

**Well then, Mr. Theis, if you're ready, if you could give us your background and how you came to permaculture and all the work that you're doing? And we can take it from there.**

BT: Well, let's see. I was a practicing architect for twenty years or so before I took my first permaculture course. I had heard about permaculture from several of the people in the natural building community that I had worked with. And I was fortunate that, I believe, it was the last time that Bill Mollison actually came to give a full seminar, was the time I signed up for it.

My first time with him, unfortunately, I got sick while I came back from a trip to Mongolia, a consultation in Mongolia, I was sick. And so I was only able to get through some of the days of the first course I had with him. But he came back for another one and I completed the course, if you will, with him after that. And, subsequently made enough connections with the permaculture network that permaculture work has become integral to what I do.

However, a great deal of my work is not out in the countryside, where you have the command of the landscape that you normally associate with permaculture. A great deal of it is in metropolitan areas. And although Bill Mollison talks a great deal about permaculture in the city, this is something that is, is still a very, very nascent field in my experience. We're only beginning to get a grasp of the devices and invisible networks and so on that are necessary for permaculture in an urban setting to really work, because you don't have command over the property in the way that you do when you're doing permaculture out in the country.

And so, it's really interesting to watch it slowly become a reality by, in all manner of different directions, but, the food producing aspect is *just* beginning to be touched on, now. And, interestingly enough, driven areas of permaculture in the urban landscape is not food production, although that's happening. It's actually decreasing the runoff of urban situations. That is driving a great deal of the greenscaping of the urban landscape. So that's an interesting thing to happen, and it's one of the paradoxes, is that change very often comes from a direction that you don't expect.

What else? I had already been involved in strawbale construction before I got involved in permaculture; that's what I was doing in Mongolia. I was—an aid agency sponsored me to come out and talk to the government agencies in Mongolia about the attributes of strawbale construction. Their country representative correctly identified it as a perfect technological match for the country. They grow wheat, they have the world's coldest climate, they bale things—although with old Russian balers that don't give you very good bales. So I was out there as the visiting suit, basically, to say, "Yes, western professionals say that strawbale construction is viable."

And although we made a very bad strategic error by building our first two strawbale demonstration houses in the barrios of the capital Ulan Bator and thus stigmatizing strawbale construction as poor peoples' construction. In retrospect, we should have built one for a rock star, or something. I have since heard that it was a successful

technology transfer, and it's, strawbale construction is actually doing quite well in Mongolia. So that's good to hear.

And strawbale construction is something of a leading edge, what do we call it? Gateway drug? To natural building, in a lot of ways. Because it comes off the back of a truck, is basically rectilinear in nature, and so it's a fairly easy substitute for people who aren't looking to be ecological pioneers and demonstrate a house that is radically different from that of their neighbors, in fact, you can do a house that looks very much like your neighbors' with strawbale construction. Which is what most people prefer to do.

And yet, strawbale construction—once you sign on to strawbale construction—you start to realize that a great deal of conventional construction, what you do with conventional construction, is better addressed with things that are actually more natural in character. And a great example of that is our progress in plastering strawbale buildings. My first building, which was done in 1991—it was like the second strawbale building to get a permit in the state of California—we did cement stucco, 'cause that's what we *knew*, on the outside of the building and only later realized that lime plaster was a great, much better match to strawbale construction than cement plasters were. And, so, we had to learn about lime plasters because that technology had been lost in this country.

And then as we progressed, we realized that earth plasters were an even better match for strawbale construction. Of either the breathability of the walls, which when you get into super-insulated construction, it becomes the primary concern. And, there again, we had to kind of re-invent or re-learn how to do proper earth plasters. And so it's a great example of, once you start listening to what your materials would prefer to be doing, you get led into areas of natural building that you wouldn't particularly expect to get into.

There the driving force actually is not technological concerns, like vapor transfer and so on. The primary driver in that realm is actually the delight that the building engenders. And this is something that I'm often cautioning people. We tend in the building industry to be kind of technologically oriented, that we address things in terms of their proper functioning, and so on. And I am always pointing out to people that there are no coffee table books about the beauty of raster block homes or the other super-insulated ways of building...while there are in strawbale construction. Strawbale construction's primary driver is not its super-insulation or its low embodied energy; strawbale's fundamental driver is the delight that the thick, informal walls create. And so I'm often cautioning people that don't get their heads too wrapped up in the technological about these things, because that's not what has really fueled the strawbale revival.

And the same is true of a lot of other things, you know, as we concern ourselves with making our buildings more energy efficient and zero-carbon and core-carbon neutral and so on, it's very, very easy to get your head lost in the, in some technological determinism. When the important thing to do, if you're really going to

be serious about these changes happening as quickly as they need to happen, is to pay closest attention to the delight of it. Because that's what really gets peoples' juices going.

**They get an emotional attachment to the building and the way that it feels when they enter it, and the way that it looks?**

BT: Yeah. Fundamentally, the way I put it is that, what you want to be able to do is have people walk into the building and say, "This is gorgeous, I want it. Oh, it's energy efficient? I want energy efficiency." I mean, I used to joke, but it's actually based on real experience, when I did my first strawbale building, I got some press for it, you know, written up in *Fine Homebuilding* and *Sunset Magazine* and even *The Wall Street Journal*. And so there were people coming in—this is before we had any of those coffee table books on strawbale. They'd come in just with these little newspaper clippings and things. And the couple would sit down, and the husband would say, "Yeah, well we're gonna build a house, and we think the energy efficiency of strawbale construction makes a whole lot of sense." And the wife would say, "Oh, come on, I saw this picture and I told him, 'I want to build a house this way.'" The husband had permission to go with something as unusual as strawbale *because* of its resource efficiency, or energy efficiency. So, you had left-brain permission to go with it, but it was *really* right-brain response that brought them into the office.

So that's the most important thing, I think, to bear in mind, is that all of this natural building and even permaculture and other elements like that, tend to try to address people in left-brain terms when what they really want to be spoken to is the delight of the environment. And we're so tired of, quote, efficient buildings with perfectly flat walls that have no character to them; we want, we want an environment around us fundamentally where we can enjoy the stories that the building represents. So in the same way that it's so much more delightful to have a cucumber where you have met the farmer, 'cause you went to the farmer's market and learned a little bit about what he does, when you know the farmer that the straw in your walls came from and you know the borrow pit where the earth that became the plaster on your walls came from and so on...When your building engenders that kind of stories, not only does it have walls whose texture has appeal to you, but underneath all of that visual nutrition or sensory nutrition there are actually stories to the building that, that fill a deep need in our brain. We seem to think in terms of stories far more readily than we do just abstract, technical determinants.

**With natural building, because it's still in many ways kind of a nascent profession or, I don't know, now I feel like that's kind of demeaning to that term [laughs].**

BT: No. I mean, when you consider although it's grown really explosively, when you consider the amount of building done in this country, yes, it's still quite nascent in its relation to the rest of the building in the country. Yeah.

**Moving forward with that thought then, since I'm not too far off-base [laughs], do you think that it's because it's still small-scale allows for more of a personal connection between the people who are building these homes and where these materials are coming from and the people they're working with?**

BT: Well, yes. The short answer is yes. I mean, a good example of the scaling up of natural construction is that there are now nationwide earth plaster companies, whereas previously you had to go out and find a good clay that you could make into an earth plaster on your walls, you know, source it and dig it and sift it and, and so on. Now you can actually go to the store and buy an earth plaster by the bag, you know, with the color mixed in already and so on. And so, yeah, it is starting to undergo that transition.

And as I said, one of the reasons that strawbale construction has taken off as quickly as it has is because the strawbales are something of a packaged commodity. You know, it comes off the back of a truck. The way I say it is, "Natural building is moving from the phase of everything being custom to some of the things being industrialized." But it's still at the stage where the equivalent would be, say you wanted to build a wood-frame house and you took the carpenters out to a wood lot and waved at the trees and said, "Okay, here's the wood for the project." And they had to cut them down and season them and cut them into two-by-fours and so on and so forth. You know, it's a whole different skill level required knowing the entire process of material from how it leaves the natural environment until it finally goes into your building. That has to be known to do natural building. Whereas all of our standard kinds of construction, all you need to know is how to put together the stuff that arrives from on the truck.

And so, you know, two different very—two very different sets of skills and two very different sets of orientations, as well. And so, it's gonna be interesting to watch whether straw, whether natural building in general industrializes to the point where somebody who doesn't know the entire life cycle of the material is able to really be part of the building.

I mean, in some ways the subset of natural building of earth plasters has already made that leap because earth plastering doesn't require cob or strawbale building as a substrate. You can have a conventionally built building as a substrate for you plaster. You see earth plasters and things like that moving far more broadly into the built environment in general terms because of its adaptability to different substrates and so on, so you now have people whose background is, they don't particularly know how to gauge the dirt under their feet, whether it's a good plaster or not, because they simply go to the store and buy a bagged earthen plaster to put on the walls. And so you're seeing some of that industrialization of natural building already happening in a few select little areas of it.

**Do you see the industrialization of natural building as a normal progression of this? Is this a place where you'd like to see natural building go so that it**

**becomes more readily available? Or do you think that something is lost in the process by doing so.**

BT: Yes, of course things get lost in the process of doing it. But the fact of the matter is, most people don't have the time or the resources to ignore the efficiencies of industrialization. That is, even at the starvation rates that your typical natural builders build at, people don't have the wherewithal for all the materials in their house to be processed by hand. And housing is expensive enough as it is; even a fully industrialized building is out of the affordability of most people as our economies exist nowadays.

And it's kind of interesting that, if you know a little bit about history of construction in this country, about the turn of the last century, we look at the budget of a building and it was about two-thirds materials and one-third labor. When I was going to school in the seventies, it was about fifty-fifty materials and labor. And now, it's almost exactly reversed. It's about sixty percent labor, thirty or forty percent materials. And so, given that direction in things, the natural inclination is to decrease the labor component of the building to reduce its price. Which puts the emphasis on the how much of your building can be pre-manufactured. Because pre-manufacturing is so much more efficient of labor. However, when you do that, you decrease the stories that the building embeds.

And so, what we're now doing is a *really delicate* dance in natural building where we're trying to increase the efficiencies while we still keep the important stories *and* keep the building as flexible in its materials as possible so that, so that the building can still respond to the unique characteristics of its site and not be a simply one size fits all kind of response like a manufactured home or a trailer that just gets sort of air-dropped onto the site no matter, you know? With, and if you're lucky, its front doors in the right place.

**And that speaks to something else that I wanted to talk with you about. You, as I understand, had an opportunity that you studied and worked with Christopher Alexander?**

BT: Oh yes.

**And, were you then part of the team that helped to develop *The Pattern Language*?**

BT: No, *The Pattern Language* was well before my time. Yeah, *The Pattern Language*, although *The Pattern Language* the book was what fundamentally got me to go out on my own as an architect in New York City...I was practicing in New York, which is where I went to school originally and got my bachelor's. And I was working in an office there, and came across *The Pattern Language* in a bookstore and said, "Wow, the revolution has come! Here is what's going to turn architecture upside-down." And I sat back and confidently waited for the revolution to happen in architecture, and unfortunately I'm still waiting. The architecture profession was not *nearly* as enamored of *The Pattern Language* as I was, and a few other people. But I went out

on my own as a—I had a one-person office in New York City primarily to put *The Pattern Language* into practice. And the office I was working for wasn't interested in doing so.

So I was going along happily working with clients using pattern languages and so on and then caught wind that Chris Alexander was going to give a seminar at Omega Institute in upstate New York for a week. And so I signed up for that and met up there. And, that was in the early eighties, and so Chris got this seminar; talked about what he'd been doing since *The Pattern Language* had come out, 'cause that was easily ten years before then. He had, he basically said that while the work represented in *The Pattern Language* was necessary for creating environments with really deep feeling, it hadn't proven to be sufficient. That, for example when he went down to Mexicali and did a cluster of houses down there, what he did with his students to create a builders yard and try out the building system had more depth of feeling than when the students turned around—using the same pattern language—and each designed a house for each of the participating families.

And so, given his mathematical predilections, he said, "Okay, this stuff, this pattern language work really helps, but, in and of itself is not sufficient to create the kind of depth that we're really looking for in the built environment." And so, he had since been saying, "Okay, what is this next layer of this deeper layer of order that is necessary in this situation?"

And so, I came back from this seminar saying, "Ooh, boy, I'm not gonna wait for the next book to come out." Which is a good thing, because it was twenty-five years before that book actually came out. And it's not a book; it's a four-volume set called *The Nature of Order*. But, anyway. I just came back and I said to my partner, "Chris is now bringing architecture to the kind of depth of level that we're experiencing in our meditation practices and listening to Krishnamurti talk, and so on. So it behooves me to go out there and work with the guy.

And so, it took a few years of pestering, because normally his work crews came from his graduate architecture students. And he hadn't really brought in people from the outside world before. But I was one of a number of people from the Omega Institute seminar. I mean it's really a testament to Chris' appeal that there was something like two hundred of us at the Omega Institute seminar and—god, I haven't counted it—but I believe twelve people picked up and moved to Berkeley to work with Chris Alexander as a result of experiencing him at that seminar. So we were his big experiment in taking working architects, engineers, carpenters, cabinetmakers and seeing whether we could learn his approach on the job rather than as a part of a graduate in architecture, Master's in architecture program.

Wasn't terribly successful, unfortunately. And after I had been working with his crews for a year and a half, he said, "You know, I've concluded that you actually have to do some classroom study of this work and it's not just about on-the-job training." So, this normal history perceived by ironies: I go out, come out to California for hands-on experience and end up getting a Master's in architecture in hands-on

experience. Because *while* I was getting my Master's I was also construction supervisor for a house Chris had designed that was two hours north of Berkeley, and so I absolutely *fried* myself by taking four days of classes and then working three days on a construction site supervising graduate students. But, it was exactly what I had come to get. And I got the experience of having my world turned upside down in terms of the design.

**And after going through that process, do you agree with his assessment that you needed the classroom in order to make the hands-on experience to work?**

BT: Oh yeah. Yeah. No, as a matter of fact, the thing I came away from the experience with is that for *me*, at least, it was hard if not impossible to be the one in charge of scheduling and the budgeting and the workflow on-site and also be the one responsible for making, for safeguarding, if you will, the aesthetic intent of the job. The two are just so often at cross purposes that, you know, when you've got the plumber standing there waiting with his hands on his tool belt for you to make a decision about something and, you know, because something has come up and the sink isn't in quite the right place. And you've, you've got to do a few mockups to know whether the sink, is it going to be in the right place, and so on. And the two sides of your brain are just at war with each other about getting it right versus getting it *done*. Very, very, very hard thing to do.

So, *that* part of it where Chris insists on an absolute integration of the, the role of architecture and the role of builder. That I'm not so sure about, and as a matter of fact, I haven't kept that role of builder. I will work with contractors on jobs, but I won't take on the role of being the contractor myself just because when you put on the hardhat part of things, I find the pressure has me giving short shrift to the meaning part of it. And, the meaning part of it is fundamentally what people are hiring me for. You know, they're, they are hiring me not particularly for my construction skills; they're hiring me for my insight. And so I have to respect that mandate, if you will.

But fortunately, here in the northern California where I am, we have contractors who are more sensitive to this intent than I have experienced anywhere else in the country, or the *world*, for that matter. You know, when I was in New York, the contractors just seemed to be, "Just tell me what I need to know to get it done." Whereas here, I, the contractors I've found are marvelously creative guys. They will come up with things that are more radical than *I* am suggesting in certain situations.

And so, it actually works out quite well, that once atmosphere of mutual respect is created and I demonstrate that I know the constraints that they're under, we can usually work together quite well. So I'm not unhappy about the fact that the role of making, getting it built can be delegated to someone else.

**You feel comfortable in your position as an architect helping to consult and design on these projects?**

BT: Mmhmm. And, very frequently there are things on the job that I will assign to myself simply because I know that I would spend more time trying to communicate what I'm after than I would actually just getting it built. So, there are things like I will simply designate the plumbing that is going to a recess in a concrete wall, and I just put on the drawings, like, "The fountain is going here," and when we get to that stage, I just go out, hire an assistant, and build the fountain myself. You know, or, the ornament built around the front door. I will simply say to the plasterer, "Give me a twelve inch wide band around the door with a scratch coat of plaster on it, and leave it at that." And once the plasterer is done all of his work, I go out there and I do the ornamental surround around the door. And that kind of thing.

I still very much like to actually get my hands dirty and learn about the work. The way I'll put it is, "Unless you have body knowledge of how the materials go into the building and work with it, you're really at a disadvantage in thinking that you can design with that material." And so it becomes really important if you're going to work with earth plasters that you spend a few days out on the site actually getting the body knowledge of what an earth plaster actually goes on like. What it can do and what it doesn't do very well, and so on. Getting a physical feel for the materials becomes really important, no matter what the materials are. But particularly, when the materials are expected to tell a story and be materials that come from a locale and have a resonance with the environment that you're building in.

**You make me think about how my father and grandfather built houses back in the 1960s, and that idea of all that knowledge moving forward that, you know, I can call my father—or my stepfather who also did home construction and building construction for twenty years—and ask them a question. And because of the holistic way in which they learned their trades they can answer a question about plumbing, heating systems, cooling systems, you know. How to frame out a doorway, how to put in a window, and all these other pieces of construction that I now, all these years later, am trying to re-learn because I was raised, "Well, you're going to have a career where you'll make enough money you're just going to call somebody and they're going to do it for you and you'll never have to worry about knowing what we know." And trying to get that understanding so that I can learn the next steps of what I'm trying to do when it comes just to home repair or renovation.**

BT: It's really quite sad that the—there used to be a phrase in the early twentieth century about the dignity of labor. Where it's true that being a carpenter or a mason may not have had all the status of being an academician, or a financier, or something. But there was still a dignity attached to it. And that has marginally been lost, as near as I can see in our culture. That the dignity of an honest manual profession has largely been erased from our culture. That, if you have to use your hands to do something, unless you are a recognized artisan of some kind, you know, like, it's not just that you are a plasterer, but that you are a master fresco plasterer. You know, once you are up at the level where you are doing work for museums and billionaires and so on, you gain something in the way of status.

I have a friend who has taught me most of what I know about earth plastering, for example. She is now doing a job in San Francisco where they are re-creating the caldariums, the hot baths of a Pompeian villa. And she's brought in an Italian plasterer who's one of five existing, living plasterers who knows how to do plaster frescoes the way the Romans did. You know, and those sorts of people have a great deal of respect, at least within the building trades and, you know, the people who know building trades, and so on. But your ordinary, run-of-the-mill plasterer is in the position now of, his level of skill is represented entirely by how absolutely flat and almost machine-made he can make a wall surface. Rather than, you know, can he model a cornice molding, can he turn a beautifully radiused corner, 'cause there aren't any radiused corners anymore. And so on.

And so, I think it's, it's quite sad to my mind, that there are so many people who would much, much rather work with their hands and bodies and so on to make a living. You know, this is what they're, they're oriented toward, rather than working in abstractions. And, as you said, you know, everybody gets nudged or pushed or urged or something towards a profession that is all about abstractions, because that's seen as where the status and the money and so on are.

I mean, if you just think how many vocational programs still exist in this country? You know, and what *are* the vocational programs? You look at your local community college and its vocational programs are dental assistant and computer technician, fundamentally. And so, yeah. It's quite sad.

**So many of the things that you just said speak to the place that myself and many of our friends find ourselves in. It was that idea of, "Well, what am I going to do after high school?" Well, go to college, get a degree, and then go do, you know, work in an office building as an accountant or, you know, working with computers or something. And I know so many people who went into those kinds of industries and then, it winds up then that their hobbies become very physical, manual things. Or they use that precision that's required in their professional lives in their hobby.**

**One that comes to mind is I have a friend who restores antique straight razors. And it's because he loves this old steel that he can handle that's nothing like he can find elsewhere unless he pays a lot of money for it. But because there's this craft to people who are interested in shaving with straight razors, he can find an antique that's from the Civil War era that's a very fine carbon steel and apply all of his technical understanding of these different things and the manufacturers, and then take it home and clean it and make it sing when someone puts it to their face to shave with it.**

BT: You know, what fun?

**Yeah, and, I have two of his razors and I can say that they're a joy to work with but it's, it's scary [laughs]...**

BT: [Laughs]

**...To put something like that to your throat and go, “Ah, so this is why it’s a cut-throat razor, because I now have a pocket in my cheek because I did this wrong.”**

BT: [Laughs]

**Oh, but that’s so far removed from natural building, but it’s an understanding, though, that, like, what he moved into to do that was because he was treated as an artisan. He was doing a specialized craft to do this because there weren’t many who did. Whereas that plasterer that you described, having seen plasterers at work from my old profession, it’s amazing to me that they can get a wall that is smooth and flat. But also understanding how easy that plaster wall is to repair, relative to drywall. And how beautiful the finished product can be.**

BT: Yeah. No, I just, I went down to Arizona, what, five months ago, for a hands-on seminar with a Japanese master plasterer. And here are some of the most highly skilled plasterers in the world represented by this guy. And because of the way Japan’s traditional structures are these post-beam things with plaster in-fills, the fact of the matter is that their, all of their training is—I shouldn’t say all, that’s oversimplifying—but, the bulk of their training *is* in getting a plaster surface so smooth you can literally see your face in the reflection. Or read a newspaper in the reflection, for that matter. It just struck me as amazing.

And I was slightly disappointed, to tell you the truth, that we spent all our time getting the background in how to produce a perfectly flat surface when we can go to Home Depot and buy a perfectly flat surface if that’s what we want.

**With what you were saying, I think it’s about those stories and, if you will, the cultural differences. As you’re working to the emotional appeal for someone, and those curves and corners and the place that you come from in wanting that versus necessarily like what the Japanese masters and what their cultural requirements are for that kind of work.**

BT: Yeah. I mean, it’s very telling that the California Straw Building Association, CASBA, we’ve been giving workshops in strawbale construction and its associated plastering for at least ten or twelve years now. And I’ve taught at quite a few of them. And without exception, the folks who are taking these workshops are these ordinary middle-class folks. I’ve been mulling in my head about how we might re-package ourselves so that we go out to the Central Valley and start giving workshops to the people who *really need* strawbale construction, which are the farm workers and the working class folk who, number one, have the physical endurance, have the bodies to actually get through the entire construction of the house by themselves. But number two, could build a super-insulated building for themselves for far less using what we’ve learned about strawbale construction than if they were just to buy a modular home, or their normal economic alternatives.

It's part and parcel, I think, of the fact that, you know, once you've made your middle class life for yourself and you've established that you're materially comfortable and so on, then you start saying, "Okay, but what about the part of me that isn't satisfied with just bringing in the bacon by pushing around papers?" And that's where all of the market, if you will, really exists for natural building and strawbale building. And to a large extent, permaculture and things like that as well. You know, it's not—I've been part of how many, six...seven permaculture trainings, and you have very, very few farmers or even sons and daughters of farmers who are taking the permaculture trainings. It's the same sort of ecologically minded middle class who are taking the strawbale courses. Folks who are, and to my mind what it's all about is people looking for ways to get the sensory nutrition they require back into their lives.

**There's so much that I could say on that, sir, and there's so much more that I'd like to cover with you. Regretfully, we're running towards the end of our time. But, I, it goes so quickly [laughs]. But, with your last thoughts you brought us back around, in some ways, to the beginning about permaculture and some of the directions that we're going.**

**In order to wrap things up, do you have any last thoughts on the things that we've covered today to share with the listeners? Because I certainly—looking at the list of other pieces I'd like to cover with you, I'd love to have at least one or maybe two more conversations with you in the future.**

BT: Sure. Well, given the things that I jotted down when you were running through the things that you wanted to cover, the thing that I say to permaculture folks or folks who say, "I *really* want to build a natural building, but I can't afford ten acres out in the country," and that kind of thing is, the thing I *urge* people to do is I say, "Some place out in the country doesn't need your attention nearly as much as some ruined piece of property in town somewhere." That the biggest building secret around is that the *huge* housing and building stock of the mid-century of last century is fundamentally nearing the end of its economic lifetime. Its roof is worn out, its windows are worn out, and so on. Generally it still has a good foundation; it's still got all its utilities and so on. But the place is, in economic terms a write-off. But if you can find one of these buildings, you can strip it down to its studs, re-build it as an ecological house, and have made an improvement on the landscape rather than taking some gorgeous piece of property and, with the best of intentions, kind of imposed your will upon it, you know?

Our built fabric needs the attention of permaculture and natural building far more than the un-built landscapes surrounding them. And so that's my biggest piece of advice nowadays is, don't wait for something to come on the market when you are competing with everybody else who is hungry for a home. Find a neighborhood that you really enjoy, and those also should be a neighborhood where you know you can age in place. And there's actually a phenomenon occurring now called NORCs, or Naturally Occurring Retirement Communities, where people recognize viable, walkable neighborhoods where they can age in place because there's a drug store and a transit stop and a supermarket or a food store within walking distance. And

the demographics of these neighborhoods are graying because that's who's buying up these houses because they recognize the economic value of it.

So find yourself a walkable neighborhood that you love, and then just investigate the fine grain of it until you find some ruined building somewhere and bring that back to life, is my big piece of advice nowadays.

**And that leaves a smile on my face, for some of the conversations my wife and I have had about what our next step is going to be. Because of where we live is so beautiful and we like our neighbors and where we are. But we've thought about moving somewhere else because of the house that we're in and how it was built and some other things, but we can always adapt it over time. And make it more of what we want without having to place ourselves somewhere else.**

**I really appreciate that, sir. Thank you. And hopefully the next time we can have a bit more of a technical conversation about some of the materials and choices people can make when they're doing their renovations?**

BT: Sure.

**Thank you so much for your time with me today.**

BT: You're welcome.