

EDITORIAL

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The front cover of this special issue of *New Formations* shows a snapshot of a village pharmacy in South West France (where one of our editorial collective lives), taken on 3 August 2022. There is no forgetting the date, time or temperature in France: every pharmacy (some 21,000 of them) displays these data in rapid succession on its green LED cross, and the temperature displayed is as recorded here and now, on the street, not as forecast for the region by *La Météo*.

The temperature of 48°C was unprecedented in the memory of this Aveyronnais village, which sweltered under months of punishing drought and frequent 40°C+ temperatures from late spring onwards in 2022 – France’s hottest year since records began in 1947. The commune watched its forests turn brown and drop their leaves in early August, not November; vineyards became parched and fruitless; the wildlife (boar, deer, pine martens) broke cover in search of food and water. Waterfalls and streams, those landmarks and borderlines of communal terrains, shrank rapidly before disappearing altogether. ‘Blue gold’ (water) was stolen from tanks and pipes. Peasant farmers resigned themselves to heavy fines for defying government bans on agricultural water-usage, in order to keep alive the crops that would keep alive their sheep and cattle and keep their workers in wages. The smoke haze from the wildfires that burned uncontrolled in South West France for many weeks in late summer dimmed the skies, polluted lungs, and invested some artisanal cheeses with an unwanted smoky flavour.

At 40°C, 50 per cent of surface water – in reservoirs and rivers – evaporates. Climate scientists speak of three kinds of drought: meteorological drought (lack of rainfall), agricultural drought (parching of the top metre of soil) and hydrological drought (radical depletion of ground water reserves). Droughts go with floods: the hotter the air, the more water it can hold (50 per cent more for every 6°C) so, if or when it eventually rains, storms are correspondingly heavier and the surface soil is too hard-baked to absorb water; the rain ‘flashes’ down hillsides, demolishing crops, homes, livelihoods. In August and early September 2022, in the Charente and Dordogne departments of South West France, storms hurled hailstones up to four inches in diameter at crops and villages. French news media reported the storms as the most extreme weather conditions recorded in Western Europe in 1,000 years.

And yet the impact of extreme weather in this corner of France during the months in which we have been preparing this issue seems negligible compared with the toll of the floods in Pakistan that left 33 million people homeless and killed 1,717; or the four-year-old drought in northern Kenya that has desertified the landscape, destroyed its subsistence farming, causing

mass malnutrition and migration; or the legacy of the 2019-20 mega-fires in South East Australia that have made an estimated 500 species of plants and animals extinct.

Nonetheless, 48°C is at least ten degrees hotter than the fatal ‘tipping-point’ temperature made famous by Kim Stanley Robinson’s ‘cli-fi’ (climate fiction) novel, *The Ministry for the Future* – a multi-generic collage of hard science, economics, sci-fi imaginings and policy manifestos. Published in 2020 and set in the near future, the novel begins by imagining the catastrophic death-toll of a heatwave in an ‘ordinary town in Uttar Pradesh’ where the temperature has reached 38°C by 6am. Explaining that the terminal temperature for human life on earth is ‘a wet-bulb temperature of 35 degrees’ – a ‘WBT’ being the temperature recorded at 100 per cent relative humidity – KSR warns his readers that ‘a wet-bulb temperature of 35 will kill humans, even if unclothed and sitting in the shade; the combination of heat and humidity prevents sweating from dissipating heat, and death by hyperthermia soon results. And wet-bulb temperatures of 34 have been recorded since the year 1990, once in Chicago. So the danger seems evident enough.’¹

Since funerals in our Occitane village seemed no more numerous in the summer of 2022 than in previous years, its record high temperature of 48°C could not have been a ‘wet-bulb’ one. But the experience of debilitating humidity that accompanied it raised the question of tipping-points for village discussion. It is also one of the questions that we hoped to explore when planning this issue of *New Formations*: the science and dissemination of climate tipping-points, the politics of their acceptance or contestation, their cultural impacts, including the kinds of optimism and despair, activism and inaction, paralysing fear of the future, ‘futilitarianism’ or cynical carelessness of the present that they can inspire. (Asked whether Finland can still reverse the damage to its seasons caused by permafrost thaws and methane emissions, a member of the Finnish Meteorological Institute recently responded: ‘We have plenty of optimists. It’s just that none of them are scientists.’²)

Such concerns might be thought to be outside the scope of a journal best known for its contributions to the critical humanities. Aren’t these questions the preserve of the physical sciences? Perhaps they are, at the level of pure factuality. But the issue of what has allowed the current crisis to develop – socially, culturally, politically, economically, institutionally and philosophically – and, above all, the question of why its resolution proves so intractable, are ones that simply cannot be answered without recourse to a rigorous and expansive interdisciplinarity. No attempt to address them, or to teach students and other members of the public to do so, can avoid the need to look at contemporary global society as a complex formation, in which understanding of the world is heavily mediated by interested and malevolent institutions. At a time when both academic and scholarly life are subject to ever-increasing pressure towards specialisation and professionalisation, and when education is increasingly valued only as a means to produce labour for

1. Kim Stanley Robinson, *The Ministry for the Future*, Orbit books, 2020, p29.

2. Jari Haapala, quoted in Sadakat Kadri, ‘Autumn in Finland’, *London Review of Books*, 28 October 2022.

the market, there has never been such a pressing need for critical awareness, conjunctural analysis (see *New Formations* 96-7 and 102) and committed interdisciplinarity.

These are not new themes for *New Formations*. The journal published the first English translation of Guattari's *Three Ecologies* back in 1988. We have returned to such issues several times over the years, particularly under the tutelage of our sadly departed colleague, Wendy Wheeler, whose interest in topics ranging from biosemiotics to Critical Realism always proceeded from a desire to think ecologically and to work against the commodification and alienation of human relationships to the 'natural' world. We gratefully dedicate this issue to her memory, and to that of the great French thinker Bruno Latour, who died very recently, very shortly after allowing us to publish a translation of one of his final pieces of writing in this volume. Latour's commitment and contribution to ecological thinking were immense, as Barbara Hernstein Smith explores in her review article on his work in this issue.

All of the articles and interviews contained in this issue address, one way or another, the thematics of extinction or of climate crisis: as experience, threat, cause or effect. As our title would suggest, the danger posed by climate change to many forms of life on earth, and the existential threat currently faced by humanity in particular, are major preoccupations for several of our contributions here.

In his article, Joe PL Davidson addresses the way in which these questions are being formulated and codified in the emergent field of 'existential risk studies'. For the proponents of this intellectual project, there is a one-in-six chance that humanity will go extinct in the next century, whether from an asteroid hit, nuclear Armageddon or misaligned artificial intelligence. The field has powerful supporters, with Silicon Valley billionaires like Elon Musk and Jaan Tallinn donating large sums to institutions researching existential risk. Davidson reflects upon the ideological function of the imaginaries of catastrophe proposed by existential risk studies, examining their distinctive mode of politics: what Bostrom and Ord call 'extinctiopolitics'. Davidson argues that extinctiopolitics both acknowledges and represses the ecodical tendencies of contemporary capitalism, and considers how some recent science fiction uses the image of human extinction to expose and restage these contradictions.

Among the existential risks that extinctiopolitics seeks to calculate is the threat of all-out nuclear war. Although fear of it may have receded from the collective imagination for some years, recent events in Eastern Europe have made that danger seem real to many once again; and Michael Gardiner argues that nuclear weapons have delivered more near-extinction encounters than any other anthropogenic threat. His paper points to some of the historical connections between 'war-ending' weapons, deterrence logic and its breakdown, and the sublimation of politics into commerce and an extinction logic held within it. This article looks at the surprisingly long

history of awareness of anthropogenic extinction risk that nuclear weapons carry, and tries to explain the decline in discussions of this threat since the end of the Cold War. Gardiner's article looks at various moments in the imagination and realisation of viable nuclear weapons and their embedding in democratic regimes in Atlantic powers in particular, and at key points of serious scientific concern with extinction during the Cold War, suggesting that the long-term naturalisation of nuclear weapons has taught us to 'live extinction' in a way that speaks to other anthropogenic risks, such as the climate crisis. However, Gardiner argues, given the more recent complex and largely obscured re-arming, nuclear weapons are being rediscovered as both an existential threat and an imperative to rethink the scope of political action.

The relationship between military and environmental destruction is also explored in Bruno Latour's short but typically penetrating contribution to the volume: one of his very last published works. Latour argues, in effect, that the only way to conceptualise the kind of social action that would be required to address the climate crisis is as a military mobilisation against a powerful and implacable enemy: to all intents and purposes, a state of war. In some ways this echoes Andreas Malm's recent suggestion that the 'war communism' of the very early Soviet Union is the only viable model for a type of state-directed socio-political project that could meaningfully address a crisis on the scale of the one that faces us.

In a powerful complement to the contributions of Davidson, Gardiner and Latour, Benjamin Ware examines the history of thinking about extinction within the tradition of continental philosophy. His essay makes three connected moves. First, it examines various modalities of 'the end' in philosophy and contemporary neoliberal culture, asking what new political lessons might be drawn from each. Second, it looks at different dialectical ideas of catastrophe: Gunther Anders' and Jean-Pierre Dupuy's notion of 'enlightened doomsaying'; and Maurice Blanchot's and Theodor Adorno's contention that only in the face of extinction does humanity become visible in the first place. Third, the essay concludes by proposing a move beyond Blanchot and Adorno. Ware concludes that we don't just need to look the negative (extinction) in the face, but to move into the zone of politics proper: to recognise that only the negation of *this world* – a world of converging and multiplying catastrophes – ends the prospect of the end of *the world* – understood not as a sudden death, but rather as an incremental decay, the slow unravelling of intimately entangled forms of life.

Most of these contributions are concerned with the question of extinction – and particularly, but not exclusively, human extinction – in the most general sense. But by far the greatest cause for concern today – as all of these writers acknowledge – are the lethal consequences of anthropogenic climate change. Across the humanities and social sciences, a highly influential way of referring to this situation – but one that has also been subject to widespread criticism

– has been through the deployment of the concept of the ‘Anthropocene’: conceived as a distinctive stage of the Earth’s geological history, at which the intervention of humans into the planetary ecosystem has fundamentally transformed its physical and bio-chemical nature. Writing in this volume, Daniel Zimmer investigates the history of this concept and responds to some of the criticisms to which it has been subject. One of the most consistent critiques of the Anthropocene among humanities scholars has been that its putative *Anthropos* ignores difference to encompass all human beings universally, in terms of their essential human nature. Whether dated from the start of the Agricultural Revolution, a millennium and-a-half ago, or from the Rise of Capitalism or the Industrial Revolution or the Great Acceleration of the 1950s or the Atomic Age, the stratigraphic notion of the Anthropocene has been faulted for obscuring the radical differences in power, resources and influence on the planet and its climate that different segments of *Homo sapiens* have had, and hence their relative responsibilities and capacities for implementing change. Zimmer argues that if we trace the conceptual history of the term, it quickly becomes clear that the *Anthropos* of the Anthropocene is not simply a new iteration of Enlightenment Man, as some have feared, but something far stranger. Zimmer works backwards from Paul Crutzen’s public introduction of the term in 2000, through the Earth System science of the 1980s and the systems ecology of the 1960s, to contend that the conceptual precursors of the Anthropocene arose in the crucible of the 1950s. Strongly complementing Michael Gardiner’s article, he suggests that the novel prospect of ‘universal death’ by thermonuclear weapons fused with the relational ontology of cybernetics to produce a paradigmatically distinct approach of conceiving human beings in their totality – the ‘*Kainos Anthropos*’. Born under the shadow of its own extinction, the *Kainos Anthropos* does not seek to define what all human beings essentially *are* (as Enlightenment Man did) but to account for what it is that all human beings collectively *do*. Rather than claim that this is inherently better or worse, the point of Zimmer’s argument is that it is categorically different, introducing new types of theoretical challenge and opportunities that warrant being treated on their own terms rather than dismissed as a form of spurious universalism.

Undoubtedly one of the challenges posed by this new historical situation is that of conceptualising the multiple spatial and temporal scales on which human social action, and its unintended consequences, can and must now act. This issue is addressed in Derek Wood’s article, in which he develops his idea of ‘scale critique’, first put forward several years ago with primary reference to issues of space and spatiality. In his contribution to this volume, Woods argues that the notion of scale critique applies to time as well as space. Temporal scale variance, he insists, takes the form of specific material durations such as radioactive half-life. Woods suggests that thinking with such temporal scale domains can help us avoid seeing deep time as sublime, numerical and continuous. Reading work by palaeontologist Stephen Jay Gould alongside

Michael Madsen's documentary *Into Eternity*, his essay argues that this new concept of scale critique is about the fit, good or bad, between a temporal scale domain and a narrative timeframe. Woods goes on to suggest that, as a third term outside the opposition between human time and deep time, framing human agency in relation to 'mid-length durations' points the way to a better politics of geological time.

Of course, one potential limitation of concepts such as the Anthropocene is their focus on the human as such, when it is as much as anything the threat to non-human forms of life that poses the greatest existential threat to humankind. Reflecting upon the implications of this circumstance, and on the looming threat of general extinction to which we are all now subject, Claire Colebrook remarks that it might appear as though all the dire warnings regarding end times should only yield despair, nihilism, resignation and the paralysis of panic. This, she argues in her contribution, would certainly be the case if the world we live in now were the best of all possible worlds, and if the 'we' of the Anthropocene were an unavoidable point of view generated by the common calamity of the future. Colebrook suggests, however, that there is another virtual 'we' that is actually made possible by the dire warnings of 'our' end. Rather than one's possible non-being amounting to the determinism of a death sentence, Colebrook suggests that freedom emerges and is made possible by imagining life beyond the point of view of what has come to call itself 'the human'. Colebrook further develops and responds to questions about these claims and some of the problems that they raise in her extensive and wide-ranging interview with the editors of this special issue.

In a fascinating counterpoint to Colebrook's reflections on the freedom of the more-than-human in relation to life on Earth, Debra Shaw asks what is at stake when humans imagine themselves becoming fully independent of the non-human Earth and its ecosystems. At a time when the viability of the planet as a suitable home for the human species is in doubt, Shaw points out that outer space has become big business. Her paper examines the politics of space migration as imagined by the contemporary super-rich, and the effects of their imaginary schemes in perpetuating myths of human exceptionalism. How, she asks, can we think differently about the ontological determinants that govern our relationship to the planet that we think of as home?

Arguably at the other end of the political scale from such dreams of planetary exodus, the movement among radical economists and activists for 'degrowth' seeks to reverse the trend towards ever-escalating carbon emissions and irreversible ecological damage. Mark Banks discusses this development in his contribution to this collection, arguing that contemporary degrowth (and post-growth) has yet to develop any credible or inclusive theory of cultural production, art or aesthetics. A key challenge, he suggests, is to generate a progressive degrowth project that can not only more equitably share and sustain scarce resources, but also retain some sense of organised cultural production as a source of different aesthetic, symbolic and communicative

needs and desires. This, he argues, must include tastes and preferences that are rooted in shared and globally extensive forms of popular culture. His aim in this essay, therefore, is to conceive of a degrowth perspective that might begin to imagine forms of genuinely sustainable and organised cultural economy that strive to accommodate and expand (rather than deny or frustrate) the widest array of human needs and desires in any ecologically-challenged future.

Banks' project of making degrowth popular and pleasurable is clearly closely related to that of the British philosopher Kate Soper, who for several years now has argued that radical ecological politics must not reject the hedonism which animates capitalist consumer culture, but must instead seek to redefine it. Soper has argued persuasively for projects such as degrowth to be framed not as puritanical rejections of a culture of hedonic pleasure, but as opportunities massively to enhance humanity's ability to experience more intense, long-lasting and satisfying forms of pleasure by engaging in more fulfilling practices of consumption. In this issue we include an interview with Soper covering these and many other related topics in the philosophy, theorisation and practice of an ecological politics for the twenty-first century.

Finally, two contributions to this volume consider the role of media and popular culture in circulating ideas about experiences of extinction and the threats posted by climate change. Framed by an understanding of the distant human past, Ben Pitcher's article considers how species extinction has become a prominent resource in the cultural present. Pitcher suggests that the environmental activism of Extinction Rebellion and the nonfiction bestseller *Sapiens* provide examples of where the theme of human survival and extinction is currently playing out in contemporary Western culture. He goes on to give a more detailed reading of TV survival shows as sites of popular cultural meditation on *Homo sapiens*' vulnerability as a species. Placing particular emphasis on the interwoven and mutually defining discourses of race and species identity, Pitcher attends to the racialisation of survival in TV survival shows, suggesting that the vulnerability of the human species comes to be animated through a kind of existential blackface: the inhabitation of environments, the simulation of experiences and the mimicry of social and cultural forms imputed to nonspecific Indigenous others. As Western culture imagines the terms of its own survival, racial and Indigenous others serve to model alternative visions of humanity pushed forwards and backwards in time, representing a forgotten but intrinsic premodern and prehistoric core, or the antecedents of a post-apocalyptic future.

Stuart Price, in his contribution, analyses the discursive configuration of a widespread assumption – that the event of climate emergency should be met with some form of concerted collective action. Beginning with references to the concept of 'greenwashing', his article goes on to note the temporal framing of climate disaster and the imperative agency advocated in the types of address used by news organisations, climate scientists and bodies (like the

United Nations) devoted to global governance. Standard media practices, which serve a vital function in circulating meaning, are also discussed, on the basis that, while they seem to advocate *timely* intervention, they also dissociate environmental awareness from the radical measures needed to mitigate disaster, displaying an ambiguous or (in some cases) hostile attitude to the activist forces that could drive recuperative transformations in climate policy. Price argues that effective mitigation is deferred for three interrelated reasons: first, because of the recurrent emphasis placed on momentous (future) tipping points, which obscures a more insidious and rapid deterioration in the present; second, the preeminent tendency of mediated climate discourse to call for ‘leadership’ on issues that a deeply compromised political establishment cannot fully address; and third, state/corporate collusion, which makes a show of balancing competing demands (economic growth and zero emissions, for example) but is actually committed to a criminal model of industrial enterprise. Taken together, Price argues, these factors – combined with the neglect of subaltern and alternative voices and the instinctive journalistic deference shown to elite social actors and their ‘authoritative’ utterances – help replicate the material/ideological structures of the social order and its hierarchical distinction between, on the one hand, leadership figures and, on the other, an infantilised public supposedly in need of rational direction.

Price’s article is a timely reminder of the important role that cultural and political analysis – including media studies and classical ideology-critique – must play in any meaningful intellectual response to the climate crisis. Without addressing the question not only of why climate change is happening, but of why the issue has proved politically intractable despite the weight of scientific evidence, scholars and students of all disciplines can be expected to have no real grasp of the situation and no real way of proposing solutions to it. It is salutatory to consider, writing at the end of 2022, how few intellectual resources with which to address these issues are offered by either mainstream liberal humanities and social sciences, or by the increasingly vocational and over-specialised degree programmes offered to most Anglophone university students today. It is for this reason, as much as for any other, that *New Formations* will continue to pursue its own vocation of expansive interdisciplinarity and rigorous commitment to critical scholarship, despite the many challenges that face us.