

BigBrain Radio Show
7/22/06
Spaceship Earth

(music)

D: Hey good morning! It's Saturday morning. Welcome to the BigBrain Radio Show. I'm Dr. David Stussy, you can call me Dr. D.

Z: And I'm Dr. Zena Xanders, and you can call me Dr. Z.

D: And we are ...

B: The BigBrain Radio Show!

D: Well Dr. Z, we've certainly had an interesting time. We've had some BigBrains on that we've interviewed. We've talked about the brain at length. And we've had experts on the brain. We've talked about the heart. We did three sessions about the heart. We talked about love. We talked about dancing. We talked about the eye and how you create life at a glance in the eye. And now we have something even more important to talk about.

Z: I'm bored. Let's go galactic today.

D: Okay.

Z: (laughter)

D: Well have you ever thought about... what's it all about?

Z: (singing) What's it all about?

D: Okay, well do you ever think about that?

Z: Oh, every day.

D: Okay. Well I pulled a term... it's a very term... out called 'spaceship earth'.

Z: It's ancient? Now you're going to date yourself if you say it's an ancient term. (laughter)

D: I can look in old books.

Z: (laughter)

D: I can look in old books and find things that are old...

Z: Is it like from the 1930s maybe?

D: Actually it goes back quite a ways. It's ... to 1879.

Z: Oh, it is kind of old.

D: Yes. There was a man named Henry George. He had a work called *Progress and Poverty*. And he said we are a well-provisioned ship... this in which we sail through space. That's pretty forward...

Z: Pretty profound for 1879 did you say?

D: Right. And he was telling us that we need to be responsible for what we're... on earth way back in 1879. And then of course, my favorite guy, Buckminster Fuller in 1963 came out with a book called "The Operating Manual for Spaceship Earth", which a lot of stuff we're going to talk about today comes from that book. And then in 1966 a guy the name of Kenneth Bolding... he had a really interesting book called "The Economics of the Coming Spaceship Earth". And I've never seen the book actually. But Spaceship Earth is not a new concept.

Z: Well I think in the way we're talking about it today too is that we are... the earth is... 8,000 miles in diameter. It's traveling at 60,000 miles per hour, plus it's spinning on its axis 1,000 miles per hour. So basically we're this orbiting spaceship moving through space.

D: Right.

Z: And we're all some kind of astronauts.

D: We are the astronauts...

Z: Human astronauts.

D: ... aboard it. And if you had a spaceship you would have a certain amount of supplies onboard. Right?

Z: Right.

D: Or you would have a way of growing your own food and keeping it creating and regenerating, right?

Z: Food, oxygen, fuel.

D: Fuel, and now we have a very interesting...

Z: Kind of like the brain by the way. Haven't you used that analogy?

D: I have used that.

Z: This is like the macrocosm example of microcosm of the physical brain.

D: So the problem now is take a serious subject and make it interesting.

Z: (laughter)

D: So that's up to you to do.

Z: Well why don't you say why this is so interesting to you. Because this is part of your personal journey.

D: It is.

Z: This spaceship earth and Buckminster Fuller.

D: Well we call this the BigBrain Radio Show... and the reason... the BigBrain stands for the mind. And survival of the spaceship earth has to do with the human mind. The brain collects information, special situations,

and it collects objective evaluations. But the mind takes that information and comes up with conclusions, which not necessarily would be obvious. And in order for us to survive on spaceship earth... and we've already survived as far as we have ... is because of human mind...

Z: And you may want to hear how Bucky said it. Would you like to hear?

D: I was just going to tell you how Bucky said it...

Z: May I tell you?

D: Okay.

Z: It's exactly what you said.

D: Yeah.

Z: The difference between the mind and the brain is that the brain deals only with memorized, subjective, special case experiences with objective experiments, while the mind extracts and employs the generalized principles and integrates and interrelates their expected employment. Brain deals exclusively with the physical, and mind exclusively with the metaphysical. What does that sound like?

D: The BigBrain philosophy. Surprise!

Z: Because the BigBrain philosophy is there's the physical brain...

D: Yeah. And the meta...

Z: And the BigBrain, which is the metaphysical.

D: And that's really where life is created. And so... actually he goes on to say that the real purpose for human beings in the universe is to be the connection between the physical and the metaphysical. For example, this light that we have here in the room is not something that was invented by man, it existed all the time. The ability to create and have it bring forth for us is our metaphysical mind... our ability to create and invent. And so our ability is to take what's already there in the universe... And one of the

things we're going to talk about today is what has been placed on spaceship earth for man to use and discover and to continue to create so that our future actually gets better and better instead of... sometimes people try and create it as bleak. I don't think that's the truth at all. I think it's a very wonderful future, as long as we understand that we have a limited resources, but we have an unlimited source of knowledge to take it forward.

Z: And said in another way... or how Bucky would say it...

D: You keep stealing...

Z: Man seems unique as the comprehensive comprehender and coordinator of local universal affairs.

D: I thought it was easier if I said it.

Z: I love these tongue twisters. Are you kidding? This is going to expand your BigBrain.

D: Listen...

Z: He said that human beings have the potential to be comprehensively anticipatory designers and planners.

D: That is actually one of the gists of what we are talking about... is anticipatory design. Preemption is the word I like to use. I'm sure you've heard me say it about...

Z: So you're throwing out some big terms here today. So you might want to define some.

D: It's called comprehensive anticipatory design.

Z: So what does that mean?

D: It's actually called general comprehensive anticipatory design...

Z: Well one of the biggest distinctions here that Bucky argues is that as we become specialists, we are causing our own extinction.

D: Yes.

Z: That actually for human beings to evolve and expand, we need to be generalists.

D: Right. And we'll have tell you several examples where that has happened and where it continues to happen, and then what difference it makes for mankind. Okay?

Z: So to be a generalist is to be able to comprehend and integrate... like the thalamus... we need to be the thalamus of the brain.

D: Well, Bucky had another term for the person ... he called the Leonardos.

Z: Right.

D: He thought we were all Leonardos. Leonardo... obviously everybody knows Leonardo De Vinci... especially now with that movie being out... but Leonard De Vinci was a multi-faceted individual. He knew physics, mathematics... he knew astronomy... he knew culture... he knew religion... and he integrated those in the metaphysical mind and that's what he brought forth as is heart, his creations and his inventions. He says we're all Leonardos... Buckminster Fuller says that. And that's how we need to look at our time. And what always say is we all are what? BigBrains.

Z: That's right.

D: So we're actually kind of taking and reinforcing the BigBrain philosophy today but by using the metaphor of the spaceship earth to kind of look at where we're at.

Z: You know I'd be curious to know what Bucky would think of people like Bill Gates today... because in 1970 when he wrote that book "Spaceship Earth" ... at least that's when it was published...

D: Mm hmm.

Z: He said many persons wonder why we do not have such men like Leonardo DaVinci today. It is a mistake to think we cannot. What happened to the time of Leonardo and Galileo was that mathematics was so improved by the advent of the zero, that not only was much more scientific ship building made possible, but also much more reliable navigation, etc. So basically I think what he's saying is you know why don't we have any more BigBrains. I think we are starting to see BigBrains emerge again... Comprehensive thinkers like Bill Gates. I mean the internet and Microsoft is a huge anticipatory design.

D: You have to go back even further... because what as he said was our ... what wealth is is actually knowledge. We are ever-building knowledge, is what wealth is. Our ability... we never get less knowledge. We always get more. Even when we do something wrong, we learn something. And he said that knowledge is what wealth will be considered in the future. It will be know-how... metaphysical know-how and energy. And so the energy obviously is created by a corporation like Microsoft. But the know-how... and one of the things you know these big corporations do is they have free-thinkers. They have like... they spend like 40% of their income on letting people just like free-think. And so they are actually creating that environment...

Z: Comprehensive thinking.

D: Yeah. I don't think we people realize it... and where it's coming from because we're getting more and more for less and less... and when we... in terms of technology. Even today we are spending... we have less pollution than we did a few years ago on a percentage basis, even though it still looks like a problem. We are using less energy per capita than we did. You know we're getting more and more efficient. We still have problems – I'm not saying we don't. But we're actually doing much, much better because of groups like Microsoft and other groups that are taking on kind of the free-thinking... building a future for us... by using our intellectual capacities because these things always have existed they're just bringing them forth. They didn't invent them.

Z; Well and we talked about this in other shows. You know when society really started to evolve again is when we went from being an industrial age to an information age.

D: Right.

Z: And that was the age of the computers and the internet. So now knowledge and information is power. And those are those BigBrain thinkers you've talking about.

D: I hope we're not sounding too heavy out there, but you understand that 99%... 99.9% of what takes place in our environment and makes our life run, we're unaware of. We don't see, we don't feel, we don't see the radio waves, we don't see the microphones. We don't see the phone calls. We don't see the internet. We're not visually aware of those things. We just see the end result and we use them like we've used anything in the past, which is a physical process. But 99.9% of what makes our planet successful is invisible through the human eye.

Z: Hmm.

D: And what we see in terms of light that comes toward us... I talked about that also.

Z: So what is your point in the show today? What is it that you'd really like listeners to walk away with? Because these are kind of big concepts. Like why is this important now?

D: Well Spaceship Earth...we're just using that. We have a unique environment that we're put on and that the humans' role is to make us survive on the planet earth. We have been given an extra supply of everything. We've overused... like we've been given... Remember, the sun is the source of our energy. We're given a radiant source of the sun, and the moon creates gravity. Okay? So those two things kind of drive us as we go hurling through space. And even the food we eat is a result of the sun. It's just the way we trans...

Z: Photosynthesis.

D: ... we can't eat sun so we have to have plants and animals. Okay?

Z: Right.

D: So we are here, but we're given an extra spot. Even the petroleum that was deposited for us is a process of the sun. And death. And then the decaying process and regeneration... so even the petroleum was put there for us to use. And there's only a limited supply, but we have an unlimited supply of energy. You liked that one quote about the hurricane.

Z: Oh, right. Well one of Bucky's points is that if we use up the fossil fuel faster than it's been deposited, we'll be in trouble. But he also said that if we could harness the energy in a hurricane or a tsunami, it would be equivalent to the energy... at least in 1970... of the USA and then the USSR... nuclear power... all the nuclear power... if we could learn to harness storms. That's a cool thought.

D: I think it's a very cool thought. Got spirit? There's spirit in matter and matter is what we use and spirit is what drives us. And it's Spaceship Earth that carries us through as we hurdle through space. How's that?

Z: Is this "Spirit in the Sky" by Elton John?

D: Yeah.

Z: He's cool.

D: He's very cool.

Z: I think he'd agree with this "Spaceship Earth" premise.

D: Oh, you know he would! He is a spaceship! (laughter)

Z: He's kind of a spacey guy.

D: Okay.

Z: All right. You're listening to the BigBrain Radio Show. We're glad to have you with us this morning. We'll be right back. This is AM950 Air America Minnesota.

(music)

(music)

D: Hey, welcome back to the BigBrain Radio Show... with a blast...

Z: Wow.

D: Okay, well, you know we always try to have music that's appropriate. We've got a nice little... cute little song ... let's listen to that.

Z: This is Simple Plan.

(music)

D: Okay.

Z: This is our Spaceship Earth show... and our alien girlfriends and boyfriends.

D: Listen... there may be aliens living among us. We don't know.

Z: I sometimes wonder about you Dr. D.

D: I haven't told.

Z: Every once in a while I see these little antenna go up... deet...deet....deet...deet...

D: I can take that as a compliment okay?

Z: You're just being your Clark Kent self here today. But I know what happens when there's something in intergalactic space that needs attention.

D: Okay. So ... where do you want to pick up on our talk...

Z: Super Dr. D.

D: Yeah.

Z: Well you wanted to just recap your point about extinction and specialization ... and those articles.

D: Well in order for us to be most successful, we have to be generalists. We have to have a big view of everything that's going... because we don't know where the answers come from. And when people get specialized, they become less and less effective and at some point they become extinct. And I think there are plenty of engineers out there that can tell you that... and other people that have kind of moved in that direction. Now specialists come from the tendency of certain people who are in power, which Bucky called the 'great pirates' to take those people who were really smart and make them specialized in areas. And the generalists were the people that ran everything. And that kind of disappeared after the World War II... and... you know where more information became available to everybody. But it still has a tendency... and there was this paper... at the annual... for the Advancement of Science. One was on anthropology and one was on biology. Totally separate papers. And they came to the same conclusion... Extinction in both cases was the consequence of overspecialization. So all the species that... 99.9 of the species that have ever existed on the planet earth, are gone. They know that for a fact because they did not have a function for planet earth anymore. What you'll find is if you look at anything, it has a function in being here. One of the most interesting things is every botanical plant that exists today that they've ever discovered has a receptor in our brains. Is that an accident? No, it's there as a purpose to be used as a medicine or some sort of stimulant or however they use these things. Because... but they've never found a plant that did not have a receptor in our brain. Is that an accident? I don't think so.

Z: You know Bucky talks too about how you create a specialist is you inbreed things.

D: (laughter)

Z: You keep taking the gene that you want and breeding it. Right? But in doing that, you breed out or sacrifice general adaptability. So those things that can't adapt, die... become extinct.

D: Right. So that would put a big argument towards what you're seeing today in the United States where you see an influx of people moving to the United States and there's being an integration of cultures. And I think

that's very powerful. You know back when our parents and grandparents came it was Norwegians and the Scandinavians... and they still have the arguments ... and the Germans... but they've integrated.

Z: I think that's a good point. I think one of the reasons why the United States is so powerful is it's ability to adapt because of the mixture of ideas that's always coming in.

D: People can come here... this is a democracy. This allows the people to actually take and use their metaphysical mind to get ahead. Okay? They... in the past it was their physical strength ... like they'd come over and just be worker bees sort of. And there is some of that. I'll agree with that. But then there is the other ... for... the next... usually the first generation are worker bees. And the next generation it's their minds. Because the worker bees are there to get their kids to get to college so they can continue to build a better life.

Z: That's right.

D: And so we are the ... we are the resource and we are the planet earth. So specialization leads to that group... it probably has happened even to our culture. If you look at our culture... you know... let's call it the WASP culture... you know we've gotten more and more specialized and we've lost the stability underneath. We have to have more generalists underneath us to support us. And I don't think that's where we should go.

Z: Okay.

D: So now you're going to tell me something.

Z: (laughter). Well I think we kind of brought home this point about specialization. I wanted to make sure that we set the foundation for the general principles... like why this was important. Because we want to get back to the idea of the earth being a spaceship and taking care of the resources on it.

D: Got it.

Z: Okay. So... there are three abiding principles that Bucky talks about it... and it's called the General Systems Theory, which I know is your... you've based your career...

D: It's my whole program.

Z: ... on the General Systems Theory. So would you like to introduce that to us?

D: Well I think I'm going to let you read it because you said you wanted to read that.

Z: Okay. All right. Very good. Well number one of the theory is that the abundance of immediately consumable, obviously desirable, or utterly essential resources have been sufficient until now to allow us to carry on despite our ignorance. So there is this idea that we've had a lot of resources but we've kind of been ignorant on how to use them.

D: So in General Systems, what that is called is an inventory. You take an inventory of what you have, and you make the inventory big enough. What he's considered is the whole universe as we know it.

Z: And the number two principle is that being eventually exhaustible and spoilable, they... these resources... have been adequate only up to this critical moment.

D: That's correct.

Z: So... so and then number three, he says this cushion for error or humanity's survival and growth up to now, was apparently provided just as a bird inside an egg is provided with liquid nutriment to develop it to a certain point. But then, by design, the nutriment is exhausted at just the time when the chick is large enough to be able to locomote on its own legs.

D: And what does it do? Tell them that little story.

Z: Well yeah... so the whole... I never really realized this... my mom grew upon a farm, but I just look at chicks for Easter or something. There's enough food in that egg for that chick to grow to a certain size. It eats up the liquid. But when it's gone, it starts looking for other nutrition

and starts pecking at the shell for nutrition and hence cracks the egg, which opens the box and allows the chick out to survive.

D: At just the right time...

Z: By design.

D: Yes... by design. That's...

Z: At just the right time or he would die.

D: And I think ... if we are generous and look at the universe in a big enough scope, and our spaceship earth in a big enough scope, we'll see that the things that are happening around us that people are building up as catastrophes and crises are only part of the problem that are going to bring us to the next level.

Z: It's like humanity is pecking on the shell...

D: Right.

Z: Of the egg of the spaceship earth to have the next breakthrough.

D: And we will survive because we have the ability to do that. We're just kind of talking about the story that engulfs that. Okay?

Z: You know, human beings are the most helpless for the longest time of any animal or species.

D: I think we've talked about that.

Z: And it's just interesting... that's not by mistake.

D: No.

Z: Like there's something inherent in the creator and the design... have it be this way.

D: The reason we're that way is that allows our brain to develop as big as it is. It has to be born almost inert.

Z: That's right.

D: And what drives it is really cool ... because walking and using the legs... when they get upright... and the eyes... create... generate, actually fire the brain and get the neurons firing. It's just sitting there. It's got nothing really going on. I hate to say that about your little babies...

Z: This is a cosmic thought... a metaphysical thought. It's kind of like for a human being, all these years are required to develop it because it takes that long to grow the brain.

D: Right.

Z: And to evolve the brain to high enough levels of thinking to handle the universe in which it lives.

D: Right. And today, it's even a bigger consciousness because we have... we did a show called the internet which we thought was the beginning of cosmic evolution. All right? Or conscious evolution... excuse me. So we have even more to develop. It used to be because we were physically orientated... when you got to 1920 that was your best and then you kind of went physically down. But now I feel... and I think by being Leonardos and we continue to take all the experiences that we have in life... we are actually going to continue to grow mentally and physically and be more beneficial to the planet as we get older. Of course I would be in favor of that. (laughter)

Z: That's all true. I just had kind of an "aha" moment... because I've never that book... I think it's called "The Cosmic Egg", but I just had this vision of humanity. You know they say we're going to destroy our planet. It's almost like humanity is pecking at the cosmic egg and we're going to break through. Maybe we won't be able to live on earth anymore, but that's causing humanity to go out intergalactically for the next step... where we're going to live... on space stations.

D: We could destroy the planet, if there was a big enough catastrophe. But even these stories about ice melting and that, that's not going to happen in seconds. That's going to be over a long period of time.

We would be able to adjust. And we'll come up with an answer... you can bet.

Z: You know I think I'll just have a martini. That song just came on and that's like a steakhouse... (laughter) So anyway...

D: You retro...

Z: That music just... I went to the cosmic egg bar in the sky there.

D: You went retro.

Z: Okay good. So who's this we're listening too?

D: You would ask me.

Z: Frank Sinatra!

D: That's it, Frank.

Z: How can you not listen to Frank and not want to dance? Well anyway, we're the BigBrain show... and we're going to come back... this cosmic...

D: AM 950...

Z: ... galactic...

D: BigBrain Radio Show.

(music – Fly Me to the Moon)

(music – Catch a Flying Star)

D: (laughter) Hey, welcome back to the BigBrain Radio Show.

Z: I've gotta hear a little bit more of that.

D: Oh yeah.

Z: Can I hear just a little more?

D: Okay. Let's go.

Z: Perry Como.

D: We'll do that.

Z: I don't remember this song...

(music)

Z: Yeah!

(music)

Z: Ooh.

(music)

D: (laughter)

Z: Oh, that's so cute. I don't think I've ever really...

D: Wouldn't that be cool? You sit there and you go "Hey baby, you want to see a pocket full of star light"?

Z: Starlight... yeah, that's a new line. You want to come up and see my sketches? (laughter)

D: (laughter) Sprinkle it on them and then...

Z: (laughter) Oh, Perry Como. That's an oldie. All right.

D: And the other show... the other song was Frank Sinatra, Fly Me to the Moon. All right?

Z: Yeah, I think we all kind of know that.

D: So we're trying to use galactical / spatial songs.

Z: Which sometimes...

D: We had to go back a day....

Z: ... make us want to drink. Okay, anyway... we were talking about this idea of the resources of the earth and cracking on the cosmic shell... and maybe we're going to blow our planet up... And one of the big issues about that is global warming. So did you have something you wanted to say about warming?

D: Well global warming... we really don't know because we don't have a big enough picture. And there's arguments on both sides. And there are certainly things that we need to be aware of. And as long as we are waking up and watching it, that's the big part. So you've got ex-Vice President Gore with his...

Z: Al Gore, yeah.

D: ...Al Gore with his movie and he's raising consciousness. People are thinking about it. And then there's the other people that are saying well this is the way it is. And there is some truth in what they say because it all ends up kind of balancing out in the end. But you can't let one side or the other kind of run things.

Z: Well and it pushes our thinking.

D: Right.

Z: So without both sides... I mean that's the great thing about a democracy.

D: Well, with opinions, it's time what makes the difference. Because new generations hear it and then they take it and do something with it. Okay?

Z: But someone has to start the idea.

D: That's right. So we start it... we start moving it... people start having opinions. There's going to be conversations... there's going to be

information... but at least we're watching it. And the truth is we don't know long enough because if you look at anthropology, there's been... there's been... the ocean has been 100 ... 200 feet higher than it's been in the past. So we don't really know exactly if these are normal processes. I saw a thing where Antarctica is definitely shrinking... in one area... but another part of it has increased in mass by a tremendous amount. So...

Z: Well and just...

D: You don't always hear that stuff.

Z: ... think of the ice age and then the loss of the dinosaurs. That extinction allowed for us. So you never know.

D: So the changes are there for us. Remember... here's another thing I think we do not think of. The earth is a living system.

Z: It's organic.

D: It's very living. It creates itself... it's re... When you have anything that creates and destroys, creates and destroys, just like our bodies do, you have a living entity. It's living in a different way, but it ... inside the earth there is so much stuff happening. I just read there are... 15% of the methane gas that's in the... that's causing the heat in the universe... I mean in our environment, is coming from volcanoes, which are sub... below the ocean.

Z: Huh.

D: And it comes up... they don't even know if there is a thousand or if there is 10,000 of these volcanoes in the ocean because the earth has to have a way of letting the heat go. Okay?

Z: That's right.

D: So there's...

Z: We can't give up on the earth's ability to regenerate and grow itself.

D: Well listen. The earth has been doing this much, much...

Z: Without us.

D: ...longer than we've been around so we are the...

Z: I guess we're just wondering will still be able to be here.

D: We're here to apply the metaphysical principles that the earth has. By having a gravity field... by having the different stratospheres... by having sun come in... by having the cosmic waves come in... we have an environment... We don't even know the information we're getting over radio waves.

Z: By being 75% water.

D: Yeah. By being 75% water, which most people don't even think about.

Z: Yeah, all these dynamics. Right.

D: We have a system that we haven't even just begun to evaluate. Now you know that old thing where you can't... judge... judge something at the level of the paradox? You have to go above it?

Z: Mm hmm.

D: So one of the things you'll notice that every man... every astronaut who has gone out in space has come back with a new way of looking at the world. They've changed. And so... as we get the ability to actually start seeing the earth as a sphere, with limited... you know seeing it in terms of not just driving over to St. Paul or something like that...

Z: Mm hmm... mm hmm.

D: ... it's going to change how we view the world. I mean flying has done that. But I think as we go out further and farther, our ability to have a larger amount of the population do that is going to change how we even view earth totally.

Z: Well Bucky talks about too you know... the paradigm was the world was flat because people couldn't go across the water. Once people started going across the water, they had this concept that the world was round. Now, we can have a concept... if we take this Virgin Record's guy's spaceships up for rides...

D: Right... in Utah... in Utah... he's already starting to build that.

Z: In Utah... if we start circling the globe... or the earth... then we're going to have a new perspective too.

D: It will change. We can't help but change. You know when people ... when they started traveling over the oceans to other parts of the world what they found out was things... where they came from people didn't know about...

Z: That's right.

D: ... They took that information back. They used it for economic and personal... whatever they did... and then they connected the two, which is what cultures do. And that is the same thing we're talking about here, but at much greater scale.

Z: So we're getting ready to do that now.

D: I think we are.

Z: In our generation.

D: We actually are doing it I think.

Z: In the 21st Century.

D: And we're integrating the information that we have had in the past and information that we'll get in the future. And that's called synergy.

Z: Yeah, what is this synergy idea?

D: Well, if you ask most people what synergy is, they probably wouldn't be able to answer it. If you asked a bunch of physicist or chemists,

they'd be able to tell you. Synergy is when the... the result you get does not... if you had a certain number of little items you put them together...

Z: Mmm.

D: ... the result you get is far greater than you would expect. And like...

Z: The sum is greater than the parts.

D: Chrome nickel steel is an example of that. It is approximately 35,000... 350,000 pounds per square inch... is a hundred times greater than you would expect if you took the individual parts.

Z: So that's synergist effect.

D: Yeah, that's synergy.

Z: And how's that relative to spaceship earth, or this conversation?

D: Well because everything we do is because we take certain information and put it together and create a result that you would not think. The first example would be when many discovered levers, pulleys, things like that. They started created advantages they didn't realize existed. And they just kept... Remember that show that was on Channel 2 for a while? Where that guy would talk about the different... how we discovered things out of different... It was a really good program...

Z: (laughter) Sorry I didn't watch that.

D: It was on Channel 2 so I can't expect everybody saw it, but it was really good because he would say how one invention led to the next invention. And it sometimes didn't come from where you thought it because people got... you know some may be working on a project here and then they'd hear about this guy over here did this and then they'd put it with that... and then they would create it. This happens all the time.

Z: A good example of that is penicillin... how we discovered penicillin... it was mold. We weren't expecting to create this medicine.

D: Or, what's that stuff that sticks... Teflon... or no...

Z: Teflon?

D: No... what's the stuff that sticks?

Z: Velcro?

D: Velcro!

Z: Oh.

D: That was from the little... the burrs sticking on a guys legs as he walked down the field.

Z: See... that's anticipatory ... comprehensive anticipatory design.

D: A little more comprehensive anticipatory design is looking to see what would be necessary in that space. Like if we were going to have a certain population or certain needs... looking to see what would be necessary so that we're thinking about what it is that we'd have to create in order for us to be successful.

Z: So say ... what would be an example of that?

D: Well, looking... if you were going to have a business and you know today in order to have a business you have to have a certain amount of communications and you can see the old way of paperwork isn't going to work, that you'd need computers and you'd need software. And you'd anticipate and then you'd be looking what the newest design was. And you may even be thinking 'boy I wish they had this' and all of a sudden "this" shows up. So you're ready to buy it... you're ready to use it, because you've already been thinking about how it will fit in. You're doing two things there. You're making the guy who invented it successful... because somebody will use his project... product. And you're making yourself successful because you got what you need. That's anticipatory design.

Z: Okay.

D: And it's much more... I would suppose with... you know the computer companies and stuff it's much more sophisticated than that... but like that.

Z: Okay.

D: And what did they say? The little chips... every...

Z: Microchips?

D: What's that law?

Z: They get smaller and smaller?

D: No... yeah... they get more and more efficient every so many years... it just continues to double. I can't remember the guy's name...but it's a law that continues to work in the computer industry. It hasn't changed. Now they're going to next where the chips are going to be on little molecules and atoms. That's going to be driving our computers.

Z: Cool.

D: On an atom.

Z: What about this idea...

D: ... All of the information we have on the earth could be on one little molecule.

Z: Okay, so you're always into finances... and wealth... and abundance. So how does this wealth principle fit into synergy?

D: Well Buckminster Fuller felt that a lot of times the concept of money... Remember where money came from? It used to be cows and then it was...

Z: Well let's clarify... money didn't really come from cows. From trading cows?

D: Trading cows.

Z: Yeah.

D: Money was cows.

Z: (laughter) Money used to grow on trees? Right?

D: Then it was coins and dollars.

Z: My mom used to tell me that.

D: Now money is electronic. It's just light. Okay?

Z: Okay.

D: And that real... and that real wealth is actually knowledge and know-how. So he came to the conclusion... I won't go over the whole process... but that wealth is energy... because energy can never be created or destroyed. We know that for a fact. So it will always be there. And the other is metaphysical know-how, because you never learn unless you always learn more. So those that have energy and metaphysical know-how are the ones that are going to be the wealthy people and make a difference in the world.

Z: Bucky says wealth is anti-entropy at a most exquisite degree of concentration. What does that mean?

D: Well, entropy means everything winds down. There is one theory that the earth is going to wind down and just kind of burn out. I don't think so. You know... even the Big Bang theory is completely flawed... it's not... you can't have just a universe that's going to wind down. At the same time it's winding down, it's expanding out. And there's a number of findings now, within the... what do you call it? The astrology... the astronomy community... that there are things that make the Big Bang theory not work. Okay? Which would mean that it banged and it's just going to work it's way down. Entropy means things just get less and...

Z: Decay and destroy.

D: You have decay and destroy and you have building up. And it's always going on, all the time.

Z: Bucky says wealth energy cannot decrease and that the metaphysical know-how can only increase. This is to say that every time we use our wealth, it increases. That is to say countering entropy, wealth can only increase.

D: Can only increase... right. And it can only do good because it has to be tied into... tying all these different ... this information together. So it's metaphysical know-how. All right?

Z: Great.

D: So how does this relate to people who are listening here?

Z: Yeah, how does this relate? That's kind of heavy, thick.

D: Yeah, so what can you come up with me on that?

Z: Well, I'm leaving that synergy to you. You're the synergistic guy.

D: Well, here's a group of people... they're called Geothermal Experts. And they're a company. And of course they start out their article talking about Buckminster Fuller. And they said his book was intent to write... to show there was untold wealth and energy all around us... because the universe itself was a perpetual motion machine. The only perpetual motion machine is the universe itself. Life in our little corner of the universe aboard Spaceship Earth was the same as everywhere else, continuing renewing itself... from dawn until darkness, with each tide... the Spaceship Earth has nurtured us back to life. Okay? And so then they go on to say that Bucky talked about geothermal solar and wind as future energy. Well this is a company that has geothermal products. And a friend of mine, Clint, had this back 20 years ago. You just bury things in the ground. It takes the heat up and then distributes it to your house and in the winter... in the summer it takes the heat out of your house and redistributes it to the ground.

Z: Hmm.

D: And this is actually being used a lot. It says here that they have... in the past three years over 300 tons of equipment... and over 150 infrastructures have been built by them. They said computers love air conditioning so they've got to have this geothermal cooling in order to efficiently use it. So geothermal... I've run into like three people lately that are using geothermal heating and cooling for their house. And once you put it in, it's all yours. It doesn't belong to the utility company. I also have a friend... you know that I did a company called "Human Endeavors"... back a number of years ago when they built geodesic domes in Texas...

Z: (laughter)

D: But he went on to master what's called "gray water". All the water in our house can be redistributed except for that that's used to the bathroom... number 2... okay?

Z: (laughter)

D: Or sewage... all right? So that's separated. You can live with ten gallons of water in your house, forever.

Z: Recycling it.

D: Recycling it. Yeah. Just to take the evaporation. The rest of the sewage then is compressed and used over and then is burned as fuel.

Z: Hmm.

D: He has it out in his house on... We should have Clint on sometime. He has it on... at his house on... what's that little...

Z: You don't have to say where his house is. But that's okay.
(laughter)

D: Okay.

Z: We'll save him.

D: Out by the St. Croix, okay?

Z: Well you know you're talking about the geodesic dome...

D: It's all computerized is what I'm saying. This is all just handled for you. Okay? Isn't that cool?

Z: And that idea of the geodesic dome... you reminded me... that's Bucky's triangle... tetrahedron theory.

D: Well the reason it's geodesic dome is because he uses the least amount of material to enclose the greatest amount of space and it's indestructible. You could have...

Z: Most efficient, right?

D: ... You could have all the weight on top of it. You can make a whole dome and then hook it to a helicopter and fly it to wherever you want.

Z: Yes.

D: We had a...

Z: The Epcot Center is my point that I was trying to make... is the geodesic dome, tetrahedron design.

D: Right. So even today I think the building people have kind of gotten away from that because they started to get better with structure and then they got ...

Z: You know they say it never got popularized... this geodesic dome.

D: Well, actually it is. They're using ... all the supports that you see that have those angles... you see all those angles in them? That's all Bucky's stuff.

Z: So in the infrastructure.

D: In the infrastructure they are using it. Because you can make stronger materials with less... stronger structure with less material.

Z: Okay.

D: And ... I think I told you we had this dome in Texas. We put a basement in because the buy wanted a basement. And in Texas there's this clay soil... and so the water hits the clay soil and it rushes off... flash floods... you've probably heard about them. Well it washed this basement away... but we... the dome sits on five points and that's it. The dome just sat there and it didn't move an inch. Now you take any house that washed the whole... three-quarters of the basement out, it would have been gone.

Z: That would have been a lot of gray water.

D: Yeah... (laughter)

Z: (laughter) It's good. See, I'm listening.

D: (laughter)

Z: Okay listen. There's something I wanted to say... because we're coming up to the end of our time together. This is this principle Bucky talks about... where... this was a prediction Bucky made. And I don't believe that it's come true, but I think it's a great idea... and you have to have BigBrain forward thinkers.

D: Right.

Z: Because he definitely was a Leonardo thinker.

D: Well he just may have been off on the time.

Z: Yeah... well... so I'd like to tell you what he said. In the book... "Manual for Spaceship Earth"... "Operation Manual for Spaceship Earth"...

D: Mm hmm.

Z: He said we can scientifically assume that by the 21st century either humanity will not be living aboard spaceship earth, or if approximately our present numbers as yet remain aboard, that humanity then will have recognized and organized itself to realize effectively the fact that

humanity can afford to do anything it needs and wishes to do, and that it cannot afford anything else. So he had said that humans will be free in the sense that 99% of their waking hours will be freely investable at their own discretion. They will be free in the sense that they will not struggle for survival on a you or me basis and will therefore be able to trust one another and be free to cooperate in spontaneous and logical ways. Well then we see the newspaper and it's almost like World War III breaking out in the Middle East. So we're in the 21st Century and I'll have to say Bucky's prediction may have been off, but it's an interesting idea.

D: I think it'll still happen. I think it'll still happen... and things happen so rapidly, and we see changes that are unpredictable. You know the common example is the Berlin Wall going because there was no reason for it to happen. Even... we don't even know what's going to happen as a result of this war. Something might shift completely because of this war because it centralizes people's thinking and brings them to action. So every war has a...every war is a destruction... everything as a result of the war is a creation. There has never been a time after wars where there hasn't been an immense amount of creation and change. For one thing, it does away with the status quo. It kind of creates the space for change.

Z: The Discovery Shuttle just landed successfully this morning and one of the astronauts had said... "We just flew over the Middle East and I have to tell you from up here, it looks peaceful and quiet... just like the rest of the planet. I think we are all mindful while we're flying around and around on this one little earth, that this is all we have. This is humanity's home. And hopefully one day we'll get along."

(music)

D: I hope everybody recognizes this.

Z: Get those drums.

(music)

D: So as we listen to Spaceship Odyssey 2001, we are going to have our final thing... we'll talk about stuff that works. I think it's interesting they didn't even notice it. Because maybe the war is really not as big as the media makes it out to be... and how it's interfering... because a

lot of life is continuing to exist in that area. Do you understand what I mean? It may not be as big effect as we think it is.

Z: Well, we'll see.

D: Yeah, I know.

Z: This is the City of Prague's Philharmonic 2001 Space Odyssey. This is the BigBrain Radio Show. AM950 Air America Minnesota. We'll be right back.

(music)

(music)

D: Hey, welcome back to the BigBrain Radio Show. And we are hooked until we die. At least until we can think of some other way of doing it, huh?

Z: You gotta love Joe Cocker!

D: That always brings up my... my....

Z: Yes? You better finish that sentence. It brings up your...

D: Woodstock.

Z: Oh, your hippie days.

D: Yeah.

Z: Yeah.

D: Because he was big at Woodstock. He had a lot of energy. He kind of got everybody all worked up. (laughter)

Z: Let's just be straight for the record too... you did no drugs at Woodstock.

D: Actually I didn't.

Z: (laughter) You were on drugs for a broken leg.

D: I just looked around and ...

Z: Weren't you on legal drugs? (laughter)

D: I looked around and said it's not a good idea here.

Z: This is not a good idea. All right. Well let's wrap up this intergalactic show... this Spaceship Earth. What is your final distinction, doctor?

D: Well first of all, the Spaceship Earth is 8,000 miles in diameter. Our nearest sun is 92 million miles away. Light takes approximately four and one-third years to reach us from the next nearest energy supply ship. So the sun is our supply ship. But the other ones give us light and information, which remember we talked about we don't know what that information is. We're going to find out. In fact, we're going to talk about it at the end because we think it's part of our manual. Right?

Z: Mm hmm.

D: And the speed that we are moving at... 25,000... what is it?

Z: 60,000 miles per hour.

D: Yep. Plus another thousand for spinning.

Z: For spinning.

D: So we're moving through space and then you've got to remember that we're going around planets and those planets are going around us, and then we're going around the sun... and that sun is going around... you know...

Z: Isn't that amazing that we can't really perceive that?

D: Not at all.

Z: The only thing we have similar is to getting really drunk.

D: (laughter)

Z: Or... (laughter)... or when you're a kid... spinning around in a circle... remember... passing out.

D: Maybe that's why you liked it when you were a kid. I'm back in space again.

Z: Yeah, feels galactic. We recognize that orbit.

D: So we should try to bring some summary to this. And one of the things is we said this was from... a lot of this information was from a book called "Operating Manual for Spaceship Earth"...

Z: Which is on our website by the way... a summary of the book.

D: Good.

Z: If you go to the www.bigbrainradioshow.com and then you'll see a little synopsis of today's show and you'll see a pdf of a summarized version of this that you can download. It's amazing.

D: Isn't that cool. We're getting there. We're getting there.

Z: Yeah, so check out that pdf at our website.

D: And you know... this... we're actually videoing this show today. We may have that on the website. So wave to the camera. There we go.

Z: Actually see who we are.

D: Yeah. But the thing is...there is no manual for spaceship earth. In fact, there's no manual for life at all. But they are passed on by cultures... you know culture would pass on certain information for survival... smaller groups at first and then larger and larger groups. And those are called generalized principals because they always work... they never not work. If they don't work they're called specialized. And

specialized remember we told you brings you to extinction, whereas creating more and more generalized principles that we learn more and more about... You know most of the information we used today we didn't have ten years ago, but they're all principles that definitely work.

Z: Okay, I can hardly listen to that. But anyway, I think what you're saying is...

D: You know what I'm talking about.

Z: I think what you're saying is there's no physical manual to operating spaceship earth, but what we've discovered are there are principles... universal and generalized principles that if we are able to develop our brain high enough to start to perceive some of this, we do have a manual.

D: Here's what it is.

Z: It's a metaphysical manual.

D: That's right. The metaphysical process is the BigBrain Radio Show. It's about the metaphysical brain...

Z: Wait a minute! You're saying the BigBrain Radio Show is the operating ...

D: No it's a ...

Z: ...for the universe?

D: No, it's a metaphor for finding the manual. Okay?

Z: Oh, the metaphysical manual.

D: Yes.

Z: But you need a physical brain to perceive it because we're in a humanoid form.

D: We need it. We need to be ...

Z: Until we're all spirits.

D: ...we need to be informed to perceive ourselves, okay?

Z: When we're all spirits we'll probably be able to read that.

D: That's another show. Okay.

Z: Metaphysical manual.

D: We're going... on here. So I think what we're trying to say is that we're really empowered by what's happening. And we want people to have not just a ... like a positive view because you need to have a negative view also... you know to see what things don't look right... and look at things that look right...

Z: Matter and anti-matter.

D: Yeah...

Z: To see something distinct you have to see the opposite.

D: As we talked many times on the BigBrain Radio Show, it is both sides. It's not one side or the other. Our tendency to look... to only see one side is what limits us to the other side. And they're always both there. So when there's a war, there's a creation. When there is... these catastrophes...

Z: A birth there's a death.

D: There's a birth, there's a death. We've talked about...

Z: The black there's a white. There's an up there's a down.

D: What was it about the ... um...

(music)

Z: Yes? You got choked up when you heard this John Denver song, didn't you?

D: (laughter)

Z: Oh man. This is one of Dr. D's dearest friends... in passing... this is John Denver. One of his favorite songs of mine... this is...

D: Well this is about... this would be about creating space... and having your life work and finding the solutions... and sometimes...

Z: It's called...

D: ... and sometimes you're not so high.

Z: Do you have any idea what was happening for John when he wrote this song? Are you familiar?

D: Oh, he was... you know he hadn't quite had a big hit and then what came after that was Rocky Mountain High.

Z: Okay.

D: Which has another thing in it. So the thing is, when we're down...

Z: Let's hear this chorus here.

D: ...enjoy being down. It's not so bad.

Z: This is the chorus.

(music: ... and to find out who I am. And I'm looking to know and understand...It's a sweet, sweet, thing. Sometimes I'm almost there...)

D: Sometimes I'm almost there.

Z: (laughter)

D: And I can't say that anybody doesn't experience life that way. And we continue to thrive after this concept that there's just happiness. There isn't. It's always a dream. We've got things that are going our way and things that aren't that are going to make it go our way.

Z: I think too the thing is to honor and appreciate what we do have here as spaceship earth.

D: We do. We have a wonderful environment. We have knowledge and information that God has given us that we have not yet found out about.

Z: Just because we can't comprehend everything, doesn't mean it's not there.

D: yeah, and the BigBrain Radio Show is just showing that there are things that actually prove. You know spirit and matter they prove that... when energy is matter... and when it turns into pure energy, it's spirit. Okay? There's no difference. But you can never create energy or destroy it.

Z: Let's hear this chorus one more time.

D: Okay.

Z: With John Denver.

(music: And I look into space... and to find out who I am. And I'm looking to know and understand... It's a sweet, sweet dream...)

Z: All right. Well thanks for joining us again. It's been just an honor here being with you on the BigBrain Radio Show.

D: And thank you for listening to us talk about Spaceship Earth. But the BigBrain... everybody has a BigBrain in your life. You are all BigBrains. Make sure you share it with everybody. Your metaphysical know-how and your physical energy.

Z: Have a great day. This is AM950 Air America Minnesota.

(music)