

A New Way to Think About Eating

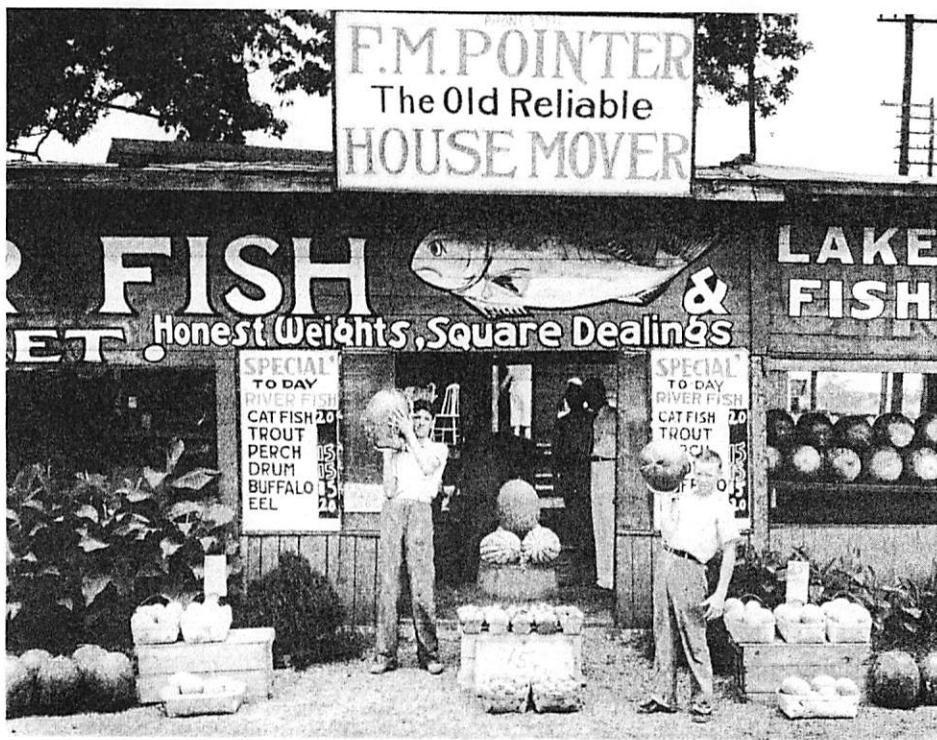
Jason Epstein

**In Defense of Food:
Eater's Manifesto**
by Michael Pollan.
Penguin, 244 pp., \$21.95

I was a normal boy growing up in the 1930s, worried about Hitler and the Depression but trusting FDR to take care of such things. I played baseball and tennis, rode a Raleigh bike, liked girls, hung out with boys, read more than I could fathom, had a dog named Terry. But my most vivid childhood memories are of food: my grandmother's old world Russian meals with a Yankee accent; dinner on the Boston and Maine's Pine Tree Limited with padded table linen; lamb chops in paper skirts served under a silver dome; hashed brown potatoes in cream in their own monogrammed serving dish; blueberry pie with rich vanilla ice cream. Then there were family outings to country inns recommended by Duncan Hines, the Zagat of the 1930s. I trusted him too until he sold his name to a pancake mix company. At the age of eleven I had invented my own pancake recipe: buckwheat, buttermilk, and simple sugar.

In our town my favorite store after the Smile a While Bookshop was Morosini's market with its pyramids of navel oranges from California which seemed to glow within their pink tissue wrappers. Apples, pears, even potatoes wrapped in tissue imprinted with the word "Idaho" were stacked in woven baskets beneath a frieze of pineapple soldiers with crossed swords. I remember the wooden crates of Bibb lettuce under crushed ice, the cloying sweetness of ripe honeydew in August, the yeasty smell of fresh bread, and the sweet, sharp smell of Parmigiano. Beside the cash register were faded sepia prints of Mr. Morosini's native village, old men in black hats wearing white shirts under tight black suit coats. It was in Morosini's that I saw my first Red Delicious apple, a new hybrid that lived up to its name until it was manipulated into inanity for the sake of shelf life.

I remember too my dismay edged with fear and anger when the first supermarket opened across the street from Morosini's. This must have happened in August of 1939 because I conflate this memory with the day my father told me that war was certain if Hitler attacked Poland. He hoped the war would not begin on the 25th, my birthday. But it was not war that worried me. It was the fate of Morosini's California navels. I was an eleven-year-old isolationist and an elitist. The new supermarket was selling Florida oranges for ten cents a dozen. Mr. Morosini's navels were ten cents each. I consoled myself that the supermarket would fail, that no one would buy its pallid Florida oranges. But a shadow had fallen across my tissue-wrapped world for I knew even then



A roadside store between Tuscaloosa and Greensboro, Alabama, 1936; photograph by Walker Evans

that Mr. Morosini didn't stand a chance.

The subject of Michael Pollan's fine new book, *In Defense of Food*, is the technological abyss toward which humankind with its tacit consent is being driven by the industrialized American diet. Pollan's critique of the American food industry and the plague of obesity, diabetes, coronary disease, cancer, and untimely death for which it is largely responsible is comparable to the work of Rachel Carson as a contribution to the history of human self-destruction, for the food fabricators could not have done their work without our complicity any more than the environmental polluters could have done theirs. One might go so far as to say that these calamities are themselves the outcome of a species failure, an evolutionary maladjustment of the human brain implicit in the triumph of ingenuity over wisdom.

What Pollan calls the American diet of refined white flour, polished rice, soy and corn oil, corn sweeteners, and corn-fed animal fats has now rampaged across world markets, upending traditional diets wherever it erects its golden arches. It has done so by extrapolating from their natural settings the essential fats and sugars to which animal appetites instinctively respond and on which human life has always depended, stripping away their inherent complexity and turning processed corn, wheat, and soy into such marketable forms as Wonder Bread, Twinkies, Whoppers, and Chicken McNuggets.

"Per capita fructose consumption has increased 25 percent in the past thirty years," Pollan writes. The mass production of food for a mass society was of course inevitable, but was it also inevitable, as one nutrition expert put it, that "we're in the middle of a national experiment in the mainlining

of glucose." the form in which fructose is metabolized in the liver and transmitted by insulin to the cells to be used as energy? We assimilate the complex nutrients of traditional foods slowly, but the rush of refined sugars supplied by our industrialized diet overwhelms the ability of the protein hormone insulin to process it. The result is a sudden jolt of energy and soon a craving for more, as the unused glucose is stored as triglycerides, i.e., fat. "An American born in 2000 has a 1 in 3 chance of developing diabetes in his lifetime," Pollan writes. "80 percent of diabetics will suffer from heart disease." This "global pandemic in the making... is well on its way to becoming normalized in the West—recognized as a whole new demographic and so a major marketing opportunity" for "the various drugs and gadgets for diabetics... dialysis and kidney transplantation."

The symbiosis of the American food and pharmaceutical industries, to which Pollan refers, is the grotesque avatar of the primitive supermarket that I dreaded on the eve of the Second World War. "Is it just a coincidence," Pollan asks,

that as the portion of our income spent on food has declined, spending on health care has soared? In 1960 Americans spent 17.5 percent of their income on food and 5.2 percent... on health care. Since then, those numbers have flipped: Spending on food has fallen to 9.9 percent, while spending on health care has climbed to 16 percent of national income.

Pollan describes a telling experiment:

In the summer of 1982, a group of ten middle-aged, overweight, and diabetic Aborigines living... near the town of Derby, Western Australia, agreed to participate in

an experiment to see if temporarily reversing the process of westernization they had undergone might also reverse their health problems. Since leaving the bush some ten years before, all ten had developed type 2 diabetes; they also showed signs of insulin resistance... and elevated levels of triglycerides in the blood—a risk factor for heart disease.

"Metabolic syndrome," or "syndrome X," is the medical term for the complex of health problems these Aborigines had developed: Large amounts of refined carbohydrates in the diet combined with a sedentary lifestyle had disordered the intricate (and still imperfectly understood) system by which the insulin hormone regulates the metabolism of carbohydrates and fats in the body.

Metabolic syndrome has been implicated not only in the development of type 2 diabetes, but also in obesity, hypertension, heart disease,

and possibly certain cancers. Some researchers believe that metabolic syndrome may be at the root of many of the "diseases of civilization" that typically follow a native population's adoption of a Western lifestyle and the nutrition transition that typically entails.

The ten Aborigines agreed to return to their traditional homeland, "more than a day's drive by off-road vehicle from the nearest town," where they had "no access to store food or beverages." Accompanied by the nutrition researcher who designed the experiment, the Aborigines during their seven-week stay relied "exclusively on foods they hunted and gathered themselves... seafood, supplemented by birds, kangaroo, and... the fatty larvae of a local insect." Moving inland to a riverbank the Aborigines expanded their diets "to include turtle, crocodile... yams, figs, and bush honey."

Their civilized diet had consisted mainly of "flour, sugar, rice, carbonated drinks, alcoholic beverages (beer and port), powdered milk, cheap fatty meat, potatoes, onions, and [some] fruits and vegetables"—the local version of the Western diet." After seven weeks the Aborigines had lost on average 17.9 pounds and their blood pressure had dropped. Their triglycerides had fallen to within normal range and "all of the metabolic abnormalities of type II diabetes were either greatly improved... or completely normalized... by [their] relatively short... reversion to traditional hunter-gatherer lifestyle."

"The human animal," Pollan writes, "is adapted to, and apparently can thrive on, an extraordinary range of different diets, but the Western diet, however you define it, does not seem to be one of them." But few of us can retreat to pre-industrial habitats and

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only the rich can afford spas and fat farms. For the poor even the Whole Foods Market and the seasonal farmers' markets are beyond their reach. Yet we are not helpless against what Pollan calls the endemic “diseases of civilization.” These arise directly from “highly processed foods and refined grains; the use of chemicals to raise plants and animals in huge monocultures; the superabundance of cheap calories of sugar and fat produced by modern agriculture; and the narrowing of...biological diversity...to a tiny handful of staple crops, notably wheat, corn, and soy” that supply our diet. But the Aboriginal experiment shows that the damage to individuals and even to the habitat itself is reversible.

Though Pollan has not written a diet book in the usual sense, his aim is to show how this reversal can be accomplished. His advice is deceptively simple: “Eat food. Not too much. Mostly plants.” This is not as easy as it sounds, especially for those too poor, too busy, or otherwise distracted to follow Pollan's advice or even to admit that their lives depend upon it. But one piece of advice is available to everyone: avoid all foods packaged with long lists of ingredients, especially those whose names cannot be pronounced. For example, the list of ingredients in Sara Lee's Soft & Smooth Whole Grain White [*sic*] Bread occupies half a page of Pollan's book and includes beside the omnipresent high-fructose corn syrup such wonders as ethoxylated mono- and diglycerides, azodicarbonamide, and guar gum. By contrast, a ciabatta loaf from my local bakery lists only unbleached wheat flour, durum flour, water, starter, salt, diastatic barley malt, and yeast, all of which, except the malt and starter, can be found in my own pantry.

First, however, it is important to know how this great dietary transformation took place. In his previous book, *The Omnivore's Dilemma*,* Pollan visits a sustainable farm near Charlottesville, Virginia, a remarkable experiment in self-regulating, small-scale agriculture in which the farm family and its cattle, hogs, poultry, and grass flourish in symbiotic harmony without agricultural chemicals or antibiotics and only minimal amounts of processed feed. But sustainable farming is not sustainable on a national scale any more than Alice Waters can cook for the entire United States or an Aboriginal diet of insect larvae and crocodile can feed Australia. A vast industrial organism extends from the United States Department of Agriculture to nutritionist laboratories to cornfields to feed lots to test kitchens to Super Bowl commercials to supermarkets to obesity and untimely death. This entire process has become our second nature.

Pollan is not a Luddite. The problem is not the existence of a mass feeding industry but its ethics, for the purveyors of our high-fructose and glucose diet must know by now that Americans are sickened by their products just as surely as the tobacco promoters know the terrible risk they are urging smokers to take. The organic

**The Omnivore's Dilemma: A Natural History of Four Meals* (Penguin, 2006); reviewed in these pages by Tim Flanery, June 28, 2007.

movement now largely co-opted by the food industry offers a partial solution at somewhat higher cost but, as Pollan writes, though “the superiority of real food grown in healthy soils seems clear...it makes no difference to your metabolism if the high-fructose corn syrup in your soda is organic.” The burden, in other words, is on the consumer but the structure of American agro-industry makes self-preservation difficult.

The industrialization of the food supply is, of course, inseparable from industrialization itself, but it assumed its present dangerous character in the mid-1970s when in response to a “spike in food prices [which] brought protesting housewives into the street... the Nixon administration... adopt[ed] an ambitious cheap food policy” to produce and sell “large quantities of calories as cheaply as possible.” Since the 1930s federal subsidies had encouraged farmers to limit production in order to maintain stable prices: what its New Deal sponsors called the Ever-Normal Granary. But now “agricultural policies [have been] rewritten to encourage farmers to plant crops like corn, soy, and wheat fencerow to fencerow,” driving production up and prices down:

Since 1980, American farmers have produced an average of 600 more calories per person per day, the price of food has fallen, portion sizes have ballooned, and... we're eating... at least 300 more calories a day than we consumed in 1985.... Nearly a quarter of these additional calories come from added sugars (and most of that in the form of high-fructose corn syrup); roughly another quarter from added fat (most of it in the form of soybean oil); 46 percent from grains (mostly refined)... The overwhelming majority of [these added calories] supply lots of energy but very little of anything else.

As a result Americans are “both overfed and undernourished.”

This radical change resulted in large part from a decision by Earl Butz, Nixon's secretary of agriculture and a champion of large-scale “fencerow to fencerow” farming, to dismantle New Deal farm policy and its subsidized crop limits and install a new system to encourage farmers to maximize production while the government made up the shortfall between its “target price” and the much-reduced market price by direct payments to farmers per bushel. The more a farmer produced, the more he would be paid.

By depressing farm prices through overproduction Butz was subsidizing not only the growers but agribusiness and the food manufacturers so that now all parties were growing fat on Butz's cheap grains—Archer Daniels Midland, Cargill, General Foods, beef cattle in their feed lots, and the American consumer. The exceptions were marginal farmers in poor countries who were devastated by cheap American exports.

But this was not the only sin perpetrated in the 1970s. Another was the result of a controversy aroused in 1977 by the Select Senate Committee on Nutrition and Human Needs chaired by George McGovern that advised Amer-

icans for the sake of their health to eat less meat and fewer dairy products. When cattle ranchers, including Senator McGovern's own South Dakota constituents, objected angrily, the unnerved committee responded by a subtle change in language from “reduce consumption of meat” to “choose meats, poultry, and fish that will reduce saturated fat intake.”

Hereafter government warnings would be addressed not to foods themselves but to ingredients. The result, according to Pollan, was the deluge of ingredients that were added by food marketers to promote their denatured product. The problem, Pollan points out, is not that these additives are worthless but that they are extracted from their natural origins and may not have the intended effect. “The problem with nutrient-by-nutrient nutrition science,” according to Marion Nestle, a New York University nutritionist, “is that it takes the nutrient out of the context of the food, the food out of the context of the diet, and the diet out of the context of the lifestyle.” The nutritionists hired by food manufacturers to enhance and promote their refined grains face a problem familiar to economists: an abundance of complex variables, including the vagaries of human nature, that make forecasting highly problematic. Pollan goes further:

The uncomfortable fact is that the entire field of nutritional science rests on a foundation of ignorance and lies about the most basic question of nutrition: What are people eating?

Pollan tested this claim over lunch with Dr. Nestle, asking if he was “perhaps being too harsh.” She smiled and replied,

To really know what a person is eating you'd have to have a second invisible person following [him] around, taking photographs, looking at ingredients, and consulting accurate food composition tables, which we don't have....

It's impossible. Are people unconsciously underestimating consumption of things they think the researcher thinks are bad or overestimating consumption of things the researcher thinks are good? We don't know. Probably both. The issue of reporting is extraordinarily serious. We have to ask, How accurate are the data?

Another leading nutritionist, Professor Gladys Block, nearing retirement at Berkeley and the designer of the Food Frequency Questionnaires on which the Womens' Health Initiative based its survey, goes further: “It's a mess.... I don't believe anything I read in nutritional epidemiology anymore. I'm so skeptical at this point.” Pollan concludes that

thirty years of nutritional advice have left us fatter, sicker, and more poorly nourished. Which is why we find ourselves in the predicament we do: in need of a whole new way to think about eating.

The best way to learn this new way is to read Pollan's new book and then its predecessor, his wonderful *Omnivore's Dilemma*. I have done that and in two weeks have lost eight pounds and feel fine. You will too. □