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# The Anthropocene / The Truth

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John Parham (ed) *Cambridge Companion to Literature and the Anthropocene*

## *Delusions of numeracy*

Despite a decline of 1.3% over the previous year, 2018 saw 259.4 million PCs sold worldwide (Gartner 2019a). Over the same period, against declining smartphone and tablet markets, the chip industry increased its revenues more than 13% to \$476.7 billion (Gartner 2019b). Optical fibre production increased to 325 million kilometres in 2018, though industry observers say it was the first year without growth since 2003 due to falling Chinese demand (Finch and Mack 2019). Still, the world's total of fixed broadband subscribers passed one billion in 2018 for the first time, indicating some growth in domestic connections, now in competition with wireless (which admittedly also relies on fibre optics for background infrastructure).

We are used by now to dealing with these kinds of figures in discussions of the Anthropocene. We know their rhetorical potency, and we know how to unpack them. My figures are significantly incomplete. It is all but impossible to get figures for chip production in units shipped, largely because of the structure of supply chains and just-in-time delivery, and revenue doesn't give direct evidence because of the discrepancy between mass fabrication and high-value specialist chips for security and military uses. Similarly it is tricky to get up to date information on the environmental implications of some activities, but a typical set of figures, in this case for a six-inch silicon wafer, are that its fabrication requires 3,200 cubic feet of bulk gases, 22 cubic feet of hazardous gases, 2,275 gallons of deionized water, 20 pounds of chemicals, and 285 kilowatt hours of electrical power. It is unfortunate, though understandable, that Anthropocene discourse focuses more on atmospheric pollution than terrestrial and pelagic, but even here we can follow the logic: a lot of energy, a lot of chemicals, many of them extremely dangerous, and a lot of gases and water. Of course, well-regulated plants scrub the water and gas coming out of the process, and an entire industry copes with the waste product. Cleanliness is imperative in digital technologies. Fibre optics require unbelievably pure glass: purifying it requires temperatures in excess of 2000 degrees Celsius, and someone has to take care of the impurities the process removes. Purified water for washing chips after fabrication removes up to 40% of the volume of any ordinary water supply: what happens to the excess?

And how much energy does it take to clean it?

How much does it take to send signals along those millions of kilometres of cable, and the millions laid over the decades since the internet boom took off? What happens, incidentally, to all the old cable that can no longer meet contemporary standards? No-one collects it from the bottom of the Pacific. It is clad in plastics, some dating back before the Montreal accords that banned the use of PCBs (polychlorinated biphenyl plastics), and no-one knows the chemistry of deep-ocean pressure on old fibre. There are accountings of the environmental costs of satellite launches, and of space debris in close earth orbit (eg NASA 1995, United Nations 2010). We have left exploratory spacecraft, some with nuclear reactors aboard, on the surfaces of other planets. From the deepest oceans to the far reaches of the solar system, our communications media leave footprints, no longer as light as Chief Seattle's, even though some of them were only left in the effort to take only photographs. You can find the carbon footprint of a Google search, and we have banded about the knowledge that the cloud, the server farms coping with the vast expansion in data production and storage, had already outstripped the airline industry's output of greenhouse gases in 2007, and that corporations install their data farms in the coldest climates to cut their cooling bills, but are still pumping heat into the ecosphere. Providing the statistics does not make these actions any more solid than they already are. Beneath the numbers lie other mysteries, other questions, other interpretations. Numbers do not represent, name or indicate truth: they only point at the place where it ought to be, and wave in the direction it's travelling in.

Nor do media represent truth: they produce it, not as a discursive formation harnessing power and knowledge to performative statements, but by their unavoidable materiality. In order to produce and access the numbers, we use exactly the same machinery we are trying to describe, so adding to the total weight of communications as physical installation and as an increasingly significant site of energy consumption. Bear in mind, that, as was the case for the postal system since the mid-19th century, about eighty per cent of traffic online is business to business, and another significant tranche is governmental. But now we are entering the era of the internet of things, already in excess of ten billion connected devices, where human-to-human communication is a diminishing part of the traffic. This makes it clear why social media corporations are so interested in mining this last preserve of intimate and, from a systemic point of view, random noise generation that human interactions provide for them to profit

from. It also helps understand that what is at stake when we discuss data, truth and climate change simultaneously relies on and contributes to global warming, but does so in the margins of a system devoted to an overwhelmingly mechanical internal dialogue in which humans have a diminishing statistical and perhaps semantic role.

### *Coding the anthropos*

Like SETI, the Search for Extra-Terrestrial Intelligence network, powered by mass participation and donated computing time raking the noisy cosmos for meaningful signals, our communications systems radiate waste heat and electro-magnetic waves far beyond our own planet, in a digital hullabaloo that masks the very signals SETI seeks, providing instead more and more evidence of that now vanishing species, the *anthropos*. The term 'Anthropocene' is challenged on many sides: Moore's (2015) capitalocene, the Chthulucene (Haraway 2016), misanthropocene (Clover and Spahr 2014), entropocène (Stiegler 2015) and Ghassan Hage's (2017) necrocene. Not just a symptom of the anthropocentric urge, perhaps retaining the word 'Anthropocene' reflects rather a melancholy wish that our dwindling should leave as its monument not a midden but a heat signature, fading in a corner of the Milky Way. All the same there is a certain utopianism in keeping the human in play, not as an empirical given (for reasons explored below) but as an unfinished project. Clearly the environment environs because it is defined as what is excluded from the human, but the act of excluding simultaneously defines what is included, what counts as human. We only become human in relation to a nature that is other-than-human. That unhuman environment now includes technologies that chatter among themselves at speeds beyond human comprehension, as well as a world increasingly hostile to the survival of our species. The utopian residue of the Anthropocene would then be a political project: to become human – otherwise, in a different relation to a changing outside.

The Anthropocene thesis is about change, on scales and in timespans that similarly defy human senses. The world has always needed mediation, certainly when approached as the locus of truth as it has been by the scientific concern with knowledge verified by its objects rather than by argument. The self-inscription of tremors on a seismometer's turning drum depends on holding the pen still as the drum moves up and down, while an optical illusion, or more likely a deeply held ideological belief that the moving finger writes, tricks us into believing it is the pen that moves. The world has agency here, and the pen's only task is to stay immobile. The

mediation is mysterious to us, and the scrawl it leaves demands a hermeneutic as richly traditional and as formally guided as any scribal culture. Yet the faith in the world's capacity to record itself, from photography's pencil of nature (Fox-Talbot 1844) to real-time meteorological maps, invites a myth of immediacy and transparency that the materiality of lenses and the darkroom, cartographic projection and translation from arithmetic to geometry belie. The very existence of the Anthropocene depends on its determination through such instruments. The hierarchy of the senses that leads us to distrust the proximate senses of taste, touch and scent mean we do not value our own feelings of warmth and cold and the temperature gradients of climate change are imperceptible, too vast and too slow for our eyes. We need time-lapse cinematography, we need cartographic instruments, and increasingly we demand a combination of these pictorial and symbolic tools in ill-considered hybrids whose veracity we trust more than ourselves. McLuhan's idea of the media as prosthetic senses (McLuhan 1964: 7) returns back on itself. For McLuhan, media were prosthetic extensions of human organs, but today prosthetic media assert themselves over against the senses they replace. What is more, the planet-scale instruments we now employ – relays of satellites, automatic buoys in mid-ocean, remote anemometers equipped with cellular communications, all reporting to international computer networks (Edwards 2010), now produce more data than whole cadres of technicians can observe, in granular detail sifted through by devices trained by machine learning to seek patterns which, in their increasing autonomy from direct human design, no longer exclusively conform to the requirements of the science they were built for. Quite apart from their commercial value and consequent restrictions on data sharing, especially for high-resolution local forecasting; and aside from the high end computers and networks needed to access, and high end skills to interpret weather data, the mass transformation of weather events into numbers, and those numbers into stored databases with their simultaneously idiosyncratic and standardised architectures, produces datasets of stupefying size and fluidity scarcely less incomprehensible than the weather they set out to comprehend.

It takes the mediation of what Edwards calls the vast machine of meteorology to produce the new strangeness of weather, the new anxiety about the global climate (an entity that has only existed for scant decades), and now the alienation of climate data. This mediating machine prompts two reactions: the truth claim of climate science, and the unreadable quantity of data as a symptom of our personal and human estrangement from the universal interactions that constitute the universe we inhabit. The communications technologies of the global

meteorological network erase human conceptions of distance by synchronising global feeds, and time through recording and prediction. They confound human distinctions between planetary and microscopic scales of space and time (Randerson 2018). They displace perception, no longer an exclusively human capability, from the intimacy of *atma*, breath, to atmosphere, a planetary scale where breath, even the combined breathing of the entire species, is a tiny component (although the eructations of cattle do figure). The human, in this perspective, no longer mediates between *atma* and atmosphere but dwells at a mathematical point between the macro atmosphere and the micro-anatomy of the lungs. In that bounded space-time, a boundary or intersection between dissolution into the cosmos and mastery by measurement, the human persists at a junction between particulate and wave-form, ready to disappear into either; preserved from disappearing into cosmic flux by measurement, and from disappearing into measurement by cosmic flux. This rescaling of the human displaces the species from the core of a semantic universe to a mere message in a communicative one

Technical mediation implicates the whole ecology. Not only are instruments made of and acting in worldly materials; they are nodes of interaction between physical forces, like the seismometer's play between inertia and tremor. Humans too are formed in and by mediations of air, water and food, and impact on the environments they create by breathing, eating, excreting, and in the built environment, via the transport networks and data ecologies they establish. Equally, however, instruments and humans transform mediation into communication by divorcing elements of mediation from one another as senders, channels and receivers, emphasising end-points and placing under erasure the underlying condition, in which both humans and instruments are channels, not termini. The result is that the *anthropos* of the Anthropocene is no longer the Renaissance humanists' Man that saw itself as the centre of the universe. The subject of Science, the subject that knows to count the two trillion galaxies in the universe and also, simultaneously, the mathematics of the Higgs boson, is collective and distributed, and increasingly reliant, not only on prosthetic senses but on prosthetic memory and prosthetic understanding. The actually existing cyborg is nor an enhanced human but a corporate network of computers with human functionaries implanted. The actual humans who function as biochips in the massive cyborg operation of Science defer to Science as the site of knowing. They are in the vanguard of a historical transformation in which humans at last recognise that they are not even messages but channels. Rather than an organic conjuncture mutating the flows passing through it, the new human is a digital processor of inputs. The

human as code not only alters its inputs but, like code, is formally performative: like any software, its processing necessarily makes a difference in the world. This is one reason why so many 'environmentalities' (Agrawal 2005), especially natural resource management and biodiversity conservation are not only neo-liberal in content (Fletcher 2010) but systems-theoretic in form, anchored in a belief that a world which is explicable in terms of code is therefore fundamentally composed of code.

Our estrangement from the climate thus also raises the question of truth: if the climate is truly the mathematically describable system atmospheric science says it is, then its truth does not include our senses, and, given the scale and speed of the physical actuality as well as the digital description, humans are excluded from that truth. On the other hand, humans can contemplate its meaning in a way the pure, 'objective' gathering and storage of weather data cannot. Meaning and truth have drifted apart in the Anthropocene, truth becoming increasingly machinic, while meaning is increasingly an effect of communication in the nodes of communicative networks we call human beings. This marginalisation, surely a key reason why climate change denial is possible, provokes a reaction of resentment to the bullying assertion that what any of us thinks no longer counts. Counting, the numerical, has overwhelmed all other symbol systems, especially those like religion whose task has always been to produce meanings, and to conform meaning to truth. The divorce of meaning from truth, which produces the professional modesty of scientists, instead for denialists produces embattled defence of human privilege, itself founded on the human exception, its capacity for freedom that has underpinned the modern worldview at least since Kant.

### *Visualisations*

It is clear then that the human has changed. The utopian Anthropocene project of becoming human otherwise is then by no means doomed. The division of human from nature means that there is no determinate human nature. The divorce of meaning from truth is a corollary of Gödel's theorem, which states that no consistent set of axioms can prove all the truths of a formal system like mathematics and logic; and that no system can demonstrate its own consistency. In everyday terms, a system can be coherent or complete but cannot be both. Because climate science treats the planet as a formal system, the truth it proposes can be either complete or consistent but not both. Scientists tend to dispute the idea that their data are mediated, as if that detracted from their truth; but for humanists, mediation contributes

to, even brings about meaning, and incompleteness and inconsistency are intrinsic qualities of mediation. The ecocritical category of the human is torn, in this historical moment, between formal truth and mediated meaning.

Scientists emphasise the consistency of facts with observable reality; humanists stress that facts are statements about what is the case, not the case itself. Etymologically, data are a class of facts that ostensibly give themselves. The status of the gift was once underwritten by the generosity of the gods or God, and subsequently by Mother Nature whose gendered fecundity colonialism transformed into the infinitely exploitable *terra nullius*, transforming Nature's generosity – the given – into the prerogative of wealth to seize whatever it wants – the fact. In its evolutions, language recognises the ambiguity of the given when we spoke first of 'taking' photographs and now of 'capturing' data, in an incongruous paradox of seizure and gift. To take a photograph was, at least for Chief Seattle, a relatively innocuous activity. To capture information is far less immaterial: ordering needs energy and material infrastructure, and processing and transmission have implications for observer, observed and the channels that link them. Current databases store not only data – statements about reality – but relations between data – statements about statements. Contextual relations become metadata, treated in exactly the same way as primary data. This relational architecture deprives data of any context, any environment, beyond the database itself. There is no outside of data. Like the Derridean 'il n'y a pas de hors-texte' (Derrida 1976: 158), a database is a self-enclosed world whose formal systems make it impossible for it to refer to any referent beyond itself. And yet, the autonomy it claims is impossible, since, as a physical entity, the database exists inside the ecology which it attempts to substitute for and exclude. Denying the conditions for its own existence, data substitutes for the world rather than interpreting or representing it.

This is rarely more apparent than in financial trading software, engine of the economy and therefore of present and future exploitation of nature, where the concept of real-time communication reaches its practical boundary (trading companies pay premium rates for office space in the immediate vicinity of major stock exchanges to shave milliseconds off the response times of their high-frequency trading computers). Finance software combines displays from premium financial news suppliers – public delivery of stock prices is far too slow to be of value buying and selling – with automated buy-sell algorithms based on rapidly evolving algorithms (Stewart 2012) which account for 80% of the total number of trades on



contemporary markets. Watching video screen-grabs of the 36 minute flash crash of 6th May 2010 which wiped a trillion dollars off US stocks – and then restored them – is a lesson in illegibility. The screen displays are intended to translate into visible form an almost exclusively algorithmic activity: computer-mediated trading whose principle is that extreme speed is in itself a source of profit. Software responding to the incoming news of volatility places bets that prices will carry on descending or bounce back, creating feedback loops veering between wilder and wilder extremes. If on the one hand, they reveal the profound irrationality hidden by the concept of the market's invisible hand (rather like the authoritative pen of the seismometer that proves to have no agency at all), on the other the fine print – the alphanumeric codenames of corporations whose shares are yo-yoing up and down – tells us that these absurd diagrams have intensely real effects on the environment, abstract prices on screen denoting the price of an equally abstract idea, next year's copper for example, which change the investment and planning of mining companies, their equipment purchasing, the order books of equipment manufacturers, reverberating through all the environmental consequences of each falling domino.

At this period in its history, it is as silly to describe money as 'fundamentally' a medium of exchange as it is to describe language as fundamentally a substitute for beating each other round the head with sticks. The figures bouncing across these screens bear the same relation to the real economy as meteorological databases do to the clouds passing by my window: a relation of exclusion, so that even though the real economy includes the datastorms of stock exchanges, they do not include it, and that contradiction is part of what drives economic crises that in the end do have a performative relation to the ecology they otherwise so studiously ignore. This collision of worlds is enacted, in mediological terms, in the collocation of screens and their displays. The physical presence of the glass rectangle and its plastic frame disappear into the far greater apparent reality and urgency of the activities they are the vehicles of. Likewise the backend technical processes of data capture, processing, storage and transmission, together with their energy budgets and physical infrastructures, vanish. Despite stock exchanges being among the heaviest users of computer memory, and despite the significance of records to the training and operation of autonomous finance software, despite even the external consequences of futures trading on local economies months or years later, these systems present themselves as present, as operating exclusively in a 'now' that goes on and on, a now whose dimensions are measured in milliseconds, faster than even unconscious

human reflexes. Climate change denial is written into this systemic eternal now.

The lively diagrams that flutter across these screens are neither narrative nor illusionistic. They belong to a new mode of image making. Geometry, cartography and even theology made use of schematic ways of showing relationships for two thousand years before the rise of modern data visualisation, which can be handily dated to William Playfair's *Statistical Breviary* of 1801, when pie charts, bar charts and the horizontal time axis came into use. Playfair's book inaugurates the first new visual order since perspective. Like perspective it provides a visual grammar capable of containing an effectively infinite number of visual statements, and like perspective it constructs a viewing position from which its grammar makes sense. In perspective, that position conformed to the Man of Western humanism. In data visualisation, that subject, individual and generic at the same time, the singular species-being, the reader-in-the-text, is eradicated in favour of a form that reconciles the subject with its object while asserting the absolute objectivity of its presentation. What this subsumption of the subject under the object hides, however, only to assert again, is the master subjectivity for which the survey of the world-as-data performs its truth. The influential information designer Gyorgy Kepes (1956, 24) phrased it thus: 'The essential vision of reality presents us not with fugitive appearances but with felt patterns of order.' At that point, it was the fugitive that was the enemy: and Kepes sought the endurance of pattern, but today's instruments, from the meteorological network to Facebook, are devoted precisely to the ephemeral. This is the first way in which 21<sup>st</sup> century data visualisation differs from its predecessors. The master subject of the new, real-time visualisation technologies is entranced by the exception as much as by the repetitive. Without the bandwidth and storage limitations of its print forebears, contemporary data visualisation can include the extreme, the limit case, the aberrant statistic, without recourse to the normative adjustments that characterised an older visualisation practice. Still, some characteristics have remained, most of all the depiction of time in a spatial form. Like Duchamp's post-retinal art and contemporary neo-conceptual art that celebrate the idea over the visible, data visualisation celebrates the triumph of the concept over the senses. Even where it embraces the abnormal, it does so by including it within a taxonomy that benefits from its extension into new domains without sacrificing the principle that everything can be assimilated into its system.

A second novelty of 21<sup>st</sup> century data visualisation is its new relational topology. In relational

databases, there is no fixed hierarchy to the taxonomies structuring the data. Every search and interaction reconfigures the data into new orderings. At the same time, each search generates new data (the user's IP address, search history, location and so on) which leaves its trace in the evolving relations between items and sets of data, and it is these relations, rather than the data themselves, which are of the greatest value. As a result, if I do a picture search today for, let's say, "climate change diagram", I will get a different group of results to you, and other results tomorrow, both because of my intervening search activity, and because meanwhile other searchers will have generated other relations between similar search terms and results, and added their behaviours (clicking on this or that result) to the total set of relations clustered around the search terms. Under these conditions, the 'knowledge' represented by the screen-full of images is constantly evolving, perpetually and even infinitely malleable, so long as we recognise that what is on offer is a bounded infinity, an infinite which can never exceed the borders of its character as an infinity of data. Since every point in a network is its centre, the view from any point, the viewpoint of any data subject, gives onto an apparent infinity. It is only when we step out of the network that we can see it exists entirely behind the screen which, in our fascination, we took for an immaterial, im-mediate transparency.

The third moment of this transformation arrives in the hybridisation of the two great symbolic forms of modernity's visual culture. The Anthropocene, as cultural formation and discursive artefact, depends on a double mediation in both perspective and data visualisation. Long since built into the elaborate lenses on which analog and digital cameras alike depend, perspective is deeply embedded in photographic and cinematographic culture (experiments with lensless imaging notwithstanding). Photography is crucial to the semantic dimension of Anthropocene culture. Data visualisation culls large scale dynamics from massive collections of data. The photographic media seize on unique instances of the confluence of forces, specific and unrepeatable encounters of physical, social and technical agents, tailored to the human sensorium. The attempt to bend photography to normative social science, for example in the images of street children and criminals analysed by John Tagg (1988) cannot restrain the viewer from seeing in them the evidence of lives lived, and of the capacity for those lives to have been lived otherwise. At the same time, as Tagg (2009) argues in a later work, a photograph is only one instant in a larger apparatus of institutions and discourses. Sarah Kember (2014) spies something similar in a liminal technology, facial recognition, which supplements photographic imaging with biometric data that, even supported through artificial

intelligence and so potentially free of institutional and discursive prejudice, still operates a sexist and racist taxonomy. Retention of the worst aspects of human societies into quasi-autonomous data technologies is one of the more depressing aspects of the emerging formation. The hybridisation of perspectival and diagrammatic symbolic orders extends from biometrics to the intricate imbrication of iconic images like the polar bear on an ice floe and photographic tools like time-lapse with cartographic and geographic information systems (GIS), data visualisations and animations. Animation, as a time-based medium, informs the assembly of photo-image and data visualisation into montage forms, often overlaid with a mix of environmental sonifications and generated soundtracks, and interspersed with text and voice over from older media – language, music, writing. Collapsing millennia of media practice into a single compound form would appear syncretic were it not shaped under the overarching architectonics of data.

### *Compound truths*

Nonetheless there arise, in this compound of montage and palimpsest, multiple internal contradictions, of the kind that plague the well-meant documentary of Al Gore's PowerPoint presentation, *An Inconvenient Truth* (2006). Like all of us, Gore speaks in language, but not under conditions of his own choosing. His skilful performance of the classical humanist lecture form binds together but cannot entirely dispel the frictions between two regimes of truth, the anecdote and the dataset. Anecdotes typically narrate unique, often but not necessarily symptomatic or emblematic events, and in eastern European usage include fictions, a feature that emphasises that it is not just brevity that characterises them but that they are acts of telling. An anecdote includes not only the situation narrated but the circumstances of their narration: teller, tale and audience. It actively participates in the mutation of the told in the telling, and like language, the anecdote thrives on its evolution through multiple retellings, each of which is likely to alter it, knowingly or unknowingly. As anecdotes, pictures provide snapshots of a situation: a conjuncture of histories in a uniquely concrete moment pregnant, like the photographs of criminals mentioned by Tagg, with the possibility of becoming otherwise.

This subjunctive mode of the image as anecdote speaks of and from a different order of truth to the insistence on the actual in data forms. Accumulated data in conjunction with powerful algorithms and machine learning becomes capable of performative statements directed towards

conforming the future to the will of the present. Anecdotes on the contrary recognise in the actual the accumulation of acts that form it, but in so doing recognise the non-identity of the present: not only its capacity to become other than it is, but its failure to exist in any fully completed form. The profound instability of anecdotal evidence, rather than its uniqueness, is what makes it so despised in sciences and social sciences, and makes it simultaneously despised and deployed in the bogus arena of 'evidence-based policy', where data can be trumped by anecdote, and anecdotes by statistics, at the whim of prevailing dogma.

Gore's humanism should not be dismissed too easily as anthropocentric, if only because that avoids the more challenging task of understanding how his narration, oscillating between data and anecdote, rests in the end on a third truth-procedure: logic. The construction of an argument on the basis of well-formed axioms lies at the root of Western truth. Given the empty set as axiom, it is possible to derive the all counting numbers and the basic arithmetic functions (Here is an empty set: how many sets are there? One. So now we have the empty set as the contents of a new set which is the set of all sets whose contents are zero, so we have two sets. That makes a new, third set with two members, and so on ad infinitum). If it is true that all men are mortal, a host of further statements present themselves, and fundamental tools like the law of the excluded middle (which holds that a proposition is either true or untrue: men are either mortal or not) allow listeners to discriminate between true and false arguments. Gore's lecture mixes logic, anecdote and data, moving between them to produce a rhetorical rather than purely logical effect, but there is in his script a deep respect for the rules of argument. The effect is to produce an audience position which should in theory blend the various older forms into a single subject capable of political action. However, the impersonal subject of logic, the individual subject of perspective and the collective subject of data do not blend in any simple convolution. Their product is instead best caught in the category of the data subject, deleted from the European Union's General Data Protection Regulation (GDPR) in 2018 but a potent concept still. The data subject is not a person but the cloud of data points assembled around a network user. This data subject should be understood as a first indication that the once mighty social form of the individual is beginning to pass, through its representations online, into its own environment, dissolving the boundary between human and datasphere. This data subject already fulfils its necessarily performative economic and biopolitical tasks in social and workplace media.

The mass image databases of Instagram and its peers, of Google Earth and Google Maps and their governmental and military analogs, are not simply collections but, in relational topologies, construct a single mass image of the world, connecting photographic and metadata – GPS locations, user IDs, previous shots with similar filenames – and, increasingly, data produced by reading within the image, like face recognition and algorithms that read represented signs and logos. The resultant mass image is not intended for human reading: the visual elements appear to the favoured computer algorithms as alphanumeric files of colour values and interaction records. The presentation of search results or personalised menus treat the data subject in exactly the same way as the data object: conditioned and defined by its relations with other data. This is why it is possible now to argue that the human-environment barrier is dissolving. This data environment has assimilated the entire machinic sensorium – instruments that count and picture (Galison 1997), often in spectra invisible to humans – into a closed world which nonetheless depends on the physical, 'natural' environment which it seeks both to exclude and to enclose.

The contradiction runs through the failure of visual forms to produce a subject other than one entirely subsumed into the database, where it only ever finds itself in the estranged form of a commodity. We discover that we are data – givens – with no consciousness of ever having consented to give. This allies us with the unconscious donations of nature, or indeed the unwilling gift of common land to rapacious landlords and colonists that forms the long history of savage appropriation and accumulation (Luxemburg 1951) undergirding the Anthropocene catastrophe. The very act of giving has been reft from us humans. Like Baudrillard's (1983) silent majorities, and in the spirit of the anecdote which holds back as much as it reveals, we are learning to withhold something of ourselves from dissolution. This may however be a more radically conservative stance than populist resentment and denialism, clinging to the self after post-structural demands for its splitting have come to pass, and to meaning long after linguistics and philosophy's turn to language began to unpick its foundations. Truth, meanwhile, has become as alien to us as the nature it derives from, relies on, and denies.

Photographic images do however retain their subjunctive quality, even after uploading into mass image databases. The excluded environment is not self-identical but historical, redefining its borders and internal flows in response to the shifting forms of the *anthropos*. Photographs too lack self-identity, and we should now embrace the same condition as the heart of

contemporary subjectivity. The encounter with the Anthropocene is not an encounter of the human with truth, but of humans, data technologies and natural processes ostensibly divided, ontologically connected, and historically wholly permeable to one another. The new humanity only evolves out of recognising that its media, in all their autonomy, now form a third party in the encounter, and are ripe for liberation.

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