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## The Age of H: Towards the Anthropocene Imperative\*\*

I

The mainstream narrative on the early development of the concept of the Anthropocene contains all the conventional elements one would expect from a historico-scientific account. It provides not only a very precise starting point thereof, but also a well-defined inventor – and some prehistory. Strictly speaking, the term itself was coined long ago. In the 19<sup>th</sup> century, the Italian geologist Antonio Stoppani already spoke of the Anthropozoic; in 1922, the Russian geologist Alexei P. Pavlov came up with the term Anthropocene or the Anthropogene; and, in the 1980s, Eugene Stoermer re-launched the Anthropocene, although without much response.<sup>1</sup> However, it was the atmospheric chemist Paul J. Crutzen who first applied the term to the current situation, suggesting at the beginning of the new millennium that “it seems appropriate to assign the term ‘Anthropocene’ to the present ... geological epoch, supplementing the Holocene.”<sup>2</sup>

The facts on which the basic outline is grounded are indisputable. It was indeed Crutzen who first came out with the idea that human impacts on the non-human have become so profound that it may no longer be scientifically plausible to reduce the situation to an intra-Holocene crisis. It is, furthermore, to his credit that he not only proposed a new geological epoch, but was also attentive enough to anchor its onset relatively close to the present – i.e. to the beginning of the Industrial Revolution – despite considering the decision “somewhat arbitrary.”<sup>3</sup>

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<sup>1</sup> Ian Angus, *Facing the Anthropocene. Fossil Capitalism and the Crisis of the Earth System*, Monthly Review Press, New York 2016, p. 27.

<sup>2</sup> Paul J. Crutzen, “Geology of Mankind”, *Nature* 415 (2002), p. 23. Cf. P. J. Crutzen and E. F. Stoermer, “The ‘Anthropocene’”, *Global Change Newsletter*, No. 41 (2000), p. 17.

<sup>3</sup> “To assign a more specific date to the onset of the ‘Anthropocene’ seems somewhat arbitrary, but we propose the latter part of the 18<sup>th</sup> century, although we are aware that al-

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By no means, however, is Crutzen's early account of the Anthropocene flawless, and his general standpoint appears to be over-optimistic even by the standards of that time, thereby setting the ground for what was subsequently termed "the good Anthropocene". Crutzen may well have been the inventor of the concept, as well as the initiator of public debate on the subject in those early days, but in no way should we regard him as the proverbial founding father. It is, therefore, of vital importance for any discussion on the Anthropocene and its theoretical value to establish the precise context in which Crutzen's intervention emerged and in which its consequences were further developed. Put differently, one should be careful to avoid the double trap of over- *and* underestimating what Crutzen's intervention was actually about.

Being a double trap in the strict sense, it should come as no surprise that we can confront both of its elements by means of a single paragraph written by Will Steffen, one of the most prominent theorists of the Anthropocene:

It is entirely fitting that the first attempt to define the Anthropocene appeared in the newsletter of the global change research program IGBP (International Geosphere-Biosphere Programme) rather than in one of the mainstream scientific journals. The term was introduced in 2000 by Paul Crutzen and Eugene Stoermer in IGBP Newsletter 41. This publication was a crystallization of Paul Crutzen's first use of the term Anthropocene during a discussion at a meeting of the IGBP Scientific Committee in Cuernavaca, Mexico, in February 2000. Scientists from IGBP's palaeo-environment project were reporting on their latest research, often referring to the Holocene, the most recent geological epoch of Earth history, to set the context for their work. Paul, a vice-chair of IGBP, was becoming visibly agitated at this usage, and after the term Holocene was mentioned yet again, he interrupted them: "Stop using the word Holocene. We're not in the Holocene any more. We're in the ... the ... the ... (searching for the right word) ... the Anthropocene!"

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The concluding anecdote, often used in introductory presentations of this topic, is extremely telling. It clearly shows that the term did not arise out of a long and exhaustive deliberation, but appeared somewhat spontaneously, out of no-

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ternative proposals can be made (some may even want to include the entire Holocene)." (Crutzen and Stoermer, "The 'Anthropocene'", p. 17.)

where, and was primarily triggered by the excessive repetition of a term that no longer seemed appropriate. In other words, the invention of the Anthropocene was not motivated by either some strange anthropocentric megalomania or by the will to deny the destructive systemic impact of capitalism and replace it with an abstract “anthropos”, as some critics seem to believe. It was, rather, an *ad hoc* solution to resolve the discrepancy between facts and theory, to denote the increasingly obvious rift between what should otherwise be called the early and the late Holocene. Primarily, it was a gesture of naming, of giving a positive designation to the merely negative “stop using that word” – nothing more and nothing less.

However, despite having the structure of what Germans aptly call *ein Einfall*, a sudden inspiration, Crutzen’s proposal was not the isolated brainwave of an individual. On the contrary, the suggestion was, in a certain sense, a necessary product of the International Geosphere-Biosphere Programme (IGBP), an unprecedented collective research enterprise conducted between 1987 and 2015. This programme was based on a concept that opened up a new path for thinking *any (not necessarily anthropogenic) global shift: the concept of the Earth System*. As the initiators of the IGBP wrote in 1986, even before the official launch, the main goal of the programme was “to describe and understand the interactive physical, chemical, and biological processes that regulate *the total Earth System*, the unique environment that it provides for life, the changes that are occurring, and the manner in which changes are influenced by human actions.”<sup>4</sup>

Again, it is evident that the gesture of marking a geological epoch in the early stages of its formation is in itself an unparalleled event, and is not only extremely challenging for geology, but also a watershed in human history. Nevertheless, Crutzen’s suggestion was not groundbreaking as such, but rather primarily because it was made in the context of a scientific community that, with its hypothesis of the Earth System as “one single, complex, dissipative, dynamic entity, far from thermodynamic equilibrium,”<sup>5</sup> seems to have established the foundations for the paradigm shift that allowed this form of the Anthropocene to be detected in the first place. Prior to this, changes could only

<sup>4</sup> <https://web.archive.org/web/19990117062310/http://www.ciesin.org/TG/HDP/igbp.html>.

<sup>5</sup> Hans Joachim Schellnhuber, “‘Earth System’ Analysis and the Second Copernican Revolution”, *Nature* 402 (1999), p. 20.

be detected in retrospect, from a sufficient temporal distance. They could be detected only after they had been fully constituted, only after they had been finally realised and were materially tangible in the form of layers in the geosphere (as such, they were traditionally the domain of stratigraphy, a branch of geology). As opposed to this, the introduction of the concept of Earth as a single system and the study of its dynamics have opened the possibility of detecting changes in the present – moreover, it has opened the possibility of detecting in the present the changes that are yet to happen.

In the definition of the single complex Earth System as developed within Earth System science, the following features are worth pointing out:

- It deals with a materially closed system that has a primary external energy source, the sun.
- The major dynamic components of the Earth System are a suite of interlinked physical, chemical and biological processes that cycle (transport and transform) materials and energy in complex dynamic ways within the System. The forcings and feedbacks *within the System* are at least as important to the functioning of the System as are the external drivers.
- Biological/ecological processes are an integral part of the functioning of the Earth System, and not just the recipients of changes in the dynamics of a physico-chemical system. Living organisms are active participants, not simply passive respondents.
- Human beings, their societies and their activities are an integral component of the Earth System, and are not an outside force perturbing an otherwise natural system. There are many modes of natural variability and instabilities within the System as well as anthropogenically driven changes. By definition, both types of variability are part of the dynamics of the Earth System. They are often impossible to separate completely and they interact in complex and sometimes mutually reinforcing ways.
- Time scales considered in Earth System science vary according to the questions being asked. Many global environmental change issues consider time scales of decades to a century or two. However, a basic understanding of Earth System dynamics demands consideration of much longer time scales in order to capture longer-term variability of the System, to understand the fundamental dynamics of the System, and to place into context the current suite of rapid global-scale

changes occurring within the System. Thus palaeo-environmental and prognostic modelling approaches are both central to Earth System science.<sup>6</sup>

In this framework, the Anthropocene hypothesis takes on very precise and much more binding content than one might assume based on the broad and often arbitrary use of the term. The Anthropocene is not merely a loose definition of an epoch more or less marked by human impact; it is also not a bare speculative thesis that can be left to an infinite series of interpretations. On the contrary, the onset of the Anthropocene is marked by the moment that humanity as an integral *component* of the Earth System, i.e. as a component that in the material sense was never external to the System, was recognised as one of the *drivers* of the System's dynamics – *with all the resulting consequences*. The Anthropocene could thus be defined as *an irreversible transition to a new regime of the Earth System's dynamics in which the human factor, precisely at the point of its maximal intensity, is deprived of its former relative autonomy*. Once human activity becomes one of the drivers of the System's dynamics, it is no longer able to dissociate itself from the other processes of the now reconfigured Earth System. As will be demonstrated below, the Anthropocene calls for a clear decision, a decision to fully affirm the existence of the new predicament – i.e. the extremely forceful, yet immensely precarious potency of human activity. All the alternatives that adhere to the Holocene *forma mentis*, including the most conservative ones, which some decades ago would have still appeared reasonable, will inevitably bring us to the same result: to a state of complete dissolution in the System.

## II

If we follow the given scientific frameworks and maintain conceptual strictness, the decision on the precise beginning of the Anthropocene epoch is far from arbitrary – even though, at this moment, a precise dating cannot be provided with certainty. An important step in the right direction can be seen in the decision of the working group on the subject, established within the International Commission on Stratigraphy, to move the beginning of the Anthropocene from the onset of the Industrial Revolution to the period around 1950, i.e. to the post-

<sup>6</sup> Cited in full from Will Steffen et al., *Global Change and the Earth System*, Springer, Berlin 2004, p. 7.

war period of the ‘great acceleration’ when intensive socioeconomic development led, with a slight delay, to equally intensive changes in the bio- and eco-sphere significantly beyond natural variability.<sup>7</sup> Although it might seem plausible to stick to the earlier date, which comes closer to ascribing responsibility to the capitalist system as such (and not only to its later form), this would most certainly result in further abstractions, thus neglecting the very point of the Anthropocene, which confronts us with the necessity to face the material and in many ways irreversible consequences of the capitalist production system, which, in turn, *are irreducible to capitalism* – just as a symptom is irreducible to its cause. As Dipesh Chakrabarty put it, albeit in a slightly different context: “The question of global warming has a logic of causality, which *intrinsically*, not historically, is *indifferent* to the question of injustice between humans.”<sup>8</sup> Or, to quote McKenzie Wark’s latest book:

The Anthropocene does not mean the centrality of the “Anthropos”. It is not an anthropocentrism. It is not the figure of the replacement of God and Goddess with Man ruling the world with Reason. It is something quite different. What marks the turning, the break into another kind of time, is that the Earth is not marked by human intention but by unintended effects of collective human labor. The Anthropocene is the figure for a series of metabolic rifts destabilizing the world—of which climate change is just one—as unconscious and unintended effects, a kind of latent destiny.<sup>9</sup>

True, resolving the acute crisis we are in will have to take place within the capitalist framework, engaging not only with the economic power structures, but also with its pseudo-democratic political supplement, which will keep on resisting any form of ‘authoritarian’ decree – even on the international level, as the Paris Agreement clearly demonstrated.<sup>10</sup> Any solution to the problem that

<sup>7</sup> Will Steffen, “The Trajectory of the Anthropocene: The Great Acceleration”, *The Anthropocene Review*, Vol. 2, Issue 1, 2015, pp. 81–98.

<sup>8</sup> <https://www.youtube.com/watch?v=svgqLPFpaOg&t=754s>.

<sup>9</sup> McKenzie Wark, *General Intellects*, Verso, London and New York 2017, chapter 9.

<sup>10</sup> “The proposed emission cuts by individual nations under the Paris Agreement are voluntary (unilateral), without an enforceable compliance mechanism. In this sense, the Agreement cannot be considered ‘binding’ on signatories.” (David Spratt and Ian Dunlop, *What Lies Beneath*, Breakthrough, Melbourne 2018, p. 36.)

ignores the fact of being objectively situated in the capitalist condition is to be regarded as a pure – and, one may add, essentially capitalist – phantasy.

Policymakers, in their magical thinking, imagine a mitigation path of gradual change to be constructed over many decades in a growing, prosperous world. The world not imagined is the one that now exists: of looming financial instability; of a global crisis of political legitimacy and ‘fake news’; of a sustainability crisis that extends far beyond climate change to include all the fundamentals of human existence and most significant planetary boundaries (soils, potable water, oceans, the atmosphere, biodiversity, and so on); and of severe global energy-sector dislocation.<sup>11</sup>

In contrast to the notion of ‘environmental crisis’, the Anthropocene redefines the relationship between environmental and socio-economic questions by establishing an internal connection between them. In view of this presupposition, no longer can any social question – or any crisis in the social sphere – be said to be *a priori* exempt from this connection. Once human action is inseparably involved in the operation of the single Earth System, every social activity and every social crisis produces certain effects in the System as a whole: the financial crisis, for example, produced an indifference to environmental issues that lasted several years; in many parts of the world, the fiscal crisis slowed down investment in the energy transition; one by-product of war is not only local but, indirectly, also systemic environmental degradation due to the increase in the military industry; in the final analysis, climate change denial is feasible only as violence against thought, which can also produce negative effects in other spheres, resulting in general ignorance of scientific findings and the relativisation of logical reasoning, which in turn leads to the formation of new political collectives that support and strengthen new forms of climate change denial, etc.

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However, replacing the Anthropocene with the Capitalocene, *or adding* the Capitalocene problem to the Anthropocene problem and still pretending to be able to maintain theoretical and practical focus on both, simply misses the point and leads to further confusion.

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<sup>11</sup> Spratt and Dunlop, *What Lies Beneath*, p. 5.

In left-wing circles, the most often proposed alternative name for the new epoch is Capitalocene. Proponents argue that global change is being driven by a specific form of society, not humans in general, so the new epoch should be named after capitalism. Most people who make that suggestion simply want to focus attention on capitalism's responsibility for the crisis in the Earth System. ... But a few academics go overboard, proposing that we accept capitalism and Capitalocene as different names for the same thing: a new social/economic/environmental epoch that emerged in the 1500s. ... The root word anthropos also appears in another common Earth Science term, anthropogenic. The expression "anthropogenic climate change" does not mean that all humans cause global warming; rather, it distinguishes changes that are caused by human action from those that would have occurred whether or not humans were involved. Similarly, Anthropocene does not refer to all humans, but to an epoch of global change that would not have occurred in the absence of human activity. So take a deep breath, folks. The fact of the Anthropocene raises important political issues, but there is no hidden political agenda in the word. Anthropocene does not imply a judgment about all humans or human nature. The name is not perfect. As the often overheated discussions show, it is open to misinterpretation. Maybe if ecosocialists had been present when Paul Crutzen invented the word in 2000 a different name would have been adopted, but now Anthropocene is widely used by scientists and non-scientists alike. Insisting on a different word (for left-wing use only?) can only cause confusion, and direct attention away from far more important issues.<sup>12</sup>

Again, it is of crucial importance to understand the gist of Crutzen's original gesture. As a gesture of naming, it managed to subsume the previously dispersed aspects of the environmental crisis under a single denotation. With the Anthropocene, the focus is no longer on a multitude of environmental issues that individually call for concrete solutions and *ad hoc* interdisciplinary connections, but on a concept – a concept that establishes a new mode of the permanent integration of science and, last but not least, also enables philosophy to join the discussion. In this case, the gesture of naming in itself already formed an essential part of the concept, and therefore cannot (and should not) be repeated. From this perspective, any attempt at renaming the Anthropocene, now that the latter is established and has started to produce results, is a form of negation, yet another form of resistance to confronting the unprecedented situation.

<sup>12</sup> Angus, *Facing the Anthropocene*, p. 232.



Aside from the various attempts to replace the Anthropocene with a different *cene*, be it Chthulucene or Capitalocene, and the even more uncalled for decision of the International Union of Geological Sciences to declare, only in July 2018 – after many years of discussion on the Anthropocene – that for 4,250 years we have been living in the Meghalayan age (i.e. a subdivision of the Holocene)<sup>13</sup>, there is also an internal negation of the Anthropocene – one that keeps the term but struggles to accept the radical content of the concept. The difference between the implications of the simple, essentially anthropocentric concept of the Anthropocene – which to some extent is still present with Crutzen and which, despite recognising the negative effects of human action, understands the epoch as a developed form of human control over natural processes, thereby often serving as an argument to reject the very term as such – and the stricter concept of the Anthropocene, as proposed in the provisional definition above, is best illustrated precisely by the currently most prominent signal of the Earth System crisis, the problem of climate change.

As argued by many respected climatologists, the official goals of the Paris Agreement (limiting the rise in temperature to 1.5 or 2 °C above pre-industrial levels) could still have been achieved with a moderate reduction in emissions at the time of the UN Rio Conference of 1992. As opposed to this, considering the current level of cumulative greenhouse gas emissions and the combined inertia (i.e. a combination of the belated response of the climate system, which conceals the urgency, and the inertia of the socioeconomic sphere preventing the possibility of rapid adaptation befitting the urgency), certain radical effects have manifested themselves as a not fully realised, yet definitive, irreversible future fact.

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<sup>13</sup> “What happened behind the scenes was a race between two ‘committees’, some scientists wedded to the Holocene, others backing the acknowledgement of the Anthropocene. The Holocene scientists committee has been around for longer and has won the first round. The competitive committee structure that presides over the Geologic Time Scale has caused much rancour in scientific circles. Defining – or not defining – when humanity became a significant geological influence is highly political, and crucial in an age of ever-increasing environmental change and degradation. By ignoring the evidence and defining the present day as this new Meghalayan Age, it seems like a small group of scientists – 40 at most – have pulled off a strange coup to downplay humans’ impact on the environment.” (M. Maslin & S. Lewis, “Anthropocene vs Meghalayan: why geologists are fighting over whether humans are a force of nature”, <https://theconversation.com/anthropocene-vs-meghalayan-why-geologists-are-fighting-over-whether-humans-are-a-force-of-nature-101057>.)

In this respect, it has become clear that criticising the most manifest form of climate change denialism – that is, denial of the fact of anthropogenic climate change – merely by affirming the fact, i.e. by promoting awareness of the reality of climate change, is not only politically ineffective but also based on an incorrect understanding of the actual situation, and consequently of one’s own subjective position. The denial accompanying climate change as a manifest signal of the Anthropocene appears in several more or less conscious forms (as a wager on future technological solutions and thereby an affirmation of the simple, anthropocentric concept of the Anthropocene; as the opposite position of passive fatalism; as a focus on non-systemic environmental issues; as insistence on gradual transition, etc.). We can see, however, that at its core there lies the denial of irreversible systemic change, in short, the denial of the onset of the Anthropocene. The systemic denial denies both aspects: both ‘being-more’ (the realisation that humanity has become a factor of the Earth System and has triggered essential changes in the System) and ‘being-less’ (the realisation that, at the same time, humanity has become one of the many factors of the Earth System).

### III

In 2017, Owen Gaffney and Will Steffen of the Stockholm Resilience Centre formulated what they termed ‘the Anthropocene equation’, summarising at the most abstract level the key findings of Earth System science obtained thus far.<sup>14</sup> The onset of the Anthropocene can thus be depicted as the transition from the first to the second equation, both indicating the rate of change in the Earth System:

$$dE/dt = f(A,G,I) \rightarrow dE/dt = f(A,G,I,H)$$

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Formerly, the rate of change of the Earth System ( $dE/dt$ ) was a function of astronomical forcing (A), geophysical forcing (G), and the system’s internal dynamics (I), while in the Anthropocene human activity (H) is added as an entirely new forcing – despite in principle being, as Gaffney and Steffen argue, a subset of (I).

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<sup>14</sup> Owen Gaffney and Will Steffen, The Anthropocene Equation, *The Anthropocene Review*, Vol. 4, Issue 1, 2017, pp. 53–61.

Moreover, comparing the relative stability of the Holocene epoch, established on the basis of paleoclimate data, and the extraordinary rate of change, broadly correlating to trends in the socio-economic activities of the “great acceleration” starting in the 1950s, the definitive version of the Anthropocene equation is given as:

$$dE/dt = f(H)$$

$$A, G, I \rightarrow 0$$

That human activities have become the dominant forcing by no means implies everlasting human control over the functioning of the Earth System. Due to the nonlinear responses of the system, “continued increases in H could well lead to abrupt changes in the Earth System that could trigger societal collapse, forcibly reducing H dramatically and returning control of the system to A, G, and I,” notwithstanding the fact that the legacy of the human impact might “be discernible in the dynamics of the Earth System for millions of years.”<sup>15</sup>

Let us now repeat the definition of the Anthropocene given above: the Anthropocene designates *an irreversible transition to a new regime of the system’s dynamics in which the human factor, precisely at the point of its maximal intensity, is deprived of its former relative autonomy*. On the one hand, it has become increasingly obvious that the impact of H is irreversible. Whatever trajectory the system takes, it will be marked by the influence of H. On the other hand, what is not certain is whether the trajectory will be formed as its direct or indirect consequence. In other words, what remains undecided is whether the main driving force will be H, human activities, or I, the internal dynamics of the system, i.e. the non-linear response of the system to H, which, in the process, will itself cease to function as a relevant forcing.

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In the 2018 paper *Trajectories of the Earth System in the Anthropocene*, written by all of the main representatives of the Earth System science community, the latter dilemma led the authors to present an even clearer picture. The environmental crisis has long been perceived as the problem that forced us to take the following decision: to either remain ignorant, stick to business as usual, and produce a catastrophe, or to start to act differently, reduce emissions, and grad-

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<sup>15</sup> *Ibid.*, p. 59.

ually return to the normal state of the system, in which environmental issues will again become a non-issue. In this constellation, the chance of a possible catastrophe was easily suppressed, for both of the outcomes implied a scenario in which humans will have an opportunity to become relatively insignificant once again. The former alternative between catastrophe and the normal in fact represented two sides of the same coin – of the same desire to not be bothered by non-human affairs, or better, to not be bothered by the unintended consequences of one's acts in general. In this constellation, even the well-informed climate scientists played an ambiguous role. As Hans Joachim Schellnhuber wrote in a short but very effective foreword to *What Lies Beneath*, a recent report written by David Spratt and Ian Dunlop, mainstream climate science, brought together in the Intergovernmental Panel on Climate Change, is “stricken by the probability obsession”:

[C]alculating probabilities makes little sense in the most critical instances, such as the methane-release dynamics in thawing permafrost areas or the potential failing of entire states in the climate crisis. Rather, we should identify possibilities, that is, potential developments in the planetary make-up that are consistent with the initial and boundary conditions, the processes and the drivers we know. This is akin to scenario planning, now being proposed for assessing climate risks in the corporate sector, where the consequences of a number of future possibilities, including those which may seem highly unlikely, but have major consequences, are evaluated. This way one can overcome the probability obsession that not only fantasizes about the replicability of the singular, but also favours the familiar over the unknown and unexpected. As an extreme example, the fact that our world has never been destroyed previously would conventionally assign probability zero to such an event. But this only holds true under steady-state assumptions, which are practically never warranted.<sup>16</sup>

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When science says probability, the public hears improbability. Whereas a collective psychology that would be able to grasp the reality of the Anthropocene remains to be invented, the private psychology of denial works perfectly: even a single percent of probability that the situation is not yet extremely critical easily suffices to trigger a chain of inaction. However, it is precisely this small percentage that even some parts of mainstream climate science are no longer

<sup>16</sup> Hans Joachim Schellnhuber, “Foreword”, in: Spratt and Dunlop, *What Lies Beneath*, pp. 2–3.

convinced of. It will, of course, take some time until it completely disappears in terms of pure statistical probability. Still, many scientists are increasingly positive that they are no longer willing to grant it. Not because the figurative single percent of hope is simply gone, but because they have come to reject the logic of probability as such – and the now phantasmatic alternative between returning to the old Holocene stability and the objectively appeasing catastrophe that comes with it. Stability perhaps – but only in the form of a new stable state of the system, well beyond adaptation.

A new alternative presented in the *Trajectories* paper is the alternative between two outcomes of the Anthropocene trajectory, between the new, probably uninhabitable stable state (so called Hothouse Earth) and an extremely fragile “Stabilized Earth Pathway”:

In essence, the Stabilized Earth pathway could be conceptualized as a regime of the Earth System in which humanity plays an active planetary stewardship role in maintaining a state intermediate between the glacial–interglacial limit cycle of the Late Quaternary and a Hothouse Earth. We emphasize that Stabilized Earth is not an intrinsic state of the Earth System but rather one in which humanity commits to a pathway of ongoing management of its relationship with the rest of the Earth System.<sup>17</sup>

The alternative we are facing requires – and perhaps for the first time enables – a very clear decision. In order to avoid catastrophe, the time has come for us to finally and actively start producing a proper *Anthropocene crisis*, to start contaminating the phantasmatic field of political economy with the reality it has produced. The Anthropocene is an unprecedented state, and so is the Anthropocene crisis, an almost impossible insistence on H remaining the active and ever-present driver of the dynamics of the Earth System. The threshold has been irreversibly crossed; there is no way for humanity to either stick to business as usual *or* to simply renounce its active role in the system. Therefore, what the environmentalists term ‘stewardship’ should not be associated with a humble and passive subjective stance. It should rather be taken as a completely new form of human activity, as a completely new form of political engagement,

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<sup>17</sup> W. Steffen et al., “Trajectories of the Earth System in the Anthropocene”, *Proceedings of the National Academy of Sciences* 115, 33 (August 2018), p. 5.

as a collective subjective position that fully affirms the crisis, which was produced by its precise opposite, i.e. by the reckless systemic activity that, in the strict sense, had not known what it had been doing – and which now seems to be increasingly inclined towards fatalism with a human face, one in which humanity surrenders to the backlash of the Earth System and limits itself to building safe havens for the chosen few.<sup>18</sup>

What we should strive for – precisely in order to confront such by-passes by the ruling class – is the Age of H, the age in which humanity sets itself a single goal: to invent theoretical and practical solutions that would enable H to remain a significant variable in the Anthropocene equation. This, perhaps, is what one should term the Anthropocene imperative.

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<sup>18</sup> Cf. Ian Angus and Simon Butler, *Too Many People?*, Haymarket Books, Chicago 2011.