Forum: At the crossroads – Critical perspectives on the study of climate security

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A B S T R A C T

This discussion forum brings together some of the leading voices in the debate on climate change and security to reflect on the possibilities and limits of critical research in the face of global ecological crises. If we – as critical geography, IR, and security scholars – take the ongoing ecological crisis seriously, how must our questions, concepts, and methodologies change? How, if at all, can security be provided in a climate-changed world, for and by whom? How to come to terms with the unequal landscape of climate insecurity? What is left of security, and what comes instead: mere survival, resilience, or navigating through disasters?

Seeking answers to these questions, the authors of these short forum pieces discuss and rethink core concepts and themes of human geography and neighboring disciplines. The reflection pieces trouble the racist imaginaries that often underpin existing policy debates on climate change, scarcity, and insecurity. They discuss the implications of climate security for the liberal international order, North-South relations as well as the relationship between humans and the non-human world. They reflect on the complicity of our research – both critical and problem-solving – in the violent transformation of the planet and the repression of the racialized "others" of colonial modernity. And they explore the emancipatory potential of alternative security discourses that center on the complex web of beings, practices, and relations endangered by the unfolding climate crisis.

1. Introduction

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This discussion forum brings together some of the leading voices in the debate on climate change and security to reflect on the possibilities and limits of critical research in the face of global ecological crises. If we – as critical geography, IR, and security scholars – take the ongoing ecological crisis seriously, how must our questions, concepts, and methodologies change? How, if at all, can security be provided in a climate-changed world, for and by whom? How to come to terms with the unequal landscape of climate insecurity? Is climate security limited to tackling the symptoms of the unfolding planetary crisis or can it be reoriented towards more progressive goals?

Climate – Security – Critique: Together, the contributions paint a multifaceted, open-ended picture of this triad, which is central to our special issue (see the introduction to this issue). The result of this composition is collage-like and patchy – just like the complex inter-linkages of climate change and security. The aim is not to provide a comprehensive overview of the many facets and dimensions of climate

security.[1] Building upon the other articles in this issue, each contribution to this forum makes an original proposal to rethink the relationship between climate change and security. Some contributions make concrete proposals for decolonizing and rethinking climate security by focusing on the concerns, concepts, and perspectives of affected regions and actors (Daoudy in this forum; Simangan in this forum). Others see this search for solutions as part of the problem, overlooking the fundamental ontological gulf that underlies the Anthropocene epoch (Chandler in this forum). Despite the diversity of approaches and perspectives, three themes emerged as particularly significant and controversial in this written exchange: the meaning and spatiality of the climate crisis; the concept of security and its alternatives; and the possibilities and limits of critique.

1.1. The contested spatiality of climate change

First, the contributions discuss the complex spatialities of security in the Anthropocene. The relationship between the climate crisis and insecurity is hard to pin down. Too deeply interwoven is the planetary crisis with the geopolitical project of modernity (Dalby, 2017, 3; Toal 2024, 6). While it is clear that some climatic disturbances can no longer be avoided given the carbon emissions already locked into the system, resulting insecurities manifest locally in highly unequal and fragmented ways. The link between local violence or conflict and climate change is complex and non-linear, mediated by feedback loops between geo-ecological, geo-economic, and geopolitical processes at the planetary scale (Toal 2024, 20). Climate change, as Timothy Morton (2013) notes, is a "hyperobject" – widely dispersed in time and space and withdrawn from human experience. While its ramifications can be felt in every location on this planet, climate change itself is essentially non-local, becoming "matter-real" only within and through vast collections of historical data, numerical abstractions, satellite images, and statistical modeling. These ways of seeing and measuring climate insecurity, are themselves deeply entwined with modernist geopolitics – whose calculative regimes reimagined and reenacted the planet as an "integrated and singular Earth-as-globe" (Toal 2024, 19). Our authors challenge these dominant geopolitical imaginaries, which either see climate change as a planetary threat to humanity as a whole or locate it in a few hotspots in the global South that are seen as a threat to stability in the North. Simangan (this forum), for example, proposes conceptualizing climate security from the concepts and perspectives of particularly affected regions such as the Asia-Pacific. The relational ontologies found there and their attachment to local space would be particularly suitable for providing an answer to the entangled problems of the Anthropocene. Austin (this forum) proposes a different approach to the spatiality of climate security. For him, climate security manifests itself spontaneously in local spaces through the often-unforeseen interplay of ecological, technical, social, and political processes. His intervention is a call to recompose these patches of climate (in)security – through practices of experimenting, hacking, and bricolaging. Other authors question the category of climate change – and its underlying geopolitical project of world-making and world-destroying – in a more fundamental way. As Chandler (this forum) notes in his discussion of decolonial critique, "there needs to be justice for genocide, enslavement and colonization before climate change can become a question, let alone be tackled". The problem is not only that we are "not all in the same boat", or that the

uncertainties of the climate crisis are highly unevenly distributed. Rooted in modernist science and geopolitics, the episteme of climate change obscures other local ecological problems and the ensuing forms of slow violence and chronic emergencies.

1.2. The concept of security and its alternatives

A second strand of debate that cuts across the five contributions to this forum concerns the meaning of security and the normative implications of securitizing climate change. Critical work on climate change and security has emerged in a context where we have seen an expansion of the security sector and defense actors have turned to new issues in search of new roles and objectives. Critical scholars have generally opposed such an expansion of the security field and have shown a normative preference for de-securitization. Given the drastically changed geopolitical context and the advancing climate crisis today, the question arises as to whether this criticism is still justified. The security field is narrowing again; traditional defense and great power competition is returning to the focus of attention and public concern. The worry of critical research has always been that certain objects such as climate migration or climate conflicts would become too visible, too intensified, too emotional, too heavily monitored, and too technologized through the prism of security (see Floyd in this forum). Today, another trend seems to be emerging: The consequences of climate change are rendered invisible, ignored, silenced, abandoned, downplayed, or denied. These two developments are not mutually exclusive but are unfolding simultaneously and in parallel. Given this situation, the question of whose security matters (see Daoudy in this forum) is now more important than ever.

While the authors agree that the prevailing militarized and capitalist discourses and practices of climate security (see Simangan in this forum) are problematic, there is disagreement on the possibilities of overcoming them. Some authors are hopeful that alternative, progressive forms of security centered on vulnerable ecosystems and populations can be established (Daoudy in this Forum; Simangan in this forum). For Floyd (this forum), this would require political pressure to push for institutional change, for example within the UN system by extending the Responsibility to Protect norm to climate vulnerabilities. For Austin (this forum), on the contrary, progressive change can only be achieved at the micro-level by crafting novel alliances and practicing security differently. Another controversial issue is the normative legitimacy of exceptional measures to address the climate crisis and its consequences. Unlike most critics of securitization, Floyd (this forum) argues that "extraordinary policy measures short of war," such as preventive drone strikes against illegal loggers or the imposition of sanctions, may be necessary and legitimate in certain cases to prevent bigger harm. This mirrors recent mobilization for fossil-fuel non-proliferation, which draws on security discourse to repurpose existing rationales and institutions of arms control for climate protection.[2]

1.3. The possibilities and limits of critique

A final thread that connects the contributions to this forum is the question of critique. There is little disagreement on the rejection of prevailing discursive patterns such as the construction of "climate refugees" as racialized "others" or neo-Malthusian narratives that problematize population growth in post-colonial contexts (see Floyd in this forum; Simangan in this forum). It is also undisputed that critical research on climate security should seek to reveal and problematize the "structural inequalities of power and resource distribution" at the heart of contemporary geopolitics (Daoudy in this forum). For some authors in this forum, however, the task of critique is to go beyond the deconstruction and debunking of existing discourses and power relations.

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[1] In the introductory framing paper in this issue, Rothe et al. provide a comprehensive reading of the climate-security nexus in Critical Geopolitics, International Relations and Critical Security Studies. Important topics that couldn't be covered in this forum are furthermore addressed by other papers in the special issue. This includes issues such as social movements and protests in relation to local climate insecurities, securitized responses to climate-induced migration, the intersection of climate change and colonial violence, as well as conflicts resulting from climate mitigation and energy transitions.

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[2] See e.g. https://fossilfueltreaty.org (accessed 26 July 2024).

Austin's plea for a "cyborg critique" in this forum, for example, revolves around the idea of composing instead of debunking. Similar to other approaches of "affirmative" or "reparative" critique (see Felski 2015; Sedgwick 1997) they propose to rework climate security from the inside. Such an approach stresses the agency of those actors affected by climate insecurities – both human and non-human – for example by repurposing existing technologies towards new ends. Surveillance technologies including satellite remote sensing or drones, for example, can be appropriated by indigenous actors or environmental activists and directed against those in power – e.g. by exposing the environmental crimes of powerful corporations. Chandler, on the contrary, rejects the ability of critique to align climate security with more progressive goals. Drawing on negative dialectics he holds that any such attempt, for example by extending rights to non-human ecosystems, will only end up reproducing the foundational violence of the colonial/modernist geopolitical project. Hence, there seems to be no alternative to refusing any attempt to "save the world" or "unmake or repair the cut" that marks the world. We leave it up to you, our readers, to decide which position you find most compelling. Ultimately, we believe that the diversity of perspectives is required to come to terms with the complex landscapes of insecurity in the Anthropocene epoch.

2. Whose climate security?

Marwa Daoudy
Georgetown University

Security remains one of the most controversial and contested concepts in international politics. What are the implications of choosing one definition over another? Whose interests are prioritized by framing environmental change as a security issue and whose perspectives are excluded? Answering these questions is a task that will only become more pressing as climate change becomes more acute. It requires to deconstruct the current binary framings around climate security set within capitalist and neocolonial structures, introducing a critical perspective on climate security centered around questions of climate justice.

The choice to "securitize" the language of the environment is a clear discursive act with concrete policy implications that either reifies or challenges the status quo of power. By adopting the language of fear, contemporary debates about climate security perpetuate similar conceptual othering traps by claiming that the impacts of climate change will encourage human migration, conflict, and grievances against the state. The definitions and terminologies that make use of this rhetoric, such as "environmental refugees" or "distressed migrants," also foster negative "othering" and xenophobia in the public discourse (Ransan-Cooper et al. 2015, 111). Such perceptions encourage repressive and punitive measures against displaced persons at the domestic and international levels, feeding narratives that place the responsibility on "migrants" themselves rather than attempting to address their needs under international law and the underlying structures of inequality. Floyd, (in this forum), argues that climate change effects will result in COVID-style wide-scale securitization efforts in the "Global North'' (where these restrictions can be implemented and adhered to without much backlash). If so, will the ontological and linguistic othering already present in these countries increase? And if states clamp down on travel, will refugees and climate migrants be further restricted in where they can move and settle, making them, especially as their numbers exponentially increase, much more visible in the public arena, and thus even more vulnerable to scrutiny and blame? At the heart of these terms are competing conceptions of who needs to be secured, from what threat, by what actors, and through what means. Furthermore, these terminologies have revealed themselves to be racially and ethnically coded; European or North American immigrants to other countries are rarely included in this framework.

Critical-security stances are essential in these debates as they examine structural inequalities of power and distribution of resources while also considering the role of states as providers of insecurity. They centre the narrative on individuals and groups. The field of critical security has revealed the need for a more nuanced and diverse definition of the concept of security; this will also require a thorough examination of how actors – including scholars and policy-makers – working from the traditional concept of security have imbued the field with uncontested biases and values that can prioritize the concerns and interests of the Global North and West, especially the United States and Western Europe (see also Simangan, this forum, for the Asia Pacific response to this hegemony).

In debates relating to environmental and climate security, they question the "us versus them" binary framings, echoing colonial constructs of the nineteenth century, which were inspired by environmental determinism. Social Darwinists, seeking to justify European colonialism, argued that European societies were naturally superior because of their climate geography, claiming that drought-stricken and landlocked countries were prone to military, political, and cultural domination (Ratzel 1987). From a critical (Marxist) perspective, Mike Davis has brilliantly contributed to the deconstruction of such imperialist visions by showing how a combination of bad imperial policies and international political economy have created devastating famines in the previously prosperous societies of India, China, Brazil, Ethiopia, Korea, Vietnam, the Philippines, and New Caledonia in the late nineteenth century (Davis 2002, 352 and 355). In his powerful manifesto on the social and political structures of natural catastrophe, Rolando Garcia made a compelling argument early on: "Climatic facts are not facts in themselves; they assume importance only in relation to the restructuring of the environment within different systems of production" (García and Rolando, 1981).

A new kind of security is required, one that looks beyond the state to questions of human security, vulnerability, and well-being. But how critical can security be? Environmental security represents a critical move in new security, one that attempts to remove hegemonic political domination from the equation by discussing security at its simplest: the desire to prolong and improve life on the planet. Through a climate-human security lens, the focus shifts away from military-based national security to consider vulnerable groups within society as well as ecosystems (Daoudy 2020). But in order to do this, will we have to, as Chandler in this forum discusses as an example of the "politics of refusal", disregard our current frames of thinking about climate change? This requires instead to act within a new decolonial critique centered not around climate change, but around climate justice.

Climate vulnerability in the policy world is measured by both humans' and societies' ability to adapt to, and cope with, climate change. From a critical perspective, the ecological, economic, sociological, and political effects of climate change all matter (see also Austin, this forum). Climate security becomes inseparable from a critical human security perspective that also accounts for structural inequalities (Daoudy 2020, 54). This perspective reveals a host of preexisting vulnerabilities and inequalities such as the urban–rural divide, unequal access to energy sources, displacement, racialized borders, and gender roles. Greater economic vulnerability usually implies greater climate vulnerability. As climate risk inherently depends on the relative strength of a given geographical unit, economically underdeveloped areas tend to have less developed infrastructures. As a result, some populations are less adaptive and more vulnerable than others; slums found in Southern megacities tend to lack basic infrastructures that could protect against floods and natural hazards, for example (Dalby 2013, 122).

Additionally, poverty, disease, lack of access to water, and food insecurity exacerbate climate vulnerability (Ahmed et al. 2009, 5). Ultimately, interactions between climate and human and ecological life are multidimensional in the context of drought and a weakened agricultural sector, and vulnerability is a function of systems of production and distribution. Food insecurity, which is often attributed to climate-induced drought, is not only rooted in climatic variables but also

issues of class, economics, and structural inequalities, in addition to governmental resource mismanagement (Davis 2002; Akram-Lodhi 2013). In this regard, the problem is not one of scarcity but of structural inequality and distribution, or, as Sen would posit, the underlying food entitlements (Sen 1992, 459).

A panoply of other factors can play a role in climate vulnerability; conflict in itself can also increase vulnerability. Libya's recent massive floods sadly serve as an example. Following unusually high levels of rainfall, the collapse of two key infrastructures, the Wadi Bu Mansour and the Sadd al-Bilad dams killed more than 20,000 people in the city of Derna. Had the two dams been properly maintained rather than neglected by the formerly warring parties in 2014–2019, the catastrophe would have been avoided (Gazzini 2023). In the end, disasters are never entirely 'natural'; the extent of their impacts is man-made as is climate vulnerability, or sensitivity to climate shocks.

A way forward is offered by adopting an environmental justice perspective (Gonzalez, 2021 , 112; Táíwò 2022, chapter 5). This vision involves re-thinking political and capitalist carbon-based infrastructures, embracing climate reparations, and repositioning global knowledge production away from exclusively the "Global North." Effective adaptation requires, for example, turning away from military-centered development frameworks (see also Simangan, this forum), instead recognizing indigenous environmental management and knowledge production as a key cornerstone in attaining climate-human security. There is still a long way to go.

3. More securitization but less security: Life in a climate-changed world

Rita Floyd
University of Birmingham

If critical security studies have taught us one thing it is that addressing problems with security language and extraordinary policy responses (for short, securitization) does not always lead to an increase in security as a state of being (Buzan et al., 1998; Huysmans 2006). Hence, it is a good thing that security is very often not provided via securitization, but rather through ordinary measures, regular institutions, and processes. Sometimes, however, an extraordinary emergency response to a threat is the best (relative to other options), perhaps even the only option, because other less harmful options have been tried and failed to address the just cause (i.e., the real threat to a morally valuable referent object) (Floyd 2019). I anticipate that in a climate-changed world, securitization will become a frequent tool to address climate-induced insecurity. While many such securitizations will be morally justified, the net climate security gained will be diminished, compared to levels enjoyed now. In this forum contribution, I set out why I believe that securitization against climate change will become more common. I briefly examine what needs to be put in place now to ensure climate security for the most vulnerable. And I comment on the prospective effects of securitization on how we – in the Global North – live our lives. I suggest that while the prognosis is bad (i.e. we will be less secure while living with more securitization), the climate crisis may necessitate a simpler, less consumerist lifestyle, one that has the potential to leave people happier.

The increase of securitization against climate-related threats or climate change per se will come from three things: 1) ever more objective existential threats affecting ever more people; 2) failure of less harmful measures to address these threats, and 3) a greater number of actors willing or called upon to address threats (a case in point are Virunga's guerilla farmers (see Austin, this forum)). These three points are interrelated. Given the failure of the parties to the UNFCCC to bring down carbon emissions so that the threshold of 1.5° of warming is not reached, the number of climate-related threats will increase. In the rich developed world, this might trigger securitizing requests by vigilantes and even terrorist groups intent on convincing powerful actors to

address the climate emergency meaningfully. In the long run, state actors are likely to enforce COVID-style restrictions on movement, leisure pursuits, and industry to bring down carbon emissions, while at the same time experimenting with large-scale planetary geoengineering. In poorer and less developed states with often weak and corrupt institutions, acute climate crisis may mean state collapse (Busby 2022). Here vigilante and non-state groups will be forced to provide their own security, increasing the risk of conflict and even war. Either way, as explained by Daoudy above, climate insecurity in the Global South will be more acute and severe than in the Global North. It is therefore imperative that actors everywhere, as Simangan suggests (also in this forum) albeit with a view to the Asia Pacific, move away from a focus on 'military and geopolitical posturing', towards a focus on environmental and climate security.

Historical responsibility for climate emissions coupled with capacity places onus on the Global North to address this climate security inequality (Caney 2005; see also Chandler this forum). Although it would be in developed states' national interest to address climate insecurity in the Global South, the experience of its own climate emergency is likely to lead to a reluctance to act and help. It is therefore of the utmost importance that mechanisms are put into place now (i.e., while there is still time) that are likely to ensure action down the line. One way to do this is to widen the *Responsibility to Protect* (R2P) norm to include alongside mass atrocity crimes environmental threats. This would mean two things. First, people affected by environmental, and climate-induced threats are more likely to be helped. Importantly, R2P is not solely about reaction, but also about prevention. Second, it would ensure action against actors who threaten climate security via harmful neglect, as did Brazil's former president Jair Bolsonaro when he encouraged deforestation of the Amazon rainforest. To be sure, action here does not refer to armed military intervention but rather to extraordinary policy measures short of war, including sanctions, expulsion of international institutions, and drone strikes to destroy the equipment of loggers (cf. Floyd 2024).

Security as "a state of being" (Herington 2015) is achieved when a set of basic human needs are met. Above all else these pertain to physical health and autonomy (Doyal and Gough 1984). What is altered in a climate-changed world is not the meaning of security, but simply the level of security people will have. I expect that everyone will be less secure, with the poor the most affected. Physical health will be compromised by new diseases, water, and food shortages, and by extreme weather events. However, it is not only climate change that will adversely affect security as a state of being. Securitization will too. Solar radiation management may bring with it a range of new insecurities, including irreversible adverse effects on crop yields, weather patterns, etc. (Nicholson 2020). Moreover, just like the securitization against COVID-19, the securitization against climate change will impinge on autonomy. Some carbon-intensive types of career and leisure pursuits will simply no longer be an option in a climate-changed world. Indeed, those types of behaviors will be banned by emergency laws enforced by police, military, and private security companies.

To conclude, the picture is bleak. There will be more in the way of securitization, but security as a state of being will become scarce, especially for people in the developing world. This leaves the question of whether truly nothing good lies ahead. The answer depends in part on where one resides. In the wealthy Global North where individuals and societies have the money to adapt to climate change, the climate-induced changes may even have some positives. For example, possible restriction on the use of electricity for leisure, to preserve the same for vital services, might force children back to play outside, engaging in traditional ball games, hopscotch, and whatnot, rather than collectively and lamely staring at their 'smartphones', that do anything but make the teenage user smarter or indeed happier. This may very well result in greater autonomy. Mental health is an important indicator of autonomy; there can be little doubt that the mental health of young people will improve once removed from, what I think of as the "dumb-phone" and

other screens (Haidt and Rausch 2023). Perhaps all of us would benefit from a simpler less consumerist life (cf. Soper, 2020), void of the daily Amazon delivery bringing the latest desired but ultimately unnecessary purchase, more able to live in the present, including – weirdly – because we are less secure.

4. Asia-Pacific security in the Anthropocene

Dahlia Simangan
Hiroshima University

Military competition dominates the geopolitical relations of the Asia-Pacific region despite the urgency to deal with its climate vulnerabilities. Asia Pacific's regional security is often described as that of intense geostrategic competition. Middle powers, such as Australia, India, and South Korea, are cautiously positioning themselves between further expansion of the US and other European states' influence in the region and China's assertive foreign policy. In the 2023 Asia-Pacific Regional Security Assessment, published by the International Institute for Strategic Studies (IISS) (Huxley and Kuok 2023), the issue of climate change or ecological crisis is glaringly absent, except in a paragraph that situates it within maritime security. While the 2022 assessment contains a chapter dedicated to the implications of climate change for Asia-Pacific security (Mazo 2022), the 2023 assessment does not carry the same security narrative; the focus was on the ongoing war in Ukraine and the increasing tension between the US and China. An in-depth assessment of ecological or climate crisis is yet to be consistently included in the IISS annual coverage of vital security trends in the Asia-Pacific.

This omission is concerning given that many littoral and even landlocked states in the region continue to face the negative consequences of climate change, such as more frequent and stronger typhoons/cyclones, more devastating floods and droughts, ocean acidification, and extreme weather conditions. In July and August 2023, torrential rains lashed over South Asia, leaving hundreds dead and public infrastructure damaged due to floods and landslides. Meanwhile, El Niño conditions that started in the middle of 2023 are expected to surge global temperatures through February 2024, leading to severe drought in Indonesia, the Philippines, and Australia, among other countries in the region that are already experiencing water scarcity. China, the largest food producer in the world, experienced record-breaking heat and rainfall in 2023, destroying fields and crops, thereby increasing concern over the global food supply.

The region is home to some of the world's most climate-vulnerable and disaster-prone countries. In 2018, Japan, the Philippines, India, Sri Lanka, and Fiji were among the ten countries most affected by the impacts of weather-related loss events due to climate change (Eckstein et al. 2020). Relatedly, according to the 2022 World Risk Report, China and Japan are the top and third most exposed to disasters, while the Philippines, India, and Indonesia are the countries with the highest risk due to their combined exposure and vulnerability to disasters (Atwii et al. 2022).

Despite these ecological risks, the prevailing security narrative in the region revolves around military and geopolitical posturing. In a review of the Indo-Pacific strategies of Australia, Japan, and India, among other key state and regional actors in the region, Dhanasree and Mundra, 2023 found that military security still supersedes climate security. When the latter is considered, the focus is on great power competition rather than cooperation. These political and economic interests continue to operate using capitalist and military logics – that development can only be pursued within the global capitalist economy and that security can be achieved by counteracting military threats. In other words, security is evaluated by competition rather than cooperation. This leads to more securitization and less security, to echo Floyd in this forum. It is, therefore, no surprise but of great disappointment that the meeting of G20's environment ministers in 2023 failed to reach a consensus on curbing GHG emissions and addressing the climate crisis. Geopolitical competition sidelines collective action to address common challenges, such as climate change (Toal 2024).

In Southeast Asia, more specifically, climate change is featured in the ASEAN Socio-Cultural Community Blueprint 2025, especially in relation to increased resilience and adaptation of affected groups and people in the region. It was also mentioned in the ASEAN Economic Community Blueprint 2025, but ironically alongside the objectives of sustaining economic growth. And neither climate change nor environmental issues or ecological crises appeared in the ASEAN Political-Security Community Blueprint 2025. Climate security is only considered a favorable result of first pursuing state security and economic development imperatives. The same capitalist and military logics supersede climate security.

These logics are understandable given the immediate threats brought by economic downturns and nuclear risks. At the same time, however, these are the same capitalist and military logics that led to ecological crises and created the current liberal international order that perpetuates them (Simangan 2022). For security to be decoupled from these logics, the concept of the Anthropocene can help deconstruct security (see also Austin and Chandler in this forum). The proposed geological age of humanity changing the planet troubles the agential, temporal, and spatial imaginaries underpinning security. Security is no longer within the remit of the human, the past, and the terrestrial; in the Anthropocene, it is also that of other beings and relations, of what is to come, and of the planetary (see also Latour 2018; McDonald 2021; Mitchell 2016).

The security narrative that originated from the experiences of the World Wars, developed during the Cold War and evolved throughout the post-Cold War failed and continues to fail the non-elites, indigenous cultures, and ecosystems, including those in the Asia Pacific. As Daoudy highlights in this forum, security in the context of climate change is broader than state interests to include the well-being of people and ecosystems. Regionally relevant security narratives must draw on this complex web of beings, practices, and relations.

One of those counternarratives is advanced by the Pacific Island nations, who are considered to be at the frontlines of climate change despite their insignificant contribution to GHG emissions. The Blue Pacific is a collective call for empowerment amid increasing geopolitical tensions due to various players operationalizing their security interests in the region (Kabutaulaka 2021). It shifts away from the traditional conceptions of security rooted in colonial imaginaries and geographies by asserting indigenous agencies, rather than external vulnerabilities, of the people and the ecosystems of large oceans, rather than small island, states. The Pacific Islands' deep connection with their environment and the impacts of climate change, particularly biodiversity and habitat loss, as well as pollution, are the basis of the Blue Pacific's call for shared stewardship. It re-centers those who are usually at the margins (people, relations, practices, and ecosystems) of regional security discourses and aims to inspire radical alternatives to the current liberal international order. The Blue Pacific narrative remains in conversation with geopolitics but in a way that encourages cooperation, rather than competition, while grounding on diverse identities and interests in the region. This is illustrative of the salience of social movements in shifting the discourse away from vulnerability toward agency and from geopolitical contestation toward collective action.

Therefore, our research as critical IR and security scholars concerned with the ongoing ecological crisis in the Anthropocene is not about how ecological crisis could lead to conflict or competition but how cooperation could mitigate or manage ecological crisis. And this cooperation could be informed by security logics not derived from anthropocentric, military, and growth-driven interests. The Asia Pacific has fallen victim to these interests, and it is from the Asia Pacific that ecologically aligned narratives that are more appropriate to its regional dynamics could emerge. The troubling imaginaries in the Anthropocene could be the necessary disruption to the narratives and systems that led humanity to this new geological age.

5. Cyborg climate security: towards a guerrilla critique

Jonathan Luke Austin
University of Copenhagen

Dreams of climate security are driven by imaginaries of crisis that urge us to take back control. Control-over nature, control-over humanity, control-over populations, control-over capitalism, control-over vulnerability, and so on. Against this, a messier, more impure, less pious form of critique of our ecological catastrophe is required. One that embraces the surreality of the contemporary moment and improvises different futures grounded in an ethos of experimenting with the possible, rather than dreaming of utopias or reifying the present and its violence.

But what would that mean? To trace an answer, we can turn to Virunga National Park, which sits in the east of the Democratic Republic of the Congo (DRC). While a haven for wildlife, biodiversity, and volcanoes, Virunga is also a site of local and global conflict. Locally, trees are illegally harvested from the park to produce charcoal for nearby residents to use as cooking fuel. Globally, oil companies lobby the government to acquire permission to drill for oil across the park. In response, the park's director has launched numerous initiatives, principally seeking to support the park by promoting high-end eco-tourism, but also constructing hydropower dams to supply rural people with electricity, and giving paramilitary training to park rangers to protect its borders. Since COVID-19 and growing armed conflict in the region, the innovations are more unusual, however. Cables now run from one of those hydropower plants to a series of shipping containers, humming audibly: the containers hold computers mining bitcoin, purportedly turning green energy into cash to fund the park in lieu of the disappearing of tourist dollars (Popescu 2023).

The specter of a cryptocurrency mine situated within one of the most beautiful natural environments in the world is disquieting. Doubly so, given Virunga's roots as Parc Albert, named after the Belgian king who controlled the DRC during the colonial period. Triply so, when still today the park's director is a Belgian prince, Emmanuel de Merode, who was once subject to an assassination attempt reportedly after submitting an inquiry into the actions of a British oil company allegedly illegally exploring oil reserves in the park. But the example of crypto-currency mining in the DRC is instructive precisely because of that ambivalence. Virunga is a composite of the human and non-human, the colonial and the postcolonial, the natural and the technological, the pure and the impure, the modern and the traditional: patched and bricolaged together.

Surreal ecologies such as these are the future of climate security. Fixed in a space of concrete urgency, something that can free us from the cage of scholastic reflexivity (Lynch 2000), the search for conversation, sustainability, and security in Virunga acknowledges that there is no escape from being entangled with the bizarre and contradictory and, on the contrary, that it is only by embracing those situations that we can "discern the unrealized opportunities which lie dormant in the recesses of the present" (Gorz 1999, 1). To see how this is the case, and what we can learn from it, requires unpacking three intertwined political moves.

The first is a rejection of disconnection. Contemporary difficulties with climate security seem intertwined with Mbembe's (2019, 242) critique of decolonial theory as too insistent on calling for a gesture of "disconnection and separation" that "cuts off one cultural or historical entity from another." The very concept of the Anthropocene calls for such a cut, geologically, as do efforts to securitize that historical epoch, and appeals to indigenous, autonomous, or natural forms of knowing sharply cut from modernity (see also Daoudy and Floyd, this forum). Against this, the climate politics of Virunga is mired in improvisation, impurity, and dirt. Such a project recognizes that a different kind of planet politics can emerge only by engaging what Glissant (2020, 108) once termed the Whole-World:

I call the Whole-World our universe as it changes and lives on through its exchanges and, at the same time, the 'vision' that we have of it. The world-totality in its physical diversity and in the representations that it inspires in us: So that we are no longer able to sing, speak or work based on our place alone, without plunging into the imagination of this totality

The whole world of concern here must include not only human difference or physical diversity but equally the humming shipping containers of Virunga and their dirty legacies. In this, demands for a different kind of climate security must turn back to Haraway's (1987, 9–10) earlier cyborg politics that critiqued the idea of viewing nature as a "source of insight and promise of innocence," instead seeking to make-kin with "the illegitimate offspring of militarism and patriarchal capitalism" which are "often exceedingly unfaithful to their origins." A cyborg climate security that seeks a symbiotic relation with the pure and the impure alike.

Such a cyborg politics risks – however – being interpreted as a (liberal) naturalizing of the status quo. To radicalize its potentiality requires we turn thus to a second – tactical – movement. Some time ago, Che Guevara addressed the 'First International Meeting of Architecture Students' in Havana. At the end of his speech, he said – simply:

Never forget that technology is a weapon. If you feel the world is not as perfect as it should be, then you must struggle to put the weapon of technology at the service of society.

This is also the demand of the day. To put what has become, but need not be, the ultimate weapon of economic rationality, and so climate catastrophe – technology – to different ends. Here, the rejection of disconnection must move beyond a simple acknowledgment of entanglement, creolization, and hybridity, towards – instead – an activist guerrilla critique of the patterns that order existing hierarchies. For example, in his plea for developing an 'autonomous design' sensitive to the ecological, Arturo Escobar notes how such a politics requires local spaces to cultivate a "successful structural coupling with their globalized environments" (Escobar 2018, 188). It is this question of developing a subversive 'structural coupling' with modernity, capital, and globalization that most requires answering today: a parasitic coupling, a guerrilla foquismo, which improvises its way towards transformation. In opposition to the coloniality of Virunga's management, for instance, residents surrounding the park engage in forms of guerilla agriculture that challenge its securitizing tendencies (Cavanagh and Benjaminsen 2015). The surreal ecologies of Virunga emerge also from those resistances, and the need to improvise – ad hoc – symbiotic relations with them. A cyborg climate security is thus not only dirty and impure, but also about the violent negotiation of subjectivities, achieved through the cultivation of guerilla tactics of resistance and refusal (c.f. Ochigame 2020, as well as Chandler, this forum).

The third movement central to a cyborg climate security relates to this last point. Challenges to rejecting disconnection and cultivating guerrilla critique are less intellectual and more synaesthetic, affective, and related to our subjectification. To accept the impurity of this proposition, as well as the intrinsic danger it contains (to fail), means rejecting the twin seductions of modernity-as-teleology and tradition/nature-as-salvation, each of which trends towards eco-fascism, further securitization, militarization, and the reification of the liberal international order (see Simangan, this forum). An aesthetic vision is thus required that frees us from Arendt's (1961, 168) fear of social automatism in which when "historical processes have become automatic, they are no less ruinous than the natural life process that drives our organism… from birth to death.".

One such vision is found also in the Congo. The Kinshasa-based artist collective Kongo Astronauts splice and solder-together old circuit boards, metals, and plastics to craft astronaut costumes that they walk the streets in and pose with upon the backdrop of both urban sprawl and natural beauty. The vision they articulate is of finding "an equilibrium

between resistance and assimilation" to the globalized world, of the tensions manifest in Virunga's own ongoing guerrilla battles (Hölling et al., 2023, 204). For the founders of Kongo Astronauts, "to create a costume is to participate in the never-ending process of extraction, exploitation, fabrication, destruction, reconstruction, transformation" (Ibid, 209). In this Afrofuturist imaginary, we see glimpses of a cyborg climate security that has the potential to help us think "strategies of composition that might push collectives into new basins of attraction" beyond our contemporary aporia (Bryant 2011, 289).

6. Refusing the Lure of the Human and the World

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This contribution concerns the problematic of refusal as a response to the forum question of 'critique at the crossroads'. This is necessary as questions of climate security are increasingly being posed in ways that trouble any straightforward divide between 'problem-solving' approaches and those of critique. We see how easily traditional critical approaches and more contemporary imaginaries of non-Western, or non-anthropocentric epistemologies and ontologies can be enrolled in the new disciplinary discourses as Rita Floyd (this forum) outlines. For this reason, it would perhaps be productive to think of climate security as more analogous to discourses of economic security, that seek to construct some shared overarching, systemic, perspective or interest. In which case, a politics of refusal could be an important, indeed an obvious, starting point. This brief forum intervention therefore engages three key frameworks which start from the assumption of climate security critique as refusal: the 'speculative', the 'decolonial' and the 'negativating'. There is a shared framework for the three approaches, that I focus upon, they all start with the imbrication of race, climate change and critique in the 500 years of the modernist project. This shared understanding of the imbrication of race and climate security in the coloniality of modernity forms the epistemic base upon which important analytical and political stakes will be drawn concerning critique and refusal.

The 'speculative' critique sees the desire for climate security as a hubristic 'will to power' of Western elites attempting to preserve their world at the ongoing expense of the lifeworlds of others (Colebrook 2023). Thus, it is our first critique as refusal. Reflexive, speculative approaches argue for humility, for pragmatism, for a caring or 'palliative politics', living with climate insecurity with awareness and grace. Climate security is tainted by geopolitics – "a form of life that pursues a savage ecology," a Euro-American global war on collective thriving (Grove 2019). Grove names this the Eurocene. In the face of this, we should consider other 'genres of the human' more attuned to our multi-species dependencies. The problem of human-centric understanding is countered by seeing the human as just one 'form of life'. This approach is a materially grounded pragmatism with a speculative desire to be open to emerging potentialities; to enable more 'real' experiences of our entangled fates. In this speculative imaginary, the human is enabled to become the moral subject of 'unscripted' encounters, developing a 'presumptive generosity', welcoming new 'incipient possibilities' of 'living well and dying well in the Anthropocene'. These experimental practices, along the lines also suggested by Austin's 'guerrilla critique' (this forum) or in Afrofuturist imaginaries, are both a refusal of the dictates of climate security and an affirmation of potentialities in and beyond the present.

In this brief heuristic set of categorizations, the 'decolonial' approach might consider the refusal offered by critical speculative framings of climate security to be still problematic, in disavowing the bigger problem of coloniality (see for example, Ferdinand 2022). A decolonial critique attempts to shift the discourse from climate change (as a 'White' problem) to climate justice, as a problem with Whiteness. Climate change is an apolitical universal discourse assuming a shared world.

Ferdinand argues this 'apolitical thinking about ecology, carried out by those who stand on the bridge and breath in fresh air is nothing but the maintenance of the hell of the hold and the injustices of the Plantationocene' (2022, 243). In the spirit of Benjamin's 'Theses on the Philosophy of History' (1969) "the ecological storm is just a different name for the modern hurricane that has been blowing at least since 1492." For Ferdinand, there needs to be justice for genocide, enslavement, and colonization before climate change can become a question, let alone be tackled. A "worldly horizon can [only] be projected into the future from the bridge of justice." This is very much a straightforward refusal of climate security as a discourse, including the first 'refusal' offered by the climate change 'critique' above.

The third approach to refusal as critique, that of 'negativation', might view the second 'refusal', that of the decolonial approach, as still inadequate, as still suborning us to a world to which we owe an 'unpayable debt', a world which we are required to save (see Ferreira da Silva, 2022). Putting race and coloniality at the center of the critique becomes a tool of disavowal as long as this 'world' and this debt remain. The approach of negativation seeks to disrupt ontologies of world, of discrete entities, of causality and temporality from the perspective of the abject, the slave, the object or Thing, or, for Denise Ferreira da Silva, in her recent book, "the wounded captive body in the scene of subjection" (2022, 36). The World is the problem not merely the imaginary or the 'genre' of the Human. Yes, there is a cut between Slave and Master, Native and Settler, Human and Nonhuman but the solution is not the placing of the cut (redistributing agency) differently as in new materialism or extending 'human' rights to nonhuman entities or species. Nor is it possible to unmake or to repair the cut (to return to some state of wholeness as if the world pre-existed the cut). For the negativating approach, the world is a product of totalizing violence, not the background in which things are made and can be unmade.

For the 'speculative' and 'decolonial' approaches which engage in critique as refusal, the understanding of the cut is always inverted by putting the world in the background and the results of the cut ontologically at the forefront. The cut is the totalizing violence of coloniality as Ferdinand describes from C15th onwards, however, this violence is rewritten as a problem of the consequences of differential development over time rather than a founding total violence (Ferdinand 2021, 94–5). Negativating work is not 'negation' as there is no desire to be lured into the world but rather does the work of refusal (da Silva 2022, 55). The 'lure of critique' that needs to be refused is the reification of the world. Critique, concerned with remaking the human as humble and aware, or with reparation for the ongoing crimes of enslavement, genocide and coloniality, risks reifying the world as an object available to us as implicit subjects. In fact, it could be argued that the more radical the critique the more entrapped we are in repaying our debt to being/the world as our shared home (see Pugh and Chandler 2023). The only perspective that does not reify, or suborn us to, the world is the approach of negativation, which does not offer an alternative 'world', either spatially (decolonial critique) or temporally (speculative critique).

CRediT authorship contribution statement

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence

the work reported in this paper.

Data availability

No data was used for the research described in the article.

References

Ahmed, S.A., Diffenbaugh, N.S., Hertel, T.W., 2009. Climate volatility deepens poverty vulnerability in developing countries. Environ. Res. Lett. 4 (3), 1–8. https://doi.org/10.1088/1748-9326/4/3/034004.

Akram-Lodhi, A.H., 2013. Hungry for Change: Farmers, Food Justice, and the Agrarian Question. Kumarian Press, Boulder, CO.

Arendt, H., 1961. Between Past and Future: Six Exercises in Political Thought. Viking Press, New York.

Atwii, F., Sandvik, K.B., Kirch, L., Paragi, B., Radtke, K., Schneider, S., Weller, D., 2022. World Risk Report 2022. Ruhr University Bochum – Institute for International Law of Peace and Armed Conflict (IFHV). https://weltrisikobericht.de/wp-content/uploads/2022/09/WorldRiskReport-2022_Online.pdf (last accessed 18 March 2024).

Benjamin, W., 1969. Theses on the Philosophy of History. In: Hannah Arendt Illuminations: Essays and Reflections. Schocken, New York, pp. 257–258.

Bryant, L.R., 2011. The Democracy of Objects. Open Humanities Press.

Busby, J.W., 2022. States and Nature: The effects of climate change on national security. Cambridge University Press, Cambridge.

Buzan Wæver, O., de Wilde, J.,, B., 1998. Security: A new framework for analysis. Lynne Rienner Publishers, Boulder, CO.

Caney, S., 2005. Cosmopolitan justice: Responsibility, and global climate change. Leiden Journal of International Law 18 (4), 747–775.

Cavanagh, C.J., Benjaminsen, T.A., 2015. Guerrilla Agriculture? A Biopolitical Guide to Illicit Cultivation within an IUCN Category II Protected Area. J. Peasant Stud. 42 (3–4), 725–745.

Colebrook, C., 2023. Who Would You Kill to Save the World? University of Nebraska Press, Lincoln, NE.

Dalby, S., 2013. Climate Change as an Issue of Human Security. In: Redclift, M.R., Grasso, M. (Eds.), *Handbook on Climate Change and Human Security*. Edward Elgar, Cheltenham, pp. 21–40.

Dalby, S., 2017. Anthropocene formations: Environmental security, geopolitics and disaster. Theory Cult. Soc. 34 (2–3), 233–252.

Daoudy, M., 2020. The Origins of the Syrian Conflict. Cambridge University Press, Cambridge, United Kingdom.

Davis, M., 2002. Late Victorian Holocausts: El Niño Famines and the Making of the Third World. Verso, London.

Dhanasree, J., Mundra, A., 2023. Clihanging Regional Order in the Pacific Islands, editallenges." Issue Brief. Institute for Security & Development Policy.

Doyal, L., Gough, I., 1984. A theory of human needs. Crit. Soc. Policy 4 (10), 6–38. https://doi.org/10.1177/02610183840040100.

Eckstein, D., Künzel, V., Schäfer, L., Winges, M., 2020. Global Climate Risk Index 2020: Who Suffers Most from Extreme Weather Events? Weather-Related Loss Events in 2018 and 1999 to 2018. Germanwatch, Bonn.

Escobar, A., 2018. Designs for the Pluriverse: Radical Interdependence, Autonomy, and the Making of Worlds. Duke University Press, Durham, NC.

Felski, R., 2015. The Limits of Critique. University of Chicago Press.

Ferdinand, M., 2022. Decolonial Ecology: Thinking from the Caribbean World. Polity, Cambridge.

Ferreira da Silva, D., 2022. Unpayable Debt. Sternberg Press, London.

Floyd, R., 2019. The Morality of Security: A theory of just securitization. Cambridge University Press, Cambridge.

Floyd, R., 2024. The Duty to Secure: From just to mandatory securitization. Cambridge University Press, Cambridge.

Gazzini, C., 2023. "When the Dams in Libya Burst: A Natural or Preventable Disaster?" International Crisis Group, October 2, 2023. https://www.crisisgroup.org/middle-east-north-africa/north-africa/libya/when-dams-libya-burst-natural-or-preventable-disaster (last accessed 19 March 2024).

García, Rolando, V. (Eds.), 1981. Drought and Man: the 1972 Case History, 1st ed. Pergamon Press, Oxford.

Glissant, É., 2020. Treatise on the Whole-World. Liverpool University Press, Liverpool.

Gonzalez, C.G., 2021. Racial capitalism, climate justice, and climate displacement. Oñati Socio-Legal Series: Climate Justice in the Anthropocene 11 (1), 108–147. https://doi.org/10.35295/osls.iisl/0000-0000-0000-1170.

Gorz, A., 1999. Reclaiming Work. Beyond the Wage-Based Society. Wiley, Hoboken, NY.

Grove, J., 2019. Savage Ecology: War and Geopolitics at the End of the World. Duke University Press, Durham, NC.

Haidt, J., Rausch, Z., 2023. Kids Who Get Smartphones Earlier Become Adults With Worse Mental Health. Available at https://jonathanhaidt.substack.com/p/sapien-smartphone-report (last accessed 20 June 2023).

Haraway, D., 1987. A manifesto for cyborgs: science, technology, and socialist feminism in the 1980s. Aust. Fem. Stud. 2 (4), 1–42.

Herington, J., 2015. The Concept of Security, Liberty, fear and the State. In: Bourbeau, P. (Ed.), Security: Dialogue across Disciplines. Cambridge University Press, Cambridge, pp. 22–44.

Huxley, T., Kuok, L. (eds.), 2023. *Asia-Pacific Regional Security Assessment 2023: Key Developments and Trends*. London: International Institute for Strategic Studies. https://www.iiss.org/globalassets/media-library—content–migration/files/publications—free-files/aprsa-2023/aprsa-2023.pdf (last accessed 19 March 2024).

Huysmans, J., 2006. The politics of insecurity: Fear, migration and asylum in the EU. Routledge, New York and London.

Hölling, H.B., Feldman, J.P., Magnin, E., 2023. Performing the "Mask": Kongo Astronauts (Eléonore Hellio and Michel Ekeba) on Postcolonial Entanglements—A Conversation with Hanna B. Hölling, Emilie Magnin and Valerian Maly. Introduction by Jacob Badcock. In: Hölling, H.B., Feldman, J.P., Magnin, E. (Eds.), Performance: The Ethics and the Politics of Conservation and Care, Volume I. Routledge, London and New York, pp. 200–215.

Kabutaulaka, T., 2021. Mapping the Blue Pacific in a Changing Regional Order. In: The China Alternative: Changing Regional Order in the Pacific Islands, edited by Graeme Smith and Terence Wesley-Smith, 1st ed. ANU Press, Acton ACT, Australia, pp. 41–69. https://doi.org/10.22459/CA.2021.

Latour, B., 2018. Down to Earth: Politics in the New Climatic Regime. Polity Press, Cambridge.

Lynch, M., 2000. Against reflexivity as an academic virtue and source of privileged knowledge. Theory Cult. Soc. 17 (3), 26–54.

Mazo, Jeffrey, 2022. The Climate Crisis and Asia-Pacific Security. In: Asia-Pacific Regional Security Assessment 2022: Key Developments and Trends, edited by Tim Huxley and Lynn Kuok, 276–95. London: International Institute for Strategic Studies.

Mbembe, A., 2019. Future Knowledges and Their Implications for the Decolonisation Project. In: Jansen, J. (Ed.), Decolonisation in Universities: The Politics of Knowledge. Wits University Press, Johannesburg, pp. 239–254.

McDonald, M., 2021. Ecological Security: Climate Change and the Construction of Security. Cambridge University Press, Cambridge.

Mitchell, A., 2016. Beyond biodiversity and species: problematizing extinction. Theory Cult. Soc. 33 (5), 23–42. https://doi.org/10.1177/0263276415619219.

Morton, T., 2013. Hyperobjects: Philosophy and Ecology after the End of the World. University of Minnesota Press, Minneapolis.

Nicholson, S., 2020. Solar Radiation Management, Wilson Center. https://www.wilsoncenter.org/article/solar-radiationmanagement (last accessed 18 March 2024).

Ochigame, R., 2020. The Long History of Algorithmic Fairness. Phenomenal World (blog). January 30, 2020, https://www.phenomenalworld.org/analysis/long-history-algorithmic-fairness/ (last accessed 19 March 2024).

Popescu, A., 2023 . Gorillas, Militias, and Bitcoin: Why Congo's Most Famous National Park Is Betting Big on Crypto. MIT Technology Review.

Pugh, J., Chandler, D., 2023. The World as Abyss: The Caribbean and Critical Thought in the Anthropocene. University of Westminster Press, London.

Ransan-Cooper, H., Farbotko, C., McNamara, K.E., Thornton, F., Chevalier, E., 2015. Being(s) framed: The means and ends of framing environmental migrants. Glob. Environ. Chang. 35, 106–115. https://doi.org/10.1016/j.gloenvcha.2015.07.013.

Ratzel, F., 1987. La Géographie politique: les concepts fondamentaux. Translated by François Ewald. Fayard, Paris.

Sedgwick, E.K., 1997. Paranoid reading and reparative reading, or, You're so paranoid, you probably think this introduction is about you. In: Kosofsky, E. (Ed.), Novel Gazing: Queer Readings in Fiction. Duke University Press, Durham, NC, pp. 1–37.

Sen, A., 1992. Poverty and Famines: An Essay on Entitlement and Deprivation. Clarendon Press, Oxford.

Simangan, D., 2022. Can the liberal international order survive the anthropocene? three propositions for converging peace and survival. The Anthropocene Review 9 (1), 37–51. https://doi.org/10.1177/2053019620982327.

Soper, K., 2020. Post-Growth Living: For an Alternative Hedonism. Verso, New York.

Táíwò, O.O., 2022. Reconsidering Reparations. Oxford University Press, New York.

Toal, G., 2024. Oceans Rise Empires Fall: Why Geopolitics Hastens Climate Catastrophe. Oxford University Press, New York.