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Risk, Law, and Media: A Case of Climate Change

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In the past, we could walk across the desert by going from spring to spring.
Now, with the changing climate our springs are running dry.

—James Peshlakai, grandfather of youth plaintiff Jaime Lynn Butler

On Thursday, November 10, 2016, two days after the American presidential election, United States Federal District Judge Ann Aiken denied the United States government's and fossil fuel industry's motions to dismiss a climate change lawsuit brought by 21 young persons, the organization Earth Guardians, and climate scientist Dr. James E. Hansen. The lawsuit was filed in U.S. District Court for the District of Oregon in 2015 against the United States, naming: President Barack Obama in his official capacity; the Offices of the Council on Environmental Quality, Management and Budget, Science and Technology Policy and their Directors; the Departments of Energy, the Interior, Transportation, Agriculture, Commerce, Defense, and State and their Directors; and the Environmental Protection Agency and its Administrator. Since the presidential election, the case is proceeding against those offices and their new inhabitants. Given the current administration's fight for the "deconstruction of the administrative state" (Bannon, qtd. in Rucker and Costa; seen in Jay 00:01.34-00:01:38) and deregulation of the fossil fuel industry and corporate activity in general, the character and timing of this federal lawsuit are all the more urgent. As we write, the *Juliana v. United States* plaintiffs are gearing up for their October 2018 trial date.

Climate lawsuits have been proliferating, but with a notable lack of success (Shearer). *Juliana* is significant for a combination of reasons. The defendants are the many above-named government officials and agencies rather than oil companies or other emitters and polluters. The case is a challenge to the defendants' actions under the Fifth and Ninth Amendments to the U.S. Constitution and the Public Trust Doctrine with the plaintiffs claiming that the "defendants' actions violate [the plaintiffs'] substantive due process rights to life, liberty and property, and that defendants have violated their obligation to hold certain resources in trust for the people and for future generations" (*Juliana* 1233).¹ Judge Aiken herself has deemed this "no ordinary lawsuit" and chosen to manage the case accordingly (*Juliana* 1234). Then, notably for a volume on risk and media, *Juliana* is being litigated under the auspices of Our Children's Trust (OCT), a media rich initiative that "advocates for legally-binding *science-based* climate recovery policies" on behalf of youth and future generations ("Mission," OCT website).

Writing together, as a media studies scholar and an attorney working in environmental law, our attention has been gripped by OCT's purpose and mediated existence. The organization's website is a deep and consequential media object in and of itself. Short documentary films featuring youth plaintiffs "leading the effort to secure the legal right to a stable climate and healthy atmosphere" have been created in partnership with the international human rights organization WITNESS and Montana State University's Master's in Science and Natural History Filmmaking, and are posted to the OCT website under "About Us" (see Figure 1).

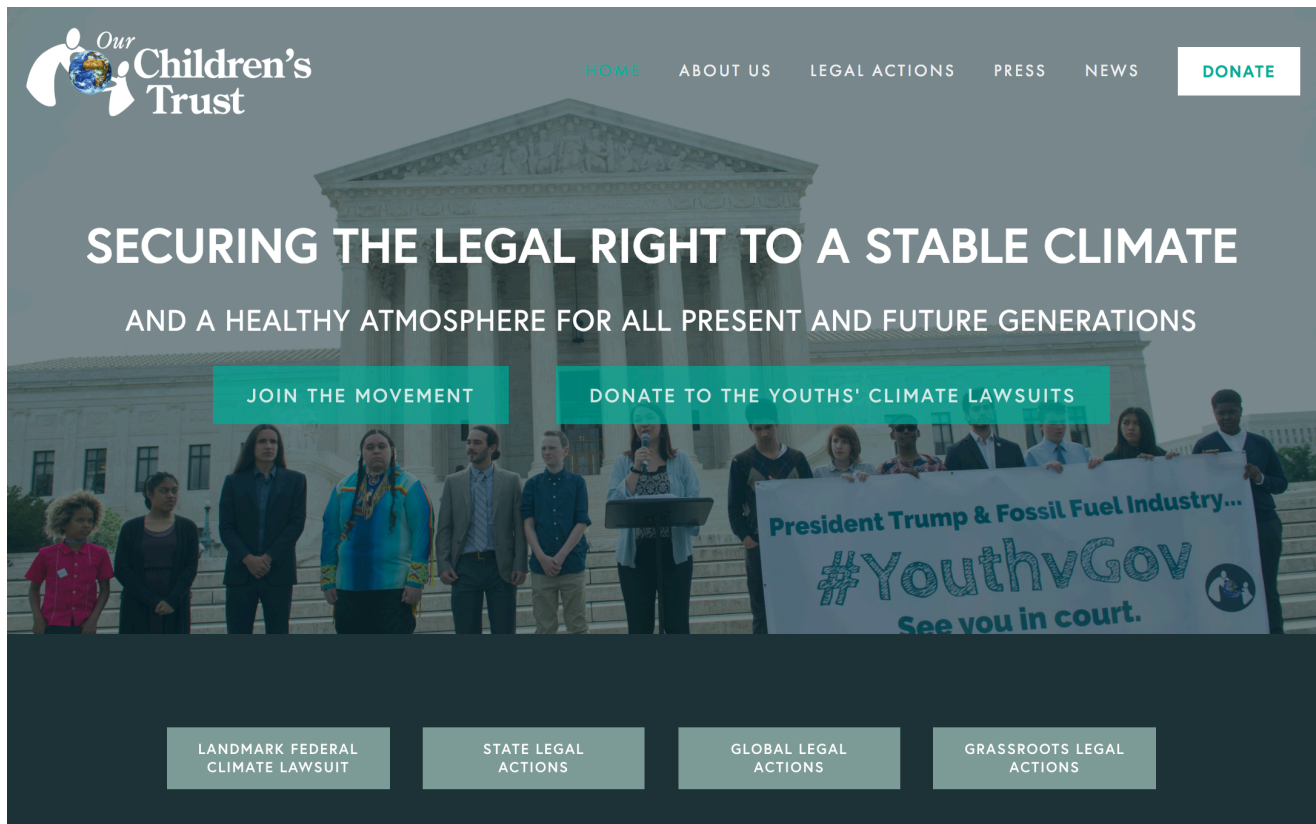


Figure 1. The Our Children’s Trust website as media assemblage.

Other elements of the website include: Video and Radio Coverage of plaintiffs in their personal surroundings and in excerpted television appearances where OCT’s Executive Director and Chief Legal Counsel Julia Olson also frequently appears; a Legal Actions section that contains documents pertaining to *Juliana* and OCT’s state, global, and grassroots legal actions; and a Law Library of *amicus curiae* (“friend of the court”) briefs, legal articles, and reports. There is also a science library of reports and articles focused on climate change, a blog, and the opportunity for people to donate to the cause. The initiative and our chapter proceed from the convictions that climate change is anthropogenic and deeply harmful to life on this planet, that its time scale places today’s youth at higher risk than adults of experiencing negative consequences over their lifetimes, and, centrally for

this analysis, that the judicial branch of government and new media can combine to ameliorate the situation.

In his field-building book, *Risk Society* (1986; Eng. trans. 1992), Ulrich Beck defines risk as “a systematic way of dealing with hazards and insecurities induced and introduced by modernization itself,” and explains that modernization advances by unbinding politics and “ope[n]ing the gates to hidden sources of social wealth with the keys of techno-scientific development” (20-21):

The risks and hazards of today thus differ in an essential way from the superficially similar ones in the Middle Ages through the global nature of their threat (people, animals and plants) and through their *modern* causes. They are risks of *modernization*. They are a *wholesale product* of industrialization, and are systematically intensified as it becomes global (21).

Several decades on, we take climate change as exemplary of Beck’s continued insistence on “[t]he inevitable downside of progress” (Beck, *World at Risk* 25) or the realization that environmental hazards are “of modernization”—*a consequence of its machinations* rather than a manifestation of modernity gone wrong. Current advanced and experimental technologies of oil and gas extraction (e.g. hydraulic fracturing, extended reach and complex path drilling, refracking) are in line with and some may even outstrip the “waves of large-scale technological innovation” Beck wrote about (e.g. nuclear fission, storage of radioactive waste) (*Risk Society* 185, 21). These extraction technologies are sources of wealth that epitomize both the harmful side effects and the “as yet unknown future hazards” Beck identified and foresaw (185). As the field of media studies has begun to describe, media themselves are embedded in this unhealthy ecology of resource extraction, production, consumption, (e)wastage, and repurposing (Starosielski and Walker; Maxwell and Miller; Bozak; Gabrys).²

This is the daunting context for our examination of risk, law, and media. But still we persist in hoping that the OCT assemblage, through the multiple spheres it influences and our transdisciplinary analysis of it (a law review article would be quite different), might contribute to the unraveling of conventional notions of which environmental changes are and are not inevitable and to the instantiation of a more radical, equitable existence on earth. Probing risk, law, and media in the material and mediated context of climate change, we ask: How do *Juliana* and related OCT media articulate, in their respective idioms: the “deep shuddering of temporality” that rocks our uncertain planetary future (Morton 21) and the essence of “geography as an epistemic category . . . grounded in issues of positionality, in questions of who has the power and authority to name” (Rogoff 21)? And how is this activist assemblage helpful for creating an environmentally livable and just energy scenario? In both the instance of time and the situation of space, we find a scaling between specific and broad: that is, between the historical present and a probable future (stretching from that of the millennial generation to geologic time), and between a particular injury and anthropogenic earthly disaster. We hope this scalar commonality will not be obscured by our trade-off in opting to discuss time and space sequentially so as to take law and media together. Still we embrace the profound relationality of “time-spaces” as a key conceptual premise (Massey 177-180). Beckian notions of risk and catastrophe and the relationship between the two (in Beck’s writing and as unpacked with reference to *Juliana*) also contribute to a logic of both/and that we see as present, essential, and admirably risky in the down-to-earth and highly mediated OCT initiative with epoch-changing ambitions.

Juliana is a case about climate change and climate change seems an apt topic for a volume on risk and media. Given the demands and possibilities of OCT’s multimodal commitment to climate rights advocacy, the overall goal of this chapter is to make a contribution along these same lines by

figuring law and media together as a crucible for the furtherance of information, analysis, and environmental justice. In particular, we seek to show how the legal and medial aspects of *Juliana* lasso the catastrophe of climate change and bring it down to earth and into present consciousness.

Risk and Catastrophe: A “time scale relevant to plaintiffs”

Juliana is formulated as exposure to a danger, harm, or loss that is known by the defendants to exist, but not yet realized to its fullest extent: in other words, as a problem of risk. The 100-page First Amended Complaint that the plaintiffs filed on September 10, 2015 opens with the following statement:³

For over fifty years, the United States of America has known that carbon dioxide (“CO₂”) pollution from burning fossil fuels was causing global warming and dangerous climate change, and that continuing to burn fossil fuels would destabilize the climate system on which present and future generations of our nation depend for their wellbeing and survival (*Juliana v. United States* Complaint 1).

We note the use of the conditional tense: “Defendants have known of the unusually dangerous risks of harm to human life, liberty, and property *that would be caused* by continued fossil fuel burning” (*Juliana* Complaint 2). In this document, we learn of “farm structures, orchards, greenhouses, and pastures” along with a coniferous forest “at risk” from a wildfire that could well result from a shortage of water brought on by the drought conditions and heat waves of a warming planet (*Juliana* Complaint 12). Coral reefs and “oysters, clams, scallops, mussels, abalone, crabs, geoducks, barnacles, sea urchins, sand dollars, sea stars, sea cucumbers, many common single-celled organisms and protists that act as prey, and various forms of seaweed” are at risk due to ocean acidification brought on by increased CO₂ emissions (*Juliana* Complaint 73). The complaint emphasizes dire

consequences: “The loss of some of these species can cause entire food webs to collapse” (*Juliana* Complaint 73). The Short Films, for their part, are also characterized by a conditional futurity that is perhaps surprising given their cinema verité mode. This is the devastating specter of crashing ecosystems that could be become material at some point in the future if we do not enact, in Beckian terms, the “self-refuting prophecy” (*World at Risk* 10) that Our Children’s Trust is striving to realize through filing this federal case.

In legal terms, the plaintiffs seek the following relief: “(1) a declaration that their constitutional and public trust rights have been violated and (2) an order enjoining defendants from violating those rights and directing defendants to develop a plan to reduce CO₂ emissions” (*Juliana* 1233). The latter is an equitable remedy called “injunctive relief,” or a court order (an injunction) commanding an action to take place or preventing an action from taking place in the future.⁴ Significantly, a court may only issue an injunction when there is the expectation that future harm *can be* forestalled by court action. It cannot be entirely too late.

Injunctive relief could be said to require a kind of demarcation between future harm and any prior harm. Ulrich Beck follows this logic in his key distinction between risk and catastrophe. “Risk is *not* synonymous with catastrophe,” he writes; rather, “[r]isk means the *anticipation* of catastrophe” and risks are in some sense “manufactured” (*World at Risk* 9-10). For Beck, it is only when risks “become real”—such as “when a nuclear power station explodes or a terrorist attack occurs”—that they “become catastrophes” (10). In his terms, “climate change is not (yet) a reality” but rather a risk (85). In a Beckian sense, therefore, one could read the language of the *Juliana* complaint as pushing catastrophe into the future: “Absent immediate, meaningful action by Defendants . . . [b]y 2100, these Youth Plaintiffs . . . and future generations, would live in a climate system that is no longer conducive to their survival” (*Juliana* Complaint 36).

And yet, while partially sharing injunctive relief’s disjunctive tendency, the *Juliana* complaint also draws on genuine complexities of the legal requirements and principles of injunctive relief—thereby blurring the Beckian risk/catastrophe split. Although, as indicated, it may only be ordered when there is still time for the court to act to prevent harm, injunctive relief does not preclude the application of the remedy in cases where some measure of harm has already occurred or is occurring.⁵ Perhaps for the purposes of persuasion (if not to satisfy the legal standard), the *Juliana* plaintiffs seek to show that the environmental changes impacting humans are indeed *already occurring* and are likely to continue and worsen. Likewise, in assessing whether, with respect to their request for injunctive relief, the plaintiffs had adequately alleged the “injury in fact” element of standing (a concept discussed further below), Judge Aiken too referred to injuries that are “ongoing and likely to continue in the future” (*Juliana* 1244).⁶

The case materials (and the media assemblage, as we will discuss) therefore describe a timeframe notable for the simultaneity of past, present continuous, near future, and deep times. In *Juliana*’s terms, impacts from climate change are extant, ongoing, accelerating, and potentially enduring. More than future possibility, such events also already possess the spatial, temporal, and social actuality of Beckian catastrophe. Existing impacts of climate change include the “warming of land surfaces, . . . the warming of oceans, increasing atmospheric moisture levels, rising global sea levels, and changing rainfall and atmospheric air circulation patterns that affect water and heat distribution” (*Juliana* Complaint 69); “[i]ncreased wildfires, shifting precipitation patterns, higher temperatures, and drought conditions” that threaten forest industries and private property (*Juliana* Complaint 73); and ocean acidification, which threatens marine life, including human food sources (*Juliana* Complaint 73). As alleged in the complaint:

Climate change [is] already damaging human and natural systems, causing loss of life and

pressing species to extinction. Unless arrested by government action informed by science, climate change will impose increasingly severe impacts on our nation and others, potentially to the point of collapse. . . . These impacts constitute harbingers of far more dangerous changes to come. If unabated, continued GHG emissions, especially CO₂, will initiate dynamic climate change and effects that spin out of control for Plaintiffs and future generations as the planet's energy imbalance triggers amplifying feedbacks and the climate system and biological system pass critical tipping points. (*Such changes would be irreversible on any time scale relevant to Plaintiffs and threaten their survival*) (*Juliana* Complaint 68, 76; emphasis added).

In *Juliana*, the catastrophe of climate change exceeds the spectacularization of a single moment when a risk “becomes real;” risk is not presented as singular. There are no discernable starting and ending points to climate change, but rather a tracery of phenomena unfolding as “slow violence” (Nixon), the effects of which are likely to increase in severity and eventually threaten human survival. What would climate change's catastrophic moment consist of anyway? The moment of “spin[ning] out of control?” The passage of “critical tipping points?” “Committed warming?” The arrival of irreversible change? Or is it the extinction of human life on planet Earth (Kolbert)? In the domain of science fiction, the idea of a limit event—a radical rupture or “singular” event after which there is no going back—remains a powerful imagination of catastrophe. We appreciate that to the contrary, in *Juliana*'s terms, catastrophes, plural, float in suspension with risk. The plaintiffs rely on current environmental problems as portents of future catastrophic impacts—extrapolated by climate science—that will be irreversible, though not necessarily abrupt or discrete, *if* the court and the executive branch of government fail to take action concerning CO₂ emissions. “The present level of CO₂ and its warming, both realized and latent, are already in the zone of danger,” allege the complainants (*Juliana*

Complaint 3).

In some respects, Beck's own conceptualization of risk belies the distinction he would make between the anticipation and arrival of catastrophic events. The subject of climate change would seem to play a role here. Practically absent from *Risk Society: Towards a New Modernity* (1992), the risks associated with climate change gained in prominence in Beck's thought as the planetary warming trend was accelerating and as scientific and social understanding of the phenomena were increasing. In *World at Risk* (2007; Eng. trans. 2009), climate change qualifies as one of the "new forms" [jacket copy] and more significant dangers that Beck highlights in his argument that "the world can no longer control the dangers produced by modernity" (8). This migration of climate change to the center of Beck's thought about risk, catastrophe, and modernity is further indicated by the subtitle of his posthumously published *Metamorphosis of the World: How Climate Change is Transforming Our Concept of the World* (2016). "Only by imagining and staging world risk does the future catastrophe become present—often with the goal of averting it by influencing present decisions," he states. "The catastrophic consequences of climate change . . . must be *made visible*" (Beck, *World at Risk* 10 and 86). This temporally progressive aspect of Beck's thought is of keen interest for our analysis of law and media because it signals the possibility that the imagination and *staging* of risk can and do have in *Juliana* the productive effect of summoning catastrophe to an immiscible time of the present.⁷

By advocating in a mediatic idiom as well as through litigation, OCT has all the more latitude to meld the futurity of global warming with the increasingly hazardous present. All of the materials that make up OCT online are media per John Durham Peters' definition of media "as vessels and environments, containers of possibility that anchor our existence and make what we are doing possible" (2). The array of scientific documents and short films posted to the site show effects of global warming that are already upon us and OCT proceeds full bore into the present/future

simultaneity of the catastrophe that is climate change. The landing page of “The Science” section of the website begins with a paragraph explaining the immediate need to reduce the atmospheric CO₂ levels that are already beyond what they should be for a stable climate system. Other documents prominently posted and annotated contain language about “restoring the atmosphere” and “returning” CO₂ concentrations from 400ppm to below 350pp. We are already beyond the conditions for a disastrous future.

To adapt the words of poet and member of the French Resistance René Char to the current situation, “Today we are closer to the catastrophe than the alarm itself, which means that it is high time for us to compose a well-being of misfortune, even if it had the appearance of the arrogance of a miracle” (qtd. in Bataille 132 and Yusoff 1010). However arrogantly—but what choice do we really have?—we gravitate to texts that dwell close to catastrophe, or, since temporality is our topic here, where timeframes coexist, or warp or fold into one another. Dutch anthropologist Johannes Fabian has advanced a critique of what he calls the “denial of coevalness,” by which phrase he characterizes the anthropological conceit that “primitive” peoples are somehow living in and engaging in sociocultural practices of a distanced “savage” past time period, and not abiding contemporaneously with “first world” subjects (1983). Transposing the term to the future, we find a denial of coevalness in any belief that the depredations of climate change are not already being experienced. And since those who lack the wherewithal to accommodate, move, adapt, or compensate tend to suffer more when disasters strike, this form of denial also perpetuates sociocultural distancing in terms of what Rob Nixon and Joan Martinez-Alier have so movingly called “the environmentalism of the poor.” Climate change catastrophes of increased storm volatility, flooding, and drought conditions are affecting the lives of large numbers of people and communities, most often those who lack the resources to sequester themselves in artificially verdant and safe enclaves of privilege or move out of

harm's way.

In her book *Climate Trauma: Foreseeing the Future in Dystopian Film and Fiction*, E. Ann Kaplan theorizes a category of cultural production (in “film and fiction,” including documentary film as well) in which audiences are engaged by stories that encourage us to imagine what “might already be here but is certainly in our future” (9). Although the book partially shares the optimistic premise of injunctive relief that there is still time and the possibility to forestall, redress, or mitigate the problems of climate change—in this case by locating audiences as “witnesses to what must never take place”—there is an extent to which, for Kaplan, certain dystopian texts are capable of “perform[ing] future-tense disaster” *in the present* (121). Writing about the documentary *Into Eternity: A Film for the Future* (dir. Michael Madsen, 2010), concerning a large-scale Finnish project to carve out of the granite bedrock a deep geological facility for the disposal of a significant percentage of Finland’s nuclear waste, Kaplan holds that the narrator “interpellates the viewer of the film in between—not as a present-day spectator (or normal position) but as the future human finding the repository.”⁸ *Manufactured Landscapes* (dir. Jennifer Baichwal, 2007), the film Kaplan pairs with *Into Eternity*, also summons the future while “sidl[ing] up to science fiction in its otherworldliness” (129). But as Kaplan discusses, the industrial incursions are in the here and now. Depicted through the film’s alternately bright and pollution-obscured color palate featuring the photographs of Edward Burtynsky, massive-scale extraction for profit has scarred the land and laid waste to areas where workers eek out a living.

A key question for us is whether the short documentaries by OCT have the capacity to “perform future-tense disaster” thus revealing how particular communities are affected. On the website under short films, there are nine videos, each of which features an individual young person moving through his or her surroundings, speaking to the camera, and often serving as a narrator. Three

of these protagonists are named plaintiffs in the federal case, including Kelsey Cascadia Rose Juliana. The others are activists or petitioners in legal actions in state court. Nelson Kanuk, an Alaskan Native and member of the Yup'ik tribe from Kipnuk, Alaska, was one of six plaintiffs in a Superior Court case against the State of Alaska, Department of Natural Resources, seeking declaratory and equitable relief. The State breached “its public trust obligations [under] Article VIII of the Alaska Constitution” by failing “to protect the atmosphere from the effects of climate change and secure a future for Plaintiffs and Alaska’s children,” the plaintiffs contended (*Kanuk* Complaint 2). Our Children’s Trust, in its website description, touts the positive aspects of the Alaska Supreme Court ruling, even though the court ultimately decided that “for ‘prudential reasons’ it would not order the relief requested by the plaintiffs” (“Proceedings in All 50 States, Alaska,” 12 September 2014). The Alaska Supreme Court did assert that the plaintiffs “make a good case” that “the atmosphere is an asset of the public trust” (*Kanuk* 1101–02), that the State “has obligations to combat climate change” (“Proceedings in All 50 States, Alaska,” 12 September 2014), and that “the science of anthropogenic climate change is compelling” (*Kanuk* 1094).

Contrary to expectations stemming from their present tense mode, we do find that these short films figure the injurious effects of climate change by featuring young persons talking and gesturing (literally) towards the adverse environmental changes they are already seeing and (figuratively) toward a harrowing, consequential future. Take Nelson Kanuk. According to the First Amended Complaint for Declaratory and Equitable Relief filed in Alaska state court:

Nelson [Kanuk] has been personally affected by climate change due to erosion from ice melt and flooding from increased temperatures. In December 2008, ice and water flooded the village, causing Nelson and his family as well as many others in his village to have to evacuate their homes. This erosion, flood, melting ice and increased temperatures threaten the

foundation of Nelson's home, village, native traditions, food sources, culture, and annual subsistence hunts (*Kanuk* Complaint 4).

This passage combines the past (the flood of December 2008), the present (*Kanuk* currently), and the future (the threat posed by new instances of ongoing problems). Likewise, the documentary film about *Kanuk* produced by iMatter Youth Council, Our Children's Trust, and WITNESS (*Nelson Kanuk*, dirs. Christi Cooper-Kuhn, Katie Lose-Gilbertson, and Kelly Matheson, 2011; available on the OCT website under "Short Films") also mobilizes the temporal simultaneity crucial to understanding climate change, now in the cinematic idiom.

The present-day tundra is alive with salmon berries that we see *Kanuk* and his siblings gathering. *Kanuk* presents a berry for its close-up, indicating, "this is what we survive on through the winter time; it's our ice cream dessert after we eat." Insects fly by, blurred bodies in front of the camera lens, signs of vibrant nature. The light is that of still photography's and cinematography's prized Golden Hour, enhancing the reds, blues, and chartreuses of the houses in this village and of laundry air-drying on the clothesline. *Kanuk* also harkens back to the time of the ancestors and to the 2008 flood and forward to the effects of global warming that are already being noticed and felt in his village: "it's mostly about the winter coming late," he narrates. "Climate change is about my future and the future of my entire generation," an end title reads, borrowing *Kanuk*'s first person. The title continues, "Scientists project that a 6% reduction of CO₂ emissions per year and massive reforestation will restore the balance in our atmosphere within this century. weTRUSTthem." (Well, it's worth a try.)

Two key sequences are illustrative of the temporal simultaneity. In the first of these, we hear *Kanuk* in voiceover telling about the lateness of the snow, while in the image we see a darkish shot of muddy puddled ground reflecting the sunrise or sunset. Then begins *Kanuk*'s (or perhaps his

brother's) narration of the December 2008 flood. "It was the worst flood that I remember," he recalls.

Cut to Kanuk making wide gestures as we hear:

You could see all of this water flowing swiftly into the village that way, and at the same time there were these huge ice sheets that were just coming in fast [cut to the river], and [I] heard these loud thumps and bumps [cut to a medium close-up of Kanuk explaining] on the side of the house [Kanuk in front of his house] and I figured out that was probably the ice sheets that broke apart from the river and are hitting the house. [Kanuk's little sister playing with toy boats in a muddy rivulet by the front steps of the house; her right overshoe sinks into the wet mud and she succeeds in pulling it out without toppling over] After the water went back into the river, there was just brown, sticky mud all over the ground and wherever the water touched. [Kanuk slapping each step in turn for emphasis] That mud was on top of *these* steps, one two three, and four.



Figure 2. Nelson Kanuk explaining the effects of ice sheets banging into his house. Image courtesy of filmmaker Christi Cooper-Kuhn.

“Floods in December aren’t common,” we hear. The river is usually frozen all the way till spring.” Among the things that strike us about this energetic yet distressing passage is the fact that while Kanuk is remembering the flood of a few years prior, archival footage is not necessary. His gestures in the present make up a subtle form of reenactment—not of the *Rescue 911* docudrama variety, but rather as found in witness testimony (as when a survivor mimes putting a noose around her neck to reenact a hanging she once witnessed [Shenker 105]). The soggy present simultaneously evokes what was, what is, and what will happen in the future when the ice continues to come late, then later still, and one day perhaps not at all.

The sequence that follows tips the balance toward the future. We see close-ups of riverbank erosion and long shots of the bigger picture.



Figure 3. The eroding riverbank in Nelson Kanuk's community. Image courtesy of Christi Cooper-Kuhn.



Figure 4. Kanuk measuring land subsidence. Image courtesy of Christi Cooper-Kuhn.

Nelson Kanuk and his father are shown measuring the riverbank to determine the amount of erosion caused by the higher temperatures that melt the permafrost. “This spring, my dad and I, we measured how far it was. This year we lost about eight feet and a few weeks ago we lost another five feet.” Kanuk continues in voiceover, “And we have another 40 or so feet until the bank of the river reaches our house. If it keeps moving at the same rate, then, in the next few years then we might have to move our house to another location.” This is the extrapolative portion of the sequence, the incremental land loss as the river chews its way to the house, and then the moment comes when the house must be moved to prevent its falling into the river. That catastrophic scene has not come to pass at the time of filming, but the work of the sequence is to bring it into being imaginatively. Bliss Cua Lim, referring to Roland Barthes and Henri Bergson, has written about how, “[o]n the one hand, the cinema, as clockwork apparatus belongs to the regime of modern homogenous time,” functioning

“like habitual perception” to conform time to “the homogeneity of measurable space.” And yet, she argues, there exist “fantastic narratives” that “strain against the logic of clock and calendar, unhinging the unicity of the present by insisting on the survival of the past or the jarring co-existence of other times” (Lim 11). Citing Lim, Philippa Lovatt demonstrates the key role of the sonic register in this evocation of other times. In the “spectral soundscapes” of the films of Chinese director Jia Zhangke, “the sonic as an unruly force in its own right” emerges (419). Just as *Manufactured Landscapes* intimates otherworldliness, so too in this short film, modest in style and structure, the slapping sound of Kanuk’s hand on the steps, among other visitations of past and future time, “unhing[es] the unicity of the present” in the face of global warming.

In one sense, the situation exemplifies Nixon’s “slow violence,” in that it “occurs gradually,” manifests as “a violence of delayed destruction that is dispersed across time and space,” and may seem like no violence at all (Nixon 2). There is “a representational bias against slow violence,” he argues, which has “a dangerous impact on what counts as a casualty in the first place,” where “[c]asualties of slow violence—human and environmental—are the casualties most likely not to be seen” (12). The eroding riverbank qualifies as “violence decoupled from its original causes and by the workings of time,” posing, therefore, “the representational challenges and imaginative dilemmas” of slow violence (11). This muddy, liminal crumbling is by no means fast or spectacular.

But it is not all that slow. In saying this, we do not mean to over-literalize Nixon’s concept. In fact, he writes of the need to “redefine[e] speed” “[s]o to render slow violence visible.” “We see such efforts,” he writes, “in talk of accelerated species loss, rapid climate change, and in attempts to recast ‘glacial’—once a dead metaphor for ‘slow’—as a rousing, iconic image of unacceptably fast loss” (13). But we find in the film a productive “middle violence” that offers slow violence’s “different kind of witnessing of sights unseen” (15) while maintaining, *in the broad judicial context*, an urgent

claim for relief on a generational scale: the youth will see more changes than the elders, no matter how many trees we plant. But plant we must. Nixon asks how we can “turn the long emergencies of slow violence into stories dramatic enough to rouse public sentiment and warrant political intervention” (3). The Our Children’s Trust assemblage, we submit, enables multiple temporalities and works to accentuate exposure to coming harms.

Refusal to Foreclose: Climate change and a livable future

Beck offers “the debate on climate change which is supposed to prevent climate change” as a key example of a potential “‘self-refuting’ prophecy,” and Our Children’s Trust is a promising venue in this regard. The *Juliana* plaintiffs seek to stage the effects of climate change “with the goal of averting it by influencing present decisions”—or compelling institutional actors to manage the risk of further harm (Beck, *World at Risk* 10). In Judge Aiken’s court, this staging has been productive.

Throughout her 2016 decision on the motions to dismiss, Judge Aiken explicitly refuses to accept the defendants’ and intervenors’ invitation to read certain prior legal decisions—or precedent—as foreclosing the plaintiffs’ climate change claims and, more generally, the plaintiffs’ suit.⁹ For example, the judge rejects the government’s argument that the plaintiffs failed to adequately allege causation (an element of standing, as discussed below), flatly declining to “interpret [the Ninth Circuit case, *Washington Environmental Council v. Bellon*¹⁰]—which relied on a summary judgment record developed more than five years ago—to forever close the courthouse doors to climate change claims” (*Juliana* 1245).¹¹ Similarly, she refuses to read a Supreme Court case—*PPL Montana, LLC v. Montana*—to “foreclose application of the public trust doctrine to assets owned by the federal government” (*Juliana* 1256). And finally, instead of dismissing the plaintiffs’ substantive due process claims on the ground that they allege no infringement of a fundamental right, Judge Aiken, noting

that “‘new’ fundamental rights are [not] out of bounds,” opts to exercise her “reasoned judgment” and recognize a “new” fundamental right: “the right to a climate system capable of sustaining human life” (*Juliana* 1249). Read together, these refusals to foreclose the plaintiffs’ claims reveal a deliberately forward-looking decision.

To justify her decision to open the door to judicial intervention to avert climate catastrophe, Judge Aiken leans heavily on the particular stage in the proceedings and the corresponding requirements of the operative legal standards even as she accepts the plaintiffs’ articulation of world risk and remedy.¹² In distinguishing *Bellon* and finding that the plaintiffs adequately alleged causation, she emphasizes that because *Juliana*’s procedural posture is different, different legal standards apply. Here, unlike in *Bellon*, Judge Aiken is ruling on motions to dismiss and therefore is bound to accept the well-pleaded factual allegations in the plaintiffs’ complaint as true (*Juliana* 1233, 1245). She explains that “[t]his rule appropriately acknowledges the limits of the judiciary’s expertise: at the motion to dismiss stage, a federal court is in no position to say it is impossible to introduce evidence to support a well-pleaded causal connection” (*Juliana* 1245). Judge Aiken then concludes the opinion by emphasizing: “This lawsuit may be groundbreaking, but that fact does not alter the legal standards governing the motions to dismiss. Indeed, the seriousness of plaintiffs’ allegations underscores how vitally important it is for this Court to apply those standards carefully and correctly” (*Juliana* 1262). Judge Aiken signals that she accepts the degraded future the plaintiffs forecast in order to forestall its full-blown occurrence.

The opinion plays up the potential horrors the plaintiffs (and by extension, we) may experience in the face of government—executive and perhaps judicial—inaction. For example, in explaining why she has recognized a fundamental right “to a climate system capable of sustaining human life” and its breadth, she states:

In this opinion, this Court simply holds that where a complaint alleges governmental action is affirmatively and substantially damaging the climate system in a way that will cause human deaths, shorten human lifespans, result in widespread damage to property, threaten human food sources, and dramatically alter the planet's ecosystem, it states a claim for a due process violation (*Juliana* 1250).

And, in characterizing the lawsuit as a whole, she states that it “is of a different order than the typical environmental law case” in that it “alleges that defendants’ actions and inactions—whether or not they violate any specific statutory duty—have so profoundly damaged our home planet that they threaten plaintiffs’ fundamental constitutional rights to life and liberty” (*Juliana* 1261).

The opinion is resolutely oriented toward the future.¹³ Rather than concluding that certain prior environmental law decisions require her to dismiss the plaintiffs’ claims, Judge Aiken mobilizes other decisions to fashion new law.¹⁴ In recognizing a fundamental right “to a climate system capable of sustaining human life,” she brackets out cases where “courts have consistently rejected attempts to define [a right to be free from pollution or climate change] as fundamental” (*Juliana* 1250). Instead, she looks to the reasoning of *Obergefell v. Hodges*, the case in which “the Supreme Court broke new legal ground by recognizing a constitutional right to same-sex marriage” (*Juliana* 1249). Judge Aiken therefore lays bare and rejects the proposition that she cannot or should not forge a new climate change jurisprudence, opining: “A deep resistance to change runs through defendants’ and intervenors’ arguments for dismissal: they contend a decision recognizing . . . a fundamental right to [a] climate system capable of sustaining human life would be unprecedented, as though that alone requires dismissal” (*Juliana* 1262).

The opinion culminates with Judge Aiken asserting the judiciary’s consequential role in environmental law. In the opinion’s conclusion, she squarely rejects—with both the opinion as a

whole and her concluding words—that the judiciary should remain conservative in climate change litigation, proclaiming that “[f]ederal courts too often have been cautious and overly deferential in the arena of environmental law, and the world has suffered for it” (*Juliana* 1262). She then cites Senior Ninth Circuit Judge Alfred T. Goodwin’s article, *A Wake-Up Call for Judges*:

The current state of affairs . . . reveals a wholesale failure of the legal system to protect humanity from the collapse of finite natural resources by the uncontrolled pursuit of short-term profits . . . [T]he modern judiciary has enfeebled itself to the point that law enforcement can rarely be accomplished by taking environmental predators to court . . . The third branch can, and should, take another long and careful look at the barriers to litigation created by modern doctrines of subject-matter jurisdiction and deference to the legislative and administrative branches of government (*Juliana* 1262).

Judge Aiken thus frames her opinion as not only proper and legitimate, but also essential to the constitutional scheme as well as aimed at the prevention of ecosystemic collapse.¹⁵

Judge Aiken expressly envisions and presents her decision as one that belongs in the pantheon of controversial decisions on the right side of history. She accomplishes this by comparing *Juliana* to “the landmark opinion” (authored by then-Oregon Supreme Court Justice Goodwin) that “secured Oregon’s ocean beaches for public use” (*Juliana* 1262). Judge Aiken contends that it was only by rejecting a “call to judicial conservatism” and applying a concept from English common law that the Oregon Supreme Court was able to ensure that “Oregon’s beaches remain open to the public now and forever” (*Juliana* 1262-63). Thus, she invites her readers to envision the long-term impact of her decision.

Our Children’s Trust similarly casts both its advocacy efforts and Judge Aiken’s decision as groundbreaking and critical to the future of “the youth of this country” (“Victory for America’s

Youth”). The section on the website describing the federal case is labeled “Landmark Federal Climate Lawsuit” (see Figure 1). And, in an official press release, counsel for the plaintiffs Julia Olsen proclaimed: “This decision is one of the most significant in our Nation’s history.” She also asserted that the trial in the case will be “the trial of the millennium” (“Victory for America’s Youth”). Olson therefore urges the public to see Judge Aiken’s decision alongside prior monumental decisions in United States history and to imagine the lawsuit in the context of the entire millennium. Asking the reader to look back at the decision from a future vantage point, Olson invests the lawsuit and decision with the capacity to image, create, and ensure a certain future for humans. In short, Our Children’s Trust encourages the public to see this lawsuit itself as a productive staging of world risk.

Standing: threshold questions, spatial matters

“A threshold question in every federal case is . . . whether at least one plaintiff has standing” (*Thomas v. Mundell* 760, qtd. in *Juliana* 1242)—whether a plaintiff has “such a personal stake in the outcome of the controversy as to warrant [the] invocation of federal-court jurisdiction and to justify exercise of the court’s remedial powers” (*Warth v. Seldin* 498, qtd. in *Juliana* 1242). From our transdisciplinary perspective and in terms of OCT’s own set of concerns, “standing” intrigues. At the same time that it is incumbent upon the *Juliana* plaintiffs to assert, and Judge Aiken to assess, each person’s “personal stake” or “concrete, particularized” injury, the injuriousness of climate change necessarily extends well beyond the local situation. As we will proceed to demonstrate, OCT’s *spatial imagination* echoes its temporal one in terms of scalability: here too, the terrain is simultaneously specific and broad, local and national (global even), down-to-earth and atmospheric.

Injury in fact, causation, and redressibility are the three elements that comprise “[t]he irreducible constitutional minimum of standing” (*Lujan v. Defenders of Wildlife* 560).

To demonstrate standing, a plaintiff must show (1) she suffered an injury in fact that is concrete, particularized, and actual or imminent; (2) the injury is fairly traceable to the defendant's challenged conduct; and (3) that injury is likely to be redressed by a favorable court decision (*Juliana* 1243).¹⁶

(Re)mediating injury

At pains to establish injury in fact, the complaint and also the judicial decision draw vivid word pictures of the individual youth plaintiffs in their surroundings beset by a litany of woes. The environments are beautifully natural and yet also partially—but not irremediably—damaged. The titular plaintiff, Kelsey Cascadia Rose Juliana, is described in the complaint (dated 2015) as a nineteen-year-old resident of Eugene, Oregon with environmentalist bona fides (she “walked 1,600 miles from Nebraska to Washington D.C. in the Great March for Climate Action” in Fall 2014 [*Juliana* Complaint 6]) and a life experience that “depends on the freshwaters of Oregon for drinking, hygiene, and recreation” (*Juliana* Complaint 6). Details proliferate: on hiking and canoeing trips she drinks freshwater from springs in the Oregon Cascades and in everyday life has a diet including salmon, cod, tuna, clams, mussels, and crab from “marine waters and freshwater rivers” and vegetables grown by small farmers in the Willamette Valley and in her own family garden (*Juliana* Complaint 6). But drought and lack of snow are “already harming all of the places Kelsey enjoys visiting, as well as her drinking water, and her food sources” (*Juliana* Complaint 7). Intense wildfires, which elsewhere in the complaint are said to be increasingly frequent and intense due to climate change (*Juliana* Complaint 73), have interfered with her enjoyment of summer recreation, and she “has had to abandon camping trips because of nearby wildfires” (*Juliana* Complaint 7). Judge Aiken determines that the plaintiffs have indeed satisfied the “injury in fact” requirement because their

“alleged injuries—harm to their personal, economic, and aesthetic interests—are concrete and particularized” and imminent—that is to say “ongoing and likely to continue in the future” (*Juliana* 1244). (While continuing with this section’s discussion of space and place, we note that the temporal dimensions of standing match the complexity discussed above.)

We are struck by the rustic simplicity of Juliana’s and the other portraits, in the complaint and judicial decision both, and the conflation of would-be subsistence and recreational activities (drinking from streams, sourcing salmon from nearby rivers, tide-pooling, canoeing on lakes). It is likely, though unstated, that a significant percentage of the foods in Juliana’s regular diet are purchased at grocery stores. But, in the complaint, there is little evidence of consumer activity or the architectures of modernity: buildings, roads, energy infrastructures. The choice of rural plaintiff Alexander Loznak contributes to the pastoral quality of the plaintiff descriptions in aggregate. Loznak’s family owns the 570-acre Maupin Century Farm along the Umpqua River in an unincorporated area of Kellogg, Oregon that has been in the family since 1868 (*Juliana* Complaint 9). The farm, where hazelnut and plum trees and vegetables are grown and chickens and grass-fed cows are raised, is a source of food and revenue for the family (*Juliana* Complaint 10). They also hunt deer, elk, and wild turkey to eat (*Juliana* Complaint 10). Record-setting heat waves and drought are specified as having adverse effects, especially on the hazelnut orchard (*Juliana* Complaint 10).

It is precisely the hand-to-mouth or foot-to-path nature of the individual portraits that make it possible to broaden the discussion of the injurious effects of climate change without running afoul of the generalized grievance rule. The government, in its motion to dismiss, contends that the plaintiffs lack standing, and the federal court therefore lacks jurisdiction, on the basis that the “injuries are not particular to plaintiffs because they are caused by climate change, which broadly affects the entire planet (and all people on it) in some way” (*Juliana* 1243). But Judge Aiken rejects this argument,

citing Ninth Circuit and Supreme Court precedents. She insists that ““the fact that a harm is widely shared does not necessarily render it a generalized grievance”” (*Jewel v. National Security Agency* 909, qtd. in *Juliana* 1243), and, quoting *Massachusetts v. EPA*, that ““[i]t does not matter how many persons have been injured by the challenged action’ so long as ‘the party bringing suit shows that the action injures him in a concrete and personal way”” (qtd. in *Juliana* 1243). However paradoxically, the quotidian—even plodding—nature of each young person’s byways and injuries ensures that the case is and can legally be about widespread injurious effects of climate change.

But then too the youth stakeholders in Our Children’s Trust are dynamic and well-traveled advocates who have moved across the country and world, and across the mediasphere. Their activism is evidenced by the compilation of Video & Radio Coverage on the OCT website: dozens of audio and video pieces from 2014 through to the time of this writing in 2018. On June 29, 2017, the plaintiffs, from Kelsey Juliana to Levi Draheim, the youngest plaintiff, gathered on the steps of the United States District Court in Eugene, Oregon and spoke to KLCC (McDonald). Plaintiff Xiuhtezcatl Martinez, in an interview on the Norwegian-Swedish television talk show *Skavlan* (hosted by Norwegian journalist Frederik Skavlan) compares that experience to his previous experience of having addressed the United Nations (*Skavlan*). A Democracy Now! presentation finds Aji Piper (16 years of age), Draheim (9 years of age), and Jaime Butler (16 years of age), along with attorney Julia Olson, among the 2017 People’s Climate March participants where they are interviewed by host Amy Goodman. Draheim speaks of the dune erosion, drought, wildfires, and sea level rise affecting her home on a barrier island in Florida (Goodman). In a Senator Bernie Sanders video, Kelsey Juliana, Kiran Oomen, and Victoria Barrett form a panel of speakers positioned in front of a “blue marble” image of planet earth. “Everything to do with the climate affects young people more than it does anyone else,” states Oomen, “and one can speculate that might even be an influence

on the reason why so many old folks who are in the government have been so slow to act. It's because it's not going to affect some of them." Video footage from widespread and diverse locations is edited into this press conference such that the youth are seen peopling country, from the icy edge of an alpine body of water to outside the United States Supreme Court in Washington, D.C. (Sanders).

Lisa Parks has theorized and demonstrated a technique of "plotting the personal" in which she appropriates GPS technology from its original use ("military monitoring of soldiers' movement upon the battlefield") to serve as a figuration "of the user as a subject produced through a series of movements and encounters" (213–14). Springing from Paul Virilio's notion of "the trajective," Parks challenges "dominant cartographic discourses" and their reduction of "the complexity of spatial practice" to theorize a "'being of movement' located somewhere between the objective map of territory and the subjective experience of motion on the ground" (Virilio, qtd. in Parks 214).

We envision the nodes and trajectories of the plaintiffs—firmly rooted in their local communities and also crisscrossing the globe, uniting in spots for press conferences and marches, and dispersing again—as embodying through their "being of movement" the collective commons necessary for life on earth. Although their media format is video compilation rather than GPS, these and other Our Children's Trust videos "plo[t] . . . the personal," thereby forming an assemblage that is both an archive of its participants' trajectories and also, importantly, an active instantiation of mediated positionality. The website, like the court case, is constructive of "concrete, particularized, and actual" positions and injuries, and of standing as a liminal matter indeed.

Causation and social ecology

To meet the second requirement of standing—causation—" [a] plaintiff must show the injury alleged is 'fairly traceable' to the challenged action of the defendant and not the result of 'the independent

action of some third party not before the court” (*Lujan* 560, qtd. in *Juliana* 1267).¹⁷ The chain of causation alleged in this case leads Judge Aiken to the heart of the matter: the deleterious effects of greenhouse gas emissions. The judge makes clear from the beginning of her opinion that anthropogenic climate change is a proven fact (i.e. “this lawsuit is not about proving climate change is happening or that human activity is driving it” [*Juliana* 1234]). What does need to be established for the viability of the case is the linkage between the harm endured by the plaintiffs and the defendants’ responsibility for failing to keep destructive greenhouse gas emissions in check. “[T]he line of causation between the defendant’s action and the plaintiff’s harm must be more than attenuated” (*Native Vill. of Kivalina v. ExxonMobil Corp.* 867, qtd. in *Juliana* 1244).¹⁸ However, as Judge Aiken submits, a “causal chain does not fail simply because it has several links” (*Kivalina* 867, qtd. in *Juliana* 1244).

For its part, the government’s November 2015 motion to dismiss *Juliana* relies on the Ninth Circuit’s decision in a prior case brought by environmental advocacy groups “to compel the Washington State Department of Ecology and other regional agencies ‘to regulate greenhouse gas emissions . . . from five oil refineries’” (*Washington Env’tl. Council v. Bellon* 1135, qtd. in *Juliana* 1244). In that case, the court held the plaintiffs lacked standing “because the causal link between the agencies’ regulatory decisions and the plaintiffs’ injuries was ‘too attenuated’” (*Bellon* 1141, qtd. in *Juliana* 1244). As Judge Aiken states, “[t]he court noted that the five oil refineries at issue were responsible for just under six percent of total greenhouse gas emissions produced in the state of Washington” (*Juliana* 1245): cumulative environmental effects notwithstanding, “there is limited scientific capability in assessing, detecting, or measuring the relationship between *a certain GHG* (greenhouse gas) *emission source* and *localized climate impacts in a given region*” (*Bellon* 1143, qtd. in *Juliana* 1245; emphasis added).

Judge Aiken finds *Juliana* different in a number of respects, one of which is that “the emissions at issue in this case [emanating from across the entire country], unlike the emissions at issue in *Bellon*, make up a significant share of global emissions” (*Juliana* 1246). The links are there: between the fossil fuel combustion responsible for “the lion’s share of greenhouse gas emissions” and the defendants’ ability and activities to raise or lower combustion; and to climate change and plaintiffs’ injuries (*Juliana* 1246).

From a spatial studies perspective, the case’s and the videos’ work describes a filigree of disparate spaces and nodes: the atmospheric layer (where the GHGs are suspended), the industrial installations that comprise the country’s fossil fuel infrastructure, and down-to-earth byways where the plaintiffs reside or recreate. The Pacific Connector Natural Gas Pipeline, if completed, would connect to the Jordan Cove LNG Terminal at Coos Bay, Oregon, running through a forest 30 miles from the Maupin Century Farm and “cross[ing] bodies of water at 400 different locations in Oregon, including two places on the South Umpqua River where Alex recreates” (*Juliana* Complaint 9). The complaint states that Loznak has:

walked along the pipeline route and has seen the old growth trees that will be logged and the special rivers that will be impacted in order to deliver natural gas to what would be the largest, most-polluting facility and power plant in Oregon, solely built to liquefy natural gas for export and ultimate combustion (9).

This pipeline would also affect another plaintiff, Jacob Lebel, who grew up on Rose Hill Farms (11). The pipeline would run behind the farm, “adversely affect[ing] Jacob’s aesthetic inspiration, and spiritual enjoyment of the property,” and it would entail forest clear-cutting destructive of the landscape integrity and biodiversity and the risk of leaks or explosions that could “trigger a wildfire in the hot summer months” (13). The LNG Terminal in Coos Bay would also affect Xiuhtezcatl

Martinez by serving as a liquefaction facility for “natural gas extracted through fracking in Colorado” where Xiuhtezcatl (as the court documents refer to him) resides, and “shipped overseas for combustion.” The existence of this Oregon plant increases the demand for fracking and the concentration of CO₂ (8).

But then, we ask, if the legal demands are such that *anyone* who can demonstrate “concrete, particularized, and actual or imminent” injury, causation, and redressability is eligible for relief, what is the relevance to *Juliana* of the premise of social ecology: that those who are already disadvantaged suffer more when disasters occur or environmental degradation haunts the land? The idea of the Anthropocene has been subject to criticism for a tendency to elide social inequality. Nixon, among others, asks: “[W]hat is lost and gained by adopting the Anthropocene’s grand species perspective on the human? Does this epic vantage point risk suppressing—historically and in the present—unequal human impacts, unequal human agency, and unequal human vulnerabilities?” (“The Anthropocene”). “[R]isk factors are not random,” assert Yoosun Park and Joshua Miller in the context of this body of work that offers a radical critique of neutralist discourses of disaster while “underscoring the numerous interdependent social forces, which shape the context in which disasters occur” (11). Discussing the ravages of Hurricane Katrina, often referred to ruefully as an “equal opportunity disaster,” they amply demonstrate that “[t]he ongoing environmental risks for poor people and people of color are consistently higher than for white people and those who are economically privileged The socially disadvantaged are more likely to live near chemical plants, landfills, and other contaminated lands” (Park and Miller 10).¹⁹ Similar social ecological factors pertain in contexts of fossil fuel extraction. For example, the path of Energy Transfer Partners’ Dakota Access Pipeline snaking under the Missouri River half a mile north of the Standing Rock Sioux Reservation, through land encompassed in the Fort Laramie Treaty of 1851 between United States treaty commissioners

and representatives of the Cheyenne, Sioux, Arapaho, Crow, Assiniboine, Mandan, Gros Ventre, and Arikara Nations, was originally planned to cross the Missouri north of the city of Bismarck, North Dakota. But that plan was scrapped for several reasons including that the route was a threat to the city of Bismarck's water supply (Dalrymple).

We do discern in the complaint and judicial opinion a distinct social ecological consciousness contingent on Our Children's Trust's expansiveness with regard to positionality. The plaintiffs as a group reside in different states (with Oregon residents a simple majority), their selection evinces a commitment to racial and economic diversity, and their life experiences are formed by external factors and agents. Jamie B., from the Bitter Water Clan, grew up on the Navajo Reservation in Cameron, Arizona (*Juliana* Complaint 23-24). There she and her family faced water scarcity for themselves, their crops, and their farm animals, as springs that had previously flowed year-round are drying up. What with the costs of hauling water, they could not sustain that living and were forced to move from the land. As the complaint states, "Jaime is worried that her extended family, all of whom live on the Reservation, will also be displaced from their land, which will erode her culture and way of life" (24). Her new home is on property her mother owns in the Kaibab National Forest, where a pine beetle infestation has destroyed large swathes of forest and she and her mother had to evacuate for two days due to the Oak Creek Canyon fire, exacerbated by drought conditions (24). Jayden F., a resident of Rayne, Louisiana, had been directly affected by three hurricanes, linked in the complaint to climate change (31). She "has suffered harm and will continue to suffer harm to her and her family's personal safety, bodily integrity, property, economic stability, food security, and recreational interests from rising sea levels, increased frequency and severity of hurricanes with ensuing storm surges, flooding and high winds, *all associated with or exacerbated by climate change caused by Defendants*" (31; emphasis added). The complaint connects the dots between the infrastructures of oil

extraction, Hurricane Gustav, and Jayden F.'s home:

Defendants' approval of the dredging of canals through marshes for oil and gas exploration and pipelines has compounded the problem by its destruction of natural storm barriers, increased erosion, and intense saltwater intrusion, resulting in additional land loss. In 2008, during Hurricane Gustav, Jayden's family lost power for a week (32).

The BP oil spill is also cited as having adversely affected the activities of Jayden and her family, and here too the complaint draws a direct line from the BP spill to "the coastal impacts from climate change caused by Defendants" (32). That Judge Aiken may be keenly conscious of the socio-economic unevenness of harm is suggested by her inclusion of information from Jayden F.'s supplemental declaration (*Juliana* 1243). When Jayden F.'s home flooded in 2016, sewage backed up, soaking everything and waterlogging the walls. But "the family remained in the flooded house for weeks" "[w]ith no shelters available and nowhere else to go" (1243).

And yet, the technical demands of asserting legal standing and the choice to focus the videos on individual youths partially tamp down consideration of the stake of communities and the historical contingencies of resource allocation. For example, there is a decades-long struggle going on over water rights and the existence of dams on the Klamath River in California and Oregon in the course of which farmers, fishermen, Native tribes, and environmentalists have articulated competing interests and pointed to the immiseration of communities (see Barboza). The death of fish and other animals and plants also accompanies large-scale damming and diversion of water. Historical conflicts over tribal lands, periodic drought conditions, and debates over the viability of hydroelectric dams (some of which have been removed), are serious complicating factors. The fact that such a complex social and natural ecology is unnecessary, perhaps even counterproductive to showing legal standing, works against a systemic view of injury. Complex or nonlinear causality is in this way inhibited by

the legal context.

Redressability in the context of nonknowledge

The third and final prong of the constitutional standing inquiry is redressability: whether a favorable decision will actually redress the alleged (extant or projected) injury.²⁰ But as Judge Aiken states, “[r]edressability does not require certainty,” but only “a substantial likelihood it will do so” (*Juliana* 1269, 1247). The plaintiffs need only show that the “requested remedy would ‘slow or reduce’ the harm” (*Massachusetts* 525, qtd. in *Juliana* 1247). Thus, Judge Aiken explains, in this case, “[i]f plaintiffs can show, as they have alleged, that defendants have control over a quarter of the planet’s greenhouse gas emissions, and that a reduction in those emissions would reduce atmospheric CO₂ and slow climate change, then plaintiffs’ requested relief would redress their injuries” (*Juliana* 1247).²¹ She rejects the defendants’ and intervenors’ skeptical formulation of the inquiry as a question of whether the court can guarantee “an overall reduction in greenhouse gas emissions” (*Juliana* 1247). The legal standard, she finds, permits the court to act, even when uncertainty about its own efficacy remains. Inaction is the real problem, she stipulates, and not the scientific unknowns. “Redressability in this case is scientifically complex, particularly in light of the specter of irreversible climate change, wherein greenhouse gas emissions above a certain level push the planet past points of no return, beyond which irreversible consequences become inevitable, out of humanity’s control” (*Juliana* 1247; citing a declaration by James Hansen). Judge Aiken then poses a series of questions, the answers to which we cannot know “at the motion to dismiss stage:”

What part of plaintiffs’ injuries are attributable to causes beyond this Court’s control?

Even if emissions increase elsewhere, will the magnitude of plaintiffs’ injuries be less if they obtain the relief they seek in this lawsuit? When would we reach this point of

no return, and do defendants have it within their power to avert reaching it even without cooperation from third parties (*Juliana* 1247)?

After explicitly acknowledging that there are things we cannot know at this stage in the case and, presumably, in the progress of scientific research,²³ Judge Aiken concludes that the plaintiffs have adequately alleged redressability.

We are impressed by the opinion's avoidance of the pitfall Kathryn Yusoff identifies: allowing the presence of uncertainty to halt necessary action. What "knowledge of climate change has revealed alongside its certainties," Yusoff argues, are "the ambiguities inherent in recognising a complex energy system that cannot . . . be regulated by a mechanic" (1010-11). Her excellent example is the choice by the Intergovernmental Panel on Climate Change, at one point, to relegate to a footnote information about the projected failure of massive ice sheets. Because "catastrophic failure of the ice was seen by the IPCC as an excessive, unpredictable event (the problem of rising sea levels was not entirely understood)," the pertinent calculations could not be included in the body of the Fourth Assessment Report (1011-12).

But of course, given that grappling with and planning for melting ice sheets and rising sea levels is necessary for the minimization of suffering, failure to acknowledge these uncertainties of the physical environment (in "excess of our knowledge") "brings with it other kinds of risks (2009, 1015). "[T]he removal of [the] unknown stability or nonknowledge" actually "*promotes* further instability" (1012; emphasis added). In declining to be constrained by uncertainty about the court's efficacy to help forestall climate catastrophe (at the stage in the litigation at which she was writing²²), Judge Aiken too is tolerating or even embracing nonknowledge to mitigate "other kinds of risks." It may be that "our relationship to the disaster is presently more intimate than our power to represent it," as Yusoff would have it (1026). Yet we affirm these ongoing efforts.

Producing the Future

To speculate affirmatively is to produce futures while refusing the foreclosure of potentialities, to hold on to the spectrum of possibilities while remaining open to multiple futures whose context of actualization can never be fully anticipated. This is not to say speculative living is simply ephemeral; rather, it is a consistently modifying practice that seeks to act in shifting, multiscalar worlds.

—Uncertain Commons, *Speculate This!*, 20.

The OCT assemblage exemplifies the “sense of potentiality” or “opening to the future” that the Uncertain Commons collective articulates as “affirmative speculation” (14). Whereas “firmative speculation” is a “speculative mode” that seeks to “produc[e], exploi[t], and “foreclose[e]” the future (Uncertain Commons 19, 36), as when financial “risk instruments” channel the wealth of common resources to the privileged few while shifting the burden of risk to those who are less advantaged or disadvantaged, “affirmative speculation” is a way to “contest the proprietary enclosure of knowledge, imagination, while also affirming the potentialities of the common” (12). Climate change is one of the examples provided by Uncertain Commons of an existing problem, exacerbated by the practices of firmative speculation, but potentially reparable by those who would speculate affirmatively or “dare to temporally materialize forms not yet realized” in order to achieve “a greener, more responsive global politics” (22).²⁴

When we began this analysis, we expected to find an unevenness in media’s and the judiciary’s respective abilities to embrace the posture of living “simultaneously in the virtual . . . and [in] the partially actualized, rapidly mutating present” (Uncertain Commons 21-22). We did find and have sought to demonstrate, that through all its initiatives, OCT proceeds in this affirmative spirit: combining and coordinating material pleasures and harms being experienced locally with the imagination of a future of healthy biomes and unburdened communities. Thickly described habitats comport with deep geologies and planetary spaces, different temporalities are rendered together, and

risk is staged as resistance to the foreclosure of a livable future. Then, for the most part and contrary to our initial expectations, we found in the *Juliana* plaintiffs' complaint and Judge Aiken's decision a similar heartening complexity of temporal and spatial imagination.

The intensity of the legal battle attests to the high stakes of judicial action. Since the complaint was filed in September 2015, the national election of November 2016 brought Donald J. Trump to power and the subsequent appointments of new Cabinet and federal agency leaders. Relevant to the problem of climate change are the appointments of Secretary of State Rex Tillerson, former CEO of ExxonMobil, and then Michael R. Pompeo, who was president of an oilfield equipment company prior to serving in Congress and directing the CIA; Secretary of the Interior Ryan Zinke, former Congressman from Montana who has opposed environmentalists on issues of coal extraction and oil and gas drilling, and lists "regulatory relief" as one of the strengths of his Congressional track record; Secretary of Energy Rick Perry, former governor of Texas and member of the Energy Transfer Partners board of directors, who proposed eliminating the Department of Energy during his 2012 presidential campaign; and Administrator of the Environmental Protection Agency Scott Pruitt, who as Attorney General of Oklahoma supported the oil and gas industries and sued the Environmental Protection Agency more than a dozen times, including to block the agency's Clean Power Plan. Pruitt attempted to undo environmental regulations before being replaced by Andrew Wheeler. These are officials whom the plaintiffs have announced their intention to depose. But on June 9, 2017, the defendants²⁵ fought back by petitioning the United States Court of Appeals for the Ninth Circuit to issue a writ of mandamus and direct the district court to dismiss the case and stay the proceedings until the merits of the petition for mandamus are resolved.²⁶ A writ of mandamus is a "drastic and extraordinary remedy," and "only exceptional circumstances amounting to a judicial usurpation of power or a clear abuse of discretion" will justify its invocation (*Cheney v. U.S. Dist.*

Court for Dis. of Columbia 380; internal citations and quotation marks omitted). The defendants alleged that the district court (Judge Aiken) “committed clear legal error and exceeded its judicial authority” by failing to dismiss the *Juliana* case (Petition for Writ of Mandamus 3). The Ninth Circuit ultimately denied that petition, as well as a second mandamus petition. Then, in July 2018, the U.S. Supreme Court ruled in favor of the plaintiffs, denying the government’s application for a stay of the proceedings and deeming the request for relief premature. The case has reached the merits stage and, as indicated at the start of this chapter, is slated for trial in October 2018.

The overall situation in the United States with regard to climate change resonates with Ulrich Beck’s prescient discussion in the final chapter of *Risk Society* of the political fallout of “the innovation process that is enforced by modernity” and “the globalization of the industrial society” (184). First, “the decision-making competencies that structure society” are split into two contrary but interpenetrating processes such that “one part is removed from the rules of public inspection and justification” to which they would normally be subjected in the parliamentary democracy (that makes up the other part) and is instead concentrated on investment enterprises and technological prowess (184). What Beck is describing here is a techno-economic regime where science is bound—firmatively one might say—by an equation between technological innovation and rises in the standard of living that simply doesn’t add up. To suggest an example, oil companies’ promise of good, local jobs when new installations are introduced into a community is exaggerated and the jobs often short-lived. In fact, studies over the years have shown that extractive industry boomtowns often descend further into poverty or social instability for having opened the door (Smith; Freudenberg; Brabant and Gramling). But according to Beck’s discussion, such “negative effects”—“deskilling, risks of unemployment or transfer, threats to health and natural destruction”—are swept aside in the rush of supposed progress. Social consequences no longer matter, as “progress becomes a substitute for

questions, a type of consent in advance for goals and consequences that go unnamed and unknown” (184).²⁷

Beck then argues that techno-economic development ultimately “falls between politics and non-politics,” becoming “a third entity, acquiring the precarious hybrid status of a *sub-politic*, in which the scope of the social changes precipitated varies inversely with their legitimation” (186). A “profound *systematic transformation of the political*” occurs, characterized by both a “loss of power experienced by the centralized political system in the course of the *enforcement and utilization of civil rights*” and changes of social structure that become lost in the false formula that technical progress and social progress are equivalent. The result is a “*democratic monarchy*” in which:

The rules of democracy are limited to choice of political representatives and to participation in political programs. Once in office, it is not only the “monarch for a term” who develops dictatorial leadership qualities and enforces his decisions in authoritarian fashion from the top down; the agencies, interest groups and citizens’ groups affected by the decisions also forget their rights and become “democratic subjects” who accept without question the state’s claims to dominance (Beck, *Risk Society* 191).

Beck’s “democratic monarchy” is in ample evidence in the domination of environmental offices and agencies meant to protect people and the environment by the very industries they were designed to oversee or regulate. Generally, the theory of “regulatory capture” posits that “[r]egulatory agencies, created to act in the public interest, often end up acting directly or indirectly in the interests of those they regulate” (Brown 703).²⁸ In the United States today, the elected federal government is under the sign of techno-scientific capture.

The petition for a writ of mandamus filed against the United States District Court for the District of Oregon and *Juliana et al.*, Real Parties in Interest employed the gambits characteristic of

risk modernization. Significantly, it attempted to exclude the judiciary from decisions about the environment by invoking the U.S. Constitution's framework of separation of powers and categorizing issues of energy and the environment as matters of policy or politics to be dealt with only by the executive and legislative branches of government. The petition does not engage with Judge Aiken's lengthy discussion of whether the case presents a political question such that "federal courts lack subject matter jurisdiction to decide that question" (*Juliana* 1235). Here she makes the point that "[c]limate change, energy policy, and environmental regulation are certainly 'political' in the sense that they have 'motivated partisan and sectional debate during important portions of our history.' . . . But a case does not present a political question merely because it 'raises an issue of great importance to the political branches'" (*U.S. Dep't of Commerce v. Montana* 458, qtd. in *Juliana* 1236). Relative to our Beckian framework, if the executive and legislative branches have become "sub-political" or captured by extractive industries, then they have shirked their political obligation to represent and act for the benefit of the people of this country.

The petition is also striking for its adamant foreclosure of the subject of climate change. The petitioners could have accepted that climate change is a problem that needs addressing while still objecting to the district court proceedings. On the contrary, its descriptions take us through the looking glass in their disregard for the plaintiffs' goal of contributing to the achievement of an atmosphere capable of sustaining verdant life over the course of time. If the petitioners' objection is that the plaintiffs' case seeks to interfere with and "fundamentally redirect federal policy regarding energy development, transportation and consumption," that critique need not be lumped into a sentence that also describes the plaintiffs' underlying goal "to bring about dramatic reductions in global concentrations of carbon dioxide (CO₂)" (Petition for Writ of Mandamus 3). What's so bad about that? If the petitioners disagree that the Constitution guarantees the right to "a climate system

capable of sustaining human life” (Petition for Writ of Mandamus 3), it does not then follow that they must also reject *the value* of a sustainable climate. What the petitioners see is judicial overstepping; what they imagine/fear is irreparable harm to the President and the federal departments and agencies in the form of “disruption of important functions” that would occur while furnishing plaintiffs with discovery and a redirected energy and environmental policy (39).

What the plaintiffs and Judge Aiken see are results of climate change that are already adversely and unevenly affecting people and communities. What they do in this literally unprecedented situation is to create new jurisprudence. What they refuse is to be bound by a lack of direct legal precedent or the inevitable scientific uncertainties. What they imagine as an “open spectrum of possibilities” (Uncertain Commons 20) is a socially and environmentally just and habitable constellation of places and communities where people can live and thrive. Likewise, the OCT assemblage is an active and activist entity that attracts views and, by its very existence as a repository or archive, inspires *the creation* of materials to be archived (see Derrida) and actions taken. OCT-the-media-object stages world risk as a temporally and spatially complicated and urgent matter, not only “to generate pressure for action” (Beck, *World at Risk* 86) but also to perform its own key activist role.

By the time you read this article, there will be new developments in *Juliana* and the other lawsuits OCT is pursuing, and in its media presence. Whatever transpires in any one of these cases or situations, the initiative’s youthful energy will persist into the future. Looking at OCT as risk media, as we have done here, is to speculate affirmatively and in that way contribute to the activation of a viable atmosphere for life, liberty, and the pursuit of the common good.

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Notes

- 1 More specifically, the complaint sets forth claims for: (1) violation of the Due Process Clause of the Fifth Amendment; (2) violation of equal protection principles embedded in the Fifth Amendment; (3) the unenumerated right preserved for the people by the Ninth Amendment; and (4) violation of the Public Trust Doctrine (*Juliana* Complaint 84-93).
- 2 As Maxwell and Miller detail in their field-building book (2012), the environmental impact of media is global, extreme, and deleterious. Media electronics such as cell phones and computers contain toxic substances that threaten the health and the very lives of the workers who assemble them. And as if this were not enough, the “scale and pervasiveness of these environmental risks” extends “in and around every site where electronic and electric devices are manufactured, used, thrown away, poisoning humans, animals, vegetation, soil, air, and water” and contributes to “climate change, pollution growth, biodiversity decline, and habitat decimation—the constituents of our global ecological crisis” (1-2).
- 3 All subsequent references to the “complaint” in *Juliana v. United States* refer to the First Amended Complaint.
- 4 For example, in a trademark infringement case, a court might issue an order specifically enjoining the defendants from directly or indirectly infringing the plaintiff’s trademarks.
- 5 More specifically, to qualify for injunctive relief, a plaintiff must demonstrate: (1) that [she] has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between

the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction (*eBay Inc. v. MercExchange, L.L.C.* 391, qtd. in *Monsanto Co. v. Geertson Seed Farms* 156-57).

We note that legal scholars and courts have assessed the relevance of past harm to the “irreparable injury” prong of this test. As Mark P. Gergen, John M. Golden, and Henry E. Smith have pointed out, the formulation of the test for permanent injunctions now “strangely” seems to *require* “proof of past irreparable injury—irreparable injury that the movant ‘has suffered’—to justify an injunction that might be wholly directed at preventing future infringing behavior” (Green et al. 203, 209, footnote omitted). Faced with this test, various courts of appeal have “either missed or silently ignored the tense of the [Supreme] Court’s . . . language and simply focused on the threat of future harm” (Golden 657, 696 [collecting cases]). The Federal Circuit, however, concluding “[i]t was proper . . . to consider evidence of past harm,” chose not to ignore *eBay*: “Although injunctions are tools for prospective relief designed to alleviate future harm, by its terms the first *eBay* factor looks, in part, at what has *already occurred*” (*i4i Limited Partnership v. Microsoft Corp.* 862; emphasis added).

- 6 Here, in explaining the legal standard, Judge Aiken cites a rule from a pre-*eBay* case that states, “[a]s a general rule, [p]ast wrongs are not enough for the grant of an injunction; an injunction will only issue if the wrongs are ongoing or likely to recur” (*Federal Trade Commission v. Evans Prod. Co.* 1087; internal quotation marks omitted).
- 7 Indeed, a nuanced reading of Beck might reveal an entry point to rethinking the terrorist act itself, not as a unitary future occurrence, but rather as an immanent unfolding (see *World at Risk* 10).
- 8 Kaplan sees *Into Eternity* as an unusual documentary: “Its methods for telling its story are experimental and effective,” with a moody *mise-en-scène* through which “the movie enacts a

horrific dream, a nightmare from which we long to wake up, while Onkalo [the nuclear waste facility whose name may be translated as “hiding place”] resembles a secret place like the unconscious” (120).

- 9 The legal concept of precedent is complex. As Charles A. Sullivan has explained, “[t]he law uses ‘precedent’ in two very different ways. In the weaker sense, ‘precedent’ merely refers to any authoritative pronouncement of a court that other courts have an obligation to respect; in this sense, any court decision may be a ‘persuasive precedent,’ although precisely what that means . . . is unclear. The second, and stronger, sense is ‘binding precedent,’ which means that a lower court, subject to the appellate jurisdiction of the higher court, is required to follow the decisions of that court, or, more accurately, to follow the ‘holdings’ of that court (Sullivan 1143, 1146–48; footnotes omitted).
- 10 We note that *Bellon* was controversial within the Ninth Circuit. Three Ninth Circuit judges dissented from the decision to deny rehearing of the case before an en banc court—a court that consists of the Chief Judge and ten randomly drawn, non-recused, active judges (“Ninth Circuit En Banc Procedure Summary”). Judge Gould, joined by Judges Wardlaw and Paez, lamented that: “Limiting the reasoning of *Massachusetts v. EPA* to cases involving sovereign states is a mistake that will harm the public. The panel’s opinion unwisely requires courts to deny standing to any non-state plaintiff seeking to enforce the Clean Air Act’s provisions in the effort to fight global warming, and relegates judges—and the general public—to the sidelines as climate change progresses. In my view, as our planet warms and oceans rise, individual citizens should have standing to urge their states to take corrective incremental actions to combat global warming” (*Washington Environmental Council v. Bellon* 1081; Gould, J., dissenting). For further discussions on *Bellon*, see Mank (1525) and Moffat (959).

- 11 Courts often determine that prior cases are “distinguishable” or “inapplicable” and therefore not controlling in the case before them. Indeed, although “the rule of law requires lower courts to follow the higher court’s pronouncements,” the “rigors of such a system are . . . mitigated by the distinction between holding and dictum and the ability of a court to ‘distinguish’ the binding precedent” (Sullivan 1150).
- 12 The defendants and intervenors moved to dismiss *Juliana* for lack of subject matter jurisdiction and failure to state a claim under Federal Rule of Civil Procedure 12(b)(1) and Federal Rule of Civil Procedure 12(b)(6), respectively (*Juliana* 1233).
- 13 To be sure, the decision is future oriented partly due to the nature of the suit itself—the plaintiffs seek largely prospective relief—including an order directing the defendants to develop a plan to reduce CO₂ omissions, rather than monetary damages for past harms.
- 14 Because Judge Aiken is a district court judge, this opinion is not binding on other district or circuit courts. See *Hart v. Massanari* (1174) (noting that “the binding authority principle” applies only to appellate decisions, and not to trial court decisions); *Mead* (787, 789) (“[D]istrict court decisions adjudicate present controversies but do not create law for future cases.”). Nonetheless, the opinion can serve as persuasive authority in other courts.
- 15 She also states: “Even when a case implicates hotly contested political issues, the judiciary must not shrink from its role as a coequal branch of government” (*Juliana* 1263).
- 16 This is also known as “Article III standing.” We do not delve into prudential standing, a non-constitutional standing requirement that plaintiffs must also satisfy.
- 17 We note that Corey Moffat has called causation the “most controversial of the [*Lujan*] elements with regard to private climate change litigation,” and elaborated upon how “[l]ower courts have

generally split with regard to the question of whether private parties can establish causation in the climate change context” (Moffat 959, 964–65).

- 18 The case Judge Aiken invokes is *Native Village of Kivalina v. ExxonMobil Corporation*, in which the indigenous community of Kivalina, Alaska brought suit against the energy industry for flooding related to sea level rise related to climate change caused by the oil extraction. The case was ultimately dismissed on the ground that the issue was political rather than legal. (See Shearer).
- 19 Park and Miller take Katrina-era New Orleans as their case in point, citing a Brookings Institution finding that quotes Louisiana State geographer Craig Colten’s observation that “With greater means and power, the white population occupied the better-drained sections of the city, while blacks typically inhabited the swampy ‘rear’ districts” (15). In New Orleans, as Park and Miller state, prior to Katrina, 67.3% of New Orleans’ population (compared with 12.3% for the U.S.) were African American” and “African American families were disproportionately poor, comprising 91.2% of the city’s poor families of all races” (13).
- 20 Although the causation and redressability prongs “overlap and are two facets of a single causation requirement,” they also “are distinct in that causation examines the connection between the alleged misconduct and injury, whereas redressability analyzes the connection between the alleged injury and requested judicial relief” (*Bellon* 1146, qtd. in *Juliana* 1246-47).
- 21 Seemingly central to Judge Aiken’s conclusion that the plaintiffs have satisfied the redressability prong is the fact that the defendants in this case are not “minor contributors to global climate change.” Indeed, Judge Aiken distinguishes the reasoning in *Bellon* on that basis (*Juliana* 1245-46).

22 Each element of the standing inquiry “must be supported in the same way as any other matter on which the plaintiff bears the burden of proof, *i.e.*, with the manner and degree of evidence required at the successive stages of the litigation. . . . At the pleading stage”—*Juliana*’s stage—“we presume that general allegations embrace those specific facts that are necessary to support the claim” (*Lujan* 561 [internal quotation marks omitted]).

23 Uncertainties notwithstanding, legal research asserts that we are in the midst of a “climate emergency” (Wood & Woodward 633, 670, 682). Mary Christina Wood and Charles W. Woodward, IV have described what we do and do not know about climate change:

Though the precise threshold of atmospheric CO₂ that represents the point-of-no-return is unknown, the global concentration of CO₂ in the atmosphere has surpassed 400 ppm.

Already, some dangerous feedback loops are manifestly in motion. Vast areas of melting permafrost now release huge amounts of CO₂ and methane (both of which are greenhouse gasses) into the atmosphere, and melting polar ice caps intensify the heating, because less ice remains to reflect heat away from Earth—a dynamic known as the albedo effect. Gus Speth, the former Dean of the Yale School of Forestry, warns that if we maintain our largely inadequate course of action, the world “won’t be fit to live in” by mid-century (Wood & Woodward 641; footnotes omitted).

24 Another example provided by Uncertain Commons of the affirmatively speculative mode is that of the then-prototypical, GPS-enabled, and highly controversial Transborder Immigrant Tool, a hand-held device designed to help migrants crossing the U.S.-Mexico border locate highways and caches of drinking water in the desert.

25 The intervenors are no longer part of the case. On June 27, 2017, Judge Aiken granted the National Association of Manufacturers’, the American Fuel & Petrochemical Manufacturers’, and

the American Petroleum Institute’s separate motions to withdraw (*Juliana* Order on Motions to Withdraw 1).

26 The petition for Writ of Mandamus was filed by the Acting Assistant Attorney General Jeffrey H. Wood, Acting Assistant Attorney General Eric Grant, and Andrew C. Mergen and David C. Shilton, attorneys from the Appellate Section of the Environment & Natural Resources Division of the U.S. Department of Justice.

27 To quote Beck at greater length, “On the one hand, the institutions of the political system—parliament, government, political parties—*functionally* presuppose in a manner *conditioned by the system* the production circle of industry, technology and business. On the other hand, this pre-programs the permanent change of all realms of social life under the justifying cloak of techno-economic progress, in contradistinction to the simplest rules of democracy—knowledge of the goals of social change, discussion, voting and consent” (*Risk Society* 184).

28 We recognize that regulatory capture, often associated with George Stigler (winner of the Nobel Prize in Economics), has been discussed and analyzed by many scholars. Some, such as Jon Hanson and David Yosifon, have argued that traditional capture theory is “too shallow” and posited a “theory of deep capture,” which refers “to the disproportionate and self-serving influence that the relatively powerful tend to exert over all the exterior and interior situational features that materially influence the maintenance and extension of that power—including those features that purport to be, and that we experience as, independent, volitional, and benign” (Hanson and Yosifon 129, 215, 218). Here, we acknowledge the basic outline of the theory of regulatory capture.

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