

For All I Care Episode 04

Nwando Ebizie: [00:00:00] When I moved back up North to a semi-rural village, I found these new rhythms connected to the natural world that began to shape my life.

I go up for walks in the hills and there's these huge stones peppering the tops and I sit on them, and I like to imagine their shaping over eons by glaciers and rainwater.

My daily movements are shaped by the daylight, the amount of light that falls in the valley where I live, and I loved last year being taught how to see with mushroom eyes, and then all of a sudden feeling like all I could see were mushrooms everywhere. And then allowing the mushrooms to lead me on my walks and my wanderings, finding myself on different paths I hadn't taken before.

So, I guess what I'm saying is that I'm really aware of how my daily life is shaped by this natural world, this non-human world.

This is For All I Care, a mini-series about how to care more creatively brought to you by Baltic Centre For Contemporary Art and Wellcome Collection. My name is Nwando Ebizie. I'm a multidisciplinary artist and in this episode, we're looking at what we can learn from the non-human world and in particular, from the way that it cares for itself.

In this episode, we'll be inviting you to listen closely to the natural world as a way of imagining what it might feel like to be a bat, a worm, or even a mushroom.

Rachel Pimm: [00:01:55] There are endless lessons that living and not living things continue to teach me. Materials themselves teach me things, you know, elements in the periodic table teach me that they need to work with one another to become every compound that forms the world.

Nwando Ebizie: [00:02:12] This is Rachel Pimm. They're a London-based artist, fascinated by the non-human world and the acts of care and reciprocity we can see in plants, animals, and minerals. Their work often

sees the world from the perspective of non-human beings or elements. We invited Rachel to talk to Merlin Sheldrake, a biologist and author who's been studying fungi for many years.

Merlin Sheldrake: [00:02:37] The whole terrestrial biosphere, you know, life on land itself. This has arisen out of fungal relationships and the astonishing metabolic abilities of fungi, and so we're so firmly embedded in a fungal life story that I really have no idea what it would look like without fungi. It's inconceivable.

Nwando Ebizie: [00:02:55] Merlin has a PhD in tropical ecology, but his work on underground fungal networks in tropical forests in Panama. When you think of fungi, perhaps mushrooms or truffles come to mind, but fungi are an entire kingdom of life, separate to plants and animals, and they grow in branching fusing networks of cells called mycelium.

Last year, Merlin published a book called *Entangled Life: How Fungi Make Our Worlds, Change Our Minds and Shape Our Futures*. It tells the story of his attempts to understand the world from the perspective of fungi. How do we, in practice, actually get into the mind of an organism or a plant and is it possible?

Here's Merlin in conversation with Rachel.

Merlin Sheldrake: [00:03:52] I was trying to explore in the book, the different ways that we are able to think about fungal life, but I never expected to actually be able to experience the world from a perspective of a fungus, you know, there's this kind of doomed quality to this mission, but I nonetheless think it's really important to do our best to try and to de-centre our human perspective. To step outside our narrow categories that can so limit our ability to understand the living world. And of course we're never going to really be able to step outside our human bodies and our perspectives entirely, but I think we can do a good job of trying and in the process, I think we can learn more about ourselves and more about what it means to be alive, and so this is what I was really trying to do in the book.

I tried many different things ranging from, you know, running after truffle hunters in Italy. Also I was part of a clinical study into the effects of LSD on the problem solving abilities of scientists and mathematicians and I used that opportunity to try and imagine myself in the soil and had a very vivid experience of, of this bustling wilderness of the soil, not that that's some kind of fact that I could learn from the LSD experience, but more that the LSD could help bounce me out of my rigid perspective, bounce me out of my categories and approach familiar problems from unfamiliar angles.

So I know that you've spent a lot of time in your work thinking about the perspective of non-human entities, non-human organisms, and also non-human and non-organisms in your pieces, and I wonder if you could tell me a bit about your fascination with worms? I loved this piece on worms that you did.

Rachel Pimm: [00:05:27] Basically the work you're talking about, was it a piece of artwork called *Worming Out Of Shit*. And it was a collaborative sound work, maybe with another artist called Lori E. Allen.

***Worming Out Of Shit*:** [00:05:41] I slowly follow and flourish, wherever humans settle.

I catch a ride in the global movement of plants and in the treads of wheels. I don't care whether I'm native or non-native. I only care for decomposing material.

I live underneath the surface away from the fluctuating temperatures and the frenetic speed of the instability of changing epochs. Steadily continuing my function for who knows how much longer.

Rachel Pimm: [00:06:22] We kind of took a starting point from quite a few different biological kinds of works around the worm. There's a seminal final paper by Darwin, which is about worms being custodians, almost, of culture. He measures stones as they fall through the kind of strata of the soil over time and the way in which the worm acts as this really incredible agent to almost preserve culture by not only regenerating the soil, literally consuming our kind of spent crap and

bringing it back to the surface with new, new nutrients, but also at the same time, burying our artefacts, saving them and archiving them for later.

Merlin Sheldrake: [00:07:03] You narrated it from the perspective of the worm, and this is clearly a very important part of the piece, and I wonder what drew you to this urge to occupy the worm's perspective?

Rachel Pimm: [00:07:13] To look at worms under a microscope in a cancer research lab is a really strange thing, because you're looking at something which has chosen to be a model for you. Your genetics are similar enough to a worm that we can do some really simple tests on them for things that we want to do in the human body. So they're already being asked to perform and behave in a human role. So to put ourselves into the place of the worm is again, just a sort of a swap, an act of reciprocity.

So yeah, being the worm is actually really a very quick jump. We like to think of ourselves as being more important or on top, but you know, that's already disproven by how badly we're messing up in such a short timeframe when you look at how successful mutual collaborations like lichens are and how long algae have been around, so to put ourselves into the position where we embody other perspectives is only going to teach us, you know, something more useful about how to look after ourselves and each other. Otherwise, we are literally going to be extinct.

Nwando Ebizie: [00:08:35] I'm always trying to expand my perception. I guess as a neurodivergent person, I'm already front-loaded with the idea that I perceive things differently from what most people think is the norm of perception. So in my work I've tried to explore that more and that's taken me outside human perception to non-human perception.

For example, we see within the visual light spectrum from red to violet, but that's just a tiny part of the electromagnetic spectrum and there's lots of animals that can see outside of our visible light spectrum. For example, butterflies can see in the ultraviolet portion of electromagnetic spectrum.

So it's just impossible to imagine or really place ourselves in that mind of that butterfly to see what they can see, but trying to imagine the unimaginable, it's like a kind of lovely stretch for the mind, keeping it supple and stopping yourself from stagnating into self-formed bias. You're going to be hearing more from Merlin and Rachel later in the episode, but now I want you to use your ears to help see the world from the perspective of the non-human

Jana Winderen: [00:10:13] Through listening I have learned so much.

I think through listening, you know, focused listening, we become aware of our environments, you know, and of course this awareness of our environment, I believe that, you know, we'll get a larger amount of care and empathy for other creatures.

My name is Jana Winderen. I'm an artist, but I work mainly with, um, sounds. I have been occupied the last now 15 years in mainly working with sounds underwater and of sounds from creatures that make sounds inaudible to us like bats, rats, fish, echolocation, you know, dolphins, and I try to use sound to put attention to ecosystems and to issues that I think need focus.

Of course, it's very hard to understand the world with the perspective of a swan, for example, or a rat or an underwater creature for that sake. I mean, being a human being, it's difficult to not understand the world from a human being's perspective, but I think we have to, we have to try to place ourselves less in the centre and not trying to, for example, teach the dolphins to count or something like this, we should really rather look at and step back and observe and try to understand their way of being, you know, from their perspective.

Nwando Ebizie: [00:12:04] We're going to play you one of Jana's works now. It's called The Listener.

Can you guess what's making this sound? Any ideas?

I'll give you a clue. It was recorded underwater.

Jana Winderen: [00:12:37] I remember the first time actually I listened to underwater insects and I was on a workshop out in the forest by Kaliningrad on the border to Poland. And I had my hydrophones with me so, um, I put the, I was out recording in the river, so I was expecting to get this sort of sound of water, and suddenly I heard like cricket sounds, and so I got this assistant working there I heard cricket sounds! Underwater? No. So I took the hydrophones out, because I expected I was just listening to the crickets and thinking it was underwater, but I put the hydrophones in the water again and there it was again, you know, this kind of cricket sounding sound. So that was my first meeting with underwater insects.

There are very many different species of insects and beetles that are living their whole life or parts of their life underwater, and some of them are using very strong sound like the backswimmers that are rubbing body parts together, so it kind of sounds like crickets. They go into kind of choirs. One will start and it seemed to be triggering others too, so they can get into kind of really strong sounds. And then you have underwater beetles that might be, you know, just, uh, partly living underwater.

There are so, so, so many, and when you start to look carefully and listen carefully, you just, a whole new world opens, uh, in front of your eyes and ears. You can sit like for a day, just looking into one square meter and there's so much going on. There's a whole universe there.

Nwando Ebizie: [00:14:50] I love walking through the moors, the ones near me are boggy, they're just, you know, drenched full of water, and I never even consider the creatures living in there, and next to the moors is one of my favourite dams that I swim in, and I just never consider the creatures in there. Never think about what might be rubbing up against me.

Patricia Dominguez is a Chilean artist who is fascinated with the non-human. Right now, she's working on a new commission for an exhibition at Wellcome Collection called Rooted Beings in partnership with Delfina Foundation, which reimagines our relationship with the

vegetal world. Patricia uses healing practices in her work to examine the way that humans relate to, and often exploit, plants, animals, and minerals.

Patricia Dominguez: [00:15:53] The way I see healing is like... you know, I live in Chile which is this like neoliberal country, like almost like a laboratory of neoliberalism, where all the healing and ancestral knowledge has been hidden. So my work always tried to focus in one of those hidden knowledge and bring it to life. I think we do need to heal our sense of human, but also in relationship to the earth and this interconnectedness, and also like this deep understanding that for example, at least in human healing, like we are made like from earth, our bones are made from earth, you know, all our cells are made from plants and the plants are like eating sun. So healing, I think for me, it's like really understanding that we are like more permeated to the earth and to life than we think.

So one of the healing techniques that I have been learning is to heal with quartz frequencies. And then I learned that the same particles that makes the quartz are the same, we have the same particles in our bones, and then the same particles like inside the silicon chips of our mobiles and computer. So I just felt this interconnectedness between our bodies, our mobile devices, and then all the quartz crystals that are like inside the centre of the Earth, so I think it's really important to be aware that we're all interconnected, but also for example, the quartz, you know, what's extracted from a specific place through a specific person, usually like in really precarious conditions so I think this meditation is also a way to open our perception of how this element is present in so many different parts of the chain, but also like the quartz keeps being alive and it still has its spirit or its agency, and this is the same that our bones, you know, so I think it's really important for us as humans now to permeate and open our perception of our body and of the elements that conform us.

Close your eyes. Bring your attention to the vertical axis that connects the base of your spine to your feet and your crown. You will notice you're inside a bubble, within your field of consciousness.

Breathe.

We're going to expand the bubble a metre below your feet, so that it comes into contact with Mother Earth.

We activate a tunnel of light from where you're seated to the crystalline centre of the Earth, where the quartz crystals live.

Go down, go down to those quartz. Anchor yourself to one. Connect to it.

Those quartz are great amplifiers of energy. They are violently extracted to form silicon chips for our mobiles and computers. From the bottom of the Earth, they're transferred by people and machines, to the centre of those crystal chips that accompany us day by day, amplifying and retransmitting information from your mobiles and computers. From there, they continue delivering us their crystalline energy to protect us amidst the system of fatigue.

Raise the quartz' energy to yourself. Allow its frequency to course through you.

Let the intense harmonic vibration of the quartz pass through the dissonant parts of your being. We ask that its frequency expel the stress that you have. The tension. The fear. Expel all the old memories. The fatigue. The off-kilter feelings. Expel all the disharmony there is in your being. Hand it over to the earth to be transmuted.

Breathe.

We construct now a ray of light from the centre of the Earth and raise that energy back into our bubble. That energy settles you, anchors you, makes you part of the Earth.

Slowly we return here. Breathe.

Nwando Ebizie: [00:21:46] That was a fascinating meditation for me, in terms of the meaning of a meditation. We're used to colloquially using the word meditation to mean something relaxing, peaceful maybe, that makes you feel serene. Whereas for me, this was very much a

meditation that if it did heal me, it healed me in a bringing together of concepts and making me feel a kind of pain and frustration at what I now feel this crystal represents. The extractivism of neoliberal practices that we use for modern convenience, that we use for spiritual practice, that we use for healing. All these things, this real privilege we have as people in the global minority and how our societies extract from the global majority. The global majority being the 80% of the world's population who are black, indigenous, people of colour, the places where healing and ancestral knowledge have been hidden or stolen or derided.

Rachel Pimm has also been considering the connections between the violence of colonial extraction with the natural world. Here they are in conversation with Merlin Sheldrake discussing how they view the non-human elements they incorporate into their artwork.

Rachel Pimm: [00:23:10] When I think about plants and I think about collaborating with a plant, I have to think about how to summon and kind of honour the politics and histories of the ways in which those plants have been decontextualized, you know, they've been stolen, migrated, probably farmed in monocultures for profit, usually for a colonial power system, and the relationship between extractivism and capitalism is really embedded within these, within these kinds of stories, you know, right behind me at the moment, I have a tobacco plant growing and you know, down in the corridor, I have a rubber plant growing, and these are plants that have all been subject of really historical bio piracy. So when you work with these things, they're not just, you know, a green leaf. They are, they have their own, their own relationship to land and history and violence the same as, as humans do, and they are displaced or asked to do labour.

So, yeah, when I work with these elements, to not tell those stories would be really irresponsible because it would continue to build on the 500 plus years of not caring relationships that have been established. And so hopefully by kind of visiting these stories, we can start to address and make up for some of those 500 or so years and try and introduce reciprocity and care.

Merlin Sheldrake: [00:24:38] What I find also really helpful in thinking about these plants that we have long and complicated relationships with is, is the agency, and so, you know, this whole, the perspective flip game. If you have a big plantation of rubber trees and you congratulate the humans who have made this big plantation of rubber trees, a successful economic crop, but you could also think about it from the perspective of the rubber tree, and the rubber tree has fallen into a relationship with humans and made itself so useful to humans that humans have gone out of their way to clear this land with vast effort to plant them in rows to the exclusion of everything else. There's a two-way street here because the rubber trees are definitely, um, we're caring for them somehow.

Rachel Pimm: [00:25:20] Yeah, and all of these things that cash crops offer up to us are still gifts, you know, they're still generously producing really useful materials and we are, you know, another animal that's using them, so there is definitely a reciprocity there, and in the spirit of reciprocity, um, I've seen videos and I've, uh, of you, using a copy of your book as a kind of food stuff to give back to mushrooms. What about that? What can you tell me about that?

Merlin Sheldrake: [00:25:53] Yeah, I mean, the thing, something that happens quite a lot, I think, especially if you're coming from a scientific perspective, where you can talk about the living world and somehow imagine yourself as separate from it. It all becomes very abstract and you become a voice from nowhere, and I didn't want this to happen and I could feel it happening as I was talking about fungi in the book, and so I wanted to finish the whole process by firmly placing the book and myself back into the living world that this book was describing and I thought a good way to do that would be to grow mushrooms from the book, so to feed the text to some fungi, to some oyster mushrooms, and so it'd be digested, rotted by the organisms which it describes. It felt like an important gesture. I was joking with my brother, Cosmo, we were joking about, you know, what will the fungus make of this book? Wouldn't it be fun if we could somehow eavesdrop on what the fungus was, whether it was enjoying this book, if it could enjoy something, you know, how fast was it devouring this book, and then we realised that actually we could

kind of eavesdrop on this and we called up a collaborator of ours, Michael Prime, who uses electrodes, which he places on plants and fungi which detect the bio electrical activity of these organisms and translate them into a sound.

The sound that you hear, isn't the sound that the fungus is making, but it's the activity of the fungus translated into sound such that we can pay attention to what's going on in the fungus in real time.

We used, and I sent some copies to Michael Prime when he recorded these sounds, and then Cosmo and I made a track together using these sounds to launch the book into the world.

Excerpt of the song.

Nwando Ebizie: [00:27:40] I've noticed recently that I'm really drawn to artists who use non-human elements in their work, whose research and artistry is intertwined with exploring this, and I have a hypothesis, a very non-scientific one that working with natural elements makes you more empathetic. It takes you outside of yourself in ways that make you care for the world around you.

So we've eavesdropped on fungi. Now let's listen to something that is normally inaudible to human ears, the calls and cries of bats. By using ultrasound recordings and special microphones, sound artist Jana Winderen helps us tune into their world.

Jana Winderen: [00:28:35] Bats make small but powerful screams, you know, to search for insects and also to orientate themselves in the space and the echo they are getting back from the body of these creatures will tell them about the distance to this insect or to that wall.

They kind of see the world with sound through their echolocating.

I remember I was working with an installation for Museum of Modern Art in New York, where my focus was really on echolocating bats and also echolocating dolphins. So I wanted to create this kind of sphere around the listener, where the water surface was in the middle of the room, and just before I was on a field trip in Panama, but, um, one

evening, you know, I saw all this bats behind the boat and they was like this orange and had silvery coloured wings, and I was talking, you know, what are they doing here behind the boat? So I started to look and I took out my ultrasound detector and realized there was loads of echolocation happening and they were echolocating down towards the surface of the water, and they were actually diving down and grabbing fish through echolocating towards the surface. So they were fishing with echolocating into the, onto the surface, noticing where the fish were like really close to the surface, and as I was working with this kind of surface and with the bats above water and dolphins underwater, it was just so perfect, because I had this particular bat fishing, so it was crossing this water surface. So it kind of combined the world above and underwater of echolocating both in the ultrasound range.

We are part of the natural world. Our survival is depending on our environment and we are influencing our environment everywhere we are and it's something I've become very aware of actually when I'm recording is our presence like absolutely everywhere on the planet. There's hardly anywhere where you cannot hear human created sound on this planet anymore, underwater and above.

So we are colonising the whole planet. We are part of the whole environment, all this planet, and we of course have to kind of live together with the species that are left.

Nwando Ebizie: [00:32:53] Let's stay in South America, moving South from the world of bats to connect with another winged creature whose home was ravaged by fire. Here's Patricia Dominguez.

Patricia Dominguez: [00:33:06] So last year I went to Bolivia to make an art residency, but I, when I go to the city, you know, like, the whole Bolivian Amazon was burning like eight hours far from the city, but all the sky was grey and with ashes. So at that point, I couldn't just make my art and went to help to, um, an animal sanctuary where they receive burnt animals. On the second day, I had to receive a blinded toucan because of the fires, and it was really strong just to see like, you know,

these animals, the last part of this really like political environmental crisis.

And also I have been thinking like, how can we activate this perception of the invisible to move into the future? For example, after that crisis, I come back to Chile after all the, the social political protests and crisis, where a lot of people also lost their eyes due to the police repression. So this kind of like blinded species, blinded birds, blinded humans, that are like the last chain of these political abuses really impressed me like forever. So in this meditation, we designed this path in order to travel and connect in this quantum space with the eye of the toucan and ask for its perception of the invisible, which I think is a trait that we need to incorporate.

Please close your eyes.

Inhale. Exhale.

Be open to this shape-shifting meditation. We're going to travel to a point in time and space over the Bolivian Amazon to expand our multi-species awareness. Let's fly over lands burned by drought and the fires that rage in the Bolivian Chiquitania and the Amazon from 2019.

We fly over the jungle until we get to the Biothermal Animal Sanctuary, in Roboré, Bolivia. We scan the cages of sick and charred animals until we find a blinded toucan. The fire burned one of its eyes, turning it into a mythological bird. The flames have transformed it into a machine for seeing with no need to use its eyes to fly or even to spread its wings. It is now a monster that sees beyond the visible.

Visualise yourself standing in front of the blinded toucan hologram. We activate a yellow light in our hearts, a yellow, healing, intelligent, regenerative light. We expand our yellow bubble until we connect with the blinded toucan's field of energy. Ask permission to connect with it and to brush one of its feathers.

Feel its body. Ask to enter the energetic body of the bird. Ask to combine your being with it. Now, open your wings. Simply, open your wings. Feel your feathers, your fragile light body.

Now feel your heartbeat combined with the bird's. Tucutum, tucutum, tucutum... Tucutum, tucutum, tucutum... Tucutum, tucutum, tucutum... Our heartbeats as one we synchronise for a few seconds.

Tucutum, tucutum, tucutum... Tucutum, tucutum, tucutum...

Feel the beating of everything alive through the bird, the pulsating of the earth.

Tucutum, tucutum, tucutum... Tucutum, tucutum, tucutum...

Slowly, we come back to ourselves, with new information in our holograms, aware of the refreshing energy of the jungle green, of the burned skins or the inhabitants of the extracted forest, and with the perception of the blinded toucan to see the invisible.

Nwando Ebizie: [00:38:46] The idea of the perception of the invisible, I think is definitely a thread running through this whole episode. So meditations like this where we can connect to this, maybe it can shift something in our hearts and minds. I found both of Patricia's, meditations really difficult actually. They left me feeling really sad, and more than that, my body felt kind of fiery inside. I felt a kind of frustrated anxiety, but I also found it really beautiful. And I think this is what I really want to hold on to.

Today we've been immersing ourselves in the non-human trying to see the world from the perspective of a worm, a fungus, or a blinded toucan, and we're trying to learn from the way the natural world cares for itself, but can we even think of the symbiotic reciprocal relationships between fungi and plants or between worms in the soil as care? Or is the notion of care just a human concept we're imposing on the natural world?

Merlin Sheldrake: [00:40:00] If you mean the kind of care, the sort of taking-care-of care, the protection, attention, provision of need, then I think we can think about fungi as caring for their plant partners. Not caring as in, we don't know what the fungus is, if what it is like to be a fungus, we can't speak about its internal state, but in the sense that the

fungus is farming the plant and the plant is also farming the fungus, both are providing for each other's needs. There's a kind of reciprocal agriculture going on, and a symbiotic mycorrhizal fungus connected to multiple plants can shift nutrients or signalling compounds to plants under stress, and it seems like the fungus is attending to the needs of their various plant partners because the fungus' life in turn depends on those of its plant partners, so I think in these cases, when we have some kind of, I mean, lots of symbiotic examples, we can think of this as a kind of mutual agriculture, and I think when we have this kind of agricultural relationship, and then we can think about this, this taking-care-of. Of course there are lots of examples of fungi causing diseases that bring about famines or transform landscapes, so in those cases you could think about them doing quite the opposite.

So in your work with minerals and with plants, and particularly with worms, do you think about the worms as caring for the soil and caring for their environment?

Rachel Pimm: [00:41:23] There's a kind of care in a sense of looking after of the soil itself, of the health of the soil, you know, the act of eating soil that isn't very fertile and then literally defecating it back onto the top is one of the many ways in which soil health is maintained and that, you know, um, allows us to eat nutritious food and allows kind of biodiversity to thrive, so, yeah, of course, and I love that there are more worms, you know, there are, there are more worms in the world than there are any other animal, and if you think about domesticated chickens and the kind of crazy numbers associated with that, that's insane. So we've got these, this huge taskforce of carers everywhere around us.

Merlin Sheldrake: [00:42:11] And do you feel like the researching and creating artworks about plants and volcanoes and worms has changed the way you see the world? Has it made you more, more of a caring person?

Rachel Pimm: [00:42:23] I wouldn't want to claim that I've become in any way more morally sound, but I absolutely have learned and continue

to learn endlessly about the ways in which these entities are providing me with the environment that I need to live.

The more I learn about plants, for example, the more I learn that all around me, you know, food and medicine just grows where you need it when you need it, and that those things are there as gifts to sustain us is phenomenal as a kind of act of care from the plant world. How about you? How has studying fungi changed the way that you see the world?

Merlin Sheldrake: [00:43:06] There are so many ways. The way that they can solve problems without having a brain to do so helps to expand my understanding of, of what we might think of as intelligent behaviours. The way that they can fuse or that, that one fungal network can fuse with another, or a fragment of one fungal network can regenerate into an entirely new network. These confused my ideas of individuality and autonomy. The way that some fungi have tens of thousands of mating types, confused my understanding of sexuality and of compatibility and of reproduction and generation of new life. The way that they live their lives totally enmeshed with their surroundings helps me to think about the way that all organisms are enmeshed with their surroundings, even if, if it appears that they might not be, or if they like us as humans too often pretend that they aren't. How everything is so bound together in this ongoing event, this event that we call life and how we are just bound into these seething networks of relationships. So yeah, I find this a very powerful effect of fungi that thinking about fungi makes the world look different.

Rachel Pimm: [00:44:21] And when it looks that different, it can't really go back can it? To looking the way it did before.

Merlin Sheldrake: [00:44:27] No, you can't un-see this stuff once you've seen it.

Nwando Ebizie: [00:44:33] Merlin Sheldrake and Rachel Pimm showing us that you can't remain blind to the invisible, once your perspective has changed. So I think we've seen that studying the natural world changes our perception, and I think there's hope in this idea, these dual roles as scientists observing the natural world and as artists thinking in

imaginative ways about the natural world can come together and solve the problems of human destruction.

I've also really loved how each guest has shown how enmeshed we are with the non-human world. How we need to work with instead of exploiting the natural world and how much it supports us, food, medicine, oxygen. All these sustaining gifts.

Thank you to Merlin Sheldrake, Rachel Pimm, Jana Winderen and Patricia Dominguez, and thank you for listening to, For All I Care. Merlin's latest book *Entangled Life: How Fungi Make Our Worlds, Change Our Minds and Shape Our Futures* is published by Vintage. Patricia Dominguez is making a new commission with Wellcome Collection for the upcoming exhibition *Rooted Beings* in 2022 in partnership with Delfina Foundation.

If you'd like to explore more about the ideas you've heard in this podcast, please go to baltic.art, where you can also find show notes with recommended reading, more information about our contributors and a transcription of this episode.

Next time, we ask how does imagining different, more caring futures help us create a better present?

Join me. *For All I Care* arrives Wednesday 31st of March. *For All I Care* is a collaboration between Baltic and Wellcome Collection and the podcast is produced by Reduced Listening. The producer is Georgia Moodie and the executive producer is Alannah Chance. Our music is composed by Nkisi and the series is sound designed by Axel Kacoutié, and I'm Nwando Ebizie.