# BIOTURBATION;Or, The Humiliation Of HuMan By WRMS

***Jon K Shaw***

[You can listen to this work on Youtube](https://www.youtube.com/watch?v=IliyfP2Dz-8)

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## Introduction

Niamh Schmidtke  0:11

Hello, you're listening to Future Artefacts FM radio show hosted by Niamh Schmidtke. And Nina Davies.

Nina Davies  0:19

Earlier this year, several radio frequencies were discovered airing a collection of broadcasts. At first they sounded like regular news stories and interviews. They felt familiar, but also not quite belonging to our present. Slowly, the listeners came to believe that what they were listening to, did indeed belong to their world, just not their time. They were looking into the future through the mundane edges of radio recordings and public service announcements. While this material is still being meticulously studied by researchers in various universities and museums, your hosts have managed to gain access to this collection to air a selection of these broadcasts for you, our listeners.

Niamh Schmidtke  1:00

For full disclosure, we will not be sharing this collection with you, as this introduction is based on a fictional event. In this monthly broadcast, Future Artefacts FM, we will present speculative fiction pieces by artists and writers, followed by conversation with hosts Niamh Schmidtke and Nina Davies. The programme will focus on fictional works intended for broadcast, such as radio plays or fictional interviews, to carve out a better understanding of the now by exploring various interpretations of the future.

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Nina Davies  1:34

This programme is kindly supported using public funding by the National Lottery through Arts Council England and the Elephant Trust.

## Artist Introduction

Nina Davies  1:37

Welcome back to Future Artefacts.

Niamh Schmidtke  1:46

Episode 11.

Nina Davies  1:47

Yes, and as per usual, I'm your host, Nina Davies,

Niamh Schmidtke  1:51

and Niamh Schmidtke and today we're really excited. I mean, we're always very excited. Yeah,  but we're really excited to introduce Jon K. Shaw to the show. Yeah. We're both quite longtime fans of his work. Yeah.

Nina Davies  2:10

Yeah, that's like the ah, we're really excited to have you on the show, Jon, basically.

Niamh Schmidtke  2:15

Yeah, it's really an honour. So we'll, I'll give you a little introduction to Jon. Jon K Shaw is a writer, editor, educator and irregular farmhand based in Orkney. He teaches in a number of universities and colleges including the Department of Visual Cultures at Goldsmiths, University of London; and in postgraduate Fine Arts at West Dean College of Arts and Conservation -- though none of these institutions support his research. With Tom Robinson he founded and edited Rattle: A Journal at the Convergence of Art and Writing, and with Theo Reeves-Evison edited and introduced the book Fiction as Method (Sternberg, 2017). He is commissioning editor of the new Zer0 Books series Zer0 Agri, which aims to reconnect real agricultural practice and progressive politics. The imprint will launch its first books in 2023. Amongst other writing projects, Jon is currently finishing a book on Antonin Artaud's ecological thought, called Lucid Materialism. His "annotated photo-essay" on the film-philosophy of Pierre Creton and the seaweed-eating sheep of North Ronaldsay will be published by SHIMA journal in early 2023. Welcome to the show.

Jon K Shaw  3:37

Thank you. I'm really very excited to be here. I've been enjoying the previous episodes immensely. It's lovely to be a part

Nina Davies  3:48

Could say you're a fan?

Jon K Shaw  3:49

I'm a fan. Yeah. Well I love it.

Nina Davies  3:52

Yeah. Yeah.

Niamh Schmidtke  3:53

I mean, maybe a bit of background just from mine. And Nina's and as to why we were so excited to have you on the show, is that I think when I first came to London, I was I was working on a show that was dealing with fiction at a small gallery called South Kiosk in Peckham. And one of the books that was kind of lying around as part of the research behind that show was Fiction as Method. And then fast forward to lock down and COVID in 2020, when both Nina and I were doing writing and making the works that ultimately became the first works on this show. We were thinking a lot about fiction as kind of as method and fiction as ability, both in terms of escape of a present that feels quite intense or overwhelming, but also as a way to think about the future and have quite active tools to think about the future. And so when when we reached out and you were happy to be on the show, it was quite, it was quite like a genesis to

Nina Davies  4:48

Yeah, we were really excited.

Niamh Schmidtke  4:49

 Yeah, it was really cool.

Jon K Shaw  4:52

I'm blushing.

Nina Davies  4:54

So before we go into the work, which is I don't think we've mentioned it, but is called Bioturbation; the humiliation of humans by WRMs, which is a 13 minute? It's like a 13 minute sound work as we always does it always says on the show. Jon is there anything that you want to say before we go into the work?

Jon K Shaw  5:21

Well I think you know as with all these things like headphones if you've if you've got 'em, use them. You know there's a, there's there's not much left-right stereo panning or anything in it but there is detail that can be easier to pick up in headphones but you know, people listen to how they wish to. I think in terms of the context or the content, no, maybe it's best to go in.

Nina Davies  5:52

Go in cold cold yeah okay, well we'll see you back in 13 minutes.

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## Bioturbation work

Jon K Shaw  6:09

to the clutch what branches grow out of this stone you rubbish Son of man. You cannot say or guess for you know only a heap of broken images where the sun beats and the dead tree gives no shelter the cricket no relief from the dry stone no sound of water only their shadow under this red rock come in under the shadow of this red rock and I will show you something different from either your shadow of morning striding behind you or your shadow at evening rising to meet you I will show you fear in a handful of dose?

That's it travel from an anticline to set to vast and trunk plus legs of stone stand in the desert near them on the sand half sunk a shattered with each flies whose friend and you can go for that them see the code command. Tell that it's sculptor well those passions were which yet survived stamped on these lifeless things. In the hands that not in the heart that fat on the paper store these words My name is Ozymandias, King of Kings look on my works ye mighty and despair. Nothing beside remains and the decay of that colossal wreck, boundless and bear the lone and level fans stretch far away.

Unknown Speaker  12:36

earthworm behaviour is also fascinating, not least the way they reproduce. I'll let me explain

Unknown Speaker  12:44

affluenza hermaphrodites, certainly they have male and female parts, but they still sexually reproduce. So they find another earthworm kind of glue themselves together past each other sperm. And then when they broken off, they then each produce a cocoon, which then sits in the soil until the conditions are right. And then the babies emerge.

Unknown Speaker  13:06

Oh, let me explain.

Unknown Speaker  13:09

I love earthworms because they're so amazingly important for our soils. Oh, let

Unknown Speaker  13:16

me explain. There's such fascinating animals. Oh, let me explain. When you actually start to look at them. I'll let me explain. It's amazing

Unknown Speaker  13:27

the diversity and variety than the sizes, the colours, the different jobs that they all do.

Unknown Speaker  13:34

I'll let me explain.

Unknown Speaker  13:37

And yet no one's out there looking at them. And they're working so hard under our feet. Oh, let

Unknown Speaker  13:43

me explain. There's such fascinating animals. Oh, let me explain. When you actually start to look at Oh, let me explain. It's amazing the diversity and I'll let mo explain Friday than this. Oh, let me explain. sizes. I'll let me explain the colours. I'll let mo explain

Unknown Speaker  14:09

the different jobs that they all do do.

Unknown Speaker  14:13

Oh, let me explain.

Jon K Shaw  15:00

I'm trying to hold this summary of reasons for believing the twins exhibit some intelligence means by which they excavate their burrows by pushing away the following. Earth also swallowed for the nutritious matter, which is contained. depth to which worms borrow and the construction of roads. BURROWS lined with castings, and in the upper part with leaves. The lowest part paved with little stones or seeds. manner in which the castings are rejected. The collapse of old borrows distribution of worms tower like castings in Ben Gaul gigantic castings on the Nilgiri mountains, castings rejected in all countries. The amount of fine earth brought up by worms to the surface. rate at which various objects screwed on the surface of grass fields are covered up by the castings of worms. The burial of a paved path slows, subsidence and great stones left on the surface. The number of wells which live within a given space, the weight of Earth ejected from a burrow. And from all the borough's within a given space. The thickness of the layer of mould, which the castings on a given space would form within a given time, if uniformly spread out. slow rate at which mould can increase to a great thickness. Conclusion The part which worms have played in the burial of ancient buildings the accumulation of rubbish on the sites of great cities independent of the actions of worms. The burial of a Roman villa Harbinger the floors and walls penetrated by worms subsidence of a modern painful buried pavement of Buley Abbey, Roman villas chedworth and Braddock. The remains of Roman Epsom to the nature of the language the remains of Qatar.

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## Conversation

Niamh Schmidtke  19:30

Welcome back.

Nina Davies  19:31

Yeah, thanks for listening. I hope you enjoyed Jon's work Bioturbation; the humiliation of humans by WRMs. Jon, I think maybe just to start, I was wondering what your interest in worms is. And when you maybe like first, sorry, I'm kind of going off. That's not one of the questions that we're on, is not on our list of questions, but I wanted to just ask at the beginning, kind of what drew you to worms and maybe also like when did you start thinking about worms?

Jon K Shaw  20:00

Yeah, I mean that they're always there, I guess, that's one of the things that struck me about worms that when, when you become interested in them, it's like, one has always been interested in them, it doesn't feel new. And they, with earthworms in particular in this, when I say worms in it, it means earthworms. I was thinking about, you know, just day to day work, especially on, on a farm or in, in nature, to use nature in a very simplistic way, that the worms are always there, they're always working. And that we can learn something from them, you know, they're not, they're not the kind of animals that appear on coats of arms or, or anything kind of heroic in this way, but they have a very particular way of being in the world and of producing their world and of moving through the world. That struck me as something enviable, really. It's like, I wish I could be more worm. That's the intuition. Well I was like what would that mean? Like, I don't want to have fewer limbs or be pink and wiggly? Like, what would? What is it? That's drawing me to, to worms in this in this way? And what would it? What kind of adaptations of, of my being in the world would it? Would it take to become more worm like, without, like, pretending to be a worm?

Nina Davies  21:41

Yes, I was gonna say it's like to be more worm is that like, is that a physical, a physical thing? Or, I was going to ask, is it is sort of a mindset, like a way that you approach living?

Jon K Shaw  21:54

Yeah, well I think both. I guess, in that living involves movement. I'll lecture that answer on. Yeah, I think putting movement as almost the first term of living, really, is the, is the, the thing from what, from which all other living derives, in a way, rather than, I don't know, thought or seeing or categorization or mastery or any of these things, just movement, in that it gives one a sense of oneself from one's own body, but also, of one's environment, like and those two things simultaneously, which was, I guess, one of the points of interest I had of like, how does the self and the world emerge simultaneously? And for whatever reason, that was that was what I was identifying, I guess in worms.

Nina Davies  22:58

So just as a way of moving through, yeah. Very profound.

Niamh Schmidtke  23:02

I guess it's true. I mean, maybe one of the things I'm thinking about to relate it back to the piece that we've just listened to, because, of course, in it, compiling and assembling a variety of different sounds. One of which is jazz, I wanted to ask you, why did you choose to add jazz? And then why these specific pieces?

Jon K Shaw  23:28

Yeah, so the collage starts with me reading a bit of TS Eliot's The Wasteland, which has this, this sort of criticism, or this suggestion that man, by which I think he means homosapiens, is alienated from the world, because of images, the way that we might think in images, so present the world to ourselves as an image of um, but then he introduces this, this image of the rock coming under this red rock, and he, and I'm like, well, it's coming under the rock. Surely, that's where the worms are. But he says in the poem that he will show the reader fear. It's like, well, yeah, we could be scared of the worms or whatever it is under the rock, or we could find something quite joyful. And that find that to be the beginning, rather than a threat to ourselves or something fearful. And I felt the jazz did that. It was almost a response to that notion of a fear by being quite joyful, not only joyful, because it's more complicated than that. But...

Nina Davies  24:48

It's quite warm. It's quite warm. The jazz like I wouldn't say it's sort of not doesn't make you feel relaxed, but it gives you a sort of warm feeling.

Jon K Shaw  24:57

Oh, good, yeah. Yeah, it's a Yeah, it's not fear that one of the one of the other things, and it's, the actual samples are two separate jazz pieces layered on top of each other. And the more, like the louder bit, that's more free jazz, like, I guess more noisy, less of a melody to it in the conventional sense, is a piece called Red Clay, which is almost, I think, a kind of Afro futurist or African futurist piece, in that it's about Mars, the planet Mars, but that that word clay, you know, we've long thought of Mars as the red planet because it looks red in the, in the night sky. But what we've been given with Red Clay isn't, isn't an image of the planet in the night sky. It's much more tactile, it's, it's the clay, it's the, the, the material of, of the thing. And so we get a sense of the, of the planet, but also of what the planet is made of, and that that's, in a way unprecedented at that point. That, you know, the NASA photographs, for example, taken from the moon or from space, you know, like the blue marble, where we see Earth as a, as a planet and think of it as a as a globe on which we all live. They had to leave the planet in order to take those images, to make those images. So the second piece is is Sketches of Spain by Miles Davis, from 10 years earlier than then Red Clay. And it's, I don't know, a cover or an arrangement by by Gil Evans of a piece by Rodrigo. It's kind of a early 20th century classical composer. Spanish, Spanish fellow who's  best known for the Spanish guitar, classical guitar compositions. And Rodrigo had become blind very early in his life, age three or four, I think, um, but still produces this amazing descriptive piece of gardens of Aranjuez, which is where he's like Marquise of, or something, that has a real sense of place, but also a real, a real tactility to its sense of place, in the same way that I think Red Clay has that sense of tactility to Mars. But the amazing thing in it, there's so often, it's the case that I think Miles Davis is giving us a sense of space with his with his trumpet play. But he also does this wonderful thing where you can hear the note he's playing, but also his breath, his breath playing it, as it were. So it's it's, it's not good technique in a, in a classical sense, or in the sense that a trumper like Wynton Marsalis would play. It's a very

Nina Davies  28:12

earthy?

Jon K Shaw  28:13

yeah, earthy, yeah, yeah. Yeah. And embodied. Like it's like, it's,

Niamh Schmidtke  28:17

I'm thinking even the systems required to make it happen are very obvious, in a way like the system of his lungs operating and of taking in breath and letting out breath and..

Jon K Shaw  28:27

absolutely, yeah, it's all it's all there. Nothing's hidden. There's there's no slyness or artistry to it. In a way. It's all. I mean, it's obviously it's artistically kind of virtuosic, but not in a way that, yeah, that hides that. The mess of playing the kind of bodily reality of of playing. And so yeah, I mean, the reason I sort of recap that I think there's a parallel there, to the worms, and the way that worms in effect, have the same set of muscles to move them through the earth, and to move the earth through them. And like when they're eating or, they're kind of alimentary muscles. So they're like a bit more complicated than this, but that basically a tube of rings of muscles. And this seamed, again, seems sort of quite profound, as simple as it is that they take the outside world in- into them. And they navigate the outside world in the same way that like locomotion and nutrition, other, kind of the same thing. Something so it's..

Nina Davies  29:37

Well also the only thing like the only thing that there's kind of no other function. I mean, in your work, that you did mention reproduction.

Jon K Shaw  29:47

Right, right.

Nina Davies  29:47

Of course there is that that function exists for worms, but generally they're sort of like solitary lives are moving and digesting.

Jon K Shaw  29:56

Yeah. I think so. Yeah. I mean, yeah, there's solitary creatures. Yeah, yeah, it's everything.

Nina Davies  30:06

It just said this last time we spoke I was into sounds like such a good existence.

Jon K Shaw  30:12

Yeah.

Nina Davies  30:13

Moving and eating.

Jon K Shaw  30:15

Yeah. Some. Yeah, it seems very, I don't know. I'm obviously kind of romanticising it but it does seem very noble to be extracting as little as possible, and actually kind of extracting nothing because it all goes, it goes back, kind of thing. They don't produce toxins in the way that like human life seems to in various sorts, you know, because they make soil, you know, that's what that's what they do is they move through things and digested and excreted it that.. they're moving through their own waste, really. And that's kind of totally different, I guess, to the way that we extract things and the way that we send our waste away. We don't remain in it.

Nina Davies  31:02

Well, that sort of brings me to like the next question, which is worms relations to waste is very different to human reactions to waste. And I wanted to know what your interest in waste and the role of the worm in this work, the sound work?

Jon K Shaw  31:20

Yeah. Maybe there's a point in the second bit of poetry that I read, from Percy Shelley's Ozymandias, where the narrator has found this, this kind of broken statue in the in the desert, and it's a really obnoxious monument that has had all of the hubris knocked out of it by by time. Really, and the, like, the immense amount of yeah, extraction or kind of sucking up of resources of people's time of the materials of energies into making that monument become kind of laughable, I think, from the perspective of this narrator, however, many hundreds, maybe 1000s of years later, and I think, I think in the poem, like, there is a invitation to speculate from Shelley, to be like, well, what around us now, or at any given time will be looked back on as, as hubris. And as, as something that is now in a few 1000 years kind of dilapidated? And that that kind of extraction and waste or kind of useless leftover was one of the impasses, I suppose I wanted to be thinking beyond or kind of being beyond in some way. And that it seemed worms were in that their, their activity, the fulfilment of their nutritional needs, and the production of soil, enrichment of soil, the, the movement of stuff from deep in the soil to the surface, and which is what bioturbation means, like, the, the ways in which life or BIOSs churns things up, or.. It's a really amazing legacy to have, like, their waste is enrichment of their environment, which isn't waste at all then in the ways that we would generally think of waste. Like it's not rubbish. It's,

Nina Davies  33:27

It has a purpose, which we don't have that.

Jon K Shaw  33:30

Yeah, nice. And it's, it's their environment like they carry on living in in its own environment,

Niamh Schmidtke  33:36

the proximity to waste is much closer as in like, one worms waste is the next one's like, food,

Nina Davies  33:45

 or home

Jon K Shaw  33:45

Oh, yeah, yeah, yeah, all of these things. And so I mean, to that extent, they're kind of seeing because obviously, they process the waste of other organisms. So like, they can break down leaves, like rotting leaves the kind of final stage of of doing that, that other animals can't break down. And so like they treat the waste of other beings in the same way as they treat their own. Which again, seems like I'm romanticising and simplifying, but does seem like quite a remarkable, noble or enviable way of, of living,

Niamh Schmidtke  34:22

or kind of selfless in a way.

Jon K Shaw  34:24

Yeah, in a way. Yeah. But also, like, really good. Like, like they live in something they don't mind living in, I guess a in a like, I mean, that might not be strictly true, but they're not poisoning themselves in the in the way that other species might.

Nina Davies  34:41

Surely there is I don't know. I'm thinking also maybe about a fly that eats waste.

Jon K Shaw  34:47

Yes, yes.

Nina Davies  34:49

I don't. I mean, I'm not just bringing up an animal or being that I actually have done no research on it. Neither of us have seen I was going to talk about whatever. We make up facts. But that's is sort of another species that exists around waste. And I guess digests it. I don't know what it puts back out after it's digested. And yeah,

Jon K Shaw  35:10

Yeah, I mean, I think I'm really pretty much everything except humans like because our waste is going to last for centuries and with like microplastics, and this kind of thing much more than the kind of chemical toxicity of our of our more kind of daily waste compared to the cultural waste, and we might call it but I think with with worms, it's not just that they're like fertilising things. It's that there's a much more kind of immediate inhabitation of all stages of the ecological cycle, you know, we might put cows next, or like grazing animals like next to them and be like, well, they they eat, and they produce waste, which fertilises The next kind of round of, of grass and have things to ruminate on. So they're, they're kind of inhabiting the place of their way.

Nina Davies  36:02

Well you just mentioned, like cultural waste. I didn't know what you meant, the actual sort of what you mean by cultural waste. So when you were describing the statue, right, like, obviously, think about that as a sort of like cultural waste. Or this idea of like, legacy as a as a form of waste.

Jon K Shaw  36:20

Yes, oh that's nice yes

Nina Davies  36:22

And, you know, through something like worms, and also most other beings, like legacy doesn't, is that something that's like, quite uniquely human? I would say? I mean, I don't know. Maybe we could open that up.

Jon K Shaw  36:33

Yeah. I, I'm inclined to agree, but wanting to be contradicted, I think on that, like, I'd be really excited to hear about, yeah, cultural transmission between generations of other other species

Niamh Schmidtke  36:49

To move it on. I mean, this is sort of also, I guess, a fairly romantic question, or coming back to that sort of romantic idea of how worms live and so on. But one of the things that I kind of came away thinking about a lot when we had our initial conversation is worms travelling through soil, kind of to be considered as a kind of world building?

Jon K Shaw  37:11

Yes.

Niamh Schmidtke  37:12

And, I mean, I'm thinking about how I mean, obviously, like Fiction as Method, but then also, like, on this show, and we're talking a lot about speculation, usually. And, I guess, thinking about those forms of world building that the worms do just by that, that route, I guess, through the soil that they take. And for you kind of how that maybe plays into ideas of speculation in this work? Or maybe do you agree worms, worms as world builders? And if so, like, how? And maybe, yeah,

Jon K Shaw  37:46

Yeah, yeah, no, I think absolutely, they are world builders, I think in the ways we've just spoken about of the kind of material processing and turning waste matter into a substrate that things can grow from. So that kind of creation of possibility or, or of a medium is amazing, and is opening to the future. Like, it's not something that they have planned, not in terms of, like, how they, how they live their lives. But in in terms of what will grow in that medium. It's, it's, it's, it's just a fertile, medium kind of thing. They're not planting anything, they're not working with it in that way. It's, it's, it's just created as a, as an environment.

Niamh Schmidtke  38:34

And then in terms of, I guess, speculation in that, or when you're talking about that sense of, of world building, for me there's, I guess, because I'm thinking about kind of sets of time and phases of time as well. There's this circular motion that worms are doing. But also there's this circularity of time in my mind too have kind of processing the past, in the present to leave something for the future.

Jon K Shaw  38:56

Yes.

Niamh Schmidtke  38:57

And I guess I'm thinking about that, as a process both as like a physical process that actually happens for these worms, as we're talking about now. But also as this metaphorical process that I'm linking back to the piece. Bioturbation.

Jon K Shaw  39:14

Yes.

Niamh Schmidtke  39:16

And thinking about it in terms of maybe that circularity of time within the work, I mean, maybe if you can talk a bit about how this sort of assemblage or this collage of audio kind of works for you as something that's perhaps thinking about the future or thinking about this sense of time existing and like a more circular means?

Jon K Shaw  39:40

Yes, yeah, no, I think that's really onto something about what I was maybe thinking although the kind of method of collage in general of like, okay, the one that stuff is, is there, like I'm not making something up in the way that a fiction might sometimes be thought of as working of, Yeah, as a story set in the future. It's more perhaps that, as you say that there's a certain kind of processing of the past of these of these artefacts and placing them together to create a whole set that that one would have to speculate to make go together.

Niamh Schmidtke  40:29

Yeah, I mean, there's something about the timeframe that both, both feels like it's, it's made in the present, but then the references like the Miles Davis pieces from the the 50s.

Jon K Shaw  40:40

Yeah right at the end of the 50s,

Niamh Schmidtke  40:43

yeah, towards the end of the 1950s. And then, obviously, Mary Shelley is kind of from the mid mid 1800s. So there's kind of this sense of jumping back in time. But then we hear, this than we are sort of a news clip that is very much from today. And then even that sense of kind of hearing the worms or being inside feels, to me, like more technology, like, futuristic in a way. I guess when we spoke before, you're kind of saying about this world being something that, or this collage being something that would be kind of more associated together in the future? Or, more linked together in the future?

Jon K Shaw  41:25

Yeah, I think that's where I see the world building or the fiction-ing happening. So on the one the one hand, that stuff we've spoken about, of kind of creating the desire to create a bodily fiction that is, that makes the human more like the worm, or makes this human, like my body more like a worm, not anatomically, but in its contribution, or something. But yeah, on the other. On the other hand, or simultaneously, the kind of speculative world building science fiction kind of element is the particular look back on on the past, and trying to figure out, trying to put the listener in the position of having to figure out how these recognisable artefacts because in a way, they're all quite popular things like a lot of people might have read Ozymandias at school, and Chris Packhams voice is, you know, on our airwaves a lot, for better or worse. Like, they all make sense individually. But I guess the, the listener has to do some work to make them make sense. Because they don't make sense from where we stand, they like we have to shift a bit to do that. So I was thinking, a kind of a visual analogy to this in, in some Renaissance painting, where we get the kind of fictional world element and the use of perspective construction to, and in the drawing, and stuff to make it feel like we're looking into a scene that has real depth, you know, like, in the same way that we would, or in a comprabable way to how we would want a character in a sci fi book to have actual feelings, or, you know, something relatable kind of thing. But there was also this use of perspective to make it seem, I suppose that the, that the eye, the E-Y-E, either, the biological bit where the light goes in. The point from which you are perceiving is actually to the side of where you are, where you're actually standing. So you can tell that the picture is organised around this point, just to the left of your head. And it's been argued that this was supposed to, like produce a kind of sense of the sublime, or like, out of body experience almost or a hint of it, in seeing, and I guess it's that kind of fictioning. But I would..

Nina Davies  44:17

Well, last time we spoke you were talking about how, you know, the the roles that the worm plays and sort of the archaeological process where it covers a cover stuff up and then we dig it up and we find it later. And it kind of creates these, when you're talking about layers, it creates these sort of layers sometimes, sometimes I guess some stuff gets reabsorbed and gets turned eventually back into earth or mould or you know, breaks down in some way. You know, there are things that that don't get broken down and they kind of stay, I guess they texture they can texture that that Earth, right? Yes. I don't know. We're talking about sort of world building, in speculative fiction, and maybe going back to that idea of sort of recycling waste or, and how, like, from a human perspective, like these sort of old narratives can kind of exist, exist in the same place, which adds just sort of not really knowing where in time, you actually are. Yeah, it just kind of sucks up this idea of time, because there's this kind of thing that's constantly changing. But there's these things that do stay the same. Yeah, within because part of that process is building up layers that...

Jon K Shaw  45:34

Yeah, exactly like the worms deposit on the surface, like the worm-cast, as they call it, that built up and up. And this is what really drove Charles Darwin's interest in worms. And there's a bit in the, in Bioturbation, of me, reading some of the contents page of Darwin's book on worms, that he was quite often derided for being interested in, in these little creatures. And he was like, no, but they, they do stuff, like they all get together and bury ancient buildings. Which, you know, you can kind of imagine how easy that would be to, to tease him about in the in the scientific community.

Niamh Schmidtke  46:14

I remember, you had this great way of phrasing in this kind of like, they make ruin, or they make archaeology almost. Yeah, they're quite literally, buriers. Yeah. Which is quite, I guess, it's also interesting to think about when, you know, they, they themselves bury into the earth, it's almost like they, in a way like metabolise their environment to do what they do?

Jon K Shaw  46:40

Yes?

Niamh Schmidtke  46:41

Or maybe it's quite poetic way to put it, but yeah,

Jon K Shaw  46:44

I'm not against poetic ways,

Nina Davies  46:45

Yeah well have also you've got this, I don't know, we've always got this in the inventory of like, the sort of dystopian imagery of like, where nature reclaims cities, I don't know, if you'd like that is something that's common quite a lot in movies or whatever. Yeah. And to think about, you know, for for nature to have to reclaim, not all nature to have to reclaim, I guess, moss doesn't always need soil, but a lot, for a lot of it, you do need soil for nature to be able to reclaim so, there would have to, that process would have to have already begun and start to exist, that sort of like burying.

Jon K Shaw  47:20

Yeah. And that, like possibility of life, that worms seem to create all that the soil is is such a mystery in a way. Like, you know, we hear a lot about how life arrived on Earth, and the kind of, you know, the conditions being ripe for tiny organisms to start kind of doing doing stuff or, or, you know, a meteor carrying bacteria or single cell life forms. But, you know, that's like, being given a bunch of flowers and not having a vase to put them in. Like, you know, it needs to, it needs to land in something. And that seems a sort of more profound mystery of like, where did the first soil come from? Not not where the first life came from, but the first condition?

Nina Davies  48:28

Yeah,

Niamh Schmidtke  48:28

Like, how did things grow?

Jon K Shaw  48:31

Yeah, yeah. Oh, how the heck did things rolled into soil? Or like,

Niamh Schmidtke  48:36

Which way did it start? Yeah, because I guess I've been, I've been doing research into geological periods of time, and going way, way back. And if you ever look at a scale, it's quite kind of crazy to look at, because they give you kind of 23 to 25. And you're like, Oh, that's not that's not that many years. And it's like 23 to 25 millions of years. And then you go back, and back and back. And it's like, wow, 300,000 millions of years. But it's kind of interesting when they have these, like denotations on it, if this is when you have, kind of, the Ice Age, or this is when you have mass extinction, or this is when you have you know, the first life begins, but it what's not marked on it. It's like, as you're pointing out, it's like, when, when did things start to die?

Jon K Shaw  49:21

Right?

Niamh Schmidtke  49:22

Like when so like, if you have life beginning? What's the life span because a lot of these early like single cell organisms, they seem to have lived for a really long time or lived in this like weird hybrid state where they don't quite live in the way that we understand living as being today. Yeah. So they don't die in the way we understand dying today. Yeah. So like, when did those processes change? How did that...

Jon K Shaw  49:47

And they become, you know, we know much more about how they became fossil fuels than how they became soils. And I mean, I think it's good to look at those those scales and see the timeliness of like, human existence

Niamh Schmidtke  50:04

completely.

Jon K Shaw  50:05

But we also lose the timeliness of worm existence. And then it's like, yeah, glaciers, cut through things and moved things it's like, but there's also tiny things during that time as well, a night. I guess that was one of the things that I like about worms, that they - that they seem to work on many different timescales and, and even kind of scales like be like, spatial scales at the same time. Yeah, in a way.

Niamh Schmidtke  50:41

Sadly, we have to wrap up soon, which I didn't even realise the time was going by. But I guess one thing I'm, I've been kind of holding in the back of my head, as we've been talking about this sense of scale and time. And I mean, I'm really thinking about this idea of, you know, metabolising Earth and metabolising soil and these processes. You spoke before to us about planetary singularity?

Jon K Shaw  51:06

Yes.

Niamh Schmidtke  51:07

And about kind of soil becoming a metaphor of this, and worms becoming kind of the, like, implicit, sort of ethical kind of consideration behind this process of making and maintaining soil? Yes. Could you maybe, firstly, to start off that kind of point of conversation? Could you talk a bit about what you mean by singularity, or planetary singularity? And then maybe we can take it from there?

Jon K Shaw  51:39

Yeah, I guess, I mean, in terms of singularity, I think I mean, something where the the process and the product are fully integrated with each other. And this most often is talked about, I think, in terms of like, artificial intelligence, where it's the way it works, like its itself as a programme is also able to kind of re tweak itself and expand itself and do all these things in a way that like, I guess, humans, for example, can't because we, we don't have access to our own source code, or our own unconscious or whatever, whatever kind of hidden, hidden bit, we might centre of our doughnut. So yeah, so the full kind of integration of those, of those things of the life and the conditions of life or the process and the product. And, whilst artificial intelligence, of course I find very interesting and exciting and troubling, and in terms of thinking of singularity, and if you like, desirable future, it seems that it seems to me that, that, that that kind of singularity would be too extractive like it would still need the material structure of like, processes and an energy source and, and whatnot. So to that extent, wouldn't be necessarily a kind of true singularity, but it would also be primarily rational. And that seems

Nina Davies  53:44

Too rational?

Jon K Shaw  53:46

Too rational basically yeah, like a singularity without dancing? What's, what's that for? Yeah. And it seemed to me that worms are, kind of living out an alternative to that, particularly because they engage with the soil in the same way as red clay as a, as a kind of imagination of Mars in this way that is both kind of tactile and has its fingers or its worm face, in the soil, or in the clay, but it's also experiencing the whole planet. So it doesn't have that problem of like, becoming distant from the planet in order to understand it as a totality. It can somehow be in place and be intimately connected to and producing its place while still conceiving of the totality the whole the planet. And this seemed like a much more. Yeah, of like a better singularity, a better notion of, of totality and, and total process, as it were so not like a finished product kind of totality, but an ongoing process that doesn't steal from elsewhere or doesn't throw stuff away. But where everything can

Nina Davies  55:17

can just continue, it's able to just continue?

Jon K Shaw  55:19

Yeah, that is self stable and not stable. Metastable, I guess like, it can continue, it has longevity?

Nina Davies  55:28

I think so I was looking up singularities last night. So I was I was like, Oh, what if I didn't go? I didn't go deep, obviously. Because I know there's like loads of different definitions,

Jon K Shaw  55:39

right? Yeah,

Nina Davies  55:40

of singularity. And I was like, Wait, which one are we talking about? Cause I kind of had something in my mind. And then I was like, Oh, maybe I should just like, double check. And, you know, like, a black hole, of course, is considered a singularity. And there's absolutely, I mean, though, we still kind of don't really fully understand. Like I said, it can swallow light. And we don't know. I mean, it's definitely completely different to soil in that way.

Jon K Shaw  56:07

But I think like in in that it refuses that there can be an outside to it. It's, it's similar. But yeah, it's kind of method for getting there is reduce everything to one. Yeah. To a completely crushed super heavy, lump of, but that's the scientific explanation of a black hole. Like that. It's yeah, voracious. And it just draws everything

Nina Davies  56:37

Consumes. It just consumes and then and then that's, we sort of like, for some, for some reason, as a species that just consume we like, we can't wrap our head around it!

Jon K Shaw  56:49

Yeah, it's like, yeah, it's a black mirror.

Niamh Schmidtke  56:54

But I think that's the thing that I quite like about this work even this conversation is that idea that being regenerative both and like a quite a practical process based way of worms literally regenerating soil kind of bringing nutrition from one part of soil to another part of soil, in terms of them, creating space for life, but also helping the processes of decomposition. But then also that being a metaphor for thinking through kind of different ways in which that like we as humans can metabolise life in general, like it both feels like a very practical like, most people have seen an earthworm in real life. I mean, we saw one on the walk here. But sadly, it wasn't a very happy looking one

Jon K Shaw  57:40

Yeah, usually when you see them, that's not

Niamh Schmidtke  57:43

not a good sign. But But yeah, because I think there's, there's this big fashion, especially in like, let's say, popular art culture theory of taking these kinds of processes and completely distancing them, or disassociating them from the very material processes that they come from. And I think that's what I really enjoy about this work is that, you know, the actual process, the physical body, embodied process of the worms is at the heart of it, and then also becomes something which we can branch out into all the topics as we have today.

Jon K Shaw  58:18

Yeah, yeah. But yeah, very much. So. I think. I feel like it's, I mean, I perhaps don't talk a great deal about the, like, I don't know physical work or the actual kind of work with soil or with animals or whatever. But this to me is very much part of, you know, it's farming. Effectively, I mean, it, splicing together Miles Davis, quotes, it's somehow farming. Yeah,

Nina Davies  58:51

I think we're gonna

Niamh Schmidtke  58:52

Yeah, we're gonna have to

Nina Davies  58:53

Yeah, it's farming. Um, thanks for thanks for coming in,

Jon K Shaw  58:59

Ahh Thank you.

Nina Davies  59:00

Thanks for making the work. Jon. It was really, really great.

Jon K Shaw  59:03

I've had a lovely time. Thank you.

Niamh Schmidtke  59:05

And we should just say then that your photo essays coming out in Shima Journal early next year?

Jon K Shaw  59:12

Yeah. I mean, it's, it's in peer review. So let's see what they think of it. Yeah. But, but yeah, yeah. And it was a wonderful journal, so I say check it out anyway.

Niamh Schmidtke  59:25

If you follow us, future artefacts.fm on Instagram, keep an eye out. And we'll post an update when, when that becomes available, and then you guys can all keep a look or else. Keep a look on our website, and so on. Or if you want to get in touch. We've got an email feature at Future Artefacts FM at Gmail. We have all the things.

Nina Davies  59:49

Yeah.

Niamh Schmidtke  59:50

Cool.

Nina Davies  59:51

Great. Thank you.