The Great Simplification

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Now when I look at modern American houses, I see a thin walled oversight shell that leaks energy like crazy. You can pump a huge amount of energy into these thin walled boxes and still be comfortable, but you're using a massive amount of energy. So if you think of it, you mentioned the word design.

That's a critical element that because we have this abundant energy supply, everything gets designed either ignoring energy or giving it token consideration. It enables, encourages, empowers bad design across the board.

I am pleased to be joined today by Alexis Ziegler, who is a founding member of the Living Energy Farm, to discuss his decades of experience in living in an intentional community and the amazing alternative mechanical and energy systems they've put together to contribute towards an off-grid community.

Alexis is a self-taught activist, builder, mechanic, writer, and orchardist. He has organized numerous successful campaigns focused on political, environmental, and economic localization issues. He's currently working to grow Living Energy Farm in Virginia, a zero fossil fuel, mostly self-sufficient farm that prioritizes collective living principles.

He's also working to make this model accessible to more people across the tropical region. As the wide boundary story of global macro events becomes increasingly chaotic by the day, I find it's nice to reflect and pause by remembering that there are alternative ways of life out there, which people are already living today.

This conversation with Alexis serves as a brief peek into one way that such a life could look, and I imagine you'll be as impressed by Alexis's MacGyver likability with technology as I was. Additionally, if you are enjoying this podcast, I invite you to subscribe to our substack newsletter where you can read more of the system science underpinning the human predicament, where my team and I post special announcements and other content related to the great simplification.

You can find the link to subscribe in the show description. With that, please welcome Alexis Ziegler. Alexis Ziegler. Great to see you. Good to see you. Glad to be here. We have, indirectly known each other for a very long time. You used to email, us when I managed the oil drum 15 years ago. so you've, been working on these issues a long time.

You're a founding member of the Living Energy Farm, where I understand you currently live, as well as you've helped start several other intentional communities. Can you start off by telling us what intentional communities are and how you got involved in them?

Well, I moved to an ic, an intentional community as a teenager.

just needed a place to go. Basically. If you look@ic.org, that's the big clearinghouse. So there are a lot of different organizations that can call themselves intentional communities. in Louisa, Virginia, twin Oaks, that's where I moved when I was 18 years old. it's, there's more sharing there. So it's income sharing.

The housing is shared. people have private bedrooms, but a lot of the, space beyond your private bedroom is shared. And for Twin Oaks in particular, it's income sharing, which makes it really unusual. so it's a very socially intensive environment, although it's not one that most Americans would embrace because we are, for better or worse, a very individualistic culture, very private property oriented culture.

And, what about, living Energy Farm? What specifically, got you involved in that and where you're located?

Well, geographically, we're here because of Twin Oaks. My wife and I, and most of my friends are in this area. We, well, my wife and I met at Twin Oaks. The interesting overlap between, environmental concerns and intentional community is that shared use of resources, both on the investment side and on the using it after it's built side strongly favors, community.

if you just look at something very simple, for instance, like solar hot water, that's a fairly low tech, technology. yet it's kinda expensive. If you look at, if you've just got you and your partner in your little, house somewhere and you try to do solar, hot

water, some thousands of dollars to do it, five or 10 or, you know, depending on exactly what kind, what you do.

But that same solar hot water system with a little tweaking can easily support 10 people. a little more tweaking. You can support 20 people. So what I tell people is that renewable energy scales at 10 people minimum. Really? and that is a huge overlap between intentional communities and renewable energy.

And I saw that, I've seen that all my life. And it's certainly that reality has become sharper and sharper as we work on more projects as I get older.

It really is, a multi-layered, question that renewable energy can be super useful for humans, but the way we're using it today is to replace our.

10,000 watt lifestyles, by building these huge systems. But like you say, it, it makes sense in groups of 10 or 20, because of the, the energy properties and services that it provides. and we're gonna get into that. So where is Living Energy Farm again?

It's if you take a map of Virginia and poke the middle of the state, that's about where we are.

Okay. Okay. We're in between Richmond and Charlottesville, just in a rural area. Louisa County.

And how Reliant is living Energy Farm on external inputs, from broader global supply chains for things like food, water, power

for domestic energy use, zero. we are 100% off grid. And another, I have to say, because a lot of people you mentioned the 10,000 watt lifestyle, a lot of people call themselves off-grid and you know, they have 10, 20 kw and solar panels and burn many cords of firewood.

And part of the defining characteristic of a characteristic of our project is that we try to keep it cheap and simple. We want it to be something that a lot of people can do. So we have no electricity coming down the driveway, no propane. we grow. Maybe 75, 80% of our food. you know, there's diminishing returns to growing the last, you know, herb that somebody might wanna use.

And we do, at this point, we're burning. We run a, seeds production farm, organic seeds, and we grow, you know, a few, 20, $30,000 gross in seeds every year. And for that, we use about 30, 35 gallons of gasoline, diesel. And I think within the next year or so, that will be replaced with biogas. We're already using biogas to cook with.

So at this point, in a mild winter, we can go year round cooking, surfing the net, living a fairly modern lifestyle with zero energy inputs, cooking on solar and biogas. And, except for the, like I said, some, a little bit of gasoline. And I think within a year we'll get rid of that gasoline using compressed biogas.

You know, CNG, that's a big technology.

Dumb question from the podcast host. so right now we are doing this podcast based on your internally built system accessing solar energy.

Correct? It's a, cloudy day here. And so we're running on power. You know, there's a little bit of input on a cloudy day, but the computer itself as well as the internet uplink is all solar powered off nickel iron batteries.

That's an old battery technology. The batteries are not what's important about what we do, but we do like the nickel iron batteries. They're really rugged. but what is important about what we do is that we diminish the need for batteries. We use very little batteries because we do a lot of direct drive, which we'll talk about on a lot of solar thermal and the sharing and all of that kind of fits together.

So I, I want to get into the, the specifics of, of, the solar energy and other things. But what is a. Stay in the life look like and how many people live there and like, what are your days like?

Well, we do run a farm and this is the very beginning of spring, late winter, so we're beginning to make some preparations for the farm work.

Yeah. Well, thank you for taking your time to, to do this show.

Sure. So different people here tend to take on different roles. so some people focus primarily on agriculture. That's both food production and like I said, we grow seeds

to make money open. Pollinated seeds. For me, I work a lot on the technical innovation side.

You know, I help keep the various systems running, although they're pretty trouble free once you get 'em built. But my primary focus is on technological innovation. So I build a direct drive appliances. a big project has been a simplified combine harvester that was being supported by U-S-A-I-D.

We know where that went and so I mostly work in the metal shop. Most days I get up and we have a couple kids, so I make sure the kids have breakfast, make sure everybody is happy, and I go out and start cutting steel, on the lathe in the mill and that sort of thing.

You said, direct drive appliances.

How is that different than just appliances? I.

Oh, it's quite different. And I have to say it came as quite a surprise to me because prior to building LEFI had done a lot of work. I built buildings and done work in the trades with, industrial woodworking, food processing machinery, and I. The direct drive is very different.

so AC and DC we can talk about that. Alternating current, direct current, alternating current is what's out there on the grid. it's a very powerful energy source and you can change the voltage really easily and it dates back, of course, you know, hundreds of years. So all I knew about direct current and Motors before we started LEF was that you can take an old six volt tractor and simply put a 12 volt battery in it and the starter will work fine.

So it's like, okay, well let's try that with high voltage. So we started hooking up 180 volt industrial motors. So, AC voltage is 1 22 40, DC is 91 80. There's also the low voltage stuff. So we set up our system in 180 volts. It turns out that is kind of a magic marriage between photovoltaic panels and doing useful work because an AC motor can handle about 10% voltage variation.

So, you know, 120 volt motors okay, at 110, it's not okay. When you get below a hundred volts, it'll start to overheat and whatnot. The DC motors we run, you know,

a one horsepower motor will do the same work, more or less if it's AC or dc, but the DC motor will tolerate crazy voltage swings, like you can push the voltage way up and drop the voltage way down.

So what we experimented with, and now what we do on a pretty substantial scale is we simply hu tie a lot of equipment straight to the PV panels, the solar electric panels. So even on a cloudy day, it's drizzling rain and I'm out in the shop. I can run at least one motor, on a sunny day. Our high voltage system, it's 1400 watts, so 1,400 watts.

I can turn on 3000, 4,000, 5,000 watts worth of motors, and the system slows down a little bit with every motor I turn on, but it keeps working. And this is something, you know, it's not magic, it's not perpetual motion. It's just these, it's a very simple system. And these different devices share the energy without any electronics at all.

And the funny thing, I mean, there's a lot of very bright people out there, obviously concerned about energy and concerned about sustainability, but very few people try to live this way and they don't really get it in terms of, you know, what matters at the end of the day is, could we water the garden?

Could I do my project in the shop? Could somebody else clean the seeds? Could somebody else cook the food? We cook our food on this direct drive. We heat our buildings on the direct drive using blowers and pumps that take thermal heat and push it under the floor. So. You mentioned 10,000 watt lifestyle.

Our wattage here is about 300, give or take, per capita. And we are fully energy, self-sufficient with no firewood, almost no firewood. This winter we had a bitter cold winter and we did actually burn a couple of wheelbarrow, loads of firewood, but very little firewood.

So you, use 3% of the energy is the average American give or take,

something like that.

And now that didn't quite count the biogas, although that's a closed loop on the farm. But yeah, that's, a ballpark number.

Yeah. you look like you're more than 3%, happy and well adjusted than the average American. Probably maybe 300%. possibly. I, although we should be fair that the 10,000 watt average probably includes some overhead for our military and other things.

I'm not sure about that, but, so, so getting back to the direct drive, you said that you connected your solar, panels directly to the devices. How is that different than the average person with a 10,000 watt, footprint that has a five KW system or whatever? What do they do?

Well, it's very different.

I mean, first of all, there's kind of an apriori here that we just don't have silly things like tumble dryers. I mean, who needs a tumble dryer? That's dumb. You just hang up your clothes and they dry.

Not, in Wisconsin, you don't, like today it's a blizzard, but maybe in Virginia you could.

Put 'em inside, they'll dry inside.

I mean, I, we, you know, obviously, I, don't want to debate that point too far down the road because obviously environmental solutions are local. What you're gonna do in the Arctic is different than what you're gonna do in the tropics. And it Yeah, for sure. It's, not one size fits all,

certainly. But it was my defensive reaction because I have a tumble driver.

But keep going.

But in any case, right. So without some of the fancy energy consuming devices, we do have a lot of the similar devices. We have a refrigerator, we have, you know, a blender in the kitchen and, you know, the, oven and cookers and various things. but some of the high consuming devices, like we don't have line driven air conditioners and we don't have tumble dryers.

and some of our other devices are different devices, like a refrigerator. It was actually designed at NASA in the 1990s by this guy Bergeron, who started Sundance Refrigerators. So it's a thermal storage refrigerator. it's got thick insulation. It's a chest design, it's got a compressor to designed by.

C up compressors outta Germany. So it, you know, during the day when the sun's out, this thing chills down and then it stays cold, because it's well insulated. And the next day if it's cloudy, it might run a little bit, but it manages to stay pretty cold. So another way to look at this is we're using, it's good design, community scale design, good insulation, and then non-electric storage, which means thermal storage.

So we're pumping heat under the floor. We're, you know, pumping the heat out of the refrigerator. We have solar hot water tanks, so we're storing heat there.

Where does the heat go out of the refrigerator? I didn't follow that.

Well, just that the, you know, coldness in a refrigerator's kind of negative heat, obviously.

It's just, you know, the, compression cycle takes the heat out, but then it just stays cold because it's well insulated. That's all I meant. So that is storing energy in the form of, You know, coldness, but coldness is not energy, you know, negative energy if you wanna say it that way.

So, and what about in the, hot, August days in Virginia. What about then?

Well, we have a, you know, a well designed, house that ventilates pretty well. I think, you know, we can talk about, I hope I'll talk about at least a little bit, you know, how we're gonna generalize this technology because I do think it, this approach could impact, well, I hope the world, but we'll see.

so air making things cold is more challenging than making things warm, certainly. And we have started a conversation with various people who understand those technologies better than I do about simplified air conditioning systems. You can certainly use like groundwater, for instance, to just, if you've got abundant groundwater, you can pump that into your house or people use ground pipes.

There's various ways to kind of capture the coolness of the earth and use that in your house. or if you're in a desert, a very dry climate, there's swamp coolers, evaporative coolers and that kind of thing. But yeah, for a hot, humid climate, it is challenging. and that could be done, by, thermal, dehumidification systems.

but that's not something we've done at LEF and I would like to do it. It's on our list of projects. we are, needless to say, not a lot of funding in what we're doing here.

and probably less with the U-S-A-I-D and like you mentioned and some of the other things that have recently happened. I.

Yeah, we'll see. Yeah, that the combine harvester, I was really thrilled about that. It's a simplified machine that's much simpler than normal combines. I mean, and you know, a subtext of all of this is that big corporations don't really care about small scale solutions for the most part. So that leaves a lot of us out.

And that's true on the

agricultural side as well as the energy side. This is the power dynamic, the maximum power principle and the hierarchy of outsourcing our wisdom to the market is the right decisions for living sustainably. Don't get voted up, they don't get upregulated because they're not scalable with a profit.

That's a huge

issue, which is why what you're doing is all the more important, just outta curiosity, what is in your mind as you put your head on the pillow at night and you're going to sleep? are you reading fiction books or are you imagining being in your workshop and your, metal cutting the next morning?

'cause you have some crazy idea.

Some of both. Yes. I design a lot of machines in my sleep. Certainly. I mean, the other thing that weighs on my mind is just how to make more of a movement out of it. I mean, you know, obviously the big hierarchical patriarchal, militaristic, capitalistic, whatever you wanna call it, there's, you know, movements are very powerful and, we are not.

So, I don't know, I think I've spent a lot of time thinking about that. I mean, the communities movement in itself is not that much of a movement. It's certainly not one that's growing quickly at this time. And well, although we could talk about, you know, indigenous and sort of what you might call natural communities outside of industrial society, that would be a different question.

But yeah, those, are the two things I think that occupy my mind the most is how do we, convince more people and, what's a better gizmo? The gizmos are kind of fun, you know, and the how do we convince more people is, tiresome or just difficult question,

I think. We're not gonna convince that many people until this is a necessity and it's obvious that we're gonna have to live this way, which is why, the scout team and the cultural creatives like yourself are so important.

Are you documenting, what you're doing? Is there like a handbook or something that if other people in the world were interested in, mimicking, your responses to this, that they could follow it?

Yeah, certainly. there's, so we have two websites, living energy farm.org and living energy lights.com.

that ladder, we do have projects in Jamaica. Puerto Rico is our biggest project where we're trying to push this technology out to people who might want it more than wealthy middle class Americans. if you go to, either one of those sites, but particularly living energy farm.org, there's a link to A-A-P-D-F that you can download of a book called Empowering Communities.

it's a fairly short book and I'm about to update that hopefully very soon. but in any case, we've tried to document as best we can. We do have some YouTube videos. There's actually two channels, living Energy Farm and Living Energy Lights. So, yeah, we're trying to document it. Although for me personally, it's like, okay, how many hours in a day do I put into outreach, documentation, gizmos, you know, there's it.

but yeah, for one single document, I think the empowering communities is the best way to, to get kind of an overview.

So let me get back to the AC versus dc. why does the United States and is the United States different than, most other, developed nations? Why does the United States primarily have, AC power?

And maybe you could just assume our listeners don't understand what that is and start from scratch on telling this story.

Sure. you probably know parts of this story better than I do, but you know, so they first started electrifying things back in the 18 hundreds in terms of electric lights and, wanting to push that power out into the cities.

And, you know, with a generator, it could be AC or dc but AC is a sign, wave or pulse. You could think of it as a sound wave. and the one thing that makes it really advantageous is it's very easy to change the voltage. A transformer's, just two coils of copper wire. So you can push the voltage really high and then you can push that.

what is a voltage? What does voltage mean?

I describe it to people as, think of it as water. So voltage is like, the pressure amperage is like the volume and wattage is like volume and pressure together, how much work you can do. So the advantageous thing about AC historically was that it was easy to create a lot of pressure.

So with a lot of pressure you can have a, moderately small cable can push a lot of power down a long distance. so that's how you know in 1890, if you want to push power all over New York City, you've got a big steam boiler. You generate ac, you use your transformer, a fairly simple device. You've got this high pressure electricity that goes out down the wires.

You have another transformer that steps it back down so it comes into the house. Well, that of course has, worked very well with the consumer growth based society. We have in that it's allowed us to, you know, make a lot of money selling energy and the devices that use energy.

So it was a centralized, and a monetarily efficient process, assuming that there would always be abundant.

Energy and, long distances. Sure. But, a decentralized world with more expensive, less, available and possibly intermittent energy DC makes more sense. Now, how does DT con d direct current, contrast to ac

So direct current, it's, drawn as a straight line. It's just like a straight electrical pressure.

But what's relevant in our case is that photovoltaic panels put out DC

That's why we need inverters.

Exactly. An inverter makes the DC into ac, but the, if PV panels didn't put out DC this would be a very different discussion. PV panels, they're kind of high tech, but once you own 'em, you have 'em, they do last a long time.

And if you go through this whole process, I have to say one mistake I think a lot of people make when they hear about our technologies is they wanna say, yeah, let's convert my life to dc It's like, no, slow down. Wait a minute. you're, what you're doing, where is what matters the most? And then.

You know, doing a good job with the conservation is what matters second most, and the electricity is really third. It's kind of the sexy part. It's the part people get interested in, but you can't invert it. I've seen a lot of badly built energy systems, like you were saying, we take this renewable energy and kind of throw it at the 10,000 watt lifestyle.

It really makes a mess if you do it that way. But anyway, back to the dc. So batteries and solar panels. Solar, electric panels put out DC and that's just a straight electrical pressure. You can increase the voltage, but it's more complicated. But for our purposes, you're mentioning decentralized, that word came up.

Very good word, for us, so six PV panels, that's 30 volts on each panel. 180 volts, 1400 watts, that's, you know, like enough, to light up a toaster. And we support the economic and thermal and everything we do at Living Energy Farm with a fairly modest energy supply. and most of that is direct drive, meaning the wires come off of that 180 volt set and go to a bunch of motors and appliances

and.

They go directly to the motors and appliances. And were those motors, and appliances built by you or there's something you bought at a store?

Some of both. okay. So if you take a blender, like you go to the hardware store and buy yourself a blender and you bring it home and you plug it straight into DC power of the same voltage that blender will run, it's called a universal motor.

So some of the little motors will run AC or dc. Now, don't do that without tweaking a little bit. You do have to put what's called a snubber 'cause the DC will arc on an AC switch. So the switches don't hold up. You gotta tweak those, but it's not hard. The snubber cost about 50 cents. My shop tools, like I mentioned, a lathe, mill, grinder, compressor, all this stuff in a metal shop, most of that's belt driven.

So I just take the AC motor and chuck it and put myself a DC motor and it's a belt. So no problem. So some things are really easy. Now, the water pump, we have a submersible, well, we supply all of our drinking water as well as irrigating about four acres of farmland. That's the fields where we grow our seeds.

Now, that's a modern, well pump made by a German company in this case. But the, The market for well pumps for solar well pumps is very well developed. There's hundreds of companies making thousands of products at any price level you want, because there's so many remote farmers in the world. So many people need a remote solar powered.

Well, that market is really well developed. Other markets are really tough. Like we're building, to my knowledge, the only decent direct drive washing machine because nobody will make one. because there's not a market for DC direct drive washing machines. Now, the low voltage stuff like computers, anything electronic is already dc.

there's no such thing as AC electronics really. I mean, you've got things that appear to be running on AC when actually it's, you know, stepped down and converted to DC. So we can run all that stuff just straight, off to dc. so there's some of it. Some of it, you know, we purchase over the counter.

Some of it we make, some of it we modify. all in all, we have most of the gizmos you would want.

How much of the current. Infrastructure in the United States is like a sunk cost, because of our decision to use ac. and, what are the, issues, with our modern design practices going forward because of that?

That's a massive question. I mean, you know, depending on your predilections, you could answer that question somewhat different ways. But you know, when I look at modern American houses, I see a thin walled oversight shell that leaks energy like crazy. And the only reason it's inhabitable is 'cause you've got this, I mean, the, wires that come into American House or four T aluminum, big old cables, you can pump a huge amount of energy into these.

Thin wall boxes and still be comfortable, but you're using a massive amount of energy. So if you think of it, you mentioned the word design. That's a critical element that because we have this abundant energy supply, everything gets designed either ignoring energy or giving it token consideration. So we end up basically AC power grid power as well as fossil fuel in general.

Enables, encourages, empowers bad design across the board. It's, pretty mind boggling really. You know, you look at, throw out the whole ac DC thing for a minute and just think about straw bale. I like straw bale houses, but a straw bale, passive solar house. You're looking at a maybe 70% reduction in energy use, maybe 80, depending on exactly, you know, what it is.

And that's the same price. You didn't even increase the price. a straw be house is the same price as an ordinary house, but because of our society and the way it's set up, nobody cares or not very many people care. So yeah, bad abundant energy. AC grid power empowers a lot of very bad design. The short answer,

are there things that, the average American household, uses and has access to that you've chosen not to do at Living Energy Farm and also the converse are the things that, that you do, that the average American household wouldn't.

Right. We don't have a big television screen. I don't want one of those. I don't want my kids watching that. we don't have,

I haven't had a television since 19 99, 25 years now.

Good. we don't have tumble dryers, we don't have air conditioners. We don't have a lot of, we have some weird little gizmos.

Basically somebody wants a weird little gizmo. They have to decide whether it's gonna work on our system. So, you know, like a, I dunno, air fryer or something like that. You know, those are common. We never, that those are energy bombs. We wouldn't use one of those.

You wouldn't use one of those, like philosophically or strictly because there's a budget or it's just against your principles or what?

Oh, kind of all of the above. I mean, they're just, we use, so there's a peach, where's Outta Cal Poly California develops, isic insulated solar electric cookers, and we use those a bunch, but they're kind of the opposite of an air fryer. They're this cooker that takes in modest amounts of energy, heats up a little oven of sorts.

I mean, there's different ways to do it and then cooks somewhat more slowly. So you can use a modest energy source, insulate your cooker and cook the, air fryer is kind of the opposite. It's like blasting a huge amount of energy and they're really quickly to cook something. I mean, you think about if you put a piece of toast in an air fryer, how much of the energy used actually makes it to the toast?

I mean, I haven't tried to measure that, but it's crazy. Of

course. stop there just a second. That example. Think about that as a microcosm for our entire economic system, for humans. Sure. Today it's crazy. In the global north Anyways.

Right. Well, same with driving to work. There's all this, oh my god.

Electric cars, smart cars, whatever. It's like I don't drive to work. I mean, I work here, you know? So if you can live close enough to where you work and to where you shop that you don't, I mean, you don't need the car. And then all this fancy thoughts, I mean, electric cars are a whole nother subject, but 90% of humanity does not own a car.

So you're gonna tell me electric cars. Anyway, different subject related, different subject.

I totally agree with you. I totally agree with you. Do you have, like, do you have. Electric golf carts or bicycles or things like that.

I resisted the bikes for a while, but yeah, we got a heavy duty cargo bike, which is a one horsepower motor, and that's kind of our farm pickup truck, which normally has 300 horsepower.

Yeah. And it's useful, I have to say that one horsepower will move hundreds of pounds. We live just a mile from a town, so we can go to the grocery store, hardware store, whatever, and carry, bring back or take in hundreds of pounds of stuff with one horsepower on a few batteries. That works. Okay. Do

people, in that town respect you or are you those weirdos out in the country that are, living with all those gadgets?

I mean, they respect us. I mean, they probably think we're weird too, but I mean, the history of community in this county to Oaks has been here almost 60 years at this point, and the relationship is mostly PO positive. So. mostly I think we're respected. I do have a lot of interesting conversations with people.

I mean, nobody else wants to live this way,

or maybe they do. It's just that not everyone else around them is living this way. That's a big issue. If more people were living this way, I think you'd be surprised how many people wanted to live that way. If they had community and relationships, that would be the key part.

So here's what, if I may segue off of that. So I was, you know, as you're asking me, what keeps me up at night, I mean, trying to figure out how to get, make this more marketable or more adaptable to more people. And what we, what I would love to see done, because the kind of sharing that some of these communities have is just too much for Americans.

Shared bathroom, shared kitchen and problem. But, so we started calling it, off grid condos. At this point we're using, energy independent cooperative housing. But you could take this like an living energy farm. You could take this very structure and it make it apartments basically. So people have a fairly modest department.

The thermal systems are shared. So the solar hot water, the house heating, the DC microgrid is shared. That's what we call the whole big package of direct drive and the various sort of supporting stuff. and then key point, there's a caretaker. So instead of paying a monthly energy bill, you pay a little fee, not a huge amount.

And you know, there's 10 people, a few more maybe in this facility. And that caretaker takes care of the biogas. You know, if you're going off to work, they pop your dinner in this insulated solar electric cooker at two o'clock in the afternoon. So when you get home at five, it's cooked. and I think it's marketable.

I mean, not everybody would wanna live that way, but I think thousands, millions, tens of millions of people would love that. And it's not that expensive to build. we're trying to work that part out 'cause I've always built my own stuff, which makes it super cheap. so that's where we're, going.

I'm just imagining that, the Alexis Ziegler's in our country might be far rarer than solar panels and direct drive contraptions.

Yeah, I suppose. But I think if people could live in a facility, you know what? People care about their house being warm. They don't care why, you know, if you could build a facility where the warm stayed warm in the wintertime Yeah.

And

reasonably cool in the summer. They don't care. So do you generally feel like the community members at Living Energy Farm are happier and healthier than most Americans? What, are your thoughts on that?

Yeah, definitely. I mean, certainly intentional community in general. I mean, one sort of optimistic way to describe it is it's better in every way except accumulating money.

I mean, this thing about growing old and lonely, I mean, I've seen a fair number of people die in the communities' movement more broadly, and nobody grows old, lonely. It just doesn't happen. I mean, the social network is much stronger. I mean, you sprain your ankle. I mean, somebody's gonna bring you a bowl of soup.

It's not that everybody loves everybody. I mean people, there's vendettas and feuds, whatever. There's stuff that goes on and, you know, bad things happen. It's not utopia. But the, you know, we are naturally social beings and that social fabric is worth way more than insurance with some company that doesn't give up care

about you.

The more I learn about the human predicament and the more I see the fracturing of our society, the more crystal clarity I have, that community is the answer, and that the future is bio regions and communities and social capital as outposts of sanity in what's to come. So I think. many more areas will be very curious to learn what you're doing and apply this at scale before we're forced to, and then we don't have the degrees of freedom to do it.

Yeah, I would love to, to hear from people, get more people involved. I mean, we kinda skate this line between activists who are well-intentioned but don't have any resources and are kind of, you know, young and hopping from one project to the next, however meaningful that may be. and you know, a lot of people who have money but aren't willing to invest in, in cooperative projects necessarily.

I think the inter independent cooperative housing model could work. I mean, and a lot of things, you know, that word community gets thrown around and a lot of them, you know, you really do need to like figure out how to share a hot water system that's kind. Just as a simplified part of it, you know, it doesn't mean you all gotta be in the shower at the same time.

Okay. We can have separate showers, we can, I don't know, whatever works

well. The, house that I'm in right now is the office and there's hot water in a giant tank in the basement, and I'm the only one here. I. And it's sitting there on my demand 24 7. If I can't sleep in the middle of the night, I can turn on the oven and bake two turkeys if I'm bored and get on the internet.

And it's like, well, I think the stats are, the average person in the United States has 60 devices that are plugged in 24 7. And even when they're turned off, they're drawing energy. And that amount just, there is 12% of our energy, in the united our of our power, electricity use in the United States.

We are not only energy blind, we're energy hogs and dopamine addicts because a lot of that stuff is just, stockpile dopamine to be able to turn a switch to be entertained, when we need stimulation. I.

You know, one of the things, I mean I couldn't have said this. I mean we're, we've been here about 15 years now and I couldn't have said this 15 years ago, but the inter, one interesting thing about the way our system is set up is, I mean, first of all, at night there's, I mean there's a couple of little electronic widgets running, but by and large that mass of machine, there's not like heat pumps and running and stuff.

You don't hear that kind of background hum that you hear in a lot of houses in the city especially. It's just not there. We don't have a bunch of big machines running to support us. But the other interesting thing is these systems actually kinda rewire people. So take our water system for instance, you know, I have built, part of the reason LEF got built the way it is because I helped a number of friends of mine build so-called off grid houses over the years and years go by and those systems always get abandoned because, you know, the batteries, inverters, all that mess is too expensive.

So, you know, like one particular friend of mine put in a $50,000. Big battery kit system. So come home at night after work, turn on the shower. This big battery set turns on two big inverters that run this well pump that just came from the hardware store. So you can pump shower, so you can take a shower at 10 o'clock at night.

Well, our system, we have water storage tanks. Now most rural households have a water storage tank except ours is bigger. So during the day when the sun's out, we hit a little timer and it pressures up the water tanks. That all works fine, more or less. But when new people get here, they don't get it.

They'll go out and, okay, I'm gonna water the garden at five o'clock in the afternoon. Well, stupid idea. 'cause you drain the tanks and then you don't get the water. and they're like, it takes 'em a few days. Most people get

it. When should they water the garden?

Nine o'clock in the morning. any time before three basically, we can, you know, of course in the wintertime it's a little less than the summer, but we just need to be able to pump the tanks up by, say, three o'clock in the afternoon, give or take.

So you can pump all the water you want. We can pump 10,000 gallons a day on a summer day for the day, but at four o'clock you really ought to make sure you've got pressure to get you through the night. But the other piece of that is, you know, this thing where people will turn on the faucet and put a single spoon under the faucet and dump 20 gallons of water to rinse that spoon.

You don't do that at Living Energy Farm. The system teaches you to conserve.

The system teaches you to conserve. And our system teaches us to consume.

Exactly. Lemme give you another example. A lot of people without even thinking about it, have a kind of built in, memory pattern that relates to thermostatic heat.

So they get here in the middle of winter, in the first day, all of our bedrooms have, double doors so you can open to the outside. That's the summer ventilation I was talking about. So they'll close the door and say, oh, hey, I'm glad to be here. And then they'll go open their door and ventilate their room at night and then at six o'clock and they come to, they say, my, my room is cold.

I said, well, dude, you vented all your heat. They don't even, people will leave the doors and windows open and dump the heat during the day expecting that a thermostatic heating system is gonna warm it back up. So again, it just takes 'em a couple days. They're like, oh. So like, if it's gonna be cloudy tomorrow, we run the solar heating systems in the wintertime to warm the building up.

So the next day it's at least tolerable, not quite as warm as it was the day before. So we live on stored heat, not immediately generated heat, and that people need

to change their habits. Most people adapt fairly quickly, some people take a little longer. But yes, these systems teach people to conserve and it works.

It works pretty well.

Okay. We're, we're 38 minutes in here and now I have tons of questions, Alexis. Okay. So this idea of sunk costs keeps coming back to me because what you're describing, if there's a plot of land and people want to live there seems eminently doable and eminently scalable. It's just what you're doing.

I could not adjust my current, 2,500 square foot office here to do what you're doing easily. But a new thing, starting out, a new community that's maybe adopting some existing structures, but with a, group, plan of maybe 10 houses that are, loosely aligned, it's eminently doable. So I, keep questioning how big of a problem the sunk cost of our current society, our current education system, our current expectations are as a barrier to what you're promoting.

It is the barrier, obviously. if you just could wave a magic wand, right? And we're gonna go take an American suburban block, you know, there's a saying, I heard somebody say once that if you're on your second marriage and you get married and you both own a house, you've gotta sell both houses and move into a third house because whoever owns either one of those houses, you can't move into your spouse's house.

You'll never get along. So, similar situation, maybe we go into a suburb, we abandon, we, we pick the two or three biggest houses, we destroy all the rest, we pull the materials out, we super insulate those bigger houses and then live cooperatively in those houses. And, you know, on paper that's super easy and the real world ain't gonna happen.

So, as you were saying earlier, we're gonna do this when we have to. It's also part of the answer for why we have, you know, we ran into a problem years ago when we started trying to push this technology out that it was fairly clear that rich people don't want it and poor people can't afford it. And by poor, I mean really poor.

Like outside of the United States, we've done projects. And so we've tried to get this technology going in the tropics basically. 'cause there's a lot less thermal loads there and people are more used to sharing to a degree. but we have very little funding. And the NGOs, you know, the organizations that do this kind of work around the work are very much.

Well, you know, it's a big complicated world. I don't wanna overgeneralize, but you know, the idea of a conservationist, community oriented, DC-based energy systems, they don't get it. They don't want to get it. You know, it's a lot about exporting American lifestyles, exporting grid systems. I've had engineers tell me that, you know, we're working in Africa to get people ready for grid power.

It's like, I dunno what that means. It's kinda weird. but why don't you give 'em a system that works? And the fact that our systems, you know, if you take our system into a single family home of, whatever size, and there's one or two people in that house, it's not a big advantage, AC versus dc it's community scale where it really works.

And, but engineers don't think that way. And I'm, again, I'm not trying to over generalize, but the whole American Western mentality is not community scale. It just isn't.

This technology, what you're doing at Living Energy Farm seems to me to be perfect for many places in Africa. Isn't, this how people use electricity and power in Africa or, not?

Because. Well, well, tell me. I don't know.

Well, I've never been to Africa, but I'm probably gonna be there soon. Yes. It seems like Sub-Saharan Africa, you know, there's a lot of areas that do have very, you know, in the rural areas where there's just no grid power, unreliable grid power. So yeah, it seems like a good match.

We just, we don't have, but there's a lot of

sun and a lot of people Sure. and in community that are already living in community in ways that were not in the United States.

Sure seems like a great match. IAL was gonna be there in a month. And the US what we were doing was putting the two projects together, the, Simplified Combine Harvester.

We were going to Zambia to build those, and while we're there, we'd start trying to set up demonstration sites for the DC microgrid. So now we're kind of resetting the current plan will have us there in the fall, trying to get something going. But, you know, I don't have a ton of funding. I don't have, I mean, I've got volunteers, you know, all the money goes into the big solar fields and the big whizzbang, you know, I mean, the big electric cars, all this stuff from middle class Americans to make 'em feel better about the energy use.

So, and, you know, and I, so yeah, I would love to see this go into Sub-Saharan Africa. I

think it could be great. Let me put you on the spot here, Alexis. if you were working at a, subdivision of Doge, department of Government Efficiency or Department of Energy or whatever, and it was within your purvey to, Anticipate a lower, energy and, more chaotic, coming decades. And you were able to, scaffold and blueprint new communities instead of, cookie cutter, super organism, suburban houses where there's 2,500 square foot houses that are energy hogs, 10,000 watts. Like cookies, in, a row.

What would be your, overarching philosophy and what would be some of the blueprints that you could, imagine, in your hypnagogic state before you fall asleep? Before you work in your shop with your I and metal tools?

Well, you know, a point a lot of other people have made, I mean, Ozzy Zenner in particular, with green illusions and the work he's done is.

What matters the most is not the house itself, but where it is in relation to everything else. So good. I mean, I'm not an urban planner, urban designer, but you know, good and overall, design so that people are near the services they need, they're near the social network that they need, so you're not driving an hour to go to a bar or to go shopping or go pick up the kids or whatever.

so that's the first biggest layer. Beyond that, conservation is always cheaper than any kind of energy production. And a lot of people have made that point too, for decades of course. I mean, I love straw bale in the climate we're in, it's great, it's cheap, it's easy, it's fast. So yeah.

You know, houses, buildings situated so that they relate to each other in an intelligent way, and then do a good job with the insulation. If you do that, those get those two pieces right? And you bring your energy use down 80, 90, 90 5%, whatever it is. Then renewable energy becomes. Useful instead of just, you know, some thing that you're doing as a token gesture.

The part in the middle that, that was implied that you didn't mention is shared solar hot water and the things you mentioned earlier. Yes,

sure. yeah, sure.

Yeah.

Well, you mentioned as if it recover and

private bedrooms

though. Private bedrooms. Yes. Private bedrooms, certainly. Yeah.

So, Alexis, I'm just curious in, living on living energy farm where you grow most of your own food, what's, what's on the dinner menu tonight, at your house?

Well, we're eating a lot of, south Anna butternut squash these days. That's a particular squash that was bred by a friend of ours nearby here to be a highly disease resistant, highly productive squash, and it tasted really good. So eating a lot of those lately and beans often. my meals always include dried jujubes and dried persimmon, as the final part of the meal.

And we also, do this time of the year, especially a fair amount of, fermented roots like lacto fermented, We call 'em tillage, radish, daikons, black radish, various things like that. Some other people here eat some venison and whatnot. That's not

my thing, but it's there if you want it. A homemade bread, we have a lot of that with the wheat.

We grow the wheat, we harvest the wheat, we grind it with solar energy, we cook it with solar energy, and then you can have a peanut butter sandwich with all the ingredients grown and processed right here with renewable energy systems. Kind of cool.

Including the peanuts and the peanut butter.

Yes. We grow our peanuts, we harvest the peanuts, we grind the peanuts.

We make our own peanut butter sandwich all grown right here.

Yeah. I'll have to come visit sometime. Please do. And what have been your, biggest lessons, in becoming mostly self-sufficient in your food system?

I mean, the biggest lesson is you eat what you grow and grow what you eat.

So if I love avocados, that's fine. You know, I'll buy one every once in a while. But, you know, a lot of people, we just live in a culture where we have a lot of choice and that's good in a way, but, you know, so it's easy for us to grow corn, sweet potatoes, beans, I'm a vegetarian. We do end up having to, the deer are a big headache, so some people here do end up eating venison.

but yeah, the biggest thing is, I mean, farming is one of those things. I mean, permaculture, all that stuff is fine, but you really just have to spend a few years on a piece of land to start to understand, okay, well this is where I live. This is how it works. So yeah, we eat a primarily plant-based diet.

it is simpler in some ways, but you know, your taste buds change, your body changes. You know, when you're out there eating that greasy, salty, cheesy cheese pizza stuff, you know, that stuff is engineered. It's like a chemical substance engineering to make you want more and you get away from that.

Your body changes and you start to taste things more deeply. My big thing is fruit trees. I love fruit. Trees always have all my life, so I grow a lot of fruit. Persimmon

are the biggest, crop. So we grow a few thousand pounds of persimmon every year. Whoa. The Asian American crosses, we dry 'em, so it's kinda like he healthy jelly beans.

They're super sweet. We eat 'em almost year round. so, persimmon, jujubes, blight resistant pears. Those are our biggest fruit producers.

and you, dry them and also preserve them and can them, presumably.

Well, the drying is preserving with persimmon. Okay. in this case, so I mentioned the solar heating system for our houses.

How that works is there's a big solar hot air collector on the roof of every building and then a direct drive solar, electric DC fan that pulls that heat and blows it under the floor. Well, in our kitchen, the below itself has a big closet around it, so that becomes an industrial scale food dryer, which is actually just the heating system,

drying food.

Sorry to ask this question, but as a systems thinker I can't help but, wonder about the single point failure mode. If something were to befall you, the MacGyver of the place, are there other people that have your skills and able to operate all these gadgets and devices?

Well, the direct drive part is really simple.

I mean, yeah, if I fell over dead, certainly LEF would be fine for the most part. I mean, I suppose they'd be sad, but, no, the direct drive, a lot of people get that it's, it's permanent magnet, industrial motors, I mean, there, and just wired in. You know, that's not hard.

So that, like generally of all the things we've talked about, that is a no-brainer that we've chosen historically and we're following that decision because of the momentum and the metabolism of the sunk cost of prior decisions.

And that extrapolating forward in a more energy starved future. Our AC choice is, not a good one.

No, it's not. You know, part of the reason I'm, glad to be on this, show and it, I'm glad we made the connection is that your focus is really valuable to try to get people to think a away from just, you know, batteries and supply and, okay, let's think about the system.

Let's think about the superorganism and, you know. The anthropology of that, like how was that Superorganism created? How was it evolving? Where is it going in the future? That's so important. That's, and you know, I think we could understand. It's like we, we choose to not understand it. and we could understand it a lot better.

And yeah, on the MEChA, the mechanical side is really easier in a way. It's, getting people to adapt their lifestyles. Just the resale value issue. I've had a lot of people say, yeah, I would do that except I'm worried about resale value on my house. It's like, eh, planet resale value. Gotta make choices.

So I'm, quite certain that people viewing this, many people viewing this are intrigued and might be interested in replicating, communities like Living Energy Farm. what's the biggest obstacle, and that's standing in the way, of doing this, and how do you recommend people get started, with building a community?

Like, like what you've done?

Well, the hard part is really getting people to work together. You know, the technology. I mean, it's new, it's different, but it's not that difficult. But getting 10 people to cooperate on a system like this is challenging. And what you don't wanna do is go out and find some people and spend several years having meetings with all of these people, assuming that you're gonna build strong enough relationships that's gonna persevere because it doesn't, it never does.

So it's gotta be with existing re relationships.

Well, you don't build a community on relationships. I know it, it sounds kind of counterintuitive, but I mean, I'll tell you, so Kat Kincaid, who started Twin Oaks in

several other communities, I was good friends with her and she would always say, just assume the founders are gonna leave.

What you need is a structure in place that's strong enough to sustain itself when the founders leave. So you wanna think about income stream debt, you know, the basic nuts and bolts of finances, basically. And, you know, if people leave, you know, what kind of agreements do you have around, some communities get destroyed because the property's held in common and then people start leaving and you end up in lawsuits and stuff over who owns what.

So you need clear agreements over who owns what. And, you need a, think of it as a business. It needs a good business plan, to start with. And you do need 10 people to cooperate in some fashion, but, you know, it's not, I mean, and it's better of course, if they get along. You don't wanna live with people you hate, but you do need a solid foundation of just the finances, the physical structure, the legal agreements, all of that stuff.

Just don't assume that people, everybody's gonna be happy and get along and, you know, stick to some vague ideals because a lot of people like, you know. There's all these, our, you know, issues segment people, you know, feminism, environmentalism, racism, whatever. And don't assume that because people have strong agreement on some of these issues, that they're all gonna wanna work together and live in community.

So if you can get your finances and your legal structure in place, so it'll sustain itself, then yeah, doing a good job with the design upfront. You know, we talked earlier about, you know, situating where things are put, good conservation measures, you know, it's way easier to take a good design and improve it than it is to take a really bad design and try to throw renewable energy at it, which is what everybody does, and it doesn't work.

So try to do a good des good design upfront. And, you know, we try to support people with as much time as we have. Although I'm pretty backlogged these days with like helping people figure out good designs. And obviously there's a lot of

resources out there. What are the, The highlights and, the biggest challenges of living in a small, intentional community like Living Energy farm, the social on the social side of things, not the tech side.

I think the biggest struggle is that we have a schizophrenic understanding of leadership, of, 'cause, you know, a traditional tribe and maybe a little idealized. You know, the, chief, their job was not to dominate people. Their job was just to get people to get along and work together. And it was an inglorious job.

And, you know, they ate last. I mean, that's a, saying among some of the tribal groups that the chief ate the stale food at the end because everybody else had to be taken care of. So we think, when we think of leadership, we think of, course right now with the kind of authoritarian takeover of our government, there's no shortage of evil examples of leadership.

So that's what we think of as leadership. So that's a very different thing than when you've got somebody in a group, the band leader, the person who's like helping everybody play together. That's a useful role. And of course people do exploit those roles to gain whatever personal petty advantage that does happen.

But local coordinators, local coordination is really valuable. And historically, we're, we've, in modern history, we rely on money and coercion and patriarchy and some evil things to organize people. But good organization and, good, you know, respecting good, the good version of leadership where people work for the benefit of the group.

That's really the tricky part. and we've had, you know, I've dealt with a lot of parental transference and just crap around people wanting to make me into a bad guy. I mean, whatever. I'm a personality. I don't care if you like me personally, particularly what's the point is we're trying to work together to have a sustainable group.

That's what matters. So. You know, different people have different roles to play. And, you know, working out those dynamics where you can, 'cause we accept corporate dependency every day. It's like, we're happy slaves. You know, the corporations supply our food and they supply our energy and there's a price.

It's total domination. You know, years ago solar was a threat and then they realize they could centralize solar and now it's not a threat. You know, instead of independent houses, we have these massive solar fields and deforestation to build the solar fields so the corporations can control it. And that's how they made solar not so threatening.

And So, yeah, a, clear understanding around the value of leadership is hugely important.

You know, we take for granted, the viewers probably won't see this, but we've had a battery problem on your computer and someone tripped on a cable or something. So we've had to restart this interview a couple times.

But these are, problems of the global north, in, doing a podcast. So thank you for your, afternoon. Energy contribution to, the Great Simplification podcast. So, picking up where we were, Alexis, could these sorts of, practices both the technology and the social side of it be integrated into more of an urban setting, or are they really inherently more suited for rural lifestyles?

I mean, when you're doing retrofits, you kind of have to look at each site and each site has its own challenges. Certainly the electrical side would be doable in a lot of urban or semi-urban settings. I don't know about Manhattan, but most cities, biogas, you know, we do biogas as well. That would be pretty challenging in a d denser urban area.

But most of what we could be, there's a lot of flexibility. Most of what we do could be done in urban settings to a degree. Some, situations wouldn't work out as well.

So I. I mean, I'm gonna ask you this question. I think the answer may be obvious to you and our viewers, but ultimately, will this type of living I.

That you're attempting, to document and understand and, evolve at living energy reform, farms, will this type of living require a change in our cultural expectations for what it means to live a quality life, especially away from, our hyper consumer lifestyle that have become the foundation of our cultural stories?

What do you think?

Certainly, of course. You know, it's funny, we have this story in our head that people, that what we're doing is indulging people and that people don't have this self-discipline or human nature just wants to consume. But you look at a lot of people in the modern world, in my family, my wife's family, they will, live alone because our culture tells us that like moving to a city, getting a good job and living in an apartment by yourself is something that middle class respectable people do.

And yet, if you look at traditional societies, ostracism was just short of death in terms of punishment. Yeah. It's like the worst thing. So we're willing to isolate ourselves because we're told we're supposed to. I mean, if I had a ton of money and I could run some big advertising campaign that showed, you know, sweaty people on bicycles, biking to work and growing their gardens and, you know, doing all this stuff, yeah.

People would love it because they would associate it with, social status. We're very sensitive. Most people are very sensitive about social status, about what other people think of us. Yeah. Huge. So. the, cool thing, and this is where you really see it, one thing I love about Twin Oaks in particular, it's a hundred people been there for 60 years.

It's a big enough group that's persistent enough that it can create its own social norms so that people who don't have social status in the mainstream that are looked down upon for various reasons, are respected to a much higher degree. And that is a very powerful thing to see. It has a very powerful impact on those people.

It has a powerful impact on the group. If you just look at feminism, that these communities do a pretty good job, I think generally in terms of balancing power between men and women. And it's great. It, works so much better than having the men be in charge. so yeah, it's a cultural shift and you know, you talk about, yeah, it's gonna change the great simplification, it's gonna happen whether we like it or not.

We just need to try to move more quickly than we have to.

Yeah. So speaking of that, how would someone with limited financial and time resources get started with implementing some of the practices and strategies,

you've described and that you use on Living Energy Farm? You said earlier, just start with finding 10 people and a blueprint, or what other advice do you have?

Well, ic.org is the intentional communities.org. That's a website. You can go out and look for other people, you know, join existing groups rather than trying to start, I didn't

know that existed. That like people show up there, like it's a dating app to find a community to live in.

I mean, so there are hundreds of organizations that call themselves intentional communities and you know, they're religious groups.

There's, of course there's traditional groups like the Amish, whatever. There's a lot of different groups and some of them are misrepresent themselves, whatever. So just proceed was, you know, I'll do appropriate caution, but you know, don't this, I, my community is a contradiction in terms it's not your community.

You need to find people. And certainly cities, it's often easier to connect with people, in terms of, you know, whatever. Just getting a group of people together. But yeah, you need to connect with people somewhere somehow, and you don't have to reinvent the wheel, you know, try to find a group of people you can work

with.

Is the way you do things at Living Energy Farm, is it all or nothing? Or is there a hybrid type model that, that might, be viable?

I mean, you, we talked earlier about how the energy system that we have kind of encourages bad design and you can't really put conservationist design on the table with, With fossil systems. I'll tell you in particular, many years ago, 40 years ago, I started doing maintenance on solar hot water systems, and I built many of them since then. And what everybody does is they'll put a solar hot water system, preheating water, going into a gas or electric heater, and some years later there's some tweak in the solar hot water and they ditch it.

But at Living Energy Farm, we only have solar hot water. We got a firewood backup, actually. But that's a pain in the butt to go build a fire. It's not automatic the way gas or electric is. So yeah, it took, it is all or none in the sense that you, don't put chocolate and broccoli on the table at the same time.

If you want your kids to eat a good dinner, you don't put, we are so habituated to fossil systems. You do not back up fossil systems with solar systems. I personally will not consult on a project that has fossil energy going in because I know it's, worthless. It's a waste of time. What you, it'll be a token gesture and they'll destroy the renewable systems over time.

So if it's a good renewable system, it works well, you're reliant on it and you take care of it.

What were you like as a teenager? what did you do and did you go to college?

I never went to college. I was not a happy teenager. I grew up on a redneck farm in Georgia. My father was a psychotic, racist jerk, and I barely got out of there alive.

So it's, that's not a happy story. But I did learn some skills. I mean, I grew up, up, you know, on a farm where, you know, we had, we didn't even have a set of wrenches. We had like one or two wrenches and you know, we had to learn how to make do, so I got really good that like you got two wrenches and a screwdriver, fix that tractor and figured out a way to do it.

You were a tinkerer as a teenager even.

Oh, yeah. Everything that came in the door, I tore it apart and put it back together. Wow. Usually.

Wow. So, It's true. Some of this is a mindset and it's a philosophical view of the world and it's a, commitment and a discipline. so thank you for sharing, some of the details, and I'm sure we could have spoken for 10 hours, on, Living Energy Farm, but what about individually?

Like for you, you follow the podcast and you followed my work for a long time. What sort of advice do you have for people that are listening to this, whether

they're in a high rise in a city or on a farm or, in Europe or Australia or wherever? what sort of advice do you have for listeners ahead of the great simplification more broadly?

Well, I mean, the thing I, I say over and over again is, of course, get involved with other people. The other big piece of it is that. The, those aspects of sustainable technologies and renewable energy that get a lot of attention are not, that's not based on their efficacy. You do not want to try to convert your life to solar, electric panels and batteries because that's what you've been told is environmental or is sustainable.

It's like, no, You need to think more deeply than that and understand the physics behind it. Trying to heat a badly insulated house with batteries is just never gonna happen. Not gonna happen. You need to be smarter than that. So it's not that hard to figure out. But you, there's sort of political environmentalism and.

The politics effect. Like we try to change the laws of physics with our politics, it ain't gonna work. So you kinda have to try to dig through that and figure out what does work, and pursue those avenues. and again, you know, there've been a lot of people in this podcast who do that in various ways, although maybe some of 'em get lost with their tinker toys, but we don't need to debate that.

So yeah, digging down to the technologies that work really well is a challenge and differentiating which ones work really well.

What about psychological advice, on, how to process all this? And think about being human alive at these times. what sort of individual personal psychological advice do you have given your lifetime of work in this area?

Just find people to talk to and to listen. I mean, you know, an old friend of Manny years ago when I first came to Twin Oaks, my best friend there just looked at me one day 'cause I was a very troubled teenager and said, just ask questions. Listen to the answers. You'll have friends. So find like-minded people, ask questions, listen to the answers.

It all flows from there.

And, are there young people on living energy farm, like, teenagers in early twenties? And what advice do you have for the, that age group that are listening to this show today?

I mean, it is a little tough. You do have to balance like your personal needs. I can't tell you to drop out completely.

you know, and I was a skill guy from the beginning. So I could make ends meet, fill in the gaps with mechanical skills so that, that's a personal decision. Like, okay, how are you gonna make this work for your life personally? But beyond that, it's like. You know, I never went to college and I don't regret it.

You know, if you wanna go climb the class ladder, that's fine. I'd rather kick the damn ladder over myself. I don't think that each of us acting as individuals to try to build our careers is gonna make the world a better place. I mean, you have to balance, you know, your personal interest and your, the bigger concerns.

And, you know, there's some real big changes coming down the pipe. I don't know how quickly, I don't know if we're going over a cliff or sliding down a big long hill. None of us knows really. I. But you know, I mean, I tell a lot of young people just, you are not gonna drive to the gas station for 30, 40 years from now and fill up, put gasoline in some big old car, and drive home to a thermostatically heated house and fly to Hawaii on vacation.

You're not gonna be doing that. So you need to be thinking about that. I agree with

you,

right? You need to be thinking about, okay, well if I'm, and going to the grocery store and buying whatever the heck you want, you need to be thinking about, okay, how am I gonna meet all those needs without that massive energy input?

And what does it mean for the people around me?

Or are you gonna change your definition of needs? Yeah, sure. Yeah. So, what do you care about most in the world, Alexis?

I mean, there's two layers. I mean, first of course is the family and the people around me. I mean, beyond that, I mean, I grew up in this kind of crazy Christian family and I don't embrace a crazy version of Christianity, but I did kind of take that spirituality and kind of transpose it over to the natural world.

I mean, to me, when I look at, I'm looking out the forest at the trees here and out the window at the trees. You know, it's obvious. I mean, whether you call it only four and a half billion years of evolution or a sacred creation, I tend to call it the latter. We have something very special here. I do believe that there is higher power, not a, not an old white man in the sky, but we are part of a bigger scheme here and we have choices to make, to preserve nature and to have evolution.

I think we need to change the course of human evolution. This superorganism you talk about is outta control, obviously, and it is gonna destroy the wild human and it's gonna turn us into something we don't wanna be if we can't redirect this thing. And to me, that's a spiritual mission. It's a pursuit of unity with the oneness that we see in all of nature around.

I mean, isn't a single tree an absolute miracle? And why are we destroying that? So wantonly, we could talk about that for a long time too. But yeah, there's, for me, there's a strong spiritual basis in all of this. It's not what people wanna hear all the time, but

well, as you know, you're not alone. I share exactly what you just said as do most of the guests on this show.

So I think there is something deep within many of us that, that feel the truth of what you just said, and that gives me hope.

Yeah.

So, if you had a magic wand, Alexis, what was one thing you would do to change human and planetary futures?

Ooh, tough. I mean, my current temptation is to say get rid of the billionaire class, but that's an impulse, not a Oh well thought out idea.

Yeah. I, would argue with you on that actually. because they are one of the few classes that has. In theory, the degrees of freedom that other generations of humans didn't have. That if they did have a change of heart, of the type that you just described. Now, they could do things that governments and institutions and corporations couldn't, because they have those degrees of freedom.

But I, understand that the impulse of your statement, but please carry on.

I mean, the one thing I could do, I think the one thing I could, if I could sort of get into people's heads and help them understand cultural evolution and help them understand who we are as humans, because we tell ourselves, you know, half of human culture is enlightenment and the other half is kind of suppression or telling a story in a way that makes our world make sense, that excludes most of reality.

If we could somehow break through that and just be honest with ourselves and just understand who we are and what we are and how we got to where we are, that would be huge. I mean, I used to use this phrase, conscious cultural evolution is kind of a mouthful. You know, human evolution, cultural evolution is not really conscious the way it happens now.

The superorganism is kind of taken off on its own if we could, and we could do it from the ground up. In fact, there's no other way to do it. You know, it would involve, gorilla macro managing, managing from the bottom up, which would involve a lot of economic localization and, spiritual localization.

I mean, it's funny when you look at indigenous cultures, their spirits were always in the bushes. The shamans went out and wrestled with the spirits. It's no coincidence that the super organism has an old white man in the sky who happens to look like a Roman Caesar. You know? It's like they took God away from us.

We need to take God back and, see it right here in the bushes and yeah, okay. Heaven on earth. Heaven, no, not heaven in the sky, heaven on earth right here. We take care of it every day. This is our heaven, right out there in the bushes. Right in that forest. I don't know if that's one thing or many things, but,

or both.

I. This has been, really interesting. it's just a very shallow overview of everything that you're doing, if you were to come back, in the future, for another, episode. Alexis, what is one topic that you are deeply passionate about that is relevant to human futures that you would be willing to take a deep dive on?

I think talking about the evolution of human culture and how that relates to energy and food supplies. 'cause we see this notion of progress and it's really a lot more complicated than that. I mean, things are better in some ways, worse in some ways, but understanding why we make our own choices and how that relates to both the physical and the spiritual side of it.

I would love to talk about that more. That would be fun.

Any closing comments for people watching, listening who understand and agree with what you've laid out here today?

Well, I'll plug the websites one more time. Living energy farm.org. Living energy lights.com, you're welcome to go look at those and, you know, get in touch with us e either to offer us support if you want.

We can within the limits of our resources, you know, if people have particular projects and there's something we can offer to help. On the design side, we try to do that.

Alexis Ziegler Living Energy Farm. Thanks for all your work and thanks for your time today. Thank you. If you enjoyed or learned from this episode of The Great Simplification, please follow us on your favorite podcast platform.

You can also visit the great simplification.com for references and show notes from today's conversation. And to connect with fellow listeners of this podcast, check out our Discord channel. This show is hosted by me, Nate Hagens, edited by No Troublemakers Media, and produced by Misty Stint. Leslie Bat Lutz, Brady Hayan, and Lizzie.