

Planet Politics: A Manifesto from the End of IR

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Abstract

Planet Politics is about rewriting and rethinking International Relations as a set of practices, both intellectual and organisational. We use the polemical and rhetorical format of the political manifesto to open a space for inter-disciplinary growth and debate, and thinking about legal and institutional reform. We hope to begin a dialogue about both the limits of IR, and of its possibilities for forming alliances and fostering interdisciplinarity that can draw upon climate science, the environmental humanities, and progressive international law to respond to changes wrought by the Anthropocene and a changing climate.

Keywords

international relations theory, ecology, climate change, extinction, international law, diplomacy

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This manifesto is not about politics as usual. We seek political imagination that can rise from the ashes of our canonical texts. It is about meditating on our failures and finding the will needed for our continued survival. Global ecological collapse brings new urgency to the claim that 'we are all in this together' – humans, animals, ecologies, biosphere. To survive, we must ask questions that are intimately connected to capitalism, modernity, and oppression. We must ensure that our diplomacy, our politics, and our institutions are open to those who will bear the brunt of ecological change.

Planet politics must emerge as an alternative thought and process: a politics to nurture worlds for all humans and species co-living in the biosphere. The local, national, and global no longer define our only spaces of action. The planet has long been that space which bears the scars of human will: in transforming *the* world into *our* world, we damaged and transformed it to suit our purposes. It now demands a new kind of responsibility, binding environmental justice and social justice inextricably together.

We need not focus on who is responsible, but we do need to learn to adapt to the world we have created. We can dwell in this time of failure and still long for the surety of a future, a future that allows us all to survive and honours our deep entanglement with the planet. This is why we have chosen the polemic and political format of the manifesto. It aids us in searching through the old, getting rid of what no longer serves, and mixes up the political and personal to combine and confuse our political commitments. We don't need more reports or policy debates. We need new practices, new ideas, stories, and myths.¹

We must face the true terror of this moment. Carbon dioxide concentrations in the atmosphere now exceed those experienced for over a million years, and global greenhouse emissions trends show the planet hurtling towards a world, *in this century*, that is three to five degrees warmer than the preindustrial era.² This is a world of melted ice caps and permafrost, flooded cities, oceans so acidic they cannot support life, and the loss of the Amazon's rainforests. Ocean acidification, pollution, and overfishing may also see the extinction of all marine life by mid-century.³ At least 617 species of vertebrates have become extinct in the wild since 1500, exceeding the 'background rate' of extinction by over 100, and half the Earth's wild animals have disappeared in the last four decades.⁴ All this is looming as much of the world suffers under a burden of extreme poverty and inequality, and communities from the Niger Delta to Bangladesh are condemned to live in 'sacrifice zones' devastated by oil drilling, mining, fracking, pollution, nuclear testing, and inundation.⁵

^{1.} Roy Scranton, Learning to Die in the Anthropocene (San Francisco: City Light Books, 2015).

^{2.} Global carbon budget project. Available at: http://www.globalcarbonproject.org/carbon-budget/14/hl-full.htm. Last accessed November 16, 2015.

^{3.} Boris Worm et al., 'Impacts of Biodiversity Loss on Ocean Ecosystem Services', *Science* 314, no. 5800 (2006): 787–90. doi: 10.1126/science.1132294

^{4.} Gerardo Ceballos et al., 'Accelerated Modern Human-induced Species Losses: Entering the Sixth Mass Extinction', *Science Advances* 5, no.1 (2015). doi: 10.1126/sciadv.1400253; Damian Carrington, 'Earth Has Lost Half of Its Wildlife in the Past 40 Years, says WWF', *The Guardian*, 1 October 2014. Available at: http://www.theguardian.com/environment/2014/sep/29/earth-lost-50-wildlife-in-40-years-wwf?CMP=share_btn_fb. Last accessed January 29, 2016.

^{5.} Naomi Klein, *This Changes Everything: Capitalism vs. the Climate* (London and New York: Penguin), 169.

The 2015 Paris Agreement gave us hope that international society may yet reverse these trends and prevent dangerous climate change, but provided no firm and enforceable plans to do so. It was a window that magically appeared high on the wall of our prison cell, but the door remains locked.⁶

We agree with Timothy Morton, that the global ecological crisis 'has torn a giant hole in the fabric of our understanding; that it is a vast 'tear in the real'. Now our paradigms fail the real. International Relations, as both a system of knowledge and institutional practice, is undone by the reality of the planet. We must be in tension with *status-quo* struggles within our disciplines, and transgress academic boundaries to create conversations with activist networks and movements engaged in struggle against oppressive regimes and systems.

If the biosphere is collapsing, and if International Relations has always presented itself as that discourse which takes the global as its point of departure, how is it that we – IR's scholars, diplomats and leaders – have not engaged with the *planetary* real? We contend that International Relations has failed because the planet does not match and cannot be clearly seen by its institutional and disciplinary frameworks. Institutionally and legally, it is organised around a managed anarchy of nation-states, not the collective human interaction with the biosphere. Intellectually, the IR discipline is organised sociologically around established paradigms and research programmes likewise focused on states and the forms of international organisation they will tolerate; it is not organised to value or create the conceptual and analytical changes that are needed. The problems lie in the way we think and are trained; in the subjects and approaches our discipline values and rewards. Yet at the edges of IR – in NGOs, in critical geography, posthuman IR, global governance and ecological politics – a new consciousness is visible.⁸ That work cannot languish in dissidence, as so many earlier interventions have done.⁹

^{6.} Bill McKibben, 'Climate Deal: the Pistol has Fired, So Why Aren't We Running?', *The Guardian*, 14 December 2015. Available at: http://www.theguardian.com/commentisfree/2015/dec/13/paris-climate-talks-15c-marathon-negotiating-physics.

^{7.} Timothy Morton, *The Ecological Thought* (Cambridge: Harvard University Press, 2010), Kindle edition, loc. 203, 412.

^{8.} A brief sample of disciplinary work in international studies showing such awareness includes Simon Dalby, 'Environmental Geopolitics in the Twenty First Century', *Alternatives: Global, Local, Political* 39, no.1 (2014): 1–14; Erika Cudworth and Stephen Hobden, *Posthuman International Relations: Complexity, Ecologism and Global Politics* (London and New York: Zed Books, 2013); Rafi Youatt, 'Interspecies Relations, International Relations: Rethinking Anthropocentric Politics', *Millennium: Journal of International Studies* 43, no. 1 (2014): 207–23; Lorraine Elliott, 'Cosmopolitan Environmental Harm Conventions', *Global Society* 20, no. 3 (2006): 346–63; Andrew Hurrell, 'The State', in *Political Theory and the Ecological Challenge*, eds. Andrew Dobson and Robyn Eckersley (Cambridge and London: Cambridge University Press, 2006): 165–82; Robyn Eckersley, *The Green State* (Cambridge: The MIT Press, 2004); Robyn Eckersley, 'Deliberative Democracy, Representation and Risk', in *Democratic Innovation*, ed. M. Saward (London: Routledge, 2000); Hayley Stevenson, *Institutionalizing Unsustainability: The Paradox of Global Climate Governance* (Berkeley and London: University of California Press, 2012).

^{9.} Namely, Inanna Hamati-Ataya, 'Contemporary 'Dissidence' in American IR: The New Structure of Anti-Mainstream Scholarship?', *International Studies Perspectives* 12, no. 4 (2011): 362–98; Richard A. Falk, *A Study of Future Worlds* (New York: Free Press, 1975).

In our debates about the efficacy of the state, or the effects of globalisation, we have missed what we were making: an era now termed the Anthropocene. This term represents an unprecedented change in the continued livability of planet Earth caused by the rapacious use of natural resources with no thought for current and future generations of humans, and of the millions of other species affected by changing climatic conditions and ecosystem damage. It is the power of human labour that freed carbon, and this element, once taken out of its molecular flows has created a metabolic rift, as McKenzie Wark writes, where the waste products of carbon's extraction cannot be returned to a cycle that can renew itself. It is global in scope and new agendas must be designed to mitigate this rift.¹⁰

The Anthropocene represents a new kind of power – 'social nature' – that is now turning on us. This power challenges our categories and methodologies. It demands we find accomplices in our discipline and beyond it. It demands a new global political project: to end human-caused extinctions, prevent dangerous climate change, save the oceans, support vulnerable multi-species populations, and restore social justice.

Action from this perspective is both more modest and yet more vital. Communicative, anthropocentric, and rights-based ethics can only guide and inform the discussion so far in understanding the challenges and opportunities in the Anthropocene.

Security comes from being more connected, not less. Gone are the days of billiard ball states and national security based on keeping the Other out or deterred. The Other is always already inside, so bound up with us in a common process that it no longer makes sense to speak of inside and outside. We cannot survive without accepting the cosmopolitan and enmeshed nature of this world. We are an array of bodies connected and interconnected in complex ways that have little to do with nationality. States will wither in the coming heat, freeze in the prolonged winters, and be lost under the rising oceans. We will not survive without the biggest and most complex system we know: the biosphere. This may finally be the death of Man, 11 but what will come next if this face is lost in the rising tides?

Trying to write from within IR, we find ourselves prisoners in our own vocation. We are speechless, or even worse, cannot find words to represent the world and those within it.

We do not hope that politics will suddenly change – but it must change. There is no magic bullet, no sudden realisation, and no single policy that will 'fix' the damage done. The naysayers will stand in the ruins and tell us *we* are dreaming; that a new world is not of our making. Grudging admissions that climate change has been both long understood and actively denied do little; they cannot turn back the clock. Rather, we must embrace a multi-species, multi-disciplinary action plan. And we must do it now. We cannot unravel time and restore lost species to life, but we can fight for this planet we call a home.

What other choice do we have?

And so, knowing that even a ruined planet is worth fighting for, we declare our intentions for facing our discipline with delicate hope and a desire to face the planetary real with an unflinching gaze.

^{10.} McKenzie Wark, Molecular Red: Theory for the Anthropocene (London: Verso, 2015), xiii-xvi

^{11.} Michel Foucault, *The Order of Things: An Archaeology of the Human Sciences* (New York: Vintage, 1966), 387.

Manifesto of Planet Politics

The Double Crisis

I. Can we match the planet with our politics? After the bombings of Hiroshima and Nagasaki in August 1945, thoughtful writers wondered if the devastation presaged a new international reality that might challenge its institutions, its notions of security, and indeed its very politics. Neils Bohr and other Manhattan Project scientists thought that nuclear weapons overturned the fundamental principles of war and would radically destabilise international politics; Bernard Brodie prayed that nuclear war would be unlikely enough 'to give society the opportunity it desperately needs to adjust its politics to its physics'. 12 What resulted was a short-lived effort to think about nuclear world government and the banning of the weapons. Once the major power diplomacy in the UN Atomic Energy Commission failed in 1948, the fundamental irruptive power of the weaponry was left to the vicissitudes of militarism, power-politics and interstate bargaining. Yet even as statesmen, strategists and air forces sought to make the weapons merely another tool of war, there was understanding of their paradigm-shattering peril: US atomic scientists warned that the H-bomb 'enters the range of very great natural catastrophes [and] becomes a weapon which in practical effect is almost one of genocide...its very existence and the knowledge of its construction [is] a danger to humanity as a whole'; while at Geneva in 1955 Eisenhower and Marshall Zhukov speculated that a nuclear war, given the prevailing East-West winds, would create 'fallout [that] might destroy entire nations and possibly the whole northern hemisphere'. 13

In short, some had glimpsed the gulf between the real and the sensible in the image of our potential extinction. By the 1980s, Earth System Science had shown us how total that extinction could be, with 'nuclear winter' studies that showed even a limited nuclear war would starve most of the human survivors and, in the words of Carl Sagan, 'represent a severe assault on our civilisation and our species'. Such a fate would overcome the planet in the hours and months after war; now Earth System Science, with its powerful computer models, its massive datasets and its complex understanding of ecological systems, shows a future of extinctions that will be slower – playing out over decades and centuries – but is *more probable*. This future issues not from an exceptional event like war or terrorism, and not from a clash of states, but from the routine and extraordinary rhythms of human life, consumption, and industrialisation: from the encounter between humanity and ecology.

^{12.} Bernard Brodie, 'War in the Atomic Age', in *The Absolute Weapon: Atomic Power and World Order*, ed. Bernard Brodie (New York: Harcourt and Brace, 1946), 23.

^{13.} Richard Rhodes, *Dark Sun: The Making of the Hydrogen Bomb* (New York and London: Simon and Schuster, 1995), Kindle edition loc. 9030; David Holloway, *Stalin and the Bomb* (New Haven and London: Yale University Press, 1994): 332–42.

^{14.} Carl Sagan, 'Nuclear Winter: Nuclear War Would Be an Unprecedented Human Catastrophe', *Global Research*, 9 November 2010. Available at: http://www.globalresearch.ca/nuclear-winter-nuclear-war-would-be-an-unprecedented-human-catastrophe/21840. Last accessed January 15, 2016.

As the world is hurtling towards a disastrous 'four degree world' affected by irreversible climate change, 15 we must ask a new question: Can we match the planet with our politics? We are concerned that International Relations, as both a field of knowledge and a global system of institutions, is failing the planet. A state-centric world obsessed with bargaining, power and interests, which talks arrogantly of an atmosphere divided into 'carbon space' divided by national borders, and in which the state is the handmaiden of a capitalism which sees nature as mere material in wait of profit, is failing the reality of the planet.

Clive Hamilton has argued that 'the advent of the Anthropocene shatters the self-contained world of social analysis that is the terrain of modern social science' and asks: 'If on the Anthropocene's hybrid Earth it is no longer tenable to characterise humans as the rational animal, God's chosen creatures or just another species, what kind of being are we?'¹⁶

We ask: What kind of politics should match this new being?

At its most basic, this means that our fundamental image of the world must be revolutionised. Our existence is neither international nor global, but planetary. Our anthropocentric, state-centric, and capital-centric image of international relations and world politics is fundamentally wrong; it perpetuates the wrong reality, the wrong commitments and purposes, the wrong 'world-picture'. ¹⁷ In its obsession with power, it fails to understand the true power of a 'social nature' that is transforming the living reality of the planet.

'The end of International Relations – surely not...' we can hear the sceptics say, as they point to the hundreds of capitals and ministries, the weapons and militaries, the rituals of diplomacy and trade, and the United Nations' modernist headquarters in Manhattan, dreaming skyward of a safer world order. Yet this is not the real the planet now presses upon us – of industrialised and profit-driven human societies utterly and ever more dangerously enmeshed with the biosphere, the world of things, rivers, forests and animals, whose rhythms and survival are utterly marked by our processes and are ever more in doubt.

This is not a world of power politics, or of liberal benevolence. International relations is a real that is increasingly unreal; a world that is not of this earth.

2. Hurricanes are more real than markets, or how is it that the Dow Jones gets more headlines than climate change? We contrast one discipline – IR – with another: Earth System Science. This system of research and knowledge, out of which the very concept of the

^{15.} The carbon budget project states that 'current trajectories of fossil fuel emissions are tracking some of the most carbon-intensive emission scenarios used in the Intergovernmental Panel on Climate Change [reports]... tracking baseline scenarios that takes the planet's average temperature to about 3.2°C to 5.4°C above preindustrial times by 2100'. Available at: http://www.globalcarbonproject.org/carbonbudget/14/hl-full.htm. Last accessed November 16, 2015.

Clive Hamilton, 'Climate Change Signals the End of the Social Sciences', *The Conversation*,
January 2013. Available at: http://theconversation.com/climate-change-signals-the-end-of-the-social-sciences-11722. Last accessed October 14, 2015.

^{17.} Martin Heidegger, 'The Age of the World Picture', in *The Question Concerning Technology and Other Essays*, trans. William Lovitt (New York: Harper Collins, 1982).

Anthropocene¹⁸ emerged, aims to reflect the true scale and systemic complexity of the planet in a way that International Relations does not. Its analytical breadth and methodologies underpins much of climate science, and now issues a profound warning to global institutions – if they are in any mind to hear. We offer this example not to claim that 'hard' natural science should trump 'soft' social science in its understanding of the world and its complexity, but rather that we need interdisciplinary dialogue, multiple 'toolboxes', and additional accomplices to be able to analyse and respond to the rapidly evolving planetary real.

Earth System Science's 'planetary boundaries' model identifies nine major global ecosystem processes (climate change, ocean acidification, stratospheric ozone depletion, biogeochemical flows, freshwater, land system change, atmospheric aerosol loading, and biosphere integrity/biodiversity) and thresholds 'within which humanity can exist safely' for each one. A study in 2009 stated that three of these thresholds (climate change, ocean acidification, and ozone) had been crossed, while a 2015 study stated that the threshold for biosphere integrity had already been crossed. 19 This model proposes 350 parts per million (ppm) of CO₂ in the atmosphere as the threshold of safety for climate change (about 1-1.5°C of average global warming), yet recorded measurements have now exceeded 400 ppm and international institutions (including the EU and the UN Framework Convention on Climate Change) insist in assuming that 2°C of warming is a safe target. The fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) states that the Earth has endured its warmest 30 years since 1400; observed global warming is already between 0.65 and 1.06°C; and, the oceans have seen a 26% increase in acidification 'since the beginning of the industrial era'. ²⁰ Another major earth system study predicts that ocean acidification, overfishing, and other stressors could lead to the extinction of all marine fish species by 2048.²¹ It is easy to imagine the devastating effect on ocean ecologies and human food security such an extinction event will have, within just three decades.

These dire findings are echoed in US national security publications and international civilian reports.²² There are worst-case scenarios that put global sea level rise at as much as 2-.2.5 m (8 ft) by 2040, and after the melting of the Antarctic sheet, the rise could be 7 m (20 ft) above current levels. We have moved past debating the truth of global climate

^{18.} Paul J. Crutzen, 'Geology of Mankind', Nature 415, no. 23 (2002). doi: 10.1038/415023a

^{19.} Will Steffen et al., 'Planetary Boundaries: Guiding Human Development on a Changing Planet', *Science* 347, no. 6223 (2015). doi: 10.1126/science.1259855

^{20.} IPCC, *Climate Change 2014: Synthesis Report*. Geneva: Intergovernmental Panel on Climate Change, 2014. Available at: http://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr1.pdf

^{21.} Worm et al., 'Impacts of Biodiversity Loss', 787–90.

^{22.} See Department of Defense Quadrennial Review Report United States of America, 2010 National Security Strategy, 2014; Ibid., Quadrennial Defense Review 2014; Quadrennial Homeland Security Review. See also the World Bank's Report no. 2, June 2013: Turn Down the Heat: Climate Extremes, Regional Impacts, and the Case for Resilience; and Report no. 3, November 2014: Turn Down the Heat: Confronting the New Climate Normal.

change and its prevention to having to think about how we are going to live in the world we have created.²³

These looming events are surely the greatest threat to international security in this century, whether we think in terms of state security, human security, or ecological security. We collectively face the profound, interwoven endangerment of the common worlds we inhabit and depend upon for survival.²⁴ Where, in the face of this, are the resolutions of the United Nations Security Council?

We are not arguing for IR to be displaced by Earth System Science, or any other discipline, but for the creation of a new institutional and social scientific project that can provide political answers to the planetary questions that it raises so compellingly. By itself, Earth System Science cannot tell us how to achieve social change or how to reconfigure the international, even as the planetary boundaries framework was rightly advanced as 'a new paradigm that integrates the continued development of human societies and the maintenance of the Earth system (ES) in a resilient and accommodating state'.²⁵ In our view, there needs to be an isomorphism between the planetary scale on which Earth System Science is producing knowledge about the earth, between the planetary scale of actual and potential extinctions, and between an ethical, moral, ontological and practical discourse that might be adequate to them. This is the crisis facing IR, and the opening for a new paradigm: Planet Politics.

Intellectually, this may require the creation of a new field parallel to IR, or the recovery of an earlier notion of IR as an interdiscipline comprised of multiple research programmes, intellectual traditions, and normative perspectives — this time with the Anthropocene as its spur to innovation. If the dusty intuitions of long-departed canonical thinkers regarding the nature of power and interest, of *fortuna* and the *animus dominandi*, were reasonable bases for developing speculative accounts of global political life, then why not the emerging consensus of a cadre of contemporary ecologists, biologists, and climatologists? In other words, IR was built as an interdiscipline distinct from political economy and international law after being provoked by changing political conditions. Two world wars, the Holocaust, and the fall of the USSR, to name but three, shifted its theoretical frameworks for understanding the world. We should, therefore, be open to the continual renewal of the discipline through new texts, new provocations, and crises — the most profound of which is the Anthropocene.

We agree with Frank Biermann that the Anthropocene calls for 'a new perspective in political science' and that the emerging paradigm of 'earth system governance' provides a compelling framework upon which to build and innovate.²⁶ In a project of reconfiguring

^{23.} Scranton, Learning to Die in the Anthropocene, 15–17.

^{24.} Audra Mitchell, 'Only Human? A Worldly Approach to Security', *Security Dialogue* 45, no. 1 (2014): 5–21; Anthony Burke, 'Security Cosmopolitanism: the Next Phase', *Critical Studies on Security* 3, no. 2 (2015): 190–212.

^{25.} Steffen et al., 'Planetary Boundaries', 736.

^{26.} Frank Biermann, 'The Anthropocene: A Governance Perspective', *The Anthropocene Review* 1, no. 1 (2014): 57–61. doi: 10.1177/2053019613516289; see also John S. Dryzek, 'Institutions for the Anthropocene: Governance in a Changing Earth System', *British Journal of Political Science*, FirstView Article, November 2015: 1–20. doi: 10.1017/S0007123414000453

the global to respond to the planetary, we must rethink our institutions, our commitments, our rules, and our understanding of membership, rights and participation beyond the state and indeed the human. We must imagine and create a just ecological politics and governance at every level.

We are aware that even as we call for a unified planetary project of common and just survival, the world remains fractured between different states and communities: fractured by inequalities and differences in power, fractured by different experiences of development and need, and consumption and responsibility.²⁷ For some, the Anthropocene is better described as the 'Eurocene' or the 'Manthropocene'; for others, it may obscure the conflictive and power-saturated politics around fossil fuels and environmental change.²⁸ Yet the Anthropocene also issues a profound challenge to politics: no longer is it legitimate to understand politics as the perennial clash between human preferences and interests, or indeed a bargaining of human interests against those of the ecology. The planet is telling us that there are limits to human freedom; there are freedoms and political choices we can no longer have.

Arresting dangerous climate change, stemming species extinctions, decarbonising our civilisation: this must be a common political project if life on this planet is to survive. However, such a project will necessarily involve agonism and conflict; it will be achieved through both new forms of cooperation and ongoing contestation, through a 'cosmopolitics' that admits (many different) humans, nonhumans and things, present, absent, living, inorganic, powerful and less powerful, by making politics receptive to the disturbances they create. It will involve amplifying marginalised voices and creating new forms of solidarity and governance to confront the dystopian power of big energy, big farming, big finance, and fossil fuel capitalism.

Planet Politics must be simultaneously a practice of governance and of subversion, of regulation and resistance, at multiple scales and locales. Indeed as resistance it is already underway, but as governance it is struggling to be born. Planet Politics must be very different from the elitist and state-centric global governance that is today's handmaiden of extinction.

3. Diplomacy, as an institution, is failing. Long ago, Hedley Bull argued that Diplomacy was one of the five key 'institutions' of international society, alongside International Law, Great Powers, the Balance of Power, and War.²⁹ Diplomacy is carried out by official representatives of states and transnational institutions also created by states. Corporations have lobbied, bought, and bribed themselves into the game. Everyone else is an NGO, or worse, a person, a nothing. And non-human species, oceans, ecosystems – the very living complexity of the planet – have no status at all. Bull's 'institutions' are the action-actorartifacts of contemporary international society, the subjects and objects that we abjectly

^{27.} Simon Dalby, 'Framing the Anthropocene: the Good, the Bad and the Ugly', *The Anthropocene Review* 3, no. 1 (2016): 33–51. doi: 10.1177/2053019615618681

^{28.} Jairus Grove, 'Response to Jebediah Purdy's The New Nature', *The Boston Review*, 11 January 2016. Available at: http://bostonreview.net/forum/new-nature/jairus-grove-jairus-grove-response-jedediah-purdy. Last accessed February 1, 2016.

^{29.} Hedley Bull, The Anarchical Society (London: Macmillan, 1977/2002), xxxii.

depend on to solve the planet's problems. Below we speak of what must change in international law; how is diplomacy contributing to acknowledging and addressing the gravity of the imminent ecological collapse?

Diplomacy has provided the United Nations Framework Convention (UNFCCC) and the Kyoto Protocol on climate change. These are international society's sole treaty bulwark against the sixth extinction and a potential future of unchecked climate change that the International Institute of Strategic Studies asserted would be 'catastrophic – on the level of nuclear war'. Negotiated in 1997 but not in force until 2005, Kyoto was originally a modest commitment by a small group of countries to cut emissions over four years; it has since been extended to the end of 2020 – just five years away – and has achieved cuts of 29% below business as usual. Yet global emissions as a whole soared by 40% to 2009 and have risen to historically unprecedented levels since. Current emissions trends are tracking towards an average warming of 3.7-5.5°C over pre-industrial levels. If the earth warms 3 degrees, the Arctic ice sheet will melt, triggering a rise in sea levels of 7 metres.

Leading climate scientists are also warning that international society's assumed ceiling for emissions and 'dangerous' climate change (~1000 gigatonnes of carbon (GtC) or 2°C) will, in fact, 'spur "slow" feedbacks and eventual warming of 3–4°C with disastrous consequences'. Instead we must limit atmospheric greenhouse gases to ~500 GtC or 350 ppm of CO₂ – which means dramatically reducing existing concentrations rather than continuing to emit more, given that measurements of over 400 ppm were recorded in 2015.³² The United Nations Framework Convention on Climate Change (UNFCCC) is reviewing the 2 degree target, but this process remains bogged down in political maneuvering.³³ Indeed the miraculous appearance of the 'safe space' target of 1-1.5 degrees in the preamble to the 2015 Paris agreement – albeit in a way that is nonbinding and subject to further investigation by the IPCC – exemplifies the profound tensions between the needs of the planet and our global diplomatic mechanisms.³⁴

^{30.} International Institute of Strategic Studies, *Strategic Survey* (London and New York: IISS and Routledge, 2007), 49.

^{31.} Clive Hamilton, *Requiem for a Species* (Sydney: Allen & Unwin, 2010), Kindle ed. loc. 2859; Global Carbon Budget, 'Fossil Fuel Emissions and Cement Production, 1990-2010', Available at: http://www.globalcarbonproject.org/carbonbudget/archive/2009/CarbonBudget 2009.pdf

^{32.} James Hansen et al., 'Assessing "Dangerous Climate Change": Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature', *PLoS ONE* 8, no. 12 (2013): e81648. doi: 10.1371/journal.pone.0081648; Adam Vaughn, 'Global Carbon Dioxide Levels Break 400 ppm Milestone', *The Guardian*, 7 May 2015. Available at: http://www.theguardian.com/environment/2015/may/06/global-carbon-dioxide-levels-break-400ppm-milestone. Last accessed 15 January 2016.

^{33.} United Nations Framework Convention on Climate Change, 'The 2013-2015 Review'. Available at: http://unfccc.int/science/workstreams/the_2013-2015_review/items/6998.php. Last accessed November 10, 2015.

^{34.} United Nations Framework Convention on Climate Change, Draft decision -/CP.21. Adoption of The Paris Agreement, FCCC/CP/2015/L.9/Rev.1. Available at: http://unfccc.int/resource/docs/2015/cop21/eng/109r01.pdf Last accessed January 31, 2016. Preamble and clause 21.

The 1.5 degree target appeared in the agreement due to the combined pressure of scientists, global civil society, and climate-vulnerable states. Yet it is still not a formal goal, and we fear it may never become one. Furthermore, even the text of the Paris agreement notes that the 'nationally determined contributions' volunteered by states will fail to keep global warming within 2 degrees let alone 1.5.35 In short, nearly two decades after Kyoto, states have yet to agree to binding emissions reductions that will prevent dangerous climatic change according to the best contemporary advice of earth system scientists. Objects in this mirror are closer than they appear.

We can acknowledge the diplomatic achievement of France, the United States and China in preventing the Paris meeting from being a complete failure, and for opening a door to more stringent action in the future.³⁶ At the same time, the UN-based system has presided over an alarming increase in emissions in the three decades since the gravity of the climate crisis was comprehensively identified; emissions that may lock in devastating changes to the biosphere that will be difficult to avoid.

This system is still based on consensus and delay, allowing spoilers enormous influence; it still keeps the voices of scientists, civil society and indigenous peoples on the margins; it fails to integrate environmental, security and economic governance, or harmonise them in normative terms; and it has no effective mechanisms to admit the claims of the nonhuman. And beyond the problem of climate, a coordinated, accountable, and democratic global machinery to protect crucial ecosystems, restore oceans, end deforestation, and ensure breathable air remains far off – fractured between states, corporate lobbies, and weak and fragmented international organisations kept separate from the 'real business' of global economic and security governance.³⁷

Policy elites still talk and think as if their agency matters and is morally unproblematic; as if, clad in the armature of the state and striding purposefully though his own institutions, Cartesian 'Man' can continue to dictate to the planet. This attitude was exemplified by comments by the Indian environment minister after the 2014 Lima Accord,³⁸ who argued for the Paris agreement to provide developing countries 'equitable carbon space to

^{35.} Ibid., Clause 17.

^{36.} Coral Davenport, 'A Climate Deal, 6 Fateful Years in the Making', *The New York Times*, 13 December 2015, p. A1.

^{37.} Frank Biermann, Earth System Governance: World Politics in the Anthropocene (Cambridge and London: The MIT Press, 2014), Kindle edition, loc. 1858-2157. See also Jacob Park, Ken Conca and Matthias Finger, eds, The Crisis of Global Environmental Governance: Towards a New Political Economy of Sustainability (London: Routledge, 2008); Hayley Stevenson and John S. Dryzek, Democratising Global Climate Governance (Cambridge and New York: Cambridge University Press, 2014); Ulrich Brand and Christoph Görg, 'Regimes in Global Environmental Governance and the Internationalization of the State: The Case of Biodiversity Politics', International Journal of Social Science Studies 1, no. 1 (2013): 110–22. doi:10.11114/ijsss.v1i1.75

^{38.} Text available at: http://unfccc.int/files/meetings/lima_dec_2014/in-session/application/pdf/cpl14.pdf

achieve sustainable development'³⁹ – as if the atmosphere can be divided up according to the principles of state sovereignty, as if there is any atmospheric space left.

The biosphere cannot be traded, divided or bargained away. It is not a product, nor a monetary or diplomatic artifact, amenable to state compromises and quantification. When earth system scientists are warning that the safe limit for atmospheric carbon concentrations is 50 ppm less than current levels, the continued commitment of the UNFCCC to market mechanisms is fetishistic and bizarre. When there can be no emissions to trade, there can be no global emissions trading system. While it is possible to count tonnes of emissions and parts per million of CO₂, it is not possible to count non-linear events and unpredictable feedbacks, and the cascading ecosystem and social damage that will ensue. The true moral disaster of extinction cannot be measured in numbers of species lost and billions of animal dead, but in the irreversible devastation to worlds that it represents.

In the near term, we will have to work with flawed institutions, but the gravity of this crisis means that it is right to demand more profound and systemic change, and to explore, in politics and in scholarship, what that change should be. Diplomacy will remain in some form a part of global solutions, but as an established institution it is failing us because the crisis we face demands fundamental change in the underlying system and its commitments, of which diplomacy is an epiphenomenon. Diplomacy is the visible hands of a watch running down, when what must be done is not merely expose its interior workings, but to re-imagine our entire structure of social-political time. This time is both much longer than our contemporary horizons, taking in hundreds and thousands of years, and much shorter, requiring ameliorative action that should have begun yesterday. The planet's watch is ticking ever louder, and too many diplomats and statesmen seem deaf to it; deaf to the running down of the world and the voices of those most affected by melting glaciers, rising waters, and drying continents.

Two Paradigms: the Anthropocene versus IR

4. We exist in social nature. Both the discipline of International Relations, and international state practice, are underpinned by a silent Cartesian assumption that humanity and nature are radically separate: that the human is not really an animal, that social affairs go on independent of the biosphere, and that the environment exists to provide services for humanity. Rather, our movement into the Anthropocene forces an ontological shift: human activity and nature are so bound together that they are existentially indistinguishable, into a complex but singular 'social nature'.⁴⁰

The concept of the Anthropocene raises fundamental questions for how world politics is now to be understood. Geopolitics can now no longer take the context of the human drama for granted; transformations are afoot that are of humanity's own making. The 'geo' is being changed by human activity on a scale that makes it clear that

^{39.} Coral Davenport, 'Nations Plod Forward on Climate Change Accord', *The New York Times*, 13 December 2014. Available at: http://www.nytimes.com/2014/12/14/world/climate-change-summit-meeting-in-lima.html?contentCollection=world& r=1

^{40.} Simon Dalby, Security and Environmental Change (Cambridge: Polity Press, 2009), 6.

realist assumptions that take the context for international relations for granted are no longer tenable.⁴¹ Nature is increasingly being produced at the largest of scales and political thinking has to come to terms with this new condition. Globalisation is, it turns out, a profoundly geophysical process, not just a matter of trade and cultural change networked by communication technologies. In these terms, the global economy is the new geomorphic force at work in the biosphere; most of the fertile parts of the land surface of the planet have dramatically new artificial species mixes due to deforestation and agriculture. Political economy is now a matter of political ecology, and given the planetary scale of the transformations underway, effectively a matter of 'political geoecology'.⁴²

The reason that the Anthropocene has become the preferred term for the discussion of contemporary transformations is precisely because it suggests a geological scale of transformation that possesses many facets that are changing rapidly and simultaneously. Not minor environmental tinkering that might have deleterious local effects, or single factors like ozone depletion, that are global but have causes that can be localised and be managed by standard international governance regimes of the kind that are familiar to conventional international relations studies.

Climate change gets prominent mention in the literature of the Anthropocene. The levels of carbon dioxide in the atmosphere are now higher than any in the last million years at least. They are well beyond the range for which reasonable predictions of how the planet's climate system will respond can be made. Over the last ten millennia (the so called 'Holocene') or so, the planet was in a very unusually stable climate configuration, something that has no obvious analogue through previous episodes of warm inter-glacial periods. The suggestion from the earth system scientists is that this Holocene 'sweet spot' is the context in which humanity has thrived.⁴³

The Anthropocene is not just about climate; it is also about other key ecological and geophysical processes. The 'planetary boundaries' framework emphasises that the Anthropocene is also about the rapid reduction of species diversity that the human colonisation of most ecological niches has caused. It is also about the artificial changes to nitrogen and phosphorous cycles through the biosphere. The diversion of fresh water to human uses changes hydrologies too. Agriculture and urbanisation have moved species around and divided up ecosystems, fragmenting habitat and disrupting migration patterns profoundly. Whole new geological formations, asphalt and concrete systems that we call cities, as well as newly forming plastiglomerates where plastic wastes are forming sedimentary structures on beaches, are appearing. Long-lived radioisotopes may end

^{41.} Simon Dalby, 'Realism and Geopolitics', in *Ashgate Research Companion to Critical Geopolitics*, eds. Klaus Dodds, Merje Kuus and Jo Sharp (Farnham: Ashgate Publishing, 2013): 33–47.

^{42.} Hans Günter Brauch, Simon Dalby and Ursula Oswald Spring, 'Political Geoecology for the Anthropocene', in *Coping with Global Environmental Change, Disasters and Security Threats, Challenges, Vulnerabilities and Risks*, eds. Hans Günter Brauch et al., (Berlin-Heidelberg and New York: Springer-Verlag, 2011), 1453–85.

^{43.} Johan Rockström and Mattias Klum, with Peter Miller, *Big World, Small Planet: Abundance within Planetary Boundaries* (New Haven: Yale University Press, 2015).

up being the preferred choice of geologists to mark these new geological formations that mark the Anthropocene.

It is far from clear that we can continue to thrive in a period of rapid and unpredictable climatic fluctuations, hence the alarm about transcending the boundaries of what we know to be the 'safe operating space' for civilisation. It is especially important to understand that how the earth system will respond to these coming perturbations will in part be about how human actions shape that response. Which species are alive to populate and adapt to dramatically different circumstances matters. How different these circumstances will be is related to how much the rich and powerful among us directly change the atmosphere, and hence indirectly the acidity of the oceans, and how much ice covers the polar regions in coming decades.

Put differently, the move to call present circumstances the Anthropocene means to 'ontologically foreground' the geophysical scale of human agency in the biosphere; adaptation to current climate change will shape how climate changes in coming decades and for much longer. 44 As species try to respond to climate signals they are facilitated or prevented from doing so by human decisions. Apparently simple matters such as specifying invasive species, moving plants and animals as a matter of commercial or subsistence agriculture, gardening and adopting animals as pets, and designating certain spaces 'protected' in various ways are crucial to future configurations of ecosystems. Nature is being dramatically reshaped by social actions so problems of democratic representation now take on even deeper importance: who decides how nature is to be remade, what the future human condition is to be? There is little to suggest that such matters have penetrated into International Relations. Global environmental politics has garnered ever-greater attention, but there has yet to be much recognition of just how profoundly contemporary transformations muddy our traditional understandings of nature and humanity, and befuddle the normative frameworks within which we are accustomed to working. Hence the crucial importance of thinking about things in terms, quite literally, of 'planet politics'.

5. IR is a malevolent ghost of the planetary real. What is International Relations for? One of us suggested that in the nuclear age the field of International Relations had a 'vocation': to prevent the destruction of the commons and 'build a cumulative reservoir of knowledge for stewarding an increasingly dense, heavily armed, and persistently diverse world'. In a century preoccupied by world war, genocide, civil war and nuclear holocaust, the architecture and focus of the UN system made some sense, if it is also possible to decry its failure to address those crises adequately in action, policy, or law. Now that ecological catastrophe is unquestionably the gravest security challenge to face this planet, why has IR failed to take on a new, corresponding, vocation?

^{44.} Patrick Thaddeus Jackson, 'Ontological Foregrounding: Dualism, Monism, and IR Theory', *Review of International Studies* 34, no. 1 (2009): 129–53.

^{45.} Daniel Levine, *Recovering International Relations: The Promise of Sustainable Critique* (Oxford and New York: Oxford University Press, 2012).

^{46.} Thomas G. Weiss, *What's Wrong With the United Nations, and How to Fix it* (Cambridge: Polity Press, 2012).

In part, we suspect, it is because IR was designed to *effect* precisely the political and normative lacunae that planetary politics must now confront. Technical knowledge and value-free objectivity was designed to occlude and contain open-ended normative-political speculation and action. In the face of nuclear war, and given the fissile, polymorphous nature of human desire and democratic action, such thinking and doing seemed too dangerous, too open-ended, and too contingent. Consent for such containment was bought partly through greatly intensified consumption, with its attendant environmental despoliation: the grand bargain foretold in Comte and Saint-Simon, and decried in Marcuse's *One-Dimensional Man* and Habermas's *Legitimation Crisis.*⁴⁷ One of the effects of that bargain, then, was to deepen and accelerate the very crises we now face. Once upon a time, IR was accountable more to events than to itself.

Little wonder that IR is ill-suited to make sense of the contemporary condition. Its dominant paradigms – realism, liberalism, and constructivism – are determinedly state-centric and accept that Bull's five institutions are the fundamental building blocks of the international real. They may want more or less from the system, emphasise different causal principles, and have more or less hope, but they are unified by an investment in the institution of diplomacy and an anthropocentric ontology in which the field of human agonism, bargaining, and conflict, works at some distance from nature rather than being deeply, causally, enmeshed in its processes. Important contemporary debates about the dissipation of American power, the structure of world order, or the rise of China and the BRICs, may acknowledge that climate change is a issue of normative significance and diplomatic contestation,⁴⁸ but they do not grapple with the gravity of the changes to the biosphere that climate change will wreak or grant the climate an independent agency that will exceed the agency of any state, group, or the state system itself.

Feminism – the fourth great paradigm in IR – has long questioned the ontological and moral centrality of the state and the ethical commitments of international society's institutions, but remains largely (and understandably) anthropocentric and humanist. We must challenge the unitary subject in the humanist tradition – and its gendered other – with new conceptual creativity. 'Cultural inter-mixity' and the 'recomposition of genders and sexualities' can be 'new starting points that bring into play untapped possibilities for bonding, community building and empowerment'.⁴⁹ This means moving towards new modes of relation that can advance feminism through the complexity of human and non-human relations. Gender cannot be the same signifier that it once was in the binary system of male/female.⁵⁰ Planet Politics will mean being worldly in a new way, a way that is entangled and plural with more than just *homo sapiens*.

^{47.} Herbert Marcuse, *One Dimensional Man* (Boston: Beacon Press, 1964). Jürgen Habermas, *Legitimation Crisis* (Boston: Beacon Press, 1973). We thank Charmaine Chua for this point.

^{48.} Amitav Archarya, *The End of American World Order* (Cambridge and New York: Polity Press, 2014), Kindle edition, loc. 1747; Barry Buzan and George Lawson: *The Global Transformation* (New York: Cambridge, 2014), 295–6.

^{49.} Rosi Braidotti, The Posthuman (Cambridge: Polity Press, 2013), 54.

^{50.} Cary Wolfe, *Zoontologies: The Question of the Animal* (Minneapolis: University of Minnesota Press, 2003).

Planet Politics

6. Coal should be a controlled substance. 'There is no question', says Joseph Romm, an energy expert at the Center for American Progress in Washington DC, 'nothing is worse than fossil fuels for killing people'. ⁵¹ It is this fact that leads us to proclaim that coal needs to be regulated at the international level. It can no longer be used to fuel our power needs and the remainder of the coal reserves must stay in the ground. We agree with Naomi Klein that this moment must be taken to interrogate capitalism – we do not have a coal problem, we have a capitalism problem – and use this crisis as a catalyst and impetus for meaningful change; this threat is also an opportunity. At the grassroots, national, and global level, we must organise to treat coal as the deadly substance it is to human and environmental health.

Coal is toxic at all stages: its extraction has serious environmental impacts including ecosystem destruction like mountain top removal and groundwater poisoning. Burning coal releases toxins and pollutants into the air including sulfur dioxide, nitrogen oxides, soot, mercury, hydrocarbons, carbon monoxide, volatile organic compounds (VOCs), arsenic, cadmium, lead, and other heavy metals. The toll on human health and ecosystem health is staggering. Broadly, outdoor air pollution, according to the World Health Organization, causes over 3 million premature deaths each year.⁵² European coal pollution prematurely kills 22,300 a year with 240,000 years of life 'lost in Europe in 2010 with 480,000 work days a year and 22,600 "life years" lost in Britain, the fifth most coalpolluted country'.53 In the US, coals kills 13,000 people a year. The planned expansion of coal burning plants in India will double or triple the amounts of deaths currently counted at between 80,000 and 115,000 a year.⁵⁴ Coal is also an enormous contributor to climate change: in 2013, coal was responsible for 43% of global emissions, and from 1870 the burning of coal has contributed an incredible 87 ppm of CO₂ into the atmosphere, 81% of the total aggregate increase in atmospheric greenhouse concentrations. Coal is, in short, the black demon of the Anthropocene.⁵⁵

^{51.} Philip McKenna, 'Fossil Fuels are Far Deadlier than Nuclear Power', *The New Scientist* 23 (2011). Available at: https://www.newscientist.com/article/mg20928053-600-fossil-fuels-are-far-deadlier-than-nuclear-power/. Last accessed November 10, 2015.

^{52.} World Health Organization, '7 Million Deaths Annually Linked to Air Pollution'. Available at: http://www.who.int/mediacentre/news/releases/2014/air-pollution/en/). Last accessed October 12, 2015.

^{53.} Jon Vidal, 'European Coal Pollution Causes 22,300 Premature Deaths a Year', *The Guardian*, 12 June 2013 http://www.theguardian.com/environment/2013/jun/12/european-coal-pollution-premature-deaths. Last accessed February 24, 2016.

^{54.} Helle Abelvik-Lawson, India's Planned Coal Will Cause Doubling of Annual Air Pollution Deaths by 2030', Greenpeace. Available at: http://energydesk.greenpeace.org/2014/12/15/report-indias-planned-coal-will-cause-doubling-annual-air-pollution-deaths-2030/). Last accessed October 21, 2015.

^{55.} Global Carbon Budget, highlights. Available at: http://www.globalcarbonproject.org/carbonbudget/15/hl-compact.htm. Last accessed February 25, 2016; Slide 'The Cumulative Contributions to the Global Carbon Budget from 1870', Global Carbon Budget 2014, September 21, 2014. Available at: http://www.globalcarbonproject.org/carbonbudget/14/files/GCP budget 2014 lowres v1.02.pdf.

Coal must be rapidly phased out and replaced with renewable energy. To this end, we argue that coal should be regulated like any other toxic substance or dangerous good. This cannot happen at the state or regional level, but must be controlled by an international treaty outlawing and regulating coal. We advocate a new treaty instrument – a Coal Convention, analogous to the Chemical and Biological Weapons Conventions – to ban the mining and burning of coal, on the basis that coal is a profound and ongoing threat to global health and security.

We are aware that creating new international law by itself is not enough; that it is no substitute for actions by states, markets, communities, and energy companies. Yet even more profoundly than current disinvestment campaigns, a groundswell of international support for such a convention would have an enormous normative and political force in the cause of imprisoning coal reserves in the ground for eternity. It would create a universal legal framework within which states can act to end the burning of coal and transform energy economies, without fear of free riders, and be a recognition of the universal threat to humanity and the planet posed by coal and other fossil fuels. The harms caused by coal are not prospective or hypothetical; they are present and actual and are doing grave damage to the security of the planet.

7. Legal frameworks need to incorporate enmeshment with other species and ecologies to better protect us all. Planet Politics aims to open new discussions on corporate accountability, animal rights, environmental justice, international law, and ecological security. In this we are inspired by the work of Polly Higgins and others who have advocated for the criminalisation of environmental damage and an international criminal law on ecocide.⁵⁶

The Deepwater Horizon offshore drilling accident in the Gulf of Mexico in 2010 remains a continuing ecological disaster. Four years after the spill, the cleanup has not been completed. Reports of death and sicknesses in multiple species due to the explosion and spill continue to surface in the news. In March 2014, the 2012 ban on oil exploration in the Gulf was lifted after BP's successful lawsuit, and the US government will allow the company to bid for contracts and expand their drilling presence in the Gulf.

By way of example, an alternative lens through which we can see the Deepwater Horizon spill focuses on the plight of the Atlantic bottlenose dolphin in the Gulf. In recent years, unprecedented numbers of dolphins are dying and sick — what scientists are calling an 'unusual mortality event'. This is most severe in a known heavily impacted area of the Gulf, Barataria Bay, Louisiana. The dolphins play a key role in the Gulf's ecosystem as apex predators, a draw for tourists, and most importantly as the Gulf's residents. Dolphins are intelligent, speak a complex language, form long-term relationships, and have distinct cultures that should be recognised. Many marine experts, ethicists, and animal rights activists, are pushing for international rights for cetaceans, of which dolphins are a part. Given this situation how can our legal frameworks respond to an injustice of this magnitude? While this tragedy affects humans and their health and livelihood, the plight of nonhumans and damage to their ecosystems is an urgent matter in its own right.

^{56.} Polly Higgins, Eradicating Ecocide (London: Shepheard-Walwyn, 2010).

We do not need to argue about the moral individuality and potential personhood of particular nonhuman animals, or whether animals can truly suffer as humans do. Moving forward, as we insist above, must mean renouncing simple anthropomorphism or mammalism, and understanding diversity in all forms of life in concrete ways that do not reduce this complexity to a human/nonhuman dichotomy.⁵⁷ Just as humans experience and suffer in multiple ways, so do other species if their very means for living – their habitats and their *worlds* – are poisoned and destroyed.

We need creative thinking about what rights could apply, what rights need to be recognised, and how we enforce and penalise violence – slow and fast – against nonhuman communities and ecologies. ⁵⁸ It is time to imagine a category that includes 'crimes against biodiversity': to expand international human rights law to take in precious species and ecosystems, and criminalise avoidable activities that do them grave harm. This avoids the current problem of criminalising individual animal deaths with all the attendant problems (intent, moral status) and allows the focus to become a legal and ethical one in which the death, or endangerment, of large numbers of animals or whole species due to human activity can be understood as something akin to genocide or a crime against humanity. By way of the specific example above, we must consider how pods or communities of dolphins can be seen as analogous to a nation or ethnic group in international law.

If we are to prevent harm to the 'worlds' that make our common existence possible, it is also time to extend a programme of planetary governance reform to questions of membership and the creation of new standing global institutions. It is time to consider whether major ecosystems – such as the Amazon basin, the Arctic and Antarctic, and the Pacific Ocean – should be given the status of nations in the UN General Assembly and other bodies, or new organisations established with the sole purpose of preserving their ecological integrity. We note that members of the Earth System Governance research alliance have suggested the creation of a new World Environment Organization and a UN Sustainable Development Council.⁵⁹ We agree, but would also argue that simply trusting states to discharge their responsibilities in such bodies, according to the old bargaining rituals of diplomacy and global governance, will fail. Voting rules and attitudes must change. We suggest the creation of an 'Earth System Council' with the task of action and warning – much like the current UN Security Council – that would operate on the basis of majority voting with representation of earth system scientists, major ecosystems, species groups, and states.

8. Global ethics must respond to mass extinction. In late 2014, the Worldwide Fund for Nature reported a startling statistic: according to their global study, 52% of species had gone extinct between 1970 and 2010.⁶⁰ This is not news: for three decades, conservation

^{57.} Cary Wolfe, What is Posthumanism? (Minneapolis: University of Minnesota, 2010), 45–47.

^{58.} Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge: Harvard University Press, 2013).

^{59.} Biermann, 'The Anthropocene', 50.

^{60.} Worldwide Fund for Nature, *Living Planet Report* (London: World Wide Fund for Nature, 2014).

biologists have been warning of a 'sixth mass extinction', which, by definition, could eliminate more than three quarters of currently existing life forms in just a few centuries.⁶¹ In other words, it could threaten the practical possibility of the survival of earthly life.

Mass extinction is not simply extinction (or death) writ large: it is a qualitatively different phenomena that demands its own ethical categories. It cannot be grasped by aggregating species extinctions, let alone the deaths of individual organisms. Not only does it erase diverse, irreplaceable life forms, their unique histories and open-ended possibilities, but it threatens the ontological conditions of Earthly life.

IR is one of few disciplines that is explicitly devoted to the pursuit of survival, yet it has almost nothing to say in the face of a possible mass extinction event. ⁶² It utterly lacks the conceptual and ethical frameworks necessary to foster diverse, meaningful responses to this phenomenon. As mentioned above, Cold-War era concepts such as 'nuclear winter' and 'omnicide' gesture towards harms massive in their scale and moral horror. However, they are asymptotic: they imagine nightmares of a severely denuded planet, yet they do not contemplate the comprehensive negation that a mass extinction event entails. In contemporary IR discourses, where it appears at all, extinction is treated as a problem of scientific management and biopolitical control aimed at securing existing human lifestyles. ⁶³ Once again, this approach fails to recognise the reality of extinction, which is a matter of *being* and *nonbeing*, not one of life and death processes.

Confronting the enormity of a possible mass extinction event requires a total overhaul of human perceptions of what is at stake in the disruption of the conditions of Earthly life. The question of what is 'lost' in extinction has, since the inception of the concept of 'conservation', been addressed in terms of financial cost and economic liabilities.⁶⁴ Beyond reducing life to forms to capital, currencies and financial instruments, the dominant neoliberal political economy of conservation imposes a homogenising, Western secular worldview on a planetary phenomenon. Yet the enormity, complexity, and scale of mass extinction is so huge that humans need to draw on every possible resource in order to find ways of responding. This means that they need to mobilise multiple worldviews and lifeways – including those emerging from indigenous and marginalised cosmologies.

Above all, it is crucial and urgent to realise that extinction is a matter of *global ethics*. It is not simply an issue of management or security, or even of particular visions of the good life. Instead, it is about staking a claim as to the goodness of *life itself*. If it does not

^{61.} Anthony D. Barnosky et al., 'Has the Earth's Sixth Mass Extinction Already Arrived?', *Nature* 471 (2011): 51–7.

^{62.} Audra Mitchell, 'Is IR Going Extinct?' *The European Journal of International Relations* (Epub ahead of print 26 February 2016). doi:10.1177/1354066116632853.

^{63.} Claudia Aradau and Rens van Munster, *Politics of Catastrophe* (London: Routledge, 2011); Brad Evans and Julian Reid, *Resilient Life: The Art of Living Dangerously* (Cambridge: Polity Press, 2014).

^{64.} See Kathleen McAfee, 'Selling Nature to Save It? Biodiversity and Green Developmentalism', Environment and Planning D: Society and Space 17 (1999): 133–54; Sian Sullivan, 'Banking Nature? The Spectacular Financialisation of Environmental Conservation', Antipode 45, no. 1 (2013): 198–217.

fit within the existing parameters of global ethics, then it is these boundaries that need to change.

9. An Earth-worldly politics. Humans are worldly – that is, we are fundamentally world-forming and embedded in multiple worlds that traverse the Earth. However, the Earth is not 'our' world, as the grand theories of IR, and some accounts of the Anthropocene have it – an object and possession to be appropriated, circumnavigated, instrumentalised and englobed. Rather, it is a complex of worlds that we share, co-constitute, create, destroy and inhabit with countless other life forms and beings.

The formation of the Anthropocene reflects a particular type of worlding, one in which the Earth is treated as raw material for the creation of a world tailored to human needs. Heidegger famously framed 'earth' and 'world' as two countervailing, conflicting forces that constrain and shape one another. We contend that existing political, economic and social conditions have pushed human worlding so far to one extreme that it has become almost entirely detached from the conditions of the Earth. Planet Politics calls, instead, for a mode of worlding that is responsive to, and grounded in, the Earth.

One of these ways of being Earth-worldly is to embrace the condition of being *entangled*. We can interpret this term in the way that Heidegger⁶⁶ did, as the condition of being mired in everyday human concerns, worries, and anxiety, to prolong existence. But, in contrast, we can and *should* reframe it as authors like Karen Barad⁶⁷ and Donna Haraway⁶⁸ have done. To them and many others, 'entanglement' is a radical, indeed fundamental condition of being-with, or, as Jean-Luc Nancy puts it, 'being singular plural'.⁶⁹

This means that no being is truly autonomous or separate, whether at the scale of international politics or of quantum physics. *World* itself is singular plural: what humans tend to refer to as 'the' world is actually a multiplicity of worlds at various scales that intersect, overlap, conflict, emerge as they surge across the Earth. World emerges from the poetics of existence, the collision of energy and matter, the tumult of agencies, the fusion and diffusion of bonds.

Worlds erupt from, and consist in, the intersection of diverse forms of being – material and intangible, organic and inorganic, 'living' and 'nonliving'. Because of the tumultuousness of the Earth with which they are entangled, 'worlds' are not static, rigid or permanent. They are permeable and fluid. They can be created, modified – and, of course, destroyed. Concepts of violence, harm and (in)security that focus only on humans ignore at their peril the destruction and severance of worlds,⁷⁰ which undermines the conditions of plurality that enables life on Earth to thrive.

^{65.} Peter Sloterdijk, Globes: Spheres II (Los Angeles: Semotext(e), 2014).

^{66.} Martin Heidegger, *Being and Time*, trans. J. Stambaugh, revised and with a foreword by D.J. Schmidt (Albany: State University of New York Press, 2010).

^{67.} Karen Barad, Meeting the Universe Halfway (Durham: Duke University Press, 2007).

^{68.} Donna Haraway, When Species Meet (Minneapolis: University of Minnesota Press, 2008).

^{69.} Jean-Luc Nancy, The Sense of the World (Minneapolis: University of Minnesota Press, 1997).

^{70.} Audra Mitchell, 'Only Human? A Worldly Approach to Security', *Security Dialogue* 45, no. 1 (2014): 5–21.

To respond to the destruction of worlds, we need a politics that is Earth-worldly, and an Earth-worldliness that is political. What might this look like? First, humans can acknowledge and embrace worldliness as a fundamental ontological condition and ethical imperative. Being worldly means understanding that we are nurtured, threatened, nourished, and harmed, by profound forces – and that our movements, responses and poetics make a difference to worlds. Humans also need to understand that being-Earthworldly means being-vulnerable along with the other co-constituents of the worlds we inhabit and traverse. Instead of attempting in vain to escape this co-vulnerability, as the global rich attempt to insulate themselves from the worst effects of global warming suffered by the poor – humans need to acknowledge its inescapability. More than this, they need to reframe it as a source of positive solidarity, rather than simply the fearful, clinging, negative solidarity⁷¹ forged by survival anxiety.

This means acknowledging that being worldly is not an *option* or a *choice*, nor is it an obstacle to human 'progress' that can be overcome, whether through major projects of terraforming or emerging projects of space colonisation. Instead of confronting worldliness with resentment that prompts nihilistic violence or apathy⁷² – or, on the other hand, the instrumentalising optimism of eco-modernism⁷³ – this ethico-politics would embrace the conditions, possibilities, and limitations of being-worldly.

Second, humans can cultivate *gratitude* for worldliness and the gifts it confers. We can learn from Nigel Clark⁷⁴ and other post-Levinasian thinkers, who urge us to acknowledge that humans owe their existence to chains of beings stretching back to the Big Bang (and beyond), and outwards in every direction, across the boundaries of species and all other categories. And, in turn, humans can attempt to give back – to inhabit, protect, nurture, and, yes, kill and consume other beings and worlds – without expecting them to conform to our demands, or exacting promises from them. Being Earth-worldly means embracing the collective threat that is the condition of being. It means engaging in this complex and ultimately finite project with gratitude, attention, resolution, and, above all, with an *amor mundi* that embraces the *Earth* – not only human *worlds*.

10. Sustainably critical 'due diligence' for a worldly politics: reflections and demands. We have posited these claims strongly. Adopting the language and style of polemic and manifesto, and invoking the spectre of a coming catastrophe, we have suggested Planet Politics as a new set of onto-political and interdisciplinary commitments. The manifesto format is a hybrid form that lends itself to interdisciplinarity and is, in its nature, about rich transgressions that can break ground for new rights and political demands. Manifestos need to combine and confuse where the powerful insist there must be borders and control.⁷⁵ In

^{71.} Rosi Braidotti, The Posthuman (Cambridge: Polity Press, 2013).

^{72.} William Connolly, *A World of Becoming* (Durham: Duke University Press, 2011).

^{73.} John Asafu-Adjaye et al., *An Ecomodernist Manifesto (2015)*. Available at: http://www.ecomodernism.org/manifesto-english/. Last accessed February 25, 2016.

^{74.} Nigel Clark, *Inhuman Nature: Sociable Life on a Dynamic Planet* (London: Sage Publications Ltd., 2011).

^{75.} Chris Hables Gray, Cyborg Citizen (New York: Routledge, 2002), 26.

this way, our writing in the multiple is a commitment to what we feel future scholarship will have to embrace: a radical rethinking of the boundaries of our sciences, both natural and social, and the rejection of worn-out notions of liberal individuality and lonely creativity.

We do so aware of the limitations of thinking, of the necessity for chastened, sustainable critique and self-reflection alongside engagement with other disciplines working towards similar ends. In claiming the notion of a new planetary real, and in borrowing from the natural sciences, we do not claim the naïve position that the findings of those sciences are incontestable. Even less would we argue that descriptive claims drawn from such science have only one possible normative or political reading. Planet politics, in other words, does not claim to have transcended the limits of conceptual representation, solved the age-old epistemological problems of mediation and reification, or somehow leapt over the normative problems of identitarian thinking with its associated dangers for politics.

Certainly, Planet Politics needs to enter the constellation of ontologies, epistemologies, and methods that define our discipline if that discipline is not to fail; if, that is, this discipline is to continue to speak meaningfully to the world that presents itself to politics as a demand. We are thus challenging IR to reorganise its very foundations around the complex system of processes and interactions that bind society and nature so terribly together and are producing such world-shaking results, rather than around the anthropocentric drama of human cooperation and conflict. Chastened as it is, that claim is bold enough without also taking on the claim of privileged irrefutability. We also acknowledge that the 'cognitive, industrial, economic, affective, technological, epistemological and meteorological' environments that make our life and studies possible are also destructive of the climate, and possibly ourselves.⁷⁹

We write 'from the end of IR' because the dominant intellectual and institutional architecture of international society fails both to see the Anthropocene as the reality and threat that it is, and fails to address its ecological, moral, and industrial challenges in any way adequately. IR can still explain the world of states and power politics, it can still make and do things, but only by treating the shuddering ecological tectonics of the planet like a shadowy ghost in that human picture, rather than as a brute ontic fact that threatens to overwhelm everything that 'man' has made. This kind of IR is already at an end. In fact, as Roy Scranton forcefully argues, our fossil-fueled civilisation is also already at an end. We need to interrogate what the future will hold: 'We need a new vision of who "we" are'. 80 We cannot keep on as we have been 'burning oil, poisoning the seas, killing

^{76.} Stefanie Fishel, *New Designs for Global Thriving: Bodies and Worlds in International Relations* (Minneapolis: University of Minnesota Press, forthcoming).

^{77.} Bruno Latour, *Pandora's Hope: Essays on the Reality of Science Studies* (Cambridge: Harvard University Press, 1999).

^{78.} Roland Bleiker, *Popular Dissent, Human Agency, and Global Politics* (Cambridge: Cambridge University Press, 2000).

^{79.} Claire Colbrooke, *The Death of the Posthuman: Essays on Extinction, Vol. 1* (Ann Arbor: Open Humanities Press, 2014), 11.

^{80.} Scranton, Learning to Die, 19.

off other species, pumping carbon into the air' in favour of the neoliberal, consumerist 'fantasies of perpetual growth, constant innovation, and endless energy'.81

We hope that a different IR can connect with and support Planet Politics as a collective process that is radically transdisciplinary in new ways – finding pathways between the earth and climate sciences, world politics, global governance, ecofeminism, security studies, the environmental humanities, political ecology, critical animal studies, extinction studies, the posthumanities, critical geography, philosophy, and political and social theory. Entertually and politically, Planet Politics should be diverse in ways that transgress discourse, power, and species, in novel forms. In planning and discussing ways forward, we 'are at once thrown into a situation of urgent interconnectedness, aware that the smallest events contribute to global mutations, at the same time as we come up against a complex multiplicity of diverging forces and timelines that exceed any manageable point of view'. Es

This means that the response must be beyond the human: thus far, the response has been, with few exceptions, overwhelmingly anthropocentric and confined by the concerns of other humanist projects.⁸⁴ Humans must be concerned with more than just managing their own survival in the decades to come. The Anthropocene confronts us with the condition in which we must redefine the very notion of the human and its freedom. There is, no more, a 'human condition' as such. We need a new humanism, or posthumanism, that can grapple with the reality that we exist as subjects who must rely upon an environment that does not need us as much as *we need it*. What values must this new subject have? What must it love and protect? This is the real with which we must contend.

Acknowledging *a new planetary real* does not mean that all new scholarship must follow in the voice, or deploy the sensibilities, that we have developed here. We have not 'broken through' the limits of interpretation and conceptualisation; we do not describe and prescribe from some great, Archimedean height; we are no less bound to humility and reflexivity than any other scholar of the global or the international. It is in the agonistic contestation among these frameworks – realism and feminism, social constructivism, liberalism and ecologism – that claims of fact can speak practically to the world of policy and personal choice, even as their associated warrants, ontological assumptions and potentiality for tendentious appropriation remain apparent and visible.⁸⁵ We must, however, ask uncomfortable questions, nurture critical thought, and support philosophical debate from whichever ideology or framework we work within to survive the changes coming with an unstable and changing climate.

^{81.} Ibid., 23.

^{82.} An example of such interdisciplinarity outside political science and IR is Tom Perreault, James McCarthy, and Gavin Bridge, *The Routledge Handbook of Political Ecology* (London: Routledge, 2015).

^{83.} Colbrooke, The Death of the Posthuman, 11.

^{84.} Dipesh Chakrabarty, 'The Climate of History: Four Theses', *Critical Inquiry* 35 (2009): 197–222.

^{85.} Levine, Recovering International Relations, 227–9; 245–6.

This manifesto has not been the text in which to outline a detailed new research programme for either IR or Planet Politics. There is more to do.⁸⁶ It is however an urgent call for a profound restructuring of international politics and order that can assure the planet's survival, written from a time when its devastation can be seen with an awful clarity. We call for IR and every other relevant discipline to support, enable and clarify this new politics of just ecological entanglement and mutual survival. A complex politics of simple musts: End extinctions! Preserve biodiversity! End deforestation! Repair the oceans! Prevent climate disaster! Decarbonise humanity! Return to social justice!

We thus cast these words into the world and the humanscape of IR with hope and apprehension. We fear that the discipline will find our case too difficult and unsettling to hear; that it will repeat its failed rituals and its refusal to value such concerns or support them with credibility, attention, and resources. This would be the ecological sublime, too large and terrible to see.⁸⁷ We must fight the comfort we find in disavowal of the climate crisis. We also hope to be heard and for our politics to change. We can see the melting glaciers and surging tides, the dying corals and acidifying oceans, and predict the disasters they will bring: devastated ecosystems, drowned cities, failed crops, strange new wars, vast streams of human homeless. Or we can continue our diplomacy and our chatter, until our voices are drowned by the risen sea.

Animals of the world, unite!88

^{86.} We are aware that the declarative style of this text has meant that we have been unable to more patiently set out the ontological or programmatic weaknesses of the field of International Relations in the face of the Anthropocene or set out a future research program in more detail. This will be the purpose of a forthcoming article and multiple longer term research efforts. Our aim, rather, has been to confront the field with an ontological shock, one that might provoke multiple forms of rethinking – of its actors, its structures, its purposes and its commitments. Most centrally, we have been concerned to argue that International Relations should place the global ecological crisis at the very centre of its concerns now and address the glaring weaknesses and fragmentation of international society in the face of it. Its focus on states, and occasionally NGOs, corporations or social movements, is inadequate to grasp the causal paths and reform challenges around climate change, overfishing, ocean degradation, mining, air pollution and more, we contend, and studies of global governance must engage with the much vaster array of actors, actants and processes that contribute to ecological crisis and have to be marshalled in its mitigation. Nor do we assert that Planet Politics begins from a tabula rasa; rather, governed by the conceptual starting point of social nature, it should be an open field that can build on and integrate the progress already made in political ecology, environmental sociology, global environmental politics, green political theory, posthuman philosophy, earth system governance and more. The key point is that this effort should move to the centre of the IR field rather than remain at its margins.

^{87.} Francis Ferguson, 'The Nuclear Sublime', *Diacritics* 14, no. 2 (1984): 4–10.

^{88.} We trust readers will recognise the echoes of a famous earlier text from 1848 in this line. Our use of the term 'animals' is a metaphor that should be taken to include not just human and non-human vertebrates but also insects, plant life and prokaryotes such as bacteria and archea. We thus mean to reflect the entangled coexistence of multiple life forms within ecosystems and indeed bodies.

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