

The Culture of Gluten Intolerance As Seen Through the Eyes of a Homestead Baker

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WHEN I WAS A CHILD IN GERMANY, my grandmother baked all our bread. It took four days—refreshing the sourdough starter on the first day, mixing the sponge on the second,

kneading the dough on the third, shaping the loaves on the fourth, and letting them rise four or more hours before baking the bread in a wood-fired oven. One morning, when I came into the kitchen and saw the glistening loaves lying on the counter, my grandmother told me that the cat had had her litter in the warm, rising dough during the night. But Grandmother had scraped off the mess and baked the loaves anyway. “Bread is the staff of life,” she said. “It is sacred!”

We still bake all the bread we eat in our household, mostly long-fermented sourdough rye made from grain raised on our farm, and we supply loaves to our whole-diet CSA which, besides bread, includes vegetables, fruit, meat, cheese, and eggs. Remarkably, we have found that people suffering from gluten intolerance can safely eat our bread without gastric discomfort, presumably because the gluten protein, which gives the bread its shape and elastic structure, is broken down into harmless peptides easily digested in the human gut.

These two vignettes, one describing an unforgettable childhood experience, the other a current food practice in our home, illustrate the making and eating of bread as a cultural practice of deep significance for bodily and spiritual health. Historically, the consumption of bread served as a marker of community identity. Some 3,000 years ago, in Homer’s *Odyssey*, the hero in approaching the shore of the land of the Cyclops, anxiously asked his fellow seafarers, “Are they bread eaters?” In other words, are they human? And a millennium later, Christ taught his followers to pray to God to “give us our daily bread” and to celebrate the presence of the divine in the world through eating bread in Holy Communion.

With this as background, it strikes me as a sign of a profound cultural shift to read the following on the Rodale website recently:

It’s not every day that we send out such a special announcement! We’re thrilled to bring you this opportunity to pre-order *Wheat Belly Total Health*.

With *Wheat Belly*, Dr. William Davis gave millions of people the ability to take back control of their health. He enabled them to reverse years of chronic health problems by removing grains from their daily diet.

The cultural implications of the Rodale announcement are staggering. For one, in the announcement, bread is no longer seen as sacred and therefore becomes exchangeable for any other nutritionally equivalent food stuff. For another, the culturally symptomatic response to gluten intolerance that is recommended is total avoidance of any grain instead of inquiry into the causes of why so many people are no longer able to tolerate a food that has been central to the human diet and culture since civilization began. What Rodale should be asking is: what changes are needed in the way we produce bread for this food to regain its historic role as the sacred “staff of life”?

Here are some of the relevant facts. Roughly one third of people with European ancestry carry predisposing genes for gluten intolerance, yet in traditional food cultures very few people ever develop any symptoms of the disorder (i.e. genetic predisposition is not sufficient to cause the problem), and yet in the U.S. gluten intolerance and celiac disease have quadrupled since WWII, causing at least one percent of the population to be affected, with similar numbers now recorded in Europe. Why? Here is the second relevant fact: in traditional food cultures grain was prepared for human consumption by long fermentation to enhance digestibility and deepen flavor. Rudolf Steiner would refer to the cultural knowledge embedded in fermentation as holistic “intuitive science.” In the contemporary industrial food system, by contrast, intuitive ways of knowing have been replaced by reductive analysis and technologies that, in regard to bread production, have led to profound changes not only in how bread is viewed, but also how grain is produced and how it is processed into a loaf of sliced bread.

The history of wheat (*Triticum aestivum*) as a domesticated food can be traced back about 8,000 years, and the tradition of fermenting grain to create leavened wheat bread arose in Egypt around 1700 B.C., about the same time that Slavic, Celtic, and Germanic peoples developed rye (*Secale cereale*) as their principal grain, commensu-

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rate with the cooler climate and shorter growing season of their region. Unlike their wild ancestors and some domesticated grains such as einkorn, emmer, and kamut, both wheat, and to a lesser extent rye, carry a small chain of peptides as part of the gluten protein that can potentially cause digestive intolerance and disease, which traditional cultures learned to circumvent by fermentation.

Thus wheat and rye became the “staff of life” in many cultures, certainly in the Mideast, Europe, and America, where bread became the most important food staple and therefore sacred. It held this preeminent place until the dawn of industrialized food production systems in the nineteenth and twentieth centuries. However, even as early as the mid-nineteenth century, bakers in the U.S. and England began applying industrial methods to speed up the production of bread, which soon stripped it of its sacred significance. In 1910 70% of all bread was still baked at home in the U.S., but by 1927 when “Wonder Bread” was introduced, home production rapidly declined to less than 30%. By the 1950s the “continuing mixing method,” still in use today, was developed, by which a slurry of ingredients travels on a conveyor belt to the oven to the finished loaf in as little as three hours, all but eliminating the time-consuming and labor-intensive fermentation process requiring extended periods of rest during which the bacteria in the yeast become active and the gluten is broken down into harmless peptides. To stimulate the necessary rising action of the bread, chemicals distributed in a soy flour filler are added along the way—ascorbic acid, hydrochloride, and sodium meta-bisulfate to soften and strengthen the gluten; ammonium

chloride and phosphate to feed the yeasts; amylase to break down starches into sugars; and protease to improve the extensibility of the dough.

As the methods of producing bread changed, so did the methods of producing grain. Grains, and especially wheat, were hybridized to increase net output as well as to raise gluten content to ensure adequate rising action during reduced fermentation. They were systematically treated with chemical fertilizers, pesticides, and herbicides and were genetically modified to control the explosion of weeds and plant disease under monocultural, industrial-scale production systems.

However, a significant cultural counter shift occurred in the early 1970s, when “back to earth” idealists cried out for healthier, safer, and more natural foods and for their bread demanded something better than the mass-produced, chemical-laced, and nutritionally deficient product conventionally sold in supermarkets. Naturally, many small-scale bakeries sprang up to meet this emerging market, albeit by making imitation artisan sourdough breads while continuing to use chemical additives in ready-made mixes. Nevertheless, there is growing awareness that bread is more than mere food, that it is sacred, and that bodily and spiritual health are related.

As Webster would have it, by the sacred we mean something that is dedicated, set apart in a place of honor, holy by association with the divine, and therefore entitled to reverence and respect, not to be profaned. When it is surrounded by ritualized traditions, it becomes religion. The place of bread in Christian Holy Communion speaks to its sacred nature.

Michael Pollan elaborates this connection in *Cooked: A Natural History of Transformation* (2013), when he describes the story of Western civilization as pretty



Baking oven at S&S Homestead Farm; rye bread

much the story of bread, and bread as the alchemical transformation of the fourth of the classical elements, which is air:

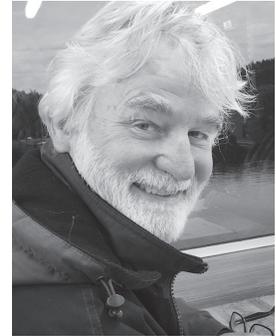
Symbolically, too, air is not nothing. Air elevates our food, in every sense, raises from the earthbound subsistence of gruel to something so fundamentally transformed as to hint at human and even divine transcendence. Air lifts food up out of the mud and so lifts us, dignifying both the food and its eaters. Surely it is no accident that Christ turned to bread to demonstrate his divinity; bread is partially inspired already, an everyday proof of the possibility of transcendence.

The imperative to heal the earth, physically and spiritually, is the very foundation of biodynamics, of sacred agriculture. We are reminded of St. Paul's injunction to the Philippians that, to do the work of the spirit, we must not conform to the world. As with all imperatives, meaningful implementation begins at home, caring for the soil on our farms and in our gardens and, when it comes to bread, growing our own grain or sourcing it from a responsible neighbor and baking our own, long-fermented sourdough bread, or finding a baker who will. Speaking with Paul, we must learn to say no to a commercial culture that puts profit before the health of the consumer. It is our own implicit collusion with that culture that causes the suffering that comes with gluten intolerance and celiac disease. We must reject the technological fixes offered by the commercial culture, the gluten-free foods, the grain substitutes, and the pharmaceutical remedies.

Gunther Hauk says it well in *Towards Saving the Honeybee* (2002) when he calls for a "tremendous shift in paradigms" in order to "restore our ailing bees to a level of vitality in which they can, once again, begin to flourish and thrive." What ails the bees is, at its base, the same thing that ails sufferers of gluten intolerance: both suffer

from pervasive cultural failure. In both instances, what is needed is, as Hauk says, a fundamental "shift in attitude from a functional, profit-oriented, mechanical approach to a spiritual, organic one, on the basis of heartfelt reverence." Only when bread once again becomes the sacred staff of life will the suffering end.

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