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Re-theorising the genocide–ecocide nexus: Raphael Lemkin and ecocide in the Amazon

Bryan P. Galligan SJ

Department of Philosophy, Loyola University Chicago, Chicago, IL, USA

ABSTRACT

The genocide–ecocide nexus has become the topic of a small but growing body of scholarly literature. This literature has largely relied on the original concept of genocide as developed by Raphael Lemkin, with a particular focus on how he conceived colonialism and cultural genocide. While these foci are both legitimate and helpful, Lemkin's later work offers a different approach in theorising the nexus. After detailing the post-war development of Lemkin's thought from eight 'fields' of genocide to three genocidal 'methods', I demonstrate how his later framework better accounts for the intersection between ecocide and genocide and I find precedent for it in Lemkin's unpublished work on the *History of Genocide*, in which he discusses the case of indigenous peoples in California. I then test my modified genocide–ecocide nexus against the case of deforestation in the Amazon. I argue that Lemkin's later thought better theorises the relationship between micro- and macro-level ecological destruction. It also reveals a missing link in the genocide–ecocide nexus: ecocide is the type of violence that, by its nature, increases the likelihood of future genocides. I conclude that post-ecocide resource scarcity as a driver of genocide often plays an integral role in the genocide–ecocide nexus.

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1. Introduction

Today's global environmental crisis is also a human crisis, a cultural crisis, and a moral one. Around the world, as ecosystems are being destroyed,[1] planetary boundaries exceeded,[2] and fundamental geological processes increasingly influenced by human activities,[3] cultures and languages, which is to say peoples, are also disappearing.[4] This destruction, disappearance, and erasure, at once social and ecological, is tragic. It is also tragically ironic: in eliminating human and ecological diversity, it is likely that we are also killing our best hopes for survival, for sustainability, and for justice.[5]

For Hannah Arendt, the elimination of human diversity (genocide) constituted a profound attack on the category of humanity as such, an attack that fundamentally altered what it meant to be a human person.[6] Raphael Lemkin, the legal scholar who first introduced the word 'genocide' as both a sociological concept and an international crime,

CONTACT Bryan P. Galligan SJ bgalligan@jesuits.org Jesuit Justice and Ecology Network Africa (JENA), P.O. Box 1540, 00502, Nairobi, Kenya @galligan_sj

basically agreed with Arendt's insight.[7] Years after Lemkin's coinage, the word 'ecocide' would similarly emerge as a way to describe events analogous to genocide, but whose victims are natural ecosystems rather than human groups.[8] Transposing Arendt's (and Lemkin's) logic, we might then say that the destruction of natural ecosystems is an attack on the category of life as such, an attack that does violence to all living beings by fundamentally altering what it means to be alive. The campaign for ecocide to be recognised as a crime under international law continues today.[9]

The relationship between ecocide and genocide also runs much deeper than mere linguistic resonance and, in recent years, a concept now known as the genocide–ecocide nexus has emerged to better articulate this relationship.[10] In this article, I develop a new understanding of those aspects of the genocide–ecocide nexus that are based on Raphael Lemkin's original thought. By returning to Lemkin's work, particularly his later and largely unpublished writings, I demonstrate that he was sensitive to the occurrence of what is now referred to as ecologically induced genocide,[11] and that the tripartite anatomy of genocide (centred around the three methods of physical, biological, and cultural genocide) that Lemkin developed as an analytical and comparative tool for the study of genocide cases offers a strong conceptual ground for the genocide–ecocide nexus today. Lemkin's tripartite schema offers a particularly promising way to understand how ecologically induced genocides occur because ecocide functions so as to cripple or destroy social groups on a number of different levels, each of which is captured by Lemkin's three methods. Lemkin also offers an important insight about the relationship between ecocide, resource scarcity, and genocide, namely, that the destruction of natural ecosystems can also lead to competition for scarce resources and, eventually, mass violence. Current work on the genocide–ecocide nexus has missed these contributions because it has focused too much on Lemkin's earlier and less mature work. Following Lemkin, my re-theorisation better articulates the relationship between ecocide and genocide and will offer researchers a helpful conceptual tool in their efforts to articulate and analyse the ongoing social and ecological destruction we are now seeing around the world.

After presenting Lemkin's original thought and offering a new way to theorise the conceptual aspects of the genocide–ecocide nexus, I turn to the ongoing social and ecological destruction of the Amazon, and particularly the possibility of reaching a deforestation tipping point, as a way of demonstrating the utility of my new nexus. I use Lemkin's three methods of genocide as a way to frame the social impacts of Amazonian ecocide and I show that Lemkin's insights about resource scarcity and the cyclic nature of environmental violence hold true today as well. While other authors have described ongoing ecocide and genocide in the Amazon before,[12] my new genocide–ecocide nexus is attentive to particular dimensions of that crisis that often go underdiscussed. It also presents a basis for systematic comparative study in the Lemkinian tradition that is more robust and flexible than other formulations.

My reading of Lemkin and my use of the term 'genocide' emerge from what is now known as the post-liberal school of genocide studies,[13] which is notable in part for its departure from the legal definition of genocide as formulated in the U.N. Genocide Convention. Although Lemkin famously advocated on its behalf, the legal definition is 'beset with conceptual shortcomings'.[14] It is also quite narrow, stipulating that genocide can only happen to certain types of human groups, be accomplished through a limited list

of acts, and be said to take place only where there is specific intent 'to destroy, in whole or in part, a national, ethnical, racial or religious group, as such'.[15] The post-liberal school tends to follow Lemkin's original and broader definition of the term, namely, 'the destruction of certain human groups'.[16] While Lemkin was not ignorant of questions of intent and culpability,[17] he also understood genocide to be 'a gradual process'[18] and believed it was intrinsically tied to political economic structures like colonialism.[19] A traditionally liberal and legalistic worldview is unfortunately blind to these characteristics of genocide and thus also ultimately fails in its attempts to understand the violent destruction of human diversity we see today.[20]

A robust theorisation of the genocide–ecocide nexus is more necessary now than ever. As human and biological diversity continue to be destroyed, we need theoretical apparatuses like this one in order to be able to name, understand, and reverse these processes. In the next section, I summarise the current reflection on the genocide–ecocide nexus with a special focus on Lemkin's thought, both as a way of presenting the concept in more detail and in order to clarify the baseline against which I will offer my re-theorisation.

2. Understanding the genocide–ecocide nexus

The genocide–ecocide nexus has recently become the subject of a growing body of academic literature that aims to better understand the intersections between the destruction of ecosystems (ecocide) and the destruction of human groups (genocide).[21] Primarily, the nexus is born of the experience of indigenous peoples around the world. As the European and North American colonial project encompassed the globe, as the sphere of capitalism expanded, and then as formal relationships of colonisation were succeeded by neo-colonisation, indigenous peoples were witness and subject to horrific physical, cultural, and ecological violence. In many parts of the world, they still are. Indigenous peoples are surely not the only victims of genocide and ecocide, but it is their suffering and resistance that has most illuminated the nexus as a particular type of violence and it has often been their voices that have brought its different manifestations to light. Raoni Metuktire, for example, chief of the indigenous Kayapó people in Brazil, writes,

> When you cut down the trees you assault the spirits of our ancestors … When you weaken the land like that, it starts to die. If the land dies, if our Earth dies, then none of us will be able to live, and we too will all die.[22]

In Metuktire's estimation, then, cutting down trees constitutes a multivalent assault that simultaneously targets his culture, his planet, and his group's survival. The core insights here are that (1) the destruction of ecosystems and the destruction of human groups often occur together, (2) they are mutually conditioning, and (3) they are driven by overlapping processes. The genocide–ecocide nexus, then, is not simply one intersection between two crimes, but rather a collection of intersecting histories, processes, and impacts, all of which threaten the destruction of both human groups and the ecosystems in which they live.

When Martin Crook and Damien Short first theorised the genocide–ecocide nexus in 2014,[23] they suggested it contain two primary components. The first component was their contention that, especially in the case of indigenous groups whose identity and well-being are intimately wrapped up in the integrity of the ecosystems in which they live,

ecocide, or the large-scale destruction of natural ecosystems, can become a method of both cultural and physical genocide.[24] The second component of the nexus as articulated by Crook and Short was the role of colonialism (understood as an ongoing, inherently genocidal project)[25] and capitalism, which they argued drive and legitimate the dispossession of native peoples from their lands, the extraction of natural resources, and the genocidal and ecocidal consequences of these actions.[26]

Significantly, Crook and Short were not the first to make these or similar arguments. As early as 1968, Jean-Paul Sartre argued that colonisation 'is by its very nature an act of cultural genocide'[27] and that genocide 'came out of the internal structures of capitalist democracies'.[28] He also understood ecological destruction to be a method of physical genocide that worked in cooperation with other genocidal techniques, including the following when he accused the United States of genocide in Vietnam: 'villages burned, the populace subjected to massive bombing, *livestock shot, vegetation destroyed by defoliants, crops ruined by toxic aerosols*, and everywhere indiscriminate shooting, murder, rape, and looting' (emphasis mine).[29] Notably, the acts of ecological destruction mentioned by Sartre as methods of genocide are the same acts that would inspire the movement against ecocide just a few years later.[30] The literature on the genocide–ecocide nexus, however, tends to more heavily cite Robert Davis and Mark Zannis' 1973 work, *The Genocide Machine in Canada*, as an early precedent.[31] Like Sartre, Davis and Zannis recognised the influence of colonialism and capitalism in driving what they described as 'environmental genocide'.[32] Daniel Brook's 1998 article on the environmental genocide of Native Americans was also influential.[33] In this way, the arguments Crook and Short developed were available in protean form before they wrote. What others left implicit, however, Crook and Short explicitly theorised, integrating Marxist political ecology and a Lemkinian understanding of genocide to produce a powerful critique.

2.1. Lemkin's thought as conceptual nexus between genocide and ecocide

Crook and Short's then-novel use of Raphael Lemkin integrated and conceptually grounded the relationship between genocide and ecocide. Their reading of Lemkin focused on a few key elements of his thought. First, the conceptual centrality that other genocide scholars often afforded to mass killing was brought into question by a lengthy and diverse list of genocidal techniques that appears throughout Lemkin's unpublished research notes.[34] The list includes a number of techniques that have nothing to do with mass killing, such as 'separation of families', 'destruction of cultural centres', and 'forceful conversion'.[35] Second, Crook and Short adopted Lemkin's understanding of cultural genocide, wherein the destruction of a group's culture is considered to be another way of committing genocide, standing alongside physical genocide as a method of equal stature and gravity. As Crook and Short put it, 'the central ontological assertion for Lemkin was that culture integrates human societies and is a necessary precondition for the realisation of individual material needs'.[36] This ontological assertion is what led Lemkin to view 'physical and cultural genocide not as two distinct phenomena, but rather *one process that could be accomplished through a variety of means*' (emphasis in the original).[37] The third key element of Lemkin's thought that informed the genocide–ecocide nexus was the relationship between colonisation and genocide. Here, Short followed A. Dirk Moses' contention that 'genocide for Lemkin … was necessarily imperial

and colonial in nature',[38] concluding in his 2016 book, *Redefining Genocide*, that the coloniality of Lemkin's genocide concept made it a privileged lens for the study of 'colonisation processes and their socially destructive effects'.[39]

Crook and Short's use of Lemkin provided a number of advantages over the legal definition of genocide, which can only understand ecological destruction as 'conditions of life calculated to bring about [the group's] physical destruction in whole or in part'.[40] This language is inferior to the genocide–ecocide nexus because it fails to describe the relationships human groups, and especially indigenous peoples, have with the ecosystems in which they live; the exclusive focus on 'physical destruction' neglects the other modalities through which ecological destruction destroys human groups; and its intent requirement precludes it from being used in the vast majority of ecocide cases, where the pursuit of profit is usually the primary goal and the ecologically mediated destruction of human groups is simply considered to be an acceptable cost. As the genocide–ecocide nexus was developed and taken up by others, Lemkin's understanding of culture would continue to substantiate the seriousness and articulate the concrete impacts of the social destruction wrought by ecocide. Likewise, the colonial nature of his concept provided a point of entry for a line of criticism that understood ecocide and genocide as products of social and economic systems. Crook, Short, and South summarised the way Lemkin's thought grounded the genocide–ecocide nexus as follows:

> It is precisely the overlooked and misunderstood categories and properties of genocide—the key concept of culture and the insoluble link with colonisation, *that are pivotal in capturing both the historical and lived experience of culturally vulnerable groups like indigenous peoples around the world* (emphasis in original).[41]

For many aspects of Lemkin's thought, Crook, Short, and other authors rely quite heavily on *Axis Rule in Occupied Europe* and other pieces of Lemkin's earlier work,[42] such as the secretariat draft of the Genocide Convention.[43] (When I distinguish between Lemkin's earlier and later work in this article, I consider the unpublished historical and conceptual scholarship he began producing after working on the secretariat draft of the Genocide Convention in 1947 to constitute the later corpus, while the secretariat draft and the work leading up to it constitute the earlier.) While the conclusions genocide–ecocide scholars have drawn regarding culture and colonisation are both helpful and legitimate, the focus on Lemkin's earlier work has also contributed to (1) a prevailing interpretation of Lemkin's understanding of human groups as 'largely nationalistic' and 'static'[44] and (2) the addition of ecocide alongside Lemkin's original eight 'fields' of genocide.[45] In the next section, I demonstrate how Lemkin's later thought developed beyond these two features, requiring less modification to his original work than previously supposed and providing a more graceful way to theorise the genocide–ecocide nexus.

It is also worth noting that while most genocide–ecocide scholars have followed Crook and Short in their use of Lemkin's original thought, the conceptual grounding they developed is not universally employed.[46] For the most part, however, it is Lemkin's thought that appears throughout the literature on genocide and ecocide and it is his emphasis on the cultural and colonial aspects of genocide that continues to ground debate.[47] It is Lemkin's later, largely unpublished work on these topics to which I now turn.

3. Re-reading Lemkin, re-theorising the genocide–ecocide nexus

Axis Rule in Occupied Europe is often erroneously interpreted to be a sufficiently representative example of Lemkin's thought on genocide. I suggest, instead, that *Axis Rule* is best interpreted as the starting point for what later became the central project of Lemkin's life, a project that matured significantly over time, and that his later (post-1947) writings are comparatively more helpful when it comes to understanding genocide and ecocide. In what follows, I present a few of the developments that are most relevant to the genocide–ecocide nexus and illustrate how they suggest a re-theorisation of the nexus today.

The overestimation of the significance of *Axis Rule* within Lemkin's thought is largely due to misleading statements made by Lemkin himself.[48] He often presented the book and his related campaigns to outlaw genocide, first at Nuremburg and then at the United Nations,[49] as if they were the culmination of a project he had begun in 1933, when he proposed that the League of Nations outlaw 'barbarity' and 'vandalism'.[50] In reality, 'barbarity' and 'vandalism' were first developed by Vespasian Pella,[51] not Lemkin, and it seems that Lemkin only began to study genocide with any consistency after war broke out in Europe. He spent much of the 1930s focused on other projects.[52] As a result, the concept of genocide he presented in *Axis Rule* is best interpreted as a first attempt rather than the last word.

It is also true that *Axis Rule* is much more notable for its collection of Nazi laws of occupation than for its early definition of genocide. In the entire 712-page text, Lemkin develops the concept of genocide only in his seven-page preface and his seventeen-page chapter of the same name.[53] The chapter on genocide, where he first elaborates the concept, is also very clearly intended to describe *Nazi* genocide, not genocide *as such*. When Lemkin introduces his section on genocidal techniques, he writes,

> The techniques of genocide, *which the German occupant has developed* in the various occupied countries, represent a concentrated and coordinated attack upon all elements of nationhood. Accordingly, genocide *is being carried out* in the following fields (emphasis mine).[54]

Lemkin's early focus on genocide as carried out by the Nazis has also led many scholars to misconstrue what were really intended to be descriptive statements about the Holocaust as being definitive statements about genocide as such. This is the context behind Thomas M. Butcher's misuse of the phrase 'synchronised attack',[55] which Short has correctly responded to by citing comparatively more central pieces of Lemkin's thought.[56]

There are, of course, many components of Lemkin's original thought that are fully present in *Axis Rule* and which he conserved throughout his life. The colonial and cultural dimensions of genocide, for example, are among them.[57] But Lemkin's thought also developed in some key ways between the 1944 publication of *Axis Rule* and his death in 1959.

3.1. Families of mind and social death

Many interpreters of Lemkin, including those who draw on his thought to support sustained reflection on the genocide–ecocide nexus, have argued that his conception of social groups is simply 'untenable' today,[58] describing it as both 'nationalistic' and 'static'.[59] In *Axis Rule*, he seems to treat national groups as homogenous bodies, each possessing a 'biological structure'[60] and a 'national psychology'.[61] To be clear, there is also

evidence in his later work that he may have continued to conceive of groups as 'distinct and autonomous wholes' and failed to account for their plasticity and adaptability;[62] the documentary evidence is such that it is difficult to determine whether Lemkin's thought truly developed on this point or he was simply inconsistent. Whichever is true, Douglas Irvin-Erickson has complicated the prevailing interpretation of Lemkin's understanding of social groups, arguing instead that 'Lemkin saw nations as "families of mind", types of "imagined communities" who shared common beliefs and sentiments, whose identities were plastic, and whose members shared a belief that they were part of the group'.[63] If Irvin-Erickson is correct, it is likely that Lemkin's understanding of group life is more tenable today than generally thought. However, this exceedingly minimal definition of social groups apparently also led Lemkin to believe that 'those who play cards, or those who engage in unlawful trade practices or in breaking up unions' were members of groups that could be susceptible to genocide.[64] He wrote as much in an unpublished article Irvin-Erickson dates to the early 1950s.[65]

Lemkin's 'families of mind' are problematic for the genocide–ecocide nexus because many authors have heavily relied on Claudia Card's contention that 'social death is utterly central to the evil of genocide',[66] and as Mohammed Abed has argued,[67] social groups must display a clear set of features to be susceptible to the harm of social death, including 'consent' to group membership, a 'comprehensive' culture, and the threat of an 'arduous exit'. It is not clear that Lemkin's families of mind would in all cases satisfy these three criteria. It seems that, for Lemkin, the primary harm of genocide was not social death, but rather the erasure of human diversity. In Irvin-Erickson's words, 'Lemkin envisioned genocide as a crime against the "human cosmos" because it destroyed cultural diversity'.[68] It was very literally a crime against humanity, an attack on what it means to be human.[69]

If we take seriously Lemkin's belief that card players and strike breakers could become victims of genocide, and that the destruction of a human group is primarily a crime against humanity as such, we cannot also assume that the centring of social death is immediately compatible with Lemkin's concept of genocide. To be clear, Card's and Abed's contributions have been integral to the development of a definition of genocide that displays true conceptual coherence. Their contributions are also consistent with many people's moral intuitions that the primary victims of genocide are members of the target group and that suppression of card players or strike breakers would not possess the same moral gravity as the destruction of groups that meet Abed's stringent criteria.

The concept of social death need not be abandoned. However, the current depiction of its relation to Lemkin's original thought (i.e. basically compatible if we update Lemkin's static conception of group life) can no longer be considered accurate, if only because it is not at all clear that Lemkin had a static conception of group life. I suspect the most promising avenue for future work will be to simply admit that this is a weakness in Lemkin's thought that needs to be supplemented by more recent scholarship. However, a full recovery of the concept of social death is outside the scope of this article. I trust that utilising Lemkin's thought more fully and temporarily suspending my own use of the concept of social death will be sufficient for my purposes here. I leave it to other scholars to more systematically contend with the inconsistency between the concept of social death and Lemkin's 'families of mind'.

3.2. From eight 'fields' to three 'methods'

Where Lemkin used eight 'fields' to categorise techniques of Nazi genocide in *Axis Rule*,[70] he later transitioned to using three umbrella 'methods' to discuss genocide in general.[71] The methods were physical, biological, and cultural genocide.[72] This transition represented much more than a simple reorganisation of genocidal acts; the conceptual difference between 'fields' and 'methods' in Lemkin's thought is significant. Where the eight 'fields' were structured according to the nature of their component techniques, the three 'methods' instead focused on *how* particular techniques destroyed human groups. This shift allows for techniques of genocide that threaten group life through multiple avenues, such as ecocide, to be understood more fully and it better articulates how genocide occurs. It is important to note here that, while Lemkin generally uses the words 'fields', 'methods', and 'techniques' so as to consistently denote three distinct concepts, this does not reflect their usage in the genocide studies literature as a whole. I follow Lemkin's usage, specifically as found in his later work, in order to maintain conceptual clarity and to emphasise how his understanding of genocide shifted in the late 1940s.

As mentioned previously, the eight 'fields' of genocide Lemkin articulated in *Axis Rule* were explicitly developed to describe Nazi atrocities in Europe, not genocide as such.[73] The fields he included (political, social, cultural, economic, biological, physical, religious, and moral) provided him with convenient categories with which to organise the Nazis' genocidal 'techniques', a word that, for him, always referred to discrete acts that could be employed to commit genocide, not the categories ('fields' or 'methods') into which they fell.[74] It was three years after the publication of *Axis Rule*, in 1947, when Lemkin began work on the secretariat draft of the Genocide Convention with Henri Donnedieu de Vabres and Vespasian Pella,[75] that his collaborators convinced him to categorise the techniques of genocide they would put forward as prohibited acts under the headings, 'physical', 'biological', and 'cultural'.[76] Although Lemkin was not initially pleased with the distinction (it was used by the United States and France to 'make sure any potential convention would not apply to the actions of their own governments'),[77] he eventually adopted physical, biological, and cultural genocide as his three umbrella 'methods' into which genocidal techniques would fall. Lemkin described the new schema in an unpublished essay entitled 'Nature of Genocide':

> The concept of genocide is based upon the treatment of a human group as an organic entity. I would set out three basic phases in the life of a human group. Namely, physical existence, and biological continuity through procreation and through raising children. The third phase deals with spiritual life, namely with the preservation of spiritual values, their expression and their creation. Certainly this is the theoretical structure of this concept.[78]

Interestingly, Lemkin uses the word 'spiritual' here, where he almost always uses 'cultural' in other writings.[79] It seems that he considered these descriptors to be interchangeable. It is not entirely clear why this is, but it may be that he thought of them both as viable ways of referring to that intangible thing which gives a human group continuity in spite of concrete and observable change and adaptation, what Irvin-Erickson refers to as the 'family of mind'.[80] Whatever Lemkin's justification, after the secretariat draft was completed in 1947, Lemkin always conserved what he refers to here as 'the theoretical structure of this concept',[81] his tripartite anatomy of genocide.

In Lemkin's tripartite schema, the physical method of genocide included any act that visited physical harm upon members of the target group, including 'massacre', 'mutilation', and 'deprivation of livelihood'. The biological method of genocide referred specifically to acts that targeted social and biological reproduction; it could include the 'separation of families', 'sterilisation', and forced abortions. The cultural method of genocide included attacks on group 'leadership', 'symbols', and even 'codes of behaviour',[82] all of which Lemkin believed would result in suffering for group members and irretrievable cultural losses for humanity.[83] Significantly, he often modified his lists of genocidal techniques and there is no evidence that any one list was ever intended to be exhaustive.[84] He used the same conceptual structure of three methods, however, for the rest of his life.[85]

As mentioned previously, the conceptual difference between 'fields' and 'methods' is profound. In Lemkin's usage, 'fields' were organised according to the nature of the Nazis' acts. Under this early schema, for example, acts that were economic in nature, such as the 'confiscation of Polish property', were categorised under the economic field of genocide.[86] Alternatively, his use of three umbrella 'methods' of genocide led him to focus more on *how* particular techniques destroyed human groups than on *what* techniques were used. Under the new schema, confiscation of property could be both physical *and* cultural genocide. If the loss of property caused group members to starve, it would be an act of physical genocide. If the confiscated property carried cultural meaning, it would be considered an act of cultural genocide as well. That Lemkin believed particular techniques would fall under multiple methods, something which was not true with respect to his eight fields, is further demonstrated by his categorisation of slavery as both physical and cultural genocide.[87] This later framework is illuminating precisely because it accounts for the multivalent way in which ecocide destroys human groups, often simultaneously assaulting physical wellbeing, cultural practices, and intergenerational continuity.

Despite this resonance with ecocide, and despite Lemkin's consistent use of the tripartite schema in his later work, Short utilises Lemkin's eight fields of genocide from *Axis Rule* when he most deeply theorises the genocide–ecocide nexus. In his book *Redefining Genocide*, Short organises his case studies according to Lemkin's eight fields and adds ecocide as an additional field of genocide. Of course, the Nazis were not the only group to commit acts that could be organised according to Lemkin's original eight fields, but Lemkin himself never used them to analyse other genocides and his later move to the more sophisticated tripartite schema offers a better option for comparative study.

Short's use of Lemkin's fields leads to two primary difficulties. First, and most significantly, Short defines ecocide in part by scale.[88] Macro-scale instances of ecological destruction that threaten a group's survival are determined to be ecocidal techniques of genocide, where less widespread ecological damage is often categorised as an economic technique of genocide. In his case study of the conflict between the Sinhalese and the Tamils in Sri Lanka, for example, Short describes food insecurity driven by overfishing as economic genocide,[89] while deforestation, driven by 'a rigorous neoliberal, non-sustainable development model', rises to the level of ecocide and is included under that field.[90] While distinguishing between micro- and macro-level ecological destruction is surely legitimate, and while overfishing may not rise to the level of ecocide, Short's

schema is not helpful as a theoretical feature of the concept of genocide. Such a distinction based on scale risks splitting the concept of ecologically induced genocide into separate categories. It neglects the fact that different forms of ecological destruction are of a type and are often intimately related; overfishing and deforestation in Sri Lanka have much more in common than their respective fields of economic and ecocidal genocide might suggest. Ultimately, the use of 'fields' rather than 'methods' confuses the distinction between 'techniques' (discrete acts) and their genocidal impacts.

The other primary difficulty raised by the use of 'fields' instead of 'methods' is that Lemkin's focus on the mechanism by which group life is disrupted is lost in favour of a less sophisticated emphasis on the action itself. It is also less advantageous simply because it represents an unwarranted modification to his thought. Ecocide need not be added as a field of genocide because it can already be understood as a technique of genocide under Lemkin's tripartite schema. In fact, any level of ecological destruction can be understood to be a technique of genocide with no modification to Lemkin's thought whatsoever as long as it (1) visits physical harm upon members of a group; (2) interrupts group reproduction; and/or (3) targets a group's culture.

Despite Short's use of Lemkin's eight fields of genocide, however, most genocide–ecocide literature only distinguishes between two methods of genocide: physical and cultural.[91] This more common and less robust theorisation of the genocide–ecocide nexus also misses an important contribution of Lemkin's tripartite schema: ecocide is often particularly devastating precisely because it attacks future generations as well as current ones. Santiago Arboleda Quiñonez captures this dynamic well, arguing that the aerial spraying of crops with herbicide, combined with the intense violence and repression inflicted under the controversial Plan Colombia, 'closed off the usual conditions of possibility for biological/cultural reproduction of Afro-descendants, indigenous, and rural farmers'.[92] The same insight can be found in the Hebrew Bible, where, even in the context of a specifically condoned war of extermination, lasting ecological damage is prohibited;[93] such indiscriminate damage crosses the line even when non-combatants are deemed to be fair game precisely because it targets future generations. As Arboleda Quiñonez's comment and the Hebrew Bible illustrate, Lemkin's biological method of genocide and its attendant emphasis on biological and social reproduction as means to maintain intergenerational continuity is a crucial lens for the analysis of ecocide. Crook and Short briefly mention the importance of intergenerational continuity in their recent article on 'Developmentalism and the Genocide-Ecocide Nexus', but they do not connect it to Lemkin,[94] and Lemkin's original use of the biological method of genocide as an important analytical lens remains neglected and underdiscussed in the literature as a whole.

Revisiting Lemkin's later thought makes clear that his tripartite anatomy of genocide offers us an improved way of theorising the genocide–ecocide nexus. The tripartite schema does not require artificial distinctions between micro- and macro-scale ecological damage; it does not require the addition of new categories to Lemkin's thought; and its emphasis on reproduction is particularly prescient when discussing ecological destruction and its effects on future generations. Future theorisation of the genocide–ecocide nexus should thus utilise the tripartite schema, analysing ecocide and other genocidal techniques as manifestations of the physical, biological, and cultural methods of genocide.

3.3. Lemkin's study of Native genocide in California

Lemkin's three methods of genocide are not only present in his theoretical work. They also appear throughout his historical scholarship, and his method of analysing past genocides can provide us with helpful guidance as we seek to apply his concepts today. When Lemkin assumed his academic appointment at Yale in March of 1948, he began working in earnest on a projected three-volume historical survey, *History of Genocide*.[95] Much of the legwork was done by paid research assistants, who collected historical data on cases selected by Lemkin and would often summarise their findings according to Lemkin's tripartite anatomy of genocide.[96] He would then review their work and compose a book chapter based on each episode. He never composed a chapter on the genocide of Native Americans in California,[97] but the correspondence and research notes preserved in his archives nonetheless provide an illuminating example of how his thought can be used to analyse ecological dynamics.

The period with which we are concerned began when the United States took control of California in 1845, after the Native population had already declined by about half under Spanish and Mexican rule (it measured around 150,000 in 1848).[98] When U.S. law came into effect, the previous system of 'Indian forced labour' was brought to an end.[99] What followed is summarised in Lemkin's research notes:

> The I.[ndians] fled to the hills to become once more Indian in ways of life. The whites appropriated their lands, herds and orchards. But the I. could not find sustainance [*sic*] in the mountains because cultivation had driven away gamelife [*sic*]. They therefore took to stealing cattle and horses and precipitated war betw. Californians and themselves. … After discovery of gold in 1848 … the I. were driven further inland were [*sic*] food was scarcer, as the whites coveted gold-bearing hills. The miners retaliated for theft of cattle and attacks on isolated parties on the part of the Indians by shooting any I. on sight.[100]

This note and Lemkin's other archival materials on the topic provide strong precedent for the work of genocide–ecocide scholars today. With respect to displaced Native populations that had no game to hunt, the phrase 'genocide by starvation' appears in Lemkin's notes.[101] The same phrase is used to refer to the second wave of displacements, 'still further inland to barren regions', after 1848.[102] These notes make it clear that, for Lemkin, the loss of the ecological conditions required for hunting and gathering could amount to genocide through the physical method.

He also recognised that even if starvation could be avoided, genocide was still at stake through the cultural method. A research note containing reflections on 'land cession policies' reads as follows:

> For the nomadic Indian, the change to an exclusively agricultural economy meant a basic modification of his whole culture, which of course would not be effected overnight. Therefore, the Indian fought for his hunting grounds. Insofar as the Indian was forced to accept the economic and social system of the white man, if he did not want to starve by virtue of loosing [*sic*] his hunting grounds, we may speak of cultural change of a radical and inhumane type.[103]

Interestingly, at the point where the card reads 'change', the word 'genocide' is crossed out. It seems that the card's author, likely a research assistant, was not sure whether being 'forced to accept the economic and social system of the white man' amounted to genocide. It is fair, however, to assume that Lemkin believed it did. In another chapter

of *History of Genocide*, 'The Germans in Africa', Lemkin explicitly ruled similar events to have been genocide through the cultural method, writing, 'no attempt was made to respect native tribal customs or to invest the chiefs with their former dignity and authority' and 'one of the main policies [of the] German administration was to destroy tribal organization and seize tribal lands' (brackets in original).[104] As Lemkin narrates the German Empire's suppression and replacement of what amounts to the natives' 'economic and social system' as an example of the cultural method of genocide, it is more than reasonable to conclude that he would interpret North American events in the same way. It seems, then, that Lemkin was very clear that ecological destruction could be a technique of genocide under both the physical and cultural methods and that he preferred to analyse the social impacts of such destruction through the use of the tripartite schema.

Lemkin's study of Native genocide in California offers more than just confirmation, however. It also reveals a missing link in the genocide–ecocide nexus. Recall that after the initial ecocide (the depopulation of game animals) and 'genocide by starvation',[105] Native peoples were forced to steal cattle and horses from white settlers in order to stay alive.[106] The result was another cycle of physical genocide: 'by April 1857, the *Petaluma Journal* was reporting "wholesale killing" in response to Indian attacks on settlers' stock'.[107] After the second round of Native displacement and ecological impoverishment (here I refer to the 'forceful eviction from fertile valleys into barren mountains where I. starved'),[108] similar conflicts continued with the newly arrived gold prospectors, who, according to Lemkin's notes, made a habit of 'shooting any I. on sight' in retaliation 'for theft of cattle and attacks on isolated parties'.[109]

The mechanistic link that Lemkin is narrating, and which is largely missing from the genocide–ecocide literature, is the role of post-ecocide resource scarcity in driving genocide. It was the scarcity of game that led Native Americans to raid settlers' farms and become subject to large-scale retributive massacres; it was scarcity of land that caused settlers to displace Native peoples into even more ecologically impoverished areas; and it was post-displacement scarcity of food that drove another cycle of conflict with the gold prospectors. These events demonstrate that ecocide often creates resource scarcity, which is in turn capable of driving further cycles of genocide. I argue that this dynamic of post-ecocide resource scarcity is often integral to the genocide–ecocide nexus.

4. Deforestation and the Amazon tipping point: testing the new nexus

Returning to Lemkin's thought has highlighted two important points for our re-theorisation of the genocide–ecocide nexus. First, Lemkin's tripartite anatomy of genocide provides a more graceful way of analysing ecological destruction than do the eight fields that appear in *Axis Rule*. Lemkin's own research notes on the genocide of Native Americans in California confirm this insight. Second, Lemkin's own reflections on ecological destruction led him to identify resource scarcity as an important post-ecocide driver of genocide. In what follows, I test these insights against the case of deforestation in the Amazon and some of the genocidal consequences that reaching a related ecological tipping point may cause. I take as my point of departure the understanding that the crisis in the Amazon already displays genocidal characteristics and that a multiple genocide of indigenous and other subsistence societies, if not already occurring, will be triggered if

and when the tipping point is reached. It should be noted that I am not alone in this understanding; a number of activists, leaders, and scholars already use the language of genocide and ecocide to describe the situation in the Amazon as it now stands.[110]

Although the Amazon tipping point has largely been ignored by policymakers and social scientists,[111] it has been a topic of discussion among natural scientists since the early 2000s.[112] As deforestation in the Amazon continues, scientists say, it is likely to trigger a dieback of large portions of the forest, replacing the biodiverse ecosystems that now exist with a dry grassland savannah.[113] In the absence of other factors, the tipping point would likely be reached when around 40% of the Amazon basin has been deforested.[114] In the presence of climate change and the widespread use of fires, however, that number is now estimated to be around 20-25%;[115] ominously, the current deforested area is already about 17% in the Amazon as a whole and is approaching 20% in Brazil.[116] Meanwhile, deforestation is accelerating, especially in Brazil, where President Jair Bolsonaro has implemented economic policies and undermined the rule of law in such a way as to drive both legal and illegal deforestation at rates not seen in over a decade.[117] As two top scientists, Thomas E. Lovejoy and Carlos Nobre, warned at the end of 2019, 'today, we stand exactly in a moment of destiny: the tipping point is here, it is now'.[118]

The ongoing social and ecological destruction in the Amazon is driven by forces both local and global.[119] In Brazil, illegal deforestation is made possible by organised criminal syndicates that defend logging interests through the use of intimidation tactics and physical violence, activities which are carried out with impunity.[120] Meanwhile, indigenous groups, whose lands are being targeted by illegal extractive industries, are facing increasing levels of violence.[121] According to a recent report by the Indigenist Missionary Council (*Conselho Indigenista Missionário*), 'the risks of massacres due to the advance of deforestation and colonisation fronts are almost inevitable'.[122] These activities have accelerated under the presidency of Jair Bolsonaro,[123] but the blame is not his alone. Indigenous groups are subject to physical and ecological violence in other Amazonian countries as well and, perhaps more significantly, these destructive processes are ultimately driven by a global economic system that (1) cannot meet its growth imperative without increased inputs from natural resources and (2) has no way to properly value the 'alternative life-systems' (social and ecological) it destroys.[124] We see this in the Brazilian Amazon, where that country's Ministry of Agriculture has set ambitious targets for increased grain and beef production by 2030 but remains committed to 'the old paradigm of expanding agriculture at the expense of forests'.[125] These agricultural commodities, along with illegally harvested forest products, are largely consumed in wealthy countries in the Global North. It is estimated, for example, that over 80% of Brazilian soy associated with illegal deforestation is exported, mostly to China and the European Union.[126]

Reaching a tipping point in the Amazon, which seems likely to occur in the near to mid-future, would have disastrous implications for global climate change.[127] It would also be a humanitarian disaster and, I argue, constitute a multiple genocide.[128] While the more general and widespread humanitarian impacts of a forest dieback in the Amazon are already set to be thoroughly tragic,[129] I focus here on only a few aspects of the crisis that have the potential to confirm (or not) my re-theorisation of the genocide–ecocide nexus according to Lemkin's later thought. I first utilise Lemkin's tripartite schema to demonstrate its utility as a method of analysis and then address the likely role

of post-ecocide resource scarcity as a driver of future cycles of genocide. Finally, I turn to current work that also utilises a Lemkinian analysis of the ongoing destruction of the Amazon in order to demonstrate the benefits of my proposed re-theorisation as compared to other current uses of Lemkin's thought.

4.1. Food insecurity and the physical method of genocide

After the tipping point is reached, the forest dieback has taken hold, and current ecosystems have retreated to the north and west, once-present trees will no longer be able to regulate the river system's annual cycle of flood and retreat.[130] This deregulation of the Amazon basin is set to exacerbate an underlying climate trend, which already predicts increasing severity and frequency of both droughts and floods in the region.[131] These changes could constitute a physical genocide of the *Ribeirinhos*, a large group of floodplain residents of mixed descent whose entire livelihoods are structured around the annual rise and fall of the Amazon's floodwaters.[132]

Ribeirinhos already experience severe food insecurity during the high-water season, when fish (their main source of protein) are harder to catch.[133] Families are forced to skip meals,[134] refrigeration is largely unavailable,[135] and endemic malnutrition is 'exacerbated by poor environmental health and limited access to quality healthcare'.[136] Longer lasting floods, like those in 2009 and 2012,[137] will keep *Ribeirinhos* hungry for longer. Droughts, on the other hand, compromise their long-term food supply. As the floodwaters recede, ponds and lakes shrink, trapping fish in overcrowded conditions that cause them to die for lack of oxygen.[138] Low water levels also make fish more vulnerable to poachers and commercial fishers, which can drive dangerous over-exploitation.[139] All of this will be greatly intensified by the large-scale loss of the forest. It is likely that continued and worsened droughts and floods, driven by deforestation and climate change, will work together to make fish less numerous and less available to *Ribeirinhos* over the coming years. Food insecurity will worsen and, just as happened to Native populations in California, 'genocide by starvation' may be the result.[140]

4.2. Biodiversity loss and the cultural method of genocide

While many Amazonian indigenous groups will be subject to the same or similar pressures as the *Ribeirinhos*, they are also likely to be faced with genocide through the cultural method; an attack on their ecology is necessarily also an attack on the social fabric of their communities. This is true because Amazonian tribes' corporate identities are deeply intertwined with the ecosystems in which they live. Mario Nicacio, a member of the Wapichana people in Brazil and deputy coordinator of the Coordination of Indigenous Organisations of the Brazilian Amazon, describes the relationship between ecosystem and identity in the following terms:

> Here are our spirits and our survival … The earth is not just a space to plant or to sell, but rather a space which guarantees us strength … our identity as indigenous peoples. It is a very close relationship; it is within the indigenous peoples … Where there is no territory, there is no life.[141]

An attack on Amazonian ecosystems, then, is also a direct attack on the 'spirits' and 'survival' of indigenous peoples. Or, as Joseien Tokoe of the Kari'na people of Suriname puts

it, 'we are like the mother earth. We are mother earth'.[142] One cannot be attacked without also attacking the other.

On a more concrete level, ecocide tends to threaten indigenous cultures in the Amazon through two main avenues: the loss of culturally significant plants and animals and the necessity of seeking out alternative livelihoods in non-indigenous economies. Adolfo Chávez, president of the Confederation of Indigenous Peoples of Bolivia and member of the Takana people, identified both of these dynamics in the aftermath of the 2019 fire season. According to him, many indigenous communities have witnessed the disappearance of their medicinal plants, precluding many aspects of cultural practice. Additionally, the destruction of food sources found in the forest has meant that 'the men have had to leave their communities, abandoning their families, to do much more difficult work'.[143] This example of cultural genocide mirrors exactly what Lemkin observed of Native genocide in North America, where 'the Indian was forced to accept the economic and social system of the white man, if he did not want to starve'.[144]

The destruction caused by the 2019 fire season is just a foretaste of what will happen if the tipping point is reached. In areas where savannah replaces forest, medicinal plants and other culturally important items will disappear forever. The loss of biodiversity will also mean that the choice between starvation and cultural destruction will become the norm. It is possible, of course, that indigenous peoples find ways to adapt and maintain social cohesion, but it is also very clear that reaching a tipping point would amount to a grave assault on the fabric of indigenous communities and the cultures that hold them together, in geographic, physical, and social terms.

4.3. The separation of families and the biological method of genocide

An often underappreciated aspect of ecocide, and one that Lemkin's tripartite schema very effectively highlights, is its effects on future generations. As previously mentioned, ecocide is capable of precluding 'the usual conditions of possibility for biological/cultural reproduction'.[145] This is exactly what Lemkin was concerned about when it came to the biological method of genocide, arguing that what all its component techniques had in common was that they were 'a fight against the family'.[146] As ecocide progresses in the Amazon, it is also likely to take the form of this type of fight.

Recall Adolfo Chávez's description of the indigenous men who, as a result of the 2019 fires in Bolivia, 'have had to leave their communities, abandoning their families' to find work elsewhere.[147] To the extent that these men have had to 'accept the economic and social system of the white man',[148] the groups to which they belong have become vulnerable to genocide through the cultural method. However, any time families are separated, the biological method of genocide is also at play, as Lemkin makes clear when he discusses the separation of families by deportation under Nazi rule.[149] However, in the case of Chávez's communities, it is theoretically possible that the ecosystems recover and that the men are able to return to a relatively intact family unit. Many ecocides, the tipping point included, leave no possibility for recovery, at least within humanly meaningful timespans. In this way, they specifically threaten future generations.

Garry Leech documented this intergenerational dynamic in his work in the Ecuadorian Amazon, finding that after pollution from a multinational oil company made it 'difficult for the indigenous to return to their traditional ways of life', it was clear that

'many of the younger indigenous people had little interest in learning the traditional ways'.[150] With their ecosystem destroyed and the cultural and social system of their parents tied to that very ecosystem, the younger generation 'abandoned the village and went in search of jobs in Ecuador's cities'.[151] The Amazon tipping point is likely to have a similar effect. As whole swaths of rainforest are lost, future generations will not be able to continue their ancestors' ways of life. They are likely to leave home, and, with it, the stories, identities, and relationships (the 'families of mind')[152] that made their communities what they were. This is genocide through the biological method.

4.5. Post-ecocide resource scarcity as driver of genocide

Lemkin's research notes on Native genocide in California highlight the role of anthropogenic resource scarcity in driving future violence and I suggest that this dynamic is likely to appear wherever the genocide–ecocide nexus also appears. My inclusion of resource scarcity as part of the genocide–ecocide nexus in this way is confirmed on a theoretical level by a growing number of scholars who have begun to elaborate the relationship between resource scarcity and physical genocide.[153] I draw on some of this research to argue that the Amazon region already displays some of the key features that would make future cycles of genocide more likely after reaching the deforestation tipping point. I rely heavily on the work of Alex Alvarez, who has written extensively on the relationship between climate change and genocide.

According to Alvarez, 'water as a resource has had powerful, if sometimes hidden, consequences on human communities and has, on occasion, contributed tremendously to rioting, war, and genocide'.[154] Meanwhile, as demonstrated by the food insecurity faced by the *Ribeirinhos*, the damage caused by fires in Bolivia, and numerous empirical studies, water scarcity is one of the primary ways the Amazon tipping point will affect human groups.[155] This situation sounds eerily similar to Alvarez's narration of the conditions that preceded the conflict in Syria. He writes,

> Between 2006 and 2011, the region was in the grip of a severe drought that hit Syrian society hard, especially in the agricultural and livestock sectors. Food crops, such as wheat and barley, were decimated by the dry conditions with the yield for wheat decreasing about 47%, while barley saw a 67% reduction. Livestock were also severely impacted, with a decrease in numbers from around twenty-one million animals to around fifteen million. … about a million and a half Syrians lost their livelihoods and migrated from the rural regions of the country into the cities where many of them found that they had simply traded rural poverty for urban destitution.[156]

As in Syria, the economy in Brazil's Pantanal wetland is largely based on agriculture; livelihoods there stand to be severely compromised by water insecurity should the tipping point be reached.[157] Indeed, much of Brazil's economy is similarly agricultural and vulnerable.[158]

Alvarez also highlights the importance of climate-driven migration as a contributor to genocide, arguing that 'the numbers of people who have been displaced by climate change are expected to dramatically accelerate in the coming years' and that 'these vulnerable populations run the risk of being scapegoated and persecuted as host nations struggle to come to terms with the rapid and large influx of newcomers'.[159] We have already seen how the Amazon tipping point is likely to contribute to increased migration

as families separate in search of work and children leave behind natal communities that are no longer ecologically viable. What has not yet been noted is that the Amazon has already become a migratory corridor,[160] so that increased migratory flows will be building on an already immense movement of people. If Alvarez's work has predictive value, then, the Amazon and its ecologically displaced peoples are likely to witness additional cycles of violence even after the initial genocide and ecocide, just as happened to the Native Americans in California. Notably, a number of authors are beginning to identify similar cyclic dynamics in which genocide and ecocide appear as 'recurring, long-term, and co-constitutive patterns',[161] forming an 'ongoing process'[162] rather than a discrete 'moment'.[163] I suggest that resource scarcity will be central to many of these cycles.[164]

4.6. Testing the new nexus

My analysis of Amazonian genocide and ecocide has thus far served to demonstrate that Lemkin's original thought has broad applicability. The categories he developed for his comparative study of genocide and the way he envisioned ecologically induced genocide are as successful in describing contemporary deforestation in South America as they were in describing Native dispossession in North America. They also help us to be sensitive to key dynamics of the genocide–ecocide nexus that might otherwise escape our notice. I further contend that my re-theorised version of the genocide–ecocide nexus not only works, but actually offers important advantages for the study of the genocide–ecocide nexus today. This is true both because it is more faithful to Lemkin's original thought (an important value in its own right) and because it better facilitates the comparative analysis of cases in which genocide and ecocide co-occur. In this subsection, I make this argument by contrasting my analysis of ecocide and genocide in the Amazon with recent work by Genna Naccache,[165] who describes many of the same processes in terms of Lemkin's thought, but forwards an understanding of Lemkin that is different to the one I propose here. Naccache's book chapter, which is much more heavily descriptive than theoretical, relies on Lemkin for his understanding of the close relationship between physical and cultural genocide and for what Naccache takes to be a paradigmatic definition of genocide, namely Lemkin's statement that genocide is 'a coordinated plan aimed at the destruction of the essential foundations of the life of the national group so that these groups wither and die'.[166]

On an elementary level, my use of Lemkin offers the advantage of being more faithful to the substance of his original thought. This is true both in comparison to Naccache's case study and earlier work on the genocide–ecocide nexus that inordinately focuses on Lemkin's earlier thought (see Section 3). My reading of Lemkin is also advantageous because it has the capacity to promote consistency and conceptual clarity in discussions of the genocide–ecocide nexus. It is simply not true that Lemkin always considered genocide to be 'a coordinated plan'.[167] The most basic definition he offers, and the one that is most consistent with the sum of his scholarly work, is that genocide is 'the phenomenon of the destruction of certain human groups'.[168] While the ongoing genocide of the Guarani Kaiowá to which Naccache bears witness does display characteristics of coordination and planning, this is not the case in all genocides, nor is it central to the concept as defined by Lemkin. This confusion is understandable. Unfortunately for his interpreters, Lemkin often sacrificed his own conceptual integrity on the altar of political

expediency,[169] and this makes him very hard to read. Anton Weiss-Wendt explains that 'it is always possible to find corroboration for one's ideas in Lemkin's writings, for the simple reason that Lemkin had adjusted his vocabulary to meet the expectations of those he was talking to'. This is why appeals to Lemkin ought to be grounded in a very careful reading of his work. In the absence of such scholarship, Lemkinian analyses of contemporary genocide cases risk losing a clear and consistent definition of the term; conceptual clarity is of paramount importance.

It is precisely this conceptual clarity that my theorisation of the genocide–ecocide nexus provides. Naccache's use of Lemkin works for her project because she focuses her analysis on one case of genocide. If the hope of genocide–ecocide scholars is to develop a theory that can form the basis of comparative study and better articulate a truly global phenomenon, it is imperative that we have a consistent and well-demarcated concept of the genocide–ecocide nexus. My reading of Lemkin provides that well-demarcated concept. It better facilitates a comparative approach, such as the one used by Damien Short in *Redefining Genocide*,[170] and it goes beyond previous theorisations of the genocide–ecocide nexus, including Short's, to utilise categories that are at once more flexible and better able to describe how and where historical events interfere with the life of human groups (as compared to Lemkin's eight 'fields', for example).

In short, Naccache succeeds masterfully in describing the ongoing genocide of the Guarani Kaiowá in Matto Grosso do Sul, but her use of Lemkin, if taken as paradigmatic, will inhibit rather than facilitate further comparative study. Similarly, Short's theorisation of the nexus in *Redefining Genocide*, while more robustly theoretical than Naccache's work, is limited by categories that fail to highlight the relationship between ecocide and intergenerational continuity (biological genocide), miss Lemkin's insight on the role of resource scarcity, and whose correspondence to a wide variety of cases is challenged by the fact that Lemkin designed them with one specific genocide (the Holocaust) in mind.

5. Conclusion

As my re-reading of Lemkin and my analysis of the Amazon tipping point demonstrate, the genocide–ecocide nexus is both a historic and present reality. Lemkin's definition of genocide, his study of Native genocide in California, and my analysis of the Amazon tipping point all display an affinity between genocide and ecocide. My reading of Lemkin also validates earlier assertions that ecocide can be considered to be both physical and cultural genocide and has further revealed that Lemkin's category of biological genocide is an indispensable lens for the study of ecocide and that Lemkin himself anticipated many features of contemporary thought regarding the genocide–ecocide nexus. It has also revealed that the concept of social death, although it has many merits, cannot be assumed to be immediately compatible with Lemkin's original thought. Lemkin's three methods of genocide, however, (physical, biological, and cultural) provide an important and helpful analytic device for the study of the nexus today as (1) each method's emphasis on *how* group life is interrupted (and eventually destroyed) is better at theorising multivalent techniques of genocide, such as ecocide; (2) the relationship between micro- and macro-scale ecological destruction can be understood more holistically; and (3) their use requires no modification to Lemkin's original

thought. Lemkin's analysis of Native genocide in California and my analysis of genocide and ecocide in the Amazon have also demonstrated the important role post-ecocide resource scarcity can play in driving processes of genocide and ecocide that are both recurring and cyclic.

Lemkin once cited Gabriela Mistral as believing that 'certain words … carry in themselves a moral judgment'.[171] Lemkin's hope was that 'genocide' would be one of those words and that his introduction of it into public discourse would lead to its becoming 'an index of civilization',[172] a moral standard widely recognised and assented to. In short, he hoped that his word would be more than just a word, that it would help people to name, understand, and respond to a grave moral evil. I envision my own project in essentially the same terms. The genocide–ecocide nexus, and my re-theorisation of it, is valuable insofar as it can serve as a moral, and not just a conceptual, resource. Like 'genocide', it ought to contain within itself an inescapable moral judgment and a call to action. An important part of the response may include the addition of ecocide as a new international crime under the Rome Statute.[173] As advocates of the ecocide law point out, the wholesale destruction of natural ecosystems can be considered morally reprehensible in its own right, but articulating the social impacts of such destruction (as I have done here) provides an additional moral frame with which to think about the problem. Outlawing ecocide though, however necessary, is a rather superficial response.

The real significance of the genocide–ecocide nexus is the way in which it reshapes our moral vision. It sets out for us a unit of analysis that determines what types of events and processes ought to be understood to form coherent wholes, thus allowing us to see previously invisible stories and connections. When we recognise genocide–ecocides for what they are, and when we encounter the human and other-than-human suffering we find in them, these stories cannot help but shock the conscience. They serve as limit cases that show us where more conventional narratives, especially the narratives that legitimate the global political economic order, break down and fail. They force us to question the foundations on which our global society is based, not as a matter of utility, but as a matter of moral urgency. My re-theorisation of the genocide–ecocide nexus, then, is really an attempt to make it possible for others to tell these stories better and for the stories they tell to be more obviously coherent. The clarity and consistency provided by my more accurate and more useful interpretation of Raphael Lemkin's original thought, by clearly defining what the genocide–ecocide nexus actually is, will give the nexus more power to disrupt dominant narratives and reveal moral blind spots. Once we understand how genocide and ecocide are related, how they work in concert to cause horrific social and ecological destruction, and what these processes look like in their various instantiations around the world, we can begin to move toward a reality in which the legitimate moral demands of peoples and ecosystems are prioritised over the political and economic interests that threaten them.

Notes

1. IPBES, *Global Assessment on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services* (Bonn, Germany: IPBES Secretariat, 2019), https://ipbes.net/global-assessment.

2. W. Steffen et al., 'Planetary Boundaries: Guiding Human Development on a Changing Planet', *Science* 347, no. 6223 (13 February 2015): 1259855, doi:10.1126/science.1259855.
3. Simon L. Lewis and Mark A. Maslin, 'Defining the Anthropocene', *Nature* 519, no. 7542 (March 2015): 171–80, doi:10.1038/nature14258.
4. Wade Davis, 'Season of the Brown Hyena', in *The Wayfinders: Why Ancient Wisdom Matters in the Modern World* (Toronto: House of Anansi, 2009), 1–34.
5. Martin Crook and Damien Short also make this point, emphasising that culture is 'humanity's *primary adaptive mechanism*' (emphasis in original). Martin Crook and Damien Short, 'Developmentalism and the Genocide–Ecocide Nexus', *Journal of Genocide Research* (8 December 2020): 18, doi:10.1080/14623528.2020.1853914.
6. Hannah Arendt, 'Epilogue', in *Eichmann in Jerusalem: A Report on the Banality of Evil* (Penguin, 1963), 268–9.
7. Lemkin believed genocide was a crime against the 'human cosmos'. Douglas Irvin-Erickson, 'Genocide, the "Family of Mind" and the Romantic Signature of Raphael Lemkin', *Journal of Genocide Research* 15, no. 3 (1 September 2013): 278, doi:10.1080/14623528.2013.821222. Lemkin first published the word 'genocide' in Raphael Lemkin, *Axis Rule in Occupied Europe: Laws of Occupation, Analysis of Government, Proposals for Redress* (Washington: Carnegie Endowment for International Peace, 1944).
8. David Zierler, *The Invention of Ecocide: Agent Orange, Vietnam, and the Scientists Who Changed the Way We Think About the Environment* (Athens, GA: University of Georgia Press, 2011).
9. Anastacia Greene, 'The Campaign to Make Ecocide an International Crime: Quixotic Quest or Moral Imperative?', *Fordham Environmental Law Review* 30, no. 1 (Spring 2019), https://advance.lexis.com/api/document?collection=analytical-materials&id=urn:contentItem:5WJD-JWD1-JNY7-X040-00000-00&context=1516831; Polly Higgins, Damien Short, and Nigel South, 'Protecting the Planet: A Proposal for a Law of Ecocide', *Crime, Law and Social Change* 59, no. 3 (1 April 2013): 251–66, doi:10.1007/s10611-013-9413-6.
10. The genocide–ecocide nexus was first articulated by Martin Crook and Damien Short, 'Marx, Lemkin and the Genocide–Ecocide Nexus', *The International Journal of Human Rights* 18, no. 3 (3 April 2014): 298–319, doi:10.1080/13642987.2014.914703. A more detailed account of this literature is provided in the next section. See also note 21.
11. For a recent treatment of this concept, see John E. McDonnell, 'The Merauke Integrated Food and Energy Estate (MIFEE): An Ecologically Induced Genocide of the Malind Anim', *Journal of Genocide Research* 23, no. 2 (2021): 257–78, doi:10.1080/14623528.2020.1799593. Cf. Crook and Short, 'Marx, Lemkin and the Genocide–Ecocide Nexus'; Crook and Short, 'Developmentalism and the Genocide–Ecocide Nexus'.
12. See, for example, Paulo Ilich Bacca, 'Indigenizing International Law and Decolonizing the Anthropocene: Genocide by Ecological Means and Indigenous Nationhood in Contemporary Colombia', *Maguaré* 33, no. 2 (2019): 139–69, doi:10.15446/mag.v33n2.86199; Felipe Milanez and Glenn H. Shepard Jr., 'The Few Remaining: Genocide Survivors and the Brazilian State', *Tipití: Journal of the Society for the Anthropology of Lowland South America* 14, no. 1 (30 April 2016): 131–4; Genna Naccache, 'Genocide and Settler Colonialism: How a Lemkinian Concept of Genocide Informs Our Understanding of the Ongoing Situation of the Guarani Kaiowá in Mato Grosso do Sul, Brazil', in *Cultural Genocide: Law, Politics, and Global Manifestations*, ed. Jeffrey S. Bachman (New York: Routledge, 2019), 118–39; Malayna Raftopoulos and Joanna Morley, 'Ecocide in the Amazon: The Contested Politics of Environmental Rights in Brazil', *The International Journal of Human Rights* 24, no. 10 (2020), doi:10.1080/13642987.2020.1746648.
13. A. Dirk Moses, 'Conceptual Blockages and Definitional Dilemmas in the "Racial Century": Genocides of Indigenous Peoples and the Holocaust', *Patterns of Prejudice* 36, no. 4 (2002): 7–36, doi:10.1080/003132202128811538.
14. Mohammed Abed, 'Clarifying the Concept of Genocide', *Metaphilosophy* 37, no. 3–4 (2006): 310, doi:10.1111/j.1467-9973.2006.00443.x.

15. U.N. General Assembly, Resolution 260 A (III), Convention on the Prevention and Punishment of the Crime of Genocide, A/RES/3/260 (Dec. 9, 1948).
16. Raphael Lemkin, *Lemkin on Genocide*, ed. Steven Leonard Jacobs (Lanham, MD: Lexington Books, 2012), 8.
17. Douglas Irvin-Erickson, *Raphael Lemkin and the Concept of Genocide* (Philadelphia: University of Pennsylvania Press, 2016), 127.
18. Lemkin, *Lemkin on Genocide*, 35.
19. In *Axis Rule*, Lemkin defines genocide in colonial terms (Lemkin, *Axis Rule in Occupied Europe*, 79). This aspect of Lemkin's thought is interpreted by A. Dirk Moses, 'Raphael Lemkin, Culture, and the Concept of Genocide', in *The Oxford Handbook of Genocide Studies*, ed. Donald Bloxham and A. Dirk Moses (Oxford: Oxford University Press, 2010), 19–41.
20. Tim Lindgren, 'Ecocide, Genocide and the Disregard of Alternative Life-Systems', *The International Journal of Human Rights* 22, no. 4 (21 April 2018): 525–49, doi:10.1080/13642987.2017.1397631.
21. The original theorisation of the genocide–ecocide nexus and the most deeply theoretical work done to date is found in the work of Damien Short and Martin Crook. Crook and Short, 'Marx, Lemkin and the Genocide–Ecocide Nexus'; Damien Short, *Redefining Genocide: Settler Colonialism, Social Death and Ecocide* (London: Zed Books, 2016); Martin Crook, Damien Short, and Nigel South, 'Ecocide, Genocide, Capitalism and Colonialism: Consequences for Indigenous Peoples and Glocal Ecosystems Environments', *Theoretical Criminology* 22, no. 3 (August 1, 2018): 298–317, doi:10.1177/1362480618787176; Crook and Short, 'Developmentalism and the Genocide–Ecocide Nexus'. Other significant contributions include Jobb Dixon Arnold, 'Bare Nature and the Genocide–Ecocide Nexus—The Conditions of General Threat and the Hope of Cultural Adaptation: The Case of Canada's Tar Sands', *Space and Culture* 21, no. 1 (1 February 2018): 18–32, doi:10.1177/1206331217741808; Alexander Dunlap, 'The Politics of Ecocide, Genocide and Megaprojects: Interrogating Natural Resource Extraction, Identity and the Normalization of Erasure', *Journal of Genocide Research* 23, no. 2 (2021): 212–35, doi:10.1080/14623528.2020.1754051; Alexander Dunlap, 'The "Solution" is Now the "Problem": Wind Energy, Colonization and the "Genocide-Ecocide Nexus" in the Isthmus of Tehuantepec, Oaxaca', *The International Journal of Human Rights* 22, no. 4 (21 April 2018): 550–73, doi:10.1080/13642987.2017.1397633; Lindgren, 'Ecocide, Genocide and the Disregard of Alternative Life-Systems'; McDonnell, 'The Merauke Integrated Food and Energy Estate'.
22. Raoni Metuktire, 'We, the Peoples of the Amazon, Are Full of Fear. Soon You Will Be Too', *The Guardian*, September 2, 2019, Opinion section, https://www.theguardian.com/commentisfree/2019/sep/02/amazon-destruction-earth-brazilian-kayapo-people.
23. Crook and Short, 'Marx, Lemkin and the Genocide–Ecocide Nexus'.
24. Ibid, 313.
25. Crook, Short, and South, 'Ecocide, Genocide, Capitalism and Colonialism', 309.
26. Crook and Short, 'Marx, Lemkin and the Genocide–Ecocide Nexus', 313. See also Martin Crook, 'The Mau Mau Genocide: A Neo-Lemkinian Analysis', *Journal of Human Rights in the Commonwealth* 1, no. 1 (Spring 2013): 18–37; Martin Crook and Damien Short, 'Political Economy of Genocide in Australia: The Architecture of Dispossession Then and Now', in *Cultural Genocide: Law, Politics, and Global Manifestations*, ed. Jeffrey S. Bachman (New York: Routledge, 2019), 140–78.
27. Jean-Paul Sartre, 'On Genocide', in *On Genocide and a Summary of the Evidence and the Judgments of the International War Crimes Tribunal*, ed. Arlette El Kaïm-Sartre and Jean-Paul Sartre (Boston: Beacon Press, 1968), 63.
28. Ibid, 62.
29. Ibid, 73.
30. Greene, 'The Campaign to Make Ecocide an International Crime', 5.
31. Robert Davis and Mark Zannis, *The Genocide Machine in Canada: The Pacification of the North* (Montreal: Black Rose Books, 1973). Cf. Crook and Short, 'Marx, Lemkin and the

Genocide–Ecocide Nexus', 309; Short, *Redefining Genocide*, 28; Dunlap, 'The Politics of Ecocide, Genocide and Megaprojects'.

32. Davis and Zannis, *The Genocide Machine in Canada*, 178.
33. Daniel Brook, 'Environmental Genocide: Native Americans and Toxic Waste', *American Journal of Economics and Sociology* 57, no. 1 (1998): 105–13, doi:10.1111/j.1536-7150.1998.tb03260.x. Cf. Short, *Redefining Genocide*, 6.
34. Crook and Short, 'Marx, Lemkin and the Genocide–Ecocide Nexus', 305. The list they cite is 'Revised Outline for Genocide Cases', n.d., box 8, folder 10, Raphael Lemkin Collection, P-154, American Jewish Historical Society (AJHS), New York, https://archives.cjh.org//repositories/3/resources/13258.
35. 'Revised Outline for Genocide Cases', AJHS.
36. Crook and Short, 'Marx, Lemkin and the Genocide–Ecocide Nexus', 305.
37. Short, *Redefining Genocide*, 20.
38. Moses, 'Raphael Lemkin, Culture, and the Concept of Genocide', 26.
39. Short, *Redefining Genocide*, 35.
40. UN General Assembly, Resolution 260 A (III), Convention on the Prevention and Punishment of the Crime of Genocide, A/RES/3/260 (Dec. 9, 1948).
41. Crook, Short, and South, 'Ecocide, Genocide, Capitalism and Colonialism', 306.
42. Lemkin, *Axis Rule in Occupied Europe*. For example, see Short, *Redefining Genocide*, 1–2.
43. UN Economic and Social Council, Draft Convention on the Crime of Genocide, E/447 (Jun. 26, 1947).
44. Crook and Short, 'Marx, Lemkin and the Genocide–Ecocide Nexus', 305; Short, *Redefining Genocide*, 32.
45. Lemkin, *Axis Rule in Occupied Europe*, 82–90.
46. Jobb Dixon Arnold, for instance, relies more heavily on Agamben's concept of 'bare life' and Shields' concept of 'bare nature' than on any work done by Lemkin, although he does attempt to show how his work is connected with Lemkin's original project (Arnold, 'Bare Nature and the Genocide–Ecocide Nexus'). Likewise, Alexander Dunlap chose to ground his 2020 paper on 'The Politics of Ecocide, Genocide, and Megaprojects' in the original 'genocide machine' concept developed by Davis and Zannis rather than in Lemkin's thought. Although Dunlap explicitly treats earlier work on the genocide–ecocide nexus, he only mentions Lemkin once in the entire text of the article ('The Politics of Ecocide, Genocide, and Megaprojects', 7).
47. Cf. Crook and Short, 'Marx, Lemkin and the Genocide–Ecocide Nexus'; Short, *Redefining Genocide*; Dunlap, 'The "Solution" is Now the "Problem"'; Lindgren, 'Ecocide, Genocide and the Disregard of Alternative Life-Systems'; Crook, Short, and South, 'Ecocide, Genocide, Capitalism and Colonialism'; Crook and Short, 'Political Economy of Genocide in Australia', 141; Raftopoulos and Morley, 'Ecocide in the Amazon'; Damien Short, 'The Genocidal Pressures on Indigenous Peoples: Capitalism's Cultural and Environmental Violence', in *Cultural Violence and the Destruction of Human Communities: New Theoretical Perspectives*, ed. Fiona Greenland and Fatma Muge Gocek (New York: Routledge, 2020), 17–34; Michael J. Lynch, Averi Fegadel, and Michael A. Long, 'Green Criminology and State-Corporate Crime: The Ecocide-Genocide Nexus with Examples from Nigeria', *Journal of Genocide Research* 23, no. 2 (2021): 238, doi:10.1080/14623528.2020.1771998; Cara Priestley, '"We Won't Survive in a City. The Marshes Are Our Life": An Analysis of Ecologically Induced Genocide in the Iraqi Marshes', *Journal of Genocide Research* 23, no. 2 (2021): 282, doi:10.1080/14623528.2020.1792615.
48. The misleading public statements I refer to are part of a larger pattern in Lemkin's work in which he would publicly present readings of his genocide concept that were politically motivated and inconsistent with his unpublished writings, which tended to be more scholarly and more coherent. One of the more disturbing examples of Lemkin's political cynicism was his attempt 'to convince a white, racist establishment in the United States to ratify the Genocide Convention by arguing that the victims of communism in the Soviet Union suffered genocide while African Americans only suffered civil rights violations',

even while he simultaneously developed a very different understanding in his scholarly manuscripts (Irvin-Erickson, *Raphael Lemkin and the Concept of Genocide*, 14, 204–10). Anton Weiss-Wendt also provides a helpful overview of Lemkin's inconsistency and the role it played in his political advocacy ('Hostage of Politics: Raphael Lemkin on "Soviet Genocide"', *Journal of Genocide Research* 7, no. 4 (1 December 2005): 551–9, doi:10.1080/14623520500350017; 'When the End Justifies the Means: Raphaël Lemkin and the Shaping of a Popular Discourse on Genocide', *Genocide Studies and Prevention: An International Journal* 13, no. 1 (1 April 2019): 173–88, doi:10.5038/1911-9933.13.1.1585).

49. A narrative account of these campaigns can be found in John Cooper, *Raphael Lemkin and the Struggle for the Genocide Convention* (London: Palgrave Macmillan, 2008), 56–110, 119–72.
50. Lemkin, *Axis Rule in Occupied Europe*, 91. For a second (later) example, see Raphael Lemkin, 'Genocide as a Crime Under International Law', *American Journal of International Law* 41, no. 1 (January 1947): 146–7. The pamphlet he composed is Raphael Lemkin, 'Acts Constituting a General (Transnational) Danger Considered as Offenses Against the Law of Nations' (Conference for the Unification of Penal Law, Madrid, 1933), http://www.preventgenocide.org/lemkin/madrid1933-english.htm. See also Irvin-Erickson, *Raphael Lemkin and the Concept of Genocide*, 46.
51. Philippe Sands, *East West Street: On the Origins of 'Genocide' and 'Crimes Against Humanity'* (New York: Vintage Books, 2017), 157.
52. Irvin-Erickson, *Raphael Lemkin and the Concept of Genocide*, 40–69.
53. Lemkin, *Axis Rule in Occupied Europe*, ix–xv, 79–95.
54. Ibid, 82.
55. Thomas M. Butcher, 'A "Synchronized Attack": On Raphael Lemkin's Holistic Conception of Genocide', *Journal of Genocide Research* 15, no. 3 (1 September 2013): 253–71, doi:10.1080/14623528.2013.821221.
56. See Short, *Redefining Genocide*, 29–31; Short, 'Genocidal Pressures on Indigenous Peoples', 22–3.
57. 'Cultural', 'religious', and 'moral' are all included as fields of genocide (Lemkin, *Axis Rule in Occupied Europe*, 84, 89), and a much-cited line having to do with colonisation appears on the first page of the chapter:

> 'genocide has two phases: one, destruction of the national pattern of the oppressed group; the other, the imposition of the national pattern of the oppressor. This imposition, in turn, may be made upon the oppressed population which is allowed to remain, or upon the territory alone, after removal of the population and the colonisation of the area by the oppressor's own nationals' (Ibid, 79).

58. Moses, 'Raphael Lemkin, Culture, and the Concept of Genocide', 30.
59. Crook and Short, 'Marx, Lemkin and the Genocide–Ecocide Nexus', 305. Short, *Redefining Genocide*, 32.
60. Lemkin, *Axis Rule in Occupied Europe*, 80.
61. Ibid, 91.
62. Irvin-Erickson, 'Genocide, the "Family of Mind" and the Romantic Signature of Raphael Lemkin'; Moses, 'Raphael Lemkin, Culture, and the Concept of Genocide', 30.
63. Irvin-Erickson, 'Genocide, the "Family of Mind" and the Romantic Signature of Raphael Lemkin', 274.
64. Raphael Lemkin, 'Nature of Genocide', n.d., box 7, folder 2, AJHS, 14.
65. Ibid; Irvin-Erickson, 'Genocide, the "Family of Mind" and the Romantic Signature of Raphael Lemkin', n51. It is worth noting that Lemkin says these groups could be subject to 'mass killing' but does not specifically say 'genocide' at this juncture. I follow Irvin-Erickson's interpretation.
66. Claudia Card, 'Genocide and Social Death', *Hypatia* 18, no. 1 (2003): 63, doi:10.1111/j.1527-2001.2003.tb00779.x. Cf. Crook and Short, 'Marx, Lemkin and the Genocide–Ecocide Nexus', 305–6; Short, *Redefining Genocide*, 32–4; Arnold, 'Bare Nature and the

Genocide–Ecocide Nexus', 25; Dunlap, 'The "Solution" is Now the "Problem"', 556; Lindgren, 'Ecocide, Genocide and the Disregard of Alternative Life-Systems', 533; Crook, Short, and South, 'Ecocide, Genocide, Capitalism and Colonialism', 306; Lorenzo Natali and Rob White, 'The Ecocide-Genocide Nexus: A Green Criminology Perspective', *Rassegna Italiana Di Criminologia* 13, no. 3 (2019): 190, doi:10.7347/RIC-032019-p186; Short, 'Genocidal Pressures on Indigenous Peoples', 25; Louise Wise, 'The Genocide-Ecocide Nexus in Sudan: Violent "Development" and the Racial-Spatial Dynamics of (Neo)Colonial-Capitalist Extraction', *Journal of Genocide Research* 23, no. 2 (2021): 189–211, doi:10.1080/14623528.2021.1887057; Priestley, 'We Won't Survive in a City', 6–7, 12–19.

67. Abed, 'Clarifying the Concept of Genocide'.
68. Irvin-Erickson, 'Genocide, the "Family of Mind" and the Romantic Signature of Raphael Lemkin', 278.
69. This is also the argument Hannah Arendt makes in the epilogue of *Eichmann in Jerusalem*, where she describes genocide as 'an attack upon human diversity as such, that is, upon a characteristic of the "human status" without which the very words "mankind" or "humanity" would be devoid of meaning' (Arendt, 'Epilogue', 268–9).
70. Lemkin, *Axis Rule in Occupied Europe*, 82–90.
71. 'Revised Outline for Genocide Cases', AJHS.
72. Ibid.
73. Lemkin, *Axis Rule in Occupied Europe*, 82.
74. Ibid. Lemkin writes that 'the techniques of genocide … [are] being carried out in the following fields'. Cf. 'Revised Outline for Genocide Cases', AJHS.
75. Irvin-Erickson, *Raphael Lemkin and the Concept of Genocide*, 158.
76. Ibid, 160. The draft they produced, commonly known as the secretariat draft, is UN Economic and Social Council, Draft Convention on the Crime of Genocide, E/447 (Jun. 26, 1947).
77. Ibid, 160–1.
78. Lemkin, 'Nature of Genocide', 1.
79. For example, Lemkin uses the word 'cultural' in both the 'Revised Outline for Genocide Cases' (AJHS) and throughout his originally unpublished *History of Genocide* (Lemkin, *Lemkin on Genocide*).
80. Irvin-Erickson, 'Genocide, the "Family of Mind" and the Romantic Signature of Raphael Lemkin'.
81. Lemkin, 'Nature of Genocide', 1.
82. 'Revised Outline for Genocide Cases', AJHS.
83. According to Moses, Lemkin believed culture to be 'as constitutive for human group life as individual physical wellbeing' ('Raphael Lemkin, Culture, and the Concept of Genocide', 25). Regarding cultural losses to humanity, Lemkin wrote, 'groups are protected not only by reasons of human compassion but also to prevent draining the spiritual resources of mankind' (Lemkin, *Lemkin on Genocide*, 3).
84. The list I have been drawing on, for example, contains handwritten additions. 'Revised Outline for Genocide Cases', AJHS.
85. Butcher, 'A "Synchronized Attack"', 254.
86. Lemkin, *Axis Rule in Occupied Europe*, 85.
87. 'Slavery as Cult. and Phys. Genocide', n.d., box 9, folder 11, AJHS. If Lemkin's schema had been followed more faithfully here (authorship is unclear), slavery would have been categorised as biological genocide as well. The note reads, 'the slave is often separated from his family and unable to perpetuate his group'.
88. Short follows Polly Higgins' definition of ecocide, which is 'the extensive damage to, destruction of, or loss of ecosystem(s) of a given territory, whether by human agency or by other causes, to such an extent that peaceful enjoyment by the inhabitants of that territory has been severely diminished' (Short, *Redefining Genocide*, 63). See also Higgins, Short, and South, 'Protecting the Planet', 257.
89. Short, *Redefining Genocide*, 118.

90. Ibid, 124.
91. See, for example, Crook and Short, 'Marx, Lemkin and the Genocide–Ecocide Nexus', 313; Lindgren, 'Ecocide, Genocide and the Disregard of Alternative Life-Systems', 526; Michael J. Lynch, Paul B. Stretesky, and Michael A. Long, 'Green Criminology and Native Peoples: The Treadmill of Production and the Killing of Indigenous Environmental Activists', *Theoretical Criminology* 22, no. 3 (1 August 2018): 323, doi:10.1177/1362480618790982; Raftopoulos and Morley, 'Ecocide in the Amazon', 10.
92. Santiago Arboleda Quiñonez, 'Plan Colombia: descivilización, genocidio, etnocidio y destierro afrocolombiano', *Nómadas*, no. 45 (October 2016): 84, doi:10.30578/nomadas.n45a5. My translation.
93. Deut. 20:16-20 (New Revised Standard Version).

> 'But as for the towns of these peoples that the Lord your God is giving you as an inheritance, you must not let anything that breathes remain alive. You shall annihilate them … just as the Lord your God has commanded, so that they may not teach you to do all the abhorrent things that they do for their gods, and you thus sin against the Lord your God. If you besiege a town for a long time, making war against it in order to take it, you must not destroy its trees by wielding an ax against them. Although you may take food from them, you must not cut them down. . . . You may destroy only the trees that you know do not produce food; you may cut them down for use in building siegeworks against the town that makes war with you, until it falls.

94. Crook and Short, 'Developmentalism and the Genocide-Ecocide Nexus', 13.
95. Cooper, *Raphael Lemkin and the Struggle for the Genocide Convention*, 230. For a brief account of the project, including its projected length, see Steven Leonard Jacobs, 'Introduction', in *Lemkin on Genocide*, ed. Steven Leonard Jacobs, Kindle (Lanham, MD: Lexington Books, 2012), loc. 95 of 8889.
96. Ibid.
97. Michael A. McDonnell and A. Dirk Moses, 'Raphael Lemkin as Historian of Genocide in the Americas', *Journal of Genocide Research* 7, no. 4 (December 2005): 503, doi:10.1080/14623520500349951.
98. Ben Kiernan, *Blood and Soil: A World History of Genocide and Extermination from Sparta to Darfur* (New Haven, CT: Yale University Press, 2007), 350.
99. Ibid.
100. 'Genocide (?) in California and New Mexico', n.d., box 9, folder 19, notecard 43, AJHS.
101. 'California - Genocide by Starvation', n.d., box 9, folder 13, notecard 35, AJHS.
102. Ibid.
103. Untitled notecard, n.d., box 9, folder 12, notecard 13, AJHS.
104. Lemkin, *Lemkin on Genocide*, 200.
105. 'California - Genocide by Starvation', AJHS.
106. 'Genocide (?) in California and New Mexico', AJHS.
107. Kiernan, *Blood and Soil*, 353.
108. Correspondence to Raphael Lemkin (25 May 1948), box 8, folder 10, AJHS.
109. 'Genocide (?) in California and New Mexico', AJHS.
110. The comment about Amazonian activists and leaders is the author's observation made while attending the Global Assembly for the Amazon, 18–19 July 2020, https://asambleamundialamazonia.org/. See also Bacca, 'Indigenizing International Law and Decolonizing the Anthropocene'; Naccache, 'Genocide and Settler Colonialism'; Raftopoulos and Morley, 'Ecocide in the Amazon'.
111. Joana C. Pereira and Eduardo Viola, 'Close to a Tipping Point? The Amazon and the Challenge of Sustainable Development under Growing Climate Pressures', *Journal of Latin American Studies* 52, no. 3 (August 2020): 2, doi:10.1017/S0022216X20000577. Although it has begun to appear in the work of some social scientists, it is still gravely underdiscussed (Cf. Raftopoulos and Morley, 'Ecocide in the Amazon').

112. Marcos Daisuke Oyama and Carlos Afonso Nobre, 'A New Climate-Vegetation Equilibrium State for Tropical South America', *Geophysical Research Letters* 30, no. 23 (2003), doi:10.1029/2003GL018600.
113. Thomas E. Lovejoy and Carlos Nobre, 'Amazon Tipping Point: Last Chance for Action', *Science Advances* 5, no. 12 (1 December 2019), doi:10.1126/sciadv.aba2949.
114. Carlos A. Nobre et al., 'Land-Use and Climate Change Risks in the Amazon and the Need of a Novel Sustainable Development Paradigm', *Proceedings of the National Academy of Sciences* 113, no. 39 (27 September 2016): 10759, doi:10.1073/pnas.1605516113.
115. Thomas E. Lovejoy and Carlos Nobre, "Amazon Tipping Point", *Science Advances* 4, no. 2 (1 February 2018), doi:10.1126/sciadv.aat2340.
116. Lovejoy and Nobre, 'Amazon Tipping Point: Last Chance for Action'.
117. Instituto Socioambiental, *Threats and Violations of Human Rights in Brazil: Isolated Indigenous Peoples* (Geneva: United Nations Human Rights Council, 3 March 2020). Deforestation data is from INPE TerraBrasilis, http://terrabrasilis.dpi.inpe.br/en/home-page/. For information about the deforestation database, see Luiz Fernando F. G. Assis et al., 'TerraBrasilis: A Spatial Data Analytics Infrastructure for Large-Scale Thematic Mapping', *ISPRS International Journal of Geo-Information* 8, no. 11 (November 2019): 513, doi:10.3390/ijgi8110513.
118. Lovejoy and Nobre, 'Amazon Tipping Point: Last Chance for Action'.
119. For a helpful overview of the ecological and social crisis in Amazonia, see Bryan P. Galligan, 'Teetering on the Edge', *Commonweal* 147, no. 9 (October 2020): 18–20.
120. César Muñoz Acebes and Daniel Wilkinson, 'Rainforest Mafias: How Violence and Impunity Fuel Deforestation in Brazil's Amazon' (Human Rights Watch, September 2019).
121. Lúcia Helena Rangel, *Violence Against Indigenous Peoples in Brazil: Data for 2018* (Brasilia: Indigenist Missionary Council, 2019), https://cimi.org.br/wp-content/uploads/2020/01/Report-Violence-against-the-Indigenous-Peoples-in-Brazil_2018-Cimi.pdf.
122. Rangel, *Violence Against Indigenous Peoples in Brazil*, 13.
123. Raftopoulos and Morley, 'Ecocide in the Amazon'.
124. I borrow the phrase 'alternative life-systems' from Lindgren, 'Ecocide, Genocide and the Disregard of Alternative Life-Systems'. The structural points about political economy are found in Crook and Short, 'Developmentalism and the Genocide–Ecocide Nexus', 13–17.
125. Marcelo C. C. Stabile et al., 'Solving Brazil's Land Use Puzzle: Increasing Production and Slowing Amazon Deforestation', *Land Use Policy* 91 (February 1, 2020): 104362, doi:10.1016/j.landusepol.2019.104362.
126. André Vasconcelos et al., 'Illegal Deforestation and Brazilian Soy Exports: The Case of Mato Grosso' (TRASE, June 2020).
127. R. J. W. Brienen et al., 'Long-Term Decline of the Amazon Carbon Sink', *Nature* 519, no. 7543 (2015): 344–8, doi:10.1038/nature14283.
128. A common objection to this statement would be that ecological destruction caused by economic development cannot qualify as genocide as it does not display special intent, a key requirement of the legal definition of genocide. Irvin-Erickson, however, argues that Lemkin's intent requirement was that of *dolus eventualis*, as opposed to the more stringent *dolus specialis*. He also points out that 'intent for Lemkin was a juridical, not a philosophical, question', which is to say that Lemkin never considered criminal intent to be constitutive of genocide as such (Irvin-Erickson, *Raphael Lemkin and the Concept of Genocide*, 127). See also Bryan P. Galligan, 'Ecological Genocide in the Amazon: Raphael Lemkin and the Destruction of Human Groups', *Ethics & International Affairs* (November 2020), https://www.ethicsandinternationalaffairs.org/2020/ecological-genocide-in-the-amazon-raphael-lemkin-and-the-destruction-of-human-groups/.
129. See Jonathan A. Foley et al., 'Amazonia Revealed: Forest Degradation and Loss of Ecosystem Goods and Services in the Amazon Basin', *Frontiers in Ecology and the Environment* 5, no. 1 (2007): 25–32, doi:10.1890/1540-9295(2007)5[25:ARFDAL]2.0.CO;2; Javier Tomasella et al., 'The Droughts of 1997 and 2005 in Amazonia: Floodplain Hydrology and Its Potential Ecological and Human Impacts', *Climatic Change* 116, no. 3–4 (February 2013): 723–46,

doi:10.1007/s10584-012-0508-3; Júlia Alves Menezes et al., 'Mapping Human Vulnerability to Climate Change in the Brazilian Amazon: The Construction of a Municipal Vulnerability Index', *PLoS ONE* 13, no. 2 (14 February 2018), doi:10.1371/journal.pone.0190808; Joel Henrique Ellwanger et al., 'Beyond Diversity Loss and Climate Change: Impacts of Amazon Deforestation on Infectious Diseases and Public Health', *Anais Da Academia Brasileira de Ciências* 92, no. 1 (2020), doi:10.1590/0001-3765202020191375.

130. Foley et al., 'Amazonia Revealed', 28.
131. J. A. Marengo and J. C. Espinoza, 'Extreme Seasonal Droughts and Floods in Amazonia: Causes, Trends and Impacts', *International Journal of Climatology* 36, no. 3 (2016): 1045, doi:10.1002/joc.4420.
132. Daniel Tregidgo et al., 'Tough Fishing and Severe Seasonal Food Insecurity in Amazonian Flooded Forests', *People and Nature* 2, no. 2 (2020): 469, doi:10.1002/pan3.10086.
133. Ibid, 476.
134. Ibid, 477.
135. Ibid, 478.
136. Ibid, 471.
137. Jose A. Marengo et al., 'Recent Extremes of Drought and Flooding in Amazonia: Vulnerabilities and Human Adaptation', *American Journal of Climate Change* 2, no. 2 (2013): 91, doi:10.4236/ajcc.2013.22009.
138. Tomasella et al., 'The Droughts of 1997 and 2005 in Amazonia', 738.
139. Ibid. See also Nidia N. Fabré et al., 'Fishing and Drought Effects on Fish Assemblages of the Central Amazon Basin', *Fisheries Research* 188 (1 April 2017): 157–65, doi:10.1016/j.fishres.2016.12.015.
140. Marengo et al., 'Recent Extremes of Drought and Flooding in Amazonia', 91. 'California - Genocide by Starvation', AJHS.
141. Mario Nicacio (Global Assembly for the Amazon, 18 July 2020), https://asambleamundialamazonia.org/. My translation.
142. Joseien Tokoe (Global Assembly for the Amazon, 18 July 2020), https://asambleamundialamazonia.org/.
143. Adolfo Chávez (Global Assembly for the Amazon, 18 July 2020), https://asambleamundialamazonia.org/. My translation.
144. Untitled notecard, n.d., box 9, folder 12, notecard 13, AJHS.
145. Arboleda Quiñonez, 'Plan Colombia', 84.
146. Lemkin, 'Nature of Genocide', 10.
147. Chávez, Global Assembly for the Amazon.
148. Untitled notecard, n.d., box 9, folder 12, notecard 13, AJHS.
149. Lemkin, *Axis Rule in Occupied Europe*, 86.
150. Garry Leech, *Capitalism: A Structural Genocide*, Kindle (London: Zed Books, 2012), loc. 66 of 3567.
151. Ibid, loc. 71.
152. Irvin-Erickson, 'Genocide, the "Family of Mind" and the Romantic Signature of Raphael Lemkin'.
153. See Andreas Exenberger and Andreas Pondorfer, 'Genocidal Risk and Climate Change: Africa in the Twenty-First Century', *The International Journal of Human Rights* 18, no. 3 (3 April 2014): 350–68, doi:10.1080/13642987.2014.914706; John Ishiyama and Anna Pechenina, 'Environmental Degradation and Genocide, 1958–2007', *Ethnopolitics* 11, no. 2 (1 June 2012): 141–58, doi:10.1080/17449057.2012.656836; Mark Levene, 'From Past to Future: Prospects for Genocide and Its Avoidance in the Twenty-First Century', in *The Oxford Handbook of Genocide Studies*, ed. Donald Bloxham and A. Dirk Moses (Oxford: Oxford University Press, 2010), 638–59; Mark Levene and Daniele Conversi, 'Subsistence Societies, Globalisation, Climate Change and Genocide: Discourses of Vulnerability and Resilience', *The International Journal of Human Rights* 18, no. 3 (3 April 2014): 281–97, doi:10.1080/13642987.2014.914702; Jürgen Zimmerer, 'Climate Change, Environmental Violence and Genocide', *The International Journal of Human Rights* 18, no. 3 (3 April 2014): 265–80, doi:10.1080/13642987.2014.914701.

154. Alex Alvarez, *Unstable Ground: Climate Change, Conflict, and Genocide*, Kindle (New York: Rowman & Littlefield Publishers, 2017), loc. 2251 of 4689.
155. Ivan Bergier et al., 'Amazon Rainforest Modulation of Water Security', *Science of The Total Environment* 619–20 (April 1, 2018): 1116–25, doi:10.1016/j.scitotenv.2017.11.163; Fabré et al., 'Fishing and Drought Effects'; Foley et al., 'Amazonia Revealed'; Marengo and Espinoza, 'Extreme Seasonal Droughts and Floods in Amazonia'; Nobre et al., 'Land-Use and Climate Change Risks'; Mino Viana Sorribas et al., 'Projections of Climate Change Effects on Discharge and Inundation in the Amazon Basin', *Climatic Change* 136, no. 3 (1 June 2016): 555–70, doi:10.1007/s10584-016-1640-2.
156. Alvarez, *Unstable Ground*, loc. 2267.
157. Bergier et al., 'Amazon Rainforest Modulation of Water Security', 1117.
158. Stabile et al., 'Solving Brazil's Land Use Puzzle', 1–2.
159. Alvarez, *Unstable Ground*, loc. 2932.
160. Migration has spiked in South America as a whole since 2000, both in absolute numbers and as a proportion of migrants globally (UN International Organisation for Migration, Global Migration Data Portal, https://migrationdataportal.org/). For an example of trans-Amazonian migratory corridors, see UN International Organisation for Migration, 'Población venezolana en América Latina y el Caribe: rutas migratorias', June 2019, https://robuenosaires.iom.int/sites/default/files/Informes/Infosheet_Rutas_Agosto.pdf.
161. Wise, 'The Genocide-Ecocide Nexus in Sudan', 4.
162. Priestley, 'We Won't Survive in a City', 36.
163. Ibid, 4. Cf. Crook and Short, 'Political Economy of Genocide in Australia', 165–6.
164. Priestley includes the effects of water scarcity as part of such a cycle in Iraq ('We Won't Survive in a City', 20).
165. Naccache, 'Genocide and Settler Colonialism'.
166. Naccache, 'Genocide and Settler Colonialism', 131; Raphael Lemkin, 'Genocide: A Modern Crime', *Free World* 9, no. 4 (1945): 39.
167. Lemkin, 'A Modern Crime', 39.
168. Lemkin, *Lemkin on Genocide*, 8. As I observed earlier, Damien Short makes a similar point in response to Thomas M. Butcher (*Redefining Genocide*, 29–31; 'Genocidal Pressures on Indigenous Peoples', 22–3).
169. Weiss-Wendt, 'When the End Justifies the Means'. Cf. note 31.
170. Short, *Redefining Genocide*.
171. Lemkin, *Lemkin on Genocide*, 22.
172. Ibid.
173. This is the goal of the 'Stop Ecocide' campaign, https://www.stopecocide.earth.

Notes on contributor

Bryan P. Galligan SJ, is a research and policy analyst at Jesuit Justice and Ecology Network Africa (JENA), where he writes about the ethics and ecology of small-scale fisheries. He received an M.A. in social philosophy from Loyola University Chicago in May of 2021 and a B.S. in biology and theology from Fordham University in 2015. His research interests lie at the intersection of social environmental ethics and marine ecology.

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ORCID

Bryan P. Galligan SJ http://orcid.org/0000-0003-1900-1663