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Wounded relational worlds: Destruction and resilience of multispecies relationality in the age of climate change

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Wounded relational worlds: Destruction and resilience of multispecies relationality in the age of climate change

Abstract. In this article we engage with four experimental ethnographies (Blaser, 2010; Lyons, 2020; Miller, 2019; and Gordillo 2014) that build on multispecies approaches for the analysis of what we call ‘wounded relational worlds’ in Latin America. These are worlds in which human and more-than-human relations have been significantly reshaped, broken, or disrupted by colonization and capitalist extractivism(s). Despite this, wounded relational worlds have the capacity to emerge from the ashes, rebuild on rubble, create new knowledge from destruction and use the remnants of capitalist violence as compost for the cultivation of life. Thus, we establish a dialogue with these ethnographies to analyze the diverse forms of relationality through which these wounded worlds are created, the types of knowledge that they produce, and the politics and tactics of action that they generate vis-à-vis climate and socio-environmental disturbances.

Keywords: multispecies relations, experimental ethnographies, climate change, Latin America, Modernity, Coloniality

Resumen. En este artículo nos acercamos a cuatro etnografías experimentales (Blaser, 2010; Lyons, 2020; Miller, 2019; y Gordillo 2014) que se basan en enfoques multiespecies para el análisis de lo que llamamos "mundos relacionales heridos" en América Latina. Estos son mundos en los que las relaciones humanas y más-que-humanas han sido significativamente reformadas, rotas o interrumpidas por la colonización y el extractivismo capitalista. A pesar de ello, los mundos relacionales

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heridos tienen la capacidad de emerger de las cenizas, reconstruir sobre los escombros, crear nuevos conocimientos a partir de la destrucción y utilizar los restos de la violencia capitalista como abono para el cultivo de la vida. Así, establecemos un diálogo con estas etnografías para analizar las diversas formas de relacionalidad a través de las cuales se crean estos mundos heridos, los tipos de conocimiento que producen y las políticas y tácticas de acción que generan frente a las perturbaciones climáticas y socioambientales.

Palabras clave: relaciones multiespecie, etnografías experimentales, cambio climático, América Latina, modernidad, colonialidad

Introduction

The world is burning. The world is drowning. The world is drying up. And yet, the most devastating climate disruptions are yet to come, says the UN Intergovernmental Panel on Climate Change (IPCC Report, 2021). For its production, 200 scientists went over 14,000 scientific papers to analyze and compile what their findings show about our present and future on planet earth. Then, 145 national governments read and approved each line of the report. Finally, on August 9th 2021, they told us that climate change is advancing faster than previously projected, that humanity has failed to take effective action, and that this is our “final wake-up call” (IPCC Report, 2021). Although the scientists who participated in writing the report were careful not to go into public policy recommendations, they suggested that we can still do *something* for those who come after us. That *something* involves the radical decarbonization of our economy *and* the acceleration of green (ish?) technoscientific production.

To conceptualize the current climate crisis, natural and social scientists have proposed concepts such as the Anthropocene (Crutzen and Stoermer 2000), the Capitalocene (Moore 2015; Parenti and Moore 2016) and the Chthulucene (Donna Jeanne Haraway 2016). The Anthropocene highlights the role of humanity as a geological force, disturbing natural processes responsible for the climate balance. This process can be traced back to the industrial revolution where coal and steam became humanity’s most important sources of energy (Steffen, Crutzen, and McNeill 2007). The concept has become mainstream in the discourse of international organizations and NGOs who make urgent calls for a change of direction as climate disturbances are already threatening our food security, the stability of our infrastructures and the habitability of our urban and rural settlements (UNEP 2017; UNESCO 2018; WWF 2016). Since climate change is anthropogenic in nature, the argument goes, humanity has the capacity to design corrections to the current

trajectory. These corrections can take the form of new technologies of adaptation and mitigation as well as economic strategies to correct market imperfections by internalizing environmental damage.

Proponents of the Capitalocene approach are more skeptical about the potential of capitalism to correct its own weaknesses (Moore 2015). In the Capitalocene, the pursuit of economic growth has superseded all other needs. The frenetic search for profit has been built upon the fiction of infinite planetary resources and on the cheap labor of the 99%. Thus, from this perspective, it is crucial to understand that there is not a homogenous humanity that is equally responsible for, or vulnerable to, climate change. Instead, while carbon emissions have been mostly produced by industrialized countries, environmental costs and risks are disproportionately distributed across class, ethnicity and gender. As these processes exacerbate power inequalities and create environmental injustice, any solution to the current crisis cannot be achieved through technoscientific or market corrections, but are conditional on structural transformations to the dominant economic system. These transformations have to be informed by the recognition of capitalism as a particular world-ecology dating back to 1450, where particular relations of global conquest, commodification and rationalization were set in motion to render human and extra-human nature appropriable and exploitable (Moore 2015, 172). Thus, Moore states: “shut down a coal plant and you can slow down global warming for a day; shut down the relations that made the coal plant, and you can stop it for good” (Moore 2015, 172)

A third camp emphasizes the fact that humans are not the only victims. Popular literature talks of an already ongoing sixth extinction (Kolbert 2014), as the stability of ecosystems breaks down, and as forest fires and floods are no longer delimited by season or geography. In line with this camp, some scholars argue that the main problem has been to assume that there is a divide between the human and more-than-human worlds, between ‘culture’ and ‘nature’, while in reality we have always been more-than-human (Latour 1994). Similarly, Blaser (2016) criticizes these notions because of their reliance on what he calls ‘reasonable politics’; a politics that is concerned with compatible or competitive perspectives (cultures) on a presumed factual world (‘nature’). By taking for granted the culture/nature divide, this type of reasonable politics ends up privileging and imposing dominant epistemologies and ways of relating with the planet. Instead of looking for responses based on matters

of fact about a singular factual world, this third camp recommends imagining new ways of composing ‘our relation to the earth and all its inhabitants’ (Donna Jeanne Haraway 2016; D. Haraway et al. 2016) around matters of concern (Latour 2004b). Matters of concerns, such as climate change, are “gatherings of ideas, forces, players and arenas in which ‘things’ and issues, not facts, come to be and to persist, because they are supported, cared for, worried over” (Neil 2017).

In this article we explore some of the arguments of this third compositional camp to explain the current socio-environmental crisis and to propose conceptual and methodological contributions for discussions surrounding this crisis. We are interested in better understanding how approaches from this compositional camp help us identify empirically the human-non-human relationships that underlie causes of climate change and their connection with processes of socio-environmental injustice. We are also interested in the methods and techniques of studying alternate relational models that are often ignored by capitalocene approaches, as well as the principles guiding these models and the possibility of those principles to guide climate action.

For this exercise, we focus on four experimental ethnographies⁴ that build on multispecies approaches; a body of work that has gained currency in the past decades, and which highlights the fact that the climate is a more-than-human relation – not just a ‘natural’ or a political-economic phenomenon. The multispecies literature comes from a wide range of sources in philosophy, anthropology, geography and other disciplines such as media studies. It is related to theories that question culture/nature, subject/object, mind/body binaries, including actor-network-theory (Latour 2007), assemblage and affect theory (Deleuze and Guattari 1980), the politics and the ecology of things (Ingold 2011) and postcolonial and decolonial studies (Cadena 2015; Escobar 2008). Multispecies analysis has also been influenced by literature on critical posthumanism (Braidotti 2013; Wolfe 2010), feminist scholarship and new materialisms (Bennett 2010; Harvey, Krohn-Hansen, and Nustad 2019) as well as by what has been term the ontological turn in anthropology (Blaser 2010; Kohn 2013; Viveiros de Castro 2004).

⁴ Storytelling Globalization from the Chaco and Beyond (Blaser 2010); Vital Decomposition: Soil Practitioners and Life Politics (Lyons 2020); Plant Kin: A Multispecies Ethnography in Indigenous Brazil (Miller 2019); Rubble, the Afterlife of Destruction (Gordillo 2014).

The article is not intended as a comprehensive literature review on multispecies approaches but as a reflection on our four chosen ethnographies' proposed ontologies, epistemologies, and politics of action on climate and socio-environmental disturbances. We are interested in their strategies to analyze the more-than-human relations through which humans co-constitute their plural realities. We examine how these ethnographies engage with the issues of violence, power and inequality that the concept of the capitalocene raises. However, as opposed to capitalocene approaches that concentrate on how capitalist relations expand and destroy, we also consider how local communities confront and heal from this violence through the cultivation of multispecies relations capable of turning destruction into a generative force.

In resonance with our interest in Latin American agricultures, technopolitics and social mobilization, we chose ethnographies that engage with different rural actors and knowledges in Latin America: indigenous communities and gardeners in Paraguay and Brazil; agroecology practitioners and soil scientists in Colombia; as well as communities cohabiting with the rubble of agribusiness in Argentina. Important for our selection, these ethnographies adopt different multispecies approaches, which provides two advantages for our analysis: First they can help us expand our understanding of the multiple and multiscalar contours of environmental devastation and climate change beyond human exceptionalism, and second, they allow us to explore the type of arguments and analysis that different types of multispecies approaches are able to produce.

Despite their diverse approaches, these ethnographies show that the organization of socio-environmental reality according to modern/colonial binaries (nature/society, subject/object, developed/backward) serves to impose one way of being in the world among many others. They reveal how violent processes of appropriation and exploitation break down the relational ties of local communities with their more-than-human neighbors, while trying to erase or ignore the traces of the destruction they leave behind. Through detailed ethnographic descriptions, the authors also shed light on the imposition of modern/colonial temporalities onto more-than-human worlds, such as the recurrent attempts to flatten the multiple timelines of the biosphere (bios) and the geosphere (geos) to render them amenable for appropriation. Epistemic, technological and industrial projects are carried out seeking to transform ecosystems into resources whose rhythms are compatible with

the linear times of capital. This temporal imposition further disrupts the relational connections between humans and more-than-humans that lie at the basis of other ways of living; alternative worlds where humans are not necessarily regarded as exceptional or superior and where the chronology of human economies still hold some regard for more-than-human temporalities. From this perspective, today's climate crisis is the reflection of the relational ruptures caused by modern/colonial binaries and temporalities.

However, our four chosen ethnographies emphasize the fact that more-than-human worlds are resilient and relentless in their creativity, continuously reconfiguring relational ties to produce life underneath the remnants of colonial and capitalist violence. They suggest that multispecies relations can reinvent death and destruction into a generative force, relentlessly challenging the imposition of one way of being in the world. Inspired by this observation, we propose the notion of 'wounded relational worlds.' These are worlds in which human and more-than-human relations have been significantly reshaped, broken, or disrupted by colonization and capitalist extractivism(s). But they are also worlds with the capacity to emerge from the ashes, rebuild on rubble, create new knowledge from destruction and use the remnants of capitalist violence as compost for the cultivation of life. Thus, in this article we establish a dialogue with these ethnographies to analyze the diverse forms of relationality through which these wounded worlds are created, the types of knowledge that they produce, and the politics that they generate.

We first give a short introduction of the multispecies literature and ask how our chosen ethnographies engage with, and produce knowledge about, human and more-than human relations. We analyze the way in which these ethnographies question some of the boundaries that have been central for the expansion of the modern/colonial world⁵ (e.g. nature/culture, mind/body, knowledge/belief, civilized/backward). Secondly, we develop the notion of wounded relational worlds by exploring how these relations are built on different temporalities and how they constitute alternative ways of living and dying, two categories that most of our

⁵ We use the term modern/colonial to refer to what is commonly referred as western civilization. The term is used by Latin American decolonial scholars to highlight: 1. That modernity and all its productive aspects (such as science, technology, and transatlantic trade and wealth) are a coproduction of imperial powers and capitalist centers, on the one side, and colonized societies and capitalist peripheries, on the other; 2. That modernity is built on a colonial and violent hierarchical matrix of power that classifies humans according to their class, 'race', sex, gender and religion, among other categories.

authors problematize. At the end of the article, we return to the discussion on climate change, exploring some of the implications that this literature has on our understanding of the current environmental crisis and alternative possibilities for mitigating destructive production and better highlighting more-than-human chronologies and rhythms.

Multispecies relations

The multispecies turn has been informed by a broad range of disciplines and approaches as shown above. In anthropology, particularly, the multispecies turn can be traced back to the debate on ‘representation’, where anthropologists began to question their strategies and ability to represent ‘the other’ in ethnographic work. Feminist and postcolonial scholars urged ethnographers to situate their position in the field and to consider the standpoint of their interlocutors (Bhambra 2014; D. Haraway 1988; Harding 1991; Hill Collins 2009). This reflexive move was followed by efforts to reject human exceptionalism and to consider the role of more-than-humans in the constitution of the social. As part of the debate on representation, some authors began situating humans in a web of interspecies and socio-technical relations (Callon 1984; Donna J. Haraway 1991), encouraging others to take responsibility for the type of sociality that we co-create with more-than-human critters (Ingold 2011; Latour 2004a), and to account for and imagine alternative ways of interspecies relating that are more symmetric, sustainable and just (Donna Jeanne Haraway 2016; Tsing 2015).

Inspired largely by the work of Deleuze and Guattari (1980) and by the philosophy of Henri Bergson (2013), new materialist scholars have gone farther than this. They have extended their attention to the ‘non-living’ world, imbuing all reality with a type of vitalism, or all phenomena with a type of collective agency, that situates the inorganic at a similar level with the organic (Barad 2003; Bennett 2010; Braidotti 2013; Grosz 2005). Others have questioned these efforts, arguing that the bios and the geos should be able to exist on their own terms, instead of being relegated to one side of the living/non-living boundary (Povinelli 2016). Such wider understandings of the relationships within the living and non-living world have often been inspired by indigenous epistemologies (Todd, 2016) that have helped to destabilize the boundaries between the human and the non-human, the living and the non-living,

the knower and the known. As a result, some scholars have argued that the world is not singular, but populated by a pluriverse of ‘ontologies’ where reality is enacted in particular ways that are different from the modern/colonial one (Blaser 2010; Cadena 2015; Escobar 2008; Viveiros de Castro 2004).

In this section, we introduce the four books under discussion (Blaser 2010; Gordillo 2014; Lyons 2020; Miller 2019). We compare them to show how experimental ethnographies are attempting to create alternative frameworks for understanding and enacting the planet from a more-than-human perspective. We examine their intellectual genealogies and how they tackle thorny problems that arise in contemporary ethnography for the analyses of environmental change. These include difficulties to modern binaries and western epistemological knowledge in emerging methods that deal with interspecies relations and ontologies. This analysis shows the political opportunities, challenges, and limitations of enacting relational life-projects in the current historical juncture of environmental crisis. It also identifies critical conceptual and methodological tactics coming from the social sciences that contribute to construction of a wider spectrum of possibilities of what is to come.

Worlds: Blaser and the cosmopolitical

For many scholars, the processes underlying the current environmental crisis are driven by the imposition of one particular world across the planet, as the only possible world there is (Law 2015). For example, according to Rivera Cusicanqui (2020), Escobar (2012), Lugones (2010), Grosfoguel (2002), Quijano (2019) and others, the modern/colonial world functions through a hierarchical matrix of power (human, white, male, Christian, heterosexual, capitalist and scientific) and a modern regime of truth, where reality is conceived as something out there that can be known and accurately represented. These representations have different levels of validity and authority depending on how successful they are in describing a presumed ‘shared reality’ (i.e. ‘nature’), and depending on the position in the matrix of power form where these representations are enunciated. Authoritative representations are then used to govern the relations of humans and other-than-humans, creating asymmetries between the subjects that know and govern and the objects that are known and dominated (subaltern human and more-than-human populations). These asymmetries justify the exploitation and destruction of the environment and specific human societies and bodies, the disregard of various knowledges, and the elimination of alternative ways of living.

In *Storytelling Globalization from the Chaco and Beyond*, Mario Blaser (2010) builds on this literature and refers to the epistemological pillars of the modern/colonial world as the ‘modern myth’. Blaser gives a mixed diagnosis of the success and failure of critical academic work to denounce this myth without reproducing it. Based on his encounters with the Yshiro peoples in the Paraguayan Chaco, Blaser’s work is an attempt to correct past errors. His challenge is to produce an ethnography that does not impose western epistemes or politics to worlds that are enacted through different knowledges, values and political tactics. The result is a radical ‘cosmopolitics’ (Stengers 2005), where multiple worlds can be thought to co-exist in a pluriverse, without the existence of a common ground for their comparison or translation.

Blaser is careful not to reproduce the divisions of culture/nature, mind/body, knowledge/belief that characterize the modern regime of truth, and where certain representations of reality are believed to be more adequate than others. Instead, Blaser connects discursive understandings of the world, or storytelling, to their materialization. He shows that assemblages of humans and other-than-humans come into being as they are discursively imagined and corporeally enacted. This (corpo)realization of ‘imaginings’ (Blaser 2010, 31) entails that there is not one authoritative representation of a common world, but instead, multiple imaginings that are materialized to various degrees depending on the extent to which they are enacted. In other words, Blaser’s focus is not on exploring different ways of relating to the more-than-human, but on the relating of different worlds, some of which do not function through the culture/nature dichotomy.

Clearly, the various worlds that result from enacting different imaginings might enter into conflict with one another. Blaser adopts Viveiros de Castro’s notion of ‘equivocations’ to explain this. Equivocations are “not just a failure to understand, but a failure to understand that understandings are necessarily not the same, and that they are not related to imaginary ways of seeing the world but to the real worlds that are being seen” (Viveiros de Castro 2004, 11). From this perspective, Blaser examines the tensions that exist between the worlds of *indigenistas*, whose work is informed by the modern regime of truth to promote development and environmental conservation, and the world of the Yshiro.

Creating a dialogue between these two groups requires efforts to translate one’s world in the terms of the other. A lot is lost in translation because different worlds do not necessarily share a common ground for comparison and

commensuration. Thus, whose terms are used for translation matter greatly: they define who makes the translating efforts and who sacrifices those elements that do not fit the translating terms. In general, dominant groups expect others to translate their ‘other worlds’ into dominant categories (Silva and Postero 2020). In response, Blaser aims at creating strategies that lead to different types of dialogue between different worlds. Instead of relying on indigenous’ efforts to communicate with *indigenistas*, his book is an effort to read the relation between the two groups from his position as a Western scholar, but through the lens of Yshiro stories, practices and values.

Blaser’s strategy parallels discussions of different types of ‘border thinking’ that emerge when one inhabits a borderland position (Blaser 2010, 16). The problem with border thinking for Blaser, however, is that it is not symmetrical. Border thinking can refer “to the knowledge practices of various “ ‘intellectual others’ (i.e non-Westerners) who think from a ‘double consciousness’ or from two different traditions, the modern and the various subalternized others” (2010, 16). Border thinking can also refer to Western scholarly efforts to establish dialogues with intellectual others. However, these intellectual others are only visible to Western scholars because they have become literate in the modern canon, but “those who do not speak the language familiar to academics...seemed to be out of the latter’s radar”(2010, 16). Thus, intellectual others need to learn the western canon to express their border knowledge, or to establish dialogues with Western scholars, while western scholars do not need to do the same. A key aspect of Blaser’s project in *Storytelling Globalization* is to complement ‘border thinking’ by including dialogues with intellectual others who are not familiar with the Western canon, and in their own terms. Through this strategy, which Blaser calls ‘border dialogue’, he hopes to contribute to a ‘risky coexistence’ between different worlds: “an always emerging coexistence that might be achieved through the hard work of politics without the guarantees of a preexisting common ground such as ‘reality out there’ (2010, 20).

Knowledges: Lyons and decolonial centering of campesino concepts

In *Vital Decomposition: Soil Practitioners and Life Politics*, Kristina Lyons also draws heavily on Isabel Stengers and Viveiros de Castro to analyze the relations between soil scientists and *campesinos* and their understandings of Colombian Amazonian soils. In carrying out this project, Lyons describes the multispecies relations through which they enact different worlds according to their particular conception of what is true

and desirable. In this sense Lyons' approach, like that of Blaser, can be said to be "cosmopolitical", but the multispecies element is clearly stronger in Lyons. This is in part because Blaser's agenda is not directed at rethinking human more-than-human relations. Instead, Blaser's work focuses on relations between different worlds, some of which do not take for granted culture/nature divides.

Similar to the relationship between the Yshiro peoples and *indigenistas* analyzed by Blaser, the relation between soil scientists and Amazonian *campesinos* is traversed by 'equivocations.' Lyons shows, for example, the different visions of soil fertility that result from scientific and *campesino* approaches to agriculture in the Amazon rainforest (*Selva*). Soil scientists have often seen *Selva* as an ecosystem with low soil fertility, which has prevented the expansion of industrial agriculture in the region. Instead, *campesinos* see *Selva* as a fertile complex network of entangled life and death processes that are not compatible with the logics and rhythms of industrial agriculture. In fact, when the focus is shifted to the particularities and rhythms of *Selva*, *Selva* soils can be seen as fertile. From this alternative perspective, *Selva* resists the advancement of industrial agriculture, not because of its lack of soil fertility, but because of its abundant proliferation of life.

In order to benefit from this abundance, Amazonian *campesinos* personify, pay attention, and adjust to *Selva*. In their words, they 'cultivate eyes for her' (*cultivar ojos para ella*), which refers to a way of learning from *Selva* processes that is guided by a particular disposition, not to dominate, but to reach agreements with more-than-human neighbors. This approach is not the result of a moralistic respect for 'nature', but a survival strategy in the midst of violence and displacement in Colombia. In other words, in their struggle to survive, Amazonian *campesinos* cultivate conscious relations with the complex web of life that constitutes *Selva*, and in so doing, they become part of a multispecies resistance to capitalist agricultural encroachment.

Despite the multiple 'equivocations' that emerge between soil-experts in scientific laboratories and Amazonian fields, Lyons does not argue that any one of them creates a better, or even more scientific, representation of reality 'out-there'. In contrast, Lyons explores the human and more-than-human assemblages that constitute Amazonian soils and that transgress cartesian culture-nature and subject-object divides. What matters to Lyons as an ethnographer of knowledge production is not to compare the validity of different representations of Amazonian soils, nor to produce symmetrical accounts of them 'that do not split the world into knowledge

and belief. Instead, Lyons is interested in the type of values, relations and politics that the enactment of certain knowledges promotes.

In this endeavor, Lyons gives the spotlight to *campesino* intellectuals. She observes that Amazonian *campesinos* are not so much interested in positioning their knowledge symmetrically to western science, as they are interested in considering the decolonizing enactments of asymmetry. For *campesinos*, she says, “the agricultural sciences must first demonstrate their alliance-building capacities with relational, more-than capitalist worlds instead of obliging ‘local’ practices to demonstrate their equivalence with the modern sciences” (Lyons 2020, 37). At the same time, she also documents the difficulties that soil scientists have in breaking away, or creating a “line of flight from extractive and productivist logics” (2020, 173). This is due to the strong ties between knowledge production and capitalist agricultural production, to which they belong, and to the networks of funding and institutional affiliations on which they depend.

The resonance with Blaser’s concept of border dialogue is noticeable. Lyons uses the principle of symmetry to consider the decolonial potential of making systematic use of ‘non-Western’ ideas, politics and values. Consequently, Lyons threads her ethnography through the use of *campesino* concepts, such as ‘cultivating eyes for her,’ under a framework that she calls ‘Selva Analytic’ (2020, 8), a type of relational analytic that questions human exceptionalism and that promotes processes of unlearning and relearning agriculture over the primacy of ‘knowing’ the world. Lyon’s selva analytics is energized by metaphorical and literary tactics used to draw connections between human vulnerabilities and experiences, multispecies assemblages and relations, and political economic processes at different scales. In her book, for example, the traces of war, displacement and chemical aspersions against coca crops come to light in a life story, a soil sample, or in the leaves that fall from Selva trees and become food for soil (*bojarasca*). Creatively drawing these connections, Lyons blurs the boundaries that delineate western scientific knowledge and that separate the human from the non-human, the organic from the inorganic, and the bio-geo-logical from the political. The borders of her enunciative position itself are problematized. She situates herself on the border between conventional soil science and *campesino* selva analytics, but is careful to foreground the ideas and concepts from *campesinos* situated in the *selva*.

Senses: Miller and complementing ethnobotany with sensory knowledge

While Blaser and Lyons share a similar ontological and dialogical approach, multispecies relational methodologies are very diverse. Theresa Miller's work on the Canela people of Brazil takes a very different inclusion of more-than-humans. In *Plant Kin: A Multispecies Ethnography in Indigenous Brazil*, Miller's focus is on Canela gardeners and the sensorial ways in which they relate to and co-produce botanical knowledge with more-than-humans. After years of land struggles, characterized by capitalist and state expansion into the Brazilian Amazon, the Canela created sedentary settlements and replaced hunting for gardening as their main food source. In her book Miller examines the evolution of Canela mythical stories and botanical knowledge, as well as the multispecies worlds that this evolution has helped to create. Departing from the cosmopolitical and perspectivist approach of Stengers and Viveiros de Castro, Miller's approach is not centered on the recognition of different ontological worlds, nor on the promotion of their co-existence without appealing to a common ground, as 'cosmopolitics' would have it. Instead, her work points towards the importance of recognizing the particular multispecies entanglements that constitute the world, and the potential of making-kin with other-than-human beings as a critical move in the current critical juncture.

Miller finds inspiration in the work of Donna Haraway and Tim Ingold, who encourage us to think with more-than-humans, to recognize their ways of knowing and relating, and to take response(ability) for the type of sociality that we co-create with them. In particular, her work is consistent with Haraway's challenge to the myth of the body-less mind. Instead of assuming that knowledge is exceptionally human and the product of a supra-corporeal mind, Miller carefully examines the ways in which Canela gardeners learn with plants and plant-spirits through their senses. Motivated by Myers' call for a planthropology, as "a move to get to know plants intimately and on their own terms" (Myers 2017, 4), Miller develops what she calls 'sensorial ethnobotany'. Here, she recognizes that the development of gardening skills requires long-term practice through intimate, gendered, and multisensory encounters with crops, where sound, texture, color, taste and affect matter. Through the sensorial processes of noticing, sorting, saving and naming, Canela gardeners identify plant qualities and create anthropomorphic associations with them and their animal neighbors, reducing the biological distance between species. This move is conducive to Canela establishing links of care and affection with plants and to

making-kin with them. For example, the proper care of seeds, seedlings and plants is framed as (and educated in a way similar to) the care of children at different stages of vulnerability. Plant child-care is also informed by more-than-human dialogues, where plant spirits communicate to Canela Shamans how they are treated by their plant-parents, and where Shamans have the authority to relocate neglected plant-children to different families.

Despite not adopting a political ontology approach, Miller's attention to the transformation of Canela stories over time resonates with Blaser's emphasis on storytelling. Through their stories, the Canela have explained the community's recent sedentarism and productive focus on gardening as the product of their encounters with white outsiders. The stories also include encounters with spiritual botanical masters who have provided gardening knowledge to community members, opening an alternative to hunting. Similar to Blaser, Miller takes storytelling into account as a world-making practice that differs from western knowledge in the sense that its driving value is not objectivity but relationality. However, Miller is not interested in thinking with these stories in their own terms, as Blaser's concept of border dialogue would suggest, in order to question the subject-object divide of the modern regime of truth. Instead, her emphasis is on the senses as a legitimate way of producing knowledge; a focus that seems to be directed at questioning the nature-culture and mind-body divide.

While Blaser makes an effort to avoid reproducing 'the modern regime of truth' for the cohabitation of worlds, and Lyons tries to go beyond knowledge symmetry in the treatment of soil scientists and *campesino* intellectuals, Miller's sensorial ethnobotany is more directed to complementing ethno-botanical classifications with Canela knowledge. She does this through a detailing of crop categorization and the understanding of the emergence of new varieties from amongst the existing crop germplasm. Thus, *Plant Kin* does not directly critique scientific knowledge, as much as it shows a parallel sensorial botanical knowledge amongst the Canela. This discussion frames Canela knowledge about their crops in comparison to western botanical practices for dealing with seed crops, rather than placing it exclusively on its own terms. Nevertheless, she claims that while crop naming practices and categorization are not necessarily different from western scientific categorization (she mentions similarities to Tsing's work in the Copenhagen University's Botanical Museum), a different set of knowledge comes out of this, in that the knowledge of crops is always placed within a detailing of the relationships that the plants hold.

Landscapes: Gordillo, destruction and reification in the more-than-human

Going beyond Miller's and Lyons' multispecies approach to plants and soils, Gordillo argues that other-than-humans do not only live in the realm of bios and geos, but that they also live in the realm of history. The emphasis on the relational and historical constitution of place and objects is at the core of Gordillo's analysis of *Rubble: The Afterlife of Destruction*. Gordillo deals with the relations that different human groups create with different types of rubble in Northern Argentina, some of which stand as relics of particular elitist or colonial histories, while others are disregarded as unimportant left overs of the ever-advancing capitalist machine. By ethnographically exploring the social life of rubble, Gordillo questions the frontiers between ruins and rubble, digging into the affective connections that local communities have with historical sites that are both recognized and disregarded by cultural heritage experts.

Gordillo's work is an effort to unlock the historical, economic, spiritual and social processes that traverse rubble, and he does so by expanding the analysis of ruins from 'stable' objects located in space, to socio-environmentally constructed places. His project is similar to Latour's constructivism in that it follows the constitution of objects and places in the ground by tracing their interconnections. However, Gordillo focuses on the ruptures and politics of assemblages that become ruins and rubble, as their stability is contested by organized violence, actively disregarded and left in oblivion, or preserved as fetishized and isolated remnants of historical configurations. In other words, his work tries to politicize object-oriented approaches such as actor-network-theory (ANT), through an attentiveness to destruction, colonial violence, and reification. By tracing how rubble comes to be seen as 'ruins', Gordillo uses critical theory, particularly Benjamin and Adorno, to dismantle linear visions of history, while also keeping an ANT focus on how knowledge and nodes of materiality are created and de-stabilized. In this way, he combines two important approaches that, although not entirely aligned, demonstrate the academic necessity of dealing with the violence of modernity/coloniality.

Gordillo is attentive to the liveliness of rubble. Based on Heidegger (2009 [1975]) and Ingold (2022), he sees the defining quality of the places of rubble as their capacity to gather, to attract humans and more-than-humans, peoples, gods and ghosts, memories, and emotions around them (Gordillo 2014, 21). By exploring how different groups of people relate to the places created by rubble, Gordillo reveals

their agency. That is, the power of rubble to inform human action, deter or attract human presence, hold place and establish social hierarchies, as well as its plasticity to be reinvented and become part of the everyday life of local populations. For example, rubble is sometimes manufactured as historical artifacts that should be preserved, while other times it is defined as haunted places to be avoided, or to be visited for worship and celebration outside the vigilance of the church and the state.

Similar to the soils explored by Lyons, the places created by rubble are nodes rather than containers. Historical buildings, monuments, and the left overs of development projects, are all nodes that point towards particular historical materialisms. They are fraught objects that denaturalize the present standing for interrupted networks of empire and capitalism, or as evidence of particular socio-environmental relations at particular points in time. The practical function of what was, and today stands as rubble, transforms overtime to become different things: elitist symbols of power, places outside the disciplinary control of the state or the church, multiple layers of grass and soil, haunted places where memories of past live as ghosts.

Gordillo's spatio-historical approach to rubble resonates with recent calls for landscapes as the unit of analysis for multispecies ethnographies (Tsing, Mathews, and Bubandt 2019). This literature borrows the term from ecology, where landscapes are seen as units of heterogeneity whose components are patches (2019, 188). Patches, in turn, reveal landscape structures, or "morphological patterns in which humans and nonhumans are arranged," (2019, 188) such as forests, cities, or plantations. One advantage of landscapes, vis-a-via alternative analytical tools such as networks or assemblages, is that they are visible to the human eye. They make visible the products of more-than-human relations and promote the 'habit of noticing through our own observation' instead of becoming 'wrapped up in our interlocutors' cosmologies and concepts' (2019, 188). Moreover, landscape structures point to spatial patterns and to historical trajectories of landscape-making, allowing for ethnographic claims beyond the parochial and addressing the "misleading claim that studies of nonhumans ignore social justice concerns" (2019, 186). We believe that by investigating rubble as a particular type of landscape structure, Gordillo's work precedes this type of methodological call, revealing the more-than-human historical trajectories of destruction and reification in capitalism.

Epistemic encounters

Our chosen ethnographies point to the enormous diversity of human and more-than-human relations, knowledges and worlds. In so doing, they reveal some of the strengths and challenges of the different multispecies approaches that they adopt. Using the lenses of political ontology, Blaser and Lyons point at the equivocations preventing fruitful dialogues between different worlds and world-making projects. In their own ways, both authors point at the binaries that constitute modern/colonial capitalism and show how these work in practice, often to the detriment of other forms of knowing and living. However, they struggle not to reproduce binary concepts when confronting different worlds or ‘knowledge,’ a difficulty that is not easy to resolve and that we also experienced while writing this article.

Miller adopts a different focus in her study, focusing on embodied and affective epistemic encounters. She successfully shows how the Canela's knowledge is attached to bodily senses and relations of love and care. Canela knowledge cuts through human-plant divisions leading to multispecies kin classifications. Plants and humans and their spirits can be parents and children, masters and students in a multispecies network where ‘culture’ and ‘nature’ are not separated. Despite this, some segments of Miller's work read like a classical ethnography about the exotic other who offers a different representation of a common world. In this way, she builds a sensorial ethnobotany that can complement western knowledge, but the realness of the ‘worlds’ from where those knowledges emerge is not addressed.

Thus, these three authors explore how different worlds (Blaser and Lyons) or ways of living and knowing (Miller) can complement each other and co-exist on earth. In particular, Blaser promotes ‘border dialogue,’ a type of dialogue where all worlds have the right to speak in their own terms, and where dominant actors make the effort to learn and respect the terms of those they relate to. His idea is to infect the modern/colonial world with relational values that prioritize respect for difference in its own terms, over any other type of consideration. Thus, the point here is not to validate local knowledge through western canons, as Miller seems to suggest, but to consider those knowledges according to parameters of the worlds from which they emerge.

In contrast, Gordillo's work makes less emphasis on epistemic matters and leads to a less optimistic view of co-existence. His work focuses more on revealing

the enduring material and symbolic impacts of modern/colonial capitalist expansion. In so doing, he reveals that different ‘worlds,’ to use Blaser’s language, are asymmetrical in terms of power. From this perspective, it is not entirely clear that privileged groups are willing, or even aware of the necessity, to overcome the modern/colonial world. In this sense, to make Gordillo and Blaser dialogue, we believe that Blaser identifies the main cosmopolitical challenge of our times accurately. For Blaser, it is not merely a problem of lack of understanding or ignorance between worlds but a problem rooted in capitalist values and the logic of capital accumulation. However, the work of Gordillo shows that modern/colonial capitalism is unable to coexist with other worlds by becoming more relational, precisely because its own conditions of possibility depend upon the destruction or flattening of otherness.

Wounded relational worlds, healing practices

These four ethnographies put into question the challenges and the very possibility of pluriverse co-existence. This is clear, for instance, when the authors consider how capitalism relies on the appropriation and exploitation of other worlds for its expansion and reproduction. To highlight the destructive aspects of these processes, our chosen authors mobilize notions such as *erasure* (Gordillo), *zones of sacrifice* (Miller), *becoming into death* (Lyons), and *Laissez-fair progress* (Blaser). These concepts show that the diverse realities examined in these ethnographies have something in common. They cannot escape the violent legacies of capital expansion, whether we consider rural inhabitants of Argentina, Amazonian *campesinos* in Colombia, Canela indigenous communities in Brazil, or the Yshiro people in Paraguay.

Despite this, these ethnographies also reveal the capacity of local life projects to create more-than-human relations to resist or reinvent themselves amid capitalist destruction. They highlight the generative aspects of wounded relational worlds. The concept of ‘wounded relational worlds’ captures how ongoing planetary destruction fundamentally damages our capacity to relate and co-exist with one another in a more-than-human world. At the same time, it also highlights the generative capacity of multispecies relationality to produce new connections as humans and more-than-humans strive for survival. The ethnographies we analyze show that as with most wounds, those produced by the conjunction of multiple factors of oppression, domination, and exploitation have the ability to heal. Yet, such ability is seldom

spontaneous. It is cultivated with time and effort by humans and their more-than-humans allies.

One of the conditions for this type of healing to be possible is the recognition of the multiple temporalities that traverse wounded relational worlds. That is because the violent imposition of modern/colonial capitalism has been accompanied by the imposition of a particular temporal registry. Most reflections about temporality from a Western perspective are linear and anthropocentric. They examine time as a central element of human cognition (Kant is a good example of it) and as a universal category of existence. From this perspective, human history is framed as a teleological progression towards European development (Hegel 2006), defined not only by its alleged cultural and intellectual superiority, but also by its ability to accumulate capital.

The modern/colonial teleological notion of history is related to understandings of capital as a linear process, which moves through cycles of accumulation towards ever-expanding growth (Marx 2010).⁶ Moore (2016) has explained this relation through what he calls the ‘Cheap Nature’ strategy. According to this strategy, the reproduction of capital not only relies on destructive processes of primitive accumulation, but also on processes of environment-making that turn complex relational ecosystems into cheap resources and subordinated populations. For Moore (2015, 61) “the genius of capitalism’s Cheap Nature strategy was to represent time as linear, space as flat, and nature as external”. These representations are useful for capital expansion because they obscure the fact that ‘Cheap Natures’ are not simply external resources that can be appropriated in a linear process of capital expansion, but that they are built environments that need to be continuously produced and can therefore be reconfigured otherwise.

As a response, contemporary critical scholarship has framed temporal conceptions as forms of power that organize human and more-than-human relations and generate biosocial inequalities (Adams, Murphy, and Clarke 2009; Sharma 2014; Wolf and Eriksen 2010). In this section, we show that multispecies ethnographies contribute to this line of work, suggesting that environmental justice implies

⁶ In Marx’s capital volume 1, capital is defined as the M-C-M’ process, where a commodity (C), is bought by an amount of money M and then sold by an amount of money M’ that is superior to M.

challenging linear views of time, space, and capital that have become destructive at several scales (local, regional, national, transnational, planetary.) They show that, underlying the construction of Cheap Natures, we find creative networks and multiple temporalities of more-than-human relations already engaged in a constant production and reconfiguration of life.

From the different multispecies perspectives adopted in these ethnographies, we turn in this section to the discussion of how relational projects can generate life in the mist of violence, environmental conflict, and temporal flattening. This is something that our ethnographies investigate in specific ways: Lyons explores the concept of ‘vital decomposition’ to explain the process of dying as creative; Gordillo centers ideas of ‘productive destruction’, erasure, and partial oblivion, which make us think about the interplay of time, space, life and death as always partial and never complete; Miller’s understanding of environmental sacrifice and their analysis of the Canela life-cycle is an example of the capacity of wounded relationalities to heal; Finally, Blaser uses pluriversal knowledges and their possibilities to generate epistemic healing.

Vital Decomposition: Lyons and the process of dying as creative

Lyons situates her study of Amazonian agricultures recognizing the violence that has cut across the Colombian rural sector. In particular, she shows how industrial agriculture expands to the detriment of soils, forests and local agricultural knowledges, classifying certain farmers and regions as unproductive and even criminal. These classifications justify chemical and armed interventions in the Amazon that do not only harm the soil, but also the human and more-than-human relations that co-constitute it.

Despite this, Lyons blurs the boundaries between destruction and creation, dying and living with notions such as *becoming into death* and *vital decomposition*. The concept of vital decomposition aims to show that despite mainstream understandings of decomposition as a phenomenon that leads to the slow end of life, decomposition in the Colombian jungle is conducive to new forms of existence. Lyons shows this idea through the example of *bojarasca*, which refers to dead leaves that fall to the ground and are recycled by soils as compost for new life. Lyons explains how in the Amazon, as the herbicide glyphosate is used to destroy illegal crops in the context of the Colombian war on drugs, the process of *bojarasca* is accelerated. This does not

mean that Lyons uses the notion of *hojarasca* to justify chemical interventions in the forest⁷, but to highlight the reproduction of life under difficult circumstances.

She creatively extends this concept to refer to *campesinos* who have lost their livelihoods and family members during the Colombian armed conflict, and who have found new ways of living after falling like *hojarasca* into the Amazon. These *campesinos* have learnt from the recycling capacities of *selva*, turning processes of de- and re-composition into an integral part of their new ways of life in the Amazon. These processes inform their experimentation with new productive practices in farms, gardens, and forests “in the midst of war and continued socio-environmental conflicts” (Lyons 2020, 114). In her words, “These rural families taught me that a continuum of organisms and elements might resist violent modes of death by becoming into death instead of working against it in the pursuit of a ‘better’ life.” The notion of *becoming into death* refers to a type of death that is similar to that of *hojarasca*; a type of death that produces regeneration and that is different from the violence of war that “brutally severs people from land and territory” and that “kills in the defense of extractive-based and unlimited economic growth” (2020, 114).

The notions of *hojarasca* and *becoming into death* also points to the liveliness of soils, which produce worlds in and of themselves. These soil-worlds, she explains, occupy an inter-space between the atmosphere, lithosphere, hydrosphere, and biosphere. In this inter, they are constantly alive even as they die. For Lyons, “there is not such a thing as a dead soil, for to be soil [...] there is not only a wide range of biological activity sustained, but organisms live within and make soil” (2020, 46). This idea challenges modern binaries such as living-bios/nonliving-geos. For Lyons, soils point to an in-between of life and death in a never-ending self-realization of each other, constituting a cyclical and relational temporal register.

In Lyon’s book, soil also emerges as a site resisting oblivion. Chemical warfare and the use of the Amazon as a theater of warfare operations in Colombia have co-produced its destruction and that of its inhabitants through chemical and armed interventions. However, Lyons (2020, 62) argues that soils “reject the erasure of the past because the fabrics of their recycling bodies sediment the past in a living memory.” Thus, when Lyons looks at soils, she sees their transgression by oil wells,

⁷ In fact, Lyons has been one of the scholars most active in the fight against agrochemical use for the elimination of coca crops.

and their appropriation and demarcation by fences; she sees then being rolled over by military tanks, and displaced by synthetic fertilizers (2020, 62). Soil acts as the organic embodiment of material and historical events: “when a horrible event occurs in a place, many rural communities in Colombia and elsewhere say the soils, plants, trees, and other elements and beings retain this violence” (2020, 62). This is related to what Lyons calls *the poetics of soil health*, a form of sensing the soil without erasing its biosocial histories. Comprehending soil’s relational conditions of existence, we can start to dismantle selective forgetting tendencies in the state’s narratives of national memory and technoscientific attempts to produce a very particular type of life on earth.

Erasure and Disregard: Gordillo and the partiality of oblivion

Gordillo’s analysis of rubble constantly reminds us that Argentina has been one of the epicenters of indigenous genocide in the continent since the Spanish invasion of 1492. He examines different types of rubble as evidence of the continuous attempts to materially and historically erase indigenous bodies and cultures in Argentina; attempts that have accompanied imperial and capitalist expansion. As discussed above, for Gordillo the origin of rubble lies at the rupture of previous functioning constellations “a riverbed without a river, a boiler without a ship,..., all haunted by a prosperity that passed by and left rubble behind” (Gordillo 2014, 150). However, Gordillo analyses how those who learn to co-exist with rubble reinvent their relations with the leftovers of colonial invasion, forced Catholicism, as well as abandoned economic development projects. Through these reinventions, abandoned buildings and objects that represented the power of the colonial administration, the church, or the market acquired new meanings to support the creation of novel local configurations.

To conceptualize this generative process, Gordillo develops the notion of ‘productive destruction,’ which “captures the twofold movement of production and destruction without recoding destruction as creative” (2014, 81). This concept is a response to the notion of creative destruction (Schumpeter 1942), which romanticizes capitalist destruction as innovative. Instead, productive destruction can be read as a generative form of dying that considers the reconfigurations that follow destruction without glamorizing it. As a testimony of this twofold movement, rubble embodies the materiality of the multiple pasts that have shaped it and continue to shape it in the present. In this sense, dying, at the scale of landscapes, is a process

that unfolds, makes, destroys, and reshapes relational worlds. Because of this, rubble could be seen as a political agent, which through time and space makes, unmakes, and re-makes histories (2014, 263).

Because rubble embodies multiple pasts, memory-making is central to Gordillo's analysis of rubble. Remembering and forgetting become political tools to make visible or to put aside the violence of extractive capitalism and human exceptionalism. In this sense, Gordillo's chapter entitled 'Topographies of Forgetting,' analyzes the spatiality of oblivion surrounding rubble. He relates these topographies to two formulas of silencing: banalization (as emptying events from their political meaning) and erasure (erasing the very existence of an event) (2014, 192). These two formulas, he argues, operate through acts of 'evasive turning away' or disregard, destabilizing but not destroying rubble's capacity to keep the destruction of the past alive. Similarly to Lyons discussion of soil poetics, rubble is also a material embodiment of past events, but Gordillo puts additional focus on political tools of remembering and forgetting, while Lyons focuses on how scientific tools approach similar issues.

Gordillo points to several moments of disregard, where cases of historical violence against indigenous peoples have been banalized or attempted to be erased. Yet, the author examines how rubble's permanence in landscape and memory allows disregard to realize itself only partially. Thus, the topographies of forgetting "are a contested terrain, a spatial project in the making, unmade by lines of light created by bodies affected by the debris of violence hidden in the interstices of the geography" (2014, 208). As a 'leftover,' a living tissue that connects a multiplicity of fragmented temporalities, one of rubble's most important characteristics is that its existence cracks any attempt to crystalize dominant histories into material memory, in the shape of relics and ruins. Ultimately Gordillo's book is a call against the fetishization of ruins and for the politicization of rubble. He concludes that we should not be afraid of pulling ruins down from their bourgeois pedestal and instead look at the rubble that was created and is continuously disregarded by empire and capital.

Environmental Sacrifice: Miller and multispecies resilience

Miller considers the increasing socio-environmental conflicts affecting Brazil and details how the destruction that they create supports particular economic interests. Opening her book with a critical analysis of how colonial/capitalist histories produce intersecting inequalities for the Canela people, Miller (2019, 31) explains how logging, cattle ranching, and industrialized agriculture have made the Cerrado a zone of environmental sacrifice. As opposed to other regions such as the Amazon, the Cerrado has been “abandoned to corporate agricultural interests, and continuously threaten by climate change” (2019, 31). As the damaging impacts of capitalism cannot be contained, this sacrificial process has directly affected the local inhabitants of the Cerrado. For Miller, “the world making practices of neoliberal capitalism is notoriously ‘leaky’, seeping into other life-worlds through processes of extraction, destruction and often violence” (2019, 46).

Miller considers how the Canela have been obliged to transform their nomadic hunting economy into a sedentary agricultural one, as a result of the environmental sacrifice of the Cerrado. This transition has been a multispecies project aided by plant-kin and plant spirits. Similar to Lyon’s relational approach to life and death mobilized by notions such as *bojarasca*, Miller draws from sensory ethnobotany to study the generative cycles that accompany life and death in Canela gardening practices. In the Canela plant life cycle, seeds are seen as babies, plants as children, and only crops that ready for harvest are considered to be adults. Plants arrive at the end of their life cycle only when the harvested produce is used for consumption. However, when the produce is not consumed but saved for replanting, plants begin their life cycle anew as seeds. In this context, Miller (2019, 25) says that “within a world that is continually coming into being, processes of life and decomposition are similarly emergent.”

The type of cyclical regeneration exemplified by the Canela plant-life cycle informs their historical trajectory of the Canela as a people. The continuous processes of violent displacement suffered by the Canela threatened their economic and cultural conditions of reproduction. However, as believed by Canela gardeners, thanks to the gardening knowledge gifted by super-natural beings (such as Star Woman and the Giant Armadillo), Canela people have found an economic alternative to survive and to exist as a relatively autonomous community in the Cerrado. Thus, the re-emergence of Canela through gardening practices has not been merely a human project. Instead, their gardening knowledge and practices rely on their relations with plants, plant-spirits and other spiritual allies. This observation leads Miller to propose the notion of *multispecies resilience*, understood as “the ability of

humans and nonhumans to create, interact, collaborate, and adapt in an unfolding life-world that is continuously changing” (REF).” This differs from Gordillo’s focus on the potential for rubble to be politically symbolic in its focus on regeneration, rather than memory and resistance. For Miller, *multispecies resilience* is a multisensorial process that allows Canela people to create intimate relations with their more-than-humans neighbors and to follow “relational pathways of meaningful human-environment perceptual engagements over time and space” (2019, 46).

Carbon Storytelling amid Laissez-Faire Progress: Blaser and a moral stance of the Yshiro

In his book, Mario Blaser refers to death when thinking with Yshiro stories. He tells us that in Yshiro epistemology, reality fluctuates between a two poles continuum, with death/indistinction (*shermwo*) on one side, and being/distinction (*om*) on the other. A kind of generative potency referred as *wozosh* tilts the balance in this continuum towards death and indistinction, for which “entities sustain their being or distinctiveness only through a permanent struggle against their tendency to fall back into indistinction” (Blaser 2010, 27). Crucially, the stories that the Yshiro recount about reality have *wozosh*, and therefore, “storytelling can bring entities out of indistinction or can plunge them back into it” (Blaser 2010, 29). In Blaser’s worlds “The connection between the original events and the event of their telling is predicated on storytelling being itself a distinction-making event” (Blaser 2010, 29). For Blaser, this epistemology of the world is important because it informs the notion of (corpo)realization that we discussed in the first section, by which assemblages of humans and other-than-humans come into being as they are discursively imagined and corporeally enacted.

However, this epistemology is also important because it points to a moral stance by which entities are not independent and self-contained but instead, they are made of relations. Certain relations should therefore be protected if the realities they created are desired realities, while other relations should not be nourished, recreated or prioritized. The life and death of certain realities is mediated by the stories we tell ourselves about the world and by the values that lead us to reproduce or not particular relations, and the resulting realities that they produced. While Miller's focus on kinship relationships with plants echoes this focus on relations, its ontological

implications are not as firmly explicated. Lyons comes closer to this, using the concepts used to understand the selva to understand relations between individuals and their potential for a regeneration of lifeways. Gordillo echoes the importance of meaning transposed on the landscape as having potential to bring ruins, with all their political and historic implications, into being. However, the focus is on echoes of past power relations and their political symbolism rather than on values and the creation of new realities.

To exemplify this point on storytelling, values and the co-creation of reality, Blaser recalls the failed efforts of environmentalist NGOs in Paraguay to open cooperative stores in Yshiro communities. Repeatedly, the stores proved to be financially unsustainable because storekeepers provided credit to community members without any assurance of repayment. Because of this, the NGOs funding the cooperative stores believed that Yshiro storekeepers did not understand how stores were supposed to work. However, after questioning an Yshiro elder on the topic, Blaser understood that the behavior of storekeepers was not informed by a lack of knowledge but by a moral stance. The elder told Blaser an Yshiro story suggesting that storekeepers valued their relational ties within their community more than the economic sustainability of stores. In the words of Blaser (2010, 113), “it was problematic to try sustaining the cooperative without caring for the relations among community members: without understanding among them, there would be no community, and without community, there would be no need for a cooperative.”

This Yshiro moral stance speaks to our current climate conundrum. It leads us to question the type of relations that are cultivated by the stories that circulate about climate change. For example, carbon emissions are not something that exists out there as a distinctive entity that is separated from the ecosystemic relations that produce them. They emerge as an independent and self-contained object of intervention because of the knowledges and technologies we use to measure them. However, by keeping our attention on the level of emissions, we disregard not only the more-than-human relations behind those emissions, but also the moral logic behind their production— capitalist expansion in the search for profit. Instead, Yshiro’s epistemologies would suggest focusing our attention on the type of relations that we want to produce or protect in the first place, through our storytelling and (corpo)realization. This would probably lead us to conclude that it is problematic to protect a modern/colonial world without caring for the relations that sustain it.

Conclusion: Implications for climate change

The four Latin American ethnographies that we analyze in this article approach multispecies relationality from different perspectives. Blaser takes a political ontology approach that focuses on exploring the difficulties and possibilities of creating relations between different worlds. Lyons builds on this approach to explore relations between different types of environmental knowledge and human-soil relations. Miller adopts a more phenomenological perspective considering the centrality of bodily senses in the production of agricultural knowledge and relations, and, finally, Gordillo relies heavily on actor-network and critical theories to shed light on the relational and political aspects of history, memory and the materiality of rubble.

The four ethnographies analyzed in this article also identify the cyclical and relational dimensions of wounded relational worlds and healing practices, which we considered to be one of their most important contributions. These dimensions point to understandings of time and space based on more-than-human cycles, rhythms and speeds that problematize linear temporalities of life and capital. Moreover, they allow problematizing death from a relational perspective, where not only the lives of racialized others are destroyed by modern/colonial capitalism, but also the complex array of more-than-human worlds that they inhabit and create.

Ultimately, the ethnographies highlight the need of more-than-human relationality for the cultivation of co-existing and sustainable worlds. However, as argued by some of them co-existence stands in antagonism with the violent expansion of modern/colonial capitalism. For coexistence in the pluriverse to be materialized, it is not enough to recognize that there are alternative ways of relating to our more-than-human neighbors. Instead, fundamental power asymmetries among and between different ways of living and relating (what political ontology calls worlds) have to be resolved. Such a process will require a radical transformation of the temporal registers of modern/colonial progress and capitalism, as well as the hierarchical classifications that they promote within humans, and between human and more-than-human entities.

How can this relational stance help us to think critically about climate change? the concept of the Anthropocene portrays climate change as a consequence of human enterprise. It provides humans with a disproportionate agency over ‘nature’ and obscures the role of more-than-humans in co-constituting the planet. This

approach ultimately leads to seeing climate change as a technical issue, as opposed to a relational matter of concern. Instead, the concept of the Capitalocene highlights that human and extra-human forces are involved in shaping the environment and climate change in diverse ways. Capital is portrayed as environment-making force, rendering nature appropriable and exploitable, with environmental effects that threaten its own conditions of reproduction.

By referring to modern/colonial capitalist relations as the main source of environmental disruption, the ethnographies analyzed in this article seem to agree with the historical and ongoing causes of climate change described by the notion of the capitalocene – the emergence of global colonial and capitalist projects after 1450. However, from the capitalocene perspective, the study of the capitalist world-ecology takes precedence over the analysis of other possible ‘worlds’. Capitalism advances imposing its own way of organizing human and extra-human nature, resulting in social and environmental injustices that should be resolved by questioning capitalist relations, but not necessarily by learning from other ways of inhabiting the planet.

Instead, multispecies ethnographies pay attention empirically to the wounded relational worlds that resist, endure and sometimes reverse capitalist expansion. To a large extent they try to recognize the plural worlds described by local communities in their own terms. Their message is that, if we seek to correct our current trajectory and cultivate environmental justice, we should consider seriously and respectfully the different realities that resist capitalist destruction. Wounded relational worlds are examples of resilience through creativity and relationality that can inform responses to climate change and struggles for environmental justice as they aim at transforming colonial capitalist relations. They highlight the points of fracture leading to the current environmental juncture, but they also shed light on possibilities for healing, co-existence and dialogue.

Another message that can be derived from these ethnographies is the importance of analyzing empirically the human and more-than-human relations that inform and are envisaged by climate mitigation initiatives. Inspired by capitalocene approaches and by the multispecies scholarship analyzed in this paper, we locate the root cause of the current socio-environmental crisis in the type of human and more-than-human relations that have been created by modern/colonial capitalism. As the visibility of the environmental crisis increases, the fiction of a world capable of supporting constant economic growth fades away. Capitalism is then confronted with one of its main contradictions – its tendency to destroy its own conditions of

reproduction. Capitalist societies respond the only way they know – buying time by trying to internalize capitalist pollution. However, in climate mitigation initiatives, pollution is rarely questioned as a set of relations that result from the imposition of particular ways of living in the planet. The same is true of the ontologies, epistemologies and hierarchies that technical mitigation interventions promote.

Climate mitigation initiatives can be well-intended and deployed to internalize environmental externalities. They also might help increase our awareness and knowledge of ecosystem dynamics and rhythms. However, they often reproduce modern/colonial binaries while expanding and imposing the logic of capital. For example, nature-based solutions and natural capital initiatives represent ‘nature’ as an asset or as green and blue infrastructures (Benedict and McMahon 2012) at the service of humans. Payments for ecosystem-services often consider isolated ecosystem functions, such as carbon sequestration, while ignoring related ecosystem dynamics that give support to these functions (Spash 2015). Moreover, carbon-offset mechanisms divert responsibility from privileged populations who pay for the right to pollute, while commodifying subalternized relations responsible for carbon emission reductions.

Crucially, our chosen ethnographies shed light on the way more-than-human temporalities clash with the linear times of capital. This clash is not addressed by climate mitigation initiatives that focus on the reduction of carbon emissions deadlines designed to avoid tipping points. In the best-case scenario, by respecting these deadlines humanity will delay human extinction for a while. However, these scenarios are more likely to expand the time-horizon of capital (along with its technoscientific and colonial arsenal) than to resolve the relational root causes of the current socio-environmental crisis. A similar reasoning could apply to more radical approaches to the climate problem that recognize capital growth as inconsistent with entropy and with the finite character of planetary ‘resources’. These approaches find hope in the possibility of building economies that are based on degrowth. However, these initiatives could remain trapped in the linear times of capital if they do not consider the times and rhythms of more-than-human assemblages (of carbon and nitrogen cycles, but also of plants, soils, and forests), instead of simply adding a notion of scarcity that highlights the material and temporal limitations of economic growth.

To make sure that mitigation initiatives do not reproduce the climate problem it is therefore crucial to study the type of human and more-than-human relations that they promote, while remaining attentive of the relational causes of climate change and of the possibilities generated by wounded relational worlds.

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