

Paleo Solution - 281

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Howdy folks. Robb Wolf here, another edition of the Paleo Solution podcast. I'm very excited today. Our guest today is able to bridge all the topics that I really hold near and dear; nutrition, medicine, sustainability. Dr. Charles Sydnor, owner of Braeburn Farms. He's been a rancher for almost 60 years. He's a neurologist and an ophthalmologist.

Doc, how are you doing?

Dr. Charles Sydnor: I'm doing great. How about you?

Robb Wolf: I'm really good, really good, like you're a little bit ahead of me in the day so it's still late morning for me, early afternoon I guess for you so.

Dr. Charles Sydnor: Yes.

Robb Wolf: Yeah. So doc before we started recording, you actually mentioned a little bit of your kind of I guess you were very, very early on the paleo scene. Can you give some folks a little bit of your background and how you came to look at this kind of ancestral diet model?

Dr. Charles Sydnor: Yes I can. It had to do with just stumbling really across some papers about Loren Cordain back in the mid 90's. It was about a very interesting discovery because some of his early papers compared say elk and venison and feed like beef and grass-fed beef and it was interesting because when I was younger and on the ranch in Montana back in the 60's, the beef that we ate was always right off the ranch and it dawned on me that for much of my life, I had eaten grass-fed beef. I didn't know that was any--I would not have known that it was any different.

Robb Wolf: It was just the cow that was out there.

Dr. Charles Sydnor: It was just the way we did things and we would slaughter a cow and put it in our cooler and then we would butchered up and have that for the next couple of months and then do another one and so on. That was really interesting because it started me on the idea of facts, what kind of facts I needed and then I think it was Mary Enig's book, I think she wrote a book on--I forget what the title of it was but the good fats, bad fats something like that.

Robb Wolf: Right.

Dr. Charles Sydnor: So I decided I would go back because I do have a bit of a background of biochemistry. I went back and started looking at that and that pushed me further down the road toward looking at a diet and then I had a real epiphany in 2001 and it's a very long story not worth telling but sufficed to say that because of some cattle sales and so on, the price of beef on 9/11 for feed for cattle dropped about 8 to 10 cents a pound and I had some 250,000 pounds to go out and I took a haircut.

Robb Wolf: Wow.

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Dr. Charles Sydnor: When that occurred just a whole lot of things that I had been working on there was Wendell Berry's *The Unsettling of America*. I had gone and taken a course on stock or cattle with Joel Salatin. I had been the *Stockman Grass Farmer* which is Allan Nation's publication and all of these things were beginning to just change my complete perception or diet and cattle and how they should be cared for and then you can add

into the that the issue of climate change which early on even in the 90's when the book on--there were a couple of early books, The End of Nature and so had been written about climate change and I began to look at that data and then--So it dawned on me that what we do on the farm is extremely important to health in many ways. So you have to broaden your definition of health and then you start looking at it very differently what effect does the total environment have all the health of the cow and what does that mean in terms of the product and how do you put that together with a healthy lifestyle and I came to the feeling that sometimes the iatrogenic effects from medicine were as great as the beneficial effects in some cases.

Robb Wolf: Right.

Dr. Charles Sydnor: It was just a journey really. It was a journey away from the old industrial model and I could just no longer accept that based on the data that I was looking at. So that was brought me into the grass-fed beef market and my first grass-fed beef cows, I had to change the type of cow I raised and had to develop systems to do this but my first grass-fed beef was in 2005 that I took 10 cows to the slaughter house, put them in a big freezer I'd put on the farm and I thought I would eat every one of them.

Robb Wolf: [Laughs].

Dr. Charles Sydnor: I could not find anybody. I couldn't find anybody that knew what I was talking about.

Robb Wolf: Right.

Dr. Charles Sydnor: We were ahead of the curve and I've been extremely gratified to see just so many people. The paleo diet concept has been a really interesting one for me because I basically just changed what I did many years ago really around 2000 or so, not to be nuts about it but to just say okay we'll make it, you know fats and protein are good and carbohydrates we need to regulate and organic is better than nonorganic and local trumps organic. So that just brought me to where I started on this course.

Robb Wolf: That's a remarkably simply but effective heuristic. That's really amazing. I love that and you know I really loved that you mentioned Loren's early papers on the fat mass of wild gain versus conventionally raised or even grass finished animals. You know there's been a lot of contention in the interwebs about how much fat one should or should not eat. How much fat one should or should not eat from animal origin and what not and Loren did some really interesting detective work and that he looked at

kind of upper and lower bound bracketing; where does protein toxicity begin.

It's about like 30-35% of total calories from protein and so you can't go too much higher that for extended period of times and then he looked at total carcass weight like the brains and the marrow and the sinew and everything. Although there is a decent amount of fat on a large animal, it's really not that much as a percentage particularly a wild gain and more domesticated animals tends to have a little bit of higher fat mass even if they're grass-fed because they're not nearly as active. So if we were able to kind of go back and look some of his work, we have a really good benchmark for saying well here are some starting points for really intelligently talking about this, this topic and it would seem to fix a lot of the problems that have risen for folks. It's very, very interesting. Doc, you do some work with Aaron Wellman and the folks with and I'm blinking on the name of the butcher shop. I just had them on about three months ago, remind of the name of the outfit.

[0:10:45]

Dr. Charles Sydnor: Left Bank Butchery.

Robb Wolf: Sorry, sorry. Yeah. So I met Aaron on a hunting trip not long ago. It's fascinating to me that the market demand has increased so much for pastured meat of in the last maybe 10 years. I was going through a whole foods market in the east coast actually and the gal working in the meat department said, are you Robb Wolf? And I was maybe. Who wants to know? And I said yeah, yeah that's me and she well you know I'm the meat buyer for essentially like Whole Foods nationally and she said that I was one of most reviled and hated individuals in the corporate structure of whole foods because the paleo diet work and particularly apparently me because I've been beating the sustainability plus paleo diet message.

She felt like I was the reason that grass-fed meat basically exist in whole foods. Like about eight years ago, there was mandate that went out by John Mackey the CEO of Whole Foods saying that they wanted to disband all of the meat department, wanted to take all of the animal products out of the prepared foods department and just have a completely vegan vegetarian store and the market forces have been so powerful the opposite direction that they've had to kind of stay contemporary with that but it really pissed a number of people off and apparently their ire was kind of focus at me. But how did you get hooked up with the Left Bank folks?

Dr. Charles Sydnor: Well, Ross Flynn who runs Left Bank Butchery was an intern with me.

Robb Wolf: Oh, okay.

Dr. Charles Sydnor: And with Eliza McClain as well.

Robb Wolf: Okay.

Dr. Charles Sydnor: And then as he went along he got very interested in how do you break down a pig and then he began expanding into cattle. How would he do that? He went out to the west coast and took a fairly extended course in how to do these things and came back and then there was a another young man and Justin Meddis who opened a butcher shop in Durham, North Carolina called Rose's Meat And Sweet Shop. His wife was a pastry chef and he had been trained in what we referred to as seam or single muscle butchery.

Robb Wolf: Right.

Dr. Charles Sydnor: So I began to supply Rose's Meat and Sweet Shop and then Left Bank Butchery. What's fascinating about that is as I mentioned in 2005, I had a terrible job trying to sell it because it was just such an unusual product and the general public had bought in Hook Line & Sinker to the great old canard which is high quality green-fed beef and that mantra had been preached so long that people believed it and it was difficult to get them to understanding this and then to go into the biochemistry, everybody's eyes just sort of glazed over.

Robb Wolf: [Laughs].

Dr. Charles Sydnor: They don't want to hear it. But it was you and Mark Sisson and Loren Cordain and any number of others who have talked about this extensively over the years and you guys have really done a super job in getting the word out that there's a great deal of substance to this and so I was thrilled and when this just started up because it used to be that I would spend a good deal of time marketing meat and now I spend my time figuring out how to grow it better and let Rose's Meat and Sweet Shop and Left Bank Butchery, I let them do the marketing.

Robb Wolf: Nice.

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Dr. Charles Sydnor: I think it's just great that we've got local butcher shop back on the street. I mean these guys are just doing a super job. So at this point instead of being market poor and product rich, I'm the opposite. I'm product poor

and market rich. I could sell two, three, four times what I raise now and indeed another organization has formed with some friends of mine called Firsthand Foods. What they're doing is consolidating a lot of small farmers into one marketing approach. In other words, you have lots of people in North Carolina that raised a few cows so the average heard in this state I think is like 25 and that's kind of hard to have a real program around. So these folks are just bringing many of the smaller people into play through their organization and then they're the distributor if you will.

Robb Wolf: Tell me the name of that outfit again.

Dr. Charles Sydnor: That's called Firsthand Foods.

Robb Wolf: First hand foods.

Dr. Charles Sydnor: They're based in Durham, yeah.

Robb Wolf: Okay. That is outstanding. You know my gut sense on all this stuff has been that decentralized production with robust centralized distribution is the way that we're going to get a maximum leverage out of this and I had guessed this a long, long time ago. I had no empirical or other data to support it. It was just kind of gut sense, student of economics and what not, decentralized systems thinking that that was kind of the way it would work out and I'm a little bit tickled to see it's heading that way. I talked to Russ Conser. He was involved with the short Soil Carbon Cowboys where they--

Dr. Charles Sydnor: Oh, yes.

Robb Wolf: Yeah. There's some really fascinating stuff coming out with all that. Charles, what--you know it is so antithetical or heretical to make this statement that grazing animals are not only an important part of the ecology but maybe like a linchpin keystone animal when we look at carbon sequestration, water sequestration, renutrition of the soil. You know it's kind of like this whole system was designed with animals interfacing with large herbivores and plentitude of other animals clearly. But political and kind of social flows had been pushing towards this kind of vegetarian vegan type of scheme and I don't really see how a dynamic ecosystem works where you just have plants produced and no animals interfacing with them and no predatory pressure on the animals consuming the plants. I mean is that getting to heady and out in the weeds? What do you think about that?

Dr. Charles Sydnor: No. that's not getting heavy at all. There is practically no natural system anywhere that doesn't have a mix of animals and plants. For my model, I have used the great planes of North America. I like to tell people if they've pushed you out of the plane and you floated down and you parachute in the year 1300 and landed on the great planes of North America, what would you see?

Robb Wolf: You'd probably land on a bison. You would've even land on the ground.

Dr. Charles Sydnor: You would, there was some 50 million of them apparently and for millennia, they have been going north in the spring and south in the fall. They would come the original descriptions by Captain Goodnight and others in Kansas and out in that area, they would talk about the ground would be blotted out for five days as the heard of buffalo would be passing going north constantly moving with a group of predators around the perimeter. In other words, the safe place for grazing animal is in the middle of the heard. If you got lamed and you fall back, the predators eat you. So you look at that system and then just apply it to the Serengeti and so other great grasslands. The Steppes of Asia was very much the same thing.

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So what we had was we had grasslands that existed in conjunction with large herbivore. Also if we look at the carbon, the soil organic matter, the carbon in the soil in areas of the great planes that were never plowed or disturbed, it's amazing how much carbon is in the soil and it has been estimated by some that we have lost up to 70 to 80% of that because every time we plow, what we do is we simply oxidize, we turn the land over. All that organic matter that's in the soil is then exposed and it turns into CO₂ and goes back into the air. That's a great deal of where--I'm drawing a blank.

Robb Wolf: Allan Savory or?

Dr. Charles Sydnor: Allan Savory comes in with his TED talk.

Robb Wolf: Right.

Dr. Charles Sydnor: I think that was in the January of 2014 and he made a statement that all of the CO₂ emitted since the beginning of the industrial revolution could be sequestered in the ground now. Shortly after that, there were some very heavy responses to that and I think appropriate skepticism. I think we have to be careful in making statements like that because everybody

is scared to death when you say that. Because when they say well don't say that because we've been trying desperately to get people to use fewer fossil fuels to put fewer carbon molecules into the air and here you are saying oh don't worry about that well just sequestered in the ground. The truth probably lies in the middle.

Robb Wolf: Right.

Dr. Charles Sydnor: I think there's no question that the tremendous effort of a small group of people within NRCS. Are you familiar with Natural Recourse Conservation Service?

Robb Wolf: I am not.

Dr. Charles Sydnor: Okay. Well, that's part of USDA and within that is a group Ray Archuleta and Doug Peterson, the guy up in North Dakota who's name I'm blanking on. But these folks realized that soil organic matter was the key and they have been preaching this model for some time and farmers in the real industrial world are beginning to listen because what they're saying is through the use of cover crops, let us say that we plant our soy beans and then we harvest those soy beans and come back immediately on that and plant a winter cover crop so that the ground is never ever barren and we never break the surface of the soils.

So we're going to plant cover crops then in the spring we're going to roll them down. We might plant corn. I don't like the idea of "burning them down" with chemicals because just intuitively I don't like that. But I think we have to take our triumphs where we find them and the fact that industrial farmers are doing this what they're finding is, is that the soil gets better and better and better as we go forward. I don't know if you are familiar with Gabe Brown in North Dakota.

Robb Wolf: Yes, yeah.

Dr. Charles Sydnor: But in Gabe's place, I went up there and my son from Ronan and I went over to his place in the summer of 2014 and to look at his place was just amazing, 8% soil organic matter in most pastures and he is just a beautiful example of someone who's been using cover crops and no-till for 20 years and the results are just utterly dramatic. It is indeed the soil carbon sequestration is a real key to this.

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I would even go so far as to quote a person--I went to a conference in Montana some years ago and a guy named Gregg Simons who is a very well known ranch manger made a statement that it really caught my attention and he said, there will come a time when farmers are paid more for their ecological services than for their products. And that's stuck in my mind and I think we are coming full circle because I think that's what's what we're going to see that in time farmers are going to be--we're going to look at water, soil and air and we're going to say who is in a better situation to help us than the American, well the farmers all over the world not just America.

Robb Wolf: Right.

Dr. Charles Sydnor: So I don't think you've gone too far at all when you make those statements and what's really--I think we go even further than that and we say that when soil becomes healthy, when the biology of the soil not the chemistry but the biology of the soil is really good with an appropriate fungal bacterial ratio and adjoint plants become healthier, animals become healthier. The meat that we eat becomes better.

I realize this is a systems approach and there are a great many people, the Monsantos of the world that stand to lose a great deal if this is the norm and is a matter of fact Monsanto is now has a group looking at soil biology because they're not stupid. They're looking at this and trying to figure out how they're going to play a role in it. But what's really fascinating is to look at the farmers Dave Brown, Gabe Brown and many others around the country who have done this for a long time and it shown us the way and that small group within NRCS is really working hard to have a little bit of a sea change in the attitude of USDA and it's going to take a long time to do that but I think the evidence keeps growing and you know the truth is sometimes a bit ugly and inconvenient but over time it's going to have an effect.

Robb Wolf: Right, right. And you know when I look at the history of the story, you can call it success. The green revolution and what not has some really interesting inputs that made it occur. One of which was very inexpensive fossil fuels and all of us have lived during that time but we're living at a time now that I've seen most people kind of break the fossil fuel story down to either we have centuries worth of the stuff left or other people are saying we're running out of it immediately and to your point kind of middle ground.

Some folks that I follow they talk about peak cheap oil and peak cheap energy. There is lots and lots of this stuff in the ground but the benefit of

obtaining an energy source is that you get more energy out than what you put in. It's just optimum forging strategy that animals use to survive and we're reaching a point where the difference between the energy that we get out versus the energy that we put in is becoming ever skinnier and that will put some really big constraints on the systems that we have developed and if you have a food production system that is really tied to massive energetic inputs, growing row crops to feed to animals and centralized production and then massive distances to distribute the food that all works when gas is pretty cheap. It really fails when oil becomes expensive during 2008 during the financial crisis. Quite a number of beef cattle if I recall were put down because the feed became so expensive that they couldn't feed them.

Dr. Charles Sydnor: Well you're absolutely right. There are couple of subjects you mentioned and Richard Heinberg wrote a book called *Peak Everything*. In that he simply points out it's not just oil that's going to peak, it's going to be phosphate which is mined for agricultural purposes potash mined for agricultural purposes and nitrogen. Nitrogen is really that we used for agricultural purposes is made in the nitrogen in the air and natural gas so in a sense you're mining natural gas to nitrogen as well. All of these things are mined and there will come a time when the low hanging fruit has all been picked and I think we can say that about oil at the present time.

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I think Richard Heinberg says it takes a least 100 dollars to get a barrel of oil out of the ground in the Bakken up in North Dakota, the tar sands even higher. And then I think the negative externalities of those ventures have to be factored into this and I think the folks in the fossil fuel industry were just thrilled when all of a sudden hitting oil with all the fracturing and all that sort of thing and they said see these people are all nuts. We're just all crazy. I think the peak oil that's were dead on the money, it's just that you never can anticipate everything that's going to happen and I think you're point is well taken. Peak cheap oil is what we have seen and there have been people who even say peak oil actually occurred in 2014/2015 and that we will begin to see a decrease over time.

That having been said, the whole point of creating agriculture which is based on fewer and fewer inputs that is the use of cover crops, the total of avoidance of any sort of tillage, trying to get away from the chemicals that are used. The chemical companies love to tell us that all these chemicals are very safe and EPA has done these studies and therefore you don't have to worry about it. From a medical point of view, I just simply look at that and a little disturbed about it because in the beginning

when we started using these chemicals, people didn't take many precautions.

Charles Sydnor: We are seeing a lot of problems that I think maybe in older farmers the incidence of Parkinson disease and other things that maybe related to this. They say it doesn't harm anything and I have to say that in whose timeframe.

Robb Wolf: Right.

Charles Sydnor: Meaning that, for instance roundup is a chelating agent and once it chelates metals in the soil, it has a half life of 22 years. So yes, it's essentially safe right now, but what are the long term consequences? Likewise when we start treating soil well, well, we get increased carbon. We have way less need for phosphates and pot ashes and legumes can provide our nitrogen. We don't need the Haber-Bosch process to do that any longer and for instance on my farm, I'm trying to get to the point where I have my farms about 510 acres and I'm trying to get to the point where I use 1 galloon of diesel fuel per acre per year. So we're getting it down. We haven't gotten rid of it, but we are working toward that.

You also mentioned the Green Revolution and Joel Bourne's new book has just come out and he really has a fascinating review of the Green Revolution and what's happened and Norman Borlaug produced that dwarf wheat. The problem was it required lots of water and lots of nitrogen and lots of chemicals and the Green Revolution has basically in many parts of the world has run its course. We're not seeing the increase is in yields that we used to see and many people are looking at agriculture and saying, you know some of the traditional ways of doing agriculture were much better from a long term point of view. I think you're going to see that the Green Revolution is going to fade in the rearview mirror and be replaced by a much more ecologically sound approach.

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Robb Wolf: Man, I certainly hope so. We definitely, you know, it's funny. I always find myself whether it's nutrition or politics or my view of sustainability. I always seem to find myself in the lunatic fringe. I've never seen it come up with an idea that it's all well embraced by the mainstream so I find myself in a battle constantly and I don't think that that's a personality failure on my part. I hope not. I think it's because I, again looking at some systems biology, a little bit of economics in trying to put a longer term picture on this stuff, then some of these stories kind of play out.

I have this sneaky suspicion as energy becomes more of a rarified commodity that we're really going to have to think through the way that we do things. Do suburbs work the way that they've historically worked? I live in Reno, Nevada and people love having a nice green lawn through the summer. We are a desert, although this area was grassland at one time, but that was a very different story, actually need grazing animals to make that thing happen like we are in that very advance desertification process that Allan Savory described.

Charles Sydnor Right.

Robb Wolf: If we have goats and camels and things like that roaming the surface of the area the way that it did about 6000 years ago, we would probably have a very different environment here, but right now, it's all sagebrush and huge gullies from the occasional thunderstorms that we get and so you get a lot of runoff. You have a completely oxidized soil based and no carbon to speak of in the soil and I feel like we're in a very interesting race of finding ways to make all this stuff economically palatable and sociologically palatable enough to really give it some legs and get it moving forward.

Charles Sydnor: You're absolutely right. I was just in one of my other interest is in local economies. How do we promote local economies? I think multinational, publicly-traded companies are fine but I don't think they have a soul nor do I think they are interested in the people who live in communities all over the world. So there's a group called BALLE, the Business Alliance For Local Living Economies that I've worked with and attend their conference every year and we had it in Phoenix just 2 weeks ago and I was struck to and flying into this. I looked down on a desert landscape and all of a sudden, I'm looking at a golf course and I realized that people retire there because they want to play golf and so on, but I'm also looking at this and thinking wait a minute, we're taking water out of the Colorado River to water these lawns, which are blue grass and blue grass never ever grew here. I was in Reno not too long ago and the same thing. You look at this and you say this is basically Europeans bringing there green landscape with them and occasionally in Phoenix, I would come across a lawn that was just total desert landscape and I thought it's so much more appropriate than trying to force the desert to grow blue grass.

Robb Wolf: Right.

Charles Sydnor: So your observation is an excellent one.

Robb Wolf:

Thank you. It's historically been a pretty unpopular position trying to talk about economics and sustainability. It's had some pretty good success helping people with medical issues and getting in shape and looking good in a bikini and looking good in their skinny jeans and all that. But when you start brining up these topics of sustainability and some of the economic implications, people who get really cranky and I think it jolts them. We have such busy lives and we just kind of want to have a little bit of a downhill grade.

We want a little momentum and every single thing that we do doesn't want to feel like a slug and so when you've changed your diet already and you feel pretty good from that and you feel like some good stuff is happening and then you start thinking about some of the bigger ecological and economic considerations of the systems that we have and what the implications are if energy gets very expensive and what not. It's not a lot of fun, like it's just more work.

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But my view on this is that we're kind of in an airplane that's maybe running on fumes and we've got a chance to jettison a bunch of luggage that we don't want to make this thing a glider for as long as we can and then we've got an opportunity for a soft landing versus head and nose first into a mountain side.

[00:40:37]

Charles Sydnor:

You are dead on the money. Economics and sustainability are two of the terms that create a great deal of angst. When I think of sustainability, I truly think of climate change. I think that data on climate change, if you just look at the raw data, it is very difficult for me not to say that it's very real. However, think about if we were to take the idea of climate change and carry it to its logical conclusion; we would say that getting rid of fossil fuels would be a very attractive thing to do.

Well, the fossil fuel industry has fought back mildly against that. I mean Exxon Mobil used to spend millions of dollars saying it ain't so. There's the Hudson Institute, the Heartland Institute and all of this outfits that have basically been hired by industry to run around saying it isn't true and then we end up with the Agenda 21 group and the people who think that the whole shift toward an ecologically sound future is capitulating to one world government and all of these crazy things. So it does – you're absolutely correct. I think it makes people very uncomfortable.

What we're saying is is that the way your daddy lived and your granddaddy lived may not be the way you're going to live. But my take on it is that if we pay attention to these things, our life can be so much better and living within our ecological means is a wonderful blueprint for

the future. It's a future that can go on and on and it doesn't have a crash at the end of it somewhere because a fossil fuel future, I think anybody would agree that the fossil fuels are finite.

I don't know how many barrels of oil are in the ground, but there is a certain number of them you're never going to be able to get and as we go closer and closer to that number, it's going to get more and more expensive. Economics are definitely going to push in a direction of sustainability if we don't kill ourselves first.

So those two things go hand in hand because I think the power of corporations to say we're doing great this way. We're making lots of money and if you change the paradigm on me, I'm either go out of business or I'm going to have to drastically change what I do and we really don't want to do that. So one of my great examples of that is I think the electric car is going to literally take over and there are some people who feel that by 2030, 2040, you may not see anybody making an internal combustion engine anymore. There is an awful lot of people that that's terrible news for.

Robb Wolf: Right.

Charles Sydnor: Yeah, but think about what its meaning is for the environment and so on and think of it, look at it as a fabulous opportunity. We're going to change what we do. Are you going to be part of the change? Are you going to be drag kicking and screaming into the future? And so I would not in any way back off of the economics and sustainability issue because I think that's where you have to carry us and really and truly the idea of the Paleo diet was simply a look back in time to say there was a time when all of this ran on nature's time and nature's agenda and then we came along and we tried to change all that. We thought we could take Mother Nature and grab her by the neck and shake the old broad and make her do what wanted her to do and we're finding out that no matter how smart or how much money we have, we can't do that and I think it was for me really, the Paleo diet was a segue into a much broader discussion, which is what you've done as well.

[00:45:51]

Robb Wolf: Oh thank you, yeah. I think you know if you look at some of the Evolutionary Biology implications and start weaving that in the Systems Biology and Economics, then we still have very, very complex stories. But you have some simple heuristics that really explain a lot of things in a pretty understandable fashion so long as we can operate with some logic and instead of emotional response.

If I just throw out the term markets, about 50% of people lose their minds because immediately what the implication there are multinational corporation strip mining the planet and all this type of stuff and again and again, I was not familiar with the ballet outfit, but I talk constantly about local decentralized governance and food production and a few states have done some interesting things. Like Utah has a state commission planning for what they will do when they no longer receive federal funding for roads and schools and so those folks are looking ahead and they're saying, we know that this thing isn't going to keep going the way that it's historically gone.

Tomorrow was likely to be different than yesterday and so there are some people that are putting their heads together and saying, okay so what does our school system look like if it's just locally funded? Like a 100%, there is no federal monies coming into that because it may reach a point where the federal government isn't able to participate in that process. But again, like that is more work and it's kind of scary because we've had these systems sort of worked pretty well and provided a really unprecedented degree of comfort and I think there's a lot of anxiety about losing that comfort and my sneaky suspicion is that we can have more enriched interesting vibrant lives and still a high degree of comfort if we do some planning to meet the changes, again like you said versus stick our head in the sand and hope that the typhoon goes around us right over the top of us.

Charles Sydnor:

Yeah. Well the – you're just dead on the money with these ideas. I just find that the idea of local economies, the idea of people growing food in the soil where you live, the lack of transportation miles that gets that food to the table. The people who live in an area may find that what the folks do in Sacramento doesn't work in Burlington, North Carolina. There should be many different ways to skin this cat and I'm very much in favor of that sort of approach as you mentioned in Utah where they're looking at the future and again, I just come back to this and say I think the future is just fantastic. If we are willing to say some of the things we've done in the past are not going to be in our interest in the future, how are we going to deal with them.

There are going to be people that are going to be hurt. Let's say the concept of creative destruction, that is, we create new things. We destroy the old, but as we go forward, I'm quite the opposite of pessimistic. I'm really extremely optimistic that we do have the opportunity to change this. I don't think we have unlimited time. I think there is a point at which we can push the environment into vicious cycles,

which we cannot control and this is a worry. I mean it comes back to the old idea of chaos theory that Mother Nature is chaos personified.

(00:50:21)

There are so many variables in it that we cannot control it and if we push it to a point where it spins out of control, then we could lose. But at this point in time, I think that we're just seeing so many wonderful examples of carbon sequestration, the carbon soil challenge that all of these folks that are out there spreading the word on this stuff. The creative folks are looking at how do we live our lives differently.

You just touched on an issue that is near and dear to me and that is does everybody really need to have 3 cars, living in a 4,000 square foot house in splendid isolation with gates around them and so on? Is that really going to make you happy and the answer repeatedly by people who have looked at it is a resounding no. That much more participatory communities, walkable communities, the communities where people do get together, where we don't have to drive, where we have things close by. We don't have to go to big buck stores. There is a whole economic study on big buck stores and what their effects on the communities are. I must admit that Walmart is a fantastically...

Robb Wolf: It's incredibly efficient.

Charles Sydnor: well run company and so on and logistically, they are whizzes at this, but I look at Walmart as nothing more than a vacuum cleaner over the front door sucking the money out of the folks who live in my community and leaving as little as possible. Sending as much as possible to their investors in Hongkong, Toronto and London and so when I start looking at smaller communities with so many of our essential things, the grocery store, two friends of mine and I started to a coop grocery store in Burlington, North Carolina called Company Shops Market. The purpose of it was to reconnect the community to local agriculture and we now have 60 farmers providing products into that place. There are tons of these examples, the butcher shop at Saxapahaw. All of these things are examples of communities coming together to create places that are truly fun and tremendous amounts of fossil fuels on and so on. It just requires a change in your mental paradigms.

Robb Wolf: Well, that change in mental paradigm, I've been labeling for myself job security. I think I've got a lifetime or plus of work ahead of me on that, but it's really exciting stuff and it's very – I too am heartened. Sometimes, it's easy to get negative and pessimistic about this stuff, but one interesting thing is information exchange social media. We've been able to compare notes in a way that has been impossible in the past. If

people are open to changing their minds about the topic, like it's very easy to kind of put on a different sweater or a different framework and think about it and see some of the results and change their minds on the topic. So I am heartened by all that.

Charles Sydnor: And there's also the – I look at a bunch of young people are sort of going back to the homesteading idea and I run into a lot of these young folks here in North Carolina and my own son up in Montana where he grows 90 plus percent of all the food that he eats. The food is just whenever I go up there, I'm just blown away at – good example is last year, they have a little raspberry patch and they put up 16 gallons of raspberries.

[0:55:09]

Robb Wolf: Wow.

Charles Sydnor: And so when I go there, all of a sudden, my daughter-in-law puts our Hors d'oeuvres are frozen raspberries. Oh my goodness and cherries and peaches and I mean the things that she's put up for the year and the food is just so tasty and so healthy and they heat with wood. There are just so many things they do that make -- and so they don't spend a great deal of money, but boy, they have a lot of fun. A lot of people involved in this, people in their community that are of like mind and all of these people have different skill sets and it's really fun to see that there are people who are looking at all these issues and saying, I'm not going to get involved in a big fight with Exxon Mobil or somebody like that.

What I'm going to do is just demonstrate that a fabulous life can be had with lesser means, but tremendous health. I mean, they do a great deal of hiking up in the mission mountains and so on and it's truly a joy to go out and visit and look at how many young people are participating in this kind of lifestyle. Likewise, here in North Carolina, we're seeing a number of young people who are starting out saying I can't afford to build a big house, but what I'm going to do is I'm going to build a little TV place and then I'll add a little bit to it and so on and they're creating lifestyles that are truly remarkable and full of joy. So it's very nice to watch.

Robb Wolf: It's very exciting. We just moved out to a 2 and a half acre ranch in Central Reno and we have chickens and we have goats o order and we borrowed our neighbors to take our field down and get it grazed and we did a little bit of holistic management with the horse rotation and there were already some fruit trees. We planted a ton of berry bushes. We're getting ready to do a remodel, which will involve some rainwater catching it and grey water treatment and stuff like that and it's interesting, we lived in what you would call kind of a McMansion prior to this very, very nice house in a suburb.

We got it at the low ebb of the real estate bubble and so we got a great price on it and it was a good spot to start with, but it was definitely not taking many other boxes for us. It's interesting, we've been at this new place about a month and a half and we've been outdoors more here than we were at this other place with the 4 years that we were there. It is stunning and you know we have 2 little girls, one 3-year-old, one 11-months-old and the 3-year-old helps – she pulls her little red flyer wagon around and hauls water and helps us plant blueberries and has become an expert in picking up and carrying the chickens and it's just amazing and it's much more rich and enjoyable life. It's a lot of work but oddly enough, I enjoy that a lot more than most of my internet activities at this point. So it's a nice break from my online work.

Charles Sydnor: Well and you hit on a subject that's also very important to me. I have a 16-month-old grandson here and I have a 9-year-old granddaughter in Montana. I look at my granddaughter in Montana and she's grown up in this environment where they grow all their own food. She is a walking encyclopedia on chickens. I mean she absolutely loves her chickens. She got 25 of them or something like that. They all have names and they all have personalities and she can tell you all about all the breeds and all that.

I mean I walk through the garden with her and she tells me what this plant is, what that plant is, what do you do for it and how do you grow it and all this. What I find truly fun is to realize they don't even have a television and this child has never seen television other than they use the computer for nature videos and things like that. She's gotten interested in oceans and so they got her videos that talk about that. But the lifestyle for our children if we introduce them to these things and make them participants in it, it's such a better lifestyle than one of television and video games.

[01:00:35]

Robb Wolf: I cannot agree more. It's kind of -- we do have a TV although it's only hooked up to the internet. We do an Apple TV hookup, but it's funny, Zoey - - when we lived at the old house, the way that she would start her day is ask to watch a show and it would usually some sort of like cat in a hat, kind of quasi educational show and she would watch that for a half hour or so while I got breakfast cooked and we got the day going. But since we've moved out to the farm house, she wants to be outside playing with her wagon and playing with the chickens and maybe one day in 10, she wants to watch a show now.

Charles Sydnor: You're making progress.

Robb Wolf: We completely leave it up to her, but that is completely a self-directed thing, but it's far more fun, far more interesting for her to get up and play with the chickens and play outside and water the tomatoes and what not than it is to sit and watch a show. I think that's pretty cool, although my iPhone, if she gets a hold of that, which I try to -- we really don't do much tablet or phone interface with the kids. If she gets a hold of that, that's pure crack cocaine for like that's a whole different story.

Charles Sydnor: Oh yes, oh yeah.

Robb Wolf: Yeah. Well Dr. Sydnor, it's been an amazing treat having you on the show. Just so, so honored to talk to you. Really excited for the work that you're doing. Remind folks where they can find you on the internet.

Charles Sydnor: I have a website although it's not up-to-date. It's www.braeburnsfarms.com. Maybe, you'll stimulate me to get my website. The products that I produce -- I made a decision some years ago. I had the meat buyer for Whole Foods come and he looked at my cows and he said, wow this is really fantastic and we will take everything you can produce. I got to thinking about that and I thought and really and truly, very nice folks and so on.

But I made that decision to stay in my local community and then I went a step further and that was to say I have the real privilege of having young people come as interns on the farm. When I see one like Ross Flynn who takes the bull by the horns and goes off to form the butcher shop and so on, my goal is to support them. So my products are not available by internet and very little by people coming to the farm, although I participate in the Carolina Farm Stewardship farm tour and I give a lot of tours on the farm, but for the most part, my products are available in a couple of restaurants, grocery stores and 2 butcher shops and I try very hard to keep it local.

Robb Wolf: That's fantastic. I highly respect that and it's exciting that we are reaching a point of critical mass that local meat producers are becoming less and less reliant on the need to freeze and styrofoam pack their meat and ship it across the country to be able to just keep their operation going. I think that there are some arguments for doing that early on for some folks, but we're really reaching a critical mass where that's becoming unnecessary for the most part so that's very exciting.

Charles Sydnor: Yeah. I've watched a couple of large meat companies whose model is to freeze it and pack it in styrofoam and send it all over world and I have no

problem with that. It's just that it seems to me where marinated in diesel fuel and kerosene.

Robb Wolf: Right, absolutely.

Charles Sydnor: Not what I want to do.

Robb Wolf: Right. Fantastic. Well doc, it's been great having you on the show. Would you be game for coming on maybe in 6 months and we'll chat some more and maybe we can do a Q and A? I can do a blog post to ask folks for some questions and maybe we can do a Q and A next time.

Charles Sydnor: Sure. I'd love to. It's been a real pleasure. I've enjoyed reading your material in the past and I look forward to it, sure.

Robb Wolf: Fantastic doc. Well, thank you again and we'll talk to you soon.

Charles Sydnor: Alright. Thank you.

Robb Wolf: Take care.

Charles Sydnor: Bye-bye.

Robb Wolf: Bye-bye.

[1:05:25] End of Audio