

SUSTAINABLE AGRICULTURE—GOING TO THE ROOT OF THE PROBLEM: A CONVERSATION WITH WES JACKSON

Interviewed by Riane Eisler, JD, PhD (hon)

Abstract:

IJPS Editor-in-Chief Riane Eisler interviews Wes Jackson, founder of the pioneering sustainable agriculture research and development organization, The Land Institute, with headquarters in Salina, Kansas. He is the author of *New Roots for Agriculture*, *Altars of Unhewn Stone*, *Becoming Native to This Place*, *Consulting the Genius of the Place*, and *Nature as Measure*. Jackson has received many honors for his groundbreaking work, including the Right Livelihood Award, election as a Pew Conservation Scholar and a MacArthur Fellow, and inclusion by *Life* magazine as one of the 100 important Americans of the 20th century and by the *Smithsonian* as one of “35 Who Made a Difference.”

Keywords: agriculture; sustainability; agro-ecology; exploitation of nature; grains; annuals; perennials; domination; partnership; ecosphere studies; The Land Institute.

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Riane Eisler: Wes, you founded The Land Institute to develop sustainable forms of agriculture. What in your personal life led you to this work?

Wes Jackson: As a Kansas farm boy born on the end of a hoe handle, you might say that my interest in perennial grains (which would require far less weeding) goes back to my childhood. More seriously, as the depth of the ecological crises was becoming apparent in the 1970s, I left my position as a professor in the environmental studies department

that I had helped create at Cal State-Sacramento to start The Land Institute primarily as an experiment in alternative education, with students' time split between the classroom and field work. But the problem of soil erosion and degradation was never far from my thoughts, and in 1978 I published the essay "Toward a Sustainable Agriculture" (later expanded into the book *New Roots for Agriculture*), which argued for an agriculture based on the way nature works, with a focus on nature's prairie as a standard for grain agriculture.

Eisler: Your Institute addresses environmental and social problems that our currently prevalent kind of agriculture is creating. Can you tell us about these problems?

Jackson: There are today very serious problems *in* agriculture—most notably, the reliance on pesticides, herbicides, and chemical fertilizers that are poisoning ecosystems all over the world. Today, as the saying goes, industrial agriculture is pretty much the conversion of oil into food. Good ideas for more sustainable practices come from a variety of traditional and indigenous communities, helped along by those agronomists who care about sustainability. These approaches often are grouped under the term "agro-ecology."

But having new options on the farm is only half the battle. We also need to transition to economic and social systems that make it possible for farmers practicing sustainable agriculture to make a living in rural communities that are healthy, as part of a global economy that distributes food to people who need it, not just people with money.

Eisler: The Land Institute's goal is "to create an agricultural system that mimics natural systems in order to produce ample food and reduce or eliminate the negative impacts of industrial agriculture." What has the Institute done to date to meet this goal?

Jackson: This brings us to the problem of agriculture. By that, I mean that annual grain crops, which make up the majority of human calories and take up the majority of our tillable acres, have always led to soil erosion and degradation, long before industrial agriculture and the Green Revolution. That led us at The Land Institute to investigate whether perennial grains were feasible, and now we've got "proof of concept" with Kernza, an intermediate wheatgrass that is now in limited commercial production. And we're working on rice, wheat, sorghum, an oilseed in the sunflower family, and legumes. The plant breeding that can take us from annual grain agriculture to perennials will take time, but we're getting up a considerable head of steam. Not only are The Land Institute's breeders at work, but in recent years we have established promising collaborations with people around the country and the world. We have 41 primary research colleagues worldwide, at 16 universities in the United States and in 18 other countries (South Africa, Turkey, Italy, China, Germany, Mali, India, Ethiopia, Canada, Sweden, Uganda, Argentina, Australia, France, Uruguay, and Denmark).

Eisler: This is really exciting, Wes—bravo! Could you elaborate further on the problems created by annuals and the benefits of perennials, especially the perennial grains that the Institute has developed?

Jackson: While there are people growing grain with minimum-till or no-till methods (preparing the soil without disturbing the ground), the majority of farmers are plowing, and even under the most careful farm management that means soil erosion, especially when economic pressures lead farmers to maximize yields and plow more and more marginal land. The deeper roots of perennial plants hold the soil in place, and you eliminate the need for plowing. Less soil carbon being disturbed, in tandem with fewer fossil fuels being used, reduces the contribution of agriculture to global warming.

But perennials are only half the project. At The Land Institute we also are beginning to work on how to grow those perennials in polycultures instead of monocultures. Crops

grown in mixtures will have less to fear from weeds, pests, and pathogens, which flourish in monocultures and lead to all those chemicals.

Together, this is what we call Natural Systems Agriculture. All this is captured in our mission statement: “When people, land, and community are as one, all three members prosper; when they relate not as members but as competing interests, all three are exploited. By consulting Nature as the source and measure of that membership, The Land Institute seeks to develop an agriculture that will save soil from being lost or poisoned, while promoting a community life at once prosperous and enduring.”

Eisler: Can you tell us about your Ecosphere Studies program, which is bringing together historians, philosophers, farmers, scientists, lawyers, economists, artists, activists, and writers to take what they learn back to their communities and educational institutions?

Jackson: As I mentioned, The Land Institute started as an alternative school, but with the success of the plant breeding we drifted a bit from that educational mission to focus on research. When I moved from being President of TLI to President Emeritus, I wanted to get back to that outreach work, and that led to thinking of new ways to reach people both in and outside the classroom. The Ecosphere Studies program is headed by Aubrey Streit Krug, who grew up on a Kansas farm and earned her PhD in literature and Great Plains Studies at the University of Nebraska. She’s riding herd on an odd bunch from those many disciplines and backgrounds to explore how we are going to take this ecological worldview into public spaces. Another co-conspirator in this, the philosopher Bill Vitek, just finished team teaching a course on “The Perennial Turn” at Middlebury College, where the students reported that these ideas opened up new ways of thinking. We think the material successes in Natural Systems Agriculture’s plant breeding give us a grounding for the intellectual and cultural work.

Eisler: Your research and advocacy efforts are geared not only to providing new agricultural technologies but also to engaging policy makers nationally and internationally, as well as locally. What kinds of responses are you getting?

Jackson: Farms bills in the United States are written for five-year periods. To promote a longer view, writer Wendell Berry (from Kentucky), organic farmer/philosopher Fred Kirschenmann (from North Dakota), and I took a “50 Year Farm Bill” to Washington in 2009. We learned some lessons about what politicians aren’t interested in—such as policy proposals aimed at long-term change. So, we don’t want to be naïve about what’s possible today on the policy front.

More satisfying is the growing interest in our work by other people—ecologists, social justice activists, backyard gardeners, commercial farmers, entrepreneurs, and even some grain companies. We’re not a majority yet, but we are slowly building what I call our “consecrated community” of folks who understand the problem and are committed to patient action.

Eisler: I was especially fascinated by The Land Institute’s recognition that the underlying goal is cultural transformation, and that education in general needs to be geared to preparing students to “create a socially and ecologically just world—a world without economic inequalities, human domination, soil erosion, species extinction and climate change.” As you may know, the findings from my decades of multidisciplinary research, writing, teaching, and advocacy indicate that these problems are rooted in domination rather than partnership social systems, and a goal of this journal is to help accelerate the shift to the partnership side of the social scale. What advice do you have for our readers, both the scholars and the practitioners, on how they can help us change our potentially disastrous global course?

Jackson: You are, of course, absolutely correct. If as a species we are to get in right relation—to each other and to the larger living world—the rejection of the domination systems in all spheres (political, economic, cultural, and ecological) is crucial. Partnership is a great term to capture the understanding of relationships that we need to nurture—again, to one another and to the ecosphere.

As for advice, well, I'm old enough to be careful about giving advice. It's easy to point out how others aren't doing it right (that is, the way I'm doing it), but before that I try to ask of others one simple question, "Have you joined the fight?" That is, can we agree on the scope of the crises and the need for radical change—going to the root of the problems in those domination systems?

Eisler: Is there anything else you would like to add?

Jackson: I'm thinking of the title of your book, *The Chalice and the Blade*. I agree that we have to turn away from the blade—that pursuit of domination through weapons and violence. It brings to mind Hebrew scripture, Isaiah 2:4—"And He shall judge among the nations, and shall rebuke many people: and they shall beat their swords into plowshares, and their spears into pruning hooks: nation shall not lift up sword against nation, neither shall they learn war anymore." With nuclear weapons, that's more necessary than ever. But for a long time I've said that the plow has destroyed more options for future generations than the sword. For all the destructiveness of war, the loss of soil and soil fertility is potentially more devastating.

That's all to remind us that we have to reject the domination dynamic within the human community and in our relationship to the ecosphere. That's going to the root of the problems.

Wes Jackson, PhD, is President Emeritus of The Land Institute, which he co-founded in 1976. Widely recognized as a leader in sustainable agriculture, he was a Pew Conservation Scholar in 1990, a MacArthur Fellow in 1992, and a Right Livelihood Award recipient in 2000. Jackson is the author of *New Roots for Agriculture* (1980), *Altars of Unhewn Stone* (1987), *Becoming Native to This Place* (1994), and *Consulting the Genius of the Place: An Ecological Approach to a New Agriculture* (2011).

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