## Vivian:

Welcome to The Art of Climate Dialogue, Stories from Iowa, produced by myself, Vivian M. Cook and The EcoTheatre Lab. And welcome to today's conversation with artist, farmer, and researcher Omar de Kok-Mercado. As an introduction to his work, here's an audio clip from Omar's audiovisual piece, "Swimming Over the Prairie", which we'll learn more about in today's episode.

Addressing climate change is urgent, but in order to move toward action, we first have to find ways to talk about climate change with one another. The Art of Climate Dialogue: Stories from Iowa is a podcast series featuring 13 conversations with artists, farmers, community engaged researchers, and community organizers and activists who have all used arts and storytelling strategies to talk about climate change and agriculture. Through this podcast, they generously share these strategies so that listeners can implement them in their own communities. I'm Vivian and I invite you to explore The Art of Climate Dialogue with me.

As we enter into these conversations around climate action, sustainable agriculture, and community engaged arts in Iowa, The EcoTheatre Lab and I want to first recognize that Indigenous nations have been leaders in such conversations for centuries and continue to be today.

lowa now occupies the homelands of Native American nations to whom we owe our commitment and dedication. Iowa is now situated on the homelands and trading routes of the Ioway, Meskwaki, and Sauk, Otoe, Omaha, Ihanktonwan, and Santee. And because history is complex and time goes far back beyond memory, we also acknowledge the ancient connections of many other Indigenous peoples here. The history of broken treaties and forced removal that dispossessed Indigenous peoples of their homelands was and is an act of colonization and genocide that we cannot erase. And as a result, Indigenous ecosystems within Iowa have suffered from extraction, degradation, and unsustainable agricultural practices contributing to the ongoing climate crisis.

Understanding and addressing these injustices is critical as we work toward climate dialogue, action, and justice in our communities. My thanks to podcast interviewees Shelly Buffalo, enrolled member of the Meskwaki Tribe, Lance Foster, enrolled member and tribal historian of the Iowa Tribe of Kansas and Nebraska, and Sikowis Nobiss, Plains Cree/Saulteaux of the George Gordon First Nation for their collaboration In developing this acknowledgement.

Omar de Kok-Mercado's technical expertise in soil microbiology and acroecology informs his creative practice. He incorporates this technical knowledge into the inner workings of his creations, building sculptures that interact with the natural world. In a hyper-connected world, stripped of mystery, his work reflects our innate curiosity and works to cultivate our sense of wonder whether that's flying custom-built drones through an oak Savannah or simulating space-time dynamics via video feedback generated through four-foot autonomous kaleidoscopes. Omar's work demonstrates it's still a wild world ripe for exploration. Omar lives on his farm with his wife and son, two dogs, two cats, and a herd of virtually-fenced goats in rural Pilot Mound, Iowa. And I'm excited to share our conversation with y'all today.

Welcome Omar, and thank you for joining the podcast.

Omar:

Thanks for having me.

# Vivian:

We just listened to your audiovisual artwork "Swimming Over the Prairie". Can you describe what we just heard and the visual imagery that goes with it?

# Omar:

The audio recording is from a research project at Iowa State called the Science-Based Trials of Row Crops Integrated with Prairie Strips, or the STRIPS team, and they've been doing research on integrating prairie into row crop fields since 2007, and it's audio recording from one of the prairie strips at the Armstrong Research Demonstration Farm in Lewis, Iowa. So what I did with that recording is I pitched it down some, slowed it down, and then I added some aqueous noises to the top of that. And then the visual is just flying over the prairie. And then I took out some of the colors and I mixed those colors with a large four-foot kaleidoscope I built where I kind of made a feedback cycle with the prairie imagery and ran it through the kaleidoscope and then had it be projected through some of the flowers. And then there's some post-production stuff in there to make it look like you're actually underwater.

Vivian:

It is beautiful.

Omar:

Thank you.

# Vivian:

So you created this for the STRIPS project. What was the goal of developing this piece? What was the goal of manipulating the sound and imagery in that way to make it look like it's underwater when we're in a prairie?

## Omar:

The cool thing about the time I spent working with STRIPS is I was able to make a lot of different photographs and videos and things and then take that work and use it for my own material. So the "Swimming Over the Prairie" piece is not something that I advertised through my time at STRIPS. Which is something I really enjoyed about that job. I got to take a lot of the media I produced and kind of put my own spin on it, for fun.

And when I made "Swimming Over the Prairie", what I was thinking about was the cataclysmic flood that happened in the younger Dryas, so the end of the Pleistocene. And I was trying to imagine with climate change and potentially rising sea levels and melting ice caps, what grasslands would look like if they were actually underwater and we could be swimming in there and looking at flowering prairie plants in July underwater. That was kind of a mental exercise for me just for fun because I think about that timeframe a lot from a prairie enthusiast standpoint. After the Wisconsin glacier receded and prairies started dominating the Midwestern landscape, and Iowa was one of the most altered landscapes in the world, if not the most altered.

# Vivian:

I didn't realize that on first glance, looking at the piece. I know when I looked at it and heard it, it was beautiful. And I know when you first described it to me, you talked about how you manipulated the bird

sounds to almost sound like whales. So we are drawing this comparison between two very different landscapes, I guess, if you want to call it that. But there's a lot of layers there if we're talking about the beauty of the prairie and recognizing that, but also having in this other layer of, okay, what would it look like if these floods continue and rising sea levels and all of that?

## Omar:

Absolutely. And I think another piece of this for me, personally, is I was born in Puerto Rico and lived in the Netherlands. In both of those situations, I was on open ocean, or the North Sea in the Netherlands, and then obviously, in the Caribbean in Puerto Rico. But being here in Iowa as a no-coast pirate, is what I call it. It's interesting to try to get that piece of myself on this landscape to resonate. The open grasslands, I feel like that really big open landscape calls to me regardless of whether it's water or grass. And projecting that beauty visually and through audio is therapeutic, I guess.

## Vivian:

Yeah, you talk about it being therapeutic on a personal level. But even as audience members, looking at it in some way, drawing those parallels, connections between different geographies in different places and how we're navigating our histories of our landscapes. But also what we're dealing with now and in the climate crisis and how to find the beauty in what could be there.

You talked a little bit about the time that you have worked with the STRIPS project, and I know you currently work with the Savanna Institute. Can you tell us a little bit more about your work as a farmer and artist and a researcher and how these roles intersect?

## Omar:

I think they all kind of blend into one another, which I'm really grateful for. I've had a really great opportunity in my career to mix my creative interests with my technical background. I'm classically trained as a solo microbiologist, and as the listeners already know, I worked for STRIPS. And prior to that I was working as a conservationist for the USDA, and then I also worked for the Forest Service surveying soils on mountain ranges in Montana, which was a blast.

#### Vivian:

Oh wow. You've done it all.

## Omar:

That was a pretty great job. But what's gotten me to this point, I think overall is my deep romance for the potential of the Iowan landscape. So my farm is just north of Pilot Mound, which is central Iowa, in the Des Moines River Valley. It's where the grasslands meet the oak savanna and then down to River Bottom Forest, down to the Des Moines River.

And it's a wild enough area that I've called it the Swiss Alps of Iowa jokingly. It wasn't logged, I think the uplands were logged, but there's some really huge oak and hickory trees on the property, and I'm using goats and sheep to reclaim the savanna and reconstructing it as silvopasture. And then my work as an artist reflects that process. And the research that I'm doing and conducting is this concept of how to integrate the savanna at scale across regional landscapes. So, how do we build a corridor from Colorado to Iowa where livestock can be transported on the land, continuously from when they're processing a

facility. Rather than being loaded up on the trucks or transported in some way. Because they have four legs, we should utilize that to our advantage.

And so a lot of the research I've been working on is this concept of the continuous perennial transmission corridor. It's the livestock transportation highway of ideally the present, but likely the future. And there's some really innovative technologies at the center of it, mainly being virtual fencing, which is a non-buried fence line. It's all GPS space, solar-powered, deliver shocks to animals through a cowbell type collar. And that's really where I spend a lot of my time visioning is, how do we nest these forestry systems so that we can have these really amazing hyper diverse, lush savanna systems that we can recreate in, but also be moving livestock through?

## Vivian:

That's incredible.

## Omar:

I want to make it happen. I think it's going to happen. We're trying to find some pilot areas. Really the way to start, I think, is by identifying some public parks and connecting them. It's all super exciting.

## Vivian:

And some of this work is referred to as silvopasture, is that correct? Can you so explain what that is?

## Omar:

Yep. Silvopasture is a technical textbook term for silva, which is the Latin root for silva or forest. And then pasture, which is grass. And silvopasture is kind of a fancy term for savanna really, because the savanna architecture is anywhere from 50 to 10% canopy cover. And then with deeper canopy cover, you start getting forest architecture. So the silvopasture, what it does is mimics the savanna architecture so you have more of an open canopy, so you can have light penetration in the understory to really have anything that you want growing down in there, whether it's hay or prairie or row crops, even. Just depends on the context. But if you're row cropping, it kind of turns into alley cropping. So they're a little bit fluid and there's a gradient there of different practices, but overarchingly it's the strategic integration of trees, livestock, and then diverse understory products.

## Vivian:

So you're doing this work on your own farm, but then you're also trying to advance this work more largely through the Savanna Institute, so maybe other organizations.

## Omar:

The Savanna Institute is a nonprofit organization based in Wisconsin where our primary mission is to increase the adoption of forestry through the Midwest, widespread adoption. And I'm one of an amazing team of tree and livestock professionals. So it's been really great to transition to working from grasslands to how to integrate trees and livestock into grass and focus on savannas. So it's all interrelated. We're all on the same mission to just widely transform agriculture so we can have better livelihoods and more vibrant communities and vibrant wildlife and abundant wildlife. And I think that we can share that mission with a lot of different organizations. So Savanna Institute is relatively new on the

scene. There's been quite a few other institutes and centers that have been working at agroforestry for decades and grateful to just be a part of that.

## Vivian:

Well, thank you for doing that work. And then you are also a photographer and videographer. What does your photography and videography look like?

## Omar:

I think my artistic output really reflects the gradient of what I'm pursuing in my technical work. I'm always talking about gradients and blending rather than the balance of conservation. And in agriculture, when we think about a pasture in woods, there usually is an edge there, but the most productive system would be something that is more of a gradient. So you have large trees and then mid-story trees, and then shrubs and then grasses, and you kind of have a parabolic U and moving in between those. And you have every type of habitat structure too, for different birds and wildlife and critters of all sorts, macro and microfauna.

I feel like my work represents that mission pretty accurately. I have very concrete, technical photographs that are basic, digestible for white audiences. And then I have the exact opposite of that where it's what am I looking at? How does that make you feel? And what I'm trying to do with that more esoteric work is bring back a sense of wonderment because I feel like, in these modern times, we've illuminated so many different corners of the world and different subjects that we've lost a little bit of that amazement that comes from the natural world. And I do like to have that initial sense of confusion when you're looking at something that I've made, not necessarily just the pursuit of wanting to know what it is, that mystery-

## Vivian:

Confusion that leads to questions, that then leads to conversation.

## Omar:

Exactly. "Well, what is this? How did you make it and why? And what am I looking at?" And I feel like that's a really great stepping stone to having conversations that can lead in any particular way because it's multifaceted and people have different interests. And just like the natural landscape has many facets and different objectives and niches, and it's a lot of fun to make work that can inspire a lot of different conversations.

#### Vivian:

And you've talked about the importance of this multifaceted approach to making sure that these conversations about agroforestry and how that's connected to climate change can really include a broader group of people in the Midwest, especially with so many agricultural communities. So to kind of take a step back, in your experience both as an artist and as a soil microbiologist and farmer, what are barriers to talking about climate change in Iowa agricultural communities?

## Omar:

Well, I think it's really complex. That's probably the main factor. And I think the Iowa landscape for most has been row crops for as long as they can remember. They've been farming row crops and it's hard to

imagine another landscape, especially one that integrates complexity with trees and livestock and a wide array of skills from plethora of expertise. So we've invested such a huge amount of money in the corn and bean infrastructure, it's difficult to try to imagine how to reappropriate all of that will and engineering into another system that, on the surface, looks like it's pulling away from this current system.

Right now it's manageable and it doesn't really lend itself to chaos. Everything is fairly linear and-

Vivian:

The system. The system is manageable?

Omar:

The corn and bean system.

Vivian:

So it's easier to wrap your head around, in some ways.

#### Omar:

It's easier to wrap your head around. And it's annual, so you have a reset button, which is kind of your fail-safe. But when you start integrating perennials, I think there's one, a lot of knowledge that comes with managing those perennials and the uncertainty that comes with that because of the lack of experience. And a lot of us are... We have finite lives and some of these perennials that, and these systems that we're developing, we're thinking a hundred, 200, 300, 500 years down the road on-

Vivian:

Might not even see the results of your work.

## Omar:

Exactly. And I've totally relinquished control of the desire to see that change in my lifetime. And I think the systems that I'm designing right now as a technical service provider at Savanna Institute, I'm thinking along those timelines. What is that landscape going to look like 200 years from now? And that's really hard to convey to someone that's thinking about planting beans after corn or someone that's used to seeing harvest and then nothing else growing the majority of the year because corn beans grow for about 27% of the year, and perennial systems are growing a hundred percent of the year all the time. I guess if I was going to summarize that, it's the complexity of the systems that we're trying to design and implement, and then the management of those systems and then the knowledge base for how to manage those long-term. And then also the market piece. Where am I going to market these products? How do I process them? That sort of thing.

## Vivian:

If these are the barriers to talking about climate change or talking more about regenerative agricultural systems that can combat climate change or at least more human-induced climate change, what methods for talking about climate change have you seen or tried yourself that haven't worked?

## Omar:

I think that accusatory finger pointing doesn't work for anybody. I mean, we're all living in this landscape together, and I think regardless of climate change, what we're striving for is cleaner water and abundant wildlife and more vibrant rural communities. And it's really difficult to make a counter-argument to that. We're not saying that we want you to stop growing corn and soybeans. We're saying we want clean water and abundant wildlife and vibrant communities. And there's many ways to grow different crops, and there are ways to grow row crops that are beneficial to the environment, provide ecosystem services, prairie strips being a fantastic example of that. But it doesn't just stop at prairie strips. You integrate no-till and cover crops and start grazing those cover crops. And maybe think about adding some oats in there too, that sort of thing.

## Vivian:

That goes back to your earlier comments about the importance of thinking about the landscape and our actions to communicate with and be in relationship with the landscape as a gradient, that there are multiple ways to interact with these changes and to interact with each other and simplifying it doesn't help address our landscape that has already been so simplified with monocropping and everything.

#### Omar:

Yeah, what doesn't work for sure is the finger pointing and nobody responds to that. If you're in an argument and you used the word "you" a lot, people start shutting down. Because it's not about that other person, it's about the problem at hand. And we have significant environmental problems that we can band together to try to solve because we all live in that environment.

#### Vivian:

And we all value probably in some ways, parts of that environment improving, like getting cleaner water.

## Omar:

I think it's a shame. In Iowa in particular, I feel having... Let me back up a little bit. Having had access to clean water before, in various times in my life, I think it's pretty sad that we can't find a clean place to swim. And that joy that comes with access to clean water is something that everybody should have right to. There are examples globally of policy structures that allow for that, so we have access to clean water, and I'm not exactly sure why you would argue against it.

#### Vivian:

Is that where you see opportunities to talk about climate change as latching onto these, to these more perhaps universal values that we can move forward, forward together?

#### Omar:

Yeah, and I think you hit the nail on the head with the values piece because everybody's values are different, and that's what makes this conversation hard. And I think when you have a landscape that's produced dirty water for such a long period of time, I don't think people can actually envision what a landscape looks like that produces clean water. And they don't realize that what joy, clean water could bring into their lives on a daily basis, that you could drink out of a spring or go fishing and see the fish

actually coming up onto your hook or accidentally lose control of your toddler and not worry about having them losing track of them in the sediment of the river.

## Vivian:

Right. So we've talked about this before a little bit. You keep using this word, it's really hard for people to envision this other way of doing things that leads us toward clean water and all of these other ecosystem benefits that addressing climate change would bring. What role can the arts play in encouraging this envisioning process that maybe will lead to conversations about climate change that are focused on concrete action?

## Omar:

We just got to walk the talk, I think, and pictures and video can do that. Really, they're just transferring what's on the land and making it digestible in some sort of media. With the photos that I've been able to publish through Prairie Strips, that's a really easy thing to sell visually because you have your row crop field and then all of a sudden there's a kaleidoscopic prairie in the middle of it, and it's like, "Wow, that looks amazing. What is that? How do I get that on my farm?" It's a very sexy looking product, and I feel like if we can sell it as something that's desirable, we got to play the game like any other marketing company plays the game. And we can make these landscapes look appealing to people through photographs.

## Vivian:

When we've talked previously, I think you called it staging the prairie as a supermodel.

Omar:

Yeah, totally.

Vivian:

In the middle of the corn fields.

#### Omar:

Yeah, it does the work. It does the work for me pretty easily. And that's the cool thing about beautiful landscapes is they're pretty easy to capture when they are beautiful.

Vivian:

So where have you shared that artwork?

## Omar:

The prairie photos have been published wildly, which I'm really grateful for, in a bunch of different media outlets and peer reviewed journal articles globally.

## Vivian:

And who has engaged with those? Do you know? Farmers, policymakers, other artists, who are you reaching?

## Omar:

Yeah, I think all the above. Yeah, policymakers, different farmers, which is supported by... I don't know where the number is at these days, but roughly 14,000 acres of prairie strips have been installed, I think, throughout the US. And obviously it's not just the photographs, but it does help to see what you're getting and seeing that on the ground through a photograph. And I think that old adage and the cliche, a picture is a thousand words or whatever the saying is, is accurate. Kind of speaks for itself.

## Vivian:

You've talked about these photographs, people looking at them, and their response might be, "Wow." And then that's perhaps being a gateway toward more conversations about what action can look like. What have some of these conversations looked like that you've been engaged in with your photography or videography being a vehicle?

## Omar:

I've always used those photographs as a proxy, as you're saying, it's like, well, if we can do it with a prairie, we can do it with savanna. So I've painted the vision in various articles of using prairie strips as the beginnings of road that's connected to other prairie strips that are adjacent to that farm. So if you have a farm that has a prairie strip, the next farm has a prairie strip, and the next farm has a prairie strip, and that becomes a road. And then you start expanding the prairie strip and adding trees into the middle of that expansion. And then you start grazing and maybe harvesting different materials.

It's not just straight prairie, it's like I was talking about before. It's diverse set of understory species. And I think it's nice to have the prairie strip example as a baseline to use the colors of a prairie to paint another vision, because our landscape is basically a blank canvas right now in Iowa, which is ideal for integrating perennials because we have a annual reset button, and a lot of them are chemically controlled. So literally in the spring or in the winter, we have a blank slate where we can start planting trees and prairie. And framing it in that way I think makes it pretty easy.

## Vivian:

Could you share an example of what one of those conversations have looked like?

## Omar:

So one particular example I have right now is I'm designing a 1600 acre complex of forest savanna and grasslands, but the major goal of this property was to reforest the entire thing. Through that conversation, I was able to talk about the gradient that I mentioned before is that, well, we don't have to reforest it right away. We can use savanna as an intermediary step to reforestation, and then grasslands as an intermediary step to savanna. And then there's that fluidness with that system. So if you have an open grassland, you could start integrating some trees and getting that savanna structure. And then depending on what you want to do, you could fill in those trees and have a forest structure.

But it doesn't have to be static over hundreds of years, you could be flowing in between those three systems from grasslands to savannas to forest, and just subjectively deciding where to thin and where to fill in and where to get rid of trees and where to graze and where not to graze. And I think we've lost that ability as humans at scale, because we've been a keystone species for so long. And we continue to be a keystone species, obviously. But our context has changed a lot. And the savanna and the prairies are, in my view, designed systems that were designed by Indigenous peoples that were here before

European colonization to provide abundant wildlife and resources for their way of life. And we can do the same thing and continue to honor that and gain all the benefits that come from those diverse ecosystem services.

## Vivian:

So it sounds like, by doing this work yourself and then photographing and taking videos of that work and then sharing it with other farmers, that process has, it sounds like, and can lead to conversations about what this gradient can look like. How can it be practical? How does our current system that has this reset button, how does that actually provide an opportunity to increase our investment in regenerative agriculture?

## Omar:

Yeah, that's the cool thing about working in that gradient space. There's so many different foci, I don't know if there's a better word, but just a lot of different things that you could tweeze out in that gradient to focus on. And the diversity piece of it is what makes it easy to have a conversation about different facets of it with different professionals that are interested in different things. Versus pretty difficult to have a diverse conversation about corn, because it doesn't reflect diversity. So you have one set of expertise that's focused on, say, genetics or the chemical piece or pest management, that sort of thing for corn, versus a more diverse system that's going to support a diverse array of expertise.

## Vivian:

And you've talked about your artwork as conversation starters because it's capturing so much diversity in the landscape that people can ask questions because they're curious, because it's not just a monocropping system that there isn't a lot of room for, "Oh, how does this work? What is that over there? How is this so beautiful?" There's maybe not room for that in our current system, but photographing what could be allows room for those more complex conversations.

## Omar:

Definitely.

## Vivian:

That's really wonderful. Speaking of climate action, you also have experienced developing and communicating sustainable agriculture and climate policy. So what role do you think artistic strategies your own can play in propelling not only individuals' understanding about this complex landscape change and biodiversity, but also climate policy in agricultural communities?

## Omar:

I think, again, seeing is believing, and we need to get real examples of these systems on the ground, which is already happening. I think the major goal is large scale transformation, and it's not just drops in a bucket of like, "Oh, that's cute. They're planting some trees and integrating livestock over there on five acres." No, we're talking about doing it this on millions of acres.

## Vivian:

And documenting it.

## Omar:

And documenting it. And we're doing that and we're making that happen, and it's not just us. It's a cohort of people globally that want to see this change. And now it's how do we develop the policy structures to support that? Because we have policy structures in place to support our corn and bean infrastructure and models for perennial integration that are policy-based, like the Conservation Reserve Program. That's a fantastic example of publicly-funded conservation program. The existing policy structures are there, it's just revisualizing how the context of our needs on the landscape have changed. We're equipped to make these complex changes now with the knowledge base that we have. We have a better understanding of how ecosystems work and how we can utilize their inherent services to our advantage, and again, reclaim our place as a regenerative keystone species rather than an extractive one.

#### Vivian:

And you've talked to me previously about how we often see the reasons for investing in our current systems in the capitalist society as industrious. But using your artwork, your research, the work you're doing on your own farm to emphasize that regenerative systems are actually incredibly industrious, in terms of being productive and giving us the resources we need and making sure that we can survive. Can you talk more about that? What do you see as the reasons to bring that into the conversation?

#### Omar:

I think you got to play the game the way that it's being played in the way right now is through capitalism, which is a extractive model. I think that, again, just pointing fingers about climate change doesn't work. I think pointing fingers at capitalism also doesn't work because that's the main model that we're building our industrial systems around, even though that's predominantly the problem is how we manage those industrial systems and how we hold them accountable and all that sort of stuff. But that's a whole other political conversation.

But just weaponizing that through the lens of regenerative agriculture and making it embarrassing not to do it, because regenerative agriculture is so industrious. Because it is hyper-productive. And if we're trying to do the whole rah, rah, rah, produce, produce approach, then that's what regenerative systems do. They produce an insane amount of biomass, in all forms, instead of just producing a couple forms of biomass. And I don't know exactly how we do that, but I do think there's a degree of embarrassment that should come with having a grossly simplified landscape. Because what it demonstrates is that we're not really willing to make a change at scale because maybe we're being cowardly about integrating that complexity because we're afraid that we might lose control of that management system. And is life even worth living if you have everything under control? I don't know. I think that's part of the best part about being human is just relinquishing control and going with the flow, which is a cliche, but...

## Vivian:

You're talking about how that's maybe the role that artistic strategies can play is framing that relinquishing control, changing our systems, as... It is something that's scary. I think change is scary. Relinquishing control is scary for a lot of people, and framing that as beautiful or desirable, and also framing it as something that is being done currently because it is. And so your artwork, I've seen it, it is gorgeous. It makes you stop and look and ask questions and also say, "Oh, wow, why isn't more of this being done?" Or "Why haven't I seen how much of this is already being done?"

## Omar:

And coming back to the policy, I think a lot of farmers would want to implement change, but they're really just stuck doing what our government has asked them to do. And they're doing it really well. Unfortunately, the policy infrastructure right now supports that model of production. And there's obviously room to change that. And again, I've been mentioning it, the way that we're used to these landscapes right now, I think the policy landscape is very similar. We're used to a particular way of policies working, and trying to re-envision how policy can actually work on the landscape without having it be regulatory. I think that's what a lot of farmers are afraid of is the regulation piece, but I would argue they already are being regulated. The context is just different. So there's learning to be done on both integrating the system and then the policy piece.

## Vivian:

And figuring out ways to start that conversation and encourage people to ask questions or encourage people to envision what could be, and then going backwards to figure out what the steps are to get there.

#### Omar:

But I also think cultivating this, what I feel like has been a part of the American culture for a long time, which might be dissipating a little bit now with how everything is so polarized. But I think as Americans, we've always banded together around these industrial ideas of building highways or getting different infrastructure set up for producing grain for war or whatever it is. And I feel like we could be using that mentality to our advantage to make regenerative agriculture and industrious process. And leaning on our culture to do that and banding together around, "We're fighting to produce clean water and we're fighting so that wildlife... We can enjoy it together and wildlife can move through these landscapes again" and so on.

#### Vivian:

And you've talked about how artwork can also amplify that social and cultural piece of the conversation that is so critical.

#### Omar:

Absolutely. Yeah. And I think what art does is it brings people into this conversation that don't have the technical expertise to have the technical part of the conversation. It might make them realize, "Oh, I didn't even realize this was a problem." Because they live in a concrete jungle, or they just think food shows up in the grocery store, whatever it is.

#### Vivian:

And also amplifying that all of these possibilities aren't necessarily new, but I know in your work, again, as an artist, a researcher, a farmer, that you really try to amplify that this regenerative relationship with the land is actually historical. It's not something that's brand new. There are tried and true methods that have been used in the past, and we need to figure out how to bring us back to that point.

Omar:

Yeah. I'm personally not a fan of the word regenerative. I feel like it's just another regurgitation of the word sustainable, and it's starting to be co-opted by-

Vivian:

What does it really mean?

Omar:

Yeah. It's starting to be co-opted by large chemical companies and stuff. And there's no technical definition for the word yet, and I think it's just going to kind of come and go and whatever. But that aside, the systems that we're trying to design are just, again, amplifying how natural systems work. And we're trying to figure out how we can gently nudge those systems and integrate ourselves into those systems as beneficiaries rather than extractors.

Vivian:

Right. So we've talked a lot about your photography and videography that is used as conversation starters to envision what different landscapes could look like. But I know that your current artistic project is of an even larger scale than your previous audiovisual work and combines land management strategies, your understanding of soil microbiology, land sculpture, cinematography, and audiovisual techniques. So can you describe a little bit about what this project looks like?

Omar:

Not really.

Vivian: You have to see it?

Omar:

Yeah. It's a work in progress. I've had this vision for quite a while. If I think about my evolution into this art form and medium, it really started probably when I was 14 years old. I've been building and building this machine. It's probably a machine at this point. It's a large room of equipment and sensors and all kinds of things. But essentially what it mimics is the cyclical relationships that you find in ecosystems, and they're positive and negative feedback loops. I'm super interested in feedback systems and especially audiovisual feedback systems. There's interesting papers out there about temporal anomalies that you can extract through different video feedback setups. And there's interesting ways to envision quantum entanglements and different type of ecosystem behaviors. So if I was going to make a tangible example right now is, I mentioned that four foot kaleidoscope early on as being part of the "Swimming Over the Prairie".

And I went really over the deep end with the large kaleidoscope and building, continuing to build, a kaleidoscope automaton. It's a land roving kaleidoscope that collects environmental data. And eventually you'll be able to tune into it online. But what that kaleidoscope does is it'll collect information that I'll be able to utilize in my audiovisual equipment as sensor data. And some of my analog gear has the ability to control voltage as a modular synthesizer. And I'm integrating that in with other digital tools. And so my latest thing that I'm working on now is flying a small, acrobatic Cinewhoop drone. It's

about the size of my hand and it has a HD camera on it. And as part of my land management, I'm always thinking about birds, because birds are amazing. And they tell you a lot about how the landscape is functioning based on their habitat preferences.

As I'm managing the savanna, opening up the savanna, I like to see what kind of birds are starting to move in. And obviously it's all qualitative because I don't have enough time to do quantitative research, but it's pretty obvious when-

Vivian:

But that's valuable.

# Omar:

An obligate savanna species, like a redheaded woodpecker, moves in and... Very noticeable. I like to watch their flight paths and through that, I started flying this little Cinewhoop drone where you put on goggles and you can fly like a bird. And so I started making tracks through the woods, and then I used that video feed and manipulate it with the kaleidoscope and some other stuff, and do some chroma keying on trees and start integrating video feeds that the drone's picking up. And it's a interesting feedback system, and it's all interrelated in weird ways.

## Vivian:

It sounds like it will be beautiful and intense and a way to really combine your backgrounds and all of these technical skills and gathering environmental data and then turning that into something that's really tangible that you can see and hear and experience.

## Omar:

It's going to be interesting. Yeah, definitely. And I think from a policy piece, this is definitely not going to be something that I can use in policy conversations.

## Vivian:

But you've described this artistic process as your "love language for a dying landscape." So how does this creative engagement with the land affect your relationship with the environment?

## Omar:

It's just a fluxing romance. It's up and down. I get pretty discouraged sometimes, being in the Iowa landscape. And other times I feel inspired that, "Hey, there's a lot of people working in this space." But I wish it would come back more robustly and quicker. I'm really mostly in love with the potential of the Iowan landscape. And I think what my artistic pursuit allows me to do is escape into that vision and explore it more fully and be fully immersed in it, as well. When I'm flying a drone through an oak savanna like a bird, I can relish in that and really enjoy it. And maybe I don't necessarily share that with others, but I am flying through the savanna like a bird. And that's fantastic. And I think it just continues to deepen the reverence that I have for the landscape.

## Vivian:

It seems really wise to have your own practice that is for deepening that relationship and figuring out what that is. And then you're sharing your artwork in other ways with other farmers and artists and

policy makers and a whole group of people to try to help them also see the potential in the landscape, figure out what their own connection points are, what their own values are, and how that can perhaps translate to joining efforts to reintroduce different kinds of landscape and more biodiversity.

## Omar:

I think one big thing I've realized about the work that I'm doing now, artistically, is that it's really an escape from the reality of the situation that we're in. And that can become, there's a technical term for this, for environmentalists that have the anxiety of climate change. That's omnipresent in our work because we're just thinking about that in perpetuity as we're designing these systems or working with farmers or policy makers about how to produce landscapes that are benefiting everyone. And it can really feel like we're not moving the needle whatsoever a lot of the time. So when I can just totally escape into a fantasy world, I think it helps cope and recharge me to be able to acknowledge that the change is not going to likely come in our lifetime at the scale that I would like to see it. But at least I can be confident in knowing that I was part of some ideally critical conversations that helped pave the way for future generations to be able to look back and think of us as, why didn't we do that sooner?

#### Vivian:

And you say fantasy world, but I found it very interesting and helpful in your work to think about it less as fantasy, but as potential. The words you've used over and over, envisioning the potential of the landscape. And that potential is rooted in history of what the landscape has looked like previously. And if we can all work to envision that more clearly, then that maybe paves a pathway to action that can get us there. Maybe not in our lifetimes, but hopefully sooner rather than later.

#### Omar:

And this might seem like a tangent, but it's related. I've always looked up to Jules Verne as a source of inspiration as a writer. Because he inspired generations of scientists. They read Jules Verne, and they built the submarine based on his description of the Nautilus and they built spaceships based on his description of a spaceship or whatever. And I feel like we have that potential to do that with some of this landscape-level work, as well. Let's just paint the vision. What does it look like?

#### Vivian:

Yeah. And it sounds like... Speaking of a science fiction author, I know that you are engaged in a podcast project yourself called Perennial AF, right?

Omar:

Yeah.

Vivian: Is that through the Savanna Institute?

Omar:

Yep. That's actually led by Jacob Grace.

# Vivian:

And isn't that kind of a science fiction, or at least your part in it is going to be?

## Omar:

Yeah. I pitched the idea to Jacob about doing a podcast of talking to a agroforester from the future 200, 300 years into the future. And we're doing a whole interview, not too dissimilar from this, but through the context of an agroforester 300 years down the road. And we're going to talk about how we got there through policy infrastructure and what the landscape looks like, that sort of thing. I'm looking forward to it, and I'll be able to make some sound effects with my modular. And right now we're kind of half-joking about doing a little Jurassic Park-type action where maybe we genetically engineer some wooly mammoths to come back to manage the savannas at scale. So that's kind of a fun idea.

## Vivian:

Well, I'm very excited for that. And this idea, again, I think when we talk about climate change, then I think we often do think about the future, but in very drastic and depressing ways. So figuring out ways that we can start envisioning what an alternative to that looks like, seems like it's really critical to the conversation.

## Omar:

Yeah. I think we have such incredible visioning power as a species. That's really our advantage, that we can collectively build ideologies that we can support one another in. And case in point, right now, we have a hyper-polarized climate, socially, and that's because we're banding together around all these ideologies because we're able to envision them, right?

## Vivian:

Right. So how can we envision the future to spur action in the present that is going to get us to where we want to be?

## Omar:

I think framing it positively, right? I think things do look like they're in dire straits, but I would argue that a lot of generations think things look like they're in dire straits. And we've risen up to the challenge, and our human context is rapidly changing, as it always has. And I would argue that the climate has been changing as it always has. And just like... I don't like the word invasive. That terminology is based on when Columbus showed up in America, but species have been moving all over the world since day one. And to say that we understand how everything is put together and functions, I would argue we're still more on the static end of our understanding of the way the world is working and moving and all that sort of thing. Not to say that we're not making an impact. We can definitely make an impact, but we can choose how it impacts one way or the other.

## Vivian:

And that it seems like it is a balance or maybe a gradient, if you prefer-

Omar:

A blend.

Vivian:

Of relinquishing control and realizing where we can't have impact.

Omar:

Yeah.

# Vivian:

With that, I wonder if you can let us know as we wrap up, what are the three key ideas that you want people to understand about the work you do?

# Omar:

Just like any other artist, I'm trying to convey the immense amount of beauty that's in the world. And again, I think we've lost our ability to really look at the world as a mysterious entity and a living, breathing thing that we can contribute to and find connection with. It's not a static relationship, either. It's a dynamic relationship. And we are a hundred percent dependent on its health for our own health. And my work is a pursuit of trying to understand the language so that I can build that romance in a reciprocal way.

I think that's why I call it my love language or a dying landscape because I'm trying to listen to the landscape as a technical scientist and researcher and also as a human being. And there's only so much I can do as an individual, so the more I can equip people with these ideas so that they can run with them and interpret them in their own way, I'm not going to save the world or do anything like that, and I don't intend to. And I think the critical thing is that I'm enjoying what I'm doing and I am enjoying the conversations that I have with people and amplifying compassion and not pointing fingers. And I don't know, having fun. Pretty cliche, but I think that's super important.

Vivian:

Sometimes things are cliche for a reason, right? Because they are important

Omar:

Yeah. Time proven.

Vivian:

Exactly. What is the biggest recommendation you have for others who might want to use artistic strategies to talk about climate change in agricultural communities?

# Omar:

Don't be afraid to be present with your visions. I think some of them can be violent or dark, especially in the climate that we have right now with all of this stuff like we've been talking about. And it's really easy to have that lens. And I think that's important too, but don't be afraid to be present with that and figure

out ways to channel it out through something that brings you joy rather than trying to channel the other feelings.

Not to say that you can't feel those feelings, obviously. But I want to reiterate that it's a lot more impacting when you are able to make someone feel good about themselves. Again, that accusatory thing doesn't really work. At least, that's been my experience. And just like your presence can make or break a conversation, depending on how you go about that conversation, I feel like that conversation with your own art is very similar. And cut yourself some slack. It doesn't have to be profound or anything that is going to generate impact. I think the critical thing is that you're exploring your connection to it and finding ways to express it.

## Vivian:

How can people connect with you in your work as they're exploring what they're going to do with arts and storytelling and communicating their own visions of the future, whether dark sometimes, or whether full of potential sometimes, how can they connect with what you're doing to keep up with your work as an example?

#### Omar:

I do have a website. It's just my name, dot com. If you want to reach out to me via email or phone, that info's on my website.

#### Vivian:

Thank you so much for sharing about all of the multifaceted work that you do it. It really does feel like an example of how we can approach these conversations that are really complex and to lean into that complexity. So I really appreciate having the chance to talk with you today.

#### Omar:

I appreciate the opportunity. It was fun.

#### Vivian:

Finally, to round us out, you have written a creative piece, "A Walk in the Park," which describes your relationship with the land you are working with, with prairie and savanna. So you have generously offered to share an excerpt of the piece, inviting us to join you in envisioning the potential of the landscape that surrounds us.

#### Omar:

Oak savannas are one of the most diverse and endangered ecosystems in the world, and reconstructing them as silvopasture is a path to a climate resilient future. The industrial production of conventional corn and soybeans dominates the Iowan landscape, but the savanna will make a resurgence.

Living in lowa, I'm no stranger to corn. I grew up on my dad's shoulders and plant breeding nurseries, bringing brown lunch bags full of pollen, and transferring them out to eager silk. Breeding for yield, breeding for pest resistance, breeding monotony, and getting a tan. Efficient and productive. In my teens, I walk mile-long corn fields, pulling tassels, produce seed corn. Silking wet in the morning from dew and soaking wet in the afternoon from sweat. Diving into the middle of the field to swim in the peaceful quiet, waiting in an ocean with no bird songs, no insects buzzing, no flowers. Looking up at blue

sky through rustling corn leaves and staring down at often cracked, bare soil. After a long day walking through monotony, I drive home, imagining the wildness of technicolor prairies and the bustling of wetlands at once covered the glaciated landscape. Summer spent detassling gave way to time spent imagining, which was my gateway to becoming a soil scientist motivated by a regenerative future.

#### Vivian:

Thank you for listening to The Art of Climate Dialogue, and we hope you'll listen to the rest of the series. More information about podcast interviewees is available at ecotheatrelab.com. We invite you to engage in conversation with us by leaving a comment, responding to the short feedback form in our show notes, and checking out The EcoTheatre Lab's website.

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This episode's sound technician was Louie Jordan. Our podcast consultant is Mary Swander. Our podcast musician is Omar de Kok-Mercado. And our podcast artist is Moselle Nita Singh. Our podcast land acknowledgement is adapted from text developed by Lance Foster and Sikowis Nobiss, and from conversations with Shelley Buffalo. Rosie Marcu-Rowe is our podcast editor. And I'm Vivian M. Cook, Community Engagement Director for The EcoTheatre Lab and The Art of Climate Dialogue podcast producer and host.

Take care.