

Chapter Eleven

Breaking Bread

The Clashing Cults of Sourdough and Gluten-Free

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Painted in 1657 to 1658, Johannes Vermeer's *The Milkmaid* is a highlight in Amsterdam's Rijksmuseum. With soft lighting and a pale background, the painting captures a woman pouring milk from a jug. It is a familiar image; yet something is missing. The table is less cluttered, the basket in front of the jug empty. Featured alongside the original, this is the breadless version, exhibited in the Gluten Free Museum.¹ Created by artist Arthur Coulet, this online collection reimagines iconic artworks by the likes of Caravaggio, Wayne Thiebaud, and Édouard Manet without gluten—hence without wheat. When reporting on the popularity of the website, the BBC first wondered if it was poking fun at how popular gluten-free diets have become, but Coulet says, “This is a serious matter. That’s why I’ve decided to bring lightness and pleasure with art.”²

The Gluten Free Museum captures the tension between the historical significance of wheat and that today, among certain groups, it seems to be losing its importance. Nonetheless, bread occupies a holy position in food history and has many cults. From Ethiopian *injera* to Afghanistan's *nan-i-Afghan* and from French baguette to San Francisco sourdough, the concept of bread is nearly universal. Wheat provides more nourishment than any other food and 20 percent of the world's calories.³ Furthermore, no other food better represents the whole as more than the sum of its parts than bread. Water provides moisture; it binds the flour to become dough. Flour provides

protein and substance. Two things inedible alone, salt and flour, along with water—which will quench our thirst, but never our hunger—become a meal.

This chapter contrasts the revival of baking with sourdough and a variety of wheat and grains in Europe and North America to the development of gluten-free lifestyles—both arguably food cults in their own rights that are positioned around bread but with polarizing views. How can looking at the sourdough movement affect how we see the development of gluten-free lifestyles? And vice versa? By discussing these two positions in tandem, this chapter provides a deeper understanding of contemporary appreciation and anxiety around bread and what this reveals about a general understanding of food, culture, and choice.

WHERE THE WILD THINGS GROW: SOURDOUGH AND INDUSTRIAL BREAD

Aaron Bobrow-Strain, food politics professor, writes about American, industrial bread in *White Bread: A Social History of the Store-Bought Loaf*. In the preface he brings up the difficulties in researching something as ordinary as bread:

As important as it has been . . . bread is not something that typically gets written about in diaries, described in letters, or remembered in oral histories. As social reformer Eleanor Bang reflected in 1951: “Bread? Of course. There it is for breakfast, for lunch, for dinner in a rhythm as regular as the ticking of our electric clocks—so regular we’d notice it only if it stopped.”⁴

Despite Bobrow-Strain’s claim, there has been much scholarship on the history of bread. Nonetheless, it is fruitful to keep in mind the implications of bread being such a given it escapes notice. Like Vermeer’s *The Milkmaid*, one only notices bread once it is missing.

Broken apart, sourdough suggests dough gone sour. However, it is a technique for making bread with natural yeast as opposed to a type of bread. It is made with flour, salt, water, and time. Natural yeast has been used in ancient food practices, and its use can be traced back to ancient Egypt.⁵ The word *yeast* comes from an Indo-European root, *yes*, which means “to bubble or foam.” To bake a loaf of sourdough is a performance in three acts. The first is to develop a culture that becomes a starter, or, as the French call it, *le chef*⁶ (made from flour, water, and sometimes a spoonful of yogurt or fresh fruit to help hurry things along); the second is to manage that starter by

feeding it and thus administering to its bacteria and wild yeasts. The third act is to shape the dough and bake it into bread. Adam Gopnik describes the character of dough: “Bread dough isn’t like dinner food, which usually rests inert under the knife and waits for you to do something to it: bread dough sits there, respiring and rising, thinking things over.”⁷ It breathes, bubbles, and foams.

Natural leaven remained the standard until bakers switched to commercial baker’s yeast. Contrasting the two, Malin Elmlid writes, “Commercial yeast was developed to give the baker the ability to command the dough and to take control of the process. A sourdough process demands more of you as a baker.”⁸ Commercial yeast is more reliable, hence why it became the norm for industrial baking. Chad Robertson in *Tartine Bread* shares the recipe for his bakery’s Basic Country Bread. With fifteen pages of instructions, thirteen pages of step-by-step photos, and ten pages that go into further details, the recipe, using a natural leaven, is not for those concerned with convenience.

No longer made with natural yeast and by hand, bread became a processed food. Emine Saner describes industrialized bread making. To make bread quickly on an industrial scale, an important step is skipped: fermentation. However, fermentation breaks down proteins, making it easier to digest. Bakers in France stopped using natural leaven in the 1930s.⁹ Then the more yeast one would add, the faster the bread would rise and the sooner it could be baked. Dough was now aerated instead of fermented. This also meant bread would go stale faster. To prevent this, preservatives had to be added.

Flour is the single most important ingredient in bread, as it is most responsible for how the loaf tastes. Amanda Benson identifies three distinct, yet entwined, industries that make up the flour industry: farming, milling, and baking.¹⁰ This leads her to ask how power is distributed among them. She argues industrialization has affected who has the most influence. Previously, it was the farmers, as they determined the type of wheat grown, taking into consideration which species were most compatible with the weather or could best withstand local bugs. With industrialization, millers and bakers gained more influence and could determine the types of wheat. With this shift in power came a shift in flour.

In “The Food Industry and New Preservation Techniques,” Giorgio Pe-drocco writes, “In the first half of the nineteenth century, mills were transformed by a series of innovations increasing the quantity and quality of the flour that could be obtained from grain.”¹¹ Steel rollers came into use, replacing the traditional way of grinding wheat on stones. The wheat grain has

three parts: germ, bran, and endosperm. White flour only uses the latter, unlike whole-wheat flour. This means a field of wheat yields more whole-wheat flour than white flour, as white flour has a higher extraction rate since other parts of the grain are tossed aside. This is why historically white flour was more expensive than whole wheat, but because of mechanization and industrialization, white flour became cheaper to produce. The *New Yorker* describes this shift:

Steel was fast, efficient, and easy to maintain, and it permitted millers to discard the germ and the bran in the wheat kernel and then rapidly process the starchy endosperm. . . . Almost nobody seemed to notice, or care, that by tossing out the rest of the kernel industrial bakers were stripping bread of its vitamins, its fiber, and most of its healthy fats.¹²

White flour no longer was a luxury but instead the norm. Industrialization changed both the flour with which bread was baked and the process with which dough was made. It introduced a difference between commercial, factory-made bread and handmade “artisan” bread.

SOURDOUGH REVIVAL

Fashions in food change over time. Bread is no exception. During World War II due to shortages in flour, bakers added fillers such as potatoes and even sawdust to stretch out dough.¹³ After the war, whole-wheat bread thus carried negative associations. White baguettes instead were preferred. When researching the revival of sourdough, one name comes up again and again: Poilâne. Founded in 1932 by Pierre Poilâne in Paris, his granddaughter Apollonia Poilâne now runs the business, but it was his son, Lionel, whose name became synonymous with reviving the quality of French bread. Lauren Collins writes:

Poilâne almost single-handedly saved sourdough from obscurity, reviving its reputation as the true French bread. . . . The Paris-based food writer Alexander Lobrano told me, “When French baking was in great danger, seriously and perhaps permanently damaged by industrialization, Poilâne was among the first, and surely the most important, to blow the whistle.”¹⁴

Referred to as *miche*, *pain au levain*, or *pain Poilâne*, the bread responsible for this revival is a four-pound wheel of sourdough. Grossing \$18 million a year, today the bakery, with several locations, “produces about

three per cent of all the bread sold in Paris.”¹⁵ Lionel Poilâne also influenced a new generation of bakers, including Chad Robertson, who opened the acclaimed bakery Tartine in San Francisco in 2002. Robertson tells a similar story: in the late 1970s Lionel Poilâne sparked this revival, thus marking “the beginning of a shift in taste back toward traditional country breads.”¹⁶ The artisan bread revival then arrived in the United States in the 1980s.

In *The Bread Exchange*, Elmlid describes the sourdough trend in Sweden as first beginning to take root around 2005.¹⁷ What could be described as the sourdough scene has made its presence felt in the Swedish capital, and now there are even sourdough hotels.¹⁸ For example, at Urban Deli and RA Chocolat at Arlanda Airport, bread-baking enthusiasts pay a fee for their sourdough to be watered and fed while away from home.

There is also an increasing interest in heritage wheats and grains. Cookbooks reflect a period’s tastes, trends, priorities, and concerns. Because of the vast range in techniques and ingredients, they may not always accurately reflect what people are cooking and baking at home. However, they do relay interests and ambitions. Tartine’s latest cookbook *Tartine Book No. 3: Modern, Ancient, Classic, Whole* (2013) demonstrates an interest in baking bread with a larger variety of grains and wheats. It includes recipes with kamut, semolina, rye, spelt, and emmer/einkorn.

Confronting and challenging the grain industry in the United States is the subject of the 2015 documentary *The Grain Divide*. It makes the claim “the farm to table movement forgot our most basic food”¹⁹ and features the voices of food professionals passionate about wheat, including Chad Robertson, Michael Pollan, and chef Dan Barber. It charts the change in the production of wheat in the United States from 1880, when roughly twenty-four thousand commercial mills spread across the country, to 2014, when there were only two hundred. Four companies now control 80 percent of the market. If some of those in the film discuss what the industry has become, Dr. Stephen Jones is working on reengineering what it could be. Jones has a PhD in genetics and is a wheat breeder directing the Bread Lab at Washington State University. “Our philosophy is that wheat has to work for the farmer: something with low input, that they won’t have to fertilize, and something that they won’t have to spray with pesticides, whether they’re organic or not,” he tells Elyssa Goldberg in an interview with *Bon Appétit*.²⁰ “What we develop and bring in will yield enough that the price point can come down so that there’s access for most, if not all, people. It has to yield enough so that it’s not \$20 to buy it,” he continues.²¹ In other words, the Bread Lab is challenging the

notion that different varieties of wheat (and hence quality bread) need to be expensive. We often talk about “wheat” and not “wheats.” However, at the Svalbard Global Seed Vault in Norway, set up in 2008, there are more than 150,000 different varieties of wheat, making it the caregiver of a “living history of grain.”²² The aim of the research at the Bread Lab is diversification, which challenges the monocrop standards of industrial agriculture.²³ In short, contemporary interests in sourdough are fueled by a desire for better flour, bread, and even a better agricultural system. Previously the trend in baking was to add flavor to white flour. Now the trend is to use different grains to create flavor.

THE WEIGHT OF WHEAT: GOING GLUTEN-FREE

Gluten is a curious thing. It has attracted a lot of attention, concern, and confusion. In “Gluten-Free Eating Appears to Be Here to Stay,” Kim Severson writes that comedian Jimmy Kimmel “spoofed the diet by filming health-conscious, gluten-free Southern Californians who were stumped when asked to describe what gluten is. The video has been viewed more than 2.5 million times on YouTube.”²⁴ More than a year later the number of views has increased, and so have questions concerning gluten. Michael Specter gives a sound explanation of gluten in the *New Yorker*:

Gluten, one of the most heavily consumed proteins on earth, is created when two molecules, glutenin and gliadin, come into contact and form a bond. When bakers knead dough, that bond creates an elastic membrane, which is what gives bread its chewy texture and permits pizza chefs to toss and twirl the dough into the air. Gluten also traps carbon dioxide, which, as it ferments, adds volume to the loaf.²⁵

It is what makes dough bounce back when poked. It is found not only in wheat but also in other grains such as barley and rye, but for people with celiac disease, it makes them sick.

Celiac disease means “sickness of the belly” in Greek.²⁶ Dr. Samuel Gee gave the first comprehensive description of the condition in 1887. Although he never determined its cause, he believed it could be cured by diet; however, his recommended diet included bread.²⁷ It was not until 1941 that Dutch physician Willem Dicke published a report recommending a wheat-free diet.²⁸ It was then British physician Margot Shiner who, in 1956, realized it

was gluten that “altered the intestinal mucosa in coeliac patients.”²⁹ Other than avoiding gluten, there is no cure.

For those with celiac disease, gluten is dangerous as it has severe health implications, but for those without it, things become more complicated. MUNCHIES reports, “According to the University of Chicago Celiac Disease Center, about one out of 133—or just under 1 percent—of the population suffers from celiac disease, a four-fold increase in the past 50 years. (Eighty percent or more don’t know that they have it.)”³⁰ This explains why some people must avoid gluten, but not why people without celiac disease choose to do so. MUNCHIES continues: “An additional 1.6 million Americans, and possibly more, are on a gluten-free diet despite lack of diagnosis.”³¹ Since for those with celiac disease eating a gluten-free diet was a cure for their ailments, the hope was that it would be a cure for others too. Beyond blaming gluten, there are other theories about why people are experiencing sensitivity, including one related to FODMAPs (a group of carbohydrates found in foods other than just grains).³² However, at least for now MUNCHIES seems to be right in claiming, “*Gluten*. Like its predecessor, ‘carbs,’ the word has practically become public enemy number one.”³³

What is the difference between being allergic to gluten versus being sensitive to it? Viv Groskop addresses this question in “Do We Worry Too Much about What We Eat?”

An allergy is an immediate reaction that occurs directly after consuming a food, even in tiny amounts, and can require urgent medical attention. Allergy is an immune system reaction and can cause swelling, vomiting and, in extreme cases, anaphylactic shock. . . . Intolerance (or sensitivity) usually takes longer to show up in the body and is affected by volume: you might be able to consume small amounts of that food and be fine. Intolerance is likely to have less serious physical effects.³⁴

For some not eating gluten is a medical requirement, and for others it is a lifestyle choice. This also leads to the gluten-free paradox, which Ellen McCarthy mentions in “Gluten-Free Option Hard to Stomach as Intolerance of Fad Diet Grows in the US”: people without celiac disease eat a gluten-free diet; yet people with celiac disease continue to eat gluten, as they have not been diagnosed.³⁵

If the name *Poilâne* comes up again and again when reading about sourdough, then there are two names, tied to two books, that are infamous in connection with the gluten-free lifestyle: William Davis’s bestseller *Wheat*

Belly: Lose the Wheat, Lose the Weight, and Find Your Way Back to Health (2011) and David Perlmutter's *Grain Brain: The Surprising Truth about Wheat, Carbs, and Sugar—Your Brain's Silent Killers* (2013). As Specter wrote in 2014:

Until about a decade ago, the other ninety-nine per cent of Americans rarely seemed to give gluten much thought. But, led by people like William Davis, a cardiologist whose book *Wheat Belly* created an empire founded on the conviction that gluten is a poison, the protein has become a culinary villain.³⁶

Davis blames everything from schizophrenia to asthma on whole grains. Perlmutter considers gluten sensitivity to be a threat to humanity.³⁷

Specter's accusations bring back to mind the claim that gluten has become public enemy number one. Both books are also discussed at length in *The Gluten Lie: And Other Myths about What You Eat* by Alan Levinovitz. As a scholar of religion specializing in classical Chinese thought, Levinovitz is not who one would expect to write a book about food trends, as science and religion are thought to be separate explanatory systems. Yet he argues that "the appeal of dietary fads had to do with myths, not facts."³⁸ Diets and lifestyles are emotional as they are expressions of who one wants to be and how one wants to live.

Regarding the popularity of a gluten-free lifestyle, Levinovitz uses myth as a way of explaining how readers can be coaxed into being gullible. "The first sentences of Davis's and Perlmutter's introductions are eerily similar. . . . Each reinforces the lie that the past was better—safer, healthier—than the present," Levinovitz argues.³⁹ "Meanwhile, diet gurus saw an opportunity to repackage the long-popular low carb Atkins diet using new myths and a new villain."⁴⁰ *Dangerous Grains* by Dr. James Braly and Ron Hoggan, published in 2002, was the "first book-length argument against eating gluten-containing grains" (though it is not mentioned in either *Grain Brain* or *Wheat Belly*).⁴¹

What comes from going gluten-free when there is no medical need? MUNCHIES reports on a study from Australia's the George Institute for Global Health, which tested whether there are health benefits for those without celiac disease to give up gluten. In a statement, Dr. Jason Wu, who led the study, says about gluten-free options, "The foods can be significantly more expensive and are very trendy to eat, but we discovered a negligible difference when looking at their overall nutrition."⁴² For example, a gluten-free version of pasta or crackers contained less protein than their convention-

al counterparts, “but sugar and sodium levels were almost totally consistent.”⁴³ The biggest difference was the price.

Health sells. The *New York Times* reports the low-carb trend peaked in 2004 “as a \$2.7 billion business in the United States” and that it got to the point that McDonald’s was even considering launching a bunless burger.⁴⁴ Gluten-free is now a big business. The *Guardian* reports, “In 2012 ‘free-from’ sales (of gluten- or wheat-free foods) were valued at £228m, an increase of 25% in a year.” This number seems to be increasing, and the market in Britain for gluten-free is expected to grow to £561 million by 2017.⁴⁵ In the United States, the industry is expected to “exceed fifteen billion dollars by 2016, twice the amount of five years earlier.”⁴⁶

HEALTH, POWER, AND CHOICE

The implication of the expression-turned-mantra “you are what you eat” is that we can control our bodies, appearances, health, and future through what we eat and what we do not. Fueling the decision to reject gluten when one has no medical reason to do so, similar to what is fueling the decision to cut your sourdough at home instead of buying sliced, factory-made bread, is the desire to take control over food, to have a sense of choice. Jeffrey Steingarten writes:

There is no society that encourages gluttony, and there never has been. Until recently, few people had enough money to be gluttons. And those who did were held back by law, religion, custom, or scarcity. None of these hinder us today. We are all in grave danger of running amok. We desperately need something to restrain us. That’s why we invented the nutrition fads and fears of the past 20 years.⁴⁷

Diets and lifestyles provide a way to navigate the overwhelming choice of what to eat and how much.

In *You Aren’t What You Eat: Fed Up with Gastroculture*, Steven Poole brings up when health-conscious eating gets out of hand: “It is called ‘orthorexia.’ From the Greek *orthos* (straight or correct), orthorexia means an obsession with eating correctly, according to some understanding of what the healthiest diet is.”⁴⁸ This employs a binary understanding of food, which operates within the extremes of either good or bad food. This relates to Roland Barthes’s writing about “nutritional consciousness” in “Towards a

Psychosociology of Contemporary Food Culture,” which is worth quoting at length:

Food is henceforth *thought out*, not by specialists, but by the entire public, even if this thinking is done within a framework of highly mythical notions. . . . Modern nutritional science . . . is not bound to any moral values, such as asceticism, wisdom, or purity, but on the contrary to values of *power*. (original italics)⁴⁹

Value is differentiated from power. Value is tied up in a system, a way of structuring life that goes back to Steingarten’s idea that a value system (or a shortage) works in restricting what people eat and how much. Furthermore, Barthes’s mention of myth recalls the parallels Levinovitz draws between myths and diets. Eating becomes a way of gaining physical power and exercising emotional power.

CONCLUSION

As terms like *breadwinner* and *daily bread* or referring to money as *dough* illustrate, even the English language has been shaped by bread and its influence on society and culture. “The Latin word *companion* means literally ‘a person with whom we share bread.’”⁵⁰ Bread is deeply engrained in Western culture.

By discussing sourdough and gluten-free cults, this chapter reveals the common root behind both. It has surveyed the development of industrial bread (including both wheat and white bread). Artisan bakers, the sourdough revival, and a renewed interest in a richer variety of wheats and grains are challenging industrial, standardized bread. The gluten-free diet, with its health implications for some and its significance as a lifestyle choice for others, similarly challenges the industrial production of wheat. Having to give up gluten for medical reasons does not necessarily imply one has to give up bread. For example, King Arthur Flour has a recipe for a gluten-free sourdough starter that includes the company’s Gluten-Free Multi-Purpose Flour, Ancient Grains Flour Blend, Florapan French Sourdough Starter, and cool water.⁵¹ After all, the sourdough and gluten-free movements are both reactions to the industrialization and mechanization of bread.

Food is cultural. It relates to myths, power, control, and personal choice. Whether one is part of the artisan-bread-buying slice or avoids glutens out of

choice, both positions express a desire to gain control, navigate, and make sense of a complex food system.

NOTES

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