

The Gospel of Seed and Soil: Liz Garst

Interviewee: Elizabeth Garst

Interviewer: Brian Campbell

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BC: Yes, so, I'd love to start. Tell me how your family wound up here in Coon Rapids in Iowa or what you know about that story.

EG: My family started out in Virginia and a group of them went to Illinois, Rockford, Illinois. My great-great-grandfather moved to Boone, Iowa. He was a not very successful doctor and then a not very successful storekeeper. His two sons started the first store in Coon Rapids. They picked up their dad and his store inventory from his failed store in Boone and moved to Coon Rapids to start the first general store in Coon Rapids.

There had been stores in people's living rooms before then but Edward and Warren Garst started this first separate building store. I'd like to confess right away that my two great grandfathers who started the store were brothers which mean that my parents are second cousins which mean that I am an in-bred Garst. I'd like to confess that right away because for a manner, my family history is about hybrids.

These two great grandfathers of mine that started the first store in Coon Rapids, Edward and Warren Garst were pretty prominent and ambitious guys. One of them was the governor of Iowa very briefly around the turn of the century. He'd been lieutenant governor and the senator died, the governor appointed himself to be a senator and he was briefly the governor. He is not really one of our most illustrious ancestors in my book because he did like things like to oppose women's right to vote. So, he was a fairly conservative guy. And his name was Warren Garst, the governor who had a son, Warren, who was my mother's father, a banker and that's part of my family history is banking.

The other great grandfather, Edward Garst was a land speculator and along with another brother, was into investing in fruit. So, the home farm in Coon Rapids, the original farm of our family, was always known as the apple farm because they planted a lot of apples.

They also invested in property in Roswell, New Mexico. They started an apple orchard there. There was an apple boom briefly because the climate is not long-term good for apples in Roswell but it was fairly warm and wet and wet for a while. So, they had an apple farm in Roswell, New Mexico and they learned that the railroad was coming through their property on the day that Roswell Garst was born. So, he is named after Rosewell, New Mexico not because of UFOs but apples.

My great uncle went on after that failed. There was a huge freeze and all the apple trees in Roswell, New Mexico died not too long after this and he went off to Florida to grow oranges after that. Edward bought and sold a fair amount of land. He was a land speculator really and he bought the home farm in 1882. He'd been here since 1869 but our land base started in 1882.

BC: And was that farm, that was the apple orchard?

EG: The apple orchard farm. My great grandfather really wasn't a farmer but Roswell, my grandfather was intensely interested in Agriculture even as a kid. And in fact, he moved on to the farm as a teenager. He moved out of his parents' home and started farming very young. Both his parents, my great grandparents had graduated from college. They sent Roswell to college five different times but he never made it. He always was dropping out to get back to do the experiments on his own farm.

BC: So, what kind of experiments was he doing even at an early age?

EG: When he first started farming, he tried some grains and that didn't work very well. Our home farm has not got very good soil so he made it a dairy operation. So he was experimenting with pastures for dairy cattle, always interested in the genetics of dairy cattle and also chickens. He had chickens on the farm and was always fooling around with chicken genetics and such.

BC: Do you have a sense...? I mean, in that time in Iowa, was things like orchards and dairy and chicken, was that common or how was that farm different from others?

EG: I think we were much more diverse in our agriculture than we are now because we were really using the food here locally. He sold the dairy to the Armor plant in Coon Rapids which did ship milk out to Chicago and such but also supplied the milk in this area. I think the chickens got eaten locally and the eggs got eaten locally.

BC: Local food systems that were the norm.

EG: A lot with them, we do have now. But even then, the Armor was taking in milk and eggs. The second building of the Armor plant is still in town and it's a big plant right next to the railroad set up to ship eggs and milk to the market.

BC: They are not doing that anymore, probably.

EG: Not doing that anymore. I just read a sad story about food insecurity of farmers during the farm crisis of the 80s. Farmers were hungry even though we were growing food. That's a sad statement about the state of affairs.

BC: So, that was Roswell's family and how he kind of got into farming, into experimenting with farming.

EG: Roswell's mother was also prominent in the town of Coon Rapids and was a founding member of the women's club and I think helped start the library and get the school going. Roswell's older siblings were sent back to high school in Rockford, Illinois because there wasn't a school here when they first showed up. By the time Roswell was in high school, they had a school here and his mother was very involved civically in the development of the town as ladies were and still are maybe.

BC: Yes. Maybe they haven't always gotten that credit but it sounds like especially in your family, men and women were very much civic leaders locally and beyond.

EG: As I said, my great grandmother graduated from college so she took her roles seriously.

BC: Here in Iowa? Where did she go to school?

EG: I think she graduated from Northwestern, in Chicago.

BC: Yes. So a long history of higher education and leadership.

EG: Yes.

BC: So, Roswell obviously grew into a pretty important innovator in agriculture. I mean, tell me a little bit about how these early years led to some of the other things that he is known for.

EG: So he was experimenting in agriculture. He courted my grandmother, Elizabeth, which is my name. Elizabeth was a college graduate and a school teacher and she envisioned a city life for herself. They met on a blind date and Roswell started courting her instantly like by letter three it was, "Well, I'm glad you like me but let's rearrange those letters a little bit so that it could be called love."

She lived in Eastern Iowa on Oxford junction. Well, by the time he met her, she was in Cedar Rapids. She had gone to school there in Cedar Rapids. He landed her with a 100-day letter-writing campaign, 100-letter campaign. When they married, they'd only met each other in person like four times. She'd never been to the farm. She married him, came to the farm. Word was she cried for like a week straight. She did that, she had married a farmer which she'd vowed she'd never do. She wanted a city life and here she was on a farm in Coon Rapids. So she started nagging Roswell, "Let's go to the city." He finally agreed. They moved to Des Moines in the mid-20s to start a residential real estate project. He still owned the farm though and Roswell kept sneaking back to the farm on weekends using hired hands to run it in the interludes.

In 1929 their housing project went broke. Fortunately, they had not mortgaged the farm and Roswell put down his foot and said, "If we are going to be broke, let's be peasants, not

paupers," and insisted they move back to the farm. While they were in Des Moines, they ran in the social circles of their cousins, my mother's family, also Garst. My mother's family, the Warren Garst family was most prominent socially because they were headquartered out of Des Moines.

Out of that they met Henry Wallace in the Wallace family which was a long and distinguished family in Iowa. There were three generations of very famous Henry Wallaces. Uncle Henry who ran the Country Life Commission for Teddy Roosevelt. The next Henry Wallace was Secretary of Agriculture. The third Henry Wallace, our Henry Wallace was many things, one of the most prominent people in the last century of Iowa. Like his father and grandfather, was the editor of *Wallaces' Farmer*. He was Secretary of Agriculture under Franklin Roosevelt. From that, went to vice president under Franklin Roosevelt then secretary of commerce under Roosevelt. Among other things, he was a really brilliant administrator and had a lot to do with organizing our country to fight World War II. Roosevelt dropped him in his fourth term. He was a little strange in some ways, a little controversial because he was pretty liberal.

He ran for president in 1948 on the Progressive ticket, failed miserably, got two percent of the votes, 11% of the votes in Iowa. But his real claim to fame in Iowa had nothing to do with Roosevelt or politics. It had to do with the development of the transformative new technology in agriculture, hybrid seed corn.

The science of hybrids had been understood for 10 to 15 years but Wallace applied it to corn which is unusually responsive to hybridization and he understood it was a business that you could sell hybrid seeds. And hybrid seeds had great business because you have to remake the product every single year. Farmers can't save seeds and call it a hybrid. That's not hybrid. You have to start over every time so it's a wonderful business that farmers have to buy the seeds every year.

He started Pioneer, what became Pioneer Hybrid Seed Corn in 1926. Roswell knew Henry Wallace socially and so immediately got his hands on some of this new product; tried it on the farm and when they moved back to the farm in '29, Roswell said to Henry Wallace, "I want to produce and sell your product, hybrid seed corn in the western corn belt. Your product is great."

So when they moved back to the farm, they had the start of a business. Not only the farm itself but this new hybrid seed corn business. They were broke when they moved back to the farm. My grandmother ran a summer camp for city children in the farmhouse to get cash to pay the first couple of years of detasseling. It was a very modest beginning because they didn't have money.

But it was clearly going to be a success so a few years after, they moved back to the farm. They picked up a partner, the Thomas family, Charlie and Bertha Thomas. Bertha was an heiress with a lot of money. She was one of the Pingerie sisters which meant in the 20s, you had a lot of money.

Charlie had been a farmer but he had been hurt in a farm accident, needed a new career because he couldn't farm. So, they were brought into it as partners. Bertha's money built the town plant and Charlie ran the operations of the plant and Roswell was the salesman of this company. And meanwhile, my grandma held down the fort and raised the kids and actually ran the farm itself.

So Roswell was one of the very early people to be involved in hybrid seed corn and hybrid seed corn is absolutely transformative in US agriculture. It doubled yields overnight. It just instantly made corn a much, much more productive plant. And in addition to just having that doubling of yield, hybrids permitted mechanization, we were still handpicking corn in 1929 because they couldn't invent a harvest machine to harvest open-pollinated corn. Open-pollinated corn could be 10-foot tall and 2-foot tall, three ears on the stalk, no ears on the stalk, ears higher on the stalk or lower on the stalk and because it had bad roots and stalks, it just often fell down before harvest. It lodged, in farmer words. And they hadn't been able to invent a machine smart enough to get this corn way high, way low on the ground. It was just too uneven.

And we weren't mechanized at all because harvest was the labor bottleneck. No point mechanizing unless they'd figured out harvest. An innate feature of hybrids is that they are uniform. Every plant is the same height. There is the same number of ears on the stalk which might be one or two but always in the same spot. The plants were naturally more vigorous because of the heterosis of hybrid seed corn.

And the first thing they bred into hybrid seed corn other than the genetics of hybrids itself was the stiff stalk gene out of Iowa state. And once they invented that then they could invent the corn picker. Once they had the tractor for the corn picker, they had the tractor to plant and cultivate too. But we didn't really mechanize corn production until we had hybrids. So, Roswell was an evangelist for hybrids and then for mechanization.

His next big passion was fertilization. We think he used 50% of all the commercial fertilizer used in the state of Iowa, the first year there was such a thing, meaning he was involved in bringing in some carloads of potash. But his real passion which came along a little later was nitrogen fertilizer. He figured out way early, how important nitrogen was in corn production. And nitrogen is really important in corn production even to this day.

During world war II is when we were getting all these figured out about how important nitrogen was. But it was hard to get your hands on nitrogen because nitrogen is the main ingredient in making bombs as we were reminded in the Oklahoma City bombing. Nitrogen makes a great bomb. So, during World War II, all the nitrogen we could produce in this country went to the war effort and not to agriculture.

But there was a real pent up demand. Science and progressive farmers were figuring out nitrogen even as World War II was progressing. Roswell was also very involved in just going to

Washington and nagging our government on a variety of topics and this was one of them. And out of that, his brother Jonathan Garst got the job as being the czar of converting nitrogen bomb factories to ag-nitrogen factories right at the end of World War II.

He also had the job of administering a tax credit program to build more nitrogen plants in this country during the Korean conflict, another era when we were short on food and we got more food by building more nitrogen capacity. Roswell's brother, Jonathan was involved with that. I can go on.

BC: Yeah.

EG: Another passion of Roswell was how we feed beef in this country. In the old days, it's thought what the midwest produced was yellow grain, the corn itself. And yellow corn has always been too expensive to feed to a cow for the whole year it takes a cow to be pregnant and wean a calf. That's a one-year-cycle and you will go broke feeding yellow grain to cows. Furthermore, yellow grain is a terrible food for pregnant cows. Just like people, cows should not be fat when they are pregnant. You want to be pretty lean when you are pregnant and yellow corn is fattening. It's a carbohydrate. It's to get animals fat. So the way we used to produce beef in the midwest was all our cattle were kept out western cheap grass, Oklahoma, Nebraska, Colorado, Wyoming. The cows were kept out there on grass. The calves were weaned, shipped into the midwest into our feedlots to be fattened.

A byproduct of the seed company was corn cobs. Even today, seed companies harvest seed corn on the cob. It helps protect the germination during the drying process. And then after it's dried, it's shelled out. So there is a big corn cob pile by every seed corn plant. The Coon Rapids town plant was the world's largest seed corn plant. Not the largest company but the largest plant and therefore, Coon Rapids has long sported the world's largest corn cob pile, a great asset when I was a kid, sliding down the corn cob pile with all the other kids in town on sheets of cardboard.

BC: How big is this corn cob pile? I mean, give me a sense. What does the world's largest corn cob pile look like?

EG: It was huge. We, of course, don't have it anymore. It's not the world's largest now. But it would be multiple stories high. It would be...I'm not good at distance but it would be 10 stories high maybe.

BC: And you would climb up it with your cardboard?

EG: Yes. You would climb up it on the backside of it always parents all knew that the cobs could rot and that there would be air pockets that you could fall into in this cob pile and so parents and people at the plant always wildly disapproved of kids climbing up it. So we would just go around

to the railroad trackside where no one would see us. It was big enough. Like you could get the other side and no grown-ups would see you.

And it was great. It was fun to go up there and slide down. Once, I was doing it with my brother and we always just before school started, we did our big trip to Des Moines every year. We went to Des Moines shopping once a year to get new school shoes. I had flat feet, so I had to buy orthopedic shoes and so did my brother. And shortly after that, after school we were doing the cob pile and my brother, in fact, falls in the air pocket which was the one and only time it ever happened.

And I'm there and I drag him out, you know, he is up to his elbows in cobs and I drag him out of the cob pile and he is fine except one of his brand new school shoes is missing. We rustled around. I mean, it's a cob pile so cobs are just falling on top of you. So we go home and my mom immediately notices that we are missing a school shoe and orders us back to find it and it's like, "Mom, it's dangerous." She is like, "I don't care. Go back and get your school shoe," which we couldn't do and had to go back to Des Moines for a second time in a year to get him new school shoes.

Six months later, we are at the dinner table as we always were. We always had dinner together. One of our hired hands shows up, the shoe has gone through the cob grinder, so it's been ground and it's been instilled and it's been molded and it's in the feedbunk, cattle have chewed on it and slobbered on it so it's unfortunately still recognizable as my brother's shoe. So he brings this horrible looking shoe. I don't know why he was so mean to my brother. My mom got me out all over again about this outrage over the shoe.

So, this cob pile, at first it was no problem to us because the cobs were sold every fall to local people to heat their houses. Corn cobs were the fuel. It's how we stayed warm every winter and all over the midwest for a long, long time. But in the mid-40s, late-40s, a crisis started developing because we got fuel oil and fuel oil was so cheap and so much easier to handle, so much cleaner than corn cobs that rather quickly, everybody converted their cob furnaces into fuel oil furnaces and the demand for corn cobs just disappeared.

Nobody knew what to do with them. There were jokes about outhouses, but they were rough and dusty and people had Sears and Roebuck catalogs - much better than corn cobs in an outhouse. And they could be put on muddy roads but that didn't work. They could be used as livestock bedding but really very rough and dusty, not good livestock bedding. So Roswell was seeking a solution about what do you do with corn cobs and started fooling around with you can feed them to a cow. They are cellulose. And he figured out that properly supplemented with urea, which is nitrogen which ruminant bugs can make into protein basically, the ruminant bugs are protein basically. They could be cattle feed and animals on this diet wouldn't get fat. There is no carbohydrate in this diet but that they could survive. And from there, he went to the idea that midwest farmers had lots of cheap feed and we should have our own cows right here in the

midwest, feeding the offal or the cellulose of the plant which is the stalk, the leaves, the cob to cows and then the yellow stuff, the grain itself to the calves to get them fat.

So that was another real big passion of his. He had other things too. He was a huge advocate of green cottonwood construction during World War II. There were no building materials. We needed that for the war effort but cottonwoods can only be worked when they are, cottonwood wood can only be worked when it's green. It gets too hard to put a nail into when it's dried. So he advocated farmers should use green cottonwood in their farm buildings and we still got a couple of green cottonwood buildings around here.

BC: So these are some of the things that, you know, public innovations and things that he was up to. What was he like and what was your grandmother like in the family and sort of out of that, you know, the public spotlight and this sort of ag-innovation that he is known for.

EG: Roswell's public life and his private life were the same. He was so passionate about these issues. When I was 10 years old, I was given lectures on exactly these topics. Roswell was fun because he ignored his grandchildren until they were old enough to actually talk to him. He wasn't into goo-goo little babies or cute. But as soon as you could enter his world, he was interested in bringing you in, explaining your ideas.

He would write needle letters. He was a great letter writer for lots of people, but even when I was away at school, he would write me letters and he would show up once a year or every other year and take me out to lunch from whatever school I was in. So, he paid attention to you if you paid attention to him. He wasn't into you if you wanted to talk about dolls. He would never do that but if you were willing to enter his world, he was very inclusive and fun.

A big moment in my growing up with him is I had gone to Stanford University and majored in the Pacific Ocean and the Grateful Dead and English literature. And, sort of at the end of that, I knew I had to get serious about finding a career and I decided to go to school in agricultural economics. And Roswell said, "Don't go to graduate school in ag-economics. Just stay here and study by my side." And I was like, "No, granddad. I'm going to go to school."

And, I came back after the first quarter. I had taken production economics and there was Roswell as always, lecturing to some visiting group. He always had strip lot showing different hybrids and strip lots showing different amounts of fertilizer. So we are standing in front of a plot of corn and the first strip has 50 pounds of nitrogen and the next has 100 and the next has 150 and the next has 200 and the next has 250.

And he is lecturing to these people and saying, you know, "Obviously, more fertilizer is better." And the 250 pounds of fertilizer was better than the 200 by a tiny amount and I knew just enough to say, "Roswell." I didn't call him Roswell. I called him granddad. "But how much extra did the 50 pounds of nitrogen cost and how much extra value of corn did you get? What's the marginal cost, marginal yield?" And there was dead silence. Roswell just stared at me like,

“Wow,” and didn't even answer my question. But it was a change in our relationship right there because he knew the answer. And actually, as I think back, he probably did know the answer but he was a great communicator. He got basic ideas across and one way he did that is he kept the message simple. He wasn't an academic who would say, “Well, more fertilizer is better except in these three circumstances, blah, blah, blah...” He was just trying to get people to use fertilizer and nobody was going to use 250 anyway so he kept the message simple, “Use more fertilizer, you'll get higher yield.” He was that kind of guy. But it was a grow-up moment for me that I took him on.

BC: So you learnt to talk and you did think about agriculture from a young age with him and then, yeah, that clearly evolved over the course of your life.

EG: Yes. So, he was fun because he attracted attention. I remember once a year, he would invite my brother and I to go with him to an Iowa State football game and every once in a while, we would be in Des Moines when he was and he held court at the Savoury Hotel and whenever you were in his orb, you were in a orb of people. He attracted people. People came around him. He was always the center of whatever was happening. And he was inclusive. He'd let us be part of that, which was fun.

BC: So did he travel a lot? I mean, you said he had this...In Des Moines people knew who he was and were interested but, you know, did this work end up taking him all over the place?

EG: Yes. He was in Des Moines and he was in a Central National Bank board for a while and so he was in Des Moines for that. He had a lot of connections in Des Moines because he had lived there for a little while too. But he traveled an enormous amount because he traveled his sale territory, and his sales territory was huge. It was the entire Western corn belt, and he expanded the corn belt, kind of single-handedly.

So, for example, he traveled a lot into Colorado which wasn't a corn belt till they had irrigations. So he promoted irrigation. He was on the road having sales meetings. I'm not sure about this but something like maybe three months or four months of every single year, he was just traveling to visit the various district sales managers and the salesmen under them.

So, that kind of travel was long in every year of his career that he was going doing sales meetings in his territory. He also like to travel overseas. So, you know, there are pictures of him in Egypt and I know he spent a fair amount of time with an aunt of mine in Mexico. He did excursions abroad as well. He went to the Soviet Union several times, of course. So, yeah, he was a good traveler.

BC: And mostly, I mean, most of that was work but then some of these trips abroad were...

EG: For fun.

BC: Just for fun?

EG: Yes. And I would be...Again, when I was in school on the East Coast, he'd be there or when I was in school on the West Coast, he would visit. Not every single year but he traveled around. He liked to travel.

BC: My guess is that was pretty rare for Coon Rapids or other small town folks to be traveling that much and that kind of worldly connections.

EG: I don't have a comparison but I would guess that's right.

BC: Yes. And tell me a little bit about you grandmother. So you were named Elizabeth. What was she like?

EG: She was considerably more polished than he was. He was sort of a crude guy. He was known to pee, just turn his back and pee when ladies were around and he'd lie on a table while making speeches. If there was a table on the stage, he'd lie on the table. He always joked that it's better to sit down rather than stand and if you can lie down, that's even better. So, he made lectures lying down a lot. Who knows what that was about?

Elizabeth was, again, a college graduate, regarded herself as a lady. Very good manners, knew how to be polite to anyone from the garbage man to the president under any circumstances. She was a very warm and gracious lady and very attentive to other people. She, I don't think really liked being on the farm. And Roswell was sort of a difficult guy sometimes. He was famous for saying, "I'm bringing 10 people home for lunch." And he would say this at 10:00 AM in the morning that he was bringing 10 people home for lunch.

She could get pretty mad. She did run the farm because he was gone so much. Once, a story a housekeeper of theirs told me once was Roswell made the comment to her that there was just ridiculously too much food in the house. And it would probably be true because she was a product of the depression and food was super important to her and she always had a lot of it around.

But Roswell said there is too much food in the house and she went out and bought in response to that comment, a massive amount of additional food at the grocery store and brought it home and put it in the cupboards right in front of him to say, "Screw you, Roswell. I run this house, you don't." It was pretty clear that her department was the house, the yard, the farm itself and she was pretty fussy about that. She loved food. That's one of my main memories of her. She was always canning food, putting up food, growing big gardens. Her cave was magnificent with endless jars of every kind of vegetable. But she was also a food hoarder. So, for example, she would make soup with all leftovers and there would be a pot of soup and she would put in yet more and the soup never stopped. It was just evolved over time because she would keep

putting new additions in and what she put in was horrifying. She would put pickles in the soup or leftover tapioca pudding.

And not once but a couple of times, my brother who was the only person who would actually eat the soup got food poisoning. So, she would bring up big pots to our household in town as presents and my dad earlier own organized us. We would, as soon as she left, throw the soup down the dispose off and say to her, "Thank you, grandma. It went down well." As our way to stay safe from this soup that never stopped.

BC: That's a great story.

EG: It went down well.

BC: Maybe not great at all.

EG: And once...There was a locker in town so you would butcher your beef and put it in these frozen food lockers in town. And once, my mother decided enough already. There were 50 lockers of food and it was huge production. My grandmother was wrapped in her fur coat, put on a lean luncher. This is when she is fairly older and the farm crew comes up with pick-up trucks and they are unloading all these frozen food lockers and every locker was a fight. You know, grandma would want to give the food to charity, ten-year-old meat, it's like you can't give ten-year-old meat to charity and you are not going to eat it and we are going to throw it away. And at the end of that, my mom announced that she would never do that again. Elizabeth was a wealthy woman and it wasn't worth the fight to throw away the food she should have just left well enough alone.

My father was also the same kind of food hoarder, only he shot game and he'd turn a goose and deer and rabbits and pheasants and felt very strongly that you should eat what you shoot but he would never eat it and she wouldn't cook it so they had their own freezers, his freezer and her freezer. When his freezer got full, my mom would rent a storage locker downtown and take it down there and then quite a few years later, the locker burnt down and my dad had something like 73 lockers of food that burnt and grandma had 40 some. It was all insured. My mom always claimed that she started the fire but I don't think she really did, anyway.

BC: You guys kept that town locker in business, for sure.

EG: They did between the two of them. But my grandmother also, you know, she'd lived to almost 101 and one reason why was she ate really well. She ate the vegetables she raised on the farm. She ate her own food and she ate a really healthy diet because it wasn't junk food. It was meat but vegetables, a lot of vegetables.

BC: And as you said, even as they were focused on seed corn and expanding that yield, they still probably had a very diverse farm that they were eating from.

EG: Yes. That was my grandma. My grandma, big gardens, chickens. more cows.

BC: So, it sounds like soup maybe wasn't your favorite but you have some favorite memories of things that were special, you enjoyed eating whether it is everyday stuff or special occasions.

EG: I think the special occasion in the household was the salted mackerel for breakfast.

Apparently, before a lot of frozen food that you would bring fish in, in barrels that had been salted, and I think this was important for a diet. I'm not even sure but vitamin A or something that would be in oily fish.

And so, every Winter, we'd have at least one or a couple of...We would always be invited to breakfast at grandma and grandpa's for salted mackerel eaten with boiled potatoes. And I still love it even though when you eat salted mackerel with boiled potatoes, you burp a lot for a long time afterward but it's really hard to get it now. But I can find it online. I've ordered it online.

BC: Was that more common back then? Did other families eat salted mackerel for special occasions?

EG: I don't know. But it was coming out of the barrel. I mean, they ordered a barrel of salted mackerel.

BC: So, lots of salted mackerel to go around to share with the whole extended family. Yes.

EG: Yes. Other than that special foods, grandma always had a big...The big meal was lunch and I never remember eating supper at my grandma's house, but lunch was the big meal. There would always be bold beef and three kinds of vegetables, apple pie and...But no, I don't think my grandma was a great cook. My other challenge was my grandmother, she was pure Czech as was my other grandmother, a lot of Czechs so I'm very Czech on both sides.

On her 100th birthday, I decided to make her kolache and kolache is not easy. The dough is really heavy and sticky and you have to make the poppy seed and the apricot and the date and the cottage cheese going. So, it's a fairly elaborate process but I did this for her 100th birthday and she took one look at them and she said, "Those are not kolache. I won't eat them." So I tried again a couple of weeks later, the dough and the poppy seeds and the apricots and the cottage cheese and she deigns to take a bite the second time and says, "Well, no. These are not kolaches."

So, I consult my aunt, Jane about now, just exactly, how do you make kolache? And she advised that you have to have either a great mixer or a very cooperative boyfriend because this dough, you have to beat it and it's sticky, sticky. So, I made the kolaches again and my grandma took one bite again and said, "Well, that's better," and then she died. So, I never achieved success.

BC: That was the end of your story.

EG: That's the end of my story. I still make them and I think I'm pretty good now but she is dead so I don't have her official blessing that they are right. She was proud of that heritage of being Czech.

BC: Did you have a sense that that was sort of different, you know, kind of, an immigrant group that was not the norm around here or?

EG: Not the norm around here. These is Eastern Iowa. Like, Cedar Rapids still has a Czech presence and that was the environment he grew up in. There weren't any Czechs around here, they were all German Catholic or Danish Lutheran. We don't have any Czechs here.

BC: So you had a sense that your family from these different, multiple backgrounds, how did that look in terms of religious life or sort of identity for your family? I mean, you were aware of those two worlds coming together?

EG: I knew that she was Czech and that we were...We are German Catholic. There is, by the way, the river towns, Coon Rapids was started very early because we are a river town and the river towns weren't any ethnicity because the river towns were whoever kind of floated down the river to get to them. They weren't groups. I was aware of ethnicity in our area again, because of this very concentrated group of German Catholics just northwest of us.

The tile drainage really affected immigration patterns around here. By the way, the last glacier, the Des Moines lobe of the Wisconsin drift stopped, the terminal moraine is in Coon Rapids. So one of our cool tourism motto is, "the glacier stopped here. You should too." But it makes for very different kind of farming environments here. North of town, the farmland is flat and wet and black and South of town, it's much hillier farmland. South of town, there would have been a glacier about 600,000 years ago, a lot of erosion but then loess soils blew in about 22,000 years ago. So, the farmland South of town is hilly but still pretty good farmland because of the loess soils that cover it.

The area North of town was unfarmable. It was too wet. And again, my grandparents started in 1865 and that was catering to the river crowd and the hill ground and there was nobody North of town because it was just a swamp. But when the tile drainage...I think it was in like 1904, the tile drainage law passed. The tile drainage law was hugely transformative in Iowa and what it said was that if a majority of farmers in an area voted to install tile drainage, then everyone was required to participate and there was taxing authority to get it done.

Before that, tile drainage just didn't work because it doesn't work that one farmer does it and the next one doesn't. Once you get water in a pipe, it needs to keep going all the way to the river. So, it took this law that a majority of farmers could vote and if they voted, then there would be tile drainage and tile drainage may absolutely worthlessly end in a...Well, worthless in a

commercial sense. Just overnight, pretty much every farmer voted yes and tile drainage went in very fast right after this law was passed.

And this opened up brand new lands to immigrant groups that were leaving Europe for various reasons. So all the German Catholics showed up just as the tile drainage was happening. And Carroll County, Coon Rapids is on the corner of Carroll County. It was like most of the towns in it didn't have any Protestants when I was growing up, they were pure German Catholic towns. My family was absolutely agnostic, no religion in my family whatsoever. I could hear my mom and my dad's comments on it. My dad thought that it was very rude to be an atheist. You should never be that sure of anything. So he was an agnostic on the grounds of courtesy and I think that he got that from his parents. I'm not sure about that. My mom's family though was much more cold and ruthless about it. She was an atheist and Stephen always disapproved that she was that in your face.

BC: So, your Grandparents are obviously known, especially for this citizen-diplomat role that they came to play. How did they first make connections with the Soviet Union? What do you remember about that? What stories have you heard about that?

EG: Well, I think the first comment is that it is important to remember the role of Henry Wallace who didn't have a direct involvement in Roswell's connection to Khrushchev, but provided that the philosophical underpinnings that made it possible from Roswell's side. Henry Wallace ran on the Progressive ticket, the third party ticket, in 1948. The Progressive party had 2 main planks. The first was racial equality in America, which I think is very interesting, and that because Henry Wallace, one of his professors at Iowa State and a person who actually lived in his house, his parents house, George Washington Carver, who became the famous peanut breeder, but started out at Iowa State, and was a very important person in Henry Wallace's life. Out of that, I think, he got very interested in racial equality in America. The other and even bigger plank of this party was the idea of how should we deal with the scary Soviet Union wasn't that we should be building more nuclear bombs, but that we should be reaching out to them by having cultural and educational exchanges. He even advocated that we should share technology with our enemy. That we should bring them to our bosom. By the way in the Des Moines Register a couple days ago, there was a story about the 60th Anniversary and a very young reporter wrote I said, "I think we should bring them to our blossom". I think that is because she doesn't know what a bosom is, I think that is an old-fashioned word that young people don't understand. So, Roswell was 10 years younger, 11 years younger than Henry Wallace, but a business partner. I'm sure that Roswell got his basic philosophy right from Henry Wallace as kind of a background piece.

How the Khrushchev story happened. The first part of it was that Khrushchev clearly got his hands on the reins of the Soviet Union by 1955. Stalin had died in office in '53 and 3 people were put in charge. But by '55 Khrushchev was the clear boss of the Soviet Union and shortly after he became the clear boss, he said the Soviet Union needs an Iowa Corn Belt and he named Iowa by name. That we needed an Iowa Corn Belt. He named Iowa, not just because of

his ability explosion and productivity in growing corn, but also Iowa was famous for our ability to feed the corn to livestock. We were the Kings and Queens of meat, milk, and egg production. That is what attracted Khrushchev's attention. He was desperate for meat, milk, and eggs for a better diet for his people. Somehow, I don't know how, but he knew that Iowa was the center for this ability to grow corn and feed it to livestock. That comment got a lot of press around the world cause no Soviet had said anything nice about the U.S. since before World War II. And here this new Soviet leader was complimenting us. So that comment got a lot of press. And out of that, a man out of the Des Moines Register, a man named Lauren Soth wrote an op-ed in the Des Moines Register. It won the Pulitzer Prize. It was written as an open letter to Khrushchev, through no letter was mailed to Khrushchev, it was an op-ed. What is said was you're right, we have great agriculture here and Mr. Khrushchev, you should send a delegation to Iowa to learn how to grow food so we can compete economically instead of by this stupid arms race. In other words, Lauren Soth was also influenced by Henry Wallace. That was exactly a Henry Wallace view point that Lauren Soth expressed. Although no letter was mailed, the Soviet spies read the Des Moines Register because they were interested in U.S. agriculture and the Des Moines Register was the agricultural newspaper of the United States. They noticed this op-ed, translated it, gave it to Khrushchev, Khrushchev picked up the phone, called the U.S. State Department, and accepted the invitation to send a delegate to Iowa. The State Department had no idea what he was talking about because they did read the Des Moines Register. There was a lot of controversy. The State Department at first didn't want to let a delegation come because it was perceived as sharing information and that's what it was. The Iowa governor, part of our Congressional Delegation, people at the college, and the Des Moines Register wanted it to happen and a drum beat started to let it happen. Finally the State Department said okay. They had nothing to do with it, they would not host it, and they didn't want to be seen as being nice to commies, but Henry Wallace's views were strong enough in this state that it could get pulled off.

Iowa State was put in charge of the delegation and they asked the Farm Bureau to show off to the delegation. And the delegation was here for 2 weeks and was in Iowa for quite a while. This delegation did not include Khrushchev, but did include a guy named [Vladimir] Matskevich who was the Deputy Secretary of Agriculture of the Soviet Union and not too much later became the Secretary of Agriculture. An influential person was here, though not Khrushchev himself. Part of the delegation went through Jefferson, Iowa where my mother's father was the bank president. He was put in charge of the reception and had an overnight Soviet visitor and invited his first cousin Roswell over to meet these guys. Out of that Roswell connected with the head of the delegation Matskevich and being Roswell, he ever so politely said to Matskevich, "I am glad your here learning how to grow food, but I have to tell you Iowa State University is showing you out of date technology. The Farm Bureau is showing you a ridiculously too small a farm. You have to come see my farm. I have state of the art technology and my farm isn't as big as yours, but it's on a scale where you can at least compare with yours." At this point in time, in 1955, the Farm Bureau had picked out farms to show them with no hired labor. Given the machinery set of Iowa in 1955 a farm with no hired labor could be 80 acres, unless you were from a big German Catholic family with a lot of kids then maybe you could have 300 acres. At the same time in the

Soviet Union, the smallest farm was 20,000 acres. The smallest farm they had because they had already collectivized.

So Roswell said to this guy Matskevich you need to come see my farm and Matskevich said he would like to, but Iowa State said no, everything had been all arranged and the Farm Bureau is in charge. He went to the Farm Bureau and said I want to bring the delegation to my farm. The Farm Bureau said hell no. Not only do you have hired labor, but you are not a member of the Farm Bureau. No way.

This issue with the Farm Bureau is an issue that continues into the modern era. So, Roswell went back to the guy and said I can't arrange a visit of your delegation, they aren't going to allow it, but this is a free country and if you do as I suggest you can come see my farm. Matskevich said I want to, just tell me what to do. Roswell said just keep your mouth shut and don't say a word. Tomorrow morning, load you delegation up in Iowa State's cars to go on their planned tour to Newton and at the last second just don't get in Iowa State's car. I will send a car up and you and your interpreter just get in my car. They might be people yelling at you, but no one is going to shoot you for getting in my car or put you in jail. Just insist and it can happen. So, that's how it happened. Roswell kidnapped this guy.

Roswell was a fabulous teacher because he sold by teaching. He always had a strip plot, showing different fertilizers, different hybrids. He always had demonstration pens of cattle on various rations. He just showed everything he did. He showed Matskevich how to grow corn and how to feed it to cattle.

Shortly after the delegation returned to the Soviet Union, a letter came from Khrushchev directly to Roswell inviting him to go to the Soviet Union in order to sell them hybrid corn seed. There was a delay because Roswell wanted to make sure he could in fact export the corn to the Soviet Union and so he went to Washington and asked the State Department to give him clearance for export license. The State Department at first said nothing. They had no policy on trade with the Soviet Union. There had been no trade since World War II. So, there was no policy. They got around to saying no that that would be a sharing technology with our enemy. Roswell brought into gear the Iowa lobby, the Governor, the Congressional Delegation, he hired a lobbyist in Washington, D.C. to press the case. Finally, he was able to connect as famous journalist - I'm not sure if it was the New York Times or the Washington Post - and he took that guy with him to the State Department and that guy said we are going to run a story on whose iron curtain is this anyway. Because it looks like it's our iron curtain not the Soviet Union. Finally, the State Department gave clearance for export licenses with the words we are so sick of you. Roswell was persistent, and they also said you will fail. They won't come up with hard currency to pay you, they won't accept western technology. Since you are going to fail anyway and we are sick of you, here are export licenses.

On that first trip he was invited to Khrushchev's dacha. Khrushchev wanted to meet a real American. He had never met an American and was intensely interested in Agriculture. The two

men hit it off. As our guest speaker Tim Naftali just a few days ago explained Khrushchev quickly came to trust Roswell. Naftali explained that Khrushchev was an autocrat, those kinds of people don't trust very easily and it was remarkable that he came to trust Roswell.

BC: We can take a break if we need to. It's a lot of talking.

EG: This part of talking is easy, it's all a part of my history talk. I have only told this part of the story at least 1,000 times.

So, Khrushchev bought the seed corn and seed corn technology right away. He knew enough to know that we were ahead and he needed our technology. He immediately and grotesquely misapplied this new technology. He had great motives. He was trying to make the quality of life of the Soviet citizens better. He was really focused on we have to do something about the standard of living in the Soviet Union. Unlike Stalin who had been really about making the military great and the factories great. He didn't really pay much attention to the people of the Soviet Union. So, he was trying to feed his people, but in his efforts to do this, he started planting long season corn in Siberia. He was known, even now, as corn crazy. A common joke in the Soviet Union in this era is, "Someone says to Mrs. Khrushchev, 'Mrs. Khrushchev, your husband is planting corn every place but the moon.' Mrs. Khrushchev says, 'Shh, shh, don't give him the idea.'" But Khrushchev immediately started adapting Roswell's ideas. He got invited back in '56 and again in '58. Roswell at this time is not just selling him seed corn, but the technology of fertilizer plants, machinery, and hybrids. Really working on Khrushchev's policy. Roswell was also very interested in U.S. policy and just as a private citizen, he got on the train and went to Washington quite often all during his career to talk to our federal government. To just lobby them as a private citizen in all manner of farm policy. I have already mentioned the fertilizer issue, but he was also very interested in the corn-hog ratio. He was great at reading production and use statistics from the U.S.D.A. on set aside programs and land banks. It was all apart of his interests. When he was in Washington, he always got in licks with our government, "get control of your military guys so there is more money to spend on agricultural research." It was a favorite theme of his. Get control of your military, they are spending too much money. He argued that in our government and also to Khrushchev at length. Get control of your military guys, this arms race is nuts.

Our guest speaker, Tim Naftali, said that Roswell wasn't the only reason, but the fact that Roswell's comments had real influence on Khrushchev, who did do the first unilateral disarmament of strategic long range missiles. That was just shortly after Roswell had lectured him, yet again, on the subject of 'get control of your military guys' because you have to invest in food. From our guest speaker the other day. I should explain. Tim Naftali, who was a historian at New York University, CNN commentator, and got into the Soviet archive when Gorbachev opened up the Soviet archive. So, he wrote a book about the Cold War from the Soviet perspective with the insight of what they were up to. Roswell, according to Tim Naftali, was hugely influential in the Soviet Union. He was known as Garst. Garst's word was almost law. After Khrushchev had come to our farm, the relationship continued. He had written to

Khrushchev that it boils down to this. You need to grow grain sorghum with a drier environment. A lot of the Soviet Union does not have a suitable climate or soils for corn. Grain sorghum, farm machinery, farm buildings, grain storage, and fertilizer. Five point plan, this is what you have to work on. Grain sorghum, roads, buildings, machinery, and fertilizer. That was the domestic Soviet policy for quite a long time. It was Roswell's policy.

It was my Grandmother who invited the Khrushchev's to come here. She had travelled with Roswell, had always travelled with Roswell. Together they had met the Khrushchev family. Stalin and Lenin were too tough to have family. They did have families, but they were never introduced to the world because these were iron men. But Khrushchev was really interested in the word we now have 'detente'. That was not a word then, but was wanting to lower the heat. He didn't want to have World War III. One of his campaigns to that effect was to let the world know he was a family man, which he was, and his first step in that campaign was to introduce his family to my grandparents.

My Granddad was not refined enough to say please come visit us, but my Grandmother knew her manners. "It's been so nice to meet you and your family. We loved being entertained in your home. Please won't you come visit us. We would love to have you meet our family." She was a lady. She never thought in a million years, that the head of the Soviet family would show up in Coon Rapids in the dead center of the Cold War, but she invited him and they accepted.

We think they accepted because they did like Roswell and Elizebeth, but really we think that Khrushchev's main motives were that he had figured out how far behind they were relative to us. From '55, when the first connection was made, to '59 when Khrushchev came in that era.

[phone break]

[Tea break]

BC: This is a nice house you have here.

EG: It is. I moved here a few years ago. My mother built it.

BC: It is a beautiful spot. You were talking about your Grandmother had invited the Khrushchev's to come visit thinking that it was the nice, Iowa thing to do.

EG: The motive. He like Roswell. In turn, trusted Roswell. Nina Khrushchev liked my Grandma. Those two ladies were very much alike as well. Both well educated, much better educated than their husbands, devoted to their family, but the kind of ladies who read the paper every day and knew what was going on. Both of these ladies, working their entire married lives on taking some of the rougher edges off their husbands and both of them being very unsuccessful at that effort of trying to make their husbands refined. But the real reason we think he came here, was that he sent delegation after delegation to our farm and other agriculture institutions around the midwest between '55 and '59 and very little was happening. The problem was all good

communists would be politically terrified to be seen talking to a known capitalist that could ruin your career over there just like it was the kiss of death in this country to be consorting with known communists. Furthermore, all good communists knew that any idea coming from a running dog capitalist was not only evil, but it was stupid. Just like we knew that every single one of their ideas was profoundly stupid. And not all of their ideas were profoundly stupid, obviously.

So, we think Khrushchev came to send a message to his own people that it is okay for good communists to look to the west for agriculture technology. He was a really good communist. He really believed in it, so he could get away with it like Nixon and China. Doesn't mean he was a capitalist by paying attention to us, he was a solid communist. But he had a visit to our farm made in the books, magazines, movies, school textbooks. Garst was a family name for a long time after the visit cause Khrushchev was sending the message, "It is okay to look to the west for agriculture technology." He came here to lead by example. That is why he really came here. And according to Tim Naftali, it really opened his ideas to what was possible. He had some idea of how far ahead we were and how we were organized, but it really opened his eyes. It made a profound difference in his understanding of what his country should look like.

BC: What do you remember about that visit?

EG: I remember getting out of school for the whole day. That was the most significant fact of the Khrushchev visit to America that I got out of school for the whole day. My younger sisters were judged too young to come, I only had to put up with my brother Ed and that was alright because I liked him. Big fight with my mother about how I would be dressed. I was a tom-boy and she won. I'm wearing a lacy dress and the scratchy petticoat and the heaviest of hair ribbons and the horrible white anklet socks and the really horrible black patent leather shoes. I looked simply adorable which was not my plan. The day got better, my mother had a cesarean section a couple of weeks before the Khrushchev's visited and had lots of health problems. So, almost literally checked out of the hospital to come to this event and that was a big mistake because she didn't feel well. She spent all day upstairs resting which meant that I had a great day because no grown up was telling us what to do. My brother, cousin, and I, we ran as a gang for the whole day. The men were out on agricultural tour and then would come back for lunch. We spent the day in the house and yard with my Grandma. I have lots of memories. The three of us spent lots of time strolling in front of the TV cameras thinking they were movie cameras. We had no idea the difference between movie and TV. We didn't understand that distinction. So, we spent most of the day devoted to becoming movie stars. Coming to the attention of someone, then we would become movie stars. Driving the camera men nuts.

I did land an interview as an eight year old all by myself. I remember the first question was have you ever seen such a big crowd in your Grandparents yard and I did not want to seem unduly impressed so I said my Aunt's wedding was much bigger than this. Which was a lie, but I didn't want to seem like I was bowled over by what was happening.

We already knew all about Russians because there had been a lot on the farms. So separately to maximize our yield, we hit up every Russian on the place for the medals they had on their chests and their pockets. The nice ones we asked more than once for medals. I remember Mrs. Khrushchev. There is a picture of me sitting on her lap and I remember that. I liked her. She spoke good English. She didn't hold me too tight. She smelled good. But she did yell at me later in the day. Another kid came out, one of the Thomas kids and we fell into a big fight underneath my Grandma's apple tree and Mrs. Khrushchev was just walking through the yard and caught us fighting and separated us and shook her finger right in our faces, "Little brothers and sisters mustn't fight." Which we thought was really quite amusing because we weren't a brother and sister.

I remember singing Adlai Stevenson, his campaign song. My parents had been big supporters of his and they had a little record of his campaign song. So, I just happened to know that and sang it for him. As one of the real highlights of the day, they had one Soviet and one American food taster taste each dish and hour before lunch to make sure it wasn't poisoned. The three of us trailed these food tasters the entire hour before lunch praying they would die of food poisoning. We were choking ourselves and falling on the ground behind them demonstrating what it would be like when they died of food poisoning. They didn't, but the thought that that was even possible was beyond exciting. That is what I remember.

BC: Well, you remember quite a lot for being eight years old. It was a memorable day.

EG: It was a very big day.

BC: So, you had other Russian visitors, but this was a pretty unique visit.

EG: Yeah, this was orders of magnitude a bigger deal. My grandfather got caught off guard. They had set up a press parking lot for a couple hundred cars and nobody knows how many reporters showed up that day. Our guest speaker, Tim Naftali, said it was closer to 300. I don't know where he got that because I think it was more than that. This was a big thing.

Another memory is in one of the most reported incidents of the day. My Grandmother and Grandfather had been showing Khrushchev corn silage. Corn silage is chopped up pickled, sauerkrauted corn that sort of smells like sauerkraut. It's odiferous in that reporters were crowding in yet again and in a fit of temper he threw corn silage at the reporters and kicked Harrison Salisbury in the shins trying to get the reporters to back off. I wasn't there when my Granddad had his temper tantrum, but my memory is my Grandmother waited until the guests left. She didn't want to have a scene in front of company, but the second the guests left forced my brother, cousin and I onto her piano bench and she was furious. Never had we seen her so angry. "You guys might have found this funny, but don't you ever throw corn silage at reporters ever again. Don't throw anything at anybody. It's not polite." She was furious with him until the day she died. One of the most famous things he ever did was throw corn silage at reporters. She found that to be humiliating.

BC: There obviously was a lot of things about that visit that was humiliating. Because he is revered in some ways for making those connections.

EG: Some people revered him. Not everybody though. It was very controversial for what he did. It was really controversial.

BC: How did those Soviet connections change your family, how you were perceived by people around you here, or otherwise in public?

EG: I was only eight at the time of the visit, so I have no idea. The only thing bad or controversial I knew about the Khrushchev when it happened was that one of my best friends was Catholic and went to the local Catholic elementary school. The nuns let them out of school to see Khrushchev go by, but they were ordered not to smile at him because he was Godless. So, I knew there was something wrong about Khrushchev because the Catholic grade school wasn't allowed to smile at him when he went by. But that was the only remotely negative thing I knew. Roswell was influential in this town and probably powerful. So, I didn't feel any flack at all at the time. A couple of years after the Khrushchev visit, I went to a summer camp in Minnesota. I was going to have a girl from Saint Louis visit me and it was sort of arranged when he parents figured out who my Granddad was and abruptly cancelled the visit because we were communists. Which we weren't. That was the first time I understood we had a real issue.

In Coon Rapids, in more recent times, there have been some nay-sayers pop up too. Not when Roswell was around, but we did a streetscape project that involved some art and one of the art things was going to be Khrushchev and Roswell together. The nay-sayers appeared and certainly didn't want to have our town honored that way.

BC: All of this is going on publicly and Garst has become this name worldwide. In some ways, you are an eight year old, your going to school in town at this point. Tell me what other memories you have from that phase of light. What was school like? What was town like at that time?

EG: I had, especially when younger, I had fun. I loved to fish and catch frogs and I had to deliver the shoppers news. When I got a little older, I was a heat detector for cattle for artificial insemination programs. So, I had a lot of liberty. My mother was very liberal about her rules where you had to be at the dinner table at six and you couldn't touch her scissors. That was about it. Oh and you couldn't sniff. She gave us lots of liberty and I always enjoyed that. When I got a little older, things got a little tougher. I was ostracized by girls my age in my older years like junior high. I was extremely bored in school. I was not a good cultural fit with the girls in my town and our school was on probation for disaccreditation. So, my parents sent me to boarding school for my last two years in high school. That was, in some ways, not a great experience. I didn't have liberty scarves and Pappagallo shoes like some girls on the east coast did. There was sort of an east coast yuppy culture and then there were a few of us midwestern girls who

didn't fit in quite so well into that culture. But those two years were extremely influential for me and I learned how to learn. It was a really interesting curriculum of using only original sources and being critical of original sources. So, I didn't have a good education in the sense of crinology, history, we just deep dived into the puritan era, the civil war, and the French Revolution. When we were in the French Revolution, we talked about the art of that era, dance of that era, literature of that era, and read original sources. I learned a lot on how to learn. I learned how to be intellectually curious.

BC: You said that as this Midwesterner, you felt like you were out of place in certain ways. What do you remember? What do you think people there thought of you? How did you come to have a new awareness of what that meant to be a Midwesterner or from Iowa?

EG: Well, I don't know. The marks of rank surprised me a lot on the east coast. You know, like how much your clothes cost made a difference. I hadn't understood anything like that. I don't even know if it is midwestern or if it is small town. I always figured one of the great advantages of my upbringing was I knew my garbage man and my garbage man's kids. I knew the drunk and I knew the drunk's kids. In a small town, even though we are all fairly homogeneous, there were very few people of color in my life. I knew all kinds of people while I went to the east coast, I am not sure if it is just the east coast or people from bigger places, they tended to think how they did it was right instead of the drunk has good stories or the garbage man is an important guy. In many ways, I felt like I had a more diverse understanding about the differences of people that were all in it as opposed to just a class of people. Class was more important in that world than I was used to by a lot.

Well, I guess that's it.

BC: So, you got excited about learning in a new way though and sounds like that triggered lots of other moods in your life. Did you go from boarding school to Stanford? Is that right?

EG: Yep, I went to Stanford. That was pretty easy because several of my relatives had been there. So, I got in as a daughter of alumni. Though Stanford at that time was really changing too. When my Uncle Dave, Aunt Jane, and my dad all went there. It was not a great school like it is now. It wasn't nationally famous. It was definitely a regional school. They had really upgraded that university just as I was getting there. So, I went to an ooh-la-la school, but my parents' generation didn't.

BC: How did your family have that connection with Stanford?

EG: I think because of my Grandfather's brother Johnathan Garst. The same guy who was the czar of fertilizer conversion. He taught at Berkeley and I suspect that is why, but I don't know for sure. Also, my dad and Uncle David were big wrestlers and Stanford had a big wrestling program.

BC: So, Iowa wrestlers moving to Stanford rather than people wanting to go wrestle in Iowa.

You said you majored in Grateful Dead and the Pacific Ocean?

EG: Yes.

[laughing]

BC: What was Stanford like for you in that era?

EG: I got more serious about the school part of it the longer I was there. When I was a freshman, I had been in this boarding school. Very restrictive. Before that a very small town. My freshman year, I didn't go to class very much. I devoted myself to having a lot of fun and I did. I made some great friends and plugged into music for the first time and I had a bunch of off campus jobs just for the heck of it. But each semester I got more and more devoted to actually learning something. So, by the time I graduated, I was a pretty serious student. I learned a lot at Stanford. I took intro to everything. There was not one intro class I did not take. I liked them. I wanted to know a little about anthropology, music appreciation, psychology, and in terms of a major, the computer caught me when I was a junior that I hadn't declared a major and I was called in to declare. I remember talking to this councilor about what am I closest in, as in what is the shortest route to a major here. I had the choice of Comparative Literature as my major, or English, or Psychology was another one I had quite a few classes in. I had just chosen an English major because it was the shortest route to a degree.

BC: What did you make of California at that time? Lots was happening culturally...

EG: And I participated in all of it. I was a devotee of the Grateful Dead.

BC: What did that look like? What does that mean?

EG: Get in the van, go up to San Francisco, go to Fillmore Ballroom every weekend. That's what it looked like.

BC: So they played shows at the Fillmore every weekend and you and other Stanford classmates just were there.

EG: Yep. I went back to Stanford and just by memory got to my freshman dorm room. There was a girl sitting in the hallway right in my dorm room more or less. We compared notes and what a different life. In our era, there was no alcohol within five miles of campus, some X miles of campus because Mrs. Leland Stanford, when she founded the university, wouldn't let alcohol anywhere nearby. I had nothing to do with alcohol in college, I only smoked pot. Talking to this girl a couple of years ago, she would never smoke pot, but people got drunk all the time.

I left campus every weekend to go to the ocean or up to San Francisco or over to go skiing. I had a car and I traveled all over California in college. She never left campus. Everything was on campus and it was considered almost immoral to leave campus. This was so different. And this young girl took her studies so seriously. She was devoted to getting a great education while in my dorm there was a nerdy guy who calculated cost per minute of the Stanford University education and would lecture people about wasting their parents' money. We just had fun.

BC: So, it sounds like you weren't always that serious about some particular career plan or educational ambition. Did you think about staying in California? Sounds like you were having lots of fun.

EG: Well, I was growing up. I was getting more serious about school every year I was there. By the time I was a senior I knew I wanted a career and I even knew in what, but I didn't know how to say it. So, I went to the career counseling office to Stanford and said I want a career in agriculture, but I don't want to be a scientist. They said we have no idea what to tell you. But there was an institute in Stanford called the Stanford Food Research Institute. They said we will make an appointment with somebody there. So, I went to the Stanford Food Research Institute, they were like the two shortest meeting I had ever had. I arrived at some professors office and said I want a career in agriculture, but I don't want to be a scientist. He said that is called agriculture economics. I said okay, where should I apply to go to graduate school. He said, apply to UC Davis, University of Wisconsin - Madison, and Michigan State University in East Lansing. I said okay. So, I applied to all of them and I got into all of them.

Then, I made a second appointment with the man. That was the entire conversation. I mean it was that short. I applied to all of them and I got in. Then, I came back and said I got into them, what should I do. He was like go to Michigan State. I said okay. And I did.

So, I went to Michigan State University for a masters degree in Agricultural Economics and I was quite successful there. In part, because I was one of the few people who actually knew about agriculture. I knew what a disk, a drill, and a harrow were. I knew in detail, because I worked on the farm growing up. We haven't talked about that, but I worked on the farm when I was growing up.

BC: Tell me about that.

EG: Although my family was well-to-do and privileged in comparison to anybody around here, my parents were very determined that we not be spoiled rich kids. So, we were made to work which was okay with me. When I was younger, we had a shoppers news route. A penny a paper for delivery on every Wednesday. As soon as I was 14, I started working on the farm. A lot on the farm. My main duties, over the years, was the heat detector of cattle which meant I was a cowboy. I was in the saddle at dawn and in the saddle at dusk. Three periods during the day we got breaks. One in the morning and one in the middle of the afternoon. Looking for cows in heat and cutting them out of the herd helping our insemination technician inseminate them. When I

got to be a little older, I rode shotgun for our insemination technician. I kept the records and opened the gates and travelled with him. I rouged corn and mowed weeds. I later went to Harvard, I will get to that. In Harvard Business School, on the first day we were to report what we had been doing. Of course, they were real hot shots. I reported that I had mowed down 800 acres of weeds that summer. That was my accomplishment. And that I wasn't very good at machinery operation.

BC: You must have enjoyed that work and the life you had seen in your family that here you are at Stanford kind of falling into an English Major and you had this clear sense that you wanted to work in agriculture.

EG: Yeah. I didn't have that clear sense as a freshman or sophomore, but when it came time to get to a career when I was going to be finishing school. I had to do something. I knew it would be agriculture.

BC: Did you always know you wanted to come back here and do that? Or did you kind of have this seed planted that agriculture...

EG: At first my focus was more on international agriculture.

Just another sidebar in my family life was my father also was involved in proselytizing corn. He got over the years a couple different contracts. He went to Hungary to teach them how to grow corn. He was gone for months and months and months. It was sort of a fun thing for Coon Rapids because our local combine mechanic was sent to Hungary to teach Hungarian combine mechanics. My father had also been in Indonesia on multi-month contracts to teach Indonesians how to grow food. Roswell was involved in chickens and development in Costa Rica. The Khrushchev thing wasn't the only international connection in my family. So, I originally thought international agriculture would be what I was devoted to.

BC: Had you been out of the country at this point? Did you travel as a kid or in college?

EG: Yeah. We travelled a lot. As I have said my parents made us work and we got paid for that. My parents paid for my college education and it was strongly suggested that we used our earnings on travel. We paid for our own travel. We were encouraged to do that. I have been to Europe, I hadn't been way over seas, but I was in Europe in high school and I had been to visit cousins in the east coast and west coast. I was a pretty experienced traveller for my age at the instigation and support of my family.

BC: But some of that was on your own? You were seeing the world, travelling with your own savings.

EG: I went to Michigan State and it was a pretty good experience. I learned, as I have previously told you about, cost marginal return, economics. I had fun too because there were a

lot of international students. My boyfriend in graduate school was Ethiopian. Then, I went to the Peace Corps. That was kind of interesting because that was very unusual for women to be in agriculture. In my graduate school department at Michigan State there were 120 graduate students and 3 of us were women. One of those was a foreigner, an Asian woman, and this other woman and I were the only other women in the big and important graduate department.

It was hard to be a woman. Very early on in the coffee break room of this graduate school, there were pictures of naked women all over the coffee room. One of my very first acts at Michigan State was to blow a bunch of my very limited budget on some big huge posters of naked sailors with giant erections because I had gone to the obvious leader of the graduate school sections and said this offends me looking at naked women while I am drinking coffee. Can we take those down? His name was Meritt and he said oh, you are just being too sensitive. I said, am I? It is really rather unpleasant. He said, no you are really being sensitive.

So, I got these big posters of sailors with huge erections and put one by each poster of a naked woman and of course it caused an uproar instantly. The leader, Meritt, comes back and says you have really offended everyone. Yeah, do you get the point Meritt? So, it was kind of hard to be a woman in agriculture because it was not a common thing.

I went to a national meeting of the Association of Agricultural Economists to find a job for my second year of graduate school when I'm about to have a master's degree. The set up was that there were a lot of people hiring and you had to put your name in for interviews. The first day I put in my name in for ten interviews and I got zero interviews. I was the top person academically in my department. I had the most prestigious major professor in the department, but no interviews. So, the second day, I do it again and I put in requests for E. Garst instead of Elizabeth Garst and I get quite a few interviews. But you could see faces change to shock when I came in for the interviews. I got no job offers at all. I made a stink about it. I complained to the Association of Agricultural Economists about the incredible sexual discrimination. Then, kinda by default because I didn't have any other job offers, I thought about the Peace Corps. That also proved to be a huge problem.

There was a poster in Ag. Hall at Michigan State saying that the Peace Corps wants Agricultural Economists with a background in livestock for Colombia, South America. I put in my application and in the applications they asked you to give indication about geographic preference and I indicated not Asia as my preference. I got my assignment and it was in Malaysia. You had the right to turn it down, so I turned it down and I got my second assignment and it was in Malaysia. I called up the desk officer at Peace Corps and said what's going on. There is this poster, I am looking at it right now and it says masters degree in Agricultural Economics with a background in livestock and you can't have too many applicants like that. Why aren't you offering my that job? The desk officer said we don't want to do anything pointless and it would never work that you go to Colombia, South America. I said, is that because of machismo? The desk officer said no, all positions in the world have positions have machismo against women. So, it's because it is the director in Colombia who doesn't accept women in non-traditional roles. I was like, do you

mean that an employee of the federal government of the United States is discriminating... what's your name? I went through my Congressman and made a huge stink about it and then I got assigned to Colombia, South America where the Peace Corps director does not accept women in non-traditional roles which was a little awkward. But he got caught embezzling automobiles not too much later from the federal government. So, that problem went away.

I was originally assigned in the Peace Corps to be an artificial insemination technician, and that was another big fight. It took me three days to learn how to be an artificial insemination technician, and it took me two years to learn how to be an ag economist. I eventually got a great job. When I did finally get there and get a job, it was a really great job. I got to use my skills.

BC: You mean in Colombia?

LG: Yeah.

BC: In Colombia, what was that like, again, as this Iowa farm kid who had been to Stanford and Michigan State, what was Colombia like? How did you make sense of that new world experience?

LG: It was really good. It changed a little bit. I started out in a regional office of the Agriculture Extension and Research Agency. I was, during the site visit, involved in a very bad automobile accident with my boss. My boss lost his leg out of it, lost his career out of it. The Agency we worked for lost its only vehicle. I was fine, but I got reassigned in not too long to the national office of the Ag Research and Extension office. It was a terrific position to get to. Most of the people I worked with were Master's degree or PhD type people. Colombians. I was with a very sophisticated group of people. I was at the national headquarters of this agency, so I was near Bogota on a research farm outside of Bogota, but close at hand. I ended up being involved in training Peace Corps volunteers in ag vocabulary in the Soviet Union and the structure of agriculture. I got involved with hosting delegations with Senators and Congressmen coming on inspection trips. I got a lot of different kinds of things to do. The big one I did was -- the World Bank was getting ready to do a huge rural development project in Colombia, sort of as a dress rehearsal for the big time money that was coming. They gave my agency money to practice what we were going to do with big rural development money. I pretended like I was a Colombian agriculture economist in a rural development project, and I did what I thought one would do as an economist, and then I wrote a training manual on what ag economists should do. Then, I gave that to a Colombian ag economist to follow my instructions, and then I rewrote my manual again and again. I designed what ag economists do in rural development. It was very intellectually interesting, and it got me all around the country because I traveled to various rural development project areas. That I was a woman was really not as relevant as the fact that I was an American. The predominant feature was I was an American, and that I was a woman was secondary. There weren't that many Americans there in Colombia then. It was a great job.

BC: Yeah, it sounds like. And that led you to opportunities later with the World Bank probably? Or at least gave you some connection?

LG: My next big decision was that I had this economics degree. Marginal cost, marginal return, long-term [inaudible], supply/demand. But really, the problems all boiled down to the telephone didn't work. Or the secretaries weren't trained enough. Or the logistics of administration. The Colombians weren't very good in that department. It wasn't the lack of theoretical knowledge. It was making things work. It became to me the more obvious problem than the theory of economics. I decided to go back to school in business administration so that I had a background in making things work. Making the telephone system work. Organizing the people in a more coherent way, etc. I applied from the Peace Corps to various MBA programs including Harvard because Harvard had an agribusiness major inside the business school. They had a very strong agribusiness program, so that's why I went there. My major professor there invented the word agribusiness.

BC: It sounded like, even from the stories you're telling of your family, a lot of agriculture had not been really operated at a scale where it was a business. It was a family enterprise, and that was all shifting, and you were kind of right there as it was happening. The word agribusiness is getting invented. But you had some experience of a farm that was on a different scale. It was a business enterprise on a different scale as well.

LG: The business part of agribusiness is maybe in my family more than most family farms. We ran a seed company, which was a business. All during my schooling, we got our first mainframe computer at the office in Coon Rapids. Meanwhile, our family had banks forming in the seed company, the insurance agency, a little construction company, and we sold a chemical fertilizer business. So, we had several businesses that were agribusiness related. The big one was the seed company. While I'm in school, all sorts of things are happening with that seed company. We were in what was called a partnership with Pioneer Company. Our seed was getting sold into Pioneer bags with a Garst label on it. The basic deal was - the word was never used, but it was a franchise. Pioneer provided the genetic parent seed to us, and they did some of the advertising, and we did advertising in our area, and we produced and sold this product. In 1974, Pioneer went public, went onto the New York stock exchange. Out of family control into major international agribusiness. Very appropriately, Pioneer got real interested in growth and earnings per share. That's what New York stock exchange companies are morally obligated to do. That's what they're supposed to do. Pioneer had a lot of trouble with growth and earnings per share. They were phenomenally successful at seed corn. They controlled like 38% of the entire world market. They were great at that. The corn market was mature, so the growth part of this was a big problem. They had tried all sorts of ways to grow their earnings per share. They got into silage inoculants, retail computer systems, hybrid chickens. They tried a bunch of different stuff. Kind of no matter what they did, 150% of their profits came from seed corn. They did a major shift a few years after '74 in their business strategy to grow. They decided to knock out all their franchise distributorships across the world. They had franchise distributorships in Mexico, in South Africa, in Australia, in India, all across the world. Systematically, they took out

the middleman company and just started selling direct to grow their earnings. We were the only US arrangement at all, other than themselves. It took them a while to get to us. Our partners, the Thomases, disagreed about what to do. The Thomases had no heirs. I don't think, frankly, as interested in the future of the town of Coon Rapids as my family was. We disagreed on what to do about this threat. What happened was we bought out our partners, the Thomases. We took on Pioneer. The Thomases had always been the management. My granddad's department was sales, and the Thomases produced the corn and ran the office. When I graduated from Michigan State, I applied to work at Garst and Thomas Hybrid Seed Corn Company. The Thomases and the Garsts were fighting about what to do. And the Thomases refused to hire me. I went and worked for the World Bank, and I had a great job there, and I can tell you more about that if you want to hear about it. A couple years later, we resolved our issues with the Thomases by just buying them out. We did it with a leveraged buyout, so we took on a lot of debt. We took on Pioneer. We lost. But we had prepared a fall back. We already knew before we started the lawsuit what we would do if we lost because we hired some strategic consultants to come in and advise us. We knew we were highly marketable as a stand alone company because as this story is unfolding, the possibility of genetically modified organisms is in the future. By the way, GMOs were in the future, it's gonna be here in ten years or about twenty-five/thirty years. It's gonna be here in ten years. It took a lot longer to get GMOs than they were projected. But at this time, it was thought we would have genetically modified organisms and every corporation in the world was on that. The two main outlets for genetically modified organisms are medicine and agriculture. We knew we would have lots of suitors to buy us if we tanked. And we did tank. When we bought out the partners, I was at the World Bank, but with an MBA in agribusiness. I would have, by then, liked to have stayed in DC for at least a couple more years. I got the call from my family to get home right now. There's nobody who knows how to run anything around here. The Garsts had always just been in sales and nothing else. I jumped in and took over the business part of the seed company.

BC: Do you wanna go back and say more about the World Bank? You mentioned you really enjoyed that work.

LG: Oh, yeah, I did. The World Bank had two ways to get employed there. The first way was you have a long and very successful career overseas, and you're fifty years old, and you're tired of living overseas, and you're a hot shot. So, you get hired by the World Bank that way. That's about 80% of their hires. 20% of their hires were young hot shots with no experience, but great background. I got hired as a young professional. Young professionals in the World Bank had two 6-month stints and then were places somewhere in the World Bank bureaucracy. I started out in Central Project Staff. The World Bank was divided up by region and by sector: transportation, health, agriculture. There was an organizing core, and I was assigned to that. I had a terrific boss, really excellent boss, and I was sent as a project economist to Malaysia. The Malaysian government was getting lots of money from the World Bank. The Malaysian government was run by Malays. The Chinese ran very successfully, the agriculture of Malaysia, but the government Malays wanted to make Malays and the government in charge of agriculture. I'm the project economist on a team of ten people, and I spend a couple months in

Malaysia. It was outrageous. The World Bank then was run by McNamara. McNamara was a famous manager. He had managed the World Bank into various parts of the world and various sectors of the economy. It all boiled down to we were going to lend \$130 million to Malaysia for rural development or you're fired. They didn't really need the money. They were really flipping us off. They wanted the money for overtly racist reasons. To get rid of the Chinese. I was basically ordered by my immediate boss to cook the books to show these projects made sense, though they did not. I got back from that experience to my real boss in central project staff and, like all World Bank people, I was required to do a back-to-office report. The title of my report was, "Real World Crushes Young Idealist." My boss called me in and said, "Your tone needs work. There's a little problem with the tone of this report." And I said, "I'm furious!" It was awful. He worked with me on cleaning up the tone, and I went and presented my report quite a ways up the chain of command that this sucks. This is not right. My boss let me do that, which I always appreciated.

Then out of that, I also in that same department got involved in a project where, in the '73-'74 time period, the world ran out of food. We really came up short on food. There was a huge corn blight in the United States. Bad weather all around the world. Willy Brandt, a German, had done a big important international commission to never have that happen again, and we should store food all around the world. My team, my boss said that's ridiculous. You can't store grain in the tropics; it'll mold in weeks or months, and you have to turn it over. Grain stocks are extremely expensive to hold. Instead of having more grain stocks in the tropics, the world ability to move food is what should be worked on so there'd be better ports and better transportation. If there's a shortage of food there, you can get it there, as opposed to have it be stockpiled there. There should be better price discovery around the world on what is the right price. The US solution to that is the Chicago Board of Trade. I sort of became the World Bank's expert on how does the Chicago Board of Trade work and what are the options and futures anyway. And how can the world use those tools? It was a very intellectually interesting job. That was my first six months. In my next six months, I did something completely different. I became a bond trader in the finance department. The World Bank had the single biggest investment portfolio in the world. They had this hiring system of you had to be fifty or just out of college. They couldn't afford successful Wall Street traders. They couldn't pay them the salary. The treasurer's department was staffed with people like me, who didn't know anything about it. I worked in this treasurer's department, and then after my six months, I stayed there. I had a really interesting job there. Once again, I was blessed with a great boss, an Iraqi. I was quickly put in charge of miscellaneous portfolios because I was the junior person. I managed the investment portfolio of the World Health Organization and the Aswan Dam and a couple others invested in US treasuries of six months or less. Pretty simple portfolio. Then I got a job implementing a new program for the treasurer's department and repos. Repos are where you rent out your bonds for one night and you give the security to someone else and they give you the cash. Then the cash can be reinvested in the fed funds market for a spread of an eighth or a quarter. They had never used this program to pick up the extra quarter or eighth. I was chosen to implement it. Mostly, because I was not as nutty as most people in the treasurer's department. People who are really good bond traders have huge egos, and they have to because you're wrong like 50% of the time

but you have to stand up and decide again. Bond trading is a job for people who have tons of ego. People who have tons of ego maybe aren't the nicest people. I didn't have quite as much ego as most of the other people. I wasn't quite as good a bond trader, but I could get along with the accounting staff and the forms production people. There were a lot of steps to introduce this program of renting out the World Bank's bonds and reinvesting. I got that whole program going and made a couple hundred million for the World Bank before I was called back home. It was a great job.

BC: So, you've had all these interesting experiences all around the world with people from all around the world. The young idealist then gets this call to come back home. How did you feel about that at that stage in life?

LG: By this time, I'm enjoying Washington, DC. I'm enjoying my job. I had just had a wonderful job with wonderful coworkers. The Bolivian, the Iraqi, the Brit, etc. I had to go home. If I was ever gonna go home, I had to go home when they needed me. So, I did. It was kind of shocking to move back to Coon Rapids in some ways, back to my world. I remember I had a shed and all my possessions are in garbage bags. I'm still sorting through stuff. I'd been home about two weeks, and my mom comes to me very concerned, and says, "It's all over town. I've heard it at both my bridge clubs and the book club and at the grocery store that you're a garbage hoarder," my mom says with great concern. "Pete Oliver saw all these garbage bags and they're still there! It really doesn't do to be a garbage hoarder." I said, "Mom, those aren't garbage sacks. Those are the winter clothes I haven't unpacked yet." Like, welcome back home. Where my garbage hoarding is the main topic of conversation all over Coon Rapids. They're all talking about me.

BC: Yeah, you're back in that small town world that in some ways you love, but.

LG: But there's also sobering factors of having moved back here. You give up a lot of privacy when you live in a little town. You really do.

BC: What do people think of you now that you've been to Harvard and you've worked for the World Bank? Did that change how you felt coming back here or how people felt about you?

LG: No. These are my people. I'm sure I have plenty of detractors in Coon Rapids, I'm sure I do. Especially amongst the nay-saying crowd. But I think I'm a well-loved person in the town, frankly. People like me.

BC: It sounds like other members of your family had also had these kinds of experiences of moving away and traveling and having that sort of cosmopolitan life, too. 2:18:24 You weren't the only one who left or had come back.

LG: I think one of the sad things about rural America now is the decline of the better educated and more worldly people. In my grandparents' day, discussion club, where they met once a

week or something like that and read books and discussed the great issues of the day. They had educational peers. A lot of them. And culturally experienced people. In today's world, there are less well-educated people in little towns. Less worldly people. The poverty level is much higher than when I was growing up. That makes it harder than in my grandparents' day. The towns have declined intellectually, frankly. There aren't jobs for people here with advanced degrees like there used to be, or career opportunities.

BC: It feels almost inevitable that people would have to move away, whether it's for a short time or forever. Certain kinds of people have to move away. Others might feel stuck, I guess.

LG: I've lived in other small towns in Iowa. I lived in Adel for a while. Coon Rapids is blessed compared to most small towns in one way. The seed company brought in outside professionals over the course of decades. People to run their computer system and people with degrees in agronomy who came here for careers. Even today, the town still has a culture of accepting new people, like a lot of small towns don't.

BC: You moved back here, took over this business that was in some ways in a state of crisis itself.

LG: An absolute crisis, yeah. A complete crisis. A big-time crisis. I worked my heart out. I never worked so hard in my life. It became obvious fairly soon, not right away, we had some bad luck on top of a leveraged buyout and losing a lawsuit. We also had the worst and second worst production years in the history of the country. We had a super early freeze. I remember walking out of my house one morning and thinking about how we just lost millions of dollars because our entire crop had frozen before it was harvested. Frozen seed corn is not good as seed corn. It kills the germination. The next year, we had a drought. A really bad drought. We were toast. We weren't gonna make it. I was maybe the first person in my family, since I kind of ran the books, to understand we needed to sell ourselves. We weren't gonna make it. Eventually, the rest of my family came to understand that too. It took some of them a little longer than others to get to the reality that we couldn't borrow the money to solve this problem. We were not gonna make it. But we did, already, have a backup plan in place and we hired an investment banker to help us, and we sold the company. That was a big job. That was a really big job. I think the most I've ever been complimented is when we did sell the seed company. The new buyers said, "You guys aren't very sophisticated. We thought based on the prospectus, that you were a very sophisticated company." I had written the prospectus. I had prepared financial analysis and Excel spreadsheets that look really slick. We did sell the seed company, and we were courted by British Petroleum, ICI Seeds, Imperial Chemical Industry Seeds, which we knew was the kind of buyer we'd be looking at. And we did sell the seed company.

BC: You said part of what these other companies were interested in, these emerging technologies --

LG: The potential for GMOs. British Petroleum and Imperial Chemical Industry, those are all fossil fuel industries with a very finite life. All these companies knew that they needed to get to something that was more renewable in the business lines, which would be what GMOs are.

BC: You'd think even then that the sort of looming scarcity of oil and fossil fuels, that was part of what --

LG: Well, a little bit. Mostly, it was the potential of GMOs that were gonna change the world.

BC: Yeah.

LG: They made a big difference.

BC: What was your company doing at the time that was on the cutting edge of that or had that potential?

LG: We were, of course, striving to have the very best hybrids from the very best inbreds. But the GMO thing was going to be in ten years for a very long time. When we were purchased, there were no GMOs. It was just on the horizon. Everybody knew it was coming. And it did eventually come. But it wasn't there when we sold it. The reason that British Petroleum wanted to buy a seed company was because of the potential of GMOs. And genetically modified organisms are really only two outlets: agricultural seeds and medicine. Those are the two things you can invest in to jump on that bandwagon everyone knew was coming.

BC: When they bought the seed company and when you sold, did that change the operation here in Coon Rapids and who was operating things here?

LG: Not immediately, but yeah. It changed. Imperial Chemical Industries, that did buy us, just for example: they decided that the lot number system should be more detailed. They made lot numbers eight digits instead of four digits. The inventory system of the seed company immediately went fritz because forklift operators can't remember eight digits, but they can remember four. Somebody in charge doesn't understand that you should ship short season corn before you ship long season corn. There was a collapse in sales for failure to deliver to Missouri to Texas because they were delivering to the wrong part of the country first. In other words, they made a fair number of corporate stupid decisions. Here, I'd been basically in this pretty scary bucking bronco of a business, and I had my dad and Uncle John and my Uncle Dave to contend with in this business and there were a lot of fights, but I had a fair amount of autonomy to get things done. Shortly after the new owners took over, they wanted me to stay, but the CEO of the company pulled me aside to lecture me on my style of using a pointer during presentations. It was like, you know what, this isn't gonna work. I'm out of here. I don't want to have polished corporate presentations. That's not what I want to spend my time worrying about. I left rather quickly after the new corporate owners came in. I came back a year or two later and was hired as a consultant for a while to try to get their collapsed inventory systems back on track, but

mostly I was out of there. Then ICI, Imperial Chemical Industries, a few years after owning us, decided to change the brand name from Garst Seed Company to ICI Seeds. Which every farmer immediately started calling "Icky Seeds." It was like, hello! Hello! Although the Khrushchev visit had been very controversial at the time, we're sure it made us tons of money because it made the brand name so famous. Our brand name, Garst, was a big name, important. People respected that. And they just changed it to ICI, icky seeds. And then they changed it back to Garst after that, anyway. They didn't do a smash up job of it, at all. We did better than they did, by a lot, despite the fact they could use pointers during presentations better than I could.

BC: It sounds like another example of where the small town culture of the business and the family and the little bit rough around the edges didn't fit with this outside image of what was good enough, what was the right way to do things.

LG: My Uncle David was always the successor to my grandad as the salesman of the company. My Uncle David was a very difficult man. They eventually fired him because he was uncontrollable and making some decisions that he shouldn't have been. I was having a fight with him, too, but he always wanted more inventory. Inventory takes cash. He and I had quite a few duke outs about what is our inventory gonna be this year.

BC: It seems that a lot of people who move away from, whether it's their small town, their farm, move away from the Midwest, part of that coming home is often being close to family again, and as you said, some of that is contending with family again, both in the business and just in the community or living close to each other. What was that like to come back and be right in the mix of family after being away for so long?

LG: Difficult. Difficult. Because we did business together. This was always an issue in my family. My mother was the cattle manager of our family business. They [my parents] disagreed a lot on how the cattle and farming business. My parents, by the way -- my mother was a very financially astute woman, and my dad was not. He was great at buying assets, but indifferent to the scariness of debt. Early on, my mom, in fact, she never allowed them to own an asset in common. They had separate checking accounts. My dad owned their house. My mom owned this house. They never owned anything in common, ever. They didn't even have common deep freezers. His was full of game, and hers was full of corn and beef and chicken. I always knew about family tensions. Business was discussed in our family. I always paid attention to that, too. Even though I was a kid, I eavesdropped on my Uncle John talking to my mom and dad about all sorts of business things. I just absorbed it as a kid, what family business is like.

BC: You moved back here and you have siblings here, and your parents, and aunts and uncles, and a big family in Coon Rapids?

LG: Originally, but most of the people my age had left. I'm one of the older people in my family of my generation. When we sold the seed company, I went on a trip around the world. Twenty

grand or one year, whichever came first. I skidded back into Coon Rapids at fifty-one weeks with about \$500 in my pocket. I had a great trip around the world, and when I came back, the family business had been that my dad ran the farming, chemical, and fertilizer. My Uncle David was the seed corn salesman, and my Uncle John, who was not really my uncle, ran the banks. I should explain my Uncle John Crystal. His mother was Roswell's sister. She died when John Crystal was ten years old. On her deathbed, she said, "Roswell and Elizabeth, look after my children." He was functionally a son of Roswell, and I always called him Uncle John though he was, in fact, my first cousin once removed. My dad's first cousin. He was a huge part of my life. He was a very wise, fun guy. He was fundamentally in charge of banking, and he was in charge of the trust funds. My grandfather had set up trust funds for all his grandchildren, and my Uncle John was the trustee of that. My Uncle John taught me how to make a balance sheet when I was 21 with my assets. When I came back from my trip around the world, my Uncle John offered me the job as the bank president. I had filed checks in high school. That was my grand total bank experience. I became a bank president of one of our family banks, of which at the time we had six. That was a good experience. I wasn't a very good bank president. I did it for ten years, and I learned a ton, but it's clearly not what I should be doing for the rest of my life. Bank presidents really need to be very conservative, and I'm not quite as conservative or as disciplined as a bank president should be. But I learned all about banking and what makes a successful bank. I did that for ten years, and that was a really terrific grooming for me, who was by this time clearly the [inaudible] of our family businesses. I was going to be managing our farming and our banking. It was pretty obvious I was the one. I had a cousin that was involved for a while, but later dropped out of it. It was clearly just good grooming for me to be a bank president so I could know how to run banks.

BC: Was this what you were doing through the farm crisis? I'm trying to place this.

LG: The farm crisis really got going maybe in 1986. That's right when it really got really bad, exactly when I was on my trip around the world. I was aware of it though, because I'd been on a bank board before then. I'd been on a bank board so I knew it was getting stinky. I was gone, and when I came back, it was still stinky. It was still bad. There were foreclosures. I kept lists of customers who might want to get out their guns and shoot me, so I could disappear appropriately or have other people around me when dangerous customers came by. It was a horrible time. An absolutely horrible time to be a banker.

BC: Your family was farming but also banking, which was probably --

LG: It was really tough, tough time. It was really a hard time. In terms of my family, my dad, who had never been scared of debt, he almost didn't survive the farm crisis. I got very involved in his business during this era. I was sort of a consultant to him. He and my mom usually blew us off, but we worked on him hard on what reforms he had to make to survive. Eventually, he did what he needed to do to survive, including, he sold a lot of land. A lot of the land he sold, my sisters and I used our trust fund money to buy that land, which helped make it palatable for him. That acquisition we made in the farm crisis is the heart and soul of Whiterock Conservancy now. And

even then, we were like, "Why are we buying this land?" Other than to bail him out, and we like this land. Well, maybe we should make a park out of it someday. That was the discussion then. My dad's fears were particularly hard because of his personality and his business. Banking was really hard because farmers were committing suicide, shooting their bankers, and going to farm auctions and watching the parents of my friends cry as their life is sold away. It was a terrible time. There were some good things about it. John Crystal was very involved in trying to take some of the sting off the farm crisis. He was involved in introducing the farm mediation law and insisting on some FHA reforms. He was a liberal banker who really worked hard. In our banking system, we did everything possible to keep our customers going. If they had to be flushed, if it was hopeless, we did. But if in doubt, we tried to stick with our customers. We're seeing this again for the third time in my life. Farming's rough now, and the big city banks who are in agriculture, some boss up in the sky suddenly wakes up and says that agriculture is no good, and they start throwing their customers out the bank door. This is the third time I've seen big banks do this. We've always just been, "We're yours for life. If you can survive, we'll survive with you." John was very involved in that. That was at least trying to solve the problem. It was a tough, tough, tough time. It was hard in Coon Rapids. I never want to go through that again.

BC: Like you said, there's some of that now.

LG: Yeah. But it's much better now, this time, than the 80s' farm crisis. Because then, the problem was asset-based lending. Bankers were guilty. We weren't the only guilty parties. They changed the interest rate policy. The federal government, just before this, had been hounding farmers to plant fence row to fence row. Farmers were go go go, got to get our kids in here, got to borrow more money to get our kids in here. Bankers were guilty, too. Our main crime was asset-based lending. That means if we owned 75% of the value of your farm. It didn't matter then how you would pay that loan back. There was grossly insufficient attention to how are you going to pay the loan back. When interest rates skyrocketed, and Jimmy Carter destroys our international markets, and income went negative, and interest rates are 18%, the only thing to do is sell land. That meant that the land that was worth \$3,000, so much was on the market that it went from \$3,000 down to \$800. It was a black spiral. As it got worse and worse, more assets got thrown on the market, and the price of those assets went down even more. It was awful. In this crisis, bankers make their farmers, and the farmers do cash flows on how they're going to repay loans. We're not having this asset black spiral like we did in the 80s. Thank goodness. We're losing farmers, though. Even though we're losing farmers, it's not as ugly as it was in the 80s because we make the farmers do cash flows. The farmer knows they've been working like a dog for the last four years, and they're a lot poorer than they were four years ago, and they're not making as much as they could with a job in town. When they can't make it, most farmers understand the *why* a lot better than they did in the 80s. If they don't make it, they might even want to get out of farming because they've been working their guts out for nothing. It's different, thank goodness, because the 80s were really bad. I've just listened to a program about farmer mental health and they were talking about mental health services in the 80s and Iowa State had duh duh duh, but in this program they didn't get to what I thought was the foundation for mental health in the 80s, and that is pastoral counseling. I had an employee who was clearly going off

his rocker, early on. I told him he should see a mental health counselor, which he heard as I just called him insane. It's just so socially unacceptable to have mental health problems. There were lots of people with mental health problems in the 80s, but you couldn't say you have a mental health problem because you'd heard that you're insane. She just called me insane. It was so socially unacceptable to have a mental health problem. But what was socially acceptable was to go see your pastor or maybe some other pastoral counselor. The churches are what saved rural Iowa. It was never mentioned in this radio program I heard last week about all these other services, no. It was churches who stepped up to the plate and helped farmers with their mental health problems. I'm a big fan of churches, even though I don't participate myself, they provide important services.

BC: Yeah. In small communities, they are really key institutions, and have been for a long time.

LG: For that service of mental health.

BC: Yeah.

BC: So you got into the family business, back into the running things

EG: So I ran the bank for ten years and devoted myself to that and was okay at it, not great at it. And at the end of ten years, my parents and my uncles are starting to get old. And I knew I was the airer parent, so I had been the president of one bank but we owned other banks and I didn't know anything about them. Farming operation when my dad was in crisis, I dug in but otherwise I just wasn't, and I knew I had to get back to Coon Rapids if I was really going to take over these businesses before the next generation dropped dead.

So, my next step was to start an ecotourism resort in Coon Rapids. My grandmother had just dad and clearly this farmstead and this farmer are important historically. And the house was falling down, my grandma had gotten stubborn in her old age and my dad was officially in charge of her and she kept insisting the house was fine, it was a perfectly fine farmhouse, it was falling down around her ears. You know, it was not fine. But she was getting old and stubborn my dad hired contractors to come in and my grandma literally threw them out the front door. So her house was in the state of collapse and I had travelled a lot in my life and I knew all about ecotourism. I'd seen ecotourism in Costa Rica and Belize and Australia and all over the world. I knew about ecotourism but it just wasn't the thought in The United States at all. And I thought it would be really cool to have an ecotourism resort in Iowa. Nobody ever thought of that idea before I'll tell you that was a new idea in Iowa. So I took over my grandmother's house, when she died the aires were cooperative about that. They left the furniture in the house, I bought the house, but rounded in some of my family members for investments, capitol, and made a bed and breakfast in my grandparents house. Made a cute rental cottage in the family chicken coop, and offered commercial farm tour, alternative ag. Farm tour, canoeing, horseback riding, I hired contractors to give programs about raptors and it was mostly to give me something to do while I'm waiting for my parents and uncle's to die. And they did.

And so, when I moved back to Coon Rapids I ran by all the family bank boards so I could start learning about banking. My dad is always in financial trouble and I'm around even more to try to help him. My dad got Alzheimer's disease and I got more and more involved in his business trying to save him. I eventually had to try to take over for my dad against his will because he just didn't know what type of shape he was in. And tried to reform his family businesses a couple times over but I couldn't make it work. So I liquidated his cattle herd and this machinery line, laid off his 50 employees. Kind of tough decisions, but they had to be made. So sort of at the end of that his affairs are, he owned huge amounts of land, and other assets, he was a good asset buyer so in the end he came out alright even though he never made money, the asset values went up more than he lost so in the end was financially alright. And I asked my sisters and my mother, okay we're gonna sell a lot of assets and liquidate millions of dollars of debt, what do you want to sell and what do you want to keep, cause we're going to be selling a lot of assets. To a person, they said don't sell this valley, even though it was not the highest rate return land we had, it was what everybody valued most. So we sold other assets and got the debt cleaned up and then had to decide what are we going to do with all this land. We used Iowa Natural Heritage Foundation who does many different things in Iowa, they're very entrepreneurial. One of the coolest things the Iowa Natural Heritage does is advise land owners on how to protect their land. Which is really great service they provide. And in our case most land that's protected is done with conservation easements, but in our case that clearly wasn't going to solve our problem. The best thing about our land was how big it was. And conservation easements don't prevent the sale of land it just somewhat limits the use. And conservation easement, there's never going to be a cornfield on a lot of this land, it looks like this. So it was maybe less relevant. With a lot of help from Iowa Natural Heritage Foundation we decided the best way to protect this land would be to give it away to someone who would hold it permanently and give it away to whom took quite a bit of time.

Meanwhile I had been on the natural resource commission, the board of directors of the DNR, so I had upclose and personal experience on what awful job the DNR does taking care of the public's land. They really do a poor job of it, and furthermore I knew an important part of this land was agriculture. 80% of all the land in the Whiterock project does have agricultural purpose. It's in CRP a lot of it and cattle pasture and than roe crop but so I knew I didn't want to go to the DNR because of their poor land management and their lack of agriculture. Another idea was the Nature Conservancy, but they had planted themselves in the corner they wanted projects in the 5, ecosystems of Iowa and they didn't I think even understand that this is absolutely fabulous as oak savanna, the most misunderstood environmental community that we have in this state. This is just beautiful oak savanna but they didn't have oak savanna as a priority so they weren't it and it would be ridiculous to think the county conservation board could handle this. We decided in the end to start a new, new organization, Whiterock Conservancy. It took us a while to get non-profit status so in the first couple years we actually gave our land to the Iowa Natural Heritage Foundation. And then when we were a fully legal non-profit they gave the land back to us. And it was a big job just to get that up and running. 27 different legal entities were the original donors to Whiterock, my family had ended a new company for every

possible occasion so there were individuals and lots of different companies involved. So it was incredibly complicated to get it up and running, the IRS application itself was incredibly complicated. And writing the mission statement and logos and I was the involuntary, voluntary, part-time, full-time, executive director of Whiterock for its' first couple years, getting it up and running. But now its' long since been with paid staff.

BC: Yeah so tell me a little about the vision of Whiterock then and how its evolved to how it is now.

EG: The original idea is still the idea, we've had some wavering over time but we're back to where I think we should be. It's pretty complicated mission statement for a non-profit. Cause it has 3 parts. The first part is natural resource protection and restoration. The second part is sustainable agriculture. And the third part is people, to come learn about natural resources and agriculture. That's the fundamentals of it. And then the preservation of the historic crushuff farmhouse is sort of a side-bar on the subject. But it's right in the middle of what we were giving away so they've got that, it's not quite as related to the core mission as one would hope but they've got it so they've got it. In natural resource protection and restoration there are many cool things about Whiterock. The biggest effort and the most land is the oak savanna restoration. Oak savanna was originally 15% of the state of Iowa, and it's now 0.00% of the state of Iowa. It is the most endangered habitat in the state. Its rarer than wetlands or prairies, native prairies, by a lot. And why it's so rare is that in Iowa was on the slopes of river valleys east of the Mississippi Missouri divide. And slopes of river valley's is where we had built all our cities, and as in most of Iowa, we have cut down a huge number of trees to have more row crop. And in the forest we have left, we have had fire suppression for 150-200 years. Oak savanna is a fire dependent plant community. The idea is that the fires kill all the trees except oak trees, maybe some hickories. Oak trees love fire and you know that because if you look at an oak leaf in the fall or even in the spring, it's all curly and crispy, burn me baby, burn me. While all the trees that are subject to getting killed fire, the softwoods, the linden's, the maples, the hackberries, them, they all flat wet leaves that fight fire. So we used to have fires for sure by lightning, also by Indians that kept the softwood trees from growing and that left enough sunshine for oaks to survive. Oaks have to have sunshine or they don't make it.

So we here in oak savanna restoration, our single biggest natural resource effort, we burn 1,500-2,000 acres a year, this is one of side-bar careers. I'm a pyromaniac, I love fire, I was just recently retired as the burn boss of Whiterock and before that just me. Fire is a major part of what we do here. Once forests are so overgrown that the softwoods are already ruling, you can't kill bigger softwoods with fire cause they've already laid down their own protection, there's no sunshine on the forest floor so there's no fuel, the flat wet leaves. Once it's too far out of hand then you can maintain with fire but to actually get back to savanna would have been tree cutting. Timber improvement, at the rate of 20-25 acres a year. That's an expensive project.

So we have beautiful oak savanna's here, very appropriately located, we know based on the soils, the plant communities that made our soils, and we know on the 1830's-1850's surveyors,

this all was oak savanna originally. So we're restoring in the right spot. Unlike some of the oak savanna restoration sites in Iowa. That's our main resource effort, we have as one of the ones that touches me is we have a lot of native prairie in these timbers. When I was a kid my dad would load us up every single year to go to the monarch monet farm, which we don't own anymore. A little further south west of us to see his native prairie and a native prairie. And it wasn't very impressive and he didn't know he had to burn it, but we had to go admire that native prairie. Now I know that there are hundreds of acres of native prairie right here that the getting rid of the shrubs and the junk stuff has revealed to us. That we have native prairie all over this valley. Which is really really cool.

Some of our other natural resources, I think one of our very best is dark skies. Light pollution is a very bad problem, it affects the animals and their migrations and their habits, it affects us cause we don't sleep at night and it's a really bad problem. People have been utterly indifferent to this problem, they haven't plugged in that it is a problem and back in the days of Garst farm resorts an astronomer ran in an ad, he wrote a computer program to find the darkest place within a two hour drive of inside. And he placed ads in several local newspapers looking for a place to rent and he got three responses. My dad, my boyfriend, and my neighbor, all not knowing each other had applied, all three applied to rent a house to him. And darwins rented his family home to this astronomer who was really into dark skies and really introduced us to this thought. It's a dark place in part because Whiterock is so big, our family is so big that there aren't a lot of other people's lights in the way. We are the right distance between des Moines and Omaha. Their brightest thing, the most annoying thing in our sky is Des Moines.

It gets brighter and brighter in that quadrant of our sky guide. Damn Des Moines, they need to do something about their lighting ordinances. And this is starting to help us understand the value of dark skies, and helped us get hoods on some the yard lights around here. Meanwhile, we were getting a farmer owned ethanol plant just a couple miles from here and I'm an investor in the ethanol plant. I muscled my way into that subject and it's the first dark sky friendly ethanol plant. And now of course this absolutely makes sense for every kind of company because it costs a lot of money to light up the sky, it costs a lot of money to light up the sky. Why do it? If you're starting from fresh and you light just down you can save a lot of money and electricity bills. So the ethanol plant's a good example. They usually glare in the night cause they run 24/7 and they have to get up on the catwalks at 2 o'clock in the morning because there's a jam or something. So we said to the ethanol plant here, how often do you have to get up on the catwalks at 3 o'clock in the morning because there's this jam? Oh, once a month there's a maintenance issue, it's like, how bout putting those lights on a light switch, and turn on the lights when there's a problem. Just like on our own farm we had yard lights for our cattle and the feedlots at the home farm cause they were prone to get out, and they'd rush to throw themselves on the highway or in front of the train at the railroad tracks nearby. And their cows get out at night and boy you need a lot of light. But how often do the cows get out in the middle of the night, we put all our yard lights on a lightswitch. Saved a ton of money and got darker skies.

On that, early on we got, I think we're hosting I don't even know what, the 23rd or something, Iowa star party here. Cause of our dark skies and our attention to it. Our native prairies we have very long species lists of everything. Plants, dragonflies, breeding birds, we are a really biodiverse area for Iowa. One reason why is we're in two landforms in Iowa in the southern drift plane and in the prairie pothole region of Iowa. And also we have sand prairies based on our sandstone which means we have very dry prairies in some places and the closest dry prairies are the Less hills. So we're sort of a hundred mile, bringing western species east that hundred miles our dry sand prairies. We also have here cause of the geology of the very porous sandstone, we have wetland seeps. And those are our best a rarest plant communities because they are so wet, they have never been farmed. Not even the cows like to hang out on these wet seeps. So our species list in those wetlands are really long and we've been told we have some of the best wet prairie in the state.

We are also the western outpost for oak forest in the state. We're very close to the M&M divide right here. Mississippi-Missouri divide. And there were never trees on west of that divide and we're only in like 4 miles from there right here. We are the furthest western outpost of oak forest in the state. And one of our debates is should we be oak forest or should we be oak savanna and we're big enough to be both is my answer.

So that's the natural resources, the sustainable ag. My family has always been interested in sustainable ag. My grandfathers hobby was to buy trashed out highly eroded, gullied, south of town farms. And fix them up. He did that a lot. He'd buy a junk farm and he'd grate out the ditches and seed down the farm to pasture. Did that a lot. And loved that. My dad was an ardent hunter and fisherman and it took him a little while but sort of in middle age, he figured out that draining all these wetlands meant he didn't have as good of duck hunting as he used to. And he sort of got interested in habitat, for hunting. But, habitat and that he loved beautiful land like we're looking at right here. So he did a lot of habitat work, he built 60 ponds in his life, he loved ponds. He made the ponds free and open to the public from the day were built on the grounds that if he tried to kick people off his ponds, they would disrespect it, but if he let them on, they'd help take care of it. So, he was always generous in his fishing ponds, but he did not understand, he took us, my mother too, we went on picnics everyday of my childhood. Not in the dead of winter but every Sunday, Spring, Summer, and Fall picnics on this land, in these woods. That was outdoor experience they were really intent we have.

BC: So right along with agriculture or sort of intensely increasing yields, they were also practicing these sustainability conservation practices going way back and continue to do that in Whiterock.

EG: One that surprises some people is that my dad started no tilling in the 70's and most of our land has not been tilled for 45 years. That was a huge part of what he was interested in, was no till. And to give you a flavor that with trust fund money they've bought us farmland and always, from when I was a kid, tried to pretend that we were running it instead of the grownups. You know we have annual business meetings and most of my cousins and sisters are rolling their

eyes they don't want to have anything, they know their not running it. That these are always fake meetings and fake decisions but I always took them kind of seriously and I had the first time I ever got to vote on a business matter was investing our profits from one of our farm entities into topsoil. I was on that sustainability effort for sure.

BC: Where did you get that idea?

EG: Oh my dad recommended it, you know. Roswell and Steven were both very interested in land preservation and they understood the value of topsoil. Where my dad didn't quite understand biodiversity so he planted switch grass, which makes for great pheasant hunting but it's not really a sustainable thing to do. You need biodiversity. And he raised children who understood the importance of biodiversity but he didn't, he didn't understand that at all. But other than that, he was a man way ahead of his time for sure.

BC: Yeah, so you continue to showcase lots of these practices at Whiterock how agriculture and conservation can really be complementary.

EG: When Steven was in charge and before Whiterock, we were extremely innovative but we still have a long ways to go. So in the Whiterock era, the main innovations have been first of all to try to do something about our chemical use. My dad, with great pride, put 160 pounds of nitrogen on every acre of his pasture ground. And killed a lot of native prairie in his day to have brome grass. And brome grass is very responsive nitrogen, very palpable for cattle, you would describe fertilized brome grass as a high input high yield system. And he never over-grazed but it's not very green to put 160 pounds of nitrogen on pasture ground. So one of the innovations that Whiterock has had is to interseed clovers, as a nitrogen source and we've switched from continuous grazing to rotational grazing. Which is much better environmentally. For several different reasons and I could go into that if you want but I'm not sure you want me to. And then also the evolution of cover crops and on that actually, the Garsts have been leading the charge on that and Whiterocks been following the Garsts, cause we still have farmland. Since the ideas of cover crops we've been on it. And we're now 100% cover crop both in Whiterock and Garst for like 8 years, 10 years, we've been kind of the beginning on the subject of cover crops.

And now our kind of new big problem that we've been working on and don't have a solution to it is although cover crops are really helping our soil structure and weed control and water management. Cover crops are giving us real benefits and I am sure cover crops pay, we are not sinking carbon and we are not making our soil better. We're just holding our own. And that's because of biodiversity. Those bugs need a balanced diet and cereal rye, our number one cover crop, is just equivalent of feeding our bugs carbohydrates with nothing else. We need to have biodiverse cover crops. And we are stymied in that, that's easy to say but we can't do it. The problem is we are pretty far north in the corn belt here. And there is just not enough time behind corn or soybeans to make the cover crops. Multi species cover crops pay. The clovers, the radishes, turnips, they don't amount to anything in the short window between our harvest and

frost. And we've tried over and over, it just doesn't pay. So we've backed up from that, but how to get to multispecies cover crops.

One theory we've been working on is there is new agronomic evidence that soybeans planted before corn is a good idea. Traditionally farmers plant their beans after their corn but if you can have a lot of leaves on your soybean in June when the days are longest you can have more yield. So we're trying to plant our corn before our beans for corn and plant pretty short season corn so we can harvest the beans thoroughly enough that they have multiple species cover crop after. We've been completely stymied by that theory because of wet springs, we can't plant soybeans early, we can't plant anything with the spring rains we've been getting. So now we're getting more and more serious about having to bite the bullet and go to longer rotations, right now the only place we're growing our multispecies cover crops is we grow our own cover crop seed and behind a rye crop there's time to have a multispecies cover crop. So we've got multispecies but on a very limited number of them. So maybe we could become a cover crop seed producer and get it more that way but that market is about to get flooded pretty quickly so that's not necessarily a great idea. I tell everyone I know to drink more beer and whisky to give a market for small grains so we can grow multispecies cover crops behind.

BC: All that rye. Yeah I mean how fascinating to think of your family as going from hybrid seeding family to a cover crop seed company I mean that's such a statement on the evolution of what agriculture has been and could be.

EG: People you know, a nice historian asked me when we took me when we took off the black hat and put on the white hat. When we decide to stop being evil and start becoming virtuous and the question really offended me. My granddad never put on a black hat, he lived in his time and his time was different. His problem was nobody used any fertilizer. Period. And yields sucked, and the output per hour of labor was horrible. Factor prices were completely different, he tried to make the world a better place he didn't have a black hat on. Things change.

BC: Yeah what you're saying is there's some critique would say that the kinds of innovations that at the time seemed completely appropriate, you know, and both a business opportunity but also the right thing to do that that lead to things that we've learned these are really problematic about how we do agriculture.

EG: Yeah but even now we're gonna use fertilizer. I mean fertilizer's still part of our world. It's just how much. He had the problem of not enough. I have the problem of too much. Things change.

BC: Do you feel that sense now though? That you wear the white hat? That this is really important...

EG: Of course I wear the white hat, I always try to wear the white hat!

BC: Yeah

EG: I never want to wear a black hat, I think agriculture is really going to have to change and very quickly right now. I think we are in a profound crisis. Iowa, I only know statistics about Iowa, in Iowa we have already lost half our topsoil. We have lost half the organic matter in the soil we have left. So we're down to a quarter of the world's filter we started with, and a quarter of the basic fertility we started with. We've also lost about 40% of the nitrogen that's in our soil. The nitrogen is just leaking out of our soil. So we've already lost a huge amount but what's really scary is we're going to lose the other half, it took us 150 years to lose the first half and USDA's chief soil scientist in Iowa, Jerry Hatfield, of the soil tilth lab, though it has a fancier name now, Jerry Hatfield says we're going to have no topsoil in the Loess hills in 35 years. He says we're going to have no soil top soil in the flat black Iowa in 80-100 years. So the rate of deterioration is increasing, it's not getting better. It was getting better during the dust bowl era and Franklin Roosevelt introduced land conservation legislatures. And it got a little better after the 85 farm bill which had some innovations that actually worked but it's getting really much worse, very rapidly right now. For two reasons, and one of them is fairly well understood. Climate change, main symptom in Iowa, two main symptoms: humidity and that's right I feel like I'm about to mold to death after this fall fall and it's been so wet. But the other reason, the second main climate symptom in Iowa is high intensity rain. I farm my farms are 10 miles this way and 10 miles that way so I'm spread out a little bit around Coon Rapids and I have been involved in a 7 inch rain event and there's been at least one every single year in the last 10 years. I've been involved in one of our farms in the town it rained 92 inches, in a couple 10 inch rain events and some other 5 to 6 inch rain events. Our farming systems are not set up to withstand this kind of rainfall in a few hours. Our terraces really help us down south and that's the type of armoring we need to withstand that this is not an act of God that happens every 100 years, it is man who made this problem. Though I've had this argument in the Coon Rapids bowling alley more than once. But whatever the reason, we got to understand it keeps happening and we've got to arm our land with waterways, terraces, strips, there's a variety of practices that we could be using and the number one armoring in row crop is cover crop. That's super important.

So, it's getting worse for climate reasons and by the way it rained 10 inches on des Moines last year and I was thrilled, because I make speeches about this all the time and they kind of steer it, "well I haven't had a 10 inch rain" and all of those policy makers got rained on 10 inches, that's really happening. How fast this high intensity rain is happening to us, is just three weeks ago in Coon Rapids it rained more than 6 inches but nobody knows how much it rained because they don't use rain gauges that hold more than 6 inches. I was just in the hardware store for a rain gauge and my choice was a gauge that could hold 5 inches or a gauge that holds 6 inches. It rains more than 6 inches all the time but they don't make gauges that hold the rain, that's how fast this is creeping up.

The second reason that our soil is being lost at an accelerating rate is because of our soil health. Which has been nothing but getting worse and worse and worse. And that has a lot to do with soil erosion. Soil is sand, silt, and clay glued into soil ag and the glue that holds sand,

silt, and clay is real open chambers that hold oxygen and water and bugs the glue is the piss and shit of the bugs. And fungus weaves it all together. And our farming practices are starving the death the bugs in the soil. They cannot eat at all, 7 months of every 12 in a row crop system whose growing crops every 5 months of every year. And so we're starving them to death. We put in hydrus ammonia in them, and so we fry them and we till. Which breaks apart the sand, silt, and clay chambers, the soil aggregates, into smaller and smaller soil aggregates until it becomes a pile of sand, silt, and clay, which is also called dust. And if you think of dusting up, sweeping you porch and getting a pile of dust on your porch, the first thing you should try with the pile of dust on your porch is pour water on it and see what happens. None of the water goes in the ground. It just sheets off the top, it has no way to enter the earth. And so rains are running across the surface of the ground instead of going into the ground. Which is highly erosive. And in something called the slake test, if we were on video, I would go and get my samples of good dirt and bad dirt and put two clots of dirt in a mason jar and netting and just watch the dirt. Bad, highly pulled dirt soils, Just dissolve in the water. They don't have the structure to stay together. Our family losing our topsoil, climate change is big but at least as big because our soil health is so poor. And 75% percent of Iowa is in row crop. And, 96% of that is highly tilled. Oh no, and 96% of that is not cover crop. And no till is also very small percentage of that. So we have a huge ways to go if we're going to have any topsoil at all.

And I am passionate about this in part because a few years ago Darwin and I went on vacation to Portugal. And I had been super busy so did no research on a trip to Portugal and envisioned lying on the beach on either the Atlantic or the Mediterranean or both. But Portugal is owned by condo associations, both the coasts, they have a few tiny posted stamp public beaches but you really can't touch the water in Portugal. So in frustration we pointed our rental car towards the roman castles in eastern portugal. River systems in Western Spain and Eastern Portugal going down to the Mediteranean. All through there are castles built to protect the Roman Empire's food supply. Which came out of Eastern Portugal and Western Spain, was their bread basket. And these castles were all for protecting the grain. And we were driving there and we went through a 100 kilometers of nothing but rock thistles. There was one road and it went to the tourists castle there were not villages there was no agriculture of any kind except the few eucalyptus groves, everything else was rock thistles, there were not people, there was nothing. In what was the Roman Empire's bread basket.

The topsoil was gone. And to see that in person was just shocking beyond all imagination. I saw our future.

BC: Yeah, and you know having grown up picnicking all around your land and seeing people who cared so much for this, that's a frightening future to imagine no villages, no agriculture.

EG: It was terrible.

BC: Yeah.

EG: Since then I've read a book by David Montgomery called *Dirt* which is all about all of the civilizations in the world that have collapsed because of the destruction of the topsoil. And we're right in the middle of it. I mean we're doing it man. I get so mad when people talk about family farms have gotta do it this way or we've got to feed the world and it's this existential threat that rivals climate change itself. If we don't have soil, we're in trouble. 35 years for this side of town and 80 years for that side of town, it's not enough. I mean that's not very much time.

BC: You know with Climate Change that's speeding up so those timelines and you know agriculture right there one of the key, most vulnerable aspects of climate change but also there's a lot of opportunity differently. To help mitigate climate change.

EG: I'm getting, wound up on that subject. I think there's a lot of charlatanry right now going about farmers who could sink carbon. There are farmers who sink carbon. But people are being way too simple about it. I'm here to tell you as a farmer myself, no till for 40 plus years and cover crops religiously for 10 years, and I haven't increased my soil organic matter .1% in 10 years. I'm not sinking carbon, and I'm the most virtuous farmer I know other than these wonderful examples we've got. To sink carbon in soil, we're going to have to robust multispecies much more biodiversity in the system than I am doing now. Cause what I am doing is corn cereal rye, bean cereal rye, corn cereal rye, bean cereal rye, and I'm not ever going to sink carbon that way. But I haven't figured out how to make multispecies cover crops work. And I know I need that. Maybe I'm doing a little better on sinking the soil organic matter in the rotational grazing systems. A little better, but not great. We have a lot to learn to really sink carbon.

BC: And that seems like the people who were able to quantify that are people who are much more diverse systems, much more animals, like you talked about from generations ago, but we've come so far into...

EG: There's two great farmers that I know about that are real models of sinking carbon in ag. Soils, I remember a guy named David Brandt in Ohio who is sinking carbon for sure and he's a real guy but he's in southern Ohio, he can do multispecies cover crops. And people further south than us can I just did a trip this spring through Kentucky and Tennessee, (*cat meows* Boots you're not supposed to be in this recording) So I was further south and saw a lot of multispecies cover crops and became jealous they had the climate to do that and the other guy whose doing it is a guy northwest of us, what's his name, I can't remember his name, but a guy northwest of us he's doing it with a highly diverse animal rookage in his system. I haven't figured out how to do it, I want to do it, I just haven't figured out how to make it work.

BC: Yeah, and I mean, there needs to be more innovation. You've seen in your lifetime how much has changed in agriculture, and we need...

EG: I am very annoyed, let me tell you, with Iowa State University in particular on this subject. I devote a fair amount of my income to research, we do a lot of on farm trials but where is the

university? Where is their extension for us? They are in to feeding 9 billion by 2050. Bruce Rastetter, president on the Board of Regents told me, oh we don't want to do it these other ways it's too important to feed 9 billion people by 2050. I very much disagreed with even that statement. And when I was in the Peace Corps, I was up in the mountains and I saw an old wheat mill with a grindstone and the cement of the grindstone had blood of the conquistadors in it, so this really old wheat mill. That hadn't turned for 25 years because the U.S. was exporting free wheat to Colombia, so naturally wheat production in Colombia collapsed when they have to compete against free wheat. It's like, help people grow food. Yeah, we need to figure out how to grow food. But it isn't that U.S. agri-businesses have to feed the world; the world needs to be fed. This focus in high input and high yield we have to keep doing what we're doing I find is very offensive.

BC: Well the other part of Whiterock's mission that you mentioned was education and kind of recreation and having a space for people to come to a place like Coon Rapids, this special valley to be able to learn but also to kind of you know to enjoy this. To take up the history as well as what you're trying to do thinking about the future.

EG: Yep, so people are an important part of it. So I joke around, our three part mission statement I know we're successful when everybody's pissed off. The cattle guy hates people cause they never close gates and the cattle don't like people. And he doesn't like all these weird plants in his pasture. And the native, the natural resource people don't like cows. A lot of them are very prejudiced against cows. And people are scared of cows and don't want to be in a place that cows might be. And the environmentalists think that people are evil and cows are evil. So everybody's up in arms. What we're trying to do is balance this support, not one of these extremist groups, all of them are extremists groups, we gotta find how can everybody get along. That's sort of another way to express our mission statement is balancing agriculture and natural resources, and people. Making them all coexist somehow.

BC: So having you know lived around the world and worked all these interesting places and come back here with this sense of first the crisis in your family business and now I mean you talk about this crisis that's much bigger than just here, I mean what do you imagine, what's your hope or your fear for kind of, what this looks like what Coon Rapids looks like. Or this new place going forward.

EG: Well in terms of agriculture I hope that Iowa State university helps us solve some of the problems that we're facing now. And I'm sure there are solutions, we need better ways to put down covered crops. We need coatings, we need that machinery department at Iowa state, the genetics department at Iowa State, the chemistry department of Iowa State working on these problems. But their not working on them enough by a long shot. And we need extension out there saying hey guys you're not going to have topsoil in the next 35 years if you keep doing this. Let's do the economics of taking 80,000 dollars of land to 0 land in 35 years whats the rate of return on that. We need the University involved much more than they are.

I think there's hope that climate change issues might bring some money back in to agriculture to sink carbon. If someone said here's 200 dollars in acres to sink carbon, I can do it, but nobody's hanging around offering me 200 dollars in acres to sink carbon. But eventually I think that economics will bring some money back into ag at least if we're reasonably smart about it, it will. Because sinking carbon is huge, it's way better than driving volts around to actually take carbon out of the air opposed to stop putting carbon up in the air. It's an order of magnitude to actually know how to take it out of the air. Carbon sequester through forestry, through putting it in the ground, there's real potential we could do that. I think another really exciting one that we could look into is biochar I think that would be really cool. And we could do that, better agriculture and better environment there's win-wins if we get the will to make it happen, if we know what we have right now. Maybe people are waking up to the climate change problem right now, I know their not waking up to the soil loss problem. I've been going to visit presidential candidates lately and here's my question which is really a question for the audiences because the presidential candidates don't have a clue.

We've lost half our topsoil. And we're going to lose the rest of it in 100 years, what are we going to do different about the farm bill? Presidential candidates go blah blah blah I don't know! But the public doesn't know that the public doesn't know the facts of where we're at. No presidential candidate talks about this existential threat, our extension agency doesn't talk about it, nobody talks about it. So, I find myself being louder and louder and shriller and shriller, we've got to pay attention to it is the first step in solving it.

BC: Well and you said you come from a family of evangelists, sales people who knew how to get people's attention, and people who know how to change the culture and the practices in agriculture. And sometimes that meant talking to neighbors or get on a train and go to washington, to make that noise that people will wake up. You know that's hard work you've learned that from others in your family and in your own life.

EG: My main focus of late has been training political candidates. In the last cycle I met with like 35 or 40 different political candidates, 3-4 hour trainings on all the stuff we talk about but even more detail about what we need to do about the farm bill too. Political candidates at the state and federal level. And right now its presidential candidates and I lured a couple in varying degrees to pay attention to this issue but when we have candidates I'll start again on training political candidates because I think that helps, some of them will win, and that'll help develop our policy and maybe they'll talk about it. Not all of them do but some of them do.

BC: So this same Garst land where you know you had Khrushchev come to understand how agriculture could adapt to be effective in that era you know is still a place where political leaders can come and figure out what we need to do to solve a new crisis.

EG: Yeah It think of myself very much in Roswell's tradition. An evangelist.

BC: Well thanks so much for sharing your story, your family's story, this place.

EG: It's fun to talk about yourself so thank you.

BC: Yeah! I love doing this so I really appreciate doing it.