

# Critical Ecology with Dr. Suzanne Pierre

## Ologies Podcast

### August 23, 2022

Oh hey, it's your sister who is cursed with loving Arnold Palmers but cannot say Arnold Palmers, Alie Ward, back with an episode of *Ologies* that none of us saw coming because this isn't an ology that you probably knew existed. In fact, only one other ologist before this may have used the title and we will cover why. But I met this ologist back in March and we chatted for a while. I was up in San Francisco doing a panel at the California Academy of Sciences, and then we saw each other again and recorded more when we were both on Catalina Island. She was selected for the USC Wrigley Storymakers Program, and I was on the island teaching these climate scientists, including herself, about all of the ups and downs of podcasting. So, I got to corner her again and ask her more questions because she is cool, and I like her.

So, she did her undergrad in environmental studies at NYU, and got a PhD in ecology and evolutionary biology from a place called Cornell University, and then a postdoc at UC Berkeley. She also worked at the California Academy of Sciences in San Fran as a research scientist in critical ecology. This year, she won the National Geographic Society Wayfinder Award. She's also developed this new field of critical ecology and founded the Critical Ecology Lab, which is a nonprofit research center that focuses on how systems of inequity are messing up the planet.

So, ecology comes from a root meaning about who is living where. And critical, in this sense, has roots in social philosophies that look to figure out and understand and critique societal power structures and just get to the bottom of why some shit is fucked up. And those are my words, not hers. But yes, critical just means, "Let's look at this, shall we?" But we will get into it.

Before we get into it though, quick thanks to all the patrons who make this show possible at [Patreon.com/Ologies](https://Patreon.com/Ologies), you can support for a dollar a month and submit questions for the ologists before we record. And thank you to everyone who just uplifts the show by subscribing, and rating, and leaving reviews for me to see. I see them all, including this one by LadyBirdEggs, who wrote:

*Thanks for making us all better, smarter, weirder, and more interesting people.*

Honestly, highest praise I could ever ask for. You are welcome, LadyBirdEggs whose name is as hard to say as Arnold Palmers.

Anyway, onto the show, which, despite the tough topics that we cover in this, it's one of the goofier and just more down-to-earth, chatty romps that we've had in a while, you're going to love her. So, get ready for biogeochemist, soil microbial ecologist, scholar, principal investigator, National Geographic explorer, and the world's foremost critical ecologist, Dr. Suzanne Pierre.

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**Aside:** Okay so, heads up, this interview started before the interview even started. Our mics were still on the table.

**Dr. Pierre:** I googled it recently and I was like, oh this phrase has been used once before in 1974. There is one paper that a guy was writing about it, and he wrote this, kind of, treatise about moving "From Critical Theory to Critical Ecology," that was the title. And I was like, oh... that's what I'm doing. I had never seen this paper at all, I am not plagiarizing this man, I will credit him, but I read the abstract and I was like, that's what I've been saying but no one ever followed up on his work since... whatever, I think it was '74 that it was published. So, I'm a little bit biting off this man, but I'm also like a little bit his Black brainchild of the distance. And it's so interesting the

way that two ideas can come together independently or come up independently but speak to each other. So, anyway, I want to credit that man. But other than that guy, I don't think that anyone else has talked about critical ecology.

**Aside:** His name, Dr. Vincent Di Norcia, a Toronto-based philosophy professor, and I found his paper, it's titled, "From Critical Theory to Critical Ecology." It was published in 1974, which was almost half a century ago. And if you are a Gen Xer, take a minute... that's difficult, I know, the math. But the abstract explains that "Man's mastery of nature has always been double-edged and ideology which often extended to the domination of men," and vintage sexism for the period aside, it continues, "The increasing evidence of the ecological problems attendant to advanced technology's successes also demands the development of a non-repressive standpoint toward our natural habitat." So, Dr. Pierre saw this abstract, was like, "What? Who? Who is this guy? Why do we have the same mission? But including more genders now." Okay, so let's actually just start this discussion.

**Dr. Pierre:** Anyways, we're not in the interview yet. *[laughs]*

**Alie:** No, that's amazing though! First thing I have you do...

**Dr. Pierre:** Mic check?

**Alie:** Yeah, mic check if you could just say your first and last name and your pronouns.

**Dr. Pierre:** My name is Suzanne Pierre, and my pronouns are she/her.

**Alie:** Dr. Pierre.

**Dr. Pierre:** Dr. Pierre, that's right.

**Alie:** Let's go over a little bit, what is critical ecology?

**Dr. Pierre:** What is critical ecology?

**Alie:** A question no one has ever asked you, ever before. *[both laugh]*

**Dr. Pierre:** It's so new, it's very confusing. Yeah, so let's start with, what is ecology? That's really useful. Ecology is the study of how all living and nonliving things in a system, in nature, interact with one another; how they exchange matter and energy, and how matter and energy is organized in living and nonliving parts of an environment. So, that means, from the rocks, to water, to all of the animals, plants, and kind of how they are interconnected and rely on each other. Ecology includes lots of other things like the behavior of those plants and animals, how they have evolved to interact with one another, and la-la-la-la-la. Okay, so, very science, la-la-la. *[Alie laughs]*

So, critical ecology is looking at that basic ecosystem and thinking about how, when we measure changes in that ecosystem, we need to be thinking about the particular ways that human behavior, decision making, and ultimately, power dynamics have come to shape the ways that those living and nonliving things interact. And the, kind of, premise of critical ecology is that where there are disparities in power between groups of human beings, we're looking at what patterns emerge from those disparities in power, for all elements of ecology. So, I hope that's a good start.

**Alie:** No, that's a great start! It's sooo big. *[both laugh]*

**Dr. Pierre:** Tell me about it.

**Aside:** So, everything from excess nitrogen in waterways because of giant agriculture companies planting monocultures, down to 'did your mayor decide to pave over part of the

park for a tennis court that no one uses and now there's fewer butterflies?' That could all be under the critical ecology umbrella. So, you just saying, "Huh! Dang, that's critical ecology." Every neighborhood council meeting is teeming with critical ecology, one could argue, we just didn't really have a term for it but... let's back up a little.

**Alie:** How long have you been Dr. Pierre?

**Dr. Pierre:** I got my PhD in 2018, so I think that that is four years; that feels like four years.

**Alie:** Ahh! Did you get it in critical ecology?

**Dr. Pierre:** Not at all. [*Alie laughs*] I got my PhD in biogeochemistry and ecosystems ecology, and I focused on forests and soils and, kind of, thinking about how microbes in terrestrial environments... Have I already used too many words that I should peel back a little bit?

**Alie:** No, I love this.

**Dr. Pierre:** Awesome.

**Alie:** We love these words.

**Dr. Pierre:** Okay, great. So, I apply microbial ecology, and biogeochemistry, and ecosystems ecology [*"I love this."*] to understand how plants, soils, and microbes exchange nutrients and how that pretty much shapes when you look at a forest, how that forest functions, and why it is the way it is.

**Alie:** Did you gravitate toward that because you liked dirt? Or because you like plants? What led you to that particular niche?

**Dr. Pierre:** All of the above. I love soil. I decided I loved soil, I think sometime late in high school, and that was before I thought I was going to do science, I was just like a quiet fan of dirt. [*Alie giggles*] And I was just kind of like, wow, we just walk around on this extremely complicated medium, that at that point in high school I had just found out that it was also alive. I was like "Sidenote, actively alive, excuse me??" So, that was thrilling.

And I found out about the cycle of the elements, the global cycle of carbon and nitrogen, and somebody, I believe my... all right, shout out Ms. Strickhart, [phonetic] wherever you are, my high school biology teacher showed us a diagram and it's all the arrows that are like, "the soil, the atmosphere, the vegetation." And everyone else was like, "This is exhausting, why are there so many arrows? There does not need to be this many arrows" And I was like, "More arrows! Give me more arrows!" [*Alie laughs*] And actually, biogeochemistry loves arrows, we just fucking love... Am I allowed to swear on this?

**Alie:** Very much so.

**Dr. Pierre:** Okay, I'm just truly- that is my main question actively in life is "What's going in and what's coming out?" [*Alie laughs*] I'm serious, you can boil so many things down to literally just what's going in and what's coming out.

**Aside:** For more dirt on forest soils, you can see the Forensic Ecology episode with Dr. Tiara Moore from November of 2021 and... *soiler* alert, there's an upcoming Pedology episode on soils... and I'll pronounce that better when it comes out, but it'll explain more. That's coming up. Calm down, calm down, it's going to be exciting. But the title of Sue's dissertation? That's a great question.

**Dr. Pierre:** What was my dissertation?

**Alie:** I wasn't sure if people were so sick of their own dissertation title that they're like, "I never want to hear those words again."

**Aside:** I googled it right there, while we were sitting together.

**Alie:** [*laughing*] Wait. Wait, wait.

**Dr. Pierre:** I literally haven't thought of that whole sentence...

**Alie:** Here we go... "Below ground carbon and nitrogen cycling in forest ecosystems in response to mean annual temperature and nutrient limitation." How could you forget that?

**Dr. Pierre:** [*laughing*] I'm actually... I'm not feigning it, I'm literally crying right now, [*Alie laughs*] that is so funny.

**Alie:** So, it's been four years since that was your dissertation.

**Dr. Pierre:** Yes.

**Alie:** Bring me back a little bit to the process of getting a PhD. It's not a simple process.

**Dr. Pierre:** No, it's exhausting. I'm still tired, that's why I forgot.

**Alie:** [*laughs*] Now, nowhere in there is there critical ecology. I would love to know, in that dissertation, what's the TLDR on that? And how did that, sort of, ignite, which is a horrible term when you're talking about the climate, but how did that leapfrog you into critical ecology?

**Dr. Pierre:** Gotcha. So, the TLDR on the dissertation is, basically, I was interested in this idea that people kind of think of plants as not really having agency or choice. We think we know that for now... TBD. [*Alie giggles*] And what's really interesting is that plants actually do respond to their environment by changing how they allocate their resources within their bodies, within their tissues. So, they can basically put more carbon above ground in their stem and leaf and flower parts than their root parts, depending on what's going on.

We know that this decision-making system of, 'put your carbon up top, put your carbon down below', is a response to resources. And so, with climate change, knowing that temperature is increasing, knowing that environments are becoming drier, so much is changing with both the plant and the microbes. So, I became really interested in this idea of this dance between plants responding to climate, microbes responding to climate, and then plants and microbes responding to each other.

**Alie:** What did your field research look like?

**Dr. Pierre:** So, my dissertation work was in Hawaii, on the big island.

**Alie:** Oh, that sucks.

**Dr. Pierre:** Yeah, it was really difficult in that I had, like, primarily fun. [*Alie laughs*] No, I mean, wish I could have spent more time there, but I was super fortunate to get to work there on the Mauna Kea volcano, the forests that grow on that volcano. And I also worked in New Hampshire in the White Mountains. So, I got to kind of compare a temperate forest ecosystem in New Hampshire, to the tropical wet forest environment of Hawaii.

**Alie:** Did you find that in Hawaii, because it was a forest on a volcano, was the soil newer and less diverse?

**Dr. Pierre:** Girl, you know your stuff!

**Alie:** I mean, I'm just guessing.

**Dr. Pierre:** Look, you're showing off.

**Alie:** No, I'm not!

**Dr. Pierre:** Yeah, that's exactly right, that's why Hawaii was this perfect system. My dissertation was asking this question of, with increasing temperature that is inevitable at this point – thank you so much climate change, thank you so much fossil fuels – we know that trees are going to be responding differently to nutrient availability, but we don't actually know how nutrient availability is going to change. So, we can use space as a substitution for time. As you go up in elevation it's colder, as you go down in elevation it's warmer. In Hawaii, because of the volcanic soils that are pretty much started from the same material at the same time because of one lava flow, you can compare a high elevation site to a low elevation site because they've got the same stuff. So, we can do the study that compares the high elevation cool site with the low elevation warmer site.

**Alie:** When did you start to think about the intersection of climate and social justice, climate justice? Was there anything at all, like, jarring between going from New Hampshire, the... is it Freedom or Die?

**Dr. Pierre:** It's, Live Free or Die. And they really do that, they really do live free and die. *[laughs]*

**Alie:** The first time I went to New Hampshire I was like, "Oh wow, that really is on the license plates and stuff."

**Dr. Pierre:** Mm-hm, no one's playing.

**Alie:** *[laughs]* No one's playing.

**Aside:** Okay, side note, I just need to tell you what other state mottos are, to put this in context. Indiana's? Crossroads of America. All for Our Country, chirped Nevada. May Idaho Endure Forever. And then the Texas motto is simply, Friendship.

But back to New Hampshire's Live Free or Die. So, that motto has only been the state motto since 1945 and in the '70s, they were like, "This motto rips, this is so badass, we're going to change all the license plates. Let's get the word 'scenic' out of there, let's go hard here in New England, everyone's plates say, 'Live Free or Die' now." And some people are like, "Woah yikes, I don't really like that, that's a little too hardcore." And they covered up the motto on their license plate with some masking tape and the cops were like, "No you don't."

And the Supreme Court had to step in to be like, "New Hampshire, dude. You cannot scream, 'Live Free or Die' and then tell someone that they don't have the freedom to cover up 'Live Free or Die' on their license plate. Come on, it's embarrassing." But New Hampshire, good on you for being an abolitionist state and sending tens of thousands of troops to fight for the end of slavery in the US, that was cool. I have a feeling every tattoo artist in New Hampshire does like five, "Live Free or Die" tattoos every day.

Now, from the literal White Mountains of New Hampshire to...

**Alie:** To kind of a sacred volcano site on an island that's been recently colonized by one of the world's biggest superpowers. When did critical ecology start to crop up for you?

**Dr. Pierre:** Yeah, it actually cropped up before I got to grad school. There's kind of this idea in science that science is objective and that is its virtue, essentially; that that's the only way we can know truth is through objectivity and through rationally approaching questions. I guess, to answer your question, I never really bought that. As I am a Black woman, for those of you listening here, I am Black, and when I was in undergrad, I was actually not a science major; I was really

interested in the idea that the way that nature functions, the way that we interact with it has so much to do with our values and has so much to do with power.

I wanted to go get a PhD pretty much because I didn't see anybody else making that connection between actually doing the measurements and the analyses of forests and soils through the lens of power being an important control, an important variable in why forests are where they are, how they grow the way they grow, how they function.

**Alie:** I think that that's so fundamental, what you said too, about the assumed objectivity. The questions that are asked and answered, depend entirely on who is asking them.

**Dr. Pierre:** Precisely. That's exactly right. I'm the second Black woman to graduate with a PhD from the department that I graduated from, and that's not by accident, you know? So the, kind of, elephant in the room is that the reason is that we're not asking these questions through the lens of humans making decisions that enrich some and depauperate others is because oftentimes the people who have come from lineages of power and who are white and men, for the most part, are the ones who then have the platform, the resources, and the opportunities to do science and lead science.

**Aside:** Did you know that most Ivy League schools didn't admit women until the late 1960s? Oh, no women on juries either until 1968. Little sketchy. But Harvard University, oh yeah, they were around for 214 years before they admitted their first Black student. Hmph, history.

**Alie:** This is a basic, basic question, maybe not so smart. But does critical ecology examine how inequality shapes the decisions we make? Or the impact that it has? Or both? Is it on the front end, or the back end, or is it all one big cycle?

**Dr. Pierre:** Yeah, well I think you can't thoroughly look at the impacts without looking at the why. So, critical ecology, I would say, leans towards looking at the impacts. What I'm really interested in and what I think the field of ecology in general lacks is kind of this particular frame to look at how the natural environment is getting shaped by these human conditions of inequality or equality.

I like to talk about it in terms of oppression versus liberation. In situations where a society is more oppressive, there are particular types of patterns that also kind of emerge; we use excess resources, we are very extractive, there isn't a factoring in of the cost for taking resources out of the environment at a really unsustainable rate, or getting rid of our waste, be it actual trash or pollution from different industrial activities. It's just kind of... it's left. It just enters the environment and it's no longer our problem.

**Alie:** Do you have to look at the sociology of things like... why do some cultures perhaps not live in the same harmony with nature as opposed to maybe, dominating it? Are there deep, deep cultural and sociological things where you need to get on the bat phone and be like, "I need someone, I need a cultural anthropologist for this."

**Dr. Pierre:** Totally, yeah. Even though I'm trained as an ecologist and biogeochemist, when I realized that, "Oh I need to become a student again and really think about and talk to people who are in sociology, and cultural theory, and fields of thought that explain how and why inequality comes up and what it does."

Inequality is not this random thing that just crops up; it's constructed. It serves a purpose for certain groups of people to have more power, more agency, and more resources than other groups of people. And what critical ecology is doing is saying, these structures exist, they're in

our governments, they're in our social systems, they're in our economic systems, and they really set up what our behaviors in society will be.

So, I'm trying to get in between the gap of, our Earth system is changing, our planet is not doing so great, and all of these dimensions of ecosystems are responding to that change. But what is it about these particular systematic inequalities in society that brings about the conditions to let those changes be possible?

**Alie:** What about the lab? Can you tell me a little bit about the Critical Ecology Lab and what projects were important for you to start with? Because I imagine, you're just getting started, you must have a list of shit that you want to look into.

**Dr. Pierre:** It's long. It's so long. [*Alie laughs*] And I'm playing, like, an extreme patience game because these things take a long time. But thank you for asking that. So, Critical Ecology Lab is a nonprofit research lab. What that means is, rather than being a lab group that is based at a particular university or another research institution, I've chosen to form the Critical Ecology Lab independently. And the reason is kind of along the lines of what you were mentioning, that history of alienation and lack of opportunities for people of color, queer people, in science have led to a real narrowing of the perspectives that are included, and supported, and brought forward.

And so, that's part of the culture of academia, that's part of all universities and their histories for the most part, and it's true for science and museums as well. So, it's really difficult to be asking critical questions and be asking questions about power when you're actually within the institutions that have facilitated those power imbalances. I don't know if folks realize this, but science institutions, even though they're unfortunately not as well funded as they should be, relative to the global poor, science as an institution is super rich. And a lot of times that money comes from grants, that comes from donations, endowments, can get funneled right back into the power systems that critical ecology is trying to question and upend.

So, that's a really roundabout way of saying that Critical Ecology Lab is a nonprofit and independent laboratory because we want to operate outside of these really entrenched cultural norms that we see in academia and so forth.

**Aside:** So, Dr. Pierre explained that a lot of systems, environmentally, are built on the notions that some people's lives are more important than others and that some people's lands can be exploited while others are protected. So, she is drawn to a multidisciplinary approach, kind of like using a microscope, and a telescope, and a UV light to look at what is happening and how it happened.

**Dr. Pierre:** And so, the whole idea of critical ecology is saying, could we take ideas from Critical Theory, which is a social theory that holds that the world is unequal and that much of the world is shaped by that inequality, and our work should be toward making the world more equal. Fundamentally, our academic work should not just stay in the ivory tower, that it should go out and make the world more just. Can we take those theories from the humanities and apply it to ecology? And I wasn't seeing that being done elsewhere. So, I'm not the first person to use the phrase 'critical ecology' but I am, I guess, the first person to talk about it when it comes to actually measuring global change and the massive climate crisis that we're experiencing right now.

**Alie:** How do you determine what questions to chase first?

**Dr. Pierre:** Such a good question. So, okay. It's actually so hard because I feel like I'm being pulled in a lot of directions. Because some of this is about the past; inequality didn't start yesterday. Has it

always existed? Yes. So, critical ecology is drawing me toward asking questions about patterns of inequality in the past, patterns and systems of oppression of the past, but it's also happening right now. So, there are these contemporary issues as well.

**Aside:** Sue says that a community of researchers is stronger working together and that collaborators inspire questions that she never would have thought to ask.

**Dr. Pierre:** So, an example of that is in 2019 or so, I had the pleasure of meeting some archaeologists who study plantations. They do archaeological digs on former sugarcane plantation sites. This is an amazing team of folks associated with the Society for Black Archaeologists and the organization Diving with a Purpose.

These folks, including Dr. Justin Dunnavant and Dr. Ayana Flewellen, they were just incredible speakers I met when I was a postdoc at UC Berkeley. And I was like, "Wait a second, you're doing archaeology on plantations, I want to do ecology on plantations." I want to ask questions about how the ways that colonizers stole people, put those people to work on plantations, and completely transformed landscapes, completely transformed nutrient cycles because of that forced labor, that is what I want to study in ecology. And y'all are already doing it in terms of understanding where these people lived, how they lived, how many people were brought on these ships. So, through a collaboration with archeologists, we've started looking at the ecology of plantations through a critical ecology lens. And right now, we're focusing on the US Virgin Islands, St. Croix in particular.

**Aside:** So, this project is called, The Ecological Scars of Slave Plantations, and the work is being done on a former Danish sugar plantation called Estate Little Princess. And part of the reason work can be done there is that the land was gifted to the Nature Conservancy in 1971. And several different research projects are underway on that land from archaeological to cnidariological – which is corals, thank you very much – and of course, critical ecological. And if that land hadn't been given away to an organization using it for this research, a lot of the science and the history of that island would go undiscovered.

**Dr. Pierre:** So, that was just one way that I got drawn into a particular place and particular set of questions, kind of by happenstance and the fortune of meeting really awesome archaeologists.

**Alie:** What kind of data gets collected and analyzed if you're a critical ecologist? Because I'm sure there are people who are like, "I didn't know this was an ology, I'm all for it. Sign me up."

**Dr. Pierre:** Yeah, it matters what kind of ecology you're interested in. Because critical ecology is just really a framework for folks who go out and ask questions about ecosystems in general. Right now, I'm working on a project where I'm asking how the transatlantic slave trade has been influential in shaping the structure and chemistry of soils in the Caribbean. Soil is really important for vegetation, right? What plants grow where, how well they do, and how they change over time. In a traditional soil ecology and biogeochemistry framework, I would be like, "Okay soil erosion is a function of land use," we would just say land use, blanket term. We would say, "This is the duration of time that this land was used to grow sugarcane. Let's look at how soil structure, soil carbon and nitrogen and so on, so forth, were affected by this particular land use given this amount of time that it was happening."

**Alie:** So, some ecologists might tackle the whats of the data; what is growing here and what kind of vegetation took over after that land use? Which is great, it's good to know. But...

**Dr. Pierre:** Critical ecology would say, "Let's start from the premise that this island was colonized for the expressed purpose of producing a certain quantity of sugar, for Europe, that had an economic value. How many enslaved people were required to make that happen?" So, there's this



component, this variable, of free labor, and that land use goes hand in hand with it. So, there's this consideration that we can make that says, "This amount of freedom had to be taken away from this number of people, over a certain duration of time, to produce the particular biophysical outcomes on this soil."

So, if I'm looking at a field that used to be a plantation, which is what I do now, and I know based on records from the Danish who colonized St. Croix, the island where I'm working, I would be able to say, "these enslaved Africans had to work this amount of time for us to see the particular change in soil carbon," which we can kind of compare to a control, where the land was not used for sugarcane production, which was left alone.

So, critical ecology adds this variable and looks for different variables that express a level of oppression or freedom that would not otherwise be accounted for, pretty much. So, then we can say, "Why do Caribbean forests look the way they look?" Why are Caribbean forests structured in a particular way? Because so much of the Caribbean was colonized, cut down completely, and then monocultures were put in place and then worked by enslaved people. So, we can start to look at whole regions differently.

So, I want to start to get ecologists and other environmental scientists to think about that when they go in to make a plan to understand a changing landscape or a seascape, depending on where you work.

**Alie:** It reminds me almost of if you were looking at tracks or footprints and the idea of just saying, "There's a footprint here," or "There's a track here," and not asking, "What kind of animal is it? How big is that? Where is it going?"

**Dr. Pierre:** Yeah, how often does it come here? Will it come here again? If it stops, what grows back where the tracks used to be? That's exactly right. [*squeals*] Thank you so much!

**Alie:** Speaking of footprints too, the carbon footprint... Fallacy promoted by oil companies? Or something that everyone should take very, very seriously, especially if they're living in a society and culture that overconsumes resources? How important is it?

**Dr. Pierre:** [*exhales*] Oh my gosh. So, I think that the carbon footprint, the first thing that you said, is it a fallacy, is it just made up by companies? Yes. Also, no. [*"Wait, what?"*] Two things can be true. [*Alie laughs*] I think that if individuals pay attention to their carbon footprint, it's an opportunity for behavioral change. As individuals, we need tools to think about what our day-to-day behaviors are connected to on a bigger scale, it's really hard for us to do that.

That doesn't mean that individuals are all the way responsible for the massive changes that we're seeing in terms of the way the climate is changing and the way that ecosystems are responding to that climate, be it fire, or drought, and flash floods and so forth. I think that we, as individuals, as part of a culture and a society, are responsible for nudging our culture to be different, to be mindful, and to be responsible, and to feel more connected to what's happening on Earth.

But also, let's hold those fuckers accountable. I'm actually *so* sick of it. [*Alie laughs*] And I think that, like, the actual manipulation and gaslighting *has* to stop. So, the fact that you asked the question is amazing, because let's remind one another that we are being gaslit by corporations that have known as long as, if not before, independent university scientists have known, that the activity of extracting fossil fuels and burning them will cause climate change. They knew that shit. So, that's been part of their backroom conversation forever.

**Aside:** You know what's fun? Is that when someone gaslights you, they're metaphorically burning fossil fuels... LOL. Like, at least make me question my own perception with an LED bulb, you know?

**Dr. Pierre:** And so, I want there to be like, the edge of resistance, but have that edge of resistance hold hands with 'our culture on a fundamental level needs to change'.

**Alie:** Mm-hm. And you mentioned something about being so interested in both the past and the future. Do you feel like a lot of what people suppose you do is just about "Hey, can you figure out how to fix... thiiiiis?"

**Dr. Pierre:** *[both laugh]* Points to Earth. "What happened here?" Yeah. I think folks often make this, totally reasonably... they think that what I'm talking about is environmental justice, which is a really important area of work but is different from critical ecology. Environmental justice is responding to really immediate harms that people are experiencing in their communities right now and they're trying to say, first of all, this is happening, this isn't right. Environmental justice is trying to transform the conditions for those people, as well as for the planet.

**Aside:** And Dr. Pierre says, environmental justice is more forensic, it's more about redress, or setting things right, like with compensation. And for example, one environmental justice issue is the disparity between asthma rates in Black and Puerto Rican children versus white kids. One study found that Black children in New York were 42% more likely to have asthma and that asthma-related illnesses increased school absences in those populations, which has lifelong effects.

There was a 2017 Princeton study titled, "Is it who you are or where you live? Residential segregation and racial gaps in childhood asthma." And those researchers found that it's not race, but neighborhood pollution and ongoing effects of segregation that can nearly double the risk of asthma and lead to higher asthma-related deaths later in life. So, that would be environmental justice work and epidemiology. But what's the even bigger picture?

**Dr. Pierre:** Critical ecology is saying, that's super important and that's influencing humans, it's influencing ecological patterns, but what about if we zoom out? Critical ecology is asking questions about systems of oppression. And that gets to the heart of the ideologies that allow certain patterns of unfair treatment to unfold. And then we're interested in, "Well what are the environmental consequences if we look at plant communities, if we look at the quality of soils, if we look at nutrient cycles?" Are ecosystems today, in 2022, really being shaped on this larger scale by forces that we couldn't even notice if we weren't thinking about these patterns of haves and have-nots that come from unfair systems.

That's a little bit about redress, getting people their justice. But it's also about everyone, because it's saying, "the way that ecosystems are evolving and changing into the future depends on either us getting it now – really seeing these patterns and figuring out what about us drives it, ecology – and then course correcting." What can ecosystems start to look like, and patterns of nutrient cycling, and vegetation assemblages, and animal-trophic interactions look like when we course correct toward more equitable interactions with nature and patterns in society?

**Aside:** So, if you clicked on the title of this episode and thought, "Critical ecology, here we go, it's going to be controversial," just know that in the US, there's been blowback of the word "critical" in favor of more "patriotic" education. But just the word critical and Critical Theory pretty much means, how is old stuff still affecting new stuff and how can we make things more equitable? But by making it this hot-button topic and controversial, some states have passed

laws restricting even education about race in classrooms. If you're like, "Is that cool?" Consider the fact that Germany isn't forbidding schools from mentioning the Holocaust because that would be terrifying and a big problem, right? We have to learn from history and examine systems that are harming people. It seems like that's what school is for.

But this episode is about the science of critical ecology in an era of significant climate impact.

**Alie:** What do you wish was taught alongside high school science classes? What do you feel like is so glaringly missing?

**Dr. Pierre:** Oh my gosh... My dream, the best thing that I could ask for, is if history and social studies teachers had biology, and chemistry, and environmental science teachers that would sit down with them and that there was actually a framework, a language, that let these different teachers talk to each other and come up with lessons and labs that relate to one another.

Imagine if we were teaching students about plantations in the US southeast, and they're learning about how cotton and tobacco and sugarcane were being grown, and then they go into their biology class and got to look at the actual physiology of sugarcane. It's a grass, I don't think most high school students get to learn that. When you process sugarcane, there's all of this refuse that's left behind after you harvest the sugar, and where does that go? And what if you could teach a biology lab or a chemistry lab that gets students to think about, what are the physical consequences of the fact that our country was run, economically, by plantations? And what if students had this holistic understanding? How much better would we actually understand the predicament our country is in? *[laughs]*

Everyone is just kind of baffled about, "It's just so unfair, and the world is unequal, and slavery is bad and now we're experiencing climate change." And I'm just like, "Yeah but if you put them all together, it really tracks. It all kind of adds up, the math is good."

**Aside:** And as long as we're talking school. Let's play a quiz game, for "fun".

**Alie:** What other questions do you want to ask or answer about things like fish and so many... I know...

**Dr. Pierre:** Name a thing, name a thing!

**Alie:** We'll do a pop quiz. Tell me if this involves critical ecology.

**Dr. Pierre:** Okay. *[laughs]*

**Alie:** Logging deforestation.

**Dr. Pierre:** Hundo P. 1,000,000%, that's not a percent, don't come for me. *[Alie laughs]* Logging and deforestation, if we think about who had access... Okay, I love this question so much. Start from the basics: whose land was it? Someone had to come and steal land from Indigenous people; the fundamental principle of critical ecology would be to start with that. So, if you're interested in forest succession and you're interested in why we have secondary and tertiary forest in certain places that were logged, why don't we start by asking the question, whose land was it and what allowed it to be taken away from them? And that would go to the basic principles of removal of Indigenous people, either by murder or by giving them reservations and moving them to parts of the country that were not their homes.

**Aside:** So, in a May 2021 *Atlantic* article titled, "Return the National Parks to the Tribes" Ojibwe author, David Treuer, writes, "The American story of "the Indian" is one of staggering loss... In 1491, native people controlled all of the 2.4 billion acres that would become the United States. Now we control about 56 million acres, or roughly 2%." Speaking of stealing things.

**Dr. Pierre:** And then we think about, one critical ecology... don't scoop me, you out there. [*both giggle*] I'm so shady; don't scoop. I'm so interested in patterns of forest regrowth throughout North America as they're related to the removal and movement of Indigenous people. And I'm sure that there are Indigenous scholars who are maybe listening? Shout out to y'all who are like, "Yeah girl, we already think about this." But until I have that conversation, I'm really curious about, how does the cover of forest in the United States, or in North America, reflect the pattern of removal of Indigenous people and the accessibility of permits or deeds to land that were basically given out for fuckin' pennies?

I would love to do this kind of tandem analysis of the financial value of forests now that are going to make somebody real rich and how they were given to people, essentially, for a comparably miniscule amount of money. But alongside this really unfair transaction is also just carbon and nitrogen. So, what is the amount of carbon and nitrogen that are stored in these forests, relative to the amount of money that unfairly traded hands?

**Aside:** So, as we discussed in the Indigenous Fire Ecology episode, the loss of knowledge and agency to practice cultural burns and other land stewardship has led to catastrophic damage and increasing wildfire losses because that land was taken from a populous that knew how to care for it best. So now, as the nation finds itself in this ecological pickle, science is going back to that Indigenous knowledge for answers. Speaking of answers, let's keep this quiz of sorrow going.

**Alie:** What about this one, overfishing "for the consumption that we are demanding."

**Dr. Pierre:** Oh my gosh, yeah. So, if I think of that and through a critical ecology perspective, I think about consumption in terms of where demand is coming from and what is making that demand possible. People don't want things that are too expensive to want. People want things that are affordable, if not cheap. What makes things cheap? What makes fish cheap? There's people that have to do the fishing and then access to the fish. So, it's a matter of who is doing it, the cost or value of their labor, and then who is giving out permits.

**Aside:** In the Oceanology episode, Dr. Ayana Elizabeth Johnson pointed out that for many coastal cultures, fishing is their livelihood and has been their core diet for tens of thousands of years. But the Indigenous folks who are fishing there are likely not the same demographic as those who own the fisheries doing the least sustainable practices and catches. So, from the mountains to the seas, to the air, to the ore in the earth, there is critical ecology everywhere.

And Dr. Pierre's Critical Ecology Lab has also helped facilitate a study on air quality in urban and rural settings, research on using incarcerated laborers in fighting forest fires. And because of so many factors from rising temperatures to the loss of these regular cultural burns, these kinds of issues are likely just going to be on the rise. Just this week, the US Department of Energy reported that in the next 30 years, Californians will experience triple-digit temperatures for four months out of the year. So right now, you may be sweating for many reasons and wondering, do we even have a chance?

**Alie:** We're talking a little bit about environmental nihilism and just the idea of, when do we give up? And is it equitable for anyone to give up at any time? But if we look at ourselves as a species and say, "As a species, we are doing not-great things to the planet that might endanger all of us..." how fightable is it? Or how much do you just have to say, "Well I guess we're one of the 99.9% of species that go extinct, in this case, because of a percentage of people who overconsumed?"

**Dr. Pierre:** I mean, I think it's unethical for us as human beings to, like, hang on in that way if we're not also actively and earnestly interested in being different.

**Aside:** Dr. Pierre likens this to an abusive partner that knows they're doing harm but has no interest in accountability or change. And maybe the resistance or fear of Critical Theory is kind of like a partner who is suffering with a problem and harming others but doesn't even want to go unpack that in counseling.

Also, if you're just shrugging thinking, "Well, we're all going to die, so what? Tick-tock." I thought that was just called despair. But when taken to an extreme, ideologies that seek to just hasten our own extinction for the sake of the planet, that's actually called eco-fascism, so there's a word for that, and it's not a good thing. So, Sue says to try to get involved on a human-to-human level, examine the power structures that keep things bad for some people, and don't shrug yourself into inaction.

**Dr. Pierre:** If you are just saying, "Woe is me, we are bad for the planet, bad for other species, and I'm just going to wait for this shitshow to play out," then you are the harm. But if you allow the depressing reality to make decisions for you about what you're going to do, I mean yeah, you're probably more harm than good.

**Alie:** Then it is a toxic relationship on every front.

**Dr. Pierre:** It's a totally toxic... Yeah, totally, don't just sit on your hands.

**Alie:** Do you ever just lay in bed at night and the GIF of the woman who just has like...

**Dr. Pierre:** I hate my life for that reason. *[laughs]*

**Alie:** Do you know what I mean?

**Dr. Pierre:** Absolutely, absolutely.

**Alie:** The geometry just, staring off thinking. Just when it comes to the not only consumption that we have, especially in a capitalist society, but just also the hoarding of resources.

**Dr. Pierre:** *[hushed]* Oh my gosh.

**Aside:** Another harmful thought that we have been fed? The too many humans one.

**Alie:** I know that overpopulation is looked at a lot as like, there's too many of us. I thought that for a long time too. We have enough resources to sustain the number of people, but a lot of folks maybe are hoarding the resources.

**Dr. Pierre:** Absolutely. This gets at... I love that you asked it because it gets at the question of scale. There are critical ecology questions that can be asked very hyperlocal, but then there are, like you're saying, if we really zoom out and we think about global population, there's this misconception, and I don't think it's just an accidental misconception, I think you're alluding to, "We thought..." but actually it's this line that overpopulation is one of the main reasons that we're in the particular ecological crisis that we're in and that's simply not true.

If all people had even access to the resources available, and if those resources were managed sustainably, we would not be in the predicament that we're in. *[Alie groans]* I know. It's a real bummer when you're like, "Oh, it's just what we're doing? It's just because we like to be fucking assholes?" Yeah, it is, unfortunately. It's really not much more complicated than that.

But yeah, I think a lot about where resources get hoarded, the countries that end up having global wealth. And wealth, though money is an idea, basically, it represents stuff, and stuff is made of carbon, stuff is made of all those nutrients that I study, and stuff takes energy to

create. So, if we think about the fact that who keeps those resources and how they were collected in the first place, it really takes us to asking questions about racial capitalism, it takes us to asking questions fundamentally about colonialism and imperialism. If we're not able to do our science and study the distribution of resources or lack of resources, and the ecological consequences of massive wealth or massive poverty, we're really kind of missing the point, if that makes sense.

But I think that really proves that I am that woman in that meme. [*Alie laughs*] That's my brain, I'm constantly like, "I really need to find the actual words that are useful for human beings to know what the fuck I'm talking about." [*Alie still laughing*] I'm working on it people; I have a lifetime ahead of me.

**Aside:** This meme, sidenote, is known as "Math Lady" and the actress with the furrowed brow and the pensive gaze is often mistaken for Julia Roberts, but it's a Brazilian telenovela superstar, Renata Sorrah, and she's playing a scene in a jail, and then later that footage was overlaid with mathematical equations.

But Sue gets to make all of these complex connections and ask questions that have not been asked about, not just what is happening, but why and how. And honestly, the biggest takeaway about critical ecology, in a nutshell, is this...

**Dr. Pierre:** I don't think that I'm asking these magical brilliant questions, I'm literally just like, "Y'all, have y'all ever noticed the thing that's awkwardly controlling all of our lives and shaping biology, and chemistry, and ecology?" And then once I say it, everyone's like, "Girl yes! What?" I think of critical ecology as actually just, you know, when you see a detective show, or a crime show and there's a wall with the lines and all the thumb tacks and a lot of string. People are mired in string, they're like, "It's all connected." But we don't have one approachable and reproducible system of thinking that helps us to guide us to then ask these questions all over the place, just like you're asking me.

So, critical ecology is like, we're only confused because it's really hard to make those connections when science, and social science, and humanities don't talk to each other. And if we can figure out how to make them talk to each other and do it in such a way that we can pick it up and apply it in all these different areas, finally we're going to be explaining why we're at where we're at, in a way that might actually lead us out the door toward a better planet, a more equal and liberated society.

**Alie:** Can I ask you Patreon questions? Questions from people on Patreon.

**Dr. Pierre:** Of course!

**Alie:** [*hushed voice*] They know you're coming on.

**Aside:** And before your questions, a quick break, and before that break, we donate to a charity of the ologist's choosing. And naturally, this is going to the Critical Ecology Lab, that's [CriticalEcologyLab.org](http://CriticalEcologyLab.org). Critical Ecology Lab is a space to investigate and explain how the natural world, from soils to the atmosphere, has been shaped by racial and cultural supremacy, natural resource exploitation, and social exclusion. So, you can learn more at [CriticalEcologyLab.org](http://CriticalEcologyLab.org), there's a link in the show notes. Thank you to sponsors for making our donation possible.

[*Ad Break*]

Okay, so this first question was asked, almost verbatim, by so many people including Amy Narimatsu, Michael MacLeod, Reiley Allison, Francesca Huggins, Luci Kenny, Gabby Sweet, and Mark Hewlette, and more.

**Alie:** The most thumbed-up question we got; I think it's a good one. Amy Narimatsu wants to know...

**Dr. Pierre:** Amy.

**Alie:** Hi Amy. Just a simple: How fucked are we?

**Dr. Pierre:** Ohhh. I appreciate Amy asking that question because a million, and by a million I mean several hundred climate scientists have been asked that very question and their answers probably vary. You know, for the most part, we're like fairly fucked. I'm not going to split hairs about that. But my real answer is that we are as fucked as people are unwilling to change. We are as fucked as individuals, not just the systems of oppression, but we are as fucked as individuals are willing to look closely at how they behave, and treat other people, and admit that they are wrong in their regular individual lives.

Because it is our behavior and our ways of thinking and our ways of treating other people that metastasize into systems of oppression. And those systems of oppression have allowed us to indiscriminately toss people off of their land, to pull fossil fuels out of the ground at rates that make no fucking sense, and that all comes from like, yeah, people's willingness to just pause and be like, "What am I willing to change about the way that I operate?"

**Aside:** So, living in a state of inquiry, curiosity, and the notion that all things are connected and maybe it's not a bizarre coincidence that the systems in place have the planet in a bind. That's a great start. So, help other humans out, think about the impacts of the system, question it. So many choices we make seem to be justified in the moment, but in hindsight can be appalling from the way we treat the land, and the plants, and the animals, and the fungi on it, to the most horrifying abuses of humans that continue unchecked today.

**Alie:** And that brings me to Aubrey Nelson's question, seconded by Kelli Brockington, and a lot of people: Obviously there are small steps individuals can take to help reduce their impact, but really how can we make a bigger difference with so much seeming outside of our control? There are so many eras of the past that are so shameful as a human, and we're living in one of them. When it comes to the goal of critical ecology and how that work gets disseminated to the public, what things can people do? Such a big question... such a big, giant, terrible question.

**Dr. Pierre:** No, it's a great question and I feel like the answer is that when you see injustice, or when you hear or know about something happening that is a form of oppressing people for whatever reason that someone is oppressing a group of people, use critical ecology as a framework to think about how the harm that's being done to those people is enacted on the landscapes that we live on as well. That when you then go to vote, or when you then think about contacting elected representatives, or going out and protesting... right now, it's really hard to talk about related systems of harm, and I think that's kind of on purpose.

**Aside:** Speaking of elected officials and such... Environmental policy student Ali Vessels and Natalie, an undergrad student in political science who is looking to make the switch into ecology, as well as first-time question-asker Maya Chorobik, all had policy questions. In Maya's words: Even with the most progressive governments at all levels, we're not able to enact systems of change at the pace and scale needed, indicating that political systems need an overhaul or reorganization. What can we learn from ecosystems to help with this reorganization so we're not all fucked? So, it's kind of nice to see that across the political

spectrum in the US, literally no one is satisfied with environmental policy, we're all just united in being pissed, no matter what side you're on. So, that's not good.

**Alie:** I wonder, because I've talked to so many ologists who are like, "The best thing you can do for the planet and for other people is vote." Vote, vote, small and local elections, as well as the big ones. We have a majority of one party in the House and Senate, [*voice gets progressively more quiet and less enunciated*] we have a President in one party, and we just had some EPA things rolled back by the Supreme Court. [*both breathe deeply, followed by nervous laughter*] I'm so sorry to bring it up.

**Dr. Pierre:** Nah, it's real, it's cool.

**Alie:** When people say vote, vote with the planet in mind, is there anything as a critical ecologist that you have faith in? ... [*laughs*] That sounds so bleak the way I asked it. But yeah.

**Dr. Pierre:** Is there literally anything to believe, Dr. Pierre? [*both laugh*] Are beliefs relevant now? No Alie, come on.

**Alie:** Where can I put my shred of hope?

**Dr. Pierre:** [*both still laughing*] In your pocket. Oh god...

**Alie:** Sorry, that's a big, huge question.

**Dr. Pierre:** I really like that question because this gets at what we actually believe needs to be different in society, which I keep harping on. I'm not going to be the person that says, put your faith in voting. That's not me saying, don't vote. I cannot imagine a reason to not vote. It doesn't matter if you think it makes a difference or not, like, do the thing. [*"Let's go vote."*]

**Aside:** However...

**Dr. Pierre:** The most threatening thing to the systems in our society, right, the economic systems, and the political systems, and the social systems that are unfair and unequal and make this country and make our environment threatened – less strong, less safe, and more divided and less sustainable – the most threatening thing to all of those things, is solidarity, is care, is compassion.

If you look at all of these things, it looks like I'm just opening a giant Mary Poppins bag of death, of just like, "Look at all of the bad things." But they all share something which is they rely on division. And I don't mean like, we all have to kumbaya and be together, but I mean people helping other people, people being in genuine community with one another, despite their differences; people saying that at a base level, everyone should have the things that they need, the safety that they need, the assurance that they will not be suffering in one way or another.

And when we do radical things on a very micro level to make sure that compassion is available, that that mutual care is there, those little behaviors and those little decisions in our regular lives, spiral up to become very problematic for the systems that want us to be divided, oppressed, confused, alienated from one another, and alienated from ecosystems, full stop. When you make resources, care, and support more available to people, it builds solidarity across groups of difference, racial, class, and gender, where the division would have been very useful to keep us kind of scrambling.

**Aside:** So, it behooves exactly the wrong people to keep everyone at odds, driving humanity further apart. And at the end of the day, the polarization is getting less done faster.

**Dr. Pierre:** And the less that we scramble, the more that we join together, in the sense that "We're not the same and we don't need to be and that is fucking fine and actually, I'll still support you and



make sure that you're okay and that your family is okay, and I will vote in a direction that makes sure that you're okay and that your family is okay, regardless of our differences," that starts to really crumble the things that really suck.

And critical ecology, for me, is an exercise in that, which is to say, ecology is fascinating and so thrilling and I could cry talking about it, that is why I went to school to do it, that is why I'm here. But if I am an ecologist and this is my toolkit, and I also believe that solidarity is the only response to an increasingly divided, confused, and suffering society and ecosystem, then I have to use that toolbelt to start making sense of why this is happening, and what has happened in the past, and what will happen in the future.

So, I'm trying to kind of throw this rope across from basic science to understanding how society assembles itself, and how we can do that better, and better, and better. And how eventually, I think, ecosystem sustainability, functionality, and health can reflect what's going on in our society. So, critical ecology is saying, "If you don't start with the ideology, you're never going to explain this story fully."

**Alie:** That's a great way to look at it. It's like a color on the spectrum that you've never seen before and it's like, "How do you describe something that you've never seen?" You know what I mean?

**Dr. Pierre:** Yeah, thank you for saying that. That makes me feel less crazy. [*Alie laughs*] Seriously, because folks are like, "You're a scientist, you can't be fighting for our lives, you're only concerned with measuring and publishing." And on the other hand, it's like, "You're not a real scientist, you're only concerned with wishy-washy, being a do-gooder or into social justice," whatever. It's like you said, it's this color on the color wheel that we haven't looked at before, but I think that I didn't make that color up, it's just there and it's been really hidden from us. So, it means so much to me to be able to have this conversation and try to get to a little bit more of an understanding of what it really means and what it could mean for changing society.

**Alie:** What a great and maddening game to think of literally anything and think, "How does this involve critical ecology?" Literally, anything you look at you're like, "Oh, there's critical ecology in there. How about that!"

**Aside:** But also... exciting.

**Alie:** One thing... I mean I always ask but I don't even know how you're going to answer this, but the hardest thing about your job? [*hushed, croaky voice*] Where do you even start?

**Dr. Pierre:** One of the really hard things is because like you're saying, it's like, "Oh yeah, that makes sense," but it's not something that's been really named before, it exists in these little pockets of different fields, different ologies, but it's not, like, unified in one place and all of that, there's not a lot of sources of support. Folks are like, "That's really cool, I hope that works out for you." And I'm like, "No, but money? [*both laugh*] So, the thing is about the thing... but actually money." So, funding my research and getting the kind of institutions that normally give you the big amounts of money that allow you to do the scale of work that I want to do, they're not quite there yet. They're like, "That's not a color, what?" [*Alie laughs*] And I get why, but it's going to be slow-going.

I spend a lot of time talking to people and basically getting groups of the right people from different disciplines to get together and articulate a question and then go, "What is the funding institution that is most likely to kind of understand what the fuck we're talking about? And let's go for that. Oh, they didn't like it? Let's take out the science and increase this," and it's just, like, pulling these levers. So, that's one thing that's like, really, goddammit.

Another thing, I don't know if you've talked about this on *Ologies*, but there's this idea that white supremacy culture has these characteristics or norms that are invisible but are so normal in corporate culture, in government, in academia, and our day-to-day interactions basically recreate those systems and uphold those systems.

So, culture change is super important, and in my little cocoon of folks that I work with in Critical Ecology Lab, shout out Kunal Palawat, they are an amazing graduate student that I work really closely with along with a number of other team members... We show up in our little container of the lab, but we also have full-time jobs in normal institutions. So, when we're together, we have these basic principles of how we interact, how we have conflict, how we care for each other even though we're colleagues and professionals, and those principles don't hold up when we go out into our regular, paid, 9-to-5 jobs.

Now, one day I want to be fully employed by Critical Ecology Lab, knock on wood, but until then it's like, how do I hold up those values wherever I go? Meanwhile, we're thinking about this and we're also like, "Ahh, I have to collect data. Ahh, I have to do stats." So, it's a lot to be conscientious of who you are and your values while also just doing regular science.

**Aside:** Side note, just big news, as of August 9<sup>th</sup>, she is full-time at Critical Ecology Lab. She did it!

**Alie:** And it also must be like, working really hard to dismantle the grind culture is so...

**Dr. Pierre:** Oh my god. [*Alie laughs*] I'm snapping, for those of you who can't see me, I'm air snapping because literally, I'm so happy that you said that because a huge part of that idea of white supremacy culture is grind culture, busy culture, is valorizing the idea that you don't ever sleep, and you publish so much, and it's really great if you're publishing a lot, but at what cost and for whom?

So, it's really hard to live by these values, while also still being seen as a productive, hardworking scientist, when it's like, "I want to be seen as a productive, hardworking scientist even if I do not answer emails at 1 AM [*Alie laughs*] and even if I'm not publishing all the time," and there are good reasons for that, including rest, including self-care, including care for my community. So yeah, it's a clash of cultures that's very awkward and I've just gotten comfortable being like, "That's all right, y'all don't get me... yet."

**Alie:** [*laughs*] What about your favorite thing? What do you get so excited about?

**Dr. Pierre:** Oh my god, that's even harder to answer because there's so many things. I'm going to say that... Ever since I was in undergrad and grad school, I was like, I feel like to be a scientist you have to be reading the literature that is in your discipline and you have to be on top of it, you need to know all the most recent papers, the most cutting-edge techniques. And I care about all of that, but my job- Basically, I created a situation where I gave myself this area of research and it requires me to read outside of my discipline, it makes me talk to archaeologists, and sociologists, and Black feminist theorists.

I think at one point it felt like I'm doing the wrong things, and I've kind of just let myself accept that yeah, you're going to be wrong in some people's eyes. Or it might feel a little uncomfortable that you're doing these things that are not normal, but there's so much growth and richness in just letting myself do it. So, I'm so grateful to get to have these conversations and read the books that are never going to be associated with biogeochemistry until I make them associated with biogeochemistry, shout out to Christina Sharpe, Black feminist theorist.

**Aside:** Side note, Dr. Christina Sharpe is the author of, *In the Wake: On Blackness and Being*, which uses the word “wake” in many meanings from, “The path behind a ship, keeping watch with the dead, and coming into consciousness.” And *In the Wake* is about the history and imagery of the slave ship and how that haunts contemporary Black life and about a social climate that, “Produces premature Black death as normative.” That is, *In the Wake: On Blackness and Being*, by Christina Sharpe.

**Dr. Pierre:** So, I love that. Also, if we are going to spend a lot of time working hard on something, we should do it with people we love. And I’m so lucky that Critical Ecology Lab is really individuals who see me for who I am, they are people who actually love me as a person, as well as respect me and work hard with me as a colleague, and that’s just part of our culture. In every meeting, we check in and make sure that everyone is well, and if not, we talk about it, even if that cuts into the work part because we’re better at doing our jobs if we are happy, and well, and cared for. Shoutout to everyone working with Critical Ecology Lab right now or thinking about it. It’s really a joy and a privilege.

**Alie:** I mean, oh shit, that’s like a healthy ecosystem, business-wise that you’re creating. *[laughs]*

**Dr. Pierre:** Yes! Yes, exactly that.

**Aside:** And if you’d like to join that team...

**Dr. Pierre:** We’re looking for someone who is interested in social media management so that I can let my brain alone and not do that. So, we won’t be tweeting until we get a person. I’m more on Instagram so we’re @Critical\_Ecology and you can follow us, many of my ramblings and ideas are there, and you can also donate money, if you want, on the site.

**Alie:** Hell yeah! I have a feeling you’re going to have a full inbox after this. *[laughs]* *[voice quickens]* “Ahhh! Do you need help? Can I help? Can I do something? Can I do this?”

**Dr. Pierre:** Oh my god, I need all the help currently. I am so, like, woefully bad at social media, it’s so devastating. I’ll post once and be like, I’ll post again next week and then you’ll hear from me a year later. And so, if anyone loves to think about social media strategy and messaging, amazing, talk to me. And also, I am looking to be on the committees of graduate students, master students, and PhD students and that’s a role that can be a lot but I’m willing to take on if the fit is right. So, I want to support folks academically, as activists, and in their education. So, lots of stuff coming down the pipe but yeah, any support that folks want to offer, I can definitely consider.

**Alie:** How exciting to get to interview you when you have launched an organization and a field that is so needed for this time and this place.

**Dr. Pierre:** Thank you so much Alie.

**Alie:** Of course!

**Dr. Pierre:** You’re the best.

**Alie:** You’re the best.

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So, if you are now amped up and you want to reach out, you can check out [CriticalEcologyLab.org](https://CriticalEcologyLab.org). They’re also looking for someone in an admin role, so reach out. Links are in the show notes and there’s more links at [AlieWard.com/Ologies/CriticalEcology](https://AlieWard.com/Ologies/CriticalEcology). I’m @AlieWard on [Twitter](https://Twitter) and [Instagram](https://Instagram) and [@Ologies](https://@Ologies) on [both](https://both), say hello. Links to sponsors are in the show notes and [AlieWard.com](https://AlieWard.com) also has a list of all the organizations that we donate to.

If you'd like to put *Ologies* merch onto your body, you can go to [OlogiesMerch.com](https://OlogiesMerch.com). Thank you, Susan Hale for managing that and doing so, so, so much else to keep the show going. Noel Dilworth too, who handles scheduling. Erin Talbert admin's the *Ologies* Podcast [Facebook group](#) with assists from Boni Dutch and Shannon Feltus. Kelly R. Dwyer is on top of our website, and she can help you with yours.

Emily White of The Wordary makes our professional transcripts and Caleb Patton bleeps them. Those are up for free at [AlieWard.com/Ologies/Extras](https://AlieWard.com/Ologies/Extras). And if you have small ologites, you can check out *Smologies* episodes in our feed; those are short, condensed, and filth-free episodes for all ages, there's more of those up at [AlieWard.com/Smologies](https://AlieWard.com/Smologies). Thank you, Mercedes Maitland and Zeke Rodrigues Thomas of Mindjam Media for being on top of those. And of course, thank you to lead editor Jarrett Sleeper who has the finest mullet in all of podcasting, and Nick Thorburn who wrote the theme music.

If you stick around until the end of the episode, I tell you a secret. This week's secret is that if you need to get right the fuck up in your pores, let's say maybe you have a problem with a contact lens or you are on a tweezer chase with an errant whisker, maybe you need to have a word with a blackhead, and if you have one of those camping flashlights that straps to your forehead... Wow. Put that on your head, point that in the right direction, and the world will be revealed to you. I put on a headlamp to help get a thorn out of Gremmie's paw and then I looked in the mirror and turned it on and... [*hushed voice*] Wow, it was illuminating so, you're welcome. Berbye.

*Transcribed by Aveline Malek at TheWordary.com*

#### **Links to things we discussed:**

Dr. Suzanne Pierre's [website](#)

Follow Dr. Pierre on [Instagram](#) and [Twitter](#)

A donation was made to [Critical Ecology Lab](#)

Follow Critical Ecology Lab on [Instagram](#) and [Twitter](#)

[From Critical Theory to Critical Ecology](#) By Dr. Vincent Di Norcia

[Also available on Sci-Hub](#)

[Society for Black Archeologists](#)

[Diving with a Purpose](#)

Archaeologists Dr. Justin Dunnivant and Dr. Ayana Flewellen's work on the project [Ecological Scars of Slave Plantations](#)

[Estate Little Princess Archaeology Project](#) via UC Berkeley

Princeton study: ["Is it who you are or where you live? Residential segregation and racial gaps in childhood asthma"](#)

[Native tribes have lost 99% of their land](#)

Video: ["Critical Ecology: Defining Sociophysical Drivers of Ecological Change"](#) with Dr. Suzanne Pierre

[Dr. Vincent Di Norcia's website](#)

[US Forest ownership statistics](#)

[“Return The National Parks To The Tribes: The jewels of America’s landscape should belong to America’s original peoples”](#) by [David Treuer](#), writer for The Atlantic

[Origin of Math Lady](#)

[Yikes! Ecofacism!](#)

Dr. Christina Sharpe, author of [“In the Wake Black: On Blackness and Being”](#)

**More episodes you might like:**

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[Indigenous Fire Ecology \(Good Fire\)](#)

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[Island Ecology \(ISLANDS\)](#)

[Forensic Ecology \(NATURE DETECTIVE\)](#)

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