

Earth/Human Story

*The overall orientation of **An Earth/Human Story** is inspired by the writings of George Leonard (*A Silent Pulse*), James Lovelock (*The Gaia Hypothesis*) Brian Swimme (*The Universe is a Green Dragon*), Thomas Berry (*The Dream of the Earth*) and Miriam Theresa MacGillis (*The Fate of the Earth*).*

Homo Sapien: Hello, I am human.

Earth: Hello, and welcome, I am Earth.

H: You don't sound like the Earth . . .

E: Well, you do sound like a human!

H: Hmm. . . Well I am! You know I was just thinking about a story in one of our sacred books called the Bible. Remember those two folks who were told not eat the apple from the tree of knowledge? Well it seems the story of humankind has been one of our knowledge growing slowly, and then exploding astronomically in very recent times. It appears that, among many things, we humans act as the Earth's computer, your computer, in our ability to process knowledge at breathtaking speeds.

E: In a way that's true, but you are so much more . . . we'll get to that later. As for not sounding like what you might expect, sometimes I am referred to as Mother Earth. All of the different species, like the tigers and the wrens and you, are my children. But I don't really feel like a female mother or a male father. Some of your relatives from past times saw me as a creator; a little male, and a little female. Both. Does that make any sense?

H: Sure, I think so. What if we discuss how you and I got here and became alive in this universe. I've always been curious about all of that.

E: Love to. It's a pretty amazing story, what I know of it so far.

H: So where do you think it really starts?

E: It seems to start with emptiness. Nothingness. Particles boil into existence out of sheer nothingness . . . out of sheer energy. That seems to be just the way the universe works. Substance, or mass, comes right out of pure energy and goes back again. The universe erupted, everything that exists erupted out of nothing into pulsing existence.

H: So I came from emptiness, nothingness?

E: Yes. And this emptiness still permeates you. You are much more emptiness than you are created particles. The example that the human George Leonard uses involves examining one of your own atoms. If we took a single atom and made it as large as Yankee Stadium - you know that place?

H: Sure, The House that Babe Ruth built.

E: You know your baseball! . . . Well, this single atom, as large as Yankee Stadium, would consist almost entirely of empty space. The center of the atom, the nucleus, would be smaller than a baseball sitting out in center field. The electrons, particles that spin around the nucleus, would be tiny gnats buzzing very high above the field. And between the baseball and the gnats? Nothingness. All empty. . . . and you are made up of many trillions of those atoms. Leonard points out that if all the space were taken out of Babe Ruth himself, he would be a million times smaller than a grain of sand! Actually Ruth would end up smaller than that if the calculation was carried all the way out. He would be closer to million million times smaller than a grain of sand!

H: Radical!

E: You got it. Whole galaxies of stars are also mostly emptiness. Leonard writes, "Galaxies as they travel through space sometimes meet head-on, and we might imagine billions of stars crashing through each other creating massive destruction. As it turns out, however, those galaxies can pass through each other like two . . puffs . . . of . . . smoke. "

H: Wow, what an image.

E: There's so much space between stars, just like in our atom as big as Yankee stadium, that there is mostly sheer emptiness, nothingness throughout the universe.

H: So you are saying that, in a way, this empty realm is the ultimate source of all things?

E: Yes. And right now scientists are discovering this in their work with some of the smaller particles of matter, like quarks and leptons. At the same time some of your human traditions have known this intuitively for thousands of years. For example, this realization is echoed in the life and teachings of Buddha, who understood that all put-together things arise from emptiness and exist inseparably from emptiness.

H: That's interesting. So some of our mystical traditions understood what physicists are now discovering about the make-up of both the micro and macro universe.

E: It seems so.

H: So what came next?

E: You mentioned earlier about human knowledge exploding astronomically in very recent times - ushering in an age where the human can actually manipulate the code of life by cutting up genes and DNA. Well, 15 billion years ago there was an infinitely more massive explosion, sometimes called the Big Bang. which was really more like a Big Bloom, bringing forth light and time and the beginning of life for all things. A thick soup of hydrogen gas and energy emerged. This soup swirled for a very long time creating pockets and eddies. . . then eventually galaxies. Stars formed, grew larger, and then exploded, creating the elements and sending them off into the universe. Our own solar system emerged from an exploding supernova.

H: Supernova? I'm not sure what that is but I sense it's got nothing to do with the Superbowl.

E: A sixth sense you have. It's a super star that very quickly increases in brightness a hundred million times. It exploded and created the solar systems and planets in the Milky Way. This was an inconceivably violent process and still goes on in other parts of the universe.

H: So you're saying violence is part of the whole picture of life and existence?

E: Very much so. The human Brian Swimme writes, "Life forms were given potential by violent star explosions." Look at your hand - is it completely your own? Every element was forged in temperatures a million times hotter than molten rock, each atom created in the blazing heat of the star."

H: That's wild.

E: Isn't it? When we breathe, we breathe the creations of stars. All the life we live is possible because of the gifts of those stars. But there still is the question why all of this activity and interaction between things like atoms, people and galaxies even goes on.

H: That's a tough question. That guy you just mentioned, Brian Swimme, says that allurements, or attractions, is the basic reality of the universe. By this he means that what makes things happen, what holds things together is the attraction everything has for everything else. And . . . this attraction is a complete mystery.

E: Go on.

H: He says to think, for a moment, of all the attractions filling the universe; things like gravitation, magnetism, the weak and strong forces that hold an atom together, Ben and Jerry's ice cream, and sex to name a few. Then imagine, for a moment, that the next time I snap my fingers, these and all other attractions suddenly just disappear. What would happen?

E: Well, the galaxies would break apart, and the stars of the Milky Way would soar off in all directions, since they would no longer hold each other in place, attracting each other.

H: Yeah, what else?

E: Individual stars, and even atoms would break up and disperse very quickly, no longer attracting each other. No more glue holding everything together. I would also break apart as well, because all the minerals and

chemical compounds would dissolve without the mystery of this allurement that involves all particles and things.

H: Scary stuff! Even if the physical world could somehow keep its shape, the human world would fall apart. No one would go to work in the morning. Why should they? Lovers wouldn't chase each other in the night looking for romance. They would just stay home alone watching dumb TV program for the rest of their lives. All interests, attractions, and fascinations would fall away.

E: That *is* an amazing experiment! Hmmm . . . this Brian Swimme - I'm attracted to him. Gonna read up quickly, it will just take me a split second. Ah, and he says what is so bizarre is that these attractions, both in the physical world and the human world are a *complete, total mystery* . . . For example, there is no explanation for humans liking music. There are millions of sounds in the world and yet only very certain ones interest folks down deep, like a Beatle song or music by Mozart. The attraction is *primal, as unexplainable as my gravity thang going on..* And he says the important part for you is by pursuing your own unique passions you truly help bind or glue the universe together, just like how gravity binds and holds everything together here and elsewhere in the universe.

H: Hmmm

E: So, as Swimme points out, the unity of the world, in every way, rests on the pursuit of passion.

H: All of our interests are completely our own, right?

E: You got it. We awake each morning to our own unique sets of attractions. So do oxygen atoms. So do protons. Ah, protons! Not only powerful, but the oldest particles around. And they're attracted only to certain other particles. George Leonard says those dancing protons could sure tell us a zinger of a story!

H: What kind of story?

E: Hold your finger up for a minute (human holds up a finger) . . . Keeping in mind that matter is never destroyed, only recycled, Leonard writes "if you and I could read the biography of a single proton in the skin

of your fingertip right there, we might learn that it had lived many lives, taking a journey perhaps in the petal of a violet or the viscera of an earthworm, serving to rust the sword of a Mongol warrior or enhance the blue of a Viking's eye. Maybe it spent a few billion years wandering the lonely wastes of interstellar space." Then it came to our solar system and offered itself to me, to help me create you.

H: Incredible! It seems in the context of all of this there's a lot to be thankful for. It seems that you really have contributed something very unique to this whole unfolding of the universe. You have spent your entire life of 5 billion years experimenting and slowly learning how to create the amazing life that is all around. There may be nothing like it anywhere. What an adventure. By single-mindedly pursuing your passion for creating life, we humans get to come on the scene and have the chance to pursue our own passions. It seems that we can learn a lot from you about creativity and its importance for our lives, helping us to feel fulfilled, bringing us closer to our source; to the truths of life.

E: I'll tell you I have focused for a long time on this whole creativity thing without really knowing what was happening until you came along. It's strange but I wasn't really aware that I was working on creating consciousness, (sings) "*til there was you . . .*" Remember that song by some of your brothers, The Beatles?

H: Of course! I remember a ton of them. Most of them were hella catchy.

E: Those were my kind of guys! They even named themselves after another species!

H: No, I think it might have been more about the beat . . . you know, the universal rhythm? My question is what do humans add to all of this creation of life that is new?

E: Well, according to Swimme, the human provides the space in which the universe can feel its stupendous beauty. He says to think of it this way: before the human arrived, my life with all of its crashing rivers and powerful mountain ranges and incredible variety of amazing species were magnificent realities. However, the depths of this magnificence were yet to be fully appreciated. The human is a space then, an opening, where the

universe celebrates its existence. The universe and I shiver with wonder in the depths of the human. I had not thought of it that way until he put it in that context. Without the human there would be an incompleteness. You were invited to the party so that these experiences of beauty could enter awareness through consciousness. Imagine the universe evolving for 15 billion years until this self-awareness came along, meaning you.

H: So you're saying that you wouldn't feel or appreciate the beauty and magnificence in quite the same way, if we hadn't been created.

E: Right, and at the same time humans have been treating other living things very badly in recent times. Up near Alaska and most recently in the Persian Gulf parts of my watery blood are clogged with oil. It's very painful for me, the otters, the fish, the seals, and the birds many who have oil in their lungs and on their bodies. And sometimes I feel like I'm suffocating because the air, which is my face, gets so full of fumes and pollution . . . You humans feel this suffocation too.

H: Yeah, it's bad in many areas where we live.

E: So it means you have a big responsibility to me and all the other living things.

H: I think a lot of us are just starting to realize that.

E: I'm still glad you're here though there's no way of knowing how long it will last.

H: Some of us, like the Native American Indian, see you, the earth, as their source; their own body. That's why they thought it was so odd that the white men wanted to buy the ground called Manhattan from them. How do you sell something that is your source? Part of your own body. They intuitively understand this responsibility you talk about.

E: Ho! I think it comes from understanding that you and I and all the other animals and plants share together the same elements and particles that were born of that exploding supernova, and therefore share the same spirit. Did you know I could take you apart, rearrange the atoms and create an orchid instead?

H: You wouldn't.

E However, in your case you have a consciousness, an awareness that is quite unique; There are also other species, like the dolphin and chimpanzee who also fulfill that role in their own individual way.

H: Is this the idea then? You and all the living beings, together are one complete living organism. And this organism is a connected, interrelated web of life that can stay healthy only because of the unique attractions and passions of the smaller parts of the whole playing their unique part in the symphony . . . so to speak! These smaller parts of the whole would be species, ecosystems, individuals and so forth.

E: That's it precisely. So do you see that means the differences actually become the process.

H: I'm not sure explain that a little.

E: The universe seems to work because it is set up to become more and more different in its parts. One of your sisters, Miriam Theresa MacGillis, has a good way of explaining this. She says to imagine the universe had stayed just hydrogen . . . well it would still be just hydrogen! In the same way, if the oceans were just whales the oceans would not work. Whom would the whales eat, if there were no krill? Who would eat the whales? There would be no interdependence, and therefore no life. But the oceans do work and there is tremendous diversity and interdependence going on everywhere. In the same way, the human wouldn't work if you all had a red or a black or a white colored skin, or if you all had the same attractions for the same exact things. So the differences are the process.

H: We seem to misunderstand this a lot and fear arises in many of us often creating fundamentalist views and hatred.

E: I know. It's difficult. Diversity is the key though. Horses are not beavers, which are not snails. Polish is not Greek which is not Russian. The truth is the differences and are what bind the universe together through this pursuing of the different passions and attractions that Swimme talks about.

H: Yeah, it's sure easy to lose sight of that. Miriam MacGillis says, "We say "I". . . , then "I am". And pretty soon we say "I am

truth". You are different, you obviously can not be the truth. But the truth is Canadian bricklayers who are not Asian computer programmers who are not African poets."

E: So this whole life we are in, we are all in together. This is community. We are all a single organism and it must work that way to really work at all. One of your Buddhist monks Thich Nhat Hanh expressed it by saying, "I am, therefore you are. You are, therefore I am. We inter-are."

H: We have to wake up and come home, don't we? merciless says, "If the Earth is sick, if the air and the water are sick, we will be sick because the Earth is our very body and lungs and we don't have any nourishment or learning except that it comes from you. We have got to become members of the community of home."

E: This is it . . . she has a way with words! We are all creating and dancing together.

H: This reminds me a little of what James Lovelock talks about. He was the first scientist who saw that you were a living, creating, self-organizing organism, and not merely a piece of dead rock on which we all live. He was the one who gave you the name, Gaia, from the Greek word for living earth.

E: I've always liked that guy, English right?

H: Yup. He is convinced that *the evolution of living organisms and their environment, meaning the air, the water and the rock, is a single process*. That this is a planet where life does not just adapt to the Earth it finds itself upon, but also adapts the Earth to keep it a welcome home. It really is pure co-evolution between the natural world and all of the living organisms. Evolution together.

E: You got that right.