Reviews

Grain By Grain

A Quest to Revive Ancient Wheat, Rural Jobs, and Healthy Food

By Bob Quinn & Liz Carlisle
268 pages
Island Press
islandpress.org/books/grain-grain

Reviewed by Dana Jackson

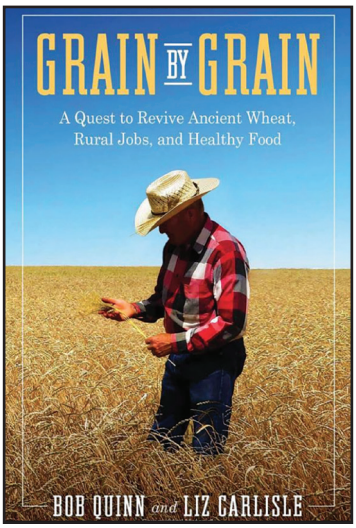
Liz Carlisle concludes the prologue to *Grain By Grain* by calling Bob Quinn, the voice of this book, "a genuine American hero." Pretty extravagant praise. But by the time I got to the last page, I agreed with her. This Montana farmer, clad in his jeans, plaid shirt and cowboy hat, is a hero, not because he is a highly successful organic grain farmer/scientific researcher/entrepreneur/businessman, but because of the way he measures success.

Bob Quinn tells about growing up near the small town of Big Sandy (it's in central Montana north of the Missouri River), on a conventional wheat farm. His father was a Farm Bureau leader and early adopter of farm chemicals. An interest in science and scientific research led Quinn to the University of Montana-Bozeman, where he earned two degrees in botany, and then to the University of California-Davis and a doctorate in plant biochemistry.

As a graduate student at one of the premier agricultural institutions in the country, Quinn did not question how industrial chemical agriculture funded and directed university research — until he overheard his professor and a peach farmer laugh about fooling consumers into buying a tasteless, hard, unripe peach, deceptively made to look ripe by a chemical spray developed by the professor. By the time he finished his doctorate, Quinn had no ambition to become an agriculture research scientist. After a few disappointing years in a contract chemical research business with a friend, he decided to return to the family farm in Montana with his wife and children.

The agricultural community Quinn returned to in 1978 was very different from what it looked like in the 1950s and 1960s when he grew up. There were fewer people and businesses in Big Sandy and fewer farmers on the land, and the farms were huge, chemical-dependent and debt-ridden. He soon learned that 2,400 acres of industrial, commodity agriculture could not support his parents and his family of seven. But he didn't want to buy out his neighbors and get bigger, which was the USDA solution. Thus began his first independent business venture.

Quinn founded the Montana Wheat Company in 1983 and direct-marketed his wheat to millers in California, whose buyers wanted to make whole grain bread. As demand grew, he started sourcing wheat from his neighbors and doubled his income in one year. Demand for organic wheat in California led him to experiment, learn from organic agriculture pioneers, and eventually convert to growing and marketing organic wheat. His scientific training had taught him that plants need nutrients and don't care whether the source is chemical or organic. But he learned that providing nutrients through a healthy, organic soil made sense for the long term productivity of his fields. Also, by converting to organic production, he "recovered the economic value he'd previously lost to industrial processors and chemical companies." Quinn became an advocate for organic production and in 1990 served on the board that set the first USDA national organic standards.



Once his grain marketing business was established, Quinn bought a stone mill to make real whole wheat flour and renamed his company Montana Flour and Grains. Then he began experimenting with an "ancient grain," a wheat grown from some large seeds someone had given him at a county fair when he was a kid, seeds his father had kept and propagated. He trademarked this wheat as "Kamut" and sold it to Arrowhead Mills, an organic products company that turned it into breakfast cereal, pancake mix, and pasta. As the market grew, Quinn helped other farmers grow Kamut organically, and his company bought it for triple what they would earn from conventional wheat. Farmers liked that Quinn had trademarked Kamut, instead of patenting it like Monsanto, and they could save their own seed. A buyer from Belgium bought some Kamut, and within a couple of years Quinn's Kamut International Company was selling as much in Europe as in the U.S. He also established Big Sandy Organics as a way to process the grain and make Kracklin Kamut, a snack similar to corn nuts. All along this journey, Quinn made money, and so did those he brought into the production, processing, and marketing businesses.

Quinn describes further business ventures, included raising dryland, non-irrigated organic vegetables and fruits, and safflower seeds which were processed into oil to use as tractor fuel. He started a company to build Montana's first ever commercial scale wind farm, although by the time the process received approval, another company won the contract. Quinn still considered the effort a great success.

In the chapter called "Bringing Rural Jobs Back," Quinn explains how he measures success. His 4,000-acre farm (he did acquire more land) equals roughly a dozen homesteads, so in order to bring back "neighbors he has lost" to the industrial wheat economy, he needed to create enough jobs and value-added enterprises for 12 families. He quotes a study that showed counties with organic agricultural activity had economic advantages over those that didn't. Although labor and management costs were higher (providing local jobs), organic producers didn't pay for expensive inputs, so net profits were greater. Quinn summed it up: "I'd rather put a dollar in my neighbor's pocket than send another dollar off to Monsanto."

Health problems attributed to gluten in wheat, which led to the invention of many "gluten free" flour substitutes, are discussed in the last part of this book. Some people who experienced bloating, cramping, and fatigue after eating products made with modern wheat bred for high yield, claimed that their symptoms were reduced when they consumed "ancient wheat" products, like Kamut pasta. Quinn the scientist initiated research in Europe that produced 30 scientific papers, cost Kamut International $2 million, and essentially confirmed the claims of Kamut's customers. Although Quinn stopped his own research, he wished for it to continue at a larger scale with more foods so

• • •

"I'd rather put a dollar in my neighbor's pocket than send another dollar off to Monsanto."

— Bob Quinn

• • •

Grain, *see page 33…*

…Grain, *from page 32*

society would learn the connections between human health and modern industrial food products.

In the prologue, Carlisle describes her role as "helping with some of the research and writing, mostly to draw out the larger context and significance of the events in the book." Evidence of her work is in the notes at the end of the book. I was surprised that the notes do not reference AERO (Alternative Energy Resources Organization), which was at the root of food systems development in Montana in the 1990s, or its Farmer Rancher Resource Groups that Quinn participated in. Ken Meter's 2021 book, *Building Community Food Webs (see page 14)*, describes the 1990s in Montana as a period when many people worked in coalitions to develop and market products from crops they could grow locally. Quinn is a hero for creating businesses with local jobs, but he succeeded in a social/economic climate created by the interests and efforts of many people working together, all of them heroes. ❒

Former Land Stewardship Project associate director Dana Jackson co-founded the Land Institute in Salina, Kan.

Ground Glass
An Essay

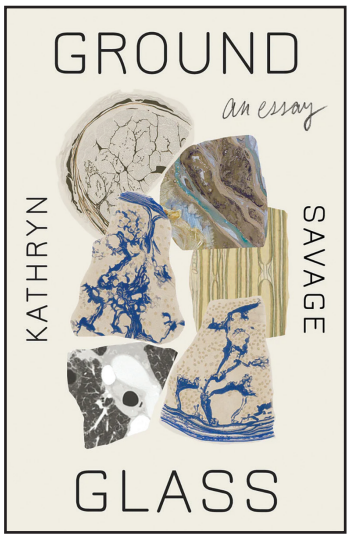
By Kathryn Savage
240 pages
Coffee House Press
coffeehousepress.org/products/groundglass

Reviewed by Phoebe Eisenbeis

Minnesota writer Kathryn Savage's book, *Ground Glass*, is a lyric essay about the relationship between humans and our environments — a relationship that can often be fraught. Savage explores the death of her father, motherhood, ecological grief and hope, communities affected by pollution, and the interconnection of land, life, and beings in her debut book, which is set largely in Minneapolis, Minn. One of the integral questions Savage asks is, "what place-history coursed in my blood?" In other words, how do we as humans hold the places we live and work and grow within our bodies? She begins this exploration when her father dies from gastric cancer. She links his cancer to the fact that they had long lived along the fence-lines of industry and she knew by the time of his death that "his cancer occurs at a slightly higher rate in areas that produce industrial waste and pollution." She begins her journey of understanding her father's death by visiting the Superfund and brownfield sites scattered throughout Minneapolis that connect to each other via miles of train tracks crisscrossing the Mississippi River.

Savage examines how the map of Superfund sites in Minnesota and across the country is closely linked to the distribution of low income and BIPOC (Black, Indigenous, people of color) communities, which in turn means these communities face the repercussions of these toxic areas. Savage writes, "It was nothing revolutionary I was confronting in my father's death, just the hard truth that disease can be accelerated by lived experiences…Fence-line communities are also called 'sacrifice zones.' "

Savage is well aware that such "sacrifice zones" have a profound impact on the people living there. "I am both who and where I come from; I echo," she writes at one point, adding, "…the body is in sublime entanglement with the natural world." Without our choice, we are often subject to whatever it is our environments hold. We can easily take in the pollutants that surround us, especially if we live in a polluted place for a long time or work with toxic materials. Although Savage is writing primarily about urban sacrifice zones, industrialized agriculture operations such as CAFOs can create sacrifice zones in rural areas as well, polluting the soil, air, and water of farm landscapes. Even if sacrifice zones in urban areas are more heavily populated by people, sacrifice zones in rural areas can be just as devastating and toxic for the landscapes and communities that face this pollution.



This book asks about the ways that we can choose to be in better relationship to our environments and to our communities (which include non-human beings). Savage shares the ways that she has formed relationships with her environment and neighbors by joining in conversations about pollution, toxicity, and activism. She answers these big questions through witnessing and learning about these polluted environments, as well as by including other voices in her narrative to show how the experience she faces is more broad than one might think. From Minneapolis to Birmingham to Oklahoma, Savage includes contributions from other women facing the damage of Superfund sites and brownfields, and connects these experiences and stories, giving these issues of racial, economic, and environmental justice a platform.

Savage also discusses growing food for herself through involvement in a community garden and how this experience draws her closer to a deeper relationship to the earth: "What I want is to be in a better ecological relationship with where I live." Yet, she questions if the community garden's location on a brownfield will cause the vegetables she grows to be toxic. This is, of course, a common concern, especially in urban farming and gardening and as people become more aware of how complex (and vulnerable) the soil biome is. Savage and the other storytellers in the book understand the dangers and necessity of tending to the earth, and yet, she does not see these dangers as outside of herself.

She wonders if there is "something humbling and revolutionary in understanding myself as a site of contamination." This is an idea that causes us to bridge the gap between ourselves and our environments and see the interconnections. This may be the greatest motivation to understand and love our environment — when we see ourselves as embedded within our landscape, which can, and often does in our current times, include toxic environments.

Savage asks, "How to nurture in the midst of such crisis? How to grieve and speak to the future?" These are questions that address our current climate catastrophe as well as the everyday violence we are subject to by living in toxic environments. This book attempts to answer this through the connections Savage forms with activists, mothers, and earth stewards who believe in a "toppled" world "reborn." Or at least a world where humans may find right relationship with our environments.

These meditations on ecology, grief, and interconnection are poetic, well-researched, and altogether insightful into the ways that we, no matter where our intersections of work and life lie, can understand and heal our relationship to our environments. ❒

Phoebe Eisenbeis is a writer, artist, and farmer living in Minnesota.