# Climate Justice and Informal Representation

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he overarching question that motivates this essay is simple: What would constitute just representation for the climate vulnerable? In practice, this entails many different questions in many different contexts for frontline climate communities across the world. My purpose here is to provide a critique of the default frame for thinking about the broader question, as well as a suggestion for expanding our conception of what an adequate answer should include, both in general and in discrete contexts. I begin by describing what tends to be the standard frame for discussions on the topic, which conceives of representing vulnerable climate interests largely in terms of formal mechanisms of representation in technocratic and bureaucratic institutions. I then show the limits of that standard approach and caution against the discussion of climate representation being overly confined to the level of formal representation. I go on to detail the importance of thinking about more informal modes of representing vulnerable climate interests. In order to pursue both of these aims, I draw on lessons in meaningful representation and inclusion during postconflict peacebuilding. My intention is not to set up formal and informal modes of representation as rivals or binaries—

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they can and should be complementary. Instead, the goal is to inject an important, underdeveloped element of representation—informal representation—into a discourse that has overemphasized and overestimated representation's formal guise.

For the purposes of this discussion, I intend to use the notion of climate vulnerability in a general sense. "Vulnerability" is standardly taken to mean the "propensity or predisposition to be adversely affected," and to be a function of exposure to various climate impacts, sensitivity to such impacts, and adaptive capacity to manage the threats from such impacts. In this sense, it is a scalar notion that varies within and across communities and over time, depending on various individual, social, economic, institutional, and geographic factors. Adequate representation in different settings will depend on these contextual features (of course, we are often most concerned with particular, or particularly big, vulnerabilities—whether by virtue of living in a flood plain, having certain comorbidities, resource scarcity, historical oppression and marginalization, or other such conditions). My goal is to help situate a framework for thinking about representation and climate vulnerability rather than to identify a particular set of vulnerabilities or populations of concern, or to take a stand on the construction of certain vulnerability assessments or indexes, or to identify measurement proxies to incorporate into our discussions of representation, which are all contested.<sup>2</sup>

#### FORMAL REPRESENTATION

Currently, much of the discussion about representation in the context of climate justice focuses on what we can call "formal" representation. Under this approach, representation is broadly construed as meaning access to and participation in formal negotiations, lawmaking, and policymaking. At the conceptual level, this formal approach is primarily concerned with two areas of inquiry.<sup>3</sup> First, it prioritizes determining who (or what) requires representation; that is, which individuals, social groups, states, future generations, and the like deserve (special) consideration vis-à-vis their climate vulnerability for representation in climate decision-making. This is the "identification question," which delimits the scope of the problem of representation. This task is often put in terms of "stakeholder" identification: Who is affected and who is owed some measure of control over decisions that shape their life prospects?

The second focal concern of the standard frame is about how to effectively (and in a procedurally just way) represent the identified stakeholders in governments, legislatures, or other scientific or decision-making bodies, like the

Intergovernmental Panel on Climate Change (IPCC) or the United Nations Framework Convention on Climate Change (UNFCCC). This is the "institutional realization question," which characterizes the substantive content of the call for representation. This second focus, in turn, is where many standard questions of political representation—about legitimacy, authority, and accountability—arise for debate. It is where we think about rules, policies, and practices of inclusion: from agenda-setting considerations to veto powers and everything in between. It is where debates arise about how we should think about the core goal of representation. For instance, should we think of representatives as being "delegates," charged simply with aggregating the preferences of those they represent, or should we think of them as "trustees," charged with making their own judgments of what best serves the interests of those they represent?<sup>4</sup> These are the kinds of questions that form the basis for focusing on institutional realization.

To capture this standard orientation for thinking about climate representation in a simple phrase, it is about "having a seat at the table." As such, the tenor of the discourse is focused on highly formal power structures and the operations within them. In the next section, I suggest that there are reasons to be cautious about restricting our understanding of climate representation to this formal focus.

## Overemphasizing the Formal: Some Lessons from the World of Peacebuilding

In recent work, peace and conflict studies scholar John Paul Lederach critically assesses the standard model for thinking about representation and inclusion in postconflict settings, which shares similarities with the standard model in climate representation. Surveying his critique will help problematize the more formally focused orientation of the discourse around climate representation.

In the context of peacebuilding and conflict transformation, Lederach raises a number of concerns with a prominent model that takes formal negotiations as the locus of decision-making and power in postconflict settings.<sup>6</sup> This standard model, he explains, foregrounds the metaphor of the formal negotiating table as the place where accords and agreements are produced and signed.<sup>7</sup> There are many problems he identifies with this approach. First, peace processes structured around inclusion at the formal negotiating table ultimately offer very limited participation. Constrained by time, space, logistics, and power structures, most of those whose lives have been intimately affected are left on the sidelines. Second,

this limitation often spawns or exacerbates internal divisions within regions, movements, and identity groups vying for direct presence at the main seat of power and decision-making. Third, the outputs of such processes are oriented around written accords, which place significant weight on the careful prose of agreed commitments but offer little engagement with lived experiences or the emotional processes that implementing and living with the changes will require. Fourth, early phases of negotiations and deliberation often require confidentiality, which, alongside broader limits on sharing the machinations of the process, seriously hampers the ability of formal processes to engage the public imagination (for example, by envisioning possibilities, grappling with trade-offs, or humanizing involved parties). Fifth, and relatedly, it is often difficult to transition from negotiated accords to implementation, in part because there has not been sufficient preparation for the actual stakeholders on the ground. Stable implementation of accords requires broad participation and buy-in, but formal negotiations rarely build or prefigure such capacity. Sixth, and finally, the outputs are often perceived as elitist, controlled, or top-down solutions. They are "delivered" from on high and there is a unidirectional, hierarchical, downward flow of responsibility and action.8

There is good reason to think that a similar range of worries confront the formal model of representation in the context of climate representation. The same worries about limited participation, factionalism, distance from lived experiences, the challenges of engaging the public imagination, implementation, and elitism are all reproduced when seeking meaningful and just climate representation at the formal level. For instance, many of these dynamics were on display during the yellow vest protests in France after President Emmanuel Macron introduced (and subsequently abandoned) a green tax on fuel. Likewise, even while advocating for improvements in formal representation, many of the calls from activists organizing protests at, for example, the UN Climate Change Conference, or COP 25, in Madrid reflect and were animated by the inherent limitations on formal representation. As can be seen in Luke Tomlinson and Chukwumerije Okereke's work, many criticisms of the UNFCC treaty norms and IPCC authorship reflect concerns about elitism and hierarchical control over the outcomes. 11

#### Informal Representation

In order to avoid these worries, I suggest that we need to understand, reprioritize, and shape a more "informal" mode of climate representation. <sup>12</sup> An informal mode

provides an alternative lens for thinking about the issue of representation, one that will focus more on "grassroots," "bottom-up," "lateral," and "horizontal" modes of representing vulnerable interests, such as through media, education, nonprofit groups, and local activist and organizing networks. Doing so can help supplement the more formal focus—it is not intended to replace it—by correcting for some of its more problematic aspects.

To better understand what I mean with the category of informal representation, consider some examples. These are not necessarily meant to indicate ideal versions of informal climate representation, but rather are meant to evoke a wide range of possibilities to help frame the discussion. Individual instances of informal representation of all kinds will do better or worse jobs of representing certain vulnerable interests. So, the ultimate takeaway is both that we need more of all sorts of informal modes of representation (otherwise we would have made substantially more progress mitigating climate change and building resilience) and that we must think critically about how formal and informal modes actually represent various kinds of vulnerabilities.

Consider Greta Thunberg and her school strike campaign. This campaign has resulted in the strikes of millions of people around the globe, and has provided a venue for the interests of the climate vulnerable to be understood and represented in popular culture and political discourse. The same could be said of the youth-led Sunrise Movement in the United States, which came to prominence during a high-profile sit-in at the congressional office of House Speaker Nancy Pelosi. The movement has become a central force in activism for the Green New Deal (a progressive policy agenda to realize environmental, social, and economic justice in the United States) and in framing the political landscape for climate action in U.S politics.<sup>13</sup> As parts of the broader climate movement, these efforts not only provide valuable avenues for participation and amplification of vulnerable voices but they have also become culturally significant ways of including the interests of various less powerful stakeholders in the conversation. Most obviously, this includes youth interests, which are structurally disenfranchised, but also the interests of those most threatened by the climate impacts they are trying to prevent.

As informal modes of representation, these efforts serve in part as exercises in consciousness raising, in part as expressions of solidarity (and indignation), in part as articulations of moral values, and in part as calls to responsibility and action, among other purposes. Consider, further, the work of nonprofit groups

like the Indigenous Environmental Network, <sup>14</sup> or any of the thousands of other groups working with frontline communities to listen to their struggles, develop their capacities, advocate on their behalf, and jointly address their needs for achieving climate resilience. This kind of work at the grassroots level forms not just a meaningful but also an essential part of what it is to represent and connect such populations to their wider communities and to other systems of power. They are vital mechanisms to get society to recognize the moral worth and vulnerabilities (vulnerabilities largely created or exacerbated by that broader society) of frontline communities, which is one of the core tasks of any kind of representation.

Naturally, different kinds of activism serve different roles as forms of informal representation. Some will be focused on particular vulnerabilities, others directed more generally. Some will function at the level of policymaking, others at community building or meaning making. More radical forms of activism like "valve turning" (shutting down pipelines), blockades, or other kinds of civil disobedience might serve to highlight the dramatic urgency and stakes confronting the climate vulnerable, while other, less radical forms might function to represent those interests more inclusively through mundane efforts at consensus building. There are important roles across the whole spectrum.

Looking at other kinds of organizations and institutions, similar things could be said about the ways in which, for instance, university divestment campaigns represent the interests of the climate vulnerable, since they try to bring the university's financial portfolios and institutional decisions into alignment with the interests of those communities. More generally, consider how school curricula and field trips, college course offerings and student programming, speakers and conferences, and so on might serve, in myriad ways, as important avenues for informally representing climate vulnerabilities across our education systems. Even in business, where we should of course reserve a dose of skepticism about claims of representation, we can consider various informal ways in which, for instance, net-zero emission pledges or investment and strategic-planning decisions can play a role (in better and worse ways, to varying degrees) in ultimately achieving adequate representation of climate vulnerabilities throughout the economy.

Similarly, consider the ways that good climate journalism, commentary, and investigative reporting can center, elevate, and represent the climate vulnerable. When, for example, CNN's chief climate correspondent, Bill Weir, produced a

ninety-minute special report documenting the many faces of climate change across America (from how it is addressed by scientists and city planners to how it affects farmers and environmental refugees);<sup>16</sup> or when Amy Goodman covered and interviewed a formerly arrested pipeline protester on *Democracy Now!*<sup>17</sup> or when Ezra Klein devoted a five-part series to climate change on his podcast;<sup>18</sup> or when ProPublica published detailed empirical and narrative work on climate migration,<sup>19</sup> these were all high-profile ways of injecting the plight of the climate vulnerable into the public discourse. In addition to literally letting people tell their stories and advocate for their interests, healthy informal representation in the media, in effect, serves as a nontrivial form of representation through consciousness raising, agenda setting, political accountability, and all the other virtues that come with a good free press.

This is not to overlook the catastrophic failure of media institutions to adequately cover climate change (as Media Matters and others have diligently reported on),<sup>20</sup> but rather to highlight the important role media *could* and *should* play in addressing climate change. There are, of course, structural features of the mainstream media (such as its business model and profit motives, and the incentives these generate) that serve as barriers to responsible climate coverage. Indeed, a consideration of informal representation partly explains why media coverage should be seen as such a failure, precisely because it has not been adequately representing the interests of the climate vulnerable.

The above examples, while of course not exhaustive, are in different ways meaningful forms of representation in public discourse for vulnerable populations.<sup>21</sup> They are ways of giving voice to the stakeholders and calling for action and accountability, and an important part of the architecture that determines whether or not vulnerable interests are actually being represented in society. If we want to understand whether vulnerable climate interests are adequately represented in our political discourse, we need to do more than evaluate the constitution and operations of formal decision-making bodies; we should be looking at whether NGO work with frontline communities is well funded and activist organizations have enough resources, and if those resources can be deployed quickly. We should be looking at whether popular media programming is letting vulnerable communities tell their stories, and whether the coverage reflects the magnitude of the problems and solutions, both globally and locally. We should be looking at whether universities and industry actors are seeing divestment campaigns within their ranks, and whether educational curricula (at all levels and around the world)

give sustained attention to climate impacts and policies. We should be looking at how climate literacy and voter education and activation campaigns are operating across all levels of political organization. And we should be looking at what stories and narratives are told across our entertainment platforms and artistic spaces, and at how imaginations are being engaged with symbol, allegory, metaphor, humor, and other creative devices.

These informal modes of representation are, of course, quite different from the kinds of representation sought in calls for a more diverse set of authors to the IPCC. They are also different from even extraordinarily poignant acts of representation in formal negotiations, as for example carried out in moving ways by Yeb Saño as he pled, through tears, for more ambitious action to save his country when he was lead negotiator representing the Philippines.<sup>22</sup> But they are meaningful forms of representation nonetheless, and can help address the shortcomings of formal representation.

First, they are forms of representation as a class that allow for mass, rather than limited and elite, participation and engagement (across distributed locations, over various timescales, and at various levels of involvement). Second, by facilitating such wide avenues for participation, informal modes of representation can help avoid unnecessary tensions or divisions among groups vying for limited space at formal negotiations.<sup>23</sup> Third, because these forms of representation extend far beyond the focus on carefully worded written accords, treaties, or commitments, they are central ways of staying connected to the lived experiences and moral-emotional lives of those affected, instead of being restricted to a domain of scientists and technocrats. Fourth, they are forms of representation that are largely open and public rather than secretive and confidential. For all of these reasons, informal modes of representation can help with the implementation of policy by helping to prepare the social and political landscape for change. They can do this by calling on, challenging, and activating the moral imaginations of the people, rather than remaining as background, hierarchical, unidirectional operations of an elite political class.

As just one example among many, these kinds of lessons have been particularly important in climate adaptation efforts like "managed retreat," where successful and equitable buyout programs for relocating assets, people, and activities from hazards require intense, community-led collaboration between property owners, community-organizations, government officials and planners, scientists and engineers, insurers, financiers, and so on. Before any formal zoning decisions or

buyout offers, the informal mechanisms (community meetings, workshops, listening sessions, and so forth) are essential for protecting community interests and agency by codeveloping workable solutions (in settings that, like the peacebuilding and conflict settings we began with, are morally complicated and emotionally fraught).<sup>24</sup>

In a general sense, these kinds of informal modes of representation serve to set the stage and shape the narrative for substantive decision-making and inclusive representation located at the more formal level (for instance, as with Climate Assembly UK, a citizens' assembly convened to discuss how the nation should meet its goal of net zero by 2050).<sup>25</sup> With robust informal representation that happens along these lines, formal negotiations are likely to proceed differently and in an improved fashion. John Dryzek and Simon Niemeyer make a similar point in their argument for deliberative democracy and climate governance.<sup>26</sup> And indeed, in the U.S. context, although the biggest parts of the Biden administration's climate agenda have yet to pass (as of this writing), a significant reason they are as ambitious as they are is because of the Sunrise Movement and its lobbying through the Biden-Sanders unity task force during the transition to the Biden administration.<sup>27</sup> These kinds of efforts in informal representation are especially important in settings with faltering formal representation, as is the case in climate negotiations, where existing power dynamics largely position the wealthiest rather than most vulnerable at the helm of formal decision-making bodies. Given the interests that the wealthy have in avoiding the costs of duty-bearing themselves (for decarbonization, adaptation finance, addressing loss and damages, and so on), such power dynamics skew the discourse away from the demands of marginalized victims. In such settings, these more informal modes of representation are themselves likely necessary to bring about adequate formal representation by pressuring and holding accountable the relevant parties. Short of that—and not to mistake them as a panacea for all the faults of insufficient formal representation —they can at least serve as partial correctives or stopgap measures to curb the effects of the worst substantive decisions made by inadequately representative formal bodies (for example, by working at the local scale to provide mutual aid, or to build adaptive capacity and resilience despite missed emissions targets).<sup>28</sup>

It seems, then, that there is good reason to think that robust representation in the informal public sphere should be a central focus in our thinking about what adequate climate representation looks like.

### ELABORATING THE VIRTUES OF INFORMAL REPRESENTATION

In the previous section, I sketched some examples of informal climate representation and tried to motivate the idea that they are meaningful and important contributions to adequate climate representation for vulnerable populations. To close the essay, I want to elaborate on and further distill the value of informal representation by highlighting three key functions it performs in political discourse: its epistemic function, its norm-shifting function, and its trust-building function.

#### The Epistemic Function

Already implicit in much of what has been said is the epistemic function performed by informal climate representation. Its various forms play a central role, first, in *eliciting* information about local problems and solutions.<sup>29</sup> This is essential for getting overlooked issues on the deliberative agenda, across formal and informal spheres of influence. It is a more direct way of getting ideas into the popular discourse than relying on the operations or deliverances of formal structures. Doing so is an important means of correcting omissions, shaking assumptions, and rooting out biases (for instance, about the distribution or concentration of the benefits and burdens of mitigation and adaptation efforts, which are central to the environmental justice movement).<sup>30</sup>

Related are the many ways in which informal representation serves to transfer and exchange knowledge. Information elicited in one context can be shared in other settings. Best practices, cautionary tales, correctives, and distortions can be assembled organically, rippling through different networks. For instance, Climate Central provides a weekly bulletin to more than two thousand meteorologists in local media markets that serves as a mini "reporting memo" in order to provide them with locally relevant visuals, research, story angles, and available experts.<sup>31</sup> These efforts are particularly important, given how much local media markets in the United States are saturated by conservative conglomerates such as Sinclair Broadcast Group that tilt coverage significantly rightward.<sup>32</sup> To return to an example used previously, the knowledge exchange that Greta Thunberg or the Sunrise Movement can facilitate through informal youth representation is (on account of their comparatively large platforms, visibility, and reach) substantially different than what, for instance, the mostly invisible and unknown formal youth representatives can achieve internally in the UNFCCC.33

Beyond knowledge exchange, the many mechanisms of informal representation play an important role in knowledge utilization and deployment by identifying and involving a wide swath of differently skilled and differently situated actors. To continue the previous example, Climate Central has identified meteorologists as trusted partners who have preexisting local authority and effective communication resources for mobilizing the public. Similarly, Kyle Powys Whyte, Deborah McGregor, and many others have highlighted the roles and responsibilities that indigenous women have taken on to utilize and deploy traditional or indigenous knowledge to address climate and environmental impacts.<sup>34</sup> McGregor, for instance, describes collective efforts by Anishinaabe women to "speak for the water" to help people reimagine their relationships with, sensitivity to, and care for the water in the Great Lakes region through walks, ceremonies, feasts, and celebrations. These grassroots deployments of local knowledge feed into larger networks such as the Women's Water Commission and ripple through Canadian politics and beyond, serving to both enact existing responsibilities and help shape new systems of responsibility that need to emerge to protect against climate impacts. Countless other examples of grassroots knowledge utilization and deployment for specific social and political ends share a similar structure.

A broader point to extract is that robust grassroots and informal representation can help facilitate connections across agents and stakeholders to increase creativity and problem-solving potential. While admittedly difficult to quantify, the idea comports with general principles in epistemology and theories about creativity. Siloed knowledge that is relegated to what epistemologist C. Thi Nguyen calls "cognitive islands" is not widely actionable and requires robust forms of bridge building to connect to the "cognitive mainland," where it can be appropriately used and adapted.<sup>35</sup> Informal representation structures are a central form of that kind of bridge building in general and discrete contexts. In his history of creativity and innovation, for instance, Steven Johnson emphasizes the importance for creative systems of having lots of connections between different nodes of the system in order to increase exposure to new ideas and encourage novel ways of experimenting with, exploring, and recombining them. He also stresses having "liquid networks" that leak information across boundaries and can flexibly reshape and respond to changing dynamics.<sup>36</sup> (For those familiar with economics, this is part of the point behind "agglomeration" effects.) These are precisely the things that robust informal grassroots efforts are good at and can facilitate.

#### Norm Shifting

In addition to its vital epistemic functions, informal representation also helps create and change social norms and values. The goals of representation are not merely to be adequately represented but also for that empowerment to translate into change: to achieve desired outcomes whereby the interests of the climate vulnerable are protected and actively tended to. An important part of this, and an important role informal representation can play in ultimately helping improve formal institutions and policies, involves generating, shifting, and propagating norms and values.<sup>37</sup>

Informal modes of representation often supply the most significant "norm entrepreneurs" to pioneer and incorporate new norms.<sup>38</sup> Consider, for instance, the importance of reducing agricultural emissions (especially methane from enteric fermentation). To do this, we need to radically reduce collective meat consumption. While there are important policies to enact in this area, the recent explosion (and forecasted growth) of plant-based lifestyle norms (and corresponding meat-free options and replacements) is not plausibly due to any current government policy. Instead, they have been promulgated through a wide informal network of savvy entrepreneurs and marketing campaigns, organizations like the Good Food Institute, restaurants and grocery chains, prominent animal rights activists, authors and documentarians, nutrition and fitness influencers on social media, and so on. Similarly, consider the need to reduce aviation emissions. Again, there are plenty of policy levers to pull, but there are also important norm shifts that are happening in advance that can mutually reinforce formal policy efforts. The Swedish term *flygskam* (flight shame) has become a recognized concept in Europe and beyond, both as a newly felt emotion and as a norm to discourage flying, as a result of how the term has been propagated through informal networks and media stories. Of course, the norm is not yet widely enough adopted to achieve the emissions reductions in aviation that we need, but it is a relevant part of the social discourse informing transportation investments and policy tools. And in a general way, the interests served by reducing agricultural or aviation emissions are meaningfully represented by these kinds of informal norm generation and adoption.

Informal modes of representation also help supply diverse, visible, and locally relevant connections to norms, values, and exemplars. Having robust, culturally relevant connections to climate-relevant norms serves an activation function, providing inroads and helping to mobilize latent political power in service of the

interests of the climate vulnerable. That might involve something as small as (returning to the realm of dietary norms) incorporating the climate values of veganism while preserving one's Korean culture and identity, after being inspired by Joanne Molinaro (also known as the "Korean Vegan") and her best-selling cookbooks.<sup>39</sup> Or it might involve committing to only travel by rail in Europe after being introduced to the concept of *flygskam* by a friend or Twitter follow. Or supporting pipeline protesters because one learned about indigenous land rights and water protectors in school and was able to do follow-up research with good independent media, and so forth. Informal modes of representation capitalize on the importance of existing relations (between persons, groups, media sources) in shaping our values. They are an essential way of securing broad (but deep) reach, and frequent-enough encounters for new norms to stick. None of this is to say that changing norms and values is easy, but only that, importantly, the success of doing so runs through informal modes of climate representation.

#### Trust Building

The final valuable function I want to highlight (and direct our moral imaginations toward) is the role that informal modes of representation play in building trust among and between communities, as well as with policymakers. Trust is both a constitutive part of respectful relations between parties and essential for stimulating action. In order to shed light on this third, crucial function, let us return for a moment to the world of peacebuilding.

Inclusive and meaningful representation in the postconflict peacebuilding process is largely about trust. As Lederach emphasizes, however, substantial trust does not follow the pace of signing events, meetings, and bureaucratic deadlines. These can all feel manipulative and extractive (that is, oriented toward aims other than nourishing the interests of the affected parties), especially to people who have lived with the realities, contradictions, and disappointments of protracted conflict (not dissimilar to the disappointments felt by the climate vulnerable over years of ineffectual formal climate negotiations).<sup>40</sup>

In the peacebuilding context, real trust is often built through physical presence and taking meaningful time for conversations, listening, empathy, bearing witness, and other forms of open and honest communication. Lederach stresses that even if the conversations are "circling" and ambiguous, and the route to mutual understanding after conflict is slow to unfold, these conversational contexts are where people ultimately charged with upholding peace can feel valued, visible, and

acknowledged. These informal settings are also how their agency in the aftermath of war can be nourished.

To shed light on this fundamental need, and to forge a new kind of metaphor for inclusion and representation other than the negotiating table, Lederach deploys a concept from entomology, that of "stigmergy."<sup>41</sup> As a technical term, stigmergy indicates a kind of indirect coordination in an environment that stimulates subsequent agency. A paradigm example is the way in which termites leave scent trails that permit others to pick up and continue a given task. This allows termite communities to build elaborate (and, indeed, rather beautiful) collective structures without centralized coordination or intentional planning.

Connecting the idea to inclusive representation in conflict transformation, Lederach articulates the importance of iterative and itinerant movement of discussions and community meetings across the affected conflict landscape. These are things that "leave a trace" in the lived environment to be picked up later. The process of stitching together conversations and meaningful encounters over time is circular and repetitive. Doing so is a way of building more coherence among parties and a wider sense of shared meaning over time among the affected populations postconflict. Lederach speaks of rebuilding the "connective tissue" severed by war. This connective tissue is not something that can be repaired with a declaration of peace or an accords-signing ceremony, any more than hurricane victims' lives can be repaired by the signing of the Paris Agreement. It comes from the slow work of dialogue and meaning-giving practices.<sup>42</sup>

For instance, after the war in Liberia ended in 2003, a generation of ex-combatants began returning from the bush to their home communities. They would often gather and wait on the edge of town, unsure how to reenter after the horrors of war. Slowly, some women of the villages started leaving food for the boys, talking with them, singing, praying; building a relationship, little by little. After months like this passed, the women asked and the boys agreed to come into town. But first the women held a hair-cutting ritual so that the boys' unkempt hair wouldn't scare people in town. This ritual was an act of care, love, remembrance, forgiveness, and reintegration deeper than any formal mechanisms could reach. Its power to reconceptualize identities and relationships was built slowly over those months of interaction.<sup>43</sup>

We can draw on the above lessons to better understand what, ultimately, meaningful "representation" for those most vulnerable to climate change should consist in or embody. The concept of trust, as in peacebuilding, has an important role to

play in the struggle to address climate change, protect the vulnerable, and enhance resilience. The interlocking web of changes needed to mitigate and adapt to climate change successfully cuts across our social, political, and economic lives. This means that building trust and sustaining relationships to navigate such changes and minimize alienation is indispensable. Trust is a morally important form of respect for, and way of being accountable to, people whose lives are at stake. It is crucial for getting individuals and communities to aim high in their mitigation efforts. It is imperative for getting buy-in for ambitious and socially just adaptation infrastructure, which will unfold in complex and fraught local settings across the globe for decades on end (regardless of how well mitigation efforts go from here, given the impacts of already committed warming). 44 It is important for forging political consensus (or at least dampening opposition) and legitimizing policy choices in light of significant transformation, disruption, and loss resulting from climate change.

Given that trust is so important for reducing the harms of climate change, we need to give careful attention to how to achieve it across countless discrete settings that serve as the sites of climate justice. For instance, earlier in the essay I discussed managed retreat, where achieving trust is absolutely essential. But how can we build trust with communities threatened by sea-level rise or extreme weather events who may have to migrate?<sup>45</sup> How can we build trust in communities that have a well-earned skepticism that green energy development and adaptation infrastructure projects will be exploitative and extractive and continue to support the interests of the wealthy and powerful? Even independent of climate risk, as fossil fuel industries are being phased out, how can we rebuild the connective tissue of communities, for example in "coal country" in the United States, where a whole network of social meanings are tied up in the fossil fuel economy? In these communities, the coal industry provides not only a source of income and a means of supporting a family but also a sense of freedom; a sense of worth and dignity; and a connection to history; as well as structures of social activity, leisure, and political engagement.

I want to end by suggesting that a substantial part of the answers to these kinds of questions runs through these more informal modes of representation we have been discussing. They form the heart of what Lederach would call the "circling" and ambiguous route for the climate vulnerable to be visible, acknowledged, and valued; where their agency can be uplifted and interests protected. The work is not merely done with a law or an ordinance but instead with the continual

and evolving work of local activists, organizing groups, NGOs, and supportive business partners to facilitate iterative discussions about the hard truths and plans of action. It relies on sensitive educational institutions, creative and responsible media coverage of all kinds, and entertainment and artistic spaces to seed a discourse with stories and concepts and action items. Following the stigmergy metaphor, these are ways to "leave a trace" in the lived environment that will generate social meanings and scaffold collective action at all sorts of levels of organization across the affected "landscape" of climate change.

The general point behind these kinds of informal mechanisms is that they are what is needed for communities to both stitch together new and enduring collective meanings in light of climate disruptions and empower themselves to exercise their agency in preventing such disruption. Building trust through informal networks is crucial to the uptake and exchange of knowledge. It is also an essential part of effectively shifting norms and values, and with them behaviors and practices.

For these reasons, building out the kind of informal representational networks and infrastructure (in media, education, business, entertainment, nonprofits, activist efforts, community organizations, and so on) to carry out such tasks should be considered an essential component of securing adequate representation. As such, it is important that our discourse around representation and climate vulnerability reflects and attends to this broader focus.

#### Conclusion

The central goal of this essay has been to sketch the limits of formal modes of representation and articulate the importance of more informal modes of representing the interests of the climate vulnerable. I want to be clear, again, that none of what I have said should be taken to imply that formal and informal modes of representation are binaries or rivals. Indeed, a flourishing informal system of representation is likely necessary to support a just formal system of representation. Adequate representation for the climate vulnerable will require both. My central point here has been to seed an important element into the discourse that has been underdeveloped, at the same time as formal modes have been overemphasized and overestimated.

In trying to highlight the importance of the more informal modes of representation, I have only been able to speak in fairly general terms. A more concrete

vision for what adequate informal representation should ultimately look like is, of necessity, a largely grassroots, decentralized, and contextual affair. In trying to provide something of a conceptual framework for thinking about the issues, I have only scratched the surface of what the true realization of this approach would consist of. The hope, then, is that this brief statement can itself play a stigmergic role for future coordination, discourse, and action.

#### NOTES

- <sup>1</sup> Allan Lavell, Michael Oppenheimer, Cherif Diop, Jeremy Hess, Robert Lempert, Jianping Li, Robert Muir-Wood, and Soojeong Myeong, "Climate Change: New Dimensions in Disaster Risk, Exposure, Vulnerability, and Resilience," in Christopher B. Field, Vicente Barros, Thomas F. Stocker, and Qin Dahe, eds., Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation: Special Report of the Intergovernmental Panel on Climate Change (Cambridge, U.K.: Cambridge University Press, 2012), pp. 25–64, at p. 32.
- <sup>2</sup> For an example of some of this contestation, see Ana Raquel Nunes, "Exploring the Interactions between Vulnerability, Resilience and Adaptation to Extreme Temperatures," *Natural Hazards* 109 (2021), pp. 2261–93. Even centering the category of vulnerability has its complications, as it can risk obscuring historical legacies of injustice that have produced patterns of precarity or erasing the agency of oppressed groups. See, for example, Chris J. Cuomo, "Climate Change, Vulnerability, and Responsibility," *Hypatia* 26, no. 4 (Fall 2011), pp. 690–714.
- Among the many places these two areas of inquiry organize the discourse, they are clearly instantiated in prominent procedural justice-based evaluations of the UNFCCC and IPCC (both popular and academic). For good summaries see, for example, Luke Tomlinson, *Procedural Justice in the United Nations Framework Convention on Climate Change: Negotiating Fairness* (New York: Springer, 2015); and Chukwumerije Okereke, "A Six-Component Model for Assessing Procedural Fairness in the Intergovernmental Panel on Climate Change (IPCC)," *Climatic Change* 145, nos. 3–4 (2017), pp. 509–22. These areas are perhaps even more paradigmatic in framing discussions regarding representing future generations. See, for example, Kristian Skagen Ekeli's "Giving a Voice to Posterity—Deliberative Democracy and Representation of Future People," *Journal of Agricultural and Environmental Ethics* 18, no. 5 (September 2005), pp. 429–50; and his "Constitutional Experiments: Representing Future Generations through Submajority Rules," *Journal of Political Philosophy* 17, no. 4 (2009), pp. 440–61.
- <sup>4</sup> For the classical treatment of the landscape, see Hanna Fenichel Pitkin, *The Concept of Representation* (Berkeley: University of California Press, 1967).
- <sup>5</sup> Indeed, Tomlinson's fourth chapter in *Procedural Justice* is titled "Getting a Seat at the Table."
- <sup>6</sup> John Paul Lederach, "Forging Inclusive Peace: We Stink More than We Think," in "Navigating Inclusion in Peace Processes," ed. Andy Carl, special issue, *Accord: An International Review of Peace Initiatives* 28 (March 2019), pp. 23–26. Lederach's work is part of a special issue entirely devoted to inclusive peace processes, the whole of which is instructive for how we should think about climate representation.
- <sup>7</sup> Ibid., p. 23.
- For more insight into the reasons why peace accords often fail to deliver on promises (and why locals are often so legitimately skeptical of the words, promises, and proposals they hear), see the Peace Accords Matrix project from the University of Notre Dame at Peace Accords Matrix, KROC Institute for International Peace Studies, University of Notre Dame, peaceaccords.nd.edu/. For a masterful discussion of a range of case studies, including successes, failures, and lessons, see Priscilla B. Hayner, Unspeakable Truths: Transitional Justice and the Challenge of Truth Commissions (New York: Routledge, 2001). For further discussion, see Madhav Joshi and Peter Wallensteen, Understanding Quality Peace: Peacebuilding after Civil War (New York: Routledge, 2018). To see a related, and usefully portable, case for open, inclusive, transparent, and accountable decision-making around COVID-19 that speaks to many of these issues in a different context, see Ole Norheim, Joelle M. Abi-Rached, Liam Kofi Bright, Kristine Bærøe, Octávio L. M. Ferraz, Siri Gloppen, and Alex Voorhoeve, "Difficult Trade-Offs in Response to COVID-19: The Case for Open and Inclusive Decision Making," Nature Medicine 27 (2021), pp. 10–13.

- <sup>9</sup> See Jake Cigainero, "Who Are France's Yellow Vest Protesters, and What Do They Want?," NPR, December 3, 2018, www.npr.org/2018/12/03/672862353/who-are-frances-yellow-vest-protesters-and-what-do-they-want?t=1592557257349.
- See, for instance, Tom Goldtooth, Karin Nansen, Nnimmo Bassey, and Daiara Tukano, "Shamel' Indigenous Leaders & Delegates from Global South Stage Dramatic Protest at COP25 in Madrid," interview by Amy Goodman, *Democracy Nowl*, December 11, 2019, www.democracynow.org/2019/12/11/cop25\_walkout\_indigenous\_leaders\_global\_south; and Fiona Harvey, "Activists Protest at 'Sidelining of Social Justice' at UN Climate Talks," *Guardian*, December 12, 2019, www.theguardian.com/environment/2019/dec/12/activists-protest-un-climate-talks.
- <sup>11</sup> See, for example, Tomlinson, *Procedural Justice*; and Okereke, "A Six-Component Model for Assessing Procedural Fairness in the Intergovernmental Panel on Climate Change (IPCC)."
- Okereke's six-part model includes two categories of "informal practices," but they are much more narrowly conceived than what I am raising here. He focuses on informal ways in which formal rules are interpreted and applied and how respect and trust are engendered by actors with formal authority.
- For an in-depth account of the history, activity, and progress of the Sunrise Movement, see Andrew Marantz, "The Youth Movement Trying to Revolutionize Climate Politics," New Yorker, March 7, 2022, www.newyorker.com/magazine/2022/03/07/the-youth-movement-trying-to-revolutionize-climate-politics.
- <sup>14</sup> See the Indigenous Environmental Network website at www.ienearth.org/.
- On valve turning, see Michelle Nijhuis, "T'm Just More Afraid of Climate Change than I Am of Prison," New York Times, February 13, 2018, www.nytimes.com/2018/02/13/magazine/afraid-climate-change-prison-valve-turners-global-warming.html. Extinction Rebellion is one particularly high-profile group advocating for mass direct action and nonviolent civil disobedience to persuade governments to act on the climate and biodiversity emergencies. It is also an interesting group to consider in the context of informal representation because its third demand is for the creation of new forms of representation in citizens' assemblies. For some background on the group, see "What Is Extinction Rebellion and What Does It Want?," BBC News, October 14, 2021, www.bbc.com/news/uk-48607989. Again, I am not intending to evaluate their forms of activism, but rather seek to survey different ways informal modes of representation might manifest.
- The Road to Change: America's Climate Crisis, hosted by Bill Weir, aired April 25, 2020, on CNN Special Reports, cnnpressroom.blogs.cnn.com/2020/04/21/cnn-special-reports-presents-the-road-to-change-americas-climate-crisis/.
- <sup>17</sup> Winona LaDuke, "Just Out of Jail, Winona LaDuke Decries Militarized Crackdown on Enbridge Line 3 Pipeline Protests," interview by Amy Goodman, *Democracy Now!*, July 23, 2021, www.democracynow. org/2021/7/23/protests\_line\_3\_pipeline\_minnesota.
- 18 "We Live in the Good Place. And We're Screwing It Up," podcast, 1:27, from a Vox Conversations series, hosted by Ezra Klein, podcasts.apple.com/us/podcast/vox-conversations/id1081584611?i=1000455242142.
- <sup>19</sup> Abrahm Lustgarten, "Where Will Everyone Go?," photo. Meredith Kohut, ProPublica, July 23, 2020, features.propublica.org/climate-migration/model-how-climate-refugees-move-across-continents/.
- See, for example, Ted MacDonald, "How Broadcast TV Networks Covered Climate Change in 2019," res. Allison Fisher and Evlondo Cooper, Media Matters for America, February 27, 2020, www.mediamatters.org/broadcast-networks/how-broadcast-tv-networks-covered-climate-change-2019.
- <sup>21</sup> Again, I use these examples to illustrate the category, not to suggest they are ideal instantiations of the various values of informal representation, even if I do think they are valuable and important.
- Some of Saño's more famous and powerful speeches are accessible at "An Emotional, Powerful Speech on Climate Change," YouTube video, 4:06, from a statement made by Yeb Saño at the UN's Warsaw Climate Change Conference, posted by TDC, November 11, 2013, www.youtube.com/watch? v=7SXXLIZkM3E; and "If Not Us, Then Who? If Not Now, Then When?," YouTube video, 3:15, from a statement made by Yeb Saño at the Climate Conference in Doha, posted by OneWorldTV, December 6, 2012, www.youtube.com/watch?v=OpI-PD6weG8.
- <sup>23</sup> Although they cannot prevent conflict or guarantee a unified front, they do help provide space for different visions to engage productively, rather than creating a zero-sum seat at the table.
- For some key discussions on these issues (successes, failures, and frameworks for the future), see, for example, A. R. Siders, "Managed Retreat in the United States," One Earth 1, no. 2 (October 2019), pp. 216–25; Katharine Mach and A. R. Siders, "Reframing Strategic, Managed Retreat for Transformative Climate Adaptation," Science 372, no. 6548 (June 18, 2021), pp. 1294–99; Marjolijn Haasnoot, Judy Lawrence, and Alexandre K. Magnan, "Pathways to Coastal Retreat," Science 372, no. 6548 (June 18, 2021), pp. 1287–90; Judy Lawrence, Jonathan Boston, Robert Bell, Sam Olufson, Rick Kool, Matthew Hardcastle, and Adolf Stroombergen, "Implementing Pre-Emptive Managed Retreat: Constraints and Novel Insights," Current Climate Change Reports 6 (July 2020), pp. 66–80;

- and Robin Bronen, "Climate-Induced Community Relocations: Using Integrated Social-Ecological Assessments to Foster Adaptation and Resilience," *Ecology and Society* 20, no. 3 (2015), art. 36.
- <sup>25</sup> See the Climate Assembly website at www.climateassembly.uk/.
- <sup>26</sup> John S. Dryzek and Simon Niemeyer, "Deliberative Democracy and Climate Governance," Nature Human Behaviour 3 (April 8, 2019), pp. 411–13. Drawing on a long literature on deliberative democracy, Dryzek and Niemeyer highlight the ways the deliberative ideal of "inclusive and meaningful communication joining citizens, activists, and leaders" can help climate governance by integrating different perspectives and expertise on complex issues, incorporating feedback, orienting decisions toward the common good, surfacing easy-to-ignore interests, organizing the voices of the marginalized, and so forth (p. 411). For a book-length treatment of related ideas, see also Haley Stevenson and John S. Dryzek, Democratizing Global Climate Governance (Cambridge, U.K.: Cambridge University Press, 2014).
- <sup>27</sup> See Gregory Krieg, "The Sunrise Movement Is an Early Winner in the Biden Transition. Now Comes the Hard Part," CNN, updated January 3, 2021, www.cnn.com/2021/01/02/politics/biden-administration-sunrise-movement-climate/index.html.
- For a range of thorough examples of how these kinds of dynamics operate and have succeeded in peace-building and conflict settings from around the world at all different scales, see Erica Chenoweth and Maria J. Stephan, Why Civil Resistance Works: The Strategic Logic of Nonviolent Conflict (New York: Columbia University Press, 2011); Maia Carter Hallward and Julie M. Norman, Understanding Nonviolence (Malden, Mass.: Polity, 2015); Todd May, Nonviolent Resistance: A Philosophical Introduction (Malden, Mass.: Polity, 2015); Deborah D. Avant, Marie E. Berry, Erica Chenoweth, Rachel A. Epstein, Cullen S. Hendrix, Oliver Ross Kaplan, Timothy D. Sisk, et al., Civil Action and the Dynamics of Violence (Oxford: Oxford University Press, 2019); and Erica Chenoweth, Civil Resistance: What Everyone Needs to Know (Oxford: Oxford University Press, 2021).
- <sup>29</sup> In one of Lederach's earlier books, he highlights the role that local cultural knowledge and heritage play as a key resource for addressing social and political conflict and nurturing peace. He describes an "elicitive" approach to drawing out such knowledge that can be used to find creative and empowered responses to conflict, which are often lost or discounted as we move toward more formal models where certain kinds of technical knowledge and expertise are privileged. See John Paul Lederach, *Preparing for Peace: Conflict Transformation across Cultures* (Syracuse, N.Y.: Syracuse University Press, 1996).
- The issues of how knowledge is constructed, whose knowledge "counts," how it is weighed and assigned credibility, and so forth are of course well documented in the feminist epistemology literature. For a general overview, see, for example, Heidi Grasswick, "Feminist Social Epistemology," in *Stanford Encyclopedia of Philosophy* online, ed. Edward N. Zalt, last updated July 24, 2018, plato.stanford. edu/entries/feminist-social-epistemology. For another example, at the level of our conceptual frameworks, Gabrielle Hecht details a number of ways Africa's position in conceptualizations of the Anthropocene has been obscured to deleterious effect, which better informal modes of representation could help correct. See Gabrielle Hecht, "The African Anthropocene: The Anthropocene Feels Different Depending on Where You Are—Too Often, the 'We' of the World Is White and Western," ed. Sally Davies, *Aeon*, February 6, 2018, aeon.co/essays/if-we-talk-about-hurting-our-planet-who-exactly-is-the-we.
- <sup>31</sup> See Climate Central's work at medialibrary.climatecentral.org/. Leah Cardamore Stokes's *Short Circuiting Policy* (Oxford: Oxford University Press, 2020) provides a number of examples, good and bad, of knowledge transfer and exchange across contexts happening in U.S. energy policy.
- <sup>32</sup> See Gregory J. Martin and Joshua McCrain, "Local News and National Politics," American Political Science Review 113, no. 2 (May 2019), pp. 372–84.
- 33 See Youth at UNFCCC Conferences, United Nations Climate Change, unfccc.int/topics/education-and-outreach/workstreams/youth-engagement/youth-for-climate-action-youth-unfccc-conferences.
- <sup>34</sup> See, for example, Kyle Powys Whyte, "Indigenous Women, Climate Change Impacts, and Collective Action," in "Climate Change," eds. Chris J. Cuomo and Nancy Tuana, special issue, *Hypatia* 29, no. 3 (Summer 2014), pp. 599–616; and Deborah McGregor, "Traditional Ecological Knowledge: An Anishnabe Woman's Perspective," in "Indigenous Women: The State of Our Nations," special issue, *Atlantis: Critical Studies in Gender, Culture, and Social Justice* 29, no. 2 (April 2005), pp. 103–9; among others. See also Paul Nadasdy, "The Politics of Tek: Power and the 'Integration' of Knowledge," *Arctic Anthropology* 36, no. 1/2 (1999), pp. 1–18. Nancy Tuana also has a number of relevant papers bridging epistemology, race and gender, and climate justice.
- <sup>35</sup> C. Thi Nguyen, "Cognitive Islands and Runaway Echo Chambers: Problems for Epistemic Dependence on Experts," *Synthese* 197 (July 2020), pp. 2803–21.
- <sup>36</sup> See Steven Johnson, Where Good Ideas Come From: The Natural History of Innovation (New York: Penguin Random House, 2010); and Martin Ruef, "Strong Ties, Weak Ties and Islands: Structural

and Cultural Predictors of Organizational Innovation," *Industrial and Corporate Change* 11, no. 3 (June 2002), pp. 427–49.

For a succinct and informative discussion, see Fergus Green, "Anti-Fossil Fuel Norms," Climatic Change 150 (September 2018), pp. 103–16. See also Neil Gunningham, "Building Norms from the Grassroots Up: Divestment, Expressive Politics, and Climate Change," Law & Policy 39, no. 4 (October 2017), pp. 372–92; Andrew Cheon and Johannes Urpelainen, Activism and the Fossil Fuel Industry (New York: Routledge, 2018); Georgia Piggot, "The Influence of Social Movements on Policies That Constrain Fossil Fuel Supply," Climate Policy 18, no. 7 (2018), pp. 942–54; and Adam Corner, Ezra Markowitz, and Nick Pidgeon, "Public Engagement with Climate Change: the Role of Human Values," WIRES Climate Change 5, no. 3 (May/June 2014), pp. 411–22.

38 See Martha Finnemore and Kathryn Sikkink, "International Norm Dynamics and Political Change," in "International Organization at Fifty: Exploration and Contestation in the Study of World Politics," special issue, *International Organization* 52, no. 4 (Autumn 1998), pp. 887–917; Cass R. Sunstein, "Social Norms and Social Roles," *Columbia Law Review* 96, no. 4 (May 1996), pp. 903–68; and Todd Schifeling and Andrew J. Hoffman, "Bill McKibben's Influence on U.S. Climate Change Discourse: Shifting Field-Level Debates through Radical Flank Effects," *Organizations & Environment* 32, no. 3 (September 2019), pp. 213–33.

<sup>39</sup> See the Korean Vegan website at thekoreanvegan.com/.

<sup>40</sup> Lederach, "Forging Inclusive Peace," p. 24. In the climate context, see Kyle Powys Whyte, "Too Late for Indigenous Climate Justice: Ecological and Relational Tipping Points," in "Is it too late (to stop dangerous climate change)?," WIRES Climate Change 11, no. 1 (January/February 2020), e603.

<sup>41</sup> Lederach, "Forging Inclusive Peace," p. 25.

- <sup>42</sup> Lisa Schirch's work has carefully detailed the powerful role that the use of ritual and symbol in shaping such spaces can serve in this rebuilding. Lisa Schirch, *Ritual and Symbol in Peacebuilding* (Boulder, Colo.: Kumarian, 2004).
- <sup>43</sup> This story is taken from John Paul Lederach and Angela Jill Lederach, When Blood and Bones Cry Out: Journeys through the Soundscape of Healing and Reconciliation (Oxford: Oxford University Press, 2010), pp. 147–49, 163–66.
- <sup>44</sup> One might think there is an important disanalogy between the informal mechanisms of peacebuilding and the informal modes of climate representation, since in conflict settings buy-in from local communities is essential because they are the ones charged with maintaining peace, whereas in climate negotiations if powerful countries or institutions unilaterally decarbonized, they would not need support from local communities in the way these informal mechanisms are designed to provide. While there is something to this point in terms of mitigation, the same is not true for adaptation and resilience, which form an increasingly large part of our climate actions. Further, even with respect to mitigation, the difference is not so great, as mitigation requires incredible amounts of coordination and management of all sorts of activities and impacts as the process unfolds, which does not happen at the snap of one's fingers, even if suitably motivated. (See, for instance, the *Net-Zero America* report on the complicated pathways, infrastructural needs, and impacts around the country for reaching net zero by 2050: Eric Larson, et al., *Net-Zero America: Potential Pathways, Infrastructure, and Impacts; Final Report Summary* [Princeton, N.J.: Princeton University, 2021], netzeroamerica.princeton.edu/the-report).
- <sup>45</sup> For an important discussion of some of these issues and how they surface in Isle de Jean Charles, Louisiana, see Nathan Jessee, "Community Resettlement in Louisiana: Learning from Histories of Horror and Hope," in Shirley Laska, ed., *Louisiana's Response to Extreme Weather: A Coastal State's Adaptation Challenges and Successes* (Cham, Switzerland: Springer, 2020).

Abstract: What would constitute just representation for the climate vulnerable? My purpose in this essay is to provide a critique of the default frame for approaching this question, as well as to offer a suggestion for expanding our conception of what an adequate answer should include. The standard frame conceives of representing vulnerable climate interests largely in terms of formal mechanisms of representation in technocratic and bureaucratic institutions. I show the limits of that standard approach and caution against the discussion of climate representation being overly confined to the level of "formal" representation. I go on to detail the importance of thinking about more "informal" modes of representing vulnerable climate interests. In order to pursue both of these aims, I draw on lessons in meaningful representation and inclusion during postconflict peacebuilding.

Keywords: climate change, justice, representation, vulnerability, activism, inclusion, trust