

Session 3.1: The Living Universe
Metaphysics & Mystery online course
charleseisenstein.org/metaphysics

Lauren Buckley: I would be interested in exploring that idea further whether it's on an intellectual level or experiential or whatever. What makes you feel like that story of a living universe and an intelligent universe and an intelligent consciousness, what makes you feel like that's true? What led you to that?

Charles Eisenstein: On one level what led me to it is logic. It's the only narrative that was coherent and that could account for everything that I've observed in my life that didn't require me to exclude certain data points. I would say you know again, you asked me a "why" question and invited me to lie. The reason why did I choose this particular worldview? Was it really a process of logic and discrimination or is it that it has a resonance with who I want to be, who I'm meant to be, who I am becoming. So it was attractive to me or maybe it's just wishful thinking, putting lipstick on the pig of existential meaninglessness and dressing it up in the compelling logical framework that appeals to the mind. That's what the old story would say, but I can honestly say that I'm only afraid that that's true. I don't think that that's true. The part of me that thinks that's true and wants that to be true just wants to beat up on myself all the time. That is a very lonely hurting part, wants to beat up on everybody all the time and drag them down to that level. There's a safety there in the level of the nihilist. The safety is that your expectations and hopes will never be betrayed. You'll never be disappointed because you're already at the bottom, nothing to risk.

L.B.: I may get you of all people to a point of telling me to stop overthinking things or overanalyzing things which would be some sort of triumph. (Laughs) I want to ask, what are the logical or intellectual things that led to you too that story of in a live universe or a universal consciousness, an intelligent universe?

C.E.: Well there's many things. There were the insights and states of being, the perceptions I experienced on psychedelics. There were the synchronicities that showed up in my life at various times that to wave them away as coincidence just seemed a bit of a stretch. There were even more dramatic occurrences of that nature that happened to people very close to me. There were the other world views that I encountered living in Taiwan and have encountered in other settings that I could just dismiss as primitive thinking that hasn't reached the advanced, correct world view of modern society, but that is absolutely parallel to the same colonial developmentalist mindset that holds other cultures as inferior in other ways. I was uncomfortable with that and I wanted to incorporate my experiences of contact with other cultures and other worldviews. I wanted to integrate those in a way that didn't require me to dismiss them. That was intellectually unsatisfying to have this universal and unfalsifiable, like that's intellectually sloppy to have an unfalsifiable heuristic that just discards certain things simply because they don't fit into a pre-existing story. So partly it's a matter of intellectual aesthetics. I'm like OK, how else can I apprehend this other world view and the experiences reported to me from people immersed in that world view, like older generations in Taiwan when I was living there that also were consistent with experiences I'd had there and experiences that kind of pop up and even in Western society, even in my home culture that kind of break through the cracks you know, simply based on Ockham's Razor it was more reasonable to take these at face value or to wave it all away as delusion and superstition and primitivism and you know people intoxicated by religion and these people are poor observers of reality compared to me and less sane than I am and less sane than the

whole corpus of modern thought and that just was irrational. I thought that was irrational so in the interests of a satisfying logic and coherent world view I had to take these in and that's what led me to an understanding of a living intelligent conscious universe. I would say that on a deeper level I was, along with many people, disposed to be skeptical of my birth religion and birth worldview because it's not working very well. It's not bringing benefits. It's not bringing happiness. It's not bringing a harmonious society. It's not working. Even what I referred to as our liberated systems of ritual that we call science, they're not working to produce a better society or even to improve human health let alone to create a world that is getting more and more beautiful. No, it's like destroying ecosystems everywhere. So why should I hold on to the intellectual nebulous surrounding that way of life when I don't even agree with that way of life based on political grounds. My indoctrination into radical politics at a young age also played in to my ease of rejecting my cultural metaphysical story. If it were that alone probably I would never have made this transition if it weren't for living in Taiwan, if it weren't for psychedelics, if it weren't for experiences of synchronicity then an alternative worldview of a living universe would have been very theoretical. I was disposed to it by my radicalism in other realms and I think that that radicalism does have a tendency to spread. You question one thing, one piece of received reality, and you think well maybe other things I've been told aren't true either. It's like going over a series of walks on a canal maybe where the rising water takes you to the threshold of the next one. You could get stuck maybe. You could divert into Marxism or something that has a radical critique of some elements of our reality and takes for granted other ones and would dismiss religion and science and anything non-quantitative as the opiate of the masses, a delusion, and there is a certain state of being that corresponds to Marxism and people grow out of that and want to deepen their radicalism and question other things that they had been told.

L.B.: Yeah. You cast a wide net and answered that really well. The remaining question I have is from the science world. Was there anything in the science world that that put cracks in the old story for you and opened you up to this idea of a living universe?

C.E.: Yeah. I've told this story on a number of different occasions, but it was my encounter with fractals, especially the Mandelbrot set, that really blew things open and maybe on a less intense level when I finally understood quantum mechanics too. I studied that in some depth. What really had a psychedelic impact on me was the Mandelbrot Set which was a stark example of order and organization and complexity arising from nothing but mathematics and this intricate, beautiful object, this mathematical object arising from one line iterated formula so that you can't explain it. You can't say "why is it like this?" except by quoting the definition. There's no why, there's just realities just like that and this doesn't even depend on the laws of physics. This pregnancy with beauty that is part of reality itself, that just blew my mind because I was like OK we don't even need an external God to infuse matter with beauty or intelligence or design. I started to run with this. It's already there like a note where you could say God is in everything and God is everything and everything is alive and where everything is pregnant with life that life is sewn into reality and wants to pour forth, wants to burgeon, wants to flower... it's already there and yeah that offered me a third path between mechanism, dead materialism and deism or spiritualism which actually agrees with dead mechanism. It says, "Yeah, it's just a bunch of stuff, but there's this other thing," and mechanism says, "Yeah, there's just a bunch of stuff and there isn't this other thing." What I realized is that matter already has the properties that we've exported onto spirit and that's why I'm a bit not too enthusiastic about really defining what is science and what is spirituality. That whole division perpetuates a misperception.

L.B.: Yeah, it seems like if spirituality holds truth and science holds truth then they'd be occupying the same reality.

C.E.: Yeah, it is reality two or is it one? Quantum mechanics was impactful as well. When I first started reading in my early 20s. I'm not sure I want to go there, it's a bit long.

L.B.: (Whispering) I've got patience.

C.E.: Yeah. It's just a matter of my endurance too. You know it takes some setup to persuade people who know something about physics that I'm not just indulging in poetics. I mean I made a study of the different major interpretations of quantum mechanics from Copenhagen to bohmian to many-worlds, I mean there's a whole bunch of them. What I came to is that what we call randomness or acausality is actually elemental choice that when you pass a photon or an electron through a slit that it decides, it chooses which way it will go. You can statistically describe how many on average are going to go one way or another way, how the distribution is going to fall, but for any given one of them it is called acausal because there's no way you can predict it and you can demonstrate that it's not because of some hidden force that is making it do something. So this led me to think about beingness, volition, subjectivity, all the way down to the elemental level, the sub elemental level, and also to understand existence as being a relationship, that a subatomic particle doesn't actually exist until you come into a relationship with it, that's called measurement. Then it exists in relation to you, but that doesn't mean that you decide where and how it exists. It's that it exists in relationship to you. This is maybe a little similar to what I'm saying about story and the independent existence of story. It resolved a lot of paradoxes for me actually, but I really feel like this deserves a much longer treatment than what I can do right now. I'll leave that as a trail that you might follow.

L.B.: To tie one loose end that may be important for people watching, can you just give a brief description of what the Mandelbrot Set is?

C.E.: We should put a picture up. Yeah, my son Jimi made a video that explains some of what I was saying with lots of nice pictures and animations and stuff.

L.B.: I watched that video Jimi made, which I loved, and then he said only when he looks at this fractal he sees God and people in the comment section freaked out and I think that's probably why it got so famous. It made me think; OK this is a math formula that we're graphing and it's beyond comprehension how beautiful and complex it is.

C.E.: Yeah the complexity is endless. You can never get to the bottom of it. You can zoom in to some little, little, tiny part of it and it depends where you zoom in, some parts it's self similarity, I've seen that before on a larger scale, in other parts it's just novelty after novelty after novelty that never ends.

L.B.: Two questions that arose for me when I was thinking about the Mandelbrot Set; I'm not a scholar of this at all, is though math is insanely powerful and useful for many, many things, it is also human created and the Mandelbrot Set is only an imaginary plane which also confused me.

C.E.: I mean, “created.” Philosophers of mathematics could debate about that and have debated about that for generations. So are you a Platonist you know are you a constructionist? What you just said is very controversial.

L.B.: Yeah.

Jimi’s Video on the Mandelbrot Set.

J.E.: Hi, I’m going to talk about the Mandelbrot set. The Mandelbrot Set is a fractal discovered by Benoit B. Mandelbrot. It is generated with this recursive formula on the complex plain:

$$Z_{n+1} = Z_n^2 + C$$

What does that mean?

Let’s start from the basics. Every number has a square root, right? Wrong! Negative 1 has no real square root because a negative number squared is always positive. Its square root must be imaginary. The square root of negative one is an imaginary number we will call ‘i’. Any number involving ‘i’ is known as a complex number. The neat thing about ‘i’ is that when you square it it equals negative 1. This can make some interesting things in mathematics possible.

This is the complex plain (see image at 20:59). Instead of an x (horizontal) and y (vertical) axis we have a real (horizontal) and imaginary (vertical) axis.

COOL!

For example this complex number $(-1.5 + i)$ would be here on the plain (see image at 21:08) 1.5 units left and 1 unit up.

MEGA COOL!

Oh, but it get cooler. Remember our recursive formula from before?

$$Z_{n+1} = Z_n^2 + C$$

The C here represents a complex number. Let’s use our good old friend, $-1.5 + i$.

$$Z_0 = 0$$

$$Z_1 = 0^2 + (-1.5 + i) = -1.5 + i$$

$$Z_2 = (-1.5 + i)^2 + (-1.5 + i) = -0.25 - 2i$$

$$Z_3 = (-0.25 - 2i)^2 + (-1.5 + i) = -5.4375 + 2i$$

When we do this for a while we can see that the number keeps growing and growing. It’s therefore not in the Mandelbrot Set so we’ll color it a shade of blue.

Let’s try the equation with the number -1.

$$Z_0 = 0$$

$$Z_1 = 0^2 + (-1) = -1$$

$$Z_2 = (-1)^2 + (-1) = 0$$

$$Z_3 = 0^2 + (-1) = -1$$

$$Z_4 = (-1)^2 + (-1) = 0$$

Hey wait a minute, we’re going in a loop! That means negative 1 is a part of the Mandelbrot Set (see image at 22:17). We’ll color that point black. Now what if we did this with every point in the complex plain color coding each point based on how fast the number grows. If the number goes in a loop we color it black. Doing that we get this shape (see image at 22:29).

CRAZY!

The edges are kind of rough though. Let’s zoom in and see what this thing really looks like (zoom in of fractal image). Wow, look at that structure! Check it out, we zoom in here and find some five-fold symmetry and next to it seven-fold symmetry, then nine-fold symmetry, then eleven, then thirteen and if we go way far down each arm curves into itself making an incredible, intricate structure. Within the Mandelbrot Set we can find a near perfect copy of

the entire thing and look, here's another (see image at 23:21), but it's a little crooked. No one designed this mathematical creature. The order, structure and beauty we find is simply embedded in reality. In this image I see God. We live in a world of which beauty is an inherent, inseparable part. Think for a second, if no one created this image how could it be so beautiful? How could it be that way? It just is. Sometimes there is no reason why (ends with fractal zoom video).

C.E.: Hey I hope you enjoyed that video made by my son. He says that he made it a couple of years ago and that his skills are much better now. I think it's quite cute and it kind of gives the feeling of wonder that I first received when I encountered the Mandelbrot Set at age 22 I think it was, in a book by the Nobel Prize winning chemist Ilya Prigogine. I'm going to show you what is known as a Mandelbrot Zoom video. I didn't make it myself. It's basically a mathematical rendering of a very, very tiny area of the set starting with the whole thing and then zooming in where's an interesting spot, I'll zoom in here, here, here and just continuing in by a factor of something like 10 to the 200-and-somethingth which is a bigger ratio than the ratio of the entire observable universe to a single atom so it's an incredible zoom. The most important thing to keep in mind, and if you can keep it in mind it will blow your mind, is that what you are about to see was not created by an artist. It is simply the revelation of something that already exists. The person running the software decided what color to assign to what point depending on not his own aesthetic sense, but merely depending on how quickly that point leaves the set, how long it stays in the set, how long it stays within a certain range. It's a purely automatically generated thing, yet there is such beauty, such complexity in it. It seems to me it gives another way of thinking about creativity. Maybe this isn't the only thing that is revealed and not created. Maybe everything that we supposedly create already exists in some sense. Often I get the feeling that I'm a stenographer. Mozart had that experience too. If you saw the movie [Amadeus](#) he wrote perfect sheet music without any revisions because he'd already heard it. He heard it. He didn't create it, he heard it. This speaks to the topic of metaphysics in a couple ways. One is just marveling at how pregnant reality is. Even math is, with organization, order, beauty, complexity endlessly. Secondly, that we are, and it's related, we are participants of the universe towards more and more complexity or as I said before, towards greater and greater life. So really just allow that to sink in as you watch this. No artist created it, it was already like this. It is merely being revealed.