Nate Hagens (00:00:02):

(00:00:33):

You are listening to the Great Simplification with Nate Hagens, that's me. On this show we try to explore and simplify what's happening with energy, the economy, the environment, and our society. Together with scientists, experts, and leaders, this show is about understanding the bird's eye view of how everything fits together, where we go from here, and what we can do about it as a society and as individuals.

Today's guest is author, ecologist, and activist Rex Weyler. Rex was an original director of Greenpeace International in the 1970s, whose work was highlighted in the film How to Change the World. Over the years, Rex and I have become good friends and we share a network of other systems ecologists trying to better understand and influence the human predicament. Today we delve into how the ecology movement got hijacked by the environmental movement, how climate change is one of many issues that have a root cause of overshoot, and we even had a speed round on Earth's prior mass extinctions. Rex is a gentleman, a scholar, and a good friend, and I hope you'll enjoy his wisdom and insights on today's show. You were one of the original founders of Greenpeace, have been a lifelong teacher, activist, and ecologist, so what better way to start our conversation, if you're willing, than with a speed round of some basic questions in the realm of your expertise.

Rex Weyler (00:01:53):

Uh oh. Okay, we'll see.

Nate Hagens (00:01:54):

Okay, so these are just like 30-second answers because a lot of people on this podcast are fluent in these things such as ecology, and others are not. So let's go, let's start with that. What is ecology?

Rex Weyler (00:02:11):

Oh, starting with the easy ones. Ecology to me is the observation and it's the study of who we are as organic beings in a living world, co-evolving with all the other species on the planet. We talk, for example, about trees and a soil and atmosphere, but none

of those things, trees, soil, and atmosphere, or human, exist independently of the others. For example, you take a bite of an apple, you eat an apple, now when does that apple become you? So there's this mindfulness and awareness of the depth of our relationship with everything around us, and to me that's ecology.

Nate Hagens (00:02:45):

Follow up to that, why should we care about ecology as citizens, as a part of modern society?

Rex Weyler (00:02:53):

Well, ecology is fundamental to everything. First of all, we are organic animals. We have a genetic training and code that has taught us survival, certain survival skills and so forth. We, as I mentioned, are co-evolving with all other beings, bacteria, birds, mammals, everything. And so ecology is fundamental to who we are. Now in our modern culture, we tend to think of ourselves as somewhat separate and technological beings and somewhat independent of the ecosystem, but of course, we're not. And ignoring ecology has led to every crisis we now face, so it's critical.

Nate Hagens (00:03:35):

We will be getting back to that in the deeper dive, but carrying on with some of the definitions in the speed round, what is the ecological concept of carrying capacity?

Rex Weyler (00:03:48):

Yes. Well, carrying capacity is really the biomass limit for any ecosystem. Now an ecosystem has to capture energy, capture sunlight through the plants. The plants capture sunlight and turn that into biomass, and then the plant eaters eat the plants and so forth. And so that energy stream sets a limit on the biomass of any ecosystem, and we call that the carrying capacity. Now for any population of ... Or any species or population of species, that carrying capacity limits how many there can be, so there can only be so many wolves in a watershed with a certain number of deer and so forth. And every species on earth is limited by space and food and water and necessary resources. And the interesting thing about carrying capacity is you're never

quite sure what it is until you've gone too far and overshot, and that which is very common in nature.

Nate Hagens (00:04:53):

So what is overshoot then from an ecological definitional perspective?

Rex Weyler (00:04:57):

Yeah. Well, overshoot is when any population, I mentioned wolves in a watershed, but it could be locusts in a prairie, it could be algae in a lake, a population of a species exceeds the habitat or ecosystem carrying capacity. Now we see this even in our gardens. If we don't tend our gardens, everything grows into each other and starts literally killing each other. Plants grow over the top of other plants and there's only so much space and nutrients and soil and so forth for everything to live. So overshoot is when any single species simply expands beyond the available resources, and we grow into the all available space and we consume all the available resources. And this happens often, and we can see this in the predator/prey relationship. When the wolves overeat, over consume the prey, the wolves start to die back. The prey recovers. When the prey recovers and the wolves die back, they can eat more prey. Then the prey drop down, and the wolves overshoot again, and then collapse again. And then that goes on all the time in nature. That process of overshoot and return to homeostasis is something that is constant in nature.

Nate Hagens (00:06:16):

Well, I'll ask a connected bonus question. Are humans also subject to carrying capacity and overshoot?

Rex Weyler (00:06:24):

Yeah, we're mammals, we're animals. We're subject to all the limits and restrictions of organic life, and that includes overshoot.

Nate Hagens (00:06:32):

And what is our prey in the definition that you outlined?

Rex Weyler (00:06:37):

Well, we are what biologists call a K species, K standing for the capacity, in the Germanic languages. A K species, like ourselves and most large mammals, we learn to consume every available resource. So our prey is pretty much anything that we can eat that has nutrient value to us. So we eat plants, we eat other animals. We can eat virtually every animal, fish, anything on the planet. So unlike many species, we're not restricted to specifics in terms of what we eat, but we are restricted to the biocapacity of our habitat, which now our habitat is the entire earth because we've expanded across the entire earth.

Nate Hagens (00:07:27):

So there's the biocapacity of earth, but there's also, the prey could logically be described as the bounties of the fossil sunlight that we're eating historical productivity that's added to our food systems via the Haber-Bosch process, et cetera. But we'll get back to that as well. Another area that I know from you teaching/guest lecturing my students is a personal area of interest of yours is mass extinctions. What is a mass extinction?

Rex Weyler (00:07:58):

Well, it's a somewhat subjective idea. What's a mass extinction? Depends on your perspective, but generally we think of mass extinctions in which over 60% or 70% of the species disappears. Now some people have said we're in the sixth great extinction. That's actually incorrect, and this is something your listeners might be learning here, is that we're actually in what I would call the ninth mass extinction because there were three large extinctions prior to the first big extinction in the Cambrian.

(00:08:36):

And the first one is very interesting, Nate, because it was an extinction caused by bacteria that released oxygen as a part of their metabolism, and at that time, oxygen was a poison. And so when bacteria learned to synthesize sunlight, they released oxygen into the atmosphere. Well, oxygen was a poison to them, and so they died off because of this oxygen. And this was 3.5 billion years ago. There was an Ediacaran

fauna existence after that prior to the Cambrian, which is the famous Cambrian explosion of life. But that Ediacaran life forms, they all disappeared as well. (00:09:20):

And then during the Cambrian, the great Cambrian explosion, there was actually a phyla collapse. And in biological taxonomy, the phyla are the basic forms of life. And during the Cambrian, life just went crazy and created many, many, many different forms that no longer exist today, and so there was a fairly large collapse of phyla. And then we have what a lot of people call the first extinction, which was actually the fourth, which was the Ordovician about 440 million years ago when 85% of the species, all marine species, of course, at that time disappeared. And then about 70 million years later, about 370 million years ago, what we call the Devonian extinction, 83% of the species disappeared. And then 250 million years ago, the big one, the big Permian extinction, 95% of the marine mammals or marine species disappeared, 70% of the terrestrial species disappeared, and this was caused most likely by volcanic action.

Nate Hagens (00:10:31):

Volcanic action leading to a CO2 pulse.

Rex Weyler (00:10:34):

Exactly. That's right, CO2 in the atmosphere. The same thing we're dealing with right now. The original first extinction of bacteria was because of oxygen in the atmosphere. These later extinctions were due to CO2 in the atmosphere, which killed off during the Permian 250 million years ago, 95% of the marine species, 70% of the terrestrial species. That's a big deal and would've been dramatic, of course, at the time. Many people are familiar with the Cretaceous extinction 65 million years ago when an asteroid hit Earth, and about 76% of the species, marine and terrestrial, were lost, including the dinosaurs, except for the little survivors, which are now the birds.

Nate Hagens (00:11:21):

Well, and the little survivors that are us, we weren't dinosaurs, but we came from ...

Rex Weyler (00:11:26):

That's right, and except for the little mammals, little shrew like mammals that are our beloved ancestors.

Nate Hagens (00:11:33):

So thank you for that. That was very fast and articulate. Are we headed for another mass extinction, Rex?

Rex Weyler (00:11:40):

Well, Nate, we are already in a mass extinction, the ninth mass extinction.

Nate Hagens (00:11:45):

But not as defined by those magnitudes of die off.

Rex Weyler (00:11:50):

No, but it's already underway. And the extinctions that have been caused by human activity on earth are forever recorded in the fossil record. So anyway, the answer to your question is yes, we're headed for another mass extinction and I would note it is already well underway. The extinction rate right now measured by biologists in various parts of the world range from 100 times to 1,000 faster than the background extinction rate, and this modern extinction rate is accelerating with each passing year.

(00:12:24):

And besides ... And this is important, besides species that actually go extinct, the general collapse of diversity is tremendously important because even if there's a few of a certain species left, that species may be reduced to the point where it's no longer useful to other species in the ecosystem, and even species that don't go extinct but are severely wiped out is serious for all other species, including humanity. And of course, the decline now is higher than any time since that asteroid, the Chicxulub asteroid 65 million years ago. And only this time, humans are the asteroid.

Nate Hagens (00:13:08):

Okay. Ding, ding, ding. You finished the speed round.

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Rex Weyler (00:13:11):
Yes.
Nate Hagens (00:13:13):
So I have a lot of questions for you. You and I have been talking for a long time about
climate change, about the environmental movement, about what we could do as a
culture to steer away from the worst outcomes and towards some emergent ecolate, or
ecologically literate, society. But before we get to that, maybe we'll just take a little
history trip, and how many years ago was it? Almost 50 years ago that you guys
founded Greenpeace?
Rex Weyler (00:13:45):
It was exactly fifty.
Nate Hagens (00:13:47):
Exactly 50 years ago, 1972?
Rex Weyler (00:13:48):
Well, 1971, Greenpeace was founded in Vancouver.
Nate Hagens (00:13:52):
There's so much that happened 1970, '71, '72. I mean, that's when we went off the gold
standard, that's when we came up with Earth Day.
Rex Weyler (00:14:02):
Limits to Growth.
Nate Hagens (00:14:03):
Limits to Growth was published. The genuine progress indicator when if you subtract
out the negatives that come from GDP, the genuine progress indicator for our culture
peaked in 1971, all kinds of things created then. So what were you and your friends
thinking and feeling when you formed Greenpeace in 1971?
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Rex Weyler (00:14:28):

Many of us were involved in the peace movement at the time, which remains in the name of that organization, Greenpeace. We were involved in the civil rights movement, the women's movement, and those movements, the peace movement, civil rights, women's movement, of course, were universal around the globe at that time, and very powerful. And people were beginning to feel like we can succeed at changing the direction of our society, but one thing was missing that we felt was very important and we felt very certain that this was missing in the mix of social activism, and that was ecology.

(00:15:06):

There was no ecology movement. There was no ecology action movement. There were some conservation groups like Sierra Club that were protecting parks and so forth, but we felt that the world needed an ecology movement, and that even if we solved all of our human priorities, civil rights and peace and women's rights, gender rights, even if we solved all of that, we could still completely blow it and destroy the very foundation of our life, which is our ecosystem. So we set out to do campaigns that were focused on ecology and felt that that was going to be really the next big social movement was to recognize our ecological crisis.

Nate Hagens (00:15:51):

Fifty years on, how did that work out?

Rex Weyler (00:15:55):

How's that going? Well, sad to say, Nate, we're not making progress as fast as I thought, and there's a lot of reasons for that that we can go into, but society has a certain momentum and we live in a society that's based on growth and consumption and capitalism and industrialism, and I should note that even the socialists and communist countries destroyed their ecosystems. So we live in a system that ... A human system that's based on growth and industrialism and making money, and it's very, very difficult to turn those things around. I remember thinking back in the 1970s, Nate, that once people understood the ecology crisis just as well as understanding the women's rights movement or the civil rights movement, that it would be easier to

change things. But it's proven to be a very tough nut to crack because we live in such a human-centered culture.

Nate Hagens (00:16:56):

I was joking with our mutual friend, Randy Hayes, the other day, what is the definition of an ecologist? And I said someone who appeared wrong his entire life, but was incredibly right afterwards. It does seem that ecology of all the disciplines is in the long term the most important discipline there is, but in the short term these things happen on long timescales. And as you point out, human commerce and quarterly earnings and this weekend's entertainment plans, those all shout louder to the human brain than ecological principles, at least in this culture of massive energy surplus. (00:17:39):

So do you think that there could be a renaissance of the ecology movement, or is it just too stacked against and too difficult now that we're 50 years further on and the ecological damage and degraded carrying capacity and everything else is already grown? And not only that, but is the decisions that would need to be made to adhere to more of an ecological blueprint now much more difficult than they were 50 years ago or even 20 years ago?

Rex Weyler (00:18:17):

Oh, they are more difficult. To put it simply, Nate, the human race is not more sustainable today after 50 years of ecological action than we were in the 1970s. We are less sustainable. There's more of us, the human population has doubled. The consumption of material resources has quadrupled in that time. There's less fresh water. There's more starving people. There's a billion people living on the edge of starvation. There's about 10 million people a year starve to death, 10 million people a year starve to death.

Nate Hagens (00:18:53): Wow.

Rex Weyler (00:18:54):

And that's like 1,000 an hour. That's like boom, boom, boom, boom, as we speak. And most of them, of course, are children. The ecological crisis has gotten worse during the last 50 years of the so-called environmental movement, and so it's really time for a gut check. It's been time for a gut check all along, but it's certainly time for a gut check now for the entire environmental movement. What else must we do to change the course and trajectory of human society?

Nate Hagens (00:19:26):

So I'll get back to the Greenpeace origins and your experience in a bit, but you've mentioned the ecology movement and now you just mentioned the environmental movement. How are those distinct and how did that difference happen?

Rex Weyler (00:19:42):

Well, when we first started in the 1970s, we were inspired by Rachel Carson, Aldo Leopold, Arna Naess, and there was a sense of this deep, what we called then, deep ecology. That term was coined by Arna Naess, but it also comes from Taoism and Buddhism, indigenous cultures. And the word ecology was coined in 1866 by a biologist Ernest Haeckel. And it comes from the root word, Greek word oikos, which means home, our home. Ecology is the study of our home and that we are a part of. (00:20:23):

Some of the other issues with deep ecology was this sense of ... That the self is not isolated. There is no real isolated self. The isolated self is a socially reinforced delusion. I mentioned before about eating an apple. When does the apple become me? When I breathe the air, when does the air become me? The tree, the soil, the atmosphere, none of them exist without the other. Gregory Bateson who's one of my ecology mentors, put it this way, he said that all divisions are arbitrary. And we make these arbitrary decisions so that we can speak to each other. We want to talk about a tree. Every time we mention a tree, we don't have to mention that it requires soil and atmosphere.

(00:21:05):

So it's helpful to make these divisions for our language, but they are all somewhat arbitrary. And this is the ecological, deep ecological point of view. The other thing

about the deep ecological point of view comes from Arna Naess and indigenous communities and Taoism and so forth, that when we spend time in nature, we begin to get a better sense of ourselves, a deeper natural feeling of ourselves, and we begin to understand that we are part of all these living things. We're co-evolving with every other living thing, and that we have an obligation to protect this home, oikos, that we live in and we are part of.

(00:21:46):

Now there's an environmental movement, and whenever there's a popular movement it's often colored by popular ideas. And so I would say that the main difference between the deep ecology movement and the sort of modern environmental movement ... Well, it was put very well by Stephan Harding at Schumacher College, ecologist at Schumacher College. He says many mainstream environmentalists still see nature as some kind of a machine that we have to repair. For the deep ecologists, we don't look at ecology as something that we have to fix. We look at it as something we have to learn from. We apprentice ourselves to wild nature, not assume that we are going to fix it or manage it. And that's a huge difference between what I would call the ecology movement and certainly the deep ecology movement versus environmentalism.

(00:22:40):

Gregory Bateson, he said something else that really moved me. I think he mentions this in the book Mind and Nature, but he said that most of our problems, the greatest problems we have in the world are linked to the difference in the way we think compared to the way that nature actually works, and it's very important for us to understand that what we need to do is apprentice ourselves to nature, become students of nature, understand how it works. Now we can go back 2,000 years in Taoism. I think they already knew this. I think in most indigenous cultures understand this. We live in relationship. Not just relationship with each other in human society. But we live in relationship to every living thing. Those living things, they're not things. They're part of nature. Nature is not a thing. It's a process. It's an integrated process, an organic whole. We are part of that organic whole. To me, the first ecologists were, of course, the indigenous cultures and the Taoists.

(00:23:42):

The Taoists have a concept of Shing-Ling, which can be translated as divine efficacy, which means that not just a practical, mechanical, linear cause and effect relationship with the world but a deeper relationship with the natural world being a part of it. So it's not just a matter of being able to brag at the dinner table, "Hey, I helped save a river." Or something. But it's really feeling that deep relationship with nature, and a sacredness of the natural world, and that the environment is not something outside of us. Words matter. Environment means this thing around us, and ecology is somewhat different because we are inside of it. It is inside of us. We are part of it, and every living thing has inherent value.

Nate Hagens (00:24:33):

Thank you for that. I have several follow-up questions based on things that you said. First of all, you said that we are focused on the self and we miss the connections between ourself and others, our ourself and nature, ourself and the ecosystems we reside in. Do you think that focus on the self is a product of energy surplus that we're so rich relative to our ancestors in an energy and material sense that we don't feel that we need those other connections? Or is it some combination of that, and we're just distracted by all the technological gadgets and supernormal stimuli that we don't have time to connect with the real stimuli in nature with the forest and the seasons and the solstice and what have you?

Rex Weyler (00:25:27):

Yeah, I think it's both of those. I think that it's reinforced by industrialism. Industrialism, which is connected to the energy we now have access to through the fossil fuels, allowed us to not care so much about our home, about our living space around us. Industrialism taught us ideas about efficiency that, "Oh, if we all go to work in a factory and we make one thing and one community makes one thing, we can sell it to the rest of the world and so forth." So this has reinforced this idea of the isolated self. But it goes back really throughout human history because, think of our early ancestor communities. They had an in-group/out-group survival instinct to know who was in your group and who wasn't, and that had survival value. Also, to know who was your friend and who was your family, and who could you rely on and who could you trust? You were careful about everything else. You may love wild nature, but you've got

to be careful. Bears can eat you, wolves can eat you, bacteria can eat you. So you have to be careful in the natural world. So this sense of community and of self existed for a long time. But I think that one of the big problems is how industrialism not only has destroyed the physical planet, it has destroyed community. The two things that kept us alive through 99% of our evolution was community and the living earth. Both of those have been destroyed by industrial mindset. So that is certainly part of it too. The industrial mindset is fueled, of course, by the fact that we discovered what we call exo energy, energy outside of ourselves. So the first we got from burning wood, and then burning coal and now oil and gas.

Nate Hagens (00:27:27):

So just to be explicit, what are your core current critiques of the environmental movement?

Rex Weyler (00:27:37):

I believe that the environmental movement as it stands today, first of all, one critique is that it's driven by popular ideas rather than deeply understanding ecology. In the 1970s, for example, we did campaigns to save the whales, which were very successful and in some ways almost too successful because people begin to identify with large dramatic animals and cute animals like seals, and ecology doesn't hold those animals, like ourselves, above anything else. That really ecology is about the community of every living thing on the planet. So in some ways, popular ideas have taken over from the deep ecological ideas.

Nate Hagens (00:28:24):

Is that a deep human truth, that ecology is the opposite of popular? Because I've seen that in my own work.

Rex Weyler (00:28:34):

Not necessarily. I think it's more the fact that ecology is the opposite of industrialism. That if you look at our roots, our community roots, I've mentioned Taoism and industrial cultures and so forth, Buddhism, that there was a deep respect for nature in what we call primitive communities. I think that our ancestors for most of our

evolution, grew up in the lap of nature, and so had a respect for nature. For example, if you spend time with indigenous people, say, going hunting and being in the wild with indigenous communities, they have a deep respect even for the animals that they're hunting. There's a term among the indigenous communities of the western hemisphere of "all our relations." So there's a deep respect. Our relations aren't just our brothers and sisters and our mom and dad and children. Our relations are every living thing, including that animal that we're going to go out and hunt, kill, and eat. So there was a ritualization, which we call, I think, the basis of sacrament. What sacrament is is this deep ritual of respecting the wild, respecting mystery, and respecting nature, even if we kill it and eat it. I think that's somewhat, again, lost in our industrial culture, but I think that sense of belonging to our ecosystem, it's very deep and very real. I think that the loss of that in our industrial world, I believe, is the source of a lot of the disfunction of our culture, and a lot of the trauma and tragedy of our culture is that people grow up missing something that they don't even know they're missing. They're missing their deeper mother, Mother Nature itself.

Nate Hagens (00:30:41):

I totally agree with that. I didn't mean humans innately. I just meant modern humans. Popular is opposite of ecology because of the Upton Sinclair quote, "You can't expect someone to understand. His job expects him not to understand." Because the ecological implications of our situation will require less consumption--

Rex Weyler (00:31:04):

Yeah.

Nate Hagens (00:31:05):

--and so politically, that is a non-starter in many ways. Do you think we could ever have ecology become popular or the basis of some new reality religion or something in the future as people reconnect with their core mother, which is Gaia, like you've said?

Rex Weyler (00:31:27):

I think it's possible, but as I said before, I think ecology is anti-capitalism, or capitalism is anti-ecology. Industrialism is anti-ecology. So in order to fit into our modern culture,

we are pushed to ignore ecology, to ignore our ecosystems. It's mocked. It's treated as a sentimentalism, "Oh, they love animals. Oh, they think animals are so cute and so important." Ecologists are constantly mocked in our culture.

Nate Hagens (00:32:06):

Why is that? I see it all the time, too.

Rex Weyler (00:32:09):

It's because our culture is really attached to these ideas of growth, making money, because we've lost community, our connection to community, and wild nature. Most people, their connection to eating is not hunting, is not wild nature, is not having a community that goes out and finds food or gathers food and eats, it's making money. If you don't make money, you don't eat. You end up as one of these people I see every day on the streets of Toronto in the middle of winter with no place to go, freezing cold, no food, begging for a cup of coffee on the side of the street if you don't make money. So of course, there's a tremendous push to join that industrial capitalist moneymaking culture and to consume, consume, consume. It's interesting that there seems to be no end to it. People that become millionaires want to become billionaires. Once you have \$1 billion, you want to have \$10 billion so you can go to the fancier parties.

(00:33:16):

So I call it the organized denial cabals, that there's this organized mocking of the respect for nature. To me, it reminds me, it's very, very similar to the Roman Catholic Church in the 15th to the 17th century when scientists could not publish any data that challenged the beliefs of that church and the beliefs of the age. I think in some ways, in our modern world, we've shaken off the yoke of the churches somewhat, but we labor under the yoke of the new religion, which is money-making, capitalism, technological optimism. If you try to publish a paper, you know this. I know this. Many of my good friends and your good friends, whenever we publish something that talks about, "Wait a minute, there are biophysical limits to this energy transition that everyone's talking about." They get attacked, and I call those attackers the grand inquisitors of our age.

(00:34:28):

They're just like the grand inquisitors of the Catholic Church, "Hey, you can't say that because we all believe that we're going to fix our ecological crisis or our climate crisis with technologies." And so people like Bill Rees, Vaclav Smil, and even Rachel Carson, in her time, were just mocked. They're like the Keplers and Copernicuses of the 15th and 16th century. Just as Copernicus showed that the earth was not the center of the universe, ecology teaches us that humanity is not the center of life on earth. Yet if you say that too loudly, the bishops of techno-optimism will resist and mock you.

Nate Hagens (00:35:11):

So you've read my paper. Actually, you did more than read it. You very helpfully edited it. You know how I think about the superorganism that humans have become, and I think the market, we have outsourced our decision-making to the market. There's this downward causation that happens. That it's not any human's fault. The market and the imperative to grow are dictating what happens to humans at levels underneath that, like institutions and individuals. So the market's compulsion obviates any alternative paths of wisdom or constraint. Yet at the same time, many of us, many of my listeners, most, if not all of yours, and my colleagues feel both this deep connection to nature, a horror of witnessing this slow-motion tragedy that's unfolding with other species and ecosystems. That gives me hope that there is some possibility of cultural transformation towards a redefinition of what is sacred. Because, like you said, sacraments, things in nature. Is it possible that we could revere nature in an ecolate Renaissance using science to be aware of our place in the universe way, or is that door already closed?

Rex Weyler (00:36:52):

No, I don't think that door is closed any more than the door to the Enlightenment was closed in the 16th and 17th century when scientists were burned at the stake for saying the obvious. So our modern scientists are figuratively burned at the stake for saying the obvious. But time marches on, and it's possible that over time, the truth of ecology will be understood in wider circles. I think there's a natural affinity to love the natural world anyway. We've got to have that working for us. We have the cultural histories of

indigenous communities and Buddhist and Taoist traditions to provide some ideas, but we're up against this juggernaut, which you call the superorganism, and no one is in control.

(00:37:49):

I think this is one of the important points that you have made about the superorganism, there's no one in control, certainly not the President of the United States, not the President of Russia, not the Chairman of the Communist Party in China. No one is in control. The billionaires are not in control. The social activists are not in control. So we have this humanity, 8 billion people. Everyone wants more. Everyone wants to eat every day. Everyone wants warm water, everyone wants fresh water, and everybody wants a little bit more to live in a little bit nicer house, have more to eat, and have running water in their home. So this human desire for more and more and more is part of the problem, and no one's in charge of it.

Nate Hagens (00:38:42):

How much of that human desire is actually for more? And how much of it is, we want more because we look around us and others have more, or we need more to get us a bowl of soup or some heated room like the people you're mentioning in Toronto, and how much of it is actually who we are?

Rex Weyler (00:39:03):

I think a lot of it is who we are. But first, let's talk about the social status aspect of it. Certainly, once you're living comfortably and do have warm running water in your home and eat every day, if you have warm running water in your home and you eat every day, you're in the top 15% of humanity.

Nate Hagens (00:39:24):

And the top 1% of all the humanity that's ever been. But go on.

Rex Weyler (00:39:29):

Yeah. So most of humanity today wants more because they're hungry. As Vandana Shiva says, "The poor nations of the world aren't poor because they're stupid and don't

know how to do things. They're poor because they've been robbed, they've been plundered by the wealthier nations." So most of humanity wants more because they have to do without, and they're hungry, they get cold in the winter, and then they need shelter.

Nate Hagens (00:40:00):

But what about the millionaire who wants to be a billionaire, like you mentioned before?

Rex Weyler (00:40:07):

That's the other part. The crazy part, in a way, is that people who really should be satisfied with what they have should just relax and spend more time with their families, their children, and their communities, enjoy some of life, and take a walk. They just want to make more money. It's almost habitual. It's like habitual behavior. You've made money, and you get a lot of status because you have money. Status translates into the ability to attract a sexual mate, ability to have some power in your community. So there's this need to always want more. That's why I say the millionaires want to be billionaires. By the time somebody has \$1 billion and they look around at all their billionaire friends, and they see the ones that have \$10 billion, they want to go to those parties. So it becomes habitual behavior, and it's certainly not based on a real sense of the sacredness of the living world.

Nate Hagens (00:41:08):

So I'll interject there. I don't know if you've heard me tell these stories before, but I used to manage money for billionaires on Wall Street, and what you just said is exactly true. When they had \$50 million, they just said they want to get to \$200 million, and they're going to quit, buy an island, retire, write a book, and become a gardener. When they got to \$200 million, it was the shifting baselines or the receding horizons, exactly as you said. I don't know if they wanted to be at a better party per se. I guess that could be true. But more stuff was the proximate reason. The ultimate reason was the dopamine, the game, and the feeling of conquest, like, "I can turn this amount of money into more."

(00:41:55):

One time I was in Las Vegas and I was at a craps table and one guy was betting \$1 and another guy was betting \$1,000 on the same roll, and I was just watching them. It was fascinating to me because, obviously, the thousand dollar bettor was rich, but they were both getting the same thing out of the role. They were both getting dopamine--

Rex Weyler (00:42:18):

Yes.

Nate Hagens (00:42:20):

--and the winning or the loss, and yet the magnitude of it was orders of magnitude difference, and I think the same thing applies on our scale of the human enterprise, where there's 8 billion of us running around and some of us have a very much outsized impact, but we're all just getting the same neurotransmitter cocktail that we're trying to pursue that matches the emotional states of our ancestors. I think ultimately, an ecological worldview would craft a path where we can get that neurotransmitter cocktail by using less energy and material throughput. But there's no path from here to there, which is part of the problem, right?

Rex Weyler (00:43:04):

Yeah. There is a path for some people. Some people have discovered a path to a more, what I would call, a sacred or spiritual life. I realized when I was a teenager that when I started learning about the world and learning the fact that people were starving in other parts of the world, wow, I'm really lucky. I live in a home, and I get to eat and I get to go to school. That's not true for everybody in the world. I remember when, even as a young man, as a teenager, thinking, "I don't want my life to be about getting more. I'm happy, and I want my life to be about creativity and seeing things and vision and having friends and community."

(00:43:50):

Of course, in that process, I discovered certain paths that I call sacrament, ritualizing, respect for mystery and diversity, and so forth, and led me to the Taoist, led me to Buddhism, led me to indigenous communities. So there's a sense of sacredness of the

world, and I personally have found my peace of mind in those things and not in having more possessions. So I feel fortunate, not just happy, but actually fortunate, to live the life I live, which, by the standards of my community and my society, I'm actually under the poverty level in Canada, but I live a really nice life and I'm happy.

Nate Hagens (00:44:38):

So said differently, you are an incredibly rich person. You just have a wider definition of what constitutes rich.

Rex Weyler (00:44:48):

I certainly do. To me, rich isn't about having more cash. How much more stuff do I need? And my children, I love to provide for my children. But my children grew up understanding that they weren't going to have the best of everything and most of everything. To this day, they're all grown young men now, but they appreciate modest pleasures in life, and their partners appreciate modest pleasures in life. I'm very proud of that for them. I'm happy for them that they've discovered that there's more to life than just having more stuff.

Nate Hagens (00:45:25):

It happened at a later date for me, but that's what I went through when I saw these billionaires, that I was managing their money. By the way, they weren't all that happy. The clerks that were processing their trades were playing practical jokes, making 20 grand a year, and just really enjoying themselves. So in retrospect, I wish I would've stuck it out another couple years so that I could have had some savings. But I am paid, I have a good salary now, but I'm paid in things other than dollars. I'm paid in the experiences that I have, the meaning I get from interacting with people like you, the pride I get in working on what really matters, which is fixing the ecological human predicament. So I also feel incredible gratitude for being alive at this time and being born into the United States, which is really quite something. Of all the humans that were ever born, those alive in the United States today, what a ride that has been, or Canada for that matter.

(00:46:33):

But at the same time, I feel a fiduciary responsibility to that I shouldn't splurge that privilege, turning all this opportunity and fossil magic into just spinning your wheels on dopamine, et cetera. So I'm digressing.

(00:46:49):

Rex, what were some of your favorite campaigns that you did as one of the core founders of Greenpeace?

Rex Weyler (00:46:58):

Yeah, okay. Favorite campaigns. Well, as I mentioned, we were casting about, we said we wanted to have an ecology movement. We need to do a campaign that's going to excite people about the natural world. At that time, we learned about decline of the whales and that the whale species worldwide were down to about 5% of their peak populations, and the Atlantic gray whale was already extinct. We came to the idea that if we did a campaign to save the whales, that not only could we reverse the decline of the whales and bring them back in our oceans, but the whales themselves could kind of represent the ecology movement at large that we wanted to create. So we set out to confront the whalers, which were primarily at that time the Russian whalers and the Japanese whalers.

(00:47:56):

We achieved that. We found the Russian whalers in the middle of the Pacific in 1975. We blockaded the whale hunt. We stopped them in the middle of the ocean. We took film and photographs, which was all part of our strategy, and we released those film and photographs of the whale hunt to the newspapers and television at that time. Of course, there was no internet in those days. We couldn't process the film on the boat and send them around the world. We actually had to come into port. It was a different world at that time, but we did it. We came back into San Francisco, we sent the film around the world and it worked. It hit a chord with humanity all over the world. People loved the whales and wanted to save the whales.

(00:48:45):

That's one of my favorite campaigns because it was the first one, it was successful, and it not only helped save the whales and allow the whales to recover, but we

eventually got a moratorium on deep sea whaling around the world. But it also really helped launch what I think of as the modern environmental movement. So I'm very proud of that.

(00:49:08):

I'll mention another one though, Nate, that it was one of my favorite campaigns. This was a campaign that happened in 1980. We were sitting around in our office in Vancouver in 1980. At that time, Greenpeace was small. We had very little money, and there had been a few offices popped up around the world, but we were still in the original Greenpeace office in Vancouver. A friend of mine was reading the newspaper, and he read this thing that there a consortium of oil companies was going to bring a super tanker into Puget Sound and the Salish Sea and was going to demonstrate how easy and maneuverable it was to bring a super tanker into these inside waters of the US and British Columbia for the purpose of promoting the idea of an oil port in Puget Sound. They said that this was just a test, that the super tanker was not loaded with actual oil. It was just loaded with water, but it was a test to show that they could do this. We're reading this and go, "This is crazy. What are we going to do?" And our office manager at the time, Julie McMaster, just said offhand, she says, "It's just a test?" She says, "Well, you guys should do a test blockade." Exactly. That was our response. We thought that was hilarious. A test blockade.

(00:50:31):

So we called up the media in Seattle and Vancouver. We said, "We're going to do a test blockade." We told him the whole story. Of course, the media loved it because it was funny, had a sense of humor. If they're going to bring in a test super tanker, we're going to do a test blockade. We're going to see if we can blockade them. So we did this. So we got out there with our boats, and by the way, this was only three days away. We got this whole thing up and running in three days. We got some boats. We went out into the middle of Juan de Fuca Strait, which is the connection between the inside waters and the Pacific Ocean there between the US and Canada.

(00:51:09):

We confronted this giant super tanker that came roaring down Juan de Fuca Strait and we stopped it dead in the water and the helicopters were going overhead and we

were on the radio to the bridge of the super tanker saying, "This is just a test. This is just a test blockade for when you really come in with oil." And we got arrested by the US Coast Guard for whatever they call that. You can't blockade a town. You're not supposed to do that. So we got arrested by the US Coast Guard and put in the boats, and we're saying to the Coast Guard, "This is just a test. This is a test blockade." And they put handcuffs on us and we're going, "Yep, the handcuffs work," and they took us into the local jail there.

Nate Hagens (00:51:59):

Test blockade. Real handcuffs.

Rex Weyler (00:52:01):

Yeah, real handcuffs, but we're testing. The handcuffs work. Yep, that works. They took us into the jail, and we kept this whole thing up. When they fingerprinted us going, "Well, this is a test, and we're just testing. We're going to test the jail and do all this." Well, the local police, this was north of Seattle, the local police, they had nothing against us. They were kind of on our side and they were very friendly and I remember they put us in this big holding cell, and they didn't even lock the door, they just left the door open. They said, "You guys go in there." It was dinner time. So I guess they're obliged to feed us. So one of the policemen went out and came back with a couple of big bags of food and came in and put it in the middle of the table and said, "Here, test this."

(00:52:51):

The reason that's one of my favorite memories of our Greenpeace campaigns is because it was so spontaneous. The idea came not from some highfalutin campaign committee. It came from our office manager and it was funny and we did it in a few days and we pulled it off and it was amazingly successful and it was fun and funny the whole way through and the media thought it was funny and the police thought it was funny and it was funny. It was hilarious, and it was successful. That tanker port never happened. So I've always remembered that. That was one of my favorite little episodes during the Greenpeace.

Nate Hagens (00:53:31):

That is a great story. So in the movie, "How to Change the World", one of the highlights or the focus is on Bob Hunter of Greenpeace who coined the term, I think he coined the term, mind bomb. Could you explain that a little bit?

Rex Weyler (00:53:49):

Bob did coin that term, the mind bomb, and the mind bomb was essentially a dramatic action that the pictures and the film of which could circulate around the world and change people's minds. But the idea of the mind bomb, Hunter introduced in a book he wrote called Storming of the Mind. This is Bob Hunter from Canada, Robert Hunter, great writer, brilliant guy, one of my best friends of all time. I spent 10 years working side by side with Bob in Greenpeace. He wrote a book called Storming of the Mind, and the title, Storming of the Mind is a play on the idea of storming the Bastille in a revolution. But we wanted to have a revolution that was not about physically storming the Bastille. It was about storming the mind of humanity, about changing the mind of humanity, and we're going to do this with images, and we're going to create these images by creating these dramatic actions like blockading a whaling ship or blockading the ships that were dumping toxic waste into the oceans. (00:54:52):

So the idea of a mind bomb is that when the images go around the world in the film, that these images not so much change policy immediately, but what they will do is they will change the public perception of a particular issue, in this case, whaling or ocean dumping or ecology in general. So the mind bomb became really the central strategy of Greenpeace, early Greenpeace, and still to this day that these crazy actions, and people often again mocked us for these silly things we were doing, but the reason for doing these crazy actions was to create a narrative and images that were interesting enough that they would actually move through the media system, which at that time, of course, was all print media and radio and television.

Nate Hagens (00:55:45):

So I think I remember reading that the picture of someone about to club a baby seal made it, within a week, to 30,000 newspapers around the world or something like that.

Rex Weyler (00:55:59):

Oh, yeah. In fact, the photographs of the first whaling campaign, in 24 hours, went around the world. I went to the newsstand the next day, and I saw the picture that I had taken out at sea and brought back and processed on land and sent the night before on virtually every cover of every newspaper at the newsstand.

Nate Hagens (00:56:19):

So 40 years ago, we could have mind bombs like that. With today, with Twitter and YouTube and Despacito videos getting 20 billion watches and everything, is the signal-to-noise barrier to making an ecological splash and storming the ecological mind of humans? Is that a much grander challenge? Or is it still possible to change people's en mass, they're thinking about these things.

Rex Weyler (00:56:52):

I'm not sure that it's a grander challenge, a harder challenge. Look, Nate, there's always been mostly noise in the media. In the 1970s, most of the media was noise just like it is today. To actually get a front page, we called it above-the-fold headline, in the newspapers, you had to do something that was more interesting than the latest celebrity breakup or the same thing as today. What we used to talk about is to get past the noise is you have to jump systems. We have to do something that's actually going to crack the culture, crash the culture. We used to use the expression "crash the culture", and the trick is to do something that no one expects you to do. If you're just saying what everybody expects you to say, if you're saying, "I'm for peace and I'm in favor of stopping climate change" or whatever, and everybody expects it. It's not news. So you have to do something that nobody expects.

(00:58:01):

So it was just as hard in 1975 as it is today, I would say, and maybe it's a little harder now because of social media. I understand what you're saying. Yeah, I mean, every individual in the modern world with access to phones and computers is just flooded with the sort of media noise. So yeah, it's very difficult. But you still have to do the same thing, which is do what no one expects you to do, crash the cultural trend, crash the sort of cultural trajectory, and do something different.

(00:58:33):

I'll give you a couple of examples of people who have successfully done that was the Extinction Rebellion. They were able to crack the culture and do something different. The Fridays for Future group, the young kids, they were fantastically successful. Greta Thunberg was amazingly successful, and she did something very simple. She left school and she went and she sat outside the Parliament in Norway and that broke the whole culture. So it's still possible, very difficult.

(00:59:09):

I'll give you another example, which I've been advocating for years in the environmental movement, talking to my friends at Greenpeace and other environmental groups is stop going to these stupid climate conferences that are accomplishing absolutely nothing. I think we're up to 34 climate conferences since 1979, and through that whole time, the human carbon emissions have continued to increase. So why are we going to these climate conferences and saying entirely predictable things?

(00:59:39):

So here's what I'm suggesting. Don't go to the climate conferences, boycott the climate conference, do something that no one expects you to do, boycott the climate conference, and then explain why you're boycotting the climate conference. Because after 34 climate conferences, these airheads and political appointees have done nothing, and our carbon emissions have continued to increase. So let's figure out what the root of this problem is and stop supporting this system, which is really just business as usual and just a way to pretend that you're doing something when you're doing nothing.

(01:00:18):

So that's an example of what I would say crash the culture, do what's not expected, don't just do what you did last year and the year before and the year before, if that makes any sense.

Nate Hagens (01:00:29):

It does make sense. Of course, when you use a term like "crash the culture", there now is a much bigger systemic risk from that line of inquiry than there was 50 years ago because we have a six-continent supply chain and a monetary system in deep overshoot and a geopolitical fragility. So I think the larger systemic risks that exist today make those sorts of strategies and appeals more dangerous than they were when you started Greenpeace.

Rex Weyler (01:01:06):

Oh, yes. But remember when I'm talking about crashing the culture, I'm talking about disrupting the cultural narrative.

Nate Hagens (01:01:15):

Yeah, right.

Rex Weyler (01:01:16):

That's the same thing that the women's movement did, and that's the same thing that the Civil Rights movement did and the peace movement, that's the same thing that Gandhi did. That's the same thing that Rachel Carson did with her book, Silent Spring, is to crack the cultural narrative because the cultural narrative tends to be a bullshit story, which keeps the power structure and power keeps business as usual chugging along. And that's always the case in history is that in order to change society, you have to point out that the emperor has no clothes and you have to crack that cultural narrative and it's very difficult to do, but it's possible.

(01:02:01):

Greta Thunberg did it and Fridays for Future did it, and Greenpeace did it in its day and Extinction Rebellion did it and the women's movement has done it, and it's possible. The Me Too movement has done it. So it's possible to do it, but you have to be smart and you have to do something that is not expected, do something new and creative.

Nate Hagens (01:02:24):

So in addition to the signal-to-noise barrier, which you've just articulated why that's not insurmountable, there's also something else with the environmental awareness in general people's minds, I find. The formula for showing a sad environmental movie with lots of scenery about damages to animals and oceans and ecosystems, but then at the end, it's not too late and they show solar panels and wind turbines. This formula of environmental tragedy, but it's not too late, we can do this, has kind of numbed people to potential mind bombs like you guys did in the '70s.

(01:03:09):

What is the formula? I mean, there is no formula, but what could happen there that could change? I thought that "Don't Look Up" movie was quite refreshing in that they did not mention climate change in the entire movie. Yet, everyone that was aware of what was going on knew it was kind of about climate change, and they made it like a parody almost. But it was a real visceral message in that movie, which is basically, we are not going to get warning that everyone will believe until it's too late, number one. Number two, speaking truth as a scientist to these issues pales in comparison to glib, popular, funny, feel-good things in the media, which is exactly what you were saying earlier. Do you have any thoughts on that?

Rex Weyler (01:04:00):

Yeah, well, the storyline that you're talking about is showing the environmental destruction and then telling everybody there's hope at the end. Yeah, it's exactly that. It's a formula. Everybody expects it, so it's not going to change anything. So you have to do something, like I said, different. I sometimes refer to this as hope-ium because it's like a drug. It's like oh, look how bad things are, but if you donate to us, we're going to help and you can help change things and there is hope. This story is what all the environmental groups are telling to all their donors. I'm not against Hope. Hope's a great frame of mind. Hope, as a frame of mind, is great, and it helps invigorate one and...

Nate Hagens (01:04:43):

It has to be a realistic hope.

Rex Weyler (01:04:45):

Well, it's a great frame of mind, but Nate, it's not a strategy. Hope is not a strategy. Yes, it helps invigorate people, but it's also a trap that we need to be really serious about what our challenges are and not just tell people that there's hope. Of course, there's always hope, but we have to be really clear about it. The other thing I think we have to be careful with is what's now known as virtue signaling, just saying things because we know that our in-group is going to think that we've said the right thing, that we want to stop climate change and so forth.

(01:05:27):

By the way, I agree with you about the movie "Don't Look Up", and although I think the message needs to be a lot larger than climate change, we have an overshoot crisis, not just a climate crisis. We have an ecological crisis. But nevertheless, I think it was a serious mind bomb and got a lot of people thinking and talking in the right way. But we have to be careful about virtue signaling and especially in the environmental movement where being a climate activist can be, for some people, just a status-seeking opportunity. That's probably not going to be helpful.

(01:06:06):

You know, you asked me once, I remember, about how much of the environmental movement is really serious, deep ecological thinking, and how much is virtue signaling and status seeking? I would say it's like everything else. It's like 90% versus 10%. 90% status-seeking and virtue-signaling and about 10% really serious deep ecology. I think that's just the normal human distribution of anything. I mean, there's a famous story about Theodore Sturgeon, the great science fiction writer, and a journalist was asking him, "Why do you write science fiction, Sturgeon? 90% of science fiction's crap." Theodore Sturgeon thinks about this for a minute, and then he says, "Yeah, well 90% of everything is crap."

Nate Hagens (01:07:01):

How would the climate movement reconnect more with the ecology movement so that it wasn't so predominantly about memes and status signaling, et cetera?

Rex Weyler (01:07:17):

Well, I think what I said about doing something that's not expected. I would say to environmentalists today, every single day ask yourself the question, "What do I need to do that I haven't done yet? What do I need to do that no one expects? What can I do that's creative and different that's going to actually help get the ecological narrative in front of people?" I think that this sort of deep self-questioning is number one. That if you want to be an activist and you want to have an impact on the world and change the trajectory of society, you better be asking those deep questions about what can I do that's new and different? Now, how do I be creative? Well, the truth is, there's no formula for creativity. If there was a formula for creativity, then it wouldn't be creativity, would it?

(01:08:10):

So because there's no formula for creativity in the arts or in social movements, then the onus and the responsibility is on the activist to ask himself or herself every single day, "What else can we do? What can we do that's different? What can we do that's really going to shake up the culture?" It's not just business as usual by other means. I mean, that's part of the problem with the idea that we're going to just transfer from this oil industrialism to an electric industrialism. The problem is industrialism. First of all, the idea that we're going to end fossil fuel use anytime soon and keep on business as usual, it's a delusion.

Rex Weyler (01:09:04):

It's been pointed out, not just by me, but by lots of people, that this idea needs to be rethought and deeply thought about. Vaclav Smil has written about this recently, and so has Bill Rees, and lots of other people have written about this and talked about it. We have to accept that there's certain biophysical limits to how fast we're going to be able to change an energy system.

(01:09:34):

In some circles, in the environmental movement, if you say things like this, you'd just be laughed at or ignored or ridiculed because it's this belief structure, it's this narrative, accepted narrative that we're going to have business as usual with a different energy system.

Nate Hagens (01:09:52):

Do you really believe that a lot of people in the environmental or climate movement truly believe that we can solve climate change by growing renewable energy and getting rid of fossil energy, that that will solve or mitigate the climate risks?

Rex Weyler (01:10:10):

Well, it would mitigate the climate risks, but the problem is that it will also collapse the economy. But collapsing the economy is what we need to do. This is what people don't want to accept. If we could get rid of fossil fuel use, then yeah, that would help. Of course, it would help mitigate the climate risk. But a lot of people in the environmental movement are somewhat energy blind in a sense, is that they don't understand how this entire culture. Even the idea of making windmill, wind turbines, and solar panels is a fossil fuel-intensive idea because of all the mining of the resource.

(01:10:53):

Look what's already happening with the demand for lithium and the mining around the world and coup d'états. You've got, what's his name, Elon Musk claiming that they can have a coup d'état against anybody they want because they're doing such important work. This pressure to mine the resources to mine, the lithium and the cobalt and the copper and so forth to build all this stuff, that gets swept under the carpet sometimes. This needs to be looked at and understood at a much deeper level, this idea of the energy transition.

(01:11:28):

What we really need to do is contract our economy, and no one wants to say that. Very few people want to say that. Bill Rees will say that. I'll say that.

Nate Hagens (01:11:37):

That there's no mechanism for that to happen that is politically and socially acceptable, which is one of the reasons I am having this conversation with you and people like you, is so that people understand the linkages between energy and GDP, between materials and GDP. Materials and GDP, by the way, are almost one for one correlated.

Rex Weyler (01:12:00):

Absolutely. Absolutely correlated.

Nate Hagens (01:12:03):

If we double our GDP, we're going to double our material use. At 3% a year, we're using double the materials we do today in 25 years or less.

Rex Weyler (01:12:15):

That's right. This whole decoupling idea has not worked, will not work, and does not work. That energy and material use is connected to economic growth. This idea in a way was something that happened in the 1990s, Reagan and Thatcher era, when a lot of people in the progressive movement says, "Oh, we can have all of our values. We can have our civil rights values and our gender rights values and our ecological values, and we can still all be rich. We can start companies and make lots of money." Well, that's just not true. That if we're going to continue to grow our economies, then we're going to continue to pollute and destroy the natural world.

(01:12:57):

If we're not willing to reduce our human population, which is another issue that the environmental movement has a hard time getting their head around, but if we're going to allow population to decline, which we could make a lot of progress just with universal women's rights and universally available contraception, but a lot of people in the progressive ecology movement or environmental movement don't even want to bring that up because then they're going to be accused of, oh, you're blaming the poor, or you're being racist, or whatever, because you brought up the fact that the human population is overshooting the capacity of the planet.

Nate Hagens (01:13:32):

Let me ask you a hard question. I have a couple hard questions. Is there a possibility or what do you think about the possibility of a phase shift in human behavioral response if people realize that we are running out of runway to be able to grow and that any growth is tethered to energy and materials and pollution and is going to require more deterioration of the natural capital of the world?

(01:14:01):

What happens if what people like me and you have been working on for a long time, which is the assumption that if we educate common people and politicians about our biophysical limits, that we will make better decisions? Is that a naive assumption? And that once people really understand what we face, that some unexpected other trajectory will ensue? Or do you still believe that education about these things is important?

Rex Weyler (01:14:33):

Well, it's important, but it's not enough. We're never going to win any of these battles with just the facts. The data won't win. You have to do more than the data, and that's what I'm saying. That's why Greenpeace for decades has done these crazy stunts all over the world because you have to reach people at a more visceral level. You have to reach people at a more emotional level. Just repeating the sad, depressing data is not enough and can even be counterproductive at a certain point. But I do think there is progress, Nate, that year by year, decade by decade, more people are realizing that business as usual is in fact the problem.

(01:15:12):

That we can't just have more stuff every year, more growth every year, more humans every year. Right now we're adding 88 million human beings to the planet every single year. 88 million humans. That's the population of Delhi, Sao Paulo, and Mexico City all combined every single year. And yet we're hardly talking about human population growth. It's as if people think that humans aren't like every other animal that we can overshoot our habitat.

Nate Hagens (01:15:47):

How much of that is ignorance and how much of it is fear to say something really uncomfortable?

Rex Weyler (01:15:52):

It's mostly fear to say something uncomfortable. Again, it's virtue signaling. It's like, oh, there's this notion in the... It wasn't just in the environmental movement, but when

population was first proposed at the 1972 environment meeting in Stockholm, some of the environmentalists there rejected the idea, "No, we can't talk about population because there's poor nations all over the world and their population's growing fast. It sounds like we're blaming the poor. The rich can't blame the poor."

(01:16:26):

Well, that's true. The rich cannot blame the poor. A lot of our problems are because of the rich, not just because of the numbers. But nevertheless, human population is a very real environmental ecological issue and we should at least be discussing it. A lot of the reason it's not being discussed is people are afraid of being mocked and ignored or canceled or whatever, so they're afraid. They're afraid to mention it.

Nate Hagens (01:16:52):

Are we approaching a cancel singularity where the most important issues-

Rex Weyler (01:16:58):

Everybody's canceled.

Nate Hagens (01:16:59):

Well, no. The most important issues can't be discussed for fear of being canceled.

Rex Weyler (01:17:06):

I think we're already there in some sense. The fear around discussing certain critical issues is so huge that it keeps a lot of people silent. It doesn't keep me silent, it doesn't keep you silent, but it keeps a lot of people silent. That's a problem.

Nate Hagens (01:17:25):

Well, I suppose it's no coincidence that a lot of my first guests are silverbacks, to use a term of the ecology movement, who've been talking about these things for a long time. I've been recently having success with this initiative I refer to as advance policy, which is talking to silverback politicians who are retired, used to be in power, famous men and women, senators and congressmen and governors, but now they don't have the

status risk and they have more time, and they're interested and deeply care about these issues.

(01:18:01):

It's almost like people under the age of 25 and over the age of 65 are completely riveted into this conversation because they get it and it's relevant to them. People in the middle, and this is a generalization, of course, people in the middle, it's too much of a status or paycheck or cognitive dissonance hit to take these big discussions on board about population, the Great Simplification, the end of economic growth, climate change, ecosystem destruction, et cetera. I mean, we're not robots.

(01:18:40):

We're an ultra-social species that is highly emotional and highly conscious of what other people think of us. To throw that whole thing in the mix, it makes this a really thorny challenge, not only the biophysical, but the psychological aspects of discussing and working up both a top-down biophysical plan and a bottom-up cultural response to caring about deep time and ecology and the 10 million other species we share the planet with and other generations.

(01:19:15):

But given what we face, do you have any short recommendations or frameworks for recommendations that you could suggest at various scales, either global, national, community level, or as individuals given some of the things we've talked about?

Rex Weyler (01:19:31):

Well, yes I do. Quickly, I think that most of the important changes that are going to happen are going to be localized. They're going to be community scale. I don't really think there are any global solutions. We're not going to come up with some plan that everybody's going to agree with globally. But I think you can protect your own communities, so you can certainly help mitigate some of the pain in the future. I would say my recommendations are to stay active and focus locally, localize, localize food production, localize energy if you can, localize healthcare, preserve and restore local ecosystems, wild places, and spend time in nature yourself.

(01:20:16):

There are certain things just on a personal level that I think are very important for us to do. For example, spending time in the natural world and really becoming a student of the natural world to trust and love nature, and then educate and teach others, and plant your garden, grow your food. There's something that I learned in the Buddhist tradition, which is called sharpening the sword, and it's a Buddhist precept that before you go into battle, you sharpen your sword. But in this case, it's a metaphor. The sword is you. You are the sword. Make yourself a better person. Make yourself a more generous person and a more aware person, a more gracious person.

(01:21:05):

Practice just common decency. Learn to get along and build cohesion in your community and work with people and become a more effective agent of change. That's one of the best things you can do. Most of the problems that I've seen in the environmental movement or any social movement are about the ego. If we can quiet our own ego and not need to be important or not need to be famous or be in charge or be the boss, and if we can learn how to do things effectively and be a better agent of change, that's one of the most important things. Now, of course, there are large scale activities that we need we to do and we can do, and I think militarism is at the top of my list.

(01:21:57):

I started out in the peace movement, and Greenpeace is a combination of the peace movement and the ecology movement. But militarism is still one of the biggest problems in the world, and it's a trillion dollar industry around the world. There's a lot of money to be made for the corporations that supply the militaries around the world, and that drives a lot of the militarism. But we need to quiet the militarism in the United States, in Russia, in China, NATO, in Europe.

Nate Hagens (01:22:29):

Isn't that a collective action sort of game theory? I mean, for us to just say we give up on militarism, then we become a target to the other people that don't. I mean, that's a really tough thing to give up for our culture.

Rex Weyler (01:22:45):

It's a really tough thing. I'll go back to my mentor, Gregory Bateson, who did a lot of work on this. He came up with the concept of schismogenesis, which is the creation of conflict, how do we keep conflict alive, and then the reverse idea is how do we quiet and calm down conflict. He worked with the US government on this for years in trying to quiet the competitiveness and conflict between Russia and the United States.

Nate Hagens (01:23:15):

Would that he were around right now?

Rex Weyler (01:23:21):

And his work, and that work would continue. You have to pay attention to it. Nothing changes if you don't pay attention to it and don't keep track of it. We need to look at the conflict creation that goes on in the world and conflict resolution and how that really works. The other thing, of course, is consumption. I've mentioned this throughout our conversation, is that we actually have to contract our economies, and we have to get comfortable with doing with less instead of more. Of course, that's for the rich nations mostly.

(01:23:54):

In much of the world, in the poor part of the world, we need to help those cultures live decent lives. Militarism, consumption and the other one I mentioned, of course, was population. We need to become more energy literate, and then just work and practice decency and social justice. These are the big ones. But again, I go back to localize, build cohesion in your own community, and sharpen your sword, become a better person, become a more effective agent of change.

Nate Hagens (01:24:30):

Thank you for that. I will put in the show notes your written recommendations to my students on that question. Rex, what do you care about personally more than anything else, given all the stuff that we've talked about and what you know as an ecologist looking at our time on this planet and what's happening today?

Rex Weyler (01:24:53):

Well, I suppose like most people, I mean, personally what I care most about is that my family is healthy, that my children are healthy and can live productive lives, and my friends and my community, and that my community is healthy. If there are conflicts in my community, that we can resolve them and just help each other get along and take care of each other. That's what I care about most. I think that's a natural human instinct and an important one that we look after ourselves, we look after our families, we look after our communities.

(01:25:32):

I love nature. I trust nature. I'm heartbroken every single day of my life of what we're doing to the wild world and the natural world. I'm aware of the number of species that are disappearing and the individuals within those species that are disappearing. I find that the ecological destruction of our world is just heartbreaking for me. I stay upbeat, but I can find something to be heartbroken about any day of the week, not just the suffering of humanity, but the suffering of the entire wild world.

I care about that. I would like to see us come up with ways to have human existence on this planet that didn't end up destroying everything around it. I was just out the other day in the middle of Toronto feeding the birds and I ran into another woman who was feeding the birds. She had some better stuff than I did. She had some nice bird seed. Where'd you get the bird seed? She told me where she got the bird seed,

and we had a nice chat. We were both just talking about just how heartbreaking it is.

(01:26:36):

(01:26:07):

Here we are, it is the middle of winter in this frozen city, and we've destroyed the forest. We've destroyed the ecosystem. These poor animals have virtually nothing to eat. There's a few people out trying to feed these poor things, but I care about that too. I care about every living thing and everything alive in our ecosystem and the health of our ecosystems. I'm never free of those carings because it just feels primal to me.

Nate Hagens (01:27:07):

Not to follow the formula, but given what and what you see and what you care about, what are you most hopeful about? Even if it's a kernel, what are the things that do give you hope about humanity and the future?

Rex Weyler (01:27:24):

Well, as I said, hope is a good frame of mind, but it is not a strategy. The frame of mind part, first of all, what gives me most hope is nature itself. I really believe in nature's resilience and its developmental path. No matter what we throw at it, it's not going to be any worse than the asteroid that hit us 65 million years ago.

(01:27:49):

I believe and I have hope in life's ability to adapt to change and to experiment, its diversity, its sense of symbiosis, and that's what I believe in most. That's one reason I believe in protecting the wild world and ecosystems, because I believe the lessons for our own survival are there in the natural world.

Nate Hagens (01:28:08):

Thank you. Any closing words of wisdom for our listeners, my friend?

Rex Weyler (01:28:12):

To me, one of the important things that I think I realize is that I'm a product of nature. Nature made me. Nature made my eyes to see. I should be grateful for that, and I should stand by the natural world and help it endure and prosper. Number one thing for anyone who wants to help in the environmental ecology movement is to become a student of nature, be apprentice of nature. This idea that we're going to manage the natural world or that we're going to fly off and occupy Mars, it's just delusional and it's insane and it's destructive. We really need to be students of nature, not the managers. (01:28:58):

The other thing, last thing I would say is that art, humor, play, creativity, find things in your life that you can be creative, because creativity is the essence of nature. When we play, when we play music, when we play with our friends, when we play with children, when we play with dogs, when we take walks in the woods, this sense of play

and creativity, I think is that's one of the most effective traits that we can grow in ourselves and in others and help others grow their own creativity and sense of play.

Nate Hagens (01:29:34):

Thank you so much for your time and for your career working on these issues, Rex. To be continued, my friend.

Rex Weyler (01:29:41):

Oh, Nate, my pleasure. I love the work that you're doing. You've really helped inculcate some important ideas into our culture, and you've done what I've suggested, which is you've come up with ways to do what no one expects and to get new ideas into the public discourse. I applaud you for that.

Nate Hagens (01:30:03):

We'll see how that goes.

Rex Weyler (01:30:04):

Yeah, we'll see how that goes. I'm really happy to participate with you. Thanks for this opportunity.

Nate Hagens (01:30:09):

Thanks, Rex. I'll talk to you soon. If you enjoyed or learned from this episode of The Great Simplification, please subscribe to us on your favorite podcast platform and visit thegreatsimplification.com for more information on future releases.