

~ The Holographic Universe ~

Michael Talbot

VIDEO TRANSCRIPT

Part 1

Hello and welcome. I'm Jeffrey Mishlove.

Today we're going to be exploring the holographic model of reality and its implications for ourselves, our bodies, and the world around us.

With me today is Michael Talbott, author of several books, including *Mysticism and the New Physics*, *Beyond the Quantum*, *Your Past Lives*, and most recently, *The Holographic Universe*. As well as three novels.

Welcome, Michael.

Thank you, Jeffrey.

It's a pleasure to be with you.

Nice to be with you.

You know, one of the things that you point out in the holographic universe is that this is a model that's been around now for a few decades, but it's really beginning to show its power in explaining many, many areas of personal experience and science. At the same time, can we talk a little bit about how the model developed?

Sure. It was developed by two men, University of London physicist named David Bohm, who was a former protege of Einstein, and a Stanford University neurophysiologist named Carl Pribram.

And they worked independently.

Pribram was studying memory and found that there's evidence that the brain operates holographically.

And Bohm was studying subatomic physics and found that on the subatomic level, the fabric of reality seems to possess properties that are reminiscent of a hologram.

So, if you put those two ideas together, that our brain seems to be holographic and the universe is holographic, it suggests that maybe it's compelling evidence that the universe may be a kind of hologram, not that it's literally a hologram, but that it's a good metaphor or way of understanding the universe.

Now, when you say it's holographic, what do we mean, really?

In a nutshell, that reality may be more plastic and changeable like an image than a solid construct, a sort of sticks and stones world, has a couple of other implications, one of which is that a hologram has an unusual property.

If you take a piece of photographic film that has a holographic image encoded in it, that means that you cannot see the image with your naked eye.

To reconstruct the image, you have to shine a laser through it. So if you have an image of a rose in the film, shine a laser through the rose, you'll get a three-dimensional image of the rose on the other side.

You cut that film in half, shine a laser through each piece, you'll get a whole rose out of each piece, which is a very unusual property and sort of boggles the imagination at first. Cut it in four, you get four roses. Cut it in eight, you get eight roses.

So, the universe is a hologram. It means, as William Blake said, that quite literally you can find the universe in a grain of sand. Every portion of the universe contains some semblance of the whole, of the whole universe.

That's very profound.

Very.

I mean, it's mind-boggling. And one of the things that you point out in a footnote of your book that I would like to mention is that this doesn't apply for... many of the kinds of holographic images that are popularly sold, pendants and the like, that don't require laser light.

Right. Every talk I give, someone comes up and says they cut the hologram in half on their credit card and ruined it and didn't get the effect.

And it only applies to those images that you cannot see with the naked eye that you have to reconstruct.

If you were to look at holographic film, it might look like ripples on a pond unless the laser light is shined through it.

Right. There's no decipherable image in the film, and it very much does look like ripples in a pond, like when you drop pebbles into a pond, there are all sorts of little circles.

They're called interference patterns.

Right. The same as when you drop two pebbles in a pond and the ripples crisscross. That is exactly what is in the film. It's the crisscrossing of the laser light that's recorded on the photographic film.

So there's the sense about a hologram that there's two levels.

One is this three-dimensional image that's projected, and it can look so real that you want to reach out and touch it.

And then the other level are these interference patterns.

Right.

That reality in a hologram is can manifest in two ways, as a concrete image or as this sort of indecipherable blur of energy.

And an analogy to this is when you're watching Johnny Carson's new television set, that's really, his image is encoded in two ways.

One is as the concrete image on the TV set.

One is as the blur of radio waves permeating the living room.

And if the universe is a hologram of some sense, in some way, it suggests that there may be two very drastically different levels to reality, that the concrete reality we see, you know, when we look at these chairs and at, you know, the trees and the clouds and everything like that ...

Our bodies ...

Are just one way that reality manifests, and that at some deep level, there's another, there's a level of reality where everything dissolves into an ocean of energy that is holographically interconnected, where every portion of the universe is contained in every tiny area of the universe.

So, that implies that this notion that we go about our everyday lives with the thinking of ourselves as separate from each other, and the cup is separate from the coffee that goes in the cup, that these notions are somehow, what would you say, superficial or contradicted at a deeper level?

Well, they're artificial, definitely, and Bohm really stresses this. And it's a very interesting notion because in our Western way of thinking, we're so attached to the idea that when we come up with a concept, like an apple or an electron or whatever, that that exists out there, and we forget.

It's kind of like fish unaware of the water in which they swim, that the conceptual pigeonholes we use, words, to describe reality are phenomena inside our head. They're not out there.

And most of the time, this is a philosophical quibble, but when you get down to quantum physics, and this is one of the reasons that Bohm came up with the holographic idea, it starts to have real effects, and one of those is it's been discovered that if you take two subatomic particles like electrons, in certain instances, when you do something to one, it will always affect the other no matter how far apart they are. It's kind of like stories that you've heard of identical twins where when one is hurt, the other feels the pain.

And the problem is that we can find no process known to physics that explains how these could be sending a signal back and forth. In fact...

Because it would have to be faster than the speed of light.

Instantaneous. It would have to be an instantaneous signal, and Einstein's theory of relativity said you can't have instantaneous signals because it would mean that you could violate the time barrier and conceivably call your grandfather and tell him not to marry your grandmother. And most physicists say, well, this would be just too troubling to incorporate into a rational picture of reality.

Bohm explains it in a different way, which is a very interesting way, and he says... If you imagine that you've got an aquarium in which you have a fish swimming, you have a TV camera facing the front of the aquarium, one facing the side of the aquarium, and you have a monitor attached to each camera.

And you also imagine further, that you come from a culture that's never seen aquariums, never seen fish, never seen monitors or cameras. All you are privy to is the two images on these screens. He says that maybe, you know, if you look at these two screens, you're going to see a side view of a fish and a frontal view of a fish.

And because you don't know what the deeper reality is, the reality of the aquarium, you may assume that these are two separate things.

Two different fish.

Two different fish, two different objects. But every time one fish moves, the other is going to make a corresponding movement.

And you may then jump to the conclusion that somehow one fish is signalling the other or communicating to the other to say, hey, do this instantaneously.

And Bohm says this is what we've done with subatomic particles, that we assume that an instantaneous communication is going on when that's not really what's going on at all.

At a deeper level, a very holographic level of reality, every particle in the universe... collapses to a sort of cosmic unity. They're not signalling each other. They're like that fish where there's the level of the aquarium.

And so what that means, talking about words, is that there is no separation between electrons.

Furthermore, there's no separation between people. And this has all kinds of very boggling uh implications one of which um is that we've always tried to understand, for example, psychic phenomena, like how could I get information out of your head in my head. As some sort of signal going back and forth.

But if we're organized, if we live in a universe that's organized holographically, you no longer have to tackle it that way. It could be that I have the entire universe and every neuron, every cell, every atom, every electron in my head, and you do also.

So, when we can access that, we can access information that seems to be beyond our normal sensory reach.

Well, you know, I'm very interested in psychic phenomenon, and I know you've had many personal experiences, and I want to touch on it, but this is not a model that was developed in order to explain psychic phenomenon.

I think to neuropsychologists like Carl Pribram, the fact that it happens to provide an explanation for psychic phenomenon is almost a bit of an embarrassment that he developed the holographic model because he was trying to come to terms with memory.

Right.

So, let's talk about that.

Sure. Pribram was working under a very famous neurophysiologist named Carl Lashley. And it was at a time when it was believed that memory was stored in a specific spot in the brain, and it was something called the proverbial grandmother cell, that there was literally a cell in your brain that contained the memory of your grandmother, what you knew about your grandmother.

And so they did a rather gruesome series of experiments for animal lovers, but it came out with some very profound information.

They took rats and they taught them how to run mazes, and then they would surgically remove various portions of the brain. Pribram and his mentor, Carl Lashley, The reasoning being that if they could remove a portion of the brain and the rat could no longer run the maze, they'd found the area of the brain where the rat's memory of the maze running ability was encoded.

Now, every time they removed a different portion of the brain, they discovered that they could never remove the memory of how to run the maze. They could impair the rat's ability, so it might limp through the maze, but they couldn't remove it.

And really, surgeons had known this for a while, doctors had known this for a while, because when people have head injuries, they don't forget half of the alphabet or half of their family or half of a novel they read. They have global memory impairment where their entire memory may be hazy. But memories don't seem to be stored in our heads in the same way that books are stored on a shelf.

And it wasn't until the 60s when Pribram encountered the holographic model that says that the whole is contained in every part that he said, aha, this may be what's going on in the brain.

Specifically, because a hologram is made out of interference patterns, the hologram that you see you know, that we talked about earlier, is made out of the interference pattern of laser light, but it can be made out of the interference patterns of any kind of energy, electromagnetic energy, electricity, x-rays even.

And so, Pribram said, since our synapses are constantly giving off electrical impulses, these are like proverbial pebbles dropping into the sort of electromagnetic pool of our brain. They're sending out ripples that are constantly crisscrossing. And he believes that's what the brain hologram, that's how we think and how we remember is through that hologram inside the head.

It would apply in another sense, too, because if you take a hologram image and cut it in half or in quarters or in tenths, each time you reduce it in size, the image becomes fuzzier and fuzzier, even though the whole image is there, just the way memory would seem to be.

It becomes fuzzier when you have portions of the brain removed.
Yeah.

Correct.

Pribram then also noticed that the same principle applied for visual information processing.

Well, yes, it's very interesting. He did not make the discovery, but he came upon the research done by other investigators.

And that is another very interesting thing. As you know, Mother Nature uses all kinds of mathematical languages. When we go to understand physical phenomena, we generally find that there's some sort of mathematical underpinning to whatever the phenomena is. There are uncountable mathematical languages.

It turns out that the mathematical language involved in the making of the hologram is a system of mathematics developed by a French man named (Jean-Baptiste Joseph) Fourier. They're called Fourier transforms. Well, it also turns out that our brain uses Fourier transforms to translate visual information.

This is a very unusual state of affairs. It's kind of like discovering Eskimo speaking Spanish. You know, it's not proof that the brain is a hologram, but it's suggestive that the brain is a hologram.

And it turns out, in fact, all of our senses appear to rely on sort of Fourier transforms, that they all seem to use the same mathematics.

So again... Here's evidence that the brain uses the same mathematics to decipher the sensory world as they're involved in the making of a hologram, which is, as I say, not proof but compelling evidence that something is going on there.

Well, what this seems to suggest is a new way of looking at consciousness itself.

Very much so, yeah. And it's an interesting thing. I have to say that I differ a little with Pribram because Pribram thinks that the brain, you know, as I said, that it's the electrical interference patterns of the brain. It is a brain hologram.

I'm kind of a mystic because, you know, at a young age, I had an out-of-body experience where I left my body and it became quite apparent to me while I was having this experience that I was thinking, but my brain was back in my body, which I could see in my bed.

I knew it wasn't just a dream because I floated out over the ground outside my family's house and I saw a book lying on the ground. And it was a book by the French short story writer Guy de Maupassant. And the next day, a neighbour said, "By the way, Michael, I've lost a library book by Guy de Maupassant. Have you seen it? I thought, "Well, I floated over it last night." I didn't tell the neighbour that. But there was the book.

And I was always very, I'm still very scientifically oriented. I want to understand the world in scientific terms. But it was really the first time that I sort of had to confront, you know, the difference between my spiritual beliefs that we can survive, you know, our bodily death and this deeply held belief, scientific belief of mine that it's the brain that's doing the thinking. And I realized I had a kind of epiphany where I thought it isn't the brain that's doing the thinking.

So I am not entirely certain that it's just the electromagnetic interference patterns that is the brain hologram because those obviously would perish when the brain perishes. I think there might be some subtler level, some subtler energy that we haven't discovered with our technology that's involved in this also.

Well, Bohm's model is interesting. relevant and interesting at this point because he's not dealing with the universe as a hologram made out of electromagnetic interference patterns. He's looking at quantum wave potentials, which are at a much deeper level.

And I must say, I've heard Pribram discuss it much the same way. There are quantum wave potentials in the brain itself, which is a much more deeply embedded level of energy and matter than the electromagnetic level.

Right. It's a funny thing in science. The great physicist Herman Bondi said, called it The Lure of Completeness, that we tend, when we find some sort of outermost perimeter to what we can measure, we assume there's nothing beyond it.

And I refer to it, it's kind of like the, you know, in ancient times when we only knew a certain portion of the world, people always seemed to say beyond the edge of the map there'd be monsters, that there was nothing there.

And the same thing is going on in physics, that we have, with our technology, reached down to a certain level in reality and It's a common prejudice among many physicists that beyond that level, nothing exists. There be monsters. There's just a void.

And it's an interesting thing that we, as I say, we have to have this Lure of Completeness. We have to feel that our knowledge of the universe is all that exists in the universe.

Bohm, I think, is very wisely, is one of the few physicists who comes out and kind of says - the emperor has no clothes. Says what rational basis do we, it's just prejudice that we assume nothing exists beyond this level of reality.

And he feels that there are all kinds of domains of reality beyond this level, this microscopic level. And he theorizes that there may be untold, uncountable, subtler energies in these levels.

The quantum potential is one. It's a theorized field that has not been measured or discovered with science. But Bohm feels there's evidence to posit its existence.

And it's now rather well accepted, I understand, among quantum physicists.

I wouldn't say that. No, it's... pretty controversial, and the reason it's controversial is because the standard explanation of quantum physics has decided that this lure of completeness, that there's nothing beyond.

You know, the Danish physicist Niels Bohr, who was one of the founders of quantum physics, basically said, you get down to a certain level of reality and things become blurry and you can't know anymore.

And Bohm takes a very different route, which at this point is very sort of looked down upon by a lot of physicists.

Because most have been schooled in the way of Bohr's thinking. Yes. And Bohm, the quantum potential is not looked upon kindly by most physicists, I would say.

Well, I don't think we want to get into too technical a discussion of quantum physics at the moment. But I do think it's important to bring up the uncertainty principle because in a way, it's where physics comes full circle.

And as I understand it, physics are saying, well, there may be all kinds of stuff, but we'll never know it because we interact with it.

Anytime we attempt to look at particles beyond a certain level, the very act of observation changes things, and that brings us to a point where we realize that the distinction between subject and object breaks down.

Right. But physicists get very funny about it. They get kind of schizophrenic because they'll openly admit that subject and object breaks down there, but they say that somehow this has no effect in the real world. This does not translate from the microscopic level to our level, although there is a sort of creeping evidence in the scientific world that it does translate into our level.

One obvious example, I think, that it translates into our level is that helium cannot be frozen solid. You can freeze hydrogen solid, you can freeze carbon dioxide solid, but helium, for helium to go, to become, its atoms to align in a solid form would violate the uncertainty principle, and nature doesn't seem to allow that.

So, you can't, no matter how cold helium gets, it remains a liquid. That to me, you can have a beaker full of liquid helium, and that exists at our level of existence, and it's a sort of manifestation of the uncertainty principle, and it's where it's sort of slipped over into our world.

There are other things going on right now where there's a device called a *squid*, which is a sort of electrical coil in which it looks like we may be able to demonstrate that the current, if you say which direction is the current going in the coil, it's going both directions at once, which is kind of an impossibility to simultaneously do that. That, too, is a quantum phenomenon, that these two realities are overlapping.

So I think we will cross that barrier.

Well, I must admit, Michael, I'm not sure that I totally grasp the implications of those examples.

But the examples I would like to focus on that do seem more relevant are the ones that suggests the enormous ability of the mind to affect systems in the body, the placebo effect, the work with the healing and visualization.

Well, this gets away from Bohm and the Pribram, but it's equally interesting with equally profound implications.

Pribram, as I said, says that we're thinking with holograms inside our head and that out there exists something that's more akin to the radio waves in the room from which your TV gets the image. So in essence, we're kind of conscious TV sets. And what we think is reality when we look out here is really just the image on the TV set inside our mind, but doesn't exist out there.

And Pribram says this is why there's all kinds of evidence that we seem to respond more to the models of reality in our head than out there.

In the holographic universe, I give an example of a psychologist who did a study where he took soldiers and marched them all the same distance, but he told some they marched Like he marched them all 20 miles, but told some they marched 10, some they marched 20, some they marched 30. But they all marched the same distance. At the end, he took physiological readings and discovered that physiologically, they responded not to the actual mileage that they had marched, but to what they had been told, the model of reality that they assumed they had, the reality in their heads.

And in medicine, people have used this, this application of the holographic idea that we respond to the model of reality, say this may be why we respond more to the placebos, to fake drugs.

There's a very famous example of a fellow who had lymphatic cancer, tumours the size of oranges all throughout his body. His doctor basically thought he had about three days left to live. The fellow heard about a new drug called Crebiosin and said, you've got to give this to me. And the doctor said, well, frankly, you know, I don't think you have long to live in this drug. It takes several weeks to take effect. The man implored him, and the doctor gave in sort of as an act of pity.

He gave the man Crebiosin. and three days later, the man's tumours melted, as the doctor put it, like snowballs on a hot stove, completely gone out of his body.

Faster than the strongest radiation treatment could have melted them away. The man is up and around, walking around his hospital room, resumes his normal life, seems to be completely cancer-free.

Several months down the line, he reads an article saying crebiosin isn't that effective. Boom, boom, boom, all his tumours come back. He's back in the hospital. The doctor starts to realize that maybe it wasn't the drug that cured the man, but the man's belief.

So, he lies to the man and he says, those articles are wrong. Crebiosin is effective. And in fact, I've got an even more potent version of it. He injects just salt water into the man's veins. Again, the man's tumours melt away. He resumes his normal life.

Unfortunately, many months down the line, he reads final studies on Crebiosin saying it's completely ineffective. Boom, boom, boom, his tumours come back and he dies. But the bottom line is somehow this man had the ability to access some deep level of healing. It wasn't the drug because salt water worked just as well as this alleged drug.

And so, again, here's an instance where he responded to the model of reality in his head, this deep belief that this drug would heal him, even though he wasn't even receiving the drug at a certain point in his treatment. And his body responded in kind.

And that, to me, is the most exciting aspect of the holographic idea. And there are countless examples of it. There's a study of a new chemotherapy in England where they took a group of cancer patients, half the patients they gave the drug, half the patients they gave a placebo, a fake. No one knew who was receiving the real drug or not. They told all the patients this is a very toxic drug, may cause you to lose your hair. 30% of the people receiving just the fake lost their hair.

And when I first heard this, I immediately thought, oh my gosh, about every donut that I'd ever eaten in my life and thought, oh, this is really bad for me, that I may be responding to the model of reality more than the nutritional aspects of the donut.

Well, I think the stories of this kind have been known to scientists hundreds of years, but they've kind of been dismissed because scientists haven't had a good way to look at the possibility that consciousness can affect physical systems.

We think of consciousness as an epiphenomenon. Right. But if one considers that there are standing waves, interference patterns in the brain, holographic images, it gives consciousness a... I hate to use the term mechanism, because I don't think that's quite the right term, but... gives people a model in which they can begin to appreciate more the role of consciousness.

That's true, and also it can be applied in another way because if the universe is organized holographically, we've always believed that there is no connection between the brain and the body, I mean, for most of the history of medical science in the West.

In the past couple of decades, we're starting to say there's a connection and we're sorting out certain pathways, you know, the neuropeptide systems, that sort of thing.

But if the holographic model is correct, there are so many interconnections between the brain and the body, there ceases to be a division. So it becomes almost a moot point to say, what is the pathway? How is the brain connected to the body? Because there's no difference, just like there's no difference between those two electrons.

Well, and to take it a step further, as you do, one might say there is no solid, clear-cut distinction between ourselves and the rest of the whole universe. I mean, this has profound implications for spiritual experiences, of which You've had quite a number, and perhaps in the time remaining we should touch on more of those.

Yeah, very much so. As I said, I've always been very interested in science, but I also grew up with a lot of very unusual experiences, not the least of which is that I grew up in a house of the poltergeist haunting. So I had all kinds of examples of psychokinesis, of objects moving about on their own when I was growing up.

And it really was strange in the sense that for me it was normal, and I had to learn that it was abnormal. And rather painful learning, and as I grew up and my friends would find it very strange that these things would occur.

And one of the things that Bohm says, because Bohm addresses the topic of psychokinesis, is again, we don't, you know, we may be mistaken to try to approach psychokinesis by saying what energy is leaving the brain to move the object, because as Bohm says, there's no division.

Psychokinesis means mind over matter.

Right, moving the objects was just the power of thought alone. That we are as connected to that object as... borderless. We're a continuum with the object as the patterns in a carpet. So for us to move the object maybe at Bohm is just an act of resonance of realizing that there's no division between us.

And can we talk for a moment about the issue of life after death or spiritual experiences of other realities?

Yeah, that's one of the areas you had mentioned earlier that one of the exciting things about the holographic idea is that people have taken this and explored all different realms, that some have used it to say this is how acupuncture works because it turns out that there are little micro acupuncture systems where you can find the entire body in the acupuncture points of the ear.

Recapitulated.

Right. In the ear, yes. We've talked about the placebo effect. Some have said that the holographic idea applies in near-death experiences.

One of these individuals is Kenneth Ring, who is at the University of Connecticut, studies near-death experiences.

And it's interesting because in report after report of people who have been declared clinically dead you know, go to some apparent other level of reality and then come back. They refer to this other level of reality with terms like frequency and energy and even hologram, that it's a plastic, a more plastic level of reality where thought seems to create things instantly.

There are instances of people having near-death experiences where they think they're hungry and instantly food appears.

Or perhaps an even better example, when people find themselves out of their body, there are cases where people look down and see that they're in a naked body and they go, oh my gosh, I'm naked. Instantly they have clothing on. Now, we don't assume that clothing has a soul, you know, that has a spirit that survives.

So somehow it appears that the mind can sort of pull out of this ocean of frequency a hologram of clothing.

And this is what Ken Ring says, is that we're entering deeper into the hologram when we have near-death experiences, when we leave our bodies.

So, there's so many different areas that have kind of been at the fringes of our understanding that we can now begin to look at with new eyes.

Michael Talbot, Michael, now might be a good opportunity to talk in greater depth about some of your own personal experiences. I think maybe building on what you had discussed earlier regarding your childhood experiences with poltergeists.

And let's discuss for you personally how the holographic model has helped you to understand these things?

Okay. Well, it's interesting. I was asked recently, when did you really start writing the holographic universe? And I started writing it years before I heard of the holographic model because the model of reality that's in the book that is implied by the holographic idea is the model of reality that I had arrived at because of my experiences. I'd had a lot of firsthand encounters with the plasticity of reality.

A recent one is a good example of just how extraordinary some of these plastic events have been.

I have a little jade Buddha on my desk that my mother gave me, and it is set in gold, and she came to visit, and I think it's significant that this was a time in my life I was going through a rather rough period and basically in need of having some reassurance that miracles were possible in the universe. And when she saw the jade Buddha sitting on my desk, she said, oh, I remember giving you this, and she picked it up, and I stood by her as we watched it, and as we looked down at the Buddha, there was a little explosion of red light and a sphere of red light expanded out from the Buddha. And after it was gone, a red stone had appeared in the Buddha's head. And I don't know if it was a ruby or a rhinestone. I've been kind of afraid to have it tested. I don't know how I'd respond if it had been a miraculous rhinestone appearance.

But my mother, who's always been kind of like Gladys Kravitz on Bewitched when it comes to these things, kind of giggled nervously and said, gee, I don't remember that stone being in the Buddha's head before. And I said, but mom, didn't you just notice something really amazing? And she said, well, it looked like there was an explosion of red light and a sphere of red light expanded away from the Buddha. And I said, well, yeah, that's what I saw. And she said, well, that can't be, that can't be.

And my sister was visiting and had actually worn the Buddha on a pendant. And so I said, well, let's, she had told me that my sister wore it. I said, well, let's call her in and see if she remembers it being there. Because even I've experienced these things, you still have this sort of gnawing scepticism, go, gosh, this can't be, can reality really be this plastic?

And so I said to my mother, now don't tell her. that the stone materialized ..

In front of our eyes.

Right, right. Let's see if she just notices it on her own.
And my mother, bless her heart, when my sister comes in, she goes, okay, okay, I won't tell her. But the moment she came in the door, she goes, Pam, the stone just appeared out of nowhere in this Buddha's head.
So we didn't have a sort of straight scientific approach to it.
But that's just one example. There have been many. I talk about the poltergeist.

I grew up having all sorts of precognitive visions of the future, which at a very early age taught me that time wasn't as linear as we thought, and things that we don't even have sort of scientific pigeon holes to put in, like a UFO encounter, and encounters with occasionally with beings that appear to be spirits. I'm not quite sure what they are, but beings that aren't physical beings, and things that were just part of the natural warp and weft of my life have always been and as I say, it really came as a shock to me to discover that other people didn't know reality was plastic, and that's why the holographic idea excited me so.

Now let's talk about it a little more, because I think conventionally people who have these experiences search in our culture for an explanation. And explanations are not readily forthcoming from mainstream institutions, or you could buy into a religious viewpoint and think of angels, or you might go to folklore and talk about the little people, or you might draw on theosophy or occult traditions, but what added insights do you get out of viewing these things in terms of a holographic model that you don't get from some of these other perspectives?

Well, there are two implications or two added insights.
One is that, you know, the science that we all learned in high school science class does not allow us to understand these things.
The holographic idea is really the first sort of scientifically couched idea that says, here's how these things might be possible.
But there's another, I kind of think, an even more profound implication of the holographic idea, and this gets back to this notion that Bohm says that "If everything is a continuum and infinitely interconnected, all of our ideas, all of the words we use to describe the world are artificial, are sort of just come out of our own belief systems and don't exist out there."
And that's something that's had a deep effect on my thinking because it means when I've had these experiences, I don't jump, as I said, that appear to be spirits.

I say this because I've, for example, had a few years back had an encounter with the spirits of several wolves that appeared that I could see through their bodies. I mean, several wolves appeared in my apartment. I could see through them. They were there for about 10 minutes. And this was an experience that I might easily go, well, these are ghosts, these are power animals, these are demons. But I hold my judgment open. I don't know what they are, but I know that these things are possible. And I think it's important not to jump to conclusions because we may miss the larger picture.

Most people might think I'm going crazy.

Well, I don't anymore. I mean, I never seriously thought I was going crazy because I'm very emotionally healthy, mentally healthy. And these things have never, have always been positive in my life, have always assisted me. And they've always been a good thing, helped me survive. And those people who don't know, there were many years when I didn't tell people I had these experiences and no one thought I was crazy.

And, you know, they might have had I told them the experiences, but the rest of my life has always been, you know, I'm a very sort of ordinary person except for those things.

And I think, you know, that craziness is, if you have an experience of a non-ordinary reality, that's not evidence of craziness.

Craziness is if you have some sort of pathological problem, something that's destructive to your health or well-being, and I've never had that.

But I think it might be a bit glossing over from what you've told me already, Michael, just to say that, say, your poltergeist experiences were 100% positive.

Well, that's true because nothing, I mean, again, we're putting our own intellectual pigeonholes over it. There were negative aspects of the poltergeist.

Would you mind telling the whole story?

Sure. The poltergeist, I always thought the poltergeist started when I was five years old and it started raining gravel down on the roof of my family's home at night.

And at the time, we didn't think this was paranormal. No one knew what was going on. I grew up in Michigan. We lived in a very rural area in the midst of the woods.

My father would go out with a shotgun because he thought someone must be doing it, and he could never find any evidence that someone was doing it. He'd shoot the gun off into the air. In the morning, he'd go out and sweep several shovelfuls of gravel off the roof.

And, then things became very definitely paranormal when whatever this manifestation was went into the house.

One of its favourite things to do was to throw the vacuum cleaner around. You didn't always see it. Most often, you didn't. My mother, if she were vacuuming and turned the vacuum cleaner off and left it in one part of the room and would leave the room, you'd hear it clash and go back to the room and be in the opposite side of the room.

Occasionally you would see things. I saw on one occasion a glass all of a sudden just came swooping through the room from no apparent source. The windows were closed. There was no one there who could have thrown it.

The poltergeist was also thought of throwing, strangely enough, pieces of drift glass in broken beer bottles or pop bottles they find worn smooth on the beach. And once in my New York apartment, because the poltergeist followed me wherever I moved until I was in my early 20s, I actually saw one of these things materialize.

I was just sort of daydreaming, looking up near the ceiling. And all of a sudden, out of nowhere, this strange little brown thing appeared. And as I looked at it, it came zooming down at me, hit me in the chest, dropped to the floor, and it was one of these pieces of glass.

And so these were extraordinary things. But at the same time, I and my family became so accustomed to them. I have two sisters that we'd be playing because another thing a poltergeist would do was stomp all over. It would stomp up the stairs, down the stairs, through the room. You'd hear bang, bang, bang, bang, bang. And if we were playing, it got so, if we heard something stomp up the stairs and glanced over the stairs and there was nothing there, we'd just go back to playing.

It was so mundane a part of our existence.

And you said they did have negative aspects. It wasn't all positive. That's true because one of the things, that I discovered and has caused me to believe that the poltergeist was an unconscious psychic projection of mine is that it was always coloured by my moods. Most of the time I was in a good mood and it was mischievous. Would do silly things, like one morning I woke up with dried spaghetti noodles all over my chest and no explanation. I lived alone and, you know, unless a burger broke in, boiled some noodles, you know, and threw them on my chest, I don't know where they came from and I have no history of sleepwalking or anything like that.

Another instance, it took all of my socks, draped them over the plants in my house.

Silly things like that, but if I were in a bad mood, if I were going through some sort of rough time in my life, the poltergeist became nasty. And there were a few occasions, not many, where stigmata-like bites would appear in my hands. A couple of times, needles, metal objects that were halfway between nail and needle would appear out of nowhere, just zoom into my flesh. This only happened twice. And things like that.

So, you could construe those as negative, but on the other hand, I view them as positive because I learned so much from them.

Well, I think it's important to mention this because, you know, in a lot of the folklore... these kinds of manifestations are associated with the demonic. And I think by using the lens of a holographic model, you're able to see it in a different light.

That's true, and it's important to note that.

And one of the things that I've learned from it is when these negative things were happening, there were occasions, even though I'd had lengthy experience with this poltergeist, that I'd start to think, oh my gosh, maybe I'm being demonically attacked.

When I believed that, it started to manifest even more as a demonic attack. But when I would sort of come to my senses and go, no, I know that this is, I can see the emotional reason that this is manifesting in this way, and go, okay, I'm going to stop this. I'm going to, you know, have a positive frame of mind. All the negative stuff would stop.

I always had control, but if I relinquished that control and allowed my beliefs to go into some interpretation, go, it's a demon, it's a this, it's a that, then it would get me.

And it was another instance where I, when I lived in my New York apartment, where I was playing piano at night, I had the lights off, I was playing in the dark, and I live on the ground floor, and the piano is situated so that the back of the piano is toward a window. And as I was sitting there, playing away, all of a sudden, there was an intense burst of light in my face. It was like a flash bulb went off right in my face. And my first just sort of visceral reaction to it was, oh my gosh, a truck is driving, it's come off the road, and it's driving through my window. So I literally threw myself over the piano, thinking that I'm about to be killed by this truck or whatever.

And, after I sort of regained my senses and stood up, I looked back at the window. There was no sign of what had caused this light, and I thought, well, that is strange.

And I turned back around, and as I looked in the room, it was what looked like a luminous soap bubble about three feet in diameter hovering in the air.

And it sounds strange, but it terrified me because people go, what's so scary about a luminous soap bubble? But it was so unexpected and yet so real. I immediately started moving my eyes from side to side to see if it was an afterimage on my retina. I started blinking to see if it would go away. It was as real as the tables and the chairs, and there was a distinct sort of feeling of evil coming from it.

And I started to run out of the room, and then I caught myself, and I thought, because I'm basically just an extremely curious person by nature, I thought if I run out of the room, I'm always going to wonder what this thing was and what would have happened had I stayed.

So, I really summoned my courage, and I stopped, and I addressed it. I said, "I want you to know you just scared the daylights out of me, but I want to know why you're here and what you are."

And when I said this, this bubble, which is hovering in the air, backed up. And somehow, I knew the fact that it had backed up, that it had wanted to scare me, and it had backed up.

Now, this bubble appearing had been presaged by a number of very negative poltergeist phenomena, a couple of the bites that occurred at that time in this. I didn't know what was going on. The bubble was only there for maybe a minute or two, but it seemed like an eternity at the time.

Then the bubble left the room, hit a door and sort of, burst and sparkles and was gone and but distinctly negative was I mean, I knew it was a negative presence.

A couple of days later, a friend called me, and I had not told her about the experience or anything. And she said, Michael, I have a letter that I think you should read.

And it turned out I just moved to New York from Michigan. I'd attended Michigan State University.

And there was a group of people there that were really only acquaintances of mine. They weren't that important in my life. But they were into black magic, and somehow, they had fancied, which was totally their fantasy, nothing not mine, that I was some sort of magician and that I was attacking them.

And so, they were doing group meditations and casting spells to get me.

Counter magic.

Right. And I had not even thought of these people. But what that taught me is that I realized that, because I still think I was in part feeding this phenomena with my own psychic energy, is that I was not shielding myself.

Because what happened when I learned this, while I was going on, I was so interested in, I allowed it to happen because I wanted to see where it was going.

I wondered what the bubble was. I didn't say, okay, get out of my reality. But as soon as I found out what they were doing, I said, okay, all of this stops now.

And just through an act of will, he said, this will not go this direction.

And as soon as I put forth that act of will, all of these things, the negativity ceased, and the poltergeist resumed its harmless aspect.

And what that taught me is that I'm sometimes asked, do you think people can cast spells or can exert an outward influence to you and I think that our will is always it's what our will determines but you also have to be conscious you have to sort of shield yourself and I have learned that I have to have developed a strong belief that I'm protected so that my unconscious doesn't believe that I'm not protected and allow these things to occur and when you do that you are protected mm-hmm

So your sense is that these various events are taking place at another level of reality that's related to the holographic model.

I do. I think that they're not just hallucinations, and I say that because I've had equally extraordinary experiences where there have been other people present seeing the same thing.

But what's interesting is, again, you know, as the holographic model says, there's no division between our thoughts and the world out there, is that they always have some sort of psychological correlation with what's going on in my life.

I can look at them and I can go, the reason this is negative is because these people were casting spells.

And there been event after event after event, or the reason the poltergeist is negative is because I'm going through a bad period emotionally and I've so I've discovered that they are psychological exteriorizations that become real.

And I say that because, as I said, I don't believe their hallucination because other people have witnessed them with me.

And the only explanation my mind is that our thoughts do project into reality on occasion, do bleed through from the subject it to the objective

Now, I want to explore with you more carefully the nature of the poltergeist entities themselves and these other realities.

And I think a good way to approach that would be to step back for a minute and talk a little bit about what is life? What constitutes a living being?