resulted from the freeing of the cranial vault in the human brain, evolutionarily attained through the adoption of an erect posture in *Homo sapiens*' ancestors. "The complexity of the human brain would be in fact the only specific trait that demarcates us from the other higher animals (even if it is a difference in degree and not in essence)" (2018, 20). Such an account is devoid of any anthropocentrism, as Stiegler also recognizes in *Technics and Time I*: the human is only a singular case in the differantial process of life. "Since the *grammē* is older than the specifically human written forms, and because the letter is nothing without it, the conceptual unity that differance is contests the opposition animal/human and, in the same move, the opposition nature/culture" (1998, 137). But Leroi-Gourhan's key insight for Vitale would not be merely situating the origin of writing further back in *Homo sapiens*' prehistory than previously thought, but rather the reiteration of writing itself as the history of life in general. At stake between the amoeba, the annelid and the human is thus only a difference in degree in the flexibility and complexity of a *programme*. As such, Leroi-Gourhan proposes a radical extension of memory beyond being a mere property of the intelligence, now reaching from species to ethnic to artificial memory;

"whatever its nature, it certainly serves as the medium for action sequence [*le support sur lequel s'inscrivent les chaînes d'actes*]" (1993, 328). The opposition between genetic memory and cerebral, cultural and social memory will thus require reelaboration.

For all its technological innovations, however, Leroi-Gourhan claims that the human being today is hardly different from that of thirty thousand years ago, as Derrida also recognizes: "It is precisely the property of the power of differance to modify life less and less as it spreads out. If it became *infinite* – which its essence excludes *a priori* – life itself would be made into an impassive, intangible and eternal presence: infinite differance. God or death" (1974, 131). This citation is difficult; on the one hand, as Vitale puts it, the trace or text-structure of life evolves in complexity from biological organization to human texts in response to the laws of survival. "Therefore, the condition is always the same, but at every step the elaboration of the text is different, the programme and the code of decipherment evolve in complexity and flexibility toward the limited freedom of man" (2018, 106-7). But on the other hand, while a system's disorder grows from low entropy to a high entropy state over time, complexity (which is not the same thing as order) only *initially* grows before decaying, as différance modifies life less and less. This passage from *Of Grammatology* takes place in a discussion of Lévi-Strauss, for whom the technical origin of writing could be read to constitute not only the source of the human's exploitation of a community's subaltern members, but also that of the Entropocene discussed above. What happens to the notion of the Entropocene, then, if writing is generalized to include the history of the living? Does it still allow us to think the *specificity* of our anthropogenic climate crisis or abysmally complicate this? To think these two movements together, however, *both* the history of the living, the evolution of complexity, of life as the negentropic delay and deferral of death and disorder, *and* a deeper, older, irreversible relation to this (heat)death may be, I argue, the role of biodeconstruction in the Neganthropocene.

It was through cybernetics and the study of organized systems that the key paradigms of information theory, namely notions of *code*, *communication, programme, message* and *writing* became extended to research in molecular biology. Vitale notes the likely influence of the 1962 Royaumont conference *Le concept d'information dans la science contemporaine* on some of Derrida's most famous theses in *Of Grammatology*, which the latter would develop in *La Vie la mort* through readings of François Jacob's *The Logic of Life* and Canguilhem's "The Concept and Life." Like Leroi-Gourhan, Jacob notes Norbert Wiener's cybernetic 'program' as bridging the gap between animal and machine.

> 'Both systems are precisely parallel in their analogous attempts to control entropy through feedback,' said Wiener. Both succeed by disorganizing the external environment, 'by consuming negative entropy,' to use the expression of Schrödinger and Brillouin. Both have special equipment, in fact, for collecting at a low energy-level the information coming from the outside world and for transforming it for their own purposes. (1973, 251)

The program allows us for Jacob to clarify a naive or nonscientific opposition between genetic or hereditary memory and nervous or cerebral memory. Modern biology teaches us that life consists of the repetition and transmission of information; "the two turning-points [*points de rupture*] in evolution – first the emergence of life, later the emergence of thought and language – each corresponds to the appearance of a mechanism of memory, that of heredity and that of the mind [*cerveau*]" (254).

For Derrida, however, this schema matter-life-spirit would reiterate a classical, indeed evaluative and teleological architecture. Despite appearances, cybernetics, information theory and thermodynamics do not liberate biology from traditional notions of causality, life, logos, temporality or vitalism, and maintain several metaphysical presuppositions that require deconstruction. Neither Jacob nor Canguilhem will have sufficiently problematized the graphics of life beyond a classical logocentrism, which thus requires reinscription and reelaboration in a broader notion of arche-writing, general text or *pro-gramme*. For Derrida, Vitale explains, "evolution is not a linear and continuous (whether teleological or not) process and does not require leaps and irreducible ruptures" (2018, 64). The only difference is again quantitative – one of greater or lesser flexibility, from the rigidity of genetic memory to the flexibility of cerebral memory, the former constituting the evolutionary roots of the latter. Both cerebral and genetic memory are open to and learn from their outside, whether deliberately or through natural selection; both programs rigidly function on the basis of an internal regulation that "implies for both systems the possibility of being influenced and modified by what comes from outside and thus the necessity of interpreting what comes from outside with respect to the exigencies of the reproduction of the system" (69). Biodeconstruction does not blur all distinctions between genetic and cerebral memory into homogeny, but follows Leroi-Gourhan in proposing an evolutionary yet non-continuous, non-linear, heterogeneous and differantial perspective regarding its genesis. The cybernetic program, Derrida writes, "is itself only intelligible on the basis of a history of the possibilities of the trace as the unity of a double movement of protention and retention" (1974, 84).

However, one might also wonder if to read cybernetics in terms of this dialectic of protention and retention suffices for its deconstruction, or maintains the structures of homogeneity and linear succession Derrida critiques, leaving no room for interruptions (if not absolute ruptures in kind). As he puts it in *Of Grammatology*,

> it is not a matter of complicating the structure of time while conserving its fundamental homogeneity and successivity, in showing for example that the past present and the future present constitute originarily, in dividing it, the form of the living present. Such a complication, which is in effect the same as Husserl described, remains, despite an audacious phenomenological reduction, within the evidence, the presence of a linear, objective and worldly model. (67)

The retention that makes possible the psychic imprint organizes consciousness, as well the living in general, in relation to an originary passivity older than the dialectic of protention and retention, which Derrida calls the fundamental passivity of time, an absolute past that has never been present and can never be recalled to memory. As he writes in "Différance," "the concept of trace is incommensurable with that of retention, of the becoming-past of what has been present." (1982, 21) But one might wonder here how such a temporality, adapted from Blanchot and Levinas, squares with Derrida's readings of theoretical biology. Is it the case that différance must be thought both as the evolution of retentional techniques according to law of survival for the delay and deferral of death *and* this opening onto an absolute past, an entropic degradation that, like evolution and the arrow of time, constitutes an irreversible movement – engaging an originary *inversion* of the law of survival? Derrida seems to point to this impossible relation in "Différance," asking

> How are we to think simultaneously, on the one hand, différance as the economic detour that, in the element of the same, always aims at coming back to the pleasure

or presence that have been deferred by (conscious or unconscious) calculation, and, on the other hand, différance as the relation to an impossible presence, an expenditure without reserve, as irreparable loss of presence, irreversible usage of energy, indeed, as the death drive, and as the relation to the wholly other apparently interrupting every economy? (19)

Let us stage the possibility of such a confrontation in returning to Vitale's book. For Jacob, information theory at first allows one to distinguish between non-living and the living: "the tendency to conserve the order of the system against the general tendency that characterizes the whole matter according to the second principle of thermodynamics, that is to say, the tendency to the irreversible dissipation of energy, to entropy, which necessarily entails a more general tendency to go from order to disorder" (2018, 113-4). In drawing information and order from its environment, the living being is capable of delaying and deferring entropic disorder, death in other words. Information for Jacob is thus negentropic: "entropy and information are as closely connected as the two sides of a coin. In any given system, entropy provides a measure of both the disorder and man's ignorance of the internal structure; and information of both the order and man's knowledge. Entropy and information are evaluated in the same way. One is the negative of the other" (1973, 250). This cybernetic model for Jacob comes to be applicable to everything from organisms, automatic devices and human societies, reiterating what Derrida calls a dogmatic, traditional schema. It does so by privileging the exchange of information over the exchange of matter and energy, and as such, for Vitale, represses the "energetic, economic dimension of the life of the living; the dissipation, acquisition, conservation, and exchange of energy that characterize the life of the living" (2018, 115). While this subordination of energy to information would have its roots in Wiener, Vitale's reading shows us that the reception and transmission of messages is never pure communication. It always involves some decision, some filtering, sifting, sorting activity in an agonistic, economic, differential field of forces, where this principle of selection is itself structured by energetics. Selection does not only occur in the feedback regulation temporarily and locally reversing entropy, but in the very determination of what counts as a message in the first place. This is why Derrida writes that

> There are of course effects of message, information and communication, but on the condition that that they be textual in the last instance, that is to say that the message, communication, information never transmits (never emits, communicates, informs) any content that is not itself of the order of the message, information, communication, that is not itself a trace or a grammē. (2019, 6.3-4)

This is how the general text overcomes the logocentrism in Jacob's programme. But if information works to repress selection in a differential, economic play of forces, this differential play is itself subject to an aneconomic inversion that would return all force into weakness, where selection opens onto alterity in general, an irreversible loss of energy and death drive. This would be one area through which to address one of Vitale's fascinating proposals to confront deconstruction with complexity theory, including the work of Edgar Morin and Henri Atlan.[3] As Vitale puts it, "we must not forget that for Derrida the alterity that inhabits the living as its irreducible condition of possibility is of the order of the absolute alterity: *it is not a merely aleatory disorder*, that can be integrated into a system. For the living, absolute alterity cannot be but (the possibility of) death." (2018, 223n24)

Schrödinger himself would come to retract his earlier claim that organic metabolism is reducible to the mere assimilation of informational orderliness from its environment, pointing instead to the discussion of free energy, "whose relation to Boltzmann's order-disorder principle is less easy to trace than for entropy 'entropy taken with a negative sign.'" (1992, 74). As Jacob adds, all living beings are subject to the principle of minimum energy: "the reactions in the living organisms always proceed in the same direction, towards a decrease of free energy" (1973, 301). That the questions of free and bound or tonic energy return in Derrida's reading of Freud's death drive via Helmholtz is instructive here; différance or the trace may well express the negentropic aspects of survival, but these share a more radical relation to entropy – to différance as irreversible exhaustion of energy, as death drive – than the mere economic negation of entropy in a differantial field of forces. Freud distinguishes between the free energy of the primary process and the bound energy of the secondary process: while the primary process (or pleasure principle) seeks the total discharge of energy – exemplified in the Nirvana principle or death drive towards the inorganic, the secondary process (or reality principle) works to bind and stabilize freely mobile cathectic energy. This resolves, for Vitale, the question regarding the retentional trace in the introduction to *The Origin of Geometry* from the origin of the living to the emergence of consciousness. The secondary (conscious, symbolic, ideal, cultural) process originarily binds the primary (unconscious, spontaneous, natural) process, overwhelming the nature/culture binary. The secondary thus has the status of an originary supplement, an arche-technicity "through which it is possible to refer to the differences of force (free energy/bound energy, investment energy/energy of counter-investment) that generated it but whose presence it is impossible to make manifest" (2018, 154). This is what Derrida calls a 'bindinal' or 'stictural' economy. But this difference of forces ought not be understood in terms of power, propriety or *Ereignis*, it instead aneconomically opens onto a certain powerlessness, expropriation or *Ent-eignis*. "In the guarding of the proper, beyond the opposition life/death, its privilege is also its vulnerability, one can even say its essential impropriety, the exappropriation (*Enteignis*) *which* constitutes it" (1987, 359). For Vitale, it is Derrida's notion of survivance that dissociates binding from the drive to power, and "rearticulates it with différance, at the heart of the living (*life/death*), in order to dissociate the genesis and structure of the living self, and thus the emergence of the psychic system, from the hold of the drive for power or for sovereign mastery" (2018, 165). But what happens when the law of survival – from its organic genesis to psychic individuality and technicity – is itself subject to its own inversion, to its law as the transgression of the law? It's in the *pas au-delà* of this *sur-vie*, where all force is returned into weakness that the performative powerlessness of *Gelassenheit* may be called upon to resist the event of the Entropocene.

II: The Neganthropic Promise and the An-Archic Past

Stiegler would wholly refuse the notion of arche-technicity to describe the exteriorizing effects of différance or the *grammē* at the heart of the living, noting in *Technics and Time I* that "the history of the *grammē* is that of electronic files and reading machines as well – a history of technics – which is the invention of the human" (1998, 137). Stiegler seeks to uncover the specific stage of différance in which intentional consciousness emerges – and thus the appearance of the *grammē* as such – according to a new structure that makes writing in the narrow sense possible; a passage to a new program from the genetic to the nongenetic, organic to organological, endosomatic to exosomatic. Highlighting the necessity to distinguish between epochs, Stiegler reveals the technological rooting of every relation to

time through a historical account of tertiary retentions. This typology of *grammēs* and programs is proposed against the *absence* of epoch Stiegler identifies in the nihilistic fulfillment of the Entropocene. If *phusis* as life is différance, a new specific temporality of life comes into play with *tekhnē,* a rupture taking place *after* the history of life in general: a différance of différance he calls *noetic* différance. Noetic différance maintains what, after Canguilhem and Whitehead, Stiegler calls a vital function: the negentropic deferral of entropy, of life against death, but also possesses a neg*anthropic* function in the deferral of the Entropocene. Stiegler's 'theory of the arche-trace' thus differs from Derrida's in *Of Grammatology* by thinking "the supplement essentially in relation to tertiary retention, that is, to technics, whereas for Derrida the arche-trace constitutes the living trace in general – well before the appearance of tertiary retention" (2018, 160).

The key to Stiegler's disagreement with Derrida arises from specifically distinguishing tertiary from primary and secondary retention. In Husserl's *On the Phenomenology of the Consciousness of Internal Time*, primary retentions are the present's retention of the previous moment in the temporal flux or flow of apprehension or perception. On the basis of data from these retentions in intuition, consciousness is constituted through a secondary set of retentions that are its specific memories, individual and collective. Tertiary retentions, by contrast, are the artificial, technical, supplementary, 'epiphylogenetic' or 'exosomatic' supports to such memories, allowing the conservation and sedimentation of epigeneses in 'the order of survival [*survivance*].'

> [Tertiary retentions] form what Leroi-Gourhan described as the third memory of technical and noetic life, appearing some two million years ago: beyond the common genetic memory of the human species and the epigenetic memory belonging to each individual human, there is an epiphylogenetic memory that constitutes the various forms of inherited and transmitted human knowledge, and through which the transindividual is metastabilized. (156)

As such, Leroi-Gourhan discovers an artificial, exteriorized memory exceeding human nervous memory, a social memory that is no longer organic but organological. Drawing from Jacob in *Technics and Time I*, "epiphylogenesis is a break with pure life, in that in the latter, epigenesis is precisely what is not conserved ('the programme cannot receive lessons from experience')" (1998, 140).[4] Epiphylogenesis thus constitutes the *technological* exosomatization of the programme Derrida and Vitale read as arche-originary in the history of the living, in the exteriorization of genetic and cerebral memory.

Stiegler's history of the supplement unfolds in close proximity to Simondon's theory of individuation, which operates as something of a synonym of différance for the former. The regimes, eras and epochs of différance fall within Simondon's regimes of individuation, of which our current era of exosomatization is said to constitute a fourth stage, following "the physical individuation of entropic becoming, embodied in the crystal; the vital individuation of the living operating through negentropic organogenesis; and the psychic and social individuation that occurs in anthropological exosomatization" (2018, 80). An organological account of noetic différance thus considers the inseparability of technical individuation from psychic and collective individuation, or their 'transductive' relations, "that is, from the fact that some three million years ago a form of life arose that is *incomplete in its material form*, that is, *in its organogenesis*" (207). This originary organological default has an essential relation to temporality. Noetic différance evolves in two stages, first from the

earliest processes of tertiary retentions some 2.5 to 3 million years ago, when exosomatic organs became the main units of selection. Next in the Upper Palaeolithic came about a spatializing of mental secondary repetitions, where these would no longer constitute tertiary *memories* but proper tertiary retentions. This explains why Stiegler seems to be able to *date* Derrida's Blanchotian-Levinasian anarchic past to the emergence of the Lascaux cave paintings. When nongenetic or cultural programs take over from genetic programs, "the whole question is thinking the highly paradoxical possibility of such a relay or passage; this possibility is the unthinkable question of an *absolute past*, of an inconceivable present, which can only be an infinite abyss, a collapse Ricoeur says" (1998, 138). The history of the supplement develops from "what Blanchot called the dreadfully ancient, which, having never been present, remains always yet to come – ever since, at some time during the upper Palaeolithic, a process of grammatization was initiated, which Blanchot's friend Bataille considered to be the birth of art" (2018, 229).

Just as for Derrida, cybernetics and information theory prove unsatisfactory for Stiegler, even in Simondon's reformulations of these, albeit for their failure to account for the 'pharmacological' aspects of exosomatization, "where the *pharmakon* is what *always produces both entropy and negentropy* in ways that are not just those of the living" (268). Stiegler notes the interplay of memory and forgetting in tertiary retention, as did Derrida in his reading of Husserl's "The Origin of Geometry." As pharmacological, "retentional and protentional accumulation and sedimentation thereby constitutes *both a memory and a forgetting*," theorized by Nietzsche but insufficiently thought through (193). Derrida allegedly never considered the notion of *care-ful thinking* [pansée] through which noetic différance could approach the ultimately toxic nature of all tertiary retentions, their bifurcation into both a nihilistic acceleration of entropic becoming *and* an opening to a negentropic future. *Panser* for Stiegler is "to experience this 'stricture' that stretches between possibility and impossibility *as the play of retentions and protentions*" (231). The critique of the Anthropocene constitutes an *impossible critique* in that it must engender a bifurcation in futurity that would be impossible *from within* its own system. I'd showed above, however, that even complicating the cybernetic programme in terms of protention and retention was insufficient for its deconstruction. Because Derrida has often expressed deconstruction as an experience of the impossible, I find it necessary to further problematize this evolutionary epochalization of memory through a relation to an absolute oblivion, an impossibility outside the opposition of possibility and impossibility, one that can never be recalled to memory, incommensurable the play of protention and retention. Such an immemorial trace beyond retention is precisely what a biodeconstructive consideration of quasi-causality or of the effects without cause of a non-essential life death must engage in the Neganthropocene.

Oblivion of initial conditions are the very result of a system's entropic dissipation of energy towards disorder, as Ilya Prigogine and Isabelle Stengers point out. But Stiegler notes both Heidegger and Derrida's silence regarding the second law of thermodynamics, particularly the latter's notion of différance, which "fails to consider life and survival after the thermodynamic question, and its *différance* from the living as anti-entropic locality" (202). Derrida's most fundamental concept ought be neither the trace nor arche-writing, but "*différance as the deferral of entropic and anthropic deadlines by pansée*" (239). Neganthropology is thus presented as a 'non-Derridean reading of Derrida,' beyond 'deconstructive generalities,' taking to task the Derridean 'parrots and monkeys' accusing Stiegler of an anthropocentric interpretation of différance. As we saw with Vitale, however, Derrida does engage the question of entropy in his readings of Freud and Jacob. If information eliminates noetic and vital différance for Stiegler, one could also say that this is because it brackets economic

exchanges of matter and energy in a simple entropy/information binary. But the 'bindinal' or 'strictural' economy Derrida develops through Freud's energetics designates the originary expropriation and disempowerment of the differantial life/death, negative entropy/entropy relations, just as the differential field of forces in the exchange of matter and energy overflows the cerebral/genetic memory opposition in each program's ex-scription. For Stiegler, life and negentropy as defined by Darwin and Schrödinger must be redefined with respect to organology given that "1. natural selection gives way to artificial selection; and 2. the passage from the organic to the organological displaces the play of entropy and negentropy" (2018, 41). But if even the differantial economy within which selection takes place is itself subject to an originary aneconomic inversion, loss of energy and death drive, one must rethink the linearity of this passage from natural passivity to artificial activity, from passive retention in the lower forms of life to active memory and its technical supports in the human. Again, this would constitute the site for a confrontation with Vitale and Stiegler's readings of Atlan and Morin: the aneconomic pole of différance is not a merely aleatory disorder that could be reversed through information, complexity – or even knowledge, I'd suggest (I don't know, though). If the bifurcation Stiegler describes stems from a far more arch-ancient technicity, the entire *integron* bio-eco-cosmodeconstruction must be rethought.

Derrida writes in *La Vie la mort* that what he seeks in the delimitation of programs from the purely genetic to the cerebral, from the upright posture to *zoon logon ekhon* is not opposition, which only erases difference, but heterogeneity and differentiality. "What interests me with respect to the beyond and the step/not beyond [*pas au-delà*], is indeed this limit without opposition of opposition and difference" (2019, 1.17-8). Post-truth discourse in the Entropocene for Stiegler is now reaching an apocalyptic, eschatological limit "in the sense that ἔσχατον refers in Greek to the limit, where eschatology is a discourse on the extreme limit" (2018, 189). *Panser* means to think the limit at the limit of the thinkable and the 'care-able.' The impossible critique of the Anthropocene must be thought in terms of what Stiegler calls a hypercritique that "carries the concept of the limit to its limit in a test of cosmological limits that would have been inconceivable to classical critique" (206). This surrealist, speculative cosmology accounts for local feedback loops or discontinuities at the heart of the cosmic process.[5] Along with Hegel, Marx, Nietzsche, Husserl and Heidegger, however, Derrida "[n]ever acknowledged the immense cosmo-genetic upheaval that followed inevitably from the theories of entropy and negative entropy" (93). This cosmology is inseparable from a certain promise for Stiegler. Neganthropological différance only defers the completion of an *irreducible* entropic tendency: "to differ from and defer the anthropic tendency, expressing an entropic tendency itself irreducible: this has the structure of a *promise that is never kept* but always awaited – because its condition of possibility is its condition of impossibility, and vice versa" (202).

Derrida too writes of an unkeepable, untenable [*intenable*] 'finite promise of the world' in *Advances*, but in relation to a pre-chronological time of incalculable expenditure, irreversible loss of energy, pure consummation and incineration.[6] This seemingly entropic 'genetic' temporality is contrasted with a negentropic, 'cosmic' temporality concerned with restitutions of energy. Stiegler notes that in the Anthropocene, the thermodynamic question of fire, combustion and incineration is "inscribed in the perspectives of both physics and anthropological ecology, at the heart of a renewed thought of cosmos *qua cosmos*" (40). *Advances* engages Stiegler's *Technics and Time I* as "a dramaturgy of temporality that links *doing* to the *fault*, work, labour or *technique* to *default*, performance to finitude [...] a *performative* logic of the event inscribes lack in the operativity of the performance" (2017, 15-6). This

inoperativity is inextricably linked to the question of ethical responsibility. "It inscribes ethical passion where a reflection upon technics until now had risked seeing nothing but an instrumental neutrality and operational calculability" (16). At stake here is the urgent question of (human) responsibility regarding the survival of the cosmos, our world and the earth, perhaps the closest intersection of bio, eco and cosmo-deconstruction in Derrida's work. In the finite promise,

> 'we' will no longer be (simply) gods nor humans; the world will no longer (simply) be neither the world (Christian concept) nor the (Greek) *cosmos*; life itself will no longer be what we thought it was, not always but more often than not until now: the simple contrary of death, as philosophers, biologists, and zoologists believe they can define it, nor even the being of beings in general, the 'there is something rather than nothing.' (48)

The speculative cosmology of Stiegler's Neganthropocene requires a passage from biology to economy (and ecology). We saw above that Lévi-Strauss' positing the ephemerality of the cosmos – and thus discounting of the negentropic by virtue of its ephemerality – dissolves the future into becoming, into *nothing*. By contrast, Stiegler draws from Bataille's 'cosmic potlatch' based on the latter's notion of expenditure, which allows him to "pass from anthropization to neganthropization by cultivating a positive pharmacology no more nor less ephemeral than life that is carried along in becoming, as is everything that 'is' in the universe" (2018, 60). Bataille's notions of general economy and sumptuary expenditure propose neganthropology as "a response to the impotent thought of the last man formulated by Lévi-Strauss in the final chapter of *Tristes tropiques*" (103). But Stiegler reads the unproductive expenditures and aneconomic losses in Bataille's general economy as neganthropic rather than entropic (as it seems Derrida would). As Stiegler puts it, "*every loss sacrifices, sacralizes and sanctifies a default of being older than any being* (and this is how I read Levinas)" (60). Again, the otherwise than being that is the immemorial past is rethought in terms of tertiary retention, its role in noetic différance and the bifurcation it engages between the entropic non-future of becoming, *nihil* and the neganthropic promise of the future. Stiegler indeed introduces the abyssal question of tertiary retention by claiming that "the first man to have died, 'or rather believed to be dead,' is the man of the first present, of the *first temporal ecstasis* of the past, present, and future; a past that was never present gives rise to a present linking onto no past present." (1998, 138) If Stiegler's promise is born from the first tertiary retention of the temporal ecstasis of the death of the first human, how must it be thought in the step/not beyond the limit of the human, the after of the last man? Derrida's promise, by contrast, is older than the something/nothing opposition, the time of originary expenditure "just as foreign to the egological horizon that structures a phenomenology of time (Husserl) as it would to the order or existential horizon of temporal ecstases (Heidegger)" (2017, 32). How might we thus rethink neganthropology, retention, ecstasis, and Lévi-Strauss' last man, as well as that of Nietzsche and Blanchot? What can biodeconstruction, on the way to cosmodeconstruction, afford us in terms of thinking and caring for the chaos of the 'en après-dernière humanité' in the Entropocene?

III: *En Après-Dernière Humanité*: On the way to Cosmo-deconstruction

A passage through Heidegger and Nietzsche in Derrida's *La Vie la mort* is helpful here. Heidegger situates his *Nietzsche* lectures as the clearest site of his confrontation with Nazism. In order to rescue Nietzsche from his biologistic recuperation by Nazism, Heidegger had to

make of Nietzsche a metaphysician by gathering his thought into a unity. The Will to Power, the Eternal Return, transvaluation and the Overman constitute nothing less than the completion of metaphysics as nihilism; the objectification and mechanization of the world and its living and nonliving matter in view of its calculability and use-value, the determination of truth as what secures life's preservation and enhancement, a planetary technology exercising dominion over the earth, ultimately a philosophy of radical killing, a mastery over beings that cannot let beings be, an inability to think the ontological difference or to think being as a question. What could be closer to Lévi-Strauss' Entropocene?

Stiegler identifies the Anthropocene as the accomplishment of nihilism in Heidegger's *Gestell* or positionality. The bifurcating decision between becoming and the future constitutes the very stakes of Heidegger's *Ereignis* or event, in what Stiegler calls the 'co-propriation' of entropy and its negentropic reversal. But the future can be reduced neither to becoming nor to being, since being itself has become *Gestell*. The thermodynamic machine introduces disorder at the heart of humanity and the traditional philosophical thought of the *kosmos* as equilibrium; what results is a malaise or *Mal-être*, "an ill-*being* in the sense that it stems from a *cosmic* disorder affecting – and as its illness [*mal*] – the *being* of Dasein, and, beyond Dasein, 'being without beings'" (196). Heidegger's failure to think through this bifurcation would have led to his notion of *Gelassenheit*, an allegedly prophetic discourse championing terrestrial rootedness according to which "in the future, 'there could arise, hand in hand with the greatest ingenuity in calculative planning and inventing, an indifference towards meditative thinking, a total thoughtlessness" (96). But Heidegger did not see "that meditation, which forms the stakes of *Gelassenheit*, presupposes calculation, *just as negentropy presupposes entropy*" (105). To confuse entropic becoming and the negentropic future makes us powerless, and requires that we confront the impotence of thinking: "its inability to pass from *dunamis* (power or potential in Greek) into action (*energeia*)" (180). *Neganthropos*' task thus does not lie in the supposed indifference of *Gelassenheit*, but in taking care of the collapsing fault or wound in fundamental ontology, the difference between being and beings, and indeed *making* this difference. Following Derrida, however, *panser* must mean "to think care-fully about *différance*, and to *make* it, and to do so in *supplement(s)*, and not in some originary element that would be *eigentlich* temporality" (249). Making *différance* for Stiegler is a matter of performative artificial selection, a decision made possible by tertiary retention. But to interrogate passivity, inoperativity or *Gelassenheit* in this decision, namely the fundamental passivity of time, would not be to return to any authentic temporalization, but to think an irreversible temporal ex-propriation at the heart of any event. Such are, I believe, the stakes of Heidegger's notion of *Gelassenheit*, which calculation in fact presupposes rather than the other way around, just as negentropy presupposes entropy.

Stiegler argues that we require the invention of new norms rather than resistance, for which his reading of Canguilhem serves as an important background. In treating the wound in time opened up by the Neganthropocene, he argues, it is necessary to rethink notions of illness and health by reading Nietzsche alongside Canguilhem, and then read *that* Nietzsche against Heidegger so as to escape him, both of which Derrida does in *La Vie la mort*. For Derrida, however, Canguilhem adheres to the Aristotelico-Hegelian definition of life in his dialectical, immanentist account of the organism's relationship with its milieu or environment – the possession of its essential conditions of re-production from within.[7] But Stiegler adapts this philosophy of life to account for the exosomatic nature of noetic life and its responses to the infidelity of the technical milieu, and thus its break with Darwinian evolution. For Canguilhem, "humankind is characterized by the fact that it produces its *own* milieu, its *own* living environment, and this *self-production* constantly confronts an infidelity to

itself" (65). As such, the human is not limited to its organism, the conditions of its normalcy or pathology extend beyond its body. A diseased organism for Canguilhem attempts to protect or conserve its life while a healthy one realizes itself in inventing new norms, quite similarly to Nietzsche. And noetic life for Stiegler invents a new normative knowledge, no longer merely biological "*but as the vital knowledge of milieus, systems and processes of individuation – where knowledge is the future of life. Here, the concrescence of the cosmos generates processes of individuation in which entropic and negentropic tendencies play out differently in each case*" (41). As such, if Canguilhem writes that life is a neg*entropic* play or gamble against the expanding universe's entropy, this new neg*anthropic* theory of knowledge works to limit the *anthropic* effects of exosomatic organs by increasing their knowledge-generating effects.

> this technical form of life (that Canguilhem described as its own *pathology*, that is, as its own health – as its *normativity*) consists primarily in mortifying itself, always and forever. But in so doing, it leaves traces that will be reactivated inasmuch as they constitute a neganthropological potential. This is what Nietzsche never managed to think with the notion of 'will to power.' (258)

As is well known, Nietzsche sees the Will to Power as the principle of the revaluation of all values. Stiegler, however, reads transvaluation in terms of disorder and order, becoming and the future, and in his interpretation of Bataille's general economy, of sumptuous expenditure against the 'last man.' At the final extremity of the Anthropocene, its 'eschatological' limit as nihilism, the task of care-fully thinking constitutes "a *transvaluation of that transvaluation* of all values that Nietzsche affirmed as the urgent need to leap (*Sprung*) beyond the 'last man'" (209). But this step beyond the last man has nothing to do with transhumanism; as Stiegler writes in *Techincs and Time II*, babbling about 'technics' has come to replace the notion of 'the last man,' as we currently face "the last evolutionary stage of technics: the possibility of an artificial human being who is neither 'last man' nor 'overman'" (2009, 149). He takes this notion up anew in *The Neganthropocene*. "As the 'last man,' he is no longer able to think the *non*-inhuman being that he can be only as noetic – which he can be only insofar as he is in-existent: only insofar as he *does not yet exist*, only insofar as he exists *only as 'not yet,'* always *already* having become anthropic, *all too* anthropic." (2018, 84) Revaluation must thus be extracted from both nihilism and the overman towards what Stiegler calls *Neganthropos*, upon which it falls to *make* the difference not only between being and beings, but between becoming and the future.

Like Stiegler, Derrida in *La Vie la mort* warns against Heidegger's collapsing of Nietzsche's thought into a unity, incapable of thinking the ontological difference. Nietzsche explains that one can only understand his *Zarathustra* if one has one foot *beyond* life; more than life and/or death, what counts for Derrida is this impossible transgression of the *pas au-delà*. To read Nietzsche as saying one self-same thing is to fail to take Nietzsche seriously when he writes in *Ecce Homo* 'I know both, I am both' [*ich kenne beides, ich bin beides*]; Nietzsche is both his living mother and his dead father, and this two is life death. Heidegger's *blindness* before this doubling indeed introduces our transition to his citation of Sophocles' *Oedipus at Colonus* in the conclusion to the *Nachwort* to "What is Metaphysics?": "the *last poetizing* of the *last poet* in the dawn of the Greek world": "But cease now, and nevermore hereafter/ Awaken such lament; / For what has happened keeps with it everywhere preserved a decision of completion" (1998, 238). This lamentation before the horror and abyss of the nothing merits reinterrogation in the step/not beyond the last

humanity, a transition outside active selection and passive reproduction, one without simple 'beyond,' bearing the name 'Oedipus' in Nietzsche's *Philosophenbuch*.

Stiegler's critique of anthropology responds to Lévi-Strauss' 2004 claim that "he is preparing to depart a world he no longer loves" (2018, 34). Nietzsche's last philosopher or last man, Oedipus, refuses to believe that love has departed from the world, but his horror and loneliness before this possibility forces him to speak as if he were two, so as to transition beyond himself. This second voice comes to him as that of a dying man, to whom he begs

> let me spend just one more hour with you, beloved voice, the last faint memory of human happiness. With you I deceive myself about my loneliness and lie myself into diversity and love. For my heart refuses to believe that love is dead; it cannot bear the horror of the loneliest loneliness, and forces me to speak as if I were two.
>
> Do I still hear you, my voice? You whisper as you curse? And yet your curse should make the entrails of this world burst apart! But the world still lives and gazes at me even more brilliantly and coldly with its pitiless stars. It lives, as stupid, as blind as ever, and only one thing dies – man. – And yet! I still hear you, beloved voice! Something else apart from me, the last man, is dying in this universe: the last sigh, *your* sigh, is dying with me, the long drawn-out Woe! Woe! Sighed for me, the last of these men of woe, Oedipus. (2009, 131)

On Derrida's reading, dying and blind, Oedipus is seen by what survives him, the world and its blind and lifeless stars, but in this survival comes about a second, supernumerary, supplemental death, outside the last man that says 'I,' itself dying with the last man, the death of the voice, the voice as other, perhaps the dying universe itself; the writing of my death here intersecting with the death of any 'me.' "The structure of what Blanchot would call here the *narrative voice* is such that who dies outside me (Oedipus), we don't know if it's someone else whose voice or sigh we hear, or if it's the voice itself, of he alone who dies and speaks to himself" (2019, 3.4). Such is the logic of the impossible transgression of the step/not beyond the last man; in the writing of the Entropocene disaster, the cosmic withdrawal revealed in entropic irreversibility opens onto a return, a re-citation of the voice with no promise of reversibility, blurring any linearity between genetic reproduction and cerebral selection. Blanchot's narrative voice allows us to bind the voice of the last man to this cosmic sigh 'woe!,' but requires a necessary rethinking of oblivion beyond the dialectical opposition of memory and forgetting, beyond retention and the forgetting of being. "The terrible loneliness of the last philosopher! Unyielding nature all round him, vultures hovering above him. And thus he calls out into nature: give me oblivion! Oblivion!" (2009, 130).

Blanchot's 1957 *récit The Last Man*, one of his most impenetrable, also demands such a reinterrogation of oblivion. The work presents its titular character as last and not last, still not and not yet existing, supernumerary, one more but only one, and like Oedipus, survived by his very suffering. Its narrator comes to know the last man as if the latter were already dead, and speaks of being more than all other humans in the dissymmetrical 'we' binding him to the last man. This 'we' is maintained through a void the narrator suggests must be respected, even loved, even as the last man is foreign to such bonds. The last man's voice is heard as a universal murmur, a dying sigh, an imperceptible planetary song of gentleness and distance; "in this 'we,' there is the earth, the power of the elements, a sky that is not this sky" (2). The narrator wishes to bear witness to the last man, but to do so requires excluding oneself from this goal. "But slowly – abruptly – the thought occurred to me that this story had no witness: I was there – the 'I' was already no more than a Who?, a whole crowd of

Who?s" (10-11). He thus wonders what would happen if the last man not only disappeared or perished too soon, but already had, "if what I took to be him was only the surviving, silent presence of this suffering, the spectre of an infinite pain that would henceforth remain with us, under the weight of which one would have to endlessly live, labour, die?" (53)

The last man must forget his very being-last in order to be the last, keep his lastness by losing it, in an oblivion that has nothing to do with some psychological or conscious defect or retentional failure. This implies, for Derrida, "between the last and his beyond, a step of transition whose structure is unheard-of, neither dialectical nor anti-dialectical, that neither keeps nor suppresses what it keeps or suppresses, etc" (2019, 3.6) Oblivion is the very air the narrator breathes as he walks by the last man's room; "we were seeing the face of oblivion. It can certainly be forgotten, it indeed demands oblivion, and yet it concerns us all" (1987, 12). Paradoxically, this oblivion is felt as a memory, "this monstrous memory that we have to carry, together, until the transformation from which we will be delivered only by an end I cannot mistake for an easy death" (27). The impossible memory of the immemorial bears the monstrosity of a future from which even my death cannot free me, that of a future suffering that survives my death. Blanchot writes of this as a terror without terror, a movement of distance, separation and attraction revealing "the future of a wholly other figure, necessary and impossible to figure" (33). And yet, the narrator cannot remember this quasi-transcendental (necessary and impossible) future, nor can he forget it. Its terror is felt in a certain calm, as only one can be in the uncertainty between whether some disaster has already taken place or remains to come. "'Yes, I'm calm, but it's already almost like a memory, the most distant of memories.' – 'This has already passed?' – 'Yes, perhaps this has passed'" (60). The past that has never been present and the future that never arrives coincide where oblivion itself offers and promises some remembrance of the worst to come, the suffering that survives us. This coinciding is that of remembering, dying and being dead; death becomes memory itself and thus makes impossible any attempt to gather oneself into a unity so as to withdraw or retreat from death and oblivion. Every memory radiates from this profoundly forgotten point. The last man thus defines himself as this memory.

> Memory that I am, yet that I await, toward which I go down toward you, far from you, space of that memory of which there is no memory, which holds me back only where I have long since ceased to be, as though you, who perhaps do not exist, in the calm persistence of what disappears, were continuing to turn me into a memory and search for what could recall me to you, great memory in which we are both held fast, face to face, wrapped in the lament I head: *Eternal, eternal.*

The 'eternal' in this lamentation must be heard through the complication of selection and reproduction at play in the temporality of return, the infinitely finite; both the repetition and selection of becoming, its *différance* and revenance exceeding the opposition between natural repetition and artificial selection. Reading Derrida's critique of Canguilhem through this temporality allows us conclude by posing some important questions to Stiegler's account of the Neganthropocene.

The selective/reproductive temporality of return itself constitutes a transition to Derrida's reading of Canguilhem, from fiction and testimony to the bio-logical. As he cites Nietzsche's *Philosophenbuch*, while dreaming constitutes a *selective* continuation of visual images, "perhaps man can *forget* nothing. The operation of seeing and knowing is far too complicated to be totally obliterated, i.e. all the forms produced by the brain and the nervous system are then *reproduced* many times by it" (2009, 119). It is because total oblivion is

impossible that all selection is reproductive and all reproduction is selective. This interplay between reproduction and selection takes place in a differential field of forces, but because force is finite, and always weakness somewhere, we could say that this impossible, irreversible oblivion constitutes the originary disempowerment, ex-propriation, indeed pacification of this force-field. This is indeed what Nietzsche reproaches Darwin in the 'Anti-Darwin' fragments of *The Will to Power*: his blindness before the inversion or transgression of the law of survival by life itself, through which the weakest and inferior dominate over the strongest. "Does this inversion in the process of the forces of life not imply somewhere, within life itself, as life itself, a force of death at work, and something like a beyond of the pleasure principle?" (2019, 3.12) This inversion is why Nietzsche sees the values of decadence dominate his nihilistic era, of which he seeks a total revaluation.

We'd seen for Stiegler that Nietzschean revaluation ought be rethought through Canguilhem, that is, as the invention of a new neganthropic knowledge. Canguilhem defines life as creation through the coding and decoding of information against the organism's physico-chemical destruction, negentropy against entropy. This creative aspect of life parallels that of the function of the concept in science; a healthy concept is one that allows progress in knowledge, overcomes error and moves toward a greater variety of information. As Canguilhem writes, "if life has a sense, one must admit that there can be a loss of sense, a risk of an aberration or misdeal. But life surmounts its errors by other attempts, an error of life simply being an impasse" (1975, 364). Stiegler suggests that we approach this schema through his notion of tertiary retention and artificial selection to confront the infidelity of the technical milieu for the human. But what happens when, as Vitale reminds us, the absolute alterity at work in Derrida's programme is not that of an aleatory loss of sense, aberration or misdeal that can be surmounted? If the field of force within which noetic life struggles against anthropic disorder finds itself subject to an originary inversion, its transgression to powerlessness? If the arche-technicity of différance opens onto an entropic oblivion that cannot be recalled either to passive retention in the genetic or specific program, active memory in the epigenetic, cerebral or nervous program, or tertiary retention in the epiphylogenetic or techno-logical program? What comes of escaping Heidegger by reading Canguilhem through *Derrida's* Nietzsche (and Blanchot) rather than Stiegler's for biodeconstruction in the Neganthropocene?

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Derrida returns to our last men in "Of a Newly Arisen Apocalyptic Tone," recalling all the contemporary 'discourses of the end,' "the end of the subject, the end of man, the end of the West, the end of Oedipus, the end of the earth, *Apocalypse Now*" (1999, 145) The dying universe's last sigh 'Woe!' in Nietzsche's German is 'Wehe!,' possibly hinting at the three 'woes' (οὐαὶ) of Revelation, yet lost in its translation as 'hélas' in Derrida's French, and 'alas' in the translation used in "Of an Apocalyptic Tone." 'Malheur,' however, appears to be the translation for οὐαὶ in every French translation of the Bible I can find. It's indeed in the notion of a 'malheur sans mesure' that Blanchot's récit *Death Sentence* concludes, one that for Derrida always refers to an impossible death. The narrator doubles himself in addressing a thought that, like Nietzsche, he has loved alone in life and death: "in absence, in unhappiness [*malheur*], in the fatality of dead things, in the necessity of living things..." (1999, 186). Like Nietzsche's Oedipus and Blanchot's last man, this thought can be understood as a suffering that survives the transition beyond the last man, one that "condemns us, perhaps,

to immeasurable unhappiness [*malheur sans mesure*], but if that is so, I take this unhappiness upon myself and I am immeasurably glad of it and to that thought I say eternally 'Come,' and eternally it is there" (186). Blanchot's last man too is himself noted for his "happiness of saying yes, of affirming without end" (1987, 4).

In a seminar on Blanchot's first novel *Thomas l'obscur*, Derrida claims that this 'come' in *Death Sentence* is said "a wound that could no longer be thought [*pensait*], so there, a play on words, it's a wound that cannot be treated or cared for [*panse*], p.a., passage from p.e.n. to p.a.n., it's a wound that doesn't scar, that one cannot treat or care for" (1977, 3.38) This wound cannot heal because through it, thinking no longer relates to itself, it is outside and beyond itself. This dissymmetry in space is not the mere reversal of the relation whereby thinking thinks an object; here, the unthinkable relates to thinking from an outside, an abysmal darkness. "Soon the night seemed to him gloomier, more terrible than any other night, as if it had really come out of a wound of thought that could no longer be thought, of thought ironically taken as an object by something other than thought." (2005, 33) This final 'Come' is, as is well known, at the centre of Derrida's analyses of Blanchot in "Pas," also mentioning in "Of an Apocalyptic Tone" that all the 'come's in Blanchot's work "resound, harmonize with a certain 'Come' (*erkhou*, *veni*) of the Johannine Apocalypse" (1999, 153) But this 'Come' is also at the heart of what Vitale calls the arche-performative of living-on, whose originary iterability and citationality attests to the structure of affirmative repetition, "à l'affirmation qui s'affirme, ne se produit comme appel unique de l'à-venir que comme la volonté de se répéter, de s'allier avec elle-même en ce qu'elle affirme, éternellement. Autre pensée du retour éternel à partir de laquelle relire cette écriture citationelle ou récitative." (2003, 21) 'Come' is said both to an immesurable woe and to rejoicing; it thus structures the law of inversion according to which the greatest force can become the weakest, where its indestructibility is its incapacity, "l'étrange passivité d'un impouvoir procédant de ceci que la force est donnée, de l'autre reçue, reçue de l'autre à qui elle est aussi donnée, d'où l'éternel anneau, l'annulation sans fin relançant une alliance sans dette, un don sans crédit. Il s'effondre dans le malheur sans fond..." (22) This force, Derrida explains, is only excessive in its différance, its doubling into passivity, its movement only describable in terms of "l'é-loignement du *viens* et non l'inverse." (31) This de-distancing of the 'Come' itself constitutes the ex-propriation on Heidegger's *Ereignis*; "l'*Entfernung*, que j'ai proposé de traduire par é-loignement, et l'*Ereignis* (l'événement, mot dans lequel on en est venu, abusivement sans doute, à lire le *propre (eigen)*, voire le procès du proche *(prope)* ou de l'appropriation, et vers lequel je voudrais – ici te donner à entendre le sous-venir sans mémoire d'un *viens*" (33).

Derrida returns to Oedipus as the last man almost 20 years later in his seminars on witnessing and hospitality by returning to Heidegger's *Nachwort* to "What is Metaphysics," which, as we saw, closes by citing the last poeticizing of the last poet of ancient Greece, Sophocles, translated by Hölderlin – indeed Hölderlin's last work. Hölderlin's writings regarding a decision made before the flight or advent of the gods wholly informs Heidegger's notion of the event, and we could say corresponds to Stiegler's bifurcation between becoming and the future.[8] We also noted Heidegger's "Hölderlin's Earth and Heaven" in epigraph, referencing "King Oedipus who perhaps has one eye too many," before citing its conclusion, "Life is death, and death is also a life" (2000, 189) Language for Hölderlin itself bifurcates between the most innocent and most dangerous of goods, and was given to the human so that it may bear witness to what it is, "so that creating, destroying and perishing, and returning to the everliving, to the mistress and mother [...],/ to have inherited from her, learned from her, her most divine gift, all-sustaining love" (54). The translation Derrida uses for *die allerhaltende Liebe* is *l'amour qui conserve l'univers*. But perhaps the condition

of witnessing, on the way to cosmodeconstruction, may not be language or technics as the proper of the human, but lie in the arche-writing and arche-technicity of living-on. This could be what it means for the human to be an inheritor, both of the genetic, epigenetic and epiphylogenetic programme and its inversion into an immemorial nothing. The end of the *Nachwort* for Derrida precisely situates Oedipus as he who bears witness to the revealability of the nothing, at a point where extreme inaugurality coincides with extreme eschatology, and the space for a decision regarding the event is prepared, but one from which, as we cited Blanchot in epigraph, the question of the event must be heard in its withdrawal. The seminar closes with some marginal notes on *Gelassenheit*, which we can briefly elaborate here in concluding. Heidegger writes of a different relation to technics through which it can be left alone and no longer dominates, warps, confuses or destroys our nature. "I would call this comportment toward technology which expresses 'yes' and at the same time 'no,' by an old word, *releasement toward things*" (1969, 54). This releasement or *Gelassenheit* goes hand in hand with what Heidegger calls an openness to the mystery (*Geheimnis*) in which the essence of technics both shows itself and withdraws. Releasement and openness "grant us the possibility of dwelling in the world in a totally different way. They promise us a new ground and foundation upon which we can stand and endure in the world of technology without being imperiled by it" (55). But if this promised dwelling must be thought beyond terrestrial rootedness, as Stiegler correctly notes, one must also resist the temptation to think it as the collapse or lack of foundation that would forever immobilize thinking, as Blanchot writes above, immobilizing our efforts to *panser* the wound in time. Because disengaging from the irreversible time of the Entropocene signalled in cosmic withdrawal promises no reversibility, it is only through the non- or quasi-causal meaning of letting or *Gelassenheit* that life in biodeconstruction, as survivance, opens onto a return, perhaps the Neganthropocene detour, or the impossible transition beyond the last man.

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[1] Cf, 2018, 304-5 n411.

[2] Cf. my reading of *La Vie la mort* in Lynes, 2018. Both *Biodeconstruction* and *The Neganthropocene*, which deal with many of the key stakes of my book, were published shortly after I submitted the final version of this manuscript, and thus could not be examined therein. I therefore take this opportunity to thank Francesco for his warm invitation to respond at length to his work.

[3] As does Stiegler as well, noting, however that "Morin, like Atlan, overlooks the essential, namely the organological dimension (that is, the technical and artificial dimension) of the negentropy characteristic of *Anthropos*, which means that it is also pharmacological, that is, both entropic and negentropic." (2018, 55) I plan to examine Morin's *Écologie généralisée (oikos)* in another work.

[4] Stiegler does, however, recognize the effect of epigenesis upon genetic selection, as well as the necessity of an engagement with embryology, through which another crossing with Vitale's readings of C. Francis and Catherine Malabou could be attempted.

[5] Stiegler lists here Schrödinger, Atlan, Prigogine, Shannon, Wiener, von Foerster and Simondon as describing similar discontinuities.

[6] For more detailed analyses of this text, see my "The Posthuman Promise of the Earth" in Fritsch, Lynes and Wood 2018, and "Auparadvances" in Derrida, 2017.

[7] For Nietzsche (whom Derrida is surprised Canguilhem never cites), health and disease "are not distinct entities which would quarrel over the living organism like a battle field... there are only differences of degree between sickness and health: the exaggeration, disproportion, disharmony of normal phenomena constitute the morbid state" (2019, 3, 17–18). For a more in-depth reading, see Lynes 2018, 25-28.

[8] Vitale notes Derrida's *Demeure: Maurice Blanchot* regarding the relations between testimony and survival, adding that "It was by working on 'Demeure' that the urgency of engaging with the 'early' Derrida around the question of the survival of the living (on) emerged" (2018, 235n24). *Demeure* is itself adapted from the seminars on witnessing, an engagement with which I develop at length in *Dearth Volume I: Eco-Deconstruction after Speculative Realism*.