DEEP TIME ECSTASY: PONDERINGS FROM BEYOND THE TIME-WALL, COURTESY OF PETER SLOTERDIJK

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Review essay of *Infinite Mobilization*, by Peter Sloterdijk, translated by Sandra Berjan, Cambridge, Polity, 2020, 240 pp., \$24.95, ISBN: 978-1-509-51847-0.

A THINKING AVALANCHE

"[A] real critical theory, should it exist one day, will be identical to authentic mysticism." It is with these cryptic words that the philosopher Peter Sloterdijk concludes Infinite Mobilization, a recently published translation of a collection of essays that initially appeared in German in 1989 under the title Eurotaoismus: Zur Kritik der politischen Kinetik. With such a conclusion, one would perhaps be surprised to learn that the volume is in fact a rumination on modernity, and in particular on the alienation of the modern subject. As the original title suggests though, the master signifier in Sloterdijk's narrative of modernity is that of kinetic motion, which is loosely associated throughout the volume with a number of other traits that have conventionally been used to describe the modern epoch: as, for instance, internally contradictory, crisis-ridden, alienating, and nihilistic; but also dynamic, emancipatory, self-reflexive, and full of bourgeois ingenuity. To partake in the process of modernization is to harness, organize, and put beings to work at ever-intensified rates of speed and at ever-wider spatial scales; it is to, just like the Big Bang, explode ever-outward from the singularity of the self-positing "I," expanding ever-quicker, without knowing beforehand whether one is bound to return with full force to be annihilated in a Big Crunch or continue expanding to

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¹ Sloterdijk, Peter, *Infinite Mobilization*, trans. S. Berjan, Cambridge, Polity, 2020, p. 152 (subsequently referred to in the text as IM).

the point at which movement becomes indistinguishable from inertia. It is the many ambiguities of modernity, and the fact that the forward-trajectory of progress feeds from dialectical tension, that interests Sloterdijk. As another prominent interpreter of the modern condition put it: "[t]o be modern is to find ourselves in an environment that promises us adventure, power, joy, growth, transformation of ourselves and the world – and at the same time, that threatens to destroy everything we have, everything we know, everything we are." If anything, the core trait around which Sloterdijk's entire volume circulates is precisely modernity's self-destructiveness, in the ontological sense of the word; namely, the proverbial melting of the individual subject into the air (*IM* 21); a fundamentally paradoxical experience that he thinks only a mystic can fully appreciate.

If these introductory remarks sound about as enigmatic as Sloterdijk's own concluding words, then it is because the central argument of the volume evades easy summary, which, on a surface level at least, is problematic, since it might lead the reader to believe that there is really nothing new to be found therein. It does admittedly look, at first glance, like a belated arrival of ideas that were fashionable in the 8os and 9os. That we live in an increasingly fast-paced world – one of planetary-wide logistics, hostage to the periodic process of turnover – is for instance not a particularly novel observation. Neither, really, is the remark that such an accelerated rate to the pace of social life has been accompanied by an uncanny sense of a lack of real transformation. In the work of cultural critics such as Fredric Jameson, Marshall Berman, and David Harvey, much has already been made of the process of modernization as an overwhelming change in the experience of space and time, particularly in relation to the strange mixture of movement and stasis that characterizes the goings-on in the modern epoch and upon which these scholars place considerable emphasis.³ So, while Sloterdijk is a writer who, in the vein of Nietzsche, likes to fashion himself as an untimely character – a polemicist and a provocateur who brings a message for an audience

² Berman, Marshall, *All That Is Solid Melts Into Air: The Experience of Modernity*, Harmondsworth, Penguin, 1988, p. 15.

³ See Berman, All That Is Solid Melts Into Air: The Experience of Modernity; Harvey, David, The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change, Cambridge, Blackwell, 1989; Jameson, Fredric, Postmodernism, or, the Cultural Logic of Late Capitalism, Durham, Duke University Press, 1991; Jameson, Fredric, The Seeds of Time, New York, Columbia University Press, 1996.

that is yet to come, or, one that must at the very least be invented autogenously in the act of publication – it is almost unavoidable to question the authenticity behind this self-cultivated image. Without a translator's preface, one might at the very least wonder about the reason behind Polity's decision to contract Sandra Berjan – who, as far as I am concerned, has otherwise done an excellent job – for such an undertaking right now, more than thirty years later, especially given the fact that some of the essays have already appeared in English previously.⁴ Insofar as this collection provides yet another immanent critique of modernity, how might it possibly be able to illuminate the discursive terrain of the second decade of the twenty-first century, which, long since the heydays of postmodernism, has left this seemingly exhausted project behind?

What makes the translation surprisingly timely, however, is the fact the essays engage with some of the concerns that have become relevant lately in the discourse of the so-called "Anthropocene." A general leitmotif throughout the volume is Sloterdijk's conviction that a critical theory adequate to the global condition of late capitalism and the associated planetary dominance of modern technology requires that we reconceive of the modern sense of history as something over and above the natural world, and thus interrogate the philosophical foundations for historiology as the scientific study of history. At the very least, this makes *Infinite Mobilization* a worthwhile read alongside more recent methodological critique by historians like Dipesh Chakrabarty, who has consistently argued that the anthropogenic nature of global environmental change has breached the once seemingly impregnable ontological wall of separation between the human- and the natural sciences, from which "[...] the need arises to view the human simultaneously on contradictory registers: as a

⁴ Sloterdijk, Peter, "Eurotaoism," in *Nietzsche and the Rhetoric of Nihilism: Essays on Interpretation, Language, and Politics*, in eds. T. Darby, B. Egyed, B. Jones, and trans. M. Eldred, Ottawa, Carleton University Press, 1989; Sloterdijk, Peter, "Mobilization of the Planet from the Spirit of Self-Intensification," trans. H. Ziegler, *TDR*, Vol. 50, No. 4, 2006.

⁵ Zalasiewicz, Jan A. et al., "The New World of the Anthropocene," *Environmental Science and Technology*, Vol. 44, No. 7, 2010.

⁶ There are also striking similarities between what Sloterdijk is up to in *Infinite Mobilization* and architectural theorist Manuel De Landa's work on the philosophical historical implications of far from equilibrium thermodynamics, which De Landa employs in an effort to widen the humanistic sense of history beyond the strictly human domain. See De Landa, Manuel, *A Thousand Years of Nonlinear History*, New York, Zone Books, 1997.

geophysical force and as a political agent, as a bearer of rights and as author of actions; subject to both the stochastic forces of nature (being itself one such force collectively) and open to the contingency of individual human experience; belonging at once to differently-scaled histories of the planet, of life and species, and of human societies." The existential implications of the Anthropocene, then, lies precisely in its insistence on situating humans and their actions within the large-scale structure of the earth as a whole; that is, within planetary assemblages that emphasize the fluidity, exchangeability, and multiple functionalities of systems and their connectivity, and in whose midst humans and their technologies constitute but certain constellations in the fractal geography of the earth system.⁸ As Sloterdijk himself puts it, humanity has become a "thinking avalanche[;] [...] a self-reflexive natural catastrophe." (IM 3). The ontological shift to such an immanence of forces is what makes his adoption of the physicalist terminology of kinetics so fitting; and which, as a side note, also puts the volume in indirect conversation with the philosopher Bernard Stiegler's examination of the Anthropocene through the lens of thermodynamics.⁹

But even though Sloterdijk has, for the abovementioned reasons, been called "[...] an Anthropocenic thinker *avant la lettre*," the volume in question, because of its publication long before Paul Crutzen's coinage of the term, draws upon theoretical resources rarely invoked in debates about humanity as a geological force. For heuristic purposes, its thematic structure can be summed up as a

⁷ Chakrabarty, Dipesh, "Postcolonial Studies and the Challenge of Climate Change," *New Literary History*, Vol. 43, No. 1, 2012, p. 14. See also Chakrabarty, Dipesh, "The Climate of History: Four Theses," *Critical Inquiry*, Vol. 35, No. 2, 2009.

⁸ See, for instance, Bonneuil, Christophe, and Fressoz, Jean-Baptiste, *The Shock of the Anthropocene: The Earth, History, and Us*, trans. D. Fernbach, London, Verso, 2016; Davies, Jeremy, *The Birth of the Anthropocene*, Berkeley, University of California Press, 2018; Chakrabarty, Dipesh, *The Climate of History in a Planetary Age*, Chicago, University of Chicago Press, 2021.

⁹ Stiegler, Bernard, *The Neganthropocene*, ed. and trans. D. Ross, London, Open Humanities Press, 2018. See also Hui, Yuk, and Lemmens, Pieter, "Reframing the Technosphere: Peter Sloterdijk and Bernard Stiegler's Anthropotechnological Diagnoses of the Anthropocene," *Krisis*, Vol. 2, 2017.

¹⁰ Lemmens, Pieter, and Hui, Yuk, "Apocalypse, Now! Peter Sloterdijk and Bernard Stiegler on the Anthropocene," *b20*, 2017.

[&]quot;Lately, Sloterdijk has occasionally also made explicit reference to the Anthropocene. See Sloterdijk, Peter, "The Anthropocene: A Process-State at the Edge of Geohistory?," in *Art in the Anthropocene: Encounters Among Aesthetics, Politics, Environments and Epistemologies*, eds. H. David and E. Turpin, and trans. A.-S. Springer, London, Open Humanities Press, 2015.

marriage between the total mobilization of Ernst Jünger and the dromology of Paul Virilio, interspersed with the risk society of Ulrich Beck and Martin Heidegger's interpretation of the will to power as the self-recapitulation of the identical. Underscoring the anthropogenic environmental factors through which the metabolic bodies of modern societies alter the conditions for habitable circulation, 12 Sloterdijk's is an ecological interpretation of modernity's pathological pursuit of the competitive advantage of speed. To some degree, the volume can thus be understood as a contribution to the development of a critical theory of social acceleration, a project most notably advanced by the sociologist Hartmut Rosa.¹³ Yet, there is a significant difference between the analytic framework of Rosa's - whose Doktorvater was the former director of the Institute for Social Research at the University of Frankfurt, Axel Honneth - critique of social acceleration and Sloterdijk's own so-called "critique of political kinetics." Ever the self-proclaimed adversary of the second generation Frankfurt School, one of Sloterdijk's main objectives in *Infinite Mobilization* is to, in its stead, propose a Freiburg School – the academic home to the faculty chair in Husserlian and Heideggerian phenomenology – of critical theory (IM 50-51), and thus a critique of modernity no longer reliant in the last instance upon negation – which Sloterdijk sees as the fuel to the philosophical heat engine of modernization (IM 61-63) – but rather upon a particular kind of affirmation that would, pace Nietzsche (IM 59), release us from our compulsion to keep accelerating toward the abyss of ecological collapse as we obsessively manufacture ever-greater degrees of risk.

There is also a notable difference in style. In contrast to Rosa's comparatively methodical approach, mapping out the key internal and external drivers of social acceleration, Sloterdijk's prose is, to say the least, academically unconventional: associative and dramatic, intellectually demanding and conceptually eccentric, yet metaphorically creative and full of wit. Although Rosa is right to point out that Sloterdijk's re-examination of modernity as the mobilization of immense

¹² To evoke Marx's definition of "labor." See Sloterdijk, "The Anthropocene," p. 328.

¹³ Rosa, Hartmut, *Beschleunigung: Die Veränderung de Zeitstrukturen in der Moderne*, Frankfurt am Main, Suhrkamp, 2005; Rosa, Hartmut, *Weltbeziehungen im Zeitalter der Beschleunigung*, Berlin, Suhrkamp, 2012. Note, however, that the essays in *Infinite Mobilization* predate Rosa's published writings on the phenomenon of *Beschleunigung* by almost one and a half decade.

kinetic forces "[...] remains highly speculative, rather unsystematic, and lacking an empirical grounding,"14 I believe that the volume is better approached as a loose collection of thought-provoking interventions than a treatise. Certainly, a skeptical reader could make a fairly convincing case that many of the themes developed therein are products of Sloterdijk's questionable indulgance – couched in poetic license – in exploding metaphors – "spheres," "immune systems," "automobility," etc. – for the sake of generating speculative analogues. A sympathetic reading, on the other hand, would position his contributions somewhere in between Hans Blumenberg's metaphorology and Gilles Deleuze's conviction that philosophy consists in the creation of concepts. Still, the reader ought to beware of their expectations. In order to avoid unnecessary frustration, it is important to note that Sloterdijk's aim is not to convince his interlocutors of an overarching argument, but to offer some conceptual tools to encourage their venture into previously unexplored semiotic spaces. What new lines of flight might be offered by an interpretation of modernity as a process of "planetary mobilization" (IM ix), summoning us to action by the promises of a "kinetic utopia" (IM 2-3) in which we will be delivered from ontological insecurity? Part of the allure is Sloterdijk's refusal – or disinterest really – to provide any simple answers. Like the rest of his oeuvre, Infinite Mobilization is therefore notoriously difficult to review. Not only it can be read in many ways, but its strength lies in how manages to it open new avenues for thought as opposed to offering a journey toward some pregiven destination. Consequently, in this essay, I will deliberately foreground selected features of what I take to be one such line of flight. It will be shamelessly guided by my own interests and concerns, and primarily adopted for the sake of developing my own interpretation of the volume as a resource for addressing the various "kinetic paradoxes" (IM 13) of the Anthropocene. In the spirit of Sloterdijk's Nietzscheanism, this is also a conscious effort on my part to avoid treating his essays from the point of view of the antiquarian. Since this might not be in the interest of readers looking for a traditional synopsis of *Infinite* Mobilization, you have been warned. My only excuse is that such an undertaking would, as I suggested above, fail to do justice to the volume's animating principle.

¹⁴ Rosa, Hartmut, *Social Acceleration: A New Theory of Modernity*, trans. J. Trejo-Mathys, New York, Columbia University Press, 2013, p. 298.

TOTAL AUTOMOBILIZATION, OR, HENRY FORD AS THE SUPREME ARTIST

When trying to make historical sense of the modern experience of selfperpetuating acceleration, one significant lineage runs via the automobile (IM 9-10), an artifact whose intellectual history embodies both the most perennial fascinations with automata as well as characteristically modern concerns about industrial automation. It was the automobile that set the extension of the division of labor to the planetary scale into action, redistributing energy across the entire earth by means of compartmentalizing manufacture into world-wide production chains and laying the foundation for modernity's mobilization of kinetic energy to reach its apotheosis in the post-war process of globalization. As for Sloterdijk, the automobile is not of interest as a technical artefact but as a hybrid system of fluid interconnections materialized in a meta-stable form, and in particular how the system progressively generates its own self-expansion in order to deal with what it simultaneously presupposes and, as it expands, challenges-forth in greater intensity (IM 16-17). Although the system of automobility stems from a pathdependent pattern laid down from the end of the eighteenth century onwards, much like the chicken-or-egg dilemma, it quickly becomes difficult, once it starts to take off, to determine which came first: the automobile or the assembly line? After Henry Ford, the mass-production of vehicles is simultaneously the vehicle of mass-production, so that the one ceaselessly feeds back into the other. To this must be added its production of mass-consumption: the manufactured desire of every individual to own a private car, and to exchange it for a new one every five to ten years; its production of the means of consumption: wage labor; its proliferation of urban space: supported by a massive auto infrastructure subsidized by city and state, oceans of asphalt required to support automobile independence cut across the planet; as well as its redesign of the entire social fabric, such that freedom of movement is a priori defined in terms of the open road and freedom of choice in terms of individual consumer preferences.¹⁵ Indeed, the automobile, while iconic of mass-production, also drives massproduction beyond itself to become the auto-production of industrial technology. The development proceeds, as John Urry has described, "autopoietically," region

¹⁵ Grant, Iain H., "Spirit in Crashes: Animist Machines and the Power of Number," in *Crash Cultures: Modernity, Mediation, and the Material*, eds. J. Arthurs and I. H. Grant, Bristol, Intellect Books, 2003, pp. 105-106.

by region, place by place, adapting to immediate, local demands without an overall plan. ¹⁶ Asking who designed our post-Fordist societies accordingly makes no sense because, by all appearances, the system produces its own causes as much as its own effects – there is simply no room left for the agency of an artificer. The *autós* of the automobile is the immanent self that drives itself: the self-directed mobility of "total automobilization" (*IM* 9), finally realizing the grand and heroic vision of Johann G. Fichte's absolute ego with an ease acquired through the discipline of this new means of exercising control over its destiny (*IM* 18). Embodied in this motorized icon of progress, the will – which can hardly be deemed to be a property of the human any longer – finally becomes capable of pure self-determination.

So, although the unapologetic expression of Western Faustianism comes to the fore in the modern project, it paradoxically culminates in the solipsistic and fundamentally undecidable indistinction between self and other. For this twoheaded monster simultaneously affirms a world without subject - objective, deterministic, and indifferent – and a subject without world – self-constituted, self-determined, and self-directed. Contrary to treating it as a tool to be instrumentally used according to the whims of a Cartesian cogito, man achieves self-determination first by paying attention to the *poiēsis* of technology, allowing it to stake a claim on him. Modern progress, by the time that it has started to accelerate on the road to utopia, dynamically recapitulates the non-linear time of the premoderns, so that, metaphysically, the automobile, rather than being a mere instrument for quantitative efficiency, qualitatively imprisons man in the eternal present of endless mass-production. "In the kinetic pantheism of such an accomplished modernity," Sloterdijk notes, "[...] infinite self-activity would coincide with absolute calmness, neo-worldly prometheanism would descend into epicurean detachment, principled activism would have to melt into an ultimate quietism." (IM 142-143). Indeed, insofar as our production is fundamentally aimless but still driven, we continue to produce in accordance with the only end that such a culture of means recognizes; namely, the indefinite perpetuation of production as an end-in-itself. If we find ourselves rendering the totality of the planet's resources available as "standing-reserve" (IM 76), then it is because increased consumption is the immediate outcome of an ever-expanding rate of

¹⁶ Urry, John, "The 'System' of Automobility," Theory, Culture & Society, Vol. 21, No. 4-5, 2004, p. 27.

production. A steady growth in production is what justifies the frenzy of consumption, which in turn is ultimately what justifies the further growth of production, and so on and so forth, such that the entire cycle serves more to keep us busy than to satisfy any real meaning. Even though, following capital's spiral form of motion (*IM* 22), history is produced at an unprecedented rate, we feel perpetually unsatisfied and restless. An incremental increase in speed becomes the only solution to the lack of a destination: the non-existence of a value-rational end to the acceleration of turnover time; the absence of a reason to such an instrumentalism other than that of efficiency by and for itself. We find no purpose, going about the course of extended reproduction, other than to intensify our own momentum. What remains is an endless proliferation that changes means to ends indefinitely without ever really progressing anywhere.

When the enframing of modern technology holds sway globally, every parcel of sense consequently relaunches the experience of the world onto limitlessness. In this regard, our whole universe of experience is altered as the many dualisms of modernity spin seamlessly together. Phenomena begin to circulate so feverishly that they appear interchangeable. Events spontaneously appear out of nothing and then disappear again before we have had the chance to orient ourselves in the causal chain. The modern quest for speed results in a state of infinite blurring: a great confusion of restrictions, boundaries, and constraints, as well as a complete lack of a sense of existing in sympoietic interdependence with others (IM 52). And if we are to believe Sloterdijk, there is nothing accidental about the apparent volatility of the machinery of modern philosophy. On the contrary, it is built precisely to produce an unstable and crisis-ridden state of affairs as status quo (IM 136). Just look at the utopian impulse of modernity: inherent to the logic of establishing heaven on earth is the contradictory endeavour to realize endless growth on a finite planet (IM 28, 151). Once it starts to gain steam, the motor of dialectical sublation ensures that the process modernization keeps propelling itself ever onwards toward that no-place of absolute knowledge. It cannot be brought to a halt because essential to its automotive metaphysics is that it does not come with a pre-installed braking system. Neither is it possible, in the wake of modernity, to simply reverse or turn off the engine (IM 81). If we were faced with a moral dilemma to either decelerate or keep accelerating, such a conviction would seem to be extremely cynical, proposing that we, at best, come to terms

with modernity as a dynamic of increasing value by actively becoming hypercapitalist subjects. But Sloterdijk's attitude is less that of the cynic than the mystic, for he does not believe that the question of our continued subjection to the political kinetics of infinite mobilization is contingent upon an "either/or"-choice. Quite to the contrary, the essential insight afforded by the mystic is that it is not as simple as saying that this involves either an active or a passive subject (IM_{1} , 4, 10), either radically free or completely determined by its environment. An autopoietic system rather operates in a contradictory state of needful freedom: the more self-contained and individuated the system becomes, the less adapted to changes in its environment it will be and the more untenable its internal consistency will appear (IM_{5} 8). Increased systematicity implies increased rigidity, and rigidity is what demands that the system be renegotiated. The more totalizing it becomes, the less self-consistent it will be — and for this reason, as the biologist Lynn Margulis noted, the autós in "autopoiesis" is somewhat misleading. ¹⁷

An infatuation with the *autós* – with self-direction and self-decision – as philosophical and political order is thus interpreted by Sloterdijk as the product of a disclosure of being that conceals the interdependencies of the self on external sources. ¹⁸ Automata peddle in illusions of autonomy: they project self-processing as self-governance whilst hiding their dependence on the dissipation of energy by others, ¹⁹ thereby perpetuating an ideology of individualism by abstracting the work of beings from out of the dissipative systems within which they operate (*IM* 18-19). Put in thermodynamic terms, any system is a bounded – that is, limited – dynamic process that always arises from out of certain environmental conditions,

¹⁷ Margulis, Lynn, and Sagan, Dorion, *Acquiring Genomes: A Theory of the Origin of Species*, New York, Basic Books, 2003, p. 19. See also Von Förster, Heinz, "On Self-Organizing Systems and Their Environments," in *Understanding Understanding: Essays on Cybernetics and Cognition*, Berlin, Springer, 2002.

¹⁸ As André Gorz noted, the idea of mass motoring – the notion that we will all travel in the comfort of our individual cars – is one example of such a concealment of a whole host of global flows of resources, cheap labor, and capital, as well as of the social structuration of the environmental risks pertaining to climate change, that is required to keep the cars rolling at all. For Gorz, the ubiquity of the automobile thus marks the silent triumph of bourgeois ideology on the level of daily life. As automotive subjects we become willfully blind to the exploitation of the other. Indeed, from our car-window, as we speed past the subaltern into the future, they look frightfully backwards in their comparatively slow and inefficient life. See Gorz, André, "The Social Ideology of the Motorcar," in *Ecology as Politics*, trans. P. Vigderman and J. Cloud, Boston, South End Press, 1980.

¹⁹ Rosen, Robert, "On a Logical Paradox Implicit in the Notion of a Self-Reproducing Automata," *Bulletin of Mathematical Biophysics*, Vol. 21, 1959.

and in so doing, achieves relative stability. But if it is bounded, for a system to maintain its meta-stability, it must nevertheless be open to exchanges that exceed those bounds, and that nurture the system: "[...] it is only through the economy of such circulations that it can remain within its limit conditions. A closed system, cut off from any outside, is sure, sooner or later, to collapse. But an open system, too, insofar as it is dynamic, is only ever relatively stable, and once certain limit conditions are crossed,"20 the system can only transform its character or fall apart; that is, disintegrate. Crucially, when multiple limits are reached simultaneously which Sloterdijk seems to believe is the case with the global system of late capitalism (IM ix) – the process through which a system either transforms or destroys itself can only be hastened and intensified. So, the only way out of modernity, according to Sloterdijk, is to pass through it; and it will not be obvious, except with hindsight, whether the system was accelerating toward its complete disintegration or toward a novel state of meta-stability (IM 28-29, 84). Indeed, Sloterdijk's whole critique of political kinetics rests upon a conviction that the modern imperative toward an ever-increasing mobility will eventually strip the passive nihilism also known as "progress" of any moralizing boundaries to its own self-realization, so as to reveal, underneath, the active nihilism of a physics of freedom that consists – and always did consist – in accelerated momentum alone. Despite all Kantian insinuations to the contrary, deontological ethics turns out to have been nothing but an obligation to put the pedal to the metal (IM 7-8, 154) f.n. 3). In modernity, kinetics exposes itself as first philosophy, with negentropic virtues such as spontaneity, flexibility, creativity, adaptability, and innovation the sole yardsticks by which to measure our lives in the wake of the devaluation of all values.

Still, the subordination of ethics to kinetics is nothing that Sloterdijk bemoans. He does not want to invert the relationship between both in order affirm the supremacy of ethics anew. On the contrary, I would argue that his project is much closer to the philosopher Thomas Nail's recent attempts to rethink ethics on an energetic level – what Nail calls an "ethics of kinetic expenditure." For if the great diversity of life on our planet is chiefly the outcome of a thermodynamic

²⁰ Ross, Daniel, "Introduction," in *The Neganthropocene*, B. Stiegler and ed. and trans. D. Ross, London, Open Humanities Press, 2018, pp. 12-13.

²¹ Nail, Thomas, *Theory of the Earth*, Stanford, Stanford University Press, 2021, pp. 255-269.

imperative to dissipate energy in the gradient from higher to lower quality, then biospheric prosperity is less a question of nature conservation than of increasing the rates and patterns of kinetic expenditure in such a way that they can sustain themselves on timescales that foster optimal levels of planetary kinetic experimentation. Conversely, kinetic patterns based upon the modern impulse of infinite mobilization, such as fossil capitalism, are ultimately self-destructive, insofar as they are bursts of expenditure that cause a net reduction in experimentation, diversity, and dissipation in the long-term. Consequently, if one of the central points of contention within accelerationist theory has been whether the one-way street paved by word-spirit is commensurable with human flourishing, then Sloterdijk holds out hope that man — who, as a "planetary steward," has now become lord on a global scale — may come to recognize his interdependence on the material and energetic substrate of the biosphere before burning through all available resources to the point of entropic self-termination (*IM* 22-23).

TOWARDS A PHILOSOPHICAL GYNAECOLOGY

To avoid civilizational burn-out on the material substrate, Sloterdijk thinks that we must attend to practices of self-modification and self-transformation; although not so much techniques of altering the body in the transhumanist sense as rather techniques for altering the sense of self by modifying and transforming the very grammar of human behaviour; and not so much individual behaviour as the grammar of collective human behaviour on a social level. Drawing upon a psychoanalytic conception of birth as a traumatic ejection from comfort that results in a subsequent desire to recreate the relative security of the womb in the external world (IM 67-71, 58 f.n. 2), Sloterdijk – in this volume and elsewhere – does so by making use of the metaphor of the sphere. Now, the sphere has been a master-metaphor of the Western tradition ever since its Eleatic inception. From its very beginning with Parmenides, metaphysics proclaimed being to be "[...] in

²² Noys, Benjamin, Malign Velocities: Accelerationism and Capitalism, Winchester, Zero Books, 2014.

²³ Steffen et al., "The Anthropocene: From Global Change to Planetary Stewardship," *Ambio*, Vol. 40, No. 7, 2011.

a state of perfection from every viewpoint, like the volume of a spherical ball."²⁴ This is because spherical geometry, uniform in all directions from center to circumference and rotationally invariant, encodes exhaustive containment. Incidentally, this is also why the sphere offers itself as the default spatial format of ontological idealism: exhaustive containment indicates an elimination of true exclusion, indivisibility, and heterogeneity; and if the container excludes qualities of the contained, then exhaustive inclusion and explanation cannot be achieved, thus spherical containers perfectly code for the epistemologically foundationalist commitments inherent to such idealist systems; that is, reason is understood to be perfectly contained because the world that contains it is itself inherently reasonable (*IM* 116-117). Proceeding from his punningly "co-immunist" politics, ²⁵ Sloterdijk has interpreted the immunological motif of the internal order that characterized the somatic geocosm of the ancient Greeks in terms of an organism's defense against foreign antigens. Unlike products in the sublunary sphere, which were thought to be transient, the form of the world itself was held to be eternal and perfect, constituting an absolute totality that guaranteed an immunity to its inhabitants against a threatening and harmful outside. Such immunological techniques, then, are not to be taken as strictly biological and physical, but also psychological and social. Although the body politic literally puts up fences and governs its borders with instruments of physical force, its biopolitical success equally hinges on instilling a sense of nationalist identity and autochthony.

In a flurry of associations, like a "[...] continuous play among image, imagination, and imaginary that shuttles back and forth between [our] experience and [its historical conditions]," Sloterdijk has referred to this widened sense of technique as "practical metaphysics," by which he means practices that reshape our ways of thinking, feeling, and seeing. Because human beings, he contends, need to breathe an atmosphere not just of oxygen, but also of signs and symbols. As Sloterdijk has noted, though, such an amniotic inclusion

²⁴ Coxon, Allan H., *The Fragments of Parmenides: A Critical Text with Introduction and Translation, the Ancient Testimonia and a Commentary*, trans. R. McKirahan, Las Vegas, Parmenides Publishing, 2009, p. 78.

²⁵ See, for instance, Sloterdijk, Peter, "Global Co-Immunity: On the Need to Elaborate a Protective Common," *Multitudes*, Vol. 45, No. 2, 2011.

²⁶ Elden, Stuart, and Mendieta, Eduardo, "Being-with as Making Worlds: The 'Second Coming' of Peter Sloterdijk," *Environment and Planning D: Society and Space*, Vol. 27, 2009, p. 6.

²⁷ Morse, Erik, "Something in the Air: Interview with Peter Sloterdijk," *Frieze*, Vol. 127, 2009.

of reason within being remained the fundamental metaphoric function of spheres until the eighteenth century – which he aptly diagnoses as "the twilight of the orb epoch," marking the "[...] collapse of the metaphysical immune system" that was once proffered by the geometric "[...] inclusion figure[s]"29 of Greek antiquity. Indeed, Nicolaus Copernicus' shattering of the Ptolemaic spheres led to the fouling of mankind's old mental atmosphere so that it was no longer breathable; but even more importantly, man, for the first time, found himself in a state of "shellessness." ³⁰ For if the mental atmosphere of antiquity was artificially air-conditioned by the exhaustive containment of the immunological sphere, then its inclusivism functioned precisely by concealing the artificial limits to its enclosure. Thus, blowing a hole in the celestial sphere to reveal the eternal silence of an infinite space beyond, the inherently meaningful cosmos of the ancient Greeks not only exploded the limits of its inclusion figures from within, but concomitantly revealed the very limitations of inclusivism as exhaustive containment. In the wake of Immanuel Kant's First Critique, the spherical shape of the geocosm no longer communicated irreducible inclusion of dwellers within their dwelling. In the wake of modernity, inclusion rather presupposes exclusion, as we move, in Sloterdijk's view, from the immunological security of the sphere to the spherological precarity of immunity: no longer merely born into a passive defence system enclosing the earth in spherical forms like heavenly mantles, securing ourselves against threat becomes an active project of collective immune design, in the process of which "inside" and "outside" is produced rather than a priori given.

The modern sense of unease in the world, in Sloterdijk's terms, is thus characterized by the notion that the immunity services of man's terrestrial abode cannot be taken for granted anymore but will increasingly depend on his own ingenuity and attention; but, also, by the widening of man's local concerns primarily directed against the threats from his immediately given environment to the increasingly global projects that consider the totality of all ecosystems as parts of a singular, shared earth system.³¹ If alienation is the fundamental condition of

²⁸ Sloterdijk, Peter, Globes – Spheres, Vol. 2: Macrosphereology, 2014, pp. 43-45, 559.

²⁹ Sloterdijk, Peter, Bubbles – Spheres, Vol. 1: Microspherology, 2011, p. 329.

³⁰ Ibid, p. 24.

 $^{^{\}mbox{\scriptsize 31}}$ Hui and Lemmens, "Reframing the Technosphere," p. 32.

modern man, it is because leaving the intra-uterine metaphysical security of the homely Eleatic spheres by being delivered into a world that does not promise to make sense – nor comes with any guarantees that it was prefabricated with the intention of serving as man's abode – is the equivalent of the trauma of birth experienced on the level of the collective psyche of social life. Disclosed in the modern epoch, and experienced as traumatic, is the insight that "[h]umans do not arrive as solid subjects into robust worlds." (IM 68). The ensuing symptoms that modern man begins to experience – but which, again borrowing from psychoanalysis, man seeks to repress by throwing himself into the myriad activities of history-making – is that it is due to the primacy of flux and instability - that is, instability as a fundamental to existence rather than as a privation of it - that the self can at all become a question in modernity and the construction of an ego – through the erection of boundaries or walls – take shape, as well as security can become experienced as a concern and at all offered as a promise (IM 67-70). Modern man thereby experiences the immune system – material as well as metaphysical – as inherently fragile, as a promise that necessarily always runs the risk of being broken. A possible response to this uncanniness – the sense of a loss of primordial security – is the kind of history-making that seeks to flee away from the experience of instability by relocating said promise to the temporal dimension of the future, such that the task becomes one of accelerating toward a state of redemption (IM 10, 68, 129). But since the promise has already proven itself to be unreliable (IM 68), such a denialism can only ever function as an endless deferral of a utopia that is eternally to-come. In short, it is premised upon an infinite mobilization of all worldly resources in an effort to build up enough kinetic energy required for salvation; yet it is a salvation that in its apocalyptic finale is revealed to be indistinguishable from a death drive.

For Sloterdijk, however, there is a certain "saving power" (*IM* 105) to modernity in that its affordance of the experience of instability as fundamental may allow us to sit serenely with the antinomic insight that the condition for the impossibility of ever guaranteeing that a promise will be kept is simultaneously the condition for its possibility (*IM* 68-70). The risk that a promise will be broken is a condition for the very possibility of making a promise in the first place. If not, no promise would have to be made. From Sloterdijk's self-proclaimed "gynaecological" or "birth-philosophical" point of view, the human is thus a

being that is brought into a world given by promises only insofar as he has at the same time come out of a state of pre-subjective immediacy where safety was of no concern to begin with. Accordingly, subjective experience is a product of a disturbance of that harmonious state of equilibrium within which there is no risk and no reward, no loss and no gain, no ignorance and no knowledge. Mirroring Hannah Arendt's turn to natality, 32 this is an effort on Sloterdijk's part to challenge the ontological consistency of the self-positing "I" by directing our attention to experiences at the very limits of modern subjectivity. In this case, Sloterdijk is interested in the ungrounded nascency of man's thrownness: a primordiality which cannot be exhaustively grasped by the subject in thought but only ever hinted at in the experience of its own finitude. Crucially, Sloterdijk thinks that this experience is accessible to the modern subject first at the apocalyptic event by which the self-sufficiency of its own subjectivity has been revealed to itself as an illusion. Recognizing that our world has ended, in the ontological sense of the word, is to realize that we are already standing on the other side of a "turning" of being (IM 81-82). It is first when the modern project has run its course to selfexhaustion that the "overexerted" subject can find peace in the disclosure of the truth that it was destined to failure already from the outset (IM 79-80). As Sloterdijk puts it, such an event marks the coincidence of the end of history with its very beginning – a "[...] remembering of the 'inevitable." (IM 83). Because for Sloterdijk as for Heidegger, it is our deepest intellectual past that jeopardizes our furthest future. It is our inherited structures of thinking – more specifically, our indebtedness to the history of Western metaphysics going back at least to the Eleatic tradition's "immune system of naïve life" (IM 49-50, 60), where the "mechanical uterus" of modern self-production finds its first intimation in the depiction of the world as a womb, and then continuing through Socratic maeutics, with the help of which the phallic virtue of man's self-reliance is further underscored by taking the mother entirely out of the picture (IM 75-76) – that are now merely fermented and volatized by the expansion of modern technology. Ingeniously, Sloterdijk figures "[...] the path of subjectivity as an odyssey-like cycle into an unfamiliar starting point" (IM 84) on both phenomenological and existential registers at the same time: his observation that no one ever happens to

³² Arendt, Hannah, *The Human Condition*, Chicago, University of Chicago Press, 1958.

be present at their own birth can plausibly be read on a psychological – it is barred from the individual's memory – as well as an ontological – it is unassimilable to the subject's intentional consciousness – level simultaneously (*IM* 83-84). Still, the larger point is that the same existential distress that causes the modern subject to mobilize ever more resources in its effort to materialize the uterine safety promised by Eleatic metaphysics through physical means, once it is recalled by the subject to be premised upon a forgetfulness of the onticontological distinction, will be the same cause that, from such a new-gained perspective, suddenly releases it from its compulsion to keep mobilizing.

OUR TIME IS UP, THE BELL OF PANICKED WORLDLY EXPERIENCE TOLLS!

One of Sloterdijk's central arguments in the volume can be summed up by the writer Frederik Pohl's alleged remark that the criteria by which to judge the profundity of futurological forecasts are their ability to predict the accidental byproducts rather than the primary effects of new technology – the traffic jam rather than the expressway (IM 10). The point is that individual every-day actions, on large scales, generate complex dynamics as aggregate systems, which then feed back into daily life in the form of various unintended consequences. Crucial to the modern experience is that systems optimized for circulation, as they grow in complexity, become increasingly unmanageable by anticipative means, in effect demanding that ever-more resources be put into such calculative efforts. This is why Sloterdijk remains less than enthusiastic about the long-term prospects of the Enlightenment notion of humanity's collective autodidacticism (IM 32). Because if there is anything that can be said to mark the onset of modernity, then it is that we, after Kant, no longer ask after the destiny or destination - the objective necessity of fatalist determinism - of the human species, but merely after the next exit out of our self-incurred immaturity. Crucially, this negative procedure marks uncertainty as epistemically informative rather than something to be eliminated. The idea is that if we can measure our own ignorance, then we can also reason productively upon threats entirely beyond our experience, precisely because lack of experience can be grasped as itself a measurable threat. However, such a break with circumspect foundations empowers the human only in exact step with ever further immersing it in a field of increasingly all-encompassing risk. "[E]ntering its path into the unprecedented

as a student without a teacher," modern man is reluctantly caught up in a race with its own self to find out whether "[...] it can teach itself about itself and its planetary situation, or if it still proves itself to be a learning-impaired subject." (IM 39). Not only is there no end to such a negative exercise — no endpoint that marks the subject's inclusive security in the modern world — but instead, the more we know, the more we discover about our own epistemic ignorance, and the more precarious our situation begins to appear. "From a Sloterdijkian perspective," as Stiegler have noted:

the certainty that the foundation of the Cartesian subject is supposed to provide, far from dominating the classical age, in reality opens a space for risk-taking, for calculations of probability and for insurance mechanisms of all kinds, which rationalize the new ordinary madness of the conquerors, and which characterize the way that capitalism is accompanied by and consists in immense uncertainties.³³

The game of existence, from the perspective of risk, is not something that we can win; only forever hedge our bets and wait for the river. In short, there is always the risk of probabilistically unlikely yet potentially catastrophic events; and in the worst-case scenario, Black Swans,³⁴ which can be incorporated into the economy of didactic self-correction only ex post facto. Such a logic of retroactivity is intrinsic to the modern conception of history precisely because the de-semantification wrought by number as a purely operative scheme stimulated a move away from belief in fate and divine providence, thereby barring access to any metaphysical or moral meaning to disaster (IM 37). Literally, the apocalypse reveals such events to man only at the end of history, once these unforeseeable and irruptive transformations of the present have already shifted the probability distribution and laid bare previous epistemic blind-spots, and thereby retroactively been accounted for by the sense-making apparatus of the immune system and rationalized with the benefit of hindsight. In Sloterdijk's terminology, events like these are inevitable incursions of "the real" (IM 79) into the modern subject's anthropotechnical construction of an immune system of anticipative preemption that has made "[...] outrageous demands [...] of its auto-didactic genius." (IM 38). To be engaged in praxes of modern foresight is like being forced at gunpoint to keep betting your house, your spouse, and your kids until the dealer eventually

³³ Stiegler, The Neganthropocene, p. 108.

³⁴ Taleb, Nassim N., The Black Swan: The Impact of the Highly Improbable, New York, Random House, 2007.

wins.35

On the other hand, as existential risks have taken the place of traditional eschatology, the moral burden of doing the right thing has only multiplied manyfold. For while preachers of the final judgement have historically been concerned with the sense of an ending, our present doomsayers are worried about the ending of sense.³⁶ "[S]ince we cannot rule out the absence of a future that remembers us," Sloterdijk notes, "panic seeps into the signature of the present time as an inevitable feature of it." (IM 31). Such a panic is tied to the insight that our activities may threaten not just individual existences but the continuity of our species or even life as we know it, thereby shifting the "[...] foundations for responsibility from an exclusively individual to a collective base; from predominantly local to a global scale of effects; from primarily present impacts to actions that may not materialise as symptoms until much later; and from the human domain of action to all of nature." ³⁷ The significance of global systemic risks - from financial to ecological to epidemiological - tethers the fate of communities in one region of the world to developments many thousands of miles aways, and similarly dictates the destiny of many a future generation by the actions either taken or forgone by us today. Suddenly, we are responsible not only for ourselves and our fellow compatriots, but for all humans dwelling upon our globe, all living beings, all future living beings – perhaps even for the continued existence of value as such.

This is another paradox at the heart of the Anthropocene, which essentially mirrors the condition – as diagnosed by Arendt – behind the existential anxieties of modern man: whereas the power of man to alter his environment increasingly goes on under the stimulus of technological progress, he finds himself less and less in a position to control the consequences of his actions.³⁸ Humans have become so technologically powerful that they may now disrupt the earth systemic

³⁵ It is not for nothing that the climate economist William Nordhaus has likened our current attitude toward the social and environmental risks of a warming world to that of an addicted gambler. See Nordhaus, William D., *The Climate Casino: Risk, Uncertainty, and Economics for a Warming World*, New Haven, Yale University Press, 2015.

Moynihan, Thomas, X-Risk: How Humanity Discovered Its Own Extinction, Falmouth, Urbanomic, 2020, p. 8.
 Adam, Barbara, "History of the Future: Paradoxes and Challenges," Rethinking History, Vol. 14, No. 3, 2010, p. 371.

³⁸ Arendt, *The Human Condition*, p. 231.

parameters within which the relatively stable climate of the Holocene has operated for the last 11,500 years. At the same time, it is impossible to return to some prelapsarian state of nature: life on earth – including human life – has had to adapt to human activity in such a way that, if we were all of a sudden to stop artificially reproducing the current meta-stable conditions, it would be thrown into disorder.³⁹ Ironically, Francis Bacon was able to dream of dominating and exploiting nature only for as long as human impact on the earth was marginal; that is, against the ontological background of a stable, regular, and fundamentally harmonious nature. 40 For the more the meta-stability of the biosphere depends on human activity, the more it escapes human control; and what now eludes our immune systems of calculative anticipation is not so much the sublimity of the earth's geological forces as the impenetrable consequences of large-scale anthropogenic manipulation (IM 143-144).41 Paraphrasing Clive Hamilton, humanity's self-conscious realization of its own existential precarity as a species coincides with the so-called "Great Acceleration" to its ability to technologically alter the environment on a global scale.⁴²

No surprise then that utopia, as the redemption for the false promise of the premodern metaphysics of security, remains forever on the horizon for us modern subjects (IM 127-133). Like a mirage, it is perpetually just-out-of-reach since we can never actually arrive at its destination. But not only does the modern subject never reach his destination; like Georg W. F. Hegel's Owl of Minerva, it is its fate to constantly arrive too late. In fact, it is because the endeavour to overtake its own belatedness is essentially futile that the modern subject is destined to keep accelerating ad infinitum (IM 103-105). Hence why Sloterdijk diagnoses infinite mobilization as an historical effort to realize the ancient metaphysical promise –

³⁹ Haff, Peter K., "Technology as a Geological Phenomenon: Implications for Human Well-Being," *Geological Society Special Publication*, Vol. 395, No. 1, 2013, p. 302.

⁴⁰ What Sloterdijk elsewhere has called a "backdrop ontology"; namely, an ontology that positions nature as an unchanging background to the drama of human history, presumed to remain forever unperturbed by the effects of industrial production. "In this ontology," Sloterdijk writes, "the human being plays the dramatic animal on stage before the backdrop of a mountain of nature, which can never be anything other than the inoperative scenery behind human operations." See Sloterdijk, "The Anthropocene," p. 334.

⁴¹ See also Jameson, Postmodernism, or, the Cultural Logic of Late Capitalism, p. 35.

⁴² Hamilton, Clive, *Defiant Earth: The Fate of Humans in the Anthropocene*, Cambridge, Polity, 2017, p. 2. See also Steffen, Will et al., "The Trajectory of the Anthropocene: The Great Acceleration," *The Anthropocene Review*, Vol. 2, No. 1, 2015.

reaffirmed by the Enlightenment notion of the autonomy of reason and its responsibility for itself through autodidacticism and self-correction – of reason's ability stay ahead of its own activity,43 which of course is a necessary premise if reason is ever to control and funnel its activity into "reasonable" projects apposite to the philosophical-historical notion of "progression" (IM 26). But as Sloterdijk astutely observes, no kinetic force will ever be great enough to guarantee that such a promise will be kept, for the simple reason that the mobilization of ontic beings cannot be the solution to a belatedness that is ontologically inscribed into the very being of the modern subject (IM 81-82). Every additional rate of gained momentum, then, is ultimately counterproductive, for it only ever increases the risk of a head-on collision with reality. The heat engine of modernization, as it incrementally builds pressure, gradually strains the otherwise steel-hard casing of modern automobility, to the point that it eventually brings about its own selfdestruction. If we do not soon find a sensible response other than reflexively adopting nothing but more negation, Sloterdijk's wager is that modern man will find himself eventually running straight into a limit that cannot be transcended from within, and tragically end up crushed under the weight of his own powers (IM 41-42, 125-126). Contrary to cultural pessimists like Oswald Spengler, Sloterdijk does not think that the Occident will gradually bleed out as the sun sets on its horizon; instead, we will go out with a bang akin to being instantaneously obliterated by the explosive power generated when releasing millions-of-year-old fossilized energy within, comparatively, the blink of an eye. Such an immense discharge will either strip away the chassis of the automotive subject and allow for *Dasein*, hitherto trapped therein, to cultivate a new relation to being, or it will drive the shepherds of being straight down the ditch of global catastrophe, in the wake of which there may no longer be any beings left to pursue such a cultivation.

Put simply, we seem in many ways to be near-sightedly walking along a brink of destruction, where one false step is enough to jeopardize everything worth saving. 44 As a self-reinforcing feedback loop, the ever-present spectre of such an

⁴³ It is this activity, Sloterdijk seems to suggest throughout his various essays in *Infinite Mobilization*, that has been understood interchangeably throughout the history of philosophy as "work," "labor," "exertion," and "production."

⁴⁴ Ord, Toby, The Precipice: Existential Risk and the Future of Humanity, London, Bloomsbury, 2020.

existential precipice inscribes a radically contingent and potentially catastrophic future as the primary threat against which an expansion of anticipative and preemptive measures *must* – with an emphasis on the consequent rationalization of its necessity – be oriented. 45 Deterrence and prevention always demand more of the same measures to ensure its promise of keeping us secure in a modern world suffused with risk; and ironically, by revving up the speed and temporal reach of our computer models of futurological forecast, we only invite greater degrees of risk into our lives. "Here the risk society comes about as the alliance of well-insured profit-seekers. It unifies the insane who have thought everything through beforehand."46 For insofar as "[i]nsurance replaces worship as a means of consolidating a possible future in the chaos of improbabilities,"47 modernity inadvertently cultivates a culture of disinhibition (IM 143-144) – one populated to the brim with risk capitalists. Praxes of risk arbitrage become a survival strategy, as a means of embracing futurity's riskiness in order to afford sufficient securability for rewards to be realized even in the face of a constantly lingering possibility of loss. But as we have seen, Sloterdijk still holds out a hope "[...] that existential opportunities can emerge from the fact of disinhibition itself."48 If computational machines of anticipation – once they begin to run rampant – consistently underestimate the improbable by looking backwards to history and tradition, thereby rendering the real progressively distal in step with ever-greater efforts at pinning it down in advance, then disinhibited profit-seeking behaviour will naturally lead to the adoption of techniques of subjective probabilism as a means of grasping how the very limits of the subject's capacity to preemptively and exhaustively map the territory of the future may be enrolled productively, consequently recognizing that the frequentist preoccupation with bounded objective regularities must be complemented with a scrutinization of the subject's

⁴⁵ Stockdale, Liam P. D., "Catastrophic Futures, Precarious Presents, and the Temporal Politics of (In)security," in *Time, Temporality, and Global Politics*, eds. A. Hom, C. McIntosh, A. McKay, and L. P. D. Stockdale, Bristol, E-International Relations, 2016, pp. 176-177. See also De Goede, Marieke, and Randalls, Samuel, "Precaution, Preemption: Arts and Technologies of the Actionable Future," *Environment and Planning D: Society and Space*, Vol. 27, No. 5, 2009. For an example of an immune system of calculative preemption gone haywire, see Bostrom, Nick, "The Vulnerable World Hypothesis," *Global Policy*, Vol. 10, No. 4, 2019.

⁴⁶ Sloterdijk, Peter, *In the World Interior of Capital: Towards a Philosophical Theory of Globalization*, trans. W. Hoban, Cambridge, Polity, 2013, p. 85.

⁴⁷ Stiegler, The Neganthropocene, p. 112.

⁴⁸ Ibid, p. 114.

comprehending optic (IM 145-147).

Again, such a recognition can only be arrived at by properly subjecting the Cartesian ego to the acid test of modernity: it is only by working through the traumas of the modern epoch that it may begin to face up to the dissolution of its fantasy of autogeneity, from which it may then potentially come out with an entirely different understanding of its own precarious interdependence with others within a fundamentally turbulent world. As a consequence of bravely facing the death of the grand narratives of progress head-on, we are afforded a hermeneutic breach of what Jünger called the "time-wall" of modernity (IM 125-126); and suddenly, as we find ourselves on the other side looking back, we recognize the confused dichotomy between movement and stasis to be the result of faulty premises (IM 140-141). From this newly gained point of view, movement and expenditure is revealed as always having been fundamental to nature; and conversely, human history-making is revealed as always having been the progressive recalcification of natural turbulence into artificially static forms. What we call "progress," the supposed triumph of humans over nature through the mobilization of untouched and unexploited resources into historical projects of productive labor, instead turns out to have been the short-sightedness of a protectionist self that in the long run leads to a net reduction in complexity. In Sloterdijk's terms, such an insight marks the completion of our odyssey as modern subjects (IM 84), back again to where we initially began. The endpoint of such a journey opens the possibility for - to use Heidegger's language - an "other beginning."50 We can now see history from another vantage-point: not so much as a mobilization of an inert and static nature for the sake of a universally accelerated forward-movement, but as a temporarily arrested rate of overall planetary kinetic expenditure. "For this reason," Sloterdijk declares:

the "history" of a panicked culture would play the role of the chronic end of history itself – the kinetic motives that have heretofore made history would be tamed in it by way of an explicit culture whose efforts it would be to prevent the invasion of new history-making impulses from precisely the post-historic knowledge of the

⁴⁹ Jünger, Ernst, An der Zeitmauer, Stuttgart, Klett-Cotta, 2019. See also Blok, Vincent, Ernst Jünger's Philosophy of Technology: Heidegger and the Poetics of the Anthropocene, London, Routledge, 2017, pp. 131-141.

⁵⁰ Heidegger, Martin, *Ponderings II-VI: Black Notebooks 1931-1938*, trans. R. Rojcewicz, Bloomington, Indiana University Press, 2016, pp. 272-274.

catastrophe of historical mobilization. (IM 42).

What we call history only appears as an acceleration as long as it is viewed against the horizon of historiology – that is, history as viewed against the historically conditioned horizon of the historical sciences – while, when viewed from the other side of the time-wall, it is instead disclosed as an interim period of deceleration. "The naïve times in which humans could think that their movement was necessary for the world to move forward is over," (*IM* 5) Sloterdijk consequently declares.

Such a post-historical condition, however, will not characterized by "the sovereignty of timeless existence" (IM 131) but rather by a qualitative depth that normally gets levelled off in the ordinary experience of time afforded by historiology as a quantitative series of now-points on a linear trajectory from the no-longer-now of the past to the not-yet-now of the future. Transformation, thus understood, happens both in the temporal plane of our everyday actions as well as in the more intensified occurrences through which the horizon for the disclosure of Dasein's historicality itself moves and means (IM 53-54). Chronos and its measures are necessary, but without a recognition of those "ecstatic" (IM 55, 57, 106) experiences that irrupts the historiological constitution of continuity by inspiring our expectations and decisions anew, we are destined to live in the illusion of an endless extension of the present (IM 132). Without a kairological sense of the transformational character of time to alter our very experience of history, which requires Dasein to undergo a transformation of meaning that responds to its own historicality, its order of concern remains but a repetition of the same. "[A]s long as this historical drama is [...] in motion, the earth must stay reduced to a mere setting" (IM 138); that is, reduced to an inert background that belies the subject's natality, and which operates on a phallogocentric denial of nature's pre-subjective labor, abounding in illusions of bootstrapping selfdelivery (IM 75).

A BOUT OF HEIDEGGERIAN MYSTICISM TO RELEASE US FROM THE VULGARITY OF CHRONOLOGICAL ORDER

Faithful to the difficulty of representing the trauma that is at the heart of having been born into the modern epoch, the exit out of the closed loop of modernity's compulsive traumatic repetition of means does not to lie, for Sloterdijk, in escape velocity, which, in any case, would merely have us continue participating in the never-ending project of kinetic build-up. Quite the opposite, he diagnoses those experiences at the limit of modern subjectivity, and the associated sense of a repeated inadequacy on its part to securely ground its own self-production, as symptoms of a repressed depth that can be intimated by stubbornly dwelling in the decisively finite, uncertain, and anxious time of our lives (IM 137-138). In strict contrast to Hegelian predilections of negativity, Sloterdijk opts instead for the mystical serenity of what he calls "Eurotaoism." Contrary to what the term at first glance seems to suggest, this is neither a colonial annexation of Eastern thought, turning it into "holistic fast food" (IM viii) to satisfy the supercharged metabolism of European world-spirit; nor is it an orientalist othering that celebrates the precritical mysticism of the East, to which the project of Enlightenment supposedly never became native. As it turns out, Sloterdijk's emphasis is not so much on "Taoism" as it is on the "Euro." His concern is exclusively with the Western tradition, and he even concedes in the foreword to this translation that his coinage of the term might, with historical hindsight, have proven to be more misleading than illuminating (IM vii-xiv). In fact, the Taoism in question is never really defined. Partly because, as Sloterdijk suggests, the spirit of the Tao – "the Tao that can be spoken is not the real Tao" (IM 86) – cannot be clearly laid out in accordance with the metaphysical terminology of Western philosophy. Instead, it requires a poetic effort akin to the later Heidegger's struggle to clear a space for the revelation of being in the midst of the enframing of modern technology. What the attentive reader can infer, however, is that "Eurotaoism" in this case stands in as a general term for a number of concepts – Gelassenheit (IM 51-58), "still-being" (IM 148-153) and, I would add, "ataraxia" – that have sought to articulate an experience, from within the Western tradition itself, of enantiodromia, where, when pushed to its limit, one extreme - infinite mobilization – is suddenly revealed to have turned into its opposite – complete stillness.

The recognition of such an internal cross-contamination is testament to Sloterdijk's refusal to work with binary oppositions that do not always and already contain the seeds for their own reversal; and conversely, to thereby also reject the inversion of any given element as nothing but a perverse affirmation qua self-perpetuation. Resembling Heidegger's diagnosis of Nietzsche's failure to overcome the Western metaphysical tradition by means of merely overturning it, Sloterdijk sees modernity's history-making enactment of a radical negation of all

that exists as but the flipside to the Eleatic metaphysical immune system that inaugurated in the Western tradition the very same repression of the contingencies, accidents, risks, and precarities present in the existential temporality of *Dasein's* existence. Although at first glance radically incompatible, both in fact operate on the same denial of the lived experience of being-in-theworld. "The old metaphysics as a passion for immobility and self-absorption is the original accumulation of subjectivity," Sloterdijk argues, "which plunges itself forward within modernity as a passionate mobilization. [...] In this new functional dynamism, the old Eleatic immobilism possesses its closest ally." (IM 51-52). An affirmation of stasis cannot therefore provide the grounds for an adequate critique of the hustle and bustle of modern life, just like instrumentally subsuming the ideas of other cultures as only more resources to optimize our Western immune systems cannot address the teething problems of a civilization still preoccupied with, precisely, reducing the other to but a means for the further perpetuation of the self. To be sure, Sloterdijk does not believe that the subject can guide itself out of the many contradictions of modernity on its own. Such an attitude, to tirelessly struggle against the ontological limits of modern subjectivity by ontic means alone, is the very problem to be addressed, since the mobilization of resources on an ontic level in an effort to gain enough momentum to conclusively arrive at the ontological horizon of our modern predicament produces the illusion of limitlessness and thereby a forgetting of one's own conditions. Paradoxically, what is required is in on the contrary a releasement from the ego, which is tantamount to a kind of secular quietism (IM 13, 28, 143): a letting-go of the subject's compulsion to always stay one step ahead of itself. Fortunately, though, the resources for such a counterintuitive escape route out of the metaphysical tradition might be lurking closer to home than the Far East. For as Heidegger entered the last decade of his life, he gave an interview to be published posthumously by the magazine *Der Spiegel*, wherein he declared his conviction that:

[...] only in the same place where the modern technical world took its origin can we also prepare a conversion (*Umkehr*) of it. In other words, this cannot happen by taking over Zen-Buddhism or other Eastern experiences of the world. For this conversion of thought we need the help of the European tradition and a new appropriation of it. Thought will be transformed only through thought that has the

same origin and determination.⁵¹

If we agree with Sloterdijk that one would have to be a Taoist in order to "[...] endure the idea that even Taoism cannot help us anymore" (*IM* ix), then Heidegger can perhaps be said to have been one of the greatest thinkers of the Eurotaoist canon.

Hence, picturing modernity's run-away scenario of technological selforganization as a circuit which we are all hurtling down in our personal automobiles, it is only by stubbornly remaining on track, Sloterdijk seems to suggest, that we can find the serenity required to ponder its destiny without panically scrambling for more negativity - which would, even if only inadvertently, continue to fuel the engine of modernization. Although he does not use the term, I think that Sloterdijk can be convincingly read as calling for an anthropotechnics of resilience; namely, the construction of immune systems that are adaptive to Knightian uncertainties and modeled on the ontological unpredictability of the real. In place of a single-minded reliance upon anticipation and preemption - techniques premised upon extending the meta-stable conditions of the present, and of the self, at all costs – we ought instead to make our immune systems more elastic so as to facilitate a decisive seizing upon the kairological moments of transformation when they do arrive. As Western societies, our task is not, as Kant would have had it, to learn how to become even more self-reliant, but rather, in the spirit of the Tao, to learn how to let go of our modern egos. Even so, this is not a lesson that we can learn by treating education

⁵¹ Heidegger, Martin, "Only a God Can Save Us': The Spiegel Interview," in ed. T. Sheehan and trans. W. J. Richardson, *Heidegger: The Man and the Thinker*, London, Transaction Publishers, 1981, p. 62. Whether his conviction was genuine, though, is ultimately up for debate, since some have argued that Heidegger's work – in particular his late work – was to some degree inspired by Eastern philosophy. See Thrift, Nigel, "Different Atmospheres: Of Sloterdijk, China, and Site," *Environment and Planning D: Society and Space*, Vol. 27, 2009, f.n. 4 p. 121. Reinhard May, for one, has claimed that Heidegger borrowed some of the ideas for his philosophy directly from German translations of, among other things, Chinese Taoist classics. See May, Reinhard, *Heidegger's Hidden Sources: East-Asian Influences on His Work*, G. Parkes (trans.), London, Routledge, 1996. See also Parkes, Graham (ed.), *Heidegger and Asian Thought*, Honolulu, University of Hawaii Press, 1987. Moreover, there is of course also the often unacknowledged – at least explicitly so, in this volume – influence of Eastern thought on Peter Sloterdijk himself, who undertook a pilgrimage to Pune in the late 1970s to become a neo-sannyasin and study under the Indian guru Bhagwan Shree Rajneesh, before the latter became more known in the Western world as "Osho." See Elden and Mendieta, "Being-with as Making Worlds," p. 4; Van Tuinen, Sjoerd, "Critique Beyond Resentment: An Introduction to Peter Sloterdijk's Jovial Modernity," *Cultural Politics*, Vol. 3, No. 3, 2007, p. 301 f.n. 13.

as a resource á la the Enlightenment's autodidactic appropriation of knowledge to fit a set of transcendental categories, but rather by scrutinizing the experience of our own limits as a simultaneously awesome and awful opening that exposes our selves to the potential for both devastation and transformation. Autonomy will not be realized by liberating ourselves of others but by affirming the relational and primordially insecure condition of being-with. Limit-experiences, truth events, system breakdowns, and eruptions of the unpredictable – these are moments of vision that breach our ordinary acquaintance with the world, interrupt the apparent normalcy of our everyday existence (*IM* 118-119), and invite us to seize hold of these passing-instants as opportunities for transforming our selves in our encounter with the otherness of others, as opposed to reducing them into just another image of the self.

In the concluding chapter, under a section entitled "On the Geological Sublation of World History," Sloterdijk eventually asks: "What kind of sense can speculation have of whether there is an outer realm in relation to world history up to now? Is a form of time conceivable that would be open as a dimension of depth of an essentially post-historical species life?" (IM 137. My italics). Although he does not use the term "deep time" in any of the essays, there is an overwhelming sense throughout the volume that its very absence signals precisely its central role as the repressed other of the philosophical-historical notion of progress; that is, the unconscious depth that simultaneously excites and frustrates world-spirit's journey to the promised land of absolute knowing (IM 114). Such a depth would indeed point toward a *post*-historical condition since it is precisely irreducible to the sense of history underlying its formalization into a modern scientific discipline. Given that both are committed to conceive of the anthropocentric limits to history against the horizon of historiology, an exit out of human history-making thus cannot be afforded neither by a regressive return to natural history nor by a progressive departure into what has been called "deep history."52 So long as deep time is reduced to that which can be schematized, quantified, and narrativized, it will remain bound to a "temporal logic" (IM 140-141) that accesses the question of history, and even of the historicality of human

⁵² Smail, Daniel L., On Deep History and the Brain, Berkeley, University of California Press, 2008; Shryock, Andrew, and Smail, Daniel L. (eds.), Deep History: The Architecture of Past and Present, Berkeley, University of California Press, 2011.

existence itself, through the context of systematic, scientific, and historiological — that is, ontical — investigations. In contrast to the historiological appropriation of deep time, and by reading the Sloterdijk of *Infinite Mobilization* as an esoteric thinker of the geological, I propose to call the experience of its kairological dimension a "deep time ecstasy." Such an ecstatic insight arises whenever the abyssal groundlessness of being hinted at in the geological strata is experienced not merely as a challenge to the historical disciplines by radically widening their scope, but on the contrary as a temporalization prior to the historiological grounding of history in ordinary temporality. To stand on the other side of modernity's time-wall, then, is not merely to adopt a deep-historical point of view, but to begin anew from the kairological revelation that modern history-making — irrespective of how shallow or deep — operates against a historiological horizon that itself has remained exempt from the modern project of historicism. At a more general level, this is what Heidegger alludes to in his introduction to *What is Metaphysics?* when he notes that:

[i]nsofar as a thinking sets out to experience the ground of metaphysics, insofar as such thinking attempts to recall the truth of Being itself instead of merely representing beings as beings, thinking has in a sense left metaphysics. *From the point of view of* metaphysics, such thinking goes back into the ground of metaphysics. But what still *appears* as ground *from this point of view* is presumably something else, once it is *experienced in its own terms*[.]⁵³

Seen from the standpoint of historiology, the qualitative depth of deep time looks like nothing because kairological revelation is not itself ontically accessible. Revelation cannot be objectified and calculated, and so it appears, when viewed against the horizon of historiology, like nothing; and insofar as its qualitative depth looks as if it is nothing, the only sense in which its depth can be made meaningful at all is as a radical extension on a purely quantitative level. But to experience deep time ecstatically is instead to submerge one's self into what appears like nothing from the standpoint of historiology and retrieve from this sense of vertigo the "no-thing" that is the revelation of *Dasein*'s historicality. ⁵⁴ Only

⁵³ Heidegger, Martin, "Introduction to 'What is Metaphysics?'," in *Pathmarks*, ed. W. McNeill and trans. W. Kaufmann, Cambridge, Cambridge University Press, 1998, pp. 278-279. My italics.

⁵⁴ For an ecologically oriented comparison of Heidegger's conception of a "no-thing," "not-a-thing," or "no-thingness" to East Asian traditions such as Taoism, see, for instance, Zimmerman, Michael E., "Heidegger, Buddhism, and Deep Ecology," in *The Cambridge Companion to Heidegger*, ed. C. B. Guignon, Cambridge, Cambridge University Press, 1999.

by concerning oneself with such a qualitative depth would one be able to excavate a horizon that itself is not ontically accessible through the kind of history with which historiology is concerned, but which nevertheless conditions revelation historically. Hence, to experience the ground of historiology as an epochal constellation of intelligibility rather than as the very is-ness of temporality is to have breached the time-wall of modernity (*IM* 132-133, 143-144); it is to have experienced an interruption of the ordinary time of chronos by means of a temporalization of its horizon of disclosure.

Having identified such a "form of time," I believe that we have finally come full circle. Because appreciating the qualitative depth of deep time, I have suggested, is one way of understanding the concluding words of *Infinite Mobilization* with which this essay begun: for a real critical theory to exist, it would have to be identical to a mystical releasement from the vulgar notion of time underlying chronos as a sequentially tensed structure. Anything less is to remain captive to the historiological sense of history and thus to ultimately fail to interrogate the conditions for its horizon.

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REFERENCES

- Adam, Barbara, "History of the Future: Paradoxes and Challenges," *Rethinking History*, Vol. 14, No. 3, 2010.
- Arendt, Hannah, The Human Condition, Chicago, University of Chicago Press, 1958.
- Berman, Marshall, All That Is Solid Melts Into Air: The Experience of Modernity, Harmondsworth, Penguin, 1988.
- Blok, Vincent, Ernst Jünger's Philosophy of Technology: Heidegger and the Poetics of the Anthropocene, London, Routledge, 2017.
- Bonneuil, Christophe, and Fressoz, Jean-Baptiste, *The Shock of the Anthropocene: The Earth, History, and Us*, trans. D. Fernbach, London, Verso, 2016.
- Bostrom, Nick, "The Vulnerable World Hypothesis," Global Policy, Vol. 10, No. 4, 2019.
- Chakrabarty, Dipesh, "Postcolonial Studies and the Challenge of Climate Change," New Literary History, Vol. 43, No. 1, 2012.
- Chakrabarty, Dipesh, "The Climate of History: Four Theses," *Critical Inquiry*, Vol. 35, No. 2, 2009.
- Chakrabarty, Dipesh, *The Climate of History in a Planetary Age*, Chicago, University of Chicago Press, 2021.
- Coxon, Allan H., The Fragments of Parmenides: A Critical Text with Introduction and Translation, the Ancient Testimonia, and a Commentary, trans. R. McKirahan, Las Vegas, Parmenides Publishing, 2009.
- Davies, Jeremy, The Birth of the Anthropocene, Berkeley, University of California Press,
- De Goede, Marieke, and Randalls, Samuel, "Precaution, Preemption: Arts and Technologies of the Actionable Future," *Environment and Planning D: Society and Space*, Vol. 27, No. 5, 2009.
- De Landa, Manuel, A Thousand Years of Nonlinear History, New York, Zone Books, 1997.
- Elden, Stuart, and Mendieta, Eduardo, "Being-with as Making Worlds: The 'Second Coming' of Peter Sloterdijk," *Environment and Planning D: Society and Space*, Vol. 27, 2009.
- Gorz, André, "The Social Ideology of the Motorcar," in *Ecology as Politics*, trans. P. Vigderman and J. Cloud, Boston, South End Press, 1980.

- Grant, Iain H., "Spirit in Crashes: Animist Machines and the Power of Number," in *Crash Cultures: Modernity, Mediation, and the Material*, eds. J. Arthurs and I. H. Grant, Bristol, Intellect Books, 2003.
- Haff, Peter K., "Technology as a Geological Phenomenon: Implications for Human Well-Being," *Geological Society Special Publication*, Vol. 395, No. 1, 2013.
- Hamilton, Clive, *Defiant Earth: The Fate of Humans in the Anthropocene*, Cambridge, Polity, 2017.
- Harvey, David, *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change*, Cambridge, Blackwell, 1989.
- Heidegger, Martin, "Introduction to 'What is Metaphysics?"," in *Pathmarks*, ed. W. McNeill and trans. W. Kaufmann, Cambridge, Cambridge University Press, 1998.
- Heidegger, Martin, "Only a God Can Save Us': The Spiegel Interview," in ed. T. Sheehan and trans. W. J. Richardson, *Heidegger: The Man and the Thinker*, London, Transaction Publishers, 1981.
- Heidegger, Martin, *Ponderings II-VI: Black Notebooks 1931-1938*, trans. R. Rojcewicz, Bloomington, Indiana University Press, 2016.
- Hui, Yuk, and Lemmens, Pieter, "Reframing the Technosphere: Peter Sloterdijk and Bernard Stiegler's Anthropotechnological Diagnoses of the Anthropocene," *Krisis*, Vol. 2, 2017.
- Jameson, Fredric, *Postmodernism*, or, the Cultural Logic of Late Capitalism, Durham, Duke University Press, 1991.
- Jameson, Fredric, *The Seeds of Time*, New York, Columbia University Press, 1996.
- Jünger, Ernst, An der Zeitmauer, Stuttgart, Klett-Cotta, 2019.
- Lemmens, Pieter, and Hui, Yuk, "Apocalypse, Now! Peter Sloterdijk and Bernard Stiegler on the Anthropocene," b20, 2017.
- Margulis, Lynn, and Sagan, Dorion, *Acquiring Genomes: A Theory of the Origin of Species*, New York, Basic Books, 2003.
- May, Reinhard, Heidegger's Hidden Sources: East-Asian Influences on His Work, London, Routledge, 1996.
- Morse, Erik, "Something in the Air: Interview with Peter Sloterdijk," *Frieze*, Vol. 127, 2009.

- Moynihan, Thomas, X-Risk: How Humanity Discovered Its Own Extinction, Falmouth, Urbanomic, 2020.
- Nail, Thomas, Theory of the Earth, Stanford, Stanford University Press, 2021.
- Nordhaus, William D., The Climate Casino: Risk, Uncertainty, and Economics for a Warming World, New Haven, Yale University Press, 2015.
- Noys, Benjamin, Malign Velocities: Accelerationism and Capitalism, Winchester, Zero Books, 2014.
- Parkes, Graham (ed.), *Heidegger and Asian Thought*, Honolulu, University of Hawai 'i Press, 1987.
- Rosa, Hartmut, Beschleunigung: Die Veränderung de Zeitstrukturen in der Moderne, Frankfurt am Main, Suhrkamp, 2005.
- Rosa, Hartmut, Weltbeziehungen im Zeitalter der Beschleunigung, Berlin, Suhrkamp, 2012.
- Rosa, Hartmut, *Social Acceleration: A New Theory of Modernity*, trans. J. Trejo-Mathys, New York, Columbia University Press, 2013.
- Ross, Daniel, "Introduction," in *The Neganthropocene*, B. Stiegler and ed. and trans. D. Ross, London, Open Humanities Press, 2018.
- Rosen, Robert, "On a Logical Paradox Implicit in the Notion of a Self-Reproducing Automata," *Bulletin of Mathematical Biophysics*, Vol. 21, 1959.
- Shryock, Andrew, and Smail, Daniel L. (eds.), *Deep History: The Architecture of Past and Present*, Berkeley, University of California Press, 2011.
- Sloterdijk, Peter, *Bubbles Spheres, Vol. 1: Microsphereology*, trans. W. Hoban, Los Angeles, Semiotext(e), 2011.
- Sloterdijk, Peter, "Eurotaoism," in eds. T. Darby, B. Egyed, B. Jones, and trans. M. Eldred, *Nietzsche and the Rhetoric of Nihilism: Essays on Interpretation, Language, and Politics*, Ottawa, Carleton University Press, 1989.
- Sloterdijk, Peter, "Global Co-Immunity: On the Need to Elaborate a Protective Common," *Multitudes*, Vol. 45, No. 2, 2011.
- Sloterdijk, Peter, *Globes Spheres, Vol. 2: Macrospherology*, trans. W. Hoban, Los Angeles, Semiotext(e), 2014.
- Sloterdijk, Peter, *In the World Interior of Capital: Towards a Philosophical Theory of Globalization*, trans. W. Hoban, Cambridge, Polity, 2013.
- Sloterdijk, Peter, Infinite Mobilization, trans. S. Berjan, Cambridge, Polity, 2020.

- Sloterdijk, Peter, "Mobilization of the Planet from the Spirit of Self-Intensification," trans. H. Ziegler, *TDR*, Vol. 50, No. 4, 2006.
- Sloterdijk, Peter, "The Anthropocene: A Process-State at the Edge of Geohistory?," in *Art in the Anthropocene: Encounters Among Aesthetics, Politics, Environments and Epistemologies*, eds. H. David and E. Turpin, and trans. A.-S. Springer, London, Open Humanities Press, 2015.
- Steffen, Will, Broadgate, Wendy, Deutsch, Lisa, Gaffney, Owen, and Ludwig, Cornelia, "The Trajectory of the Anthropocene: The Great Acceleration," *The Anthropocene Review*, Vol. 2, No. 1, 2015.
- Steffen, Will, Persson, Åsa, Deutsch, Lisa, Zalasiewicz, Jan A., Williams, Mark, Richardson, Katherine, Crumley, Crumley, Crutzen, Paul J., Folke, Carl, and Gordon, Line et al., "The Anthropocene: From Global Change to Planetary Stewardship," *Ambio*, Vol. 40, No. 7, 2011.
- Smail, Daniel L., On Deep History and the Brain, Berkeley, University of California Press, 2008.
- Stiegler, Bernard, *The Neganthropocene*, ed. and trans. D. Ross, London, Open Humanities Press, 2018.
- Stockdale, Liam P. D., "Catastrophic Futures, Precarious Presents, and the Temporal Politics of (In)security," in *Time, Temporality, and Global Politics*, eds. A. Hom, C. McIntosh, A. McKay, and L. P. D. Stockdale, Bristol, E-International Relations, 2016.
- Taleb, Nassim N., *The Black Swan: The Impact of the Highly Improbable*, New York, Random House, 2007.
- Thrift, Nigel, "Different Atmospheres: Of Sloterdijk, China, and Site," *Environment and Planning D: Society and Space*, Vol. 27, 2009.
- Urry, John, "The 'System' of Automobility," *Theory, Culture & Society*, Vol. 21, No. 4-5, 2004.
- Van Tuinen, Sjoerd, "Critique Beyond Resentment: An Introduction to Peter Sloterdijk's Jovial Modernity," *Cultural Politics*, Vol. 3, No. 3, 2007.
- Von Förster, Heinz, "On Self-Organizing Systems and Their Environments," in *Understanding Understanding: Essays on Cybernetics and Cognition*, Berlin, Springer, 2002.

- Zalasiewicz, Jan A., Williams, Mark, Steffen, Will, and Crutzen, Paul J., "The New World of the Anthropocene," *Environmental Science and Technology*, Vol. 44, No. 7, 2010.
- Zimmerman, Michael E., "Heidegger, Buddhism, and Deep Ecology," in *The Cambridge Companion to Heidegger*, ed. C. B. Guignon, Cambridge, Cambridge University Press, 1999.