

Why Ecological Awareness is Loopy

Timothy Morton

»Progress means: humanity emerges from its spell-bound state no longer under the spell of progress as well, itself nature, by becoming aware of its own indigeness to nature and by halting the mastery over nature through which nature continues its mastery.«

THEODOR W. ADORNO

WHAT IS HAPPENING?

The field had already been »opened«; that is to say, a lane a few feet wide had been hand-cut through the wheat along the whole circumference of the field for the first passage of the horses and machine./Two groups, one of men and lads, the other of women, had come down the lane just at the hour when the shadows of the eastern hedge-top struck the west hedge midway, so that the heads of the groups were enjoying sunrise while their feet were still in the dawn. [...] /Presently there arose from within a ticking like the love-making of the grasshopper. The machine had begun, and a moving concatenation of three horses and the afore-said long rickety machine was visible over the gate [...]. Along one side of the field the whole wain went, the arms of the mechanical reaper revolving slowly [...] /The narrow lane of stubble encompassing the field grew wider with each circuit, and the standing corn was reduced to a smaller area as the morning wore on. Rabbits, hares, snakes, rats, mice, retreated inwards as into a fastness, unaware of the ephemeral nature of their refuge, and of the doom that awaited them later in the day when, their covert shrinking to a more and more horrible narrowness, they were huddled together, friends and foes, till the last few yards of upright wheat fell also under the teeth of the unerring reaper, and they were every one put to death by the sticks and stones of the harvesters./The reaping-machine left the

fallen corn behind it in little heaps, each heap being of the quantity for a sheaf; and upon these the active binders in the rear laid their hands – mainly women, but some of them men [...]/[The women] were the most interesting of this company of binders, by reason of the charm which is acquired by woman when she becomes part and parcel of outdoor nature, and is not merely an object set down therein as at ordinary times. A field-man is a personality afield; a field-woman is a portion of the field; she had somehow lost her own margin, imbibed the essence of her surrounding, and assimilated herself with it. [...]/There was one wearing a pale pink jacket [...]. Her binding proceeds with clock-like monotony. From the sheaf last finished she draws a handful of ears, patting their tips with her left palm to bring them even. Then, stooping low, she moves forward, gathering the corn with both hands against her knees, and pushing her left gloved hand under the bundle to meet the right on the other side, holding the corn in an embrace like that of a lover. She brings the ends of the bond together, and kneels on the sheaf while she ties it, beating back her skirts now and then when lifted by the breeze. A bit of her naked arm is visible [...] and as the day wears on its feminine smoothness becomes scarified by the stubble and bleeds.¹

It's the machine age – yet uncannily it isn't: it's fields and wheat. Or are the fields already a kind of machine? People appear as machine-like components working up and down, legs, clothing, arms and hands moving. Tess of the D'Urbervilles, a fictional farming girl from 1891, shows up as a piece of a vast thing, and as a person in her own right, exemplifying a weird contradiction between being and appearance that such vast things force us to see in all things. This seeing, brought on by the machination of steam engines and Kantian code, forces us to think a far, far older machination, still churning. A ten-thousand-year old structure, a structure that seems so real we call it Nature.

This essay is about the riddle of ecological awareness. It is like becoming accustomed to something strange, yet it is also becoming accustomed to strangeness that doesn't become less strange. It is like a knowing that knows itself. Knowing in a loop. A *weird* knowing. *Weird*, from the Old Norse, *urth*, meaning twisted, *in a loop*.² The Norns entwine the web of fate with itself. *Weird* can mean *causal*: the spool of fate is winding. And yet *weird* can also mean a certain strangeness of

1 | Hardy 1984, 136-139.

2 | Cf. Oxford English Dictionary: »weird«.

appearance.³ *Ecological awareness is weird.* Since there is no limit to the scope of ecological beings (biosphere, Solar System), we can infer that things in general have a loop form. But more rigorously, I'm going to argue that ecological awareness is in the form of a loop, because human interference has a loop form, because ecological and biological systems are in the form of a loop, because to exist at all is to assume the form of a loop. The loop form of things means we live in a universe of finitude and fragility. It means that the politics of coexistence are always contingent, fragile and flawed – at least one being is missing. Ecognostic jigsaws are never complete.

There are many kinds of loops. There are positive feedback loops that escalate the potency of the system in which they are operating. Antibiotics versus bacteria. Farmers versus soil, giving rise to The Dustbowl. There are negative feedback loops that cool down the intensity of those systems. Think of thermostats and James Lovelock's Gaia. There are phasing loops. We encounter them in beings such as global warming, so great that they come in and out of phase with human temporality.

Ecognosis is a *strange loop*. There you were, shoveling coal into your steam engine, that great invention patented in 1784 that Marx hails as the driver of industrial capitalism. The very same machine that Paul Crutzen and Eugene Stoermer hail as the instigator of the *Anthropocene*, the decisive intersection between human temporality and geological time.⁴ Since the later eighteenth century humans began to deposit layers of carbon in Earth's crust. In 1945 there occurred the *Great Acceleration* of the Anthropocene, marked by a huge data spike in the graph of human involvement in Earth systems.

There you are, turning the ignition of your car. And all of a sudden, at some strange point you don't quite recall, you realize it. You are a member of a massively distributed thing. This thing is called *species*. Every time I start my car or steam engine I don't mean to harm Earth, let alone cause the Sixth Mass Extinction Event in the four-and-a-half billion-year history of life on this planet. But when I scale up these actions to include billions of key turnings and billions of coal shovelings, I realize this is precisely what is happening. I am directly responsible, as a member of this species, for the Anthropocene. I am the criminal.

3 | Ibid.

4 | Cf. Crutzen/Stoermer 2000, 17-18.

And I discover this scientific forensics. Just like in *noir* fiction, I'm the detective *and* the criminal! I'm a person. I'm also part of an entity that is now *a geophysical force on a planetary scale*.⁵

AN INCONVENIENT ANTHROPOCENE

Not all of us are ready to feel sufficiently creeped out. Not a day goes by recently without some Humanities scholars becoming quite exercised about the term *Anthropocene*, which has arisen at a most inconvenient moment. *Anthropocene* might sound to posthumanists like an anthropocentric symptom of a sclerotic era. Others may readily recall the close of Foucault's *The Order of Things*: »man« is like a face drawn in sand, eventually wiped away by the ocean tides.⁶ Foucault appears less upset than the Matthew Arnold of »Dover Beach« at the prospect of this construct's obliteration. What a weirdly prescient image of global warming, with its rising sea levels and underwater government meetings.⁷ But how ironic. There we were, happily getting on with the obliteration business, when *Anthropocene* shows up. The human returns at a far deeper geological level than mere sand. Give a posthumanist a break! This is also an inconvenient truth for those convinced that any hint of talk about reality smacks of reactionary fantasy, as a bullying, know-nothing kick of a pebble, as if the sound of a kick were an argument.

The Sixth Mass Extinction Event, caused by the Anthropocene, caused by humans. Not jellyfish; not dolphins; not coral. The panic seems more than a little disingenuous, given what we know about global warming, and given what we Humanities scholars think we like to say about the role of humans in creating it, as opposed to, say, Pat Robertson or UKIP (the UK Independence Party). A Fredric Jameson might smile somewhat ruefully at the dialectic of scholars refusing the very concept of reality and big pictures, while global megacorporations frack in their backyards.

5 | Cf. Chakrabarty 2009, 197-222.

6 | Cf. Foucault 1994, 387.

7 | I refer to the action performed by the government of the Maldives in 2009.

THE OCEAN'S SILVER SCREEN

The trouble with global warming is that one simply can't just palm it off on one particular group of humans, or insist that the Sixth Mass Extinction Event is just another construct. The Humanities have persistently argued via Foucault via Heidegger or Marx via Hegel via Kant that there are no accessible things in themselves, only thing-positings, or thingings of *Dasein*, or thing discourses, or things posited by the history of spirit, or by (human) economic relations. Only things insofar as they correlate to some version of the (human) subject.⁸ But the screen on which these correlations are projected isn't blank after all. It consists of unique, discrete entities with a »life« of their own no matter whether a (human) subject has opened the epistemological refrigerator door to check them. Some entities formerly known as blank screens (and violently treated so) are overwhelming human being itself.

Foucault's face in the sand images the regime of power-knowledge that begins in 1800. To say the least, this is ecologically uncanny. 1800 is the moment of the steam engine, engine of the Anthropocene. 1800 is also the moment of Hume and Kant, who inaugurated correlationism. Hume argued that cause and effect were mental constructs based on interpretations of data: hence modern science, which talks of statistics. Which is why global warming deniers and tobacco companies are able to say, with something like a straight face, that no one has ever proved that humans caused global warming or that smoking causes cancer. In the same way, a post-Humean person is unable to claim that this bullet she is going to fire into my head at point blank range is going to kill me. She can say that it's 99.9% likely, which is actually *better*, since that relies only on data, not on metaphysical factoids culled from Aristotelian arguments about final causes. Thus the Intergovernmental Panel on Climate Change (IPCC) makes it more and more clear that humans have caused global warming, but they need to express this as a statistic: as I'm speaking this it's at 95%. Which leaves an out for conservatives who like to deny global warming by going, »Well, it snowed in Boise Idaho last week, so there's no global warming at all!« In addition to denying global warming, statements such as this deny modern causality theories. Kant grounded Hume's argument in syn-

8 | Cf. Meillassoux 2009, 5.

thetic judgments a priori in a transcendental subject (not »little me«). Only a correlator such as a (human) subject makes reality real. At the very moment at which philosophy says you can't directly access the real, humans are drilling down ever deeper into it.

HOW I LEARNED TO STOP WORRYING AND LOVE THE TERM »ANTHROPOCENE«

Let's examine the modes of Anthropocene denial. First, the claim of colonialism: the Anthropocene is the product of Western humans, mostly Americans. It unfairly lumps together the whole human race.

Although the desire for it emerged in America first, it turns out everyone wants air conditioning. On this issue, I'm in perfect accord with Dipesh Chakrabarty, who had the courage to name the concept *species* on which the concept Anthropocene depends, and got into a lot of trouble for it.⁹ Likewise obesity isn't simply American, and for the same reason. Desire is logically prior to whatever »need« is, histories of consumerism notwithstanding, histories that tend to repeat Fall narratives not unrelated to ecology: »First we needed things, then at point *x* we wanted things, and that put us into an evil loop.« We think of loops as sin. But loops aren't sinful: there was no Fall, as I shall argue, no transition from »needing« to »wanting.« Neanderthals would have loved Coca Cola Zero™.

Secondly, racism. The user of *Anthropocene* is saying that humans as a species are responsible, and while this really means white humans, they go unmarked.

There is such a thing as the human. But *human* need not be something that is ontically given: we can't see or touch it or designate it as present in some way (as whiteness, or not-blackness, and so on). There is no positive content to the human that I can discern. So *Anthropocene* isn't racist. Racism exists when one fills out the gap between what one can see (beings starting engines and shoveling coal) and what this human thing is: the human considered as a species, that is, as a *hyperobject*, a massively distributed physical entity of which I am and am not a member, simultaneously. (We'll see how there are Darwinian, phenom-

9 | Cf. Chakrabarty 2009, 197-222.

enological and logical reasons for this violation of the »law« of noncontradiction). The racist effectively erases the gap, implicitly reacting as Hume and Kant did against reality. Since Kant, there has been some kind of irreducible rift between what a thing is and how it appears, such that science handles data, not actual things.

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You see? I am myself a correlationist. I don't believe that the finitude of the human – world correlate is incorrect. It can't be burst asunder, for instance by mathematics.¹⁰ It can't be papered over, as in racism. We should merely release the anthropocentric copyright control on correlationism, allowing nonhumans like fish (and perhaps even fish forks) the fun of not being able to access the in-itself.

All right, says the hesitant humanist. *Anthropocene* may not be colonialist or racist, but surely it must be a blatant example of speciesism? Isn't the term claiming that humans are special and different, unique in having created it?

Indeed, humans and not dolphins invented steam engines and drilled for oil. But this isn't a sufficient reason to suppose them special or different. Etymology notwithstanding, *species* and *specialness* are extremely different. Just ask Darwin. Unfortunately he had no recourse to emoticons, for if his masterwork's title had contained a wink emoticon at its end, he could have said it succinctly: there are no species – and yet there are species! And they have no origin – and yet they do! A human is made up of nonhuman components and is directly related to nonhumans. Yet a human is not a fish. A swim bladder, from which lungs derive, is not a lung in waiting. There is nothing remotely lung-like about it.¹¹ Let alone my bacterial microbiome: there are more bacteria in »me« than »human« components. A lifeform is what Derrida calls *arrivant*, or what I call *strange stranger*: it is itself, yet uncannily not itself at the same time.¹²

10 | Meillassoux and Ray Brassier hold this position.

11 | Cf. Darwin 1996, 160.

12 | Cf. Derrida 2000, 3-18; Morton 2010, 14-15, 17-19, 38-50.

The Darwinian concept of species is precisely not the Aristotelian one where you can tell teleologically what species are for: ducks are for swimming, Greeks are for enslaving barbarians... Since *species* in this sense doesn't coincide with me, an actual human being as opposed to a pencil or a duck, it isn't speciesist. Like the racist, the speciesist fills out the gap between phenomenon and thing with a kind of paste: the fantasy of an easy-to-identify content. That's precisely what one is incapable of seeing, yet there are ducks and spoonbills, which are not humans.

The seemingly anachronistic and dangerous concept *species* appears superficially easy to think: after all, contemporary media such as *Sesame Street* (»We Are All Earthlings«) appear to convey it.¹³ Yet for me to know, through the very reasoning with which I discern the transcendental gap between phenomenon and thing, the being that manifests this reasoning – this might be very strange, like a serpent swallowing its own tail, putting itself in a loop. Isn't it the case then that what appears to be superficially the nearest – my existence qua this actual entity – is phenomenologically the most distant thing in the universe? It's easier for me to think the black hole at the center of the Milky Way. The Muppets and so on *inhibit* the necessary ecological thought: the uncanny realization that every time I turned my car ignition key I was contributing to global warming, and yet was performing actions that were statistically meaningless. When I think myself as a member of the human species, I lose »little me;« yet it wasn't tortoises that caused global warming.

Fourthly, the idea that *Anthropocene* is hubristic. Yet the term deploys the concept *species* as something unconscious, never totally explicit. Humans did it, not jellyfish and not computers. But humans did it with the aid of prostheses and nonhumans such as engines, factories, and cows – let alone viral ideas about agricultural logistics living rent-free in minds. So *Anthropocene* isn't hubristic at all. It means humans – already a mess of lungs and bacteria and nonhuman ancestors and so on – along with their agents such as cows and factories and thoughts, agents that can't be reduced to their merely human use or exchange value. For instance, these assemblages can violently disrupt both use and exchange value in unanticipated (unconscious) ways: one cannot eat a Californian lemon in a drought. Furthermore, »we« did it *unconsciously*. We became a geophysical force on a planetary scale. This means that no matter what

13 | Cf. *Sesame Street* 1985; *USA for Africa* 1985.

you think about it, no matter whether you are aware of it or not, there you are, being that. This distinction is lost on some of those who react against the term. One cannot be hubristic about one's heartbeat or autonomic nervous system.

The fact that it is far from hubristic is also why geoengineers are incorrect, if they think *Anthropocene* means we now have carte blanche to put gigantic mirrors in space or flood the ocean with iron filings. Earth isn't just a blank sheet for the projection of human desire: this desire loop is predicated on entities (Earth, coral, clouds) that also exist in loop form, in relation to one another and in relation to humans. The argument for geoengineering goes like this: »We have always been terraforming, so let's do it consciously from now on.«¹⁴ Yet making something conscious doesn't mean it's nice. We have always been murdering people. How is deliberate murder more moral? Psychopaths are exquisitely aware of the suffering they consciously inflict. In relation to lifeforms and Earth systems, humans have often played the role of the Walrus concerning the oysters:

»I weep for you,« the Walrus said:
 »I deeply sympathize.«
 With sobs and tears he sorted out
 Those of the largest size,
 Holding his pocket-handkerchief
 Before his streaming eyes.¹⁵

Consider the Freudian-slippery absurdity of James Lovelock's analogy of Jekyll and Hyde for science and engineering. Lovelock, calls us the »species equivalent« of Jekyll and Hyde: »Only big science can save us. We know big science been like Mr. Hyde for the last two centuries, but please know, we have a kindly inner doctor Jekyll. Let us be Jekyll. Please. Please trust us, *trust us*.«¹⁶ Unaware of its tone, the sentence sounds exactly like Mr. Hyde, as does Jekyll's own self-justification in the novel. We should be screaming.

14 | Cf. for instance Robinson 1993, 1995 and 1997.

15 | Carroll 2000, 187.

16 | Lovelock 2006, 6f.

More deeply, one can't get rid of the unconscious that easily. Here is an analogous sentence: »I know I'm an addict so now I'm going to drink fully aware of that fact.« Being aware of »unconscious biases« (as the Harvard engineering test for interviewers of job candidates puts it) is a contradiction in terms.

Humans made the *Anthropocene* – humans made the logistics of agriculture that now covers most of Earth and is responsible for an alarming amount of global warming emissions all by itself. Not bacteria, not lemons. Such a making had unintentional or unconscious dimensions, if one is in the psychoanalytic trade, or *style* if one is in the phenomenological business. No one likes having their unconscious pointed out, and ecological awareness is all about having it pointed out. Moreover, this unconscious is decidedly *physical* – as in the fact that humans are a geophysical force. The hint that there is an outside untouched by what or how we dispose ourselves intellectually or culturally is taboo and shocking to some Humanities scholars.

There are some substitutes for the term *Anthropocene*. For instance, why not call it Homogenocene? While fitting nicely with Hopkins sonnets about wearing man's smudge and sharing man's smell, this is just a euphemism. The substitute is true: humans have stamped their impression on things they consider as ductile as wax, even if they cry. But in a more urgent sense, the concept is false. It is truly anthropocentric. The iron deposits in Earth's crust made by bacteria are also homogeneous. Oxygen, caused by an unintended consequence of bacterial respiration, is a homogenous part of the air. Humans are not the only homogenizers. The concept of species, upgraded from the absurd teleological and metaphysical concepts of old, not anthropocentric at all. Because it is via this concept, which is open, porous, distant from what is given to my perception, that the human is decisively deracinated from its pampered privileged place apart from all others.

The Anthropocene is the first truly anti-anthropocentric concept. When we think species this way, global warming is seen as a *wicked problem*, or even as a *super wicked problem*. A problem you can rationally diagnose, but to which there is no feasible rational solution. Some kind of irreversibility lies at the heart of the wicked problem. There appears to be no way to solve it—barring some radical letting go of our assumptions about ourselves. Which sounds absurd. But why?

AGRILOGISTICS

In the Golden Age, agriculture was an abomination. In the Silver Age, impiety appeared in the form of agriculture. In the Golden Age, people lived on fruits and roots that were obtained without any labor. For the existence of sin in the form of cultivation, the lifespan of people became shortened.¹⁷

I have placed a curse on the ground. All your life you will struggle to scratch a living from it. It will grow thorns and thistles for you, though you will eat of its grains. All your life you will sweat to produce food, until your dying day. Then you will return to the ground from which you came. For you were made from dust, and to the dust you will return.¹⁸

Two ancient texts, written within agricultural time, condemn agriculture. Rather startlingly accurately: the science is on their side.¹⁹ A book about this is called *Paleopathology at the Origins of Agriculture*. As if, for a moment when you read the title, there was an *ancient pathology* (paleopathology), a deployment of a telling term, *paleo*, which names (within agricultural space once more) the Paleolithic, the time before the Neolithic. And as if the origins of agriculture were pathological. As if science couldn't help talking in the terms of agricultural religion, itself caught in agricultural time. Agriculture against agriculture. Agricultural autoimmunity, an agricultural allergy that agriculture can't get rid of. Foundational Axial Age stories of the origin of religion as the beginning of agricultural time. An origin in sin. Religion as such (was there »religion« beforehand?) founded in and as impiety. And the thistles keep growing, the sweat keeps pouring and humans are from dust, not from themselves as later agricultural myths (from the Theban cycle to the Enlightenment) will proclaim. »Religion« itself as a reflective, reflexive mode that puts us into the loop of sin and salvation, with its escalating positive feedback. Like agriculture.

What is this »human« species, instigator of the Anthropocene, fragile sand drawing? Evidently the term as used here is not essentialist, if *essentialist* means metaphysically present – a metaphysics that isn't

17 | The Ramayana of Valmiki 1976.

18 | Genesis 3:17-19.

19 | Cf. the marvelously exhaustive collection of data in Cohen/Armélagos 2013.

thinkable in the lineage of Kant and his subsequent lineage holders, including Heidegger, who inspired Lacan, who taught Foucault. This presence derives ultimately from a default ontology persistent in the long moment in which the Anthropocene is a rather disturbing fluctuation. We are still within this ten-thousand-year »present« moment, a whisker of geological time. What happened in the Fertile Crescent happens »now.« This moment started somewhere, sometime. It is bounded. Yet to think outside it, since that very outside is defined by it, is to think within it. The contemporary phenomenon of the gluten-free diet perfectly embodies this modern, magic bullet solution to modernity – gluten, that abject-sounding, glutinous protein found in wheat. Even Neanderthals made bread. Or the modern hatred of the body combined with a profound unease that »something is wrong,« which is accurate, combined with a primitivism evoked in the »Paleo diet.« We shall need some kind of aikido to traverse it without repeating it.

There's a huge elephant in the room. And you are a cone in one of its eyes. When you are sufficiently creeped out by the human species, you see something even bigger than the Anthropocene looming in the background, hiding in plain sight in the prose of Thomas Hardy, the piles of fruit in the supermarket, the gigantic parking lots. What on Earth is this structure that looms even larger than the age of steam and oil? Isn't it enough that we have to deal with cars and drills? Thomas Hardy provides a sufficiently widescreen way of seeing agricultural production, sufficient that is to glimpse in his description not only the immiseration of women in particular and the rural working class in general, in the later Victorian period, but also the gigantic machinery of agriculture – machinery before the Industrial Revolution, before the Agricultural Revolution – *the machine that is agriculture as such*. Without doubt, industrial scale agribusiness is now responsible for an alarming amount of global warming emissions. But before the web of fate began to be woven on a power loom, machinery was already whirring away.

I call this ten-thousand-year machination *agrilogistics*, the time of a certain logistics of agriculture that arose in the Fertile Crescent and went viral, eventually requiring steam engines and industry to endure.²⁰ Logistics, because it is a technical, planned, and perfectly logical ap-

20 | Cf. Morton 2015.

proach to built space. Logistics, because it proceeds without the need, so it thinks, for stepping back and rethinking the logic.

A climate catastrophe about 12,500 years ago pushed humans to find a solution to their anxiety concerning where the next meal was coming from. It was the reverse of the thaw after the Ice Age. A drought lasting more than a thousand years compelled humans to travel farther. It happened that in the Fertile Crescent of Mesopotamia, barley and wheat were growing wild beneath the trees. The same can be said for rice growing in China, corn, squash and beans growing in America, and sorghum and yam in Africa. Significantly, the taro of New Guinea is hard to harvest and low in protein, not to mention hard to plant (you have to do it one by one), and so the farmers in the highlands never »moved on« from hunter-gathering. The taro cannot be *broadcast* – so many terms from agrilogistics have become terms in media (*field* among them), not to mention the development of that very significant medium, writing.

Humans in Mesopotamia set up villages with granaries. The storage and selection of grain exerted evolutionary pressure upon it. Humans and grain coevolved. Grain was selected for its tastiness, ease of harvesting, and so on. Scaled up this pressure was vast. Nine thousand years ago humans began to domesticate animals to mitigate season variations in game. To keep the kettle boiling, as it were, the kettle of agrilogistics.²¹ Now the number of domesticated animals on Earth far outweighs (literally outweighs) the number of non-domesticated ones. Humans represent roughly 32% of vertebrate biomass. The other 65% is creatures we keep to eat. Vertebrate wildlife counts for less than 3%. The term *cattle* speaks to this immensity and to a too-easy ontology humming away in its background. This agrilogistical boiling is done *for its own sake* – there were no other great reasons, as we shall see. This loop, reminding one of the aestheticism of »art for art's sake,« is strange and compelling. It is, as it were, an aestheticism of utility, *an aestheticism of the non-aesthetic*.

The idea that humans began »civilization« here is a retroactive positing par excellence. As if civilization had emerged like the goddess Athena from the head of the human, without any support. Without coexistence. »Civilization« was a collaboration between humans and wheat,

21 | In New Guinea, native pigs can't plough—so agrilogistics was stymied there again.

humans and rock, humans and soil, out of something like desperation, spread over long tracts of time. The human hyperobject (the human as geophysical species) became a machine for the generation of hyperobjects. We are living in one now – global warming. Precisely because of this, »civilizations« are inherently fragile. Just as World War II was the viral code that broke the computation of a certain imperialism, one wonders whether global warming will be the viral code that breaks the machinations of a certain neoliberal capitalism. One wonders.

THE THREE AXIOMS OF AGRILOGISTICS

The logistical algorithm of Fertile Crescent agriculture consists of numerous subroutines: eliminate contradiction and anomaly, establish boundaries between the human and the nonhuman, maximize existence over and above any quality of existing. Now that the logistics covers most of Earth's surface, we can see its effects as in a polymerase chain reaction: they are catastrophic. Humans invented a form of agriculture that became so successful that it is now wiping out lifeforms in the most efficient way imaginable.

Agrilogistical space is saturated with three philosophical axioms. We are living inside a philosophy, along with worms, plows, cats and stagnant pools. But the philosophy is silent. It mimes itself in the movements of Tess in the field. It mimes itself in the field. But to all intents and purposes, it's a dumbshow, so familiar that it's almost invisible. The silent functioning of the world. Let's make agrilogistical space speak:

- (1) The law of noncontradiction is inviolable.
- (2) Existing means to be constantly present.
- (3) Existing is always better than any quality of existing. Or as the philosophy teacher in Tom Stoppard's *Darkside* puts it, being alive instead of dead.

We begin with Axiom (1). There is no good reason for it. There are plenty of ways to violate this law, otherwise we wouldn't need a rule. This means that Axiom (1) is a prescriptive statement disguised as a descriptive one. Formulated rightly, Axiom (1) actually states: *Thou shalt not violate the law of noncontradiction*. Axiom (1) works by excluding (domesticated)

lifeforms that aren't part of your agrilogistical project. These lifeforms are now defined as pests if they scuttle about, or weeds if they appear to the human eye to be inanimate and static.

It also results in the long history of *the Easy Think Substance*. Agrilogistical ontology, formalized by Aristotle seven thousand years, thinks that a being consists of a bland lump of whatever, decorated with accidents. It's the Easy Think Substance because it resembles what comes out of an Easy Bake Oven, which one subsequently decorates with sprinkles. This non-description of Easy Think passengers implies an unexamined thought that gives no heed to the qualities of the people on board. Only their number counts, *the fact that they merely exist*. Indeed, existing is better than any quality of existing, according to Axiom (3). It doesn't even matter how many more people than one there are. Even the sheer quantity of existing is treated as a lump of whatever. Counting doesn't count. For a social form whose early invention, writing, was so preoccupied with sheer counting (in surviving Linear B texts for instance), this is ironic. Consider the familiar problem of the train. To save the people on the train, by stopping the train from going on broken tracks over a cliff, it is necessary to divert it towards a boy tied to a safer railway track. Now amplify the problem. Say there were three hundred people on the track, and three hundred and one people in the train. The train should divert and run over the people on the track. This isn't even a fully mathematizable world, just a lump, an amazing pudding of stuff.

So this implies Axiom (2): to exist is to be constantly present: the *metaphysics of presence*. The metaphysics of presence is intimately caught in the history of global warming. Here is the field, I can plough it, sow it with this or that, or nothing, farm cattle, yet it remains, constantly the same. The entire system is construed as constantly present, rigidly bounded, separated from nonhuman systems – despite the obvious existence of beings who show up to maintain it (for instance the cats and their helpful culling of rodents chewing at the corn). Thus the ambiguous status of cats is not quite the »companion species« Haraway generalizes about through dogs. They stand for the ontological ambiguity of lifeforms, and indeed of things at all. They are a *neighbor* species. »Companion« is already too conceptual. Their penetrating gaze is thus used as the gaze of the extraterrestrial alien. Because they are the intra-terrestrial alien.

Well, the agrilogistical engineer must try to ignore the cats as best as he (underline *he*) can, and if that doesn't work, kick them upstairs into deity status. Meanwhile, he asserts instead that he could plant anything in this agrilogistical field and underneath it remains the same field, constantly. A field is a substance underlying its accidents. Agrilogistical space is a war against the accidental. Weeds and pests are a good example of something supposedly accidental – a nasty accident you have to minimize or eliminate. As is said, *a weed is a flower in the wrong place*.

Consider the accident of epidemics, commonly known in ancient Greek culture as miasma. The first hyperobject thinkable, yet not directly visible, to humans. Since you are settled and stable, you can observe these phenomena floating about. You see them as *para*, as accidental. And you try to get rid of them. For instance, you move to America and start washing your hands to get rid of germs. Then you suffer from an epidemic of polio, from which you were protected by not doing so much washing. This is the subject of Philip Roth's novel *Nemesis*.²² Here is a good example of a strange loop. Agrilogistics itself actually works against itself, thus defying the law of noncontradiction in spite of itself! At least when you think it at an appropriate ecological and geological timescale.

To achieve constant presence, not just in thought but also in social and physical space requires persistent acts of violence, and such an achievement is itself violence.²³ Why? Because it goes against the grain of (ecological) reality, which consists of porous boundaries and inter-linked loops, rather like the open-ended play of marks and signs that underwrites the very scripts that underwrite agrilogistical space, with its neatly ploughed lines of words, many of their first lines pertaining to accounting for cattle – a lazy term for anything a (male) human owns. No, I'm not saying that pre-agrilogistical social forms were more present because they were oral. I'm saying that they weren't. Logocentrism – the idea that full presence is achievable within language – is an agrilogistical myth. This is why its deconstruction, in Heidegger and then in Derrida, is a way to start finding the exit route.

Agrilogistical existing means just being there, in a totally uncomplicated sense. No matter what the appearances might be, essence lives

22 | Cf. Roth 2011.

23 | Cf. Derrida 1978, 151f.

on. Ontologically, agrilogistics is immiseration. And socially. Immiserating conditions were the almost immediate consequence of its inception, yet the virus persisted, like an earworm or a chair, no matter how destructive to the humans who had devised it.²⁴ Or indeed private property, based on settled ownership and use of land, a certain kind of house and so on – the nonhuman basis of the contemporary concept of self, no matter how much we want to think ourselves out of that. Agrilogistics led rapidly to patriarchy, the impoverishment of all but a very few, a massive and rigid social hierarchy, and feedback loops of human–nonhuman interaction, such as epidemics. Appearance, phenomena, is of no consequence. What matters is knowing where your next meal is coming from, no matter what the appearances are. The physical embodiment of this thought takes the form of fields that surround the city-state. These fields now underlie all other modes of production from feudalism to capitalism to Soviet economies.

Without paying too much attention to the cats, you have broken things down to pure simplicity, and now you are ready for Axiom (3):

(3) Existing is always better than any quality of existing.

Actually, we need to give it its properly anthropocentric form, because – screw the other lifeforms, right?

(3) Human existing is always better than any quality of existing.

Axiom (3) generates an Easy Think Ethics to match the Easy Think Substance. A default utilitarianism, hardwired into agrilogistical space. Since existing is better than anything, more existing must be what we should aim for. Everything else is just accidental. No matter whether I am hungrier, or sicker, or more oppressed, underlying these phenomena, I and my brethren remain constantly, down the generations.

Jared Diamond has called Fertile Crescent agriculture »the worst mistake in the history of the human race.«²⁵ It's worse than a mistake. Because of its underlying logical structure, agrilogistics now plays out at the temporal scale of global warming. Agrilogistics supplied the conditions for the Agricultural Revolution, which swiftly provided the conditions for the Industrial Revolution. Which is why there is a good reaction to the »modernity once more with feeling« solutions to global warming – bioengineering, geoengineering, and other forms of what I

24 | Cf. Diamond 1987, 64–66.

25 | Ibid.

shall call *happy nihilism*. Happy nihilism reduces things to bland substances that can be manipulated at will, without regard to unintended consequences. The right reaction is a scream.

Now agrilogistics covers most of Earth's surface, we can see its effects as one can see patterns of DNA in a polymerase chain reaction: they are catastrophic. Planning for the next few years means you know where the next meal is coming from, for a long time. Who doesn't want that? And existing is good, right? So let's have more of it. Yes, I have just touched the third rail, the population rail. You are now thinking I might be a Nazi. Courting this reaction is just one of first ridiculous, impossible things that ecognosis does. So much ridicule, so little time.

It was based on increasing happiness: eliminating anxiety about where the next meal is coming from. But within the first quarter of its duration so far, agrilogistics resulted in a drastic *reduction* in happiness. People starved, which accounts for shocking decreases in average human size in the Fertile Crescent. Within three thousand years, patriarchy emerged. Within three thousand years, what is now called the 1% emerged, or in fact the 0.1%, which in those days was called King. Agrilogistics exerted downward pressure on evolution. Within three thousand years, farmers' leg bones went from ripped hunter-gatherer to semi-sedentary forerunner of the couch potato. Let's not forget deserts. Agrilogistics was already a disaster early on. It was repeated throughout Earth. There is a good Freudian term for this destructive repetition: death drive.

There was something wrong with the code from the beginning. *We define happiness as a state of well-being, starting with being alive instead of dead.* And that more happiness is better, such that more existing, despite how I appear (starving, oppressed) is better. We could compress this idea: *happiness as existing for the sake of existing. A for its own sake* that, in other domains such as the aesthetic, is often seen as superfluous, or evil, or evil because superfluous. It sounds so right, an Easy Think Ethics based on existing for the sake of existing. Yet if you scale up this argument a very strange thing happens, observed by Derek Parfit, who subjects this kind of utilitarianism to stress tests based on the Prisoner's Dilemma. (Two prisoners in two rooms, they can't communicate. If they both confess they get a short sentence. If one narks on the other, the other gets a longer sentence and one goes free. What do they do?) Easy Think Ethics fails under sufficient spatiotemporal pressure. Parfit was

trying to think about what to do with pollution, radioactive materials, and the human species. At Earth magnitude, the magnitude at which there is no »away,« we ask this childish question: *What does »go free« mean? What on Earth, quite literally?*

Let's say we have trillions of humans, spread throughout the galaxy. They are all living at what Parfit calls *the bad level*, which is not far from Agamben's idea of *bare life*. Trillions of nearly dead people, trillions of beings like the Muselmänner in the concentration camps, zombies totally resigned to their fate. This will always be absurdly better than even billions and billions of humans living in a state of bliss. Because more people is better than happier people. Because bliss is an accident, and existing is a substance. Easy Think Ethics. Let's colonize space – that'll solve our problem! Let's double down! But we now know that it doesn't take trillions of humans spread throughout the Galaxy. It only takes a few billion operating under agrilogistical algorithms at Earth magnitude. In short: to avoid the consequences of the last global warming, humans devised a logistics that has resulted in global warming. Mary Daly is correct that we live in a death culture.²⁶

NATURE

Agrilogistics gives us the concept of Nature definitively outside of the human. So the normative concept of Nature that tells you what's »in« and what is »out« as surely as a jaded fashion magazine is deeply troubled. Normative Nature simply can't cover absolutely everything, because Nature depends on specifying the unnatural. But this is just what we moderns are incapable of doing in advance of the data. The concept Nature is a flicker of resistance to the oncoming metal army of industrialization, like a fake medieval sword made of rubber.

But this concept isn't only untrue; it's responsible for global warming. Nature is defined within agrilogistics as a harmonious periodic cycling. Carbon dioxide fluctuated in a harmonious-seeming periodic cycle for 10,000 years – until it didn't.²⁷ We've grown used to calling nice periodic cycling Earth systems *Nature*. The term's ecological val-

26 | Cf. Daly 1990, 40-46.

27 | Cf. Zalasiewicz 2013.

ue is dangerously overrated. Nature as such is a 10,000-year-old human product, not only discursive, but also geological. Its wavy elegance was simply revealed as inherently violent, as when in a seizure one's brain waves become smooth right up until one goes into seizure. You wash rinse repeat the agrilogistics, and suddenly you reach a tipping point, which emerges with the steam engine that improves agrilogistical functioning. The Anthropocene doesn't destroy Nature. It *is* Nature, in its fully toxic, nightmare form.

Agrilogistics is a strange loop because in its very attempt to smooth out the physical world and to smooth out anxiety, it has doubled down on that physical world and on anxiety itself. Just like how washing your hands forces bacteria to adapt. What we need to do, then, is investigate with great urgency the reasons for the arising of this particular loop. But that is the subject of future work.

BIBLIOGRAPHY

- Carroll, Lewis: »Alice Through the Looking Glass«, in: Gardner, Martin (ed.): *The Annotated Alice: The Definitive Edition*. New York: Norton 2000, 129-274.
- Chakrabarty, Dipesh: »The Climate of History: Four Theses«, in: *Critical Inquiry* 35 (2009), 197-222.
- Cohen, Mark Nathan/Armelagos, George J.: *Paleopathology at the Origins of Agriculture*, Gainesville: University Press of Florida 2013.
- Crutzen, Paul/Stoermer, Eugene: »The Anthropocene«, in: *Global Change Newsletter* 41.1 (2000), 17-18.
- Daly, Mary: *Gyn/Ecology: The Metaethics of Radical Feminism*, Boston: Beacon 1990.
- Darwin, Charles: *The Origin of Species*, ed. Gillian Beer, Oxford/New York: Oxford University Press 1996.
- Derrida, Jaques: »Hostipitality«, tr. Barry Stocker with Forbes Matlock, in: *Angelaki* 5.3 (2000), 3-18.
- Derrida, Jaques: »Violence and Metaphysics«, in: id.: *Writing and Difference*, tr. Alan Bass, London and Henley: Routledge and Kegan Paul 1978, 79-153.
- Diamond, Jared: »The Worst Mistake in the History of the Human Race«, in: *Discover Magazine* (May 1987), 64-66.

- Foucault, Michel: *The Order of Things: An Archaeology of the Human Sciences*, New York: Random House 1994.
- Hardy, Thomas: *Tess of the D'Urbervilles* [1891], ed. David Skilton, Harmondsworth: Penguin 1984.
- Lovelock, James: *The Revenge of Gaia: Earth's Climate in Crisis and the Fate of Humanity*, New York: Basic Books 2006.
- Meillassoux, Quentin: *After Finitude: An Essay on the Necessity of Contingency*, tr. Ray Brassier, New York: Continuum 2009.
- Morton, Timothy: *Dark Ecology*, New York: Columbia University Press 2015.
- Morton, Timothy: *The Ecological Thought*, Cambridge: Harvard University Press 2010.
- Robinson, Kim Stanley: *Blue Mars*, New York: Random House 1997.
- Robinson, Kim Stanley: *Green Mars*, New York: Random House 1995.
- Robinson, Kim Stanley: *Red Mars*, New York: Random House 1993.
- Roth, Philip: *Nemesis*, New York: Vintage 2011.
- Sesame Street: »We Are All Earthlings«, in: *Sesame Street Platinum All-Time Favorites*. Sony 1995 [Audio CD].
- The Ramayana of Valmiki, tr. M.L. Sen, New Delhi: Munshiram Manoharlal 1976.
- USA for Africa: »We Are the World«, Columbia 1985 [Audio CD].
- Article »weird«, in: *Oxford English Dictionary*, April 9th 2014, <http://www.oed.com>.
- Zalasiewicz, Jan: Presentation at »History and Politics of the Anthropocene«, University of Chicago May 2013.

