

1 Introduction

In 2008 I visited my friend María's mother in Santo Tomás Tlalpa, in a rural part of the state of Puebla. She asked me how her daughter, son-in-law, and grandchildren were doing in New York City. She had not seen her daughter in a dozen years, and had met her grandchildren only once when they visited during school vacation. While she talked, she charred chiles, onion, tomatoes, and garlic on the open flame of her gas stove. She combined them by hand in a stone *molcajete*, making a last-minute salsa to serve with the meat, stewed vegetables, and tortillas she made for lunch.

Eight years later, I sit in the same kitchen. María's mother died two years ago. Now Elena, María's sister-in-law, makes a quick stew of zucchini and tomatoes to take to her two younger children for a midmorning meal at the elementary school down the street, served with warm tortillas from the vendor nearby. While she cooks, a neighbor drops off a stalk of *cacallas*, small buds that grow on a tall stalk and are the fruit of the maguey cactus, which are savored here during their short season of availability. Elena tells me we will sauté them in a little oil and eat them later.

Later that day, Elena and her husband Samuel host a group of college students from New York that I've brought to town as part of a documentary film course. Relying on help from several older women in the

neighborhood, they build a fire in ventilated metal barrels in the courtyard outside the kitchen. They cover the fire with a pair of large disc-shaped *comales*, or griddles, and make quesadillas, hand-pressing the tortillas as they go, filling each with squash blossoms and stringy fresh queso Oaxaca. We eat the quesadillas along with the sautéed cacallas.

A few days later, I am invited to eat with María's husband's family, a short walk down the street. I stand with the matriarch of the family in her outdoor kitchen behind the house. Protected from the intense sun by a three-sided wooden shelter, she tends a wood fire and hand shapes *memelas*, sometimes called *sopes*. They start as a slightly thick tortilla, flattened with a tortilla press from a ball of freshly ground corn *masa*. As they come off the comal, she pinches the border of the disc to create a raised edge, seemingly not feeling the heat that burns me when I try. She applies a quick brush of *asiento*, pork lard, and places the memelas back on the comal to toast a bit more. Finally, they are dressed with a thin coat of mashed black beans, a drizzle of red or green salsa, a sprinkling of *cotija* cheese or *queso fresco*, or a bit of chorizo, and a sprinkle of chopped cilantro.

The quesadillas and sopes I enjoyed in Mexico are part of what I identify in this book as *milpa*-based cuisine. Far from what is often sold as "Mexican food" globally, this is a style of cooking with great regional variation, that across regions shares a core set of ingredients and cooking techniques. Milpa-based cuisine depends on ground corn, fresh vegetables, and a series of distinct steps to prepare the corn masa and salsas. While not all of the people I describe grow their own corn now, or did so in the past, their diet relied heavily on the products that are traditionally grown in a rural milpa, an intercropped field that includes corn and also other plants such as squash, beans, tomatoes, tomatillos, and chiles. The core of milpa-based cuisine is corn that is grown locally, then dried, removed from the cob, and stored in sacks. When it is used, it is nixtamalized (soaked in mineral lime and water) before being ground into masa. Tortillas, quesadillas, and memelas are examples of some of the foods made with corn that many families eat daily and that are made fresh for each meal. Freshly made stews and salsas are another mainstay, using the other vegetables that happily grow intercropped in the same field with corn. Cheese, eggs, and potatoes provide easy and varied substance to

meals. Meat, seafood, chicken, and sausage play minor roles, not appearing at every meal and often in small quantities when they do.

If we look at more than five centuries of foodways in Mexico, we see that people have changed the way they eat with shifts in the food system over several rough periods: the era preceding European contact; the period of conquest and colonization, the phase of urbanization and industrialization, and the turn outward with NAFTA and globalization. Each of these periods coincided with significant changes in the political and economic structure of the region and influenced the ways people ate, and the ideas each social sector had about the food, health, and morality of their own and other groups. While each wave after the conquest period represented a threat to and significant alterations of milpa-based cuisine, only the most recent phase of post-NAFTA alterations to the food system have really threatened its viability. Milpa-based cuisine requires access to ingredients, labor, and rhythms of life and mealtimes that are not as feasible today. For some, that is a story of liberation, since milpa-based food systems historically depend on rural household and labor arrangements that were dependent on relentless female domestic labor, and are not easily compatible with formal labor force participation. Those who no longer work the land or spend hours a day grinding corn and shaping masa into tortillas may or may not desire to go back to that kind of lifestyle, but I wish to point out that the transition away from this way of eating has costs, many of which are not widely acknowledged or well known. Further, those who wish to maintain or restore rural ways of living arguably should have the possibility of doing so.

NAFTA eliminated tariffs and barriers to trade between Mexico, the United States, and Canada, uniting them in a single market and facilitating direct investment and the flow of goods across borders. Globalization has the effect of distributing consumption of industrial products far and wide. It has been both praised and criticized for leveling difference, making it possible for people at all income levels to consume the kinds of goods that used to be more readily available in wealthier nations. Mexico is not alone in having seen dramatic shifts in the availability, affordability, and distribution of industrialized products, including foods and beverages. It is also not alone in seeing health consequences from the rise in consumption of foods and beverages associated with diet-related illness. That

Mexico's chronic disease burden is especially high does not make the outline of what has happened in Mexico's dietary transition very different from what has happened in so many places as food systems have become industrialized and globalized. How is the Mexican story unique?

In the story of the transformation of Mexico's food system and foodways, we see a convergence of economic trends and policy decisions that have taken ancestral ways of eating out of the reach of the average Mexican citizen, while making traditional foods available as a high-value, high-status commodity to be "elevated" and reinterpreted by global elite chefs. For many Mexicans today, processed and packaged food is easier, cheaper, and more readily available than milpa-based cuisine. Even in rural areas, consumption of sodas, snacks, and candy has increased dramatically, while tortilla consumption is down. Preferences have changed, of course, as more people have access to the kinds of foods advertised in the media, but the food system has brought some things within reach while distancing others.

Food systems are complex webs of food production, distribution, sales, marketing, processing, and preparation that shape what we eat, where it comes from, and how much it costs. Most of the food system, like the cables that bring us electricity, is invisible to the consumer and is often taken for granted. In heavily industrialized urban places like Manhattan, where I live—an island that produces almost no food—it can be difficult to visualize or understand the many pathways by which food comes to sit on the supermarket shelf. Even when we buy fruits and vegetables at a farmers' market, where we can imagine a direct path from field to market stall, we do not necessarily know the regulatory, commercial, social, and other networks by which that particular farmer came to be selling those particular potatoes or apples in that location. Large-scale, multinational food systems depend even more on a complex web of policies and networks of private and public actors and entities that may not be perceptible to us as consumers.

Food systems influence and shape foodways, and vice versa. Historically, foodways in most places have depended primarily on foodstuffs produced locally and regionally. While some trade in spices, teas, oils, coffee, and other products goes back thousands of years in some regions, most food did not travel very far before being consumed. Innovations in refrigeration, transportation, food packaging and preservatives, and mass production of food contributed to new possibilities for food to travel from one

area to another before being consumed.¹ For many kinds of food, especially in cities, this became the norm rather than the exception. Today, an apple in my local supermarket in New York City is as likely to have been grown in New Zealand or Chile as in the apple orchards a hundred miles away in Upstate New York.²

This development has expanded what we have available to us, making it possible for us to exercise a great deal of choice in the foods we eat. But increasingly in the United States, consumers find it problematic that we do not know where so much of our food came from and we have begun to ask about the conditions in which our food is produced. We demand reforms to our heavily industrialized food system. Nutrition, health, consumer advocacy, and environmental activists have found common cause and won some victories: Walmart now sells organic products; McDonald's now uses poultry and dairy products raised without antibiotics or hormones. In response to controversies about their funding of research on the health effects of soda consumption and marketing campaigns that target children, Coca-Cola and Pepsi have joined efforts to combat childhood obesity and offer more low- or no-calorie beverage options than before.³

But what does the industry do, faced with a growing awareness about the harm of industrialized food and beverage production and consumption? Issue a mea culpa and stop peddling products that scientists increasingly link to chronic disease? No, they have increasingly set their sights on new markets in the developing world. Declining consumption in industrialized countries doesn't matter to shareholders when there is a whole world of new consumers to be targeted. Along with their counterparts in other countries, rural and low-income Mexicans have provided a market for producers of industrial foods to offset declining sales in the United States. Mexicans' increased consumption has propped up economic arrangements like NAFTA and produced a vibrant regional economy, but it is impacting their health.

Chronic, noncommunicable, diet-related illness is different from other kinds of public health concerns in that its etiology—the way people understand the pathways for becoming sick—is firmly rooted in personal behavior.⁴ Even though public health research indicates that personal behavior is not the main factor contributing to chronic disease, this idea is persistent.⁵ In fact, overwhelming evidence indicates that structural factors such as social and economic disparities; food distribution, availability, and

regulations; and access to preventive care play the biggest roles in rates of chronic disease. Nevertheless, commonsense understandings of diet-related disease in popular discourse and public policy continue to put the individual at the center. Obesity, diabetes, heart disease, and other conditions are imagined to rest within the control and power of the individual. These diseases are described, often even by those who suffer from them, as a “failure” of knowledge, habits, self-control, diet, and exercise.

Many argue that Mexican waistlines have expanded faster than others in human history because Mexico has a legendary sweet tooth, not because its political leaders and their economic advisers have sold off shares of their compatriots’ stomachs as surely as a retailer negotiates shelf space. The massive effort by transnational food corporations working in the spaces carved by trade deals to expand the global reach of their products and ensure the purchase and consumption of larger quantities of calories by people all over the world is forgotten or ignored. Lowering the barriers to global marketing and distribution of their products, trade deals accelerate the processes by which ultraprocessed foods and beverages become available the world over. They also provide a way for transnational corporations to delay an anticipated day of reckoning in which their products come to be universally understood as harmful to health, even while in many places, that information has already prompted declines in consumption and policies to further curb marketing and sales. This is not to say that responsibility for rising rates of chronic disease rests exclusively or primarily with corporations or policy makers who seek to boost trade. Chronic diseases are multifactorial, as we explore in later chapters. But the correlation between the rise in chronic disease and globalizing trade accords begs an analysis of the ways that business practices, trade policy, anti-poverty, and public health campaigns converge and propel some kinds of consumption over others and also some ways of thinking about and addressing chronic disease.

As long as so many people understand diet-related chronic diseases to be rooted in knowledge and behavior, we will continue to think they fall outside of the realm of politics and economic development. I propose that we instead consider the massive proliferation of diet-related illness as a kind of structural violence—a result of policy decisions and priorities. Structural violence is defined by anthropologist and medical doctor Paul Farmer as “a way of describing social arrangements that put individuals and populations

in harm's way."⁶ Farmer argues that structural violence distributes and determines suffering in a population, revealing "symptoms of deeper pathologies of power" closely tied to the social conditions that group people and expose them to differing degrees to harm.⁷ This concept offers us a way to understand epidemics, especially when they are accompanied by events, such as an earthquake or war, that differentially impact the rich and the poor, the powerful and the marginalized. We can deploy this theory to think not only about infectious diseases and abrupt causes of death such as accidents, violence, and disasters, but also about chronic disease. Chronic disease is, essentially, a slow-moving disaster, more deadly than earthquakes and infectious outbreaks, and especially insidious for its slow and sometimes invisible work. It is not indiscriminate, as those with the greatest wealth and social status are not as vulnerable as the socioeconomically disadvantaged. I argue that the methodical, aggressive, and intentional reorienting of Mexico's economy away from small-scale agriculture and toward foreign direct investment and global trade has had worrisome consequences: the sickening of the population and the neutralization of demands they can make—on their political leaders and the economy.

At the same time that diet-related illness is on the rise, we can see that Mexican food is having a moment as a world-renowned cuisine. The global rise in price, popularity, and appreciation of Mexican cuisine is the other side of the coin of Mexico's epidemic of diet-related illness. With Mexican cuisine newly vaunted as a sophisticated and complex tradition with global reach and popularity, sincere appreciation for Mexican food has never been more widespread. This popularity has driven an interest in "authenticity" and generated a market for high-end interpretations of what was traditionally a peasant, milpa-based cuisine built around a "trinity" of ingredients: corn, beans, and squash.⁸ Specialists in Mexican food outside of Mexico have been freed from having to modify their dishes for the palates of non-Mexicans: by toning down spiciness or loading up on melted cheese and sour cream, as was typical in the past.⁹ Instead, "foodies" around the world today demand ingredients such as handmade tortillas, fresh vegetables and herbs, and a broad palette of chiles and salsas. It seems every food magazine and cooking show on television includes at least one recipe for tacos, tortilla soup, or fresh salsa. Gone from ingredients lists are hard "taco shells," "taco seasoning" packets, and shredded orange cheese (except

when they are occasionally used ironically). The lines between “high” and “low” have been blurred, and not only for Mexican food, with culinary school graduates turning to ethnic cuisines more broadly, often “elevating,” “reimagining,” or “reinventing” emblematic dishes, whether they serve them from a food truck or on a white tablecloth.

All of this has brought “Mexican food” (a misnomer referring to an endless array of regional and subregional cuisines and cooking styles) to its apex. Food means a lot more than what we put into our mouths: it is an object of our aspirations and our memories. It is a vehicle for nostalgia, and also for prestige. It is a way that people communicate who they are, the group to which they belong, and who they desire to become. Even though food has always played an outsized role in Mexico’s imagining of itself as a nation, today, more than ever, food is a site of contention where we can observe debates and struggles over identity and status, rights and responsibilities, and individual and collective well-being.

This book looks at both sides of the coin together. In it, I trace the paradoxical rise of Mexican food as a global cuisine at the same time that average citizens in Mexico find traditional foods increasingly out of reach or out of step with their lifestyles. Corn, the most basic element of Mexican food, exemplifies larger trends in the economy, as small-scale farmers find they can no longer afford to grow it, and as it is becoming more common for it to be eaten and drunk in highly processed forms in chips, sweets, and sodas, rather than in tortillas, *tamales*, and *atole*. Consumption of soda and processed foods has risen while the availability and affordability of ancestral foods and even water have declined. While NAFTA was an engine for this shift, it is just one part of a constellation of ways that the Mexican government has changed its orientation to its citizens’ needs, especially those related to anti-obesity, anti-poverty, health, development, and education policies, in ways that drive Mexican families even further away from traditional livelihoods and eating habits.

These policies and programs, and the overall restructuring of Mexico’s food system, have health consequences. They also generate ripples across borders: the rise and subsequent leveling of rates of migration, and the connection to Mexican migrant workers in the United States who sustain food production and preparation industries, while often experiencing a decline in their own health.

This book examines the ways that the binational relationship between the United States and Mexico, and specifically trade policy, have shattered foodways in Mexico—changing what is on plates, how it gets there, what we think about it, and how it impacts our neighbors' bodies. While economists and business elites celebrate the linking of North American markets as a success, there is another story to tell. As intimate and basic as food is in its relation to human life, it is a lens by which to see how our world is changing and becoming ever more connected across borders. What we see is globalization gone wild. The winners, large corporations and industrial farms, have achieved a level of unprecedented prosperity and power at great human cost. This leads us to ask whether traditional Mexican foodways will be reduced to an elite, luxury experience for a few, or preserved for everyone. We must consider whether human-scaled food systems are compatible with trends toward globalization and neoliberal economic policy. When we examine what is gained and what is lost in the transformation of ways of producing, distributing, and eating food, we might ask, can ancestral methods be restored with benefits for health and prosperity for all?

Our story largely focuses on the period since the 1994 implementation of NAFTA. Over two decades, Mexico's median educational level, income, and labor force participation all rose after it went into effect. The country's emergence as a global leader in automobile and aircraft manufacturing, export agriculture, among other sectors, is celebrated by its leaders. While NAFTA is hailed as a success by some economists and political scientists, it has produced many negative consequences for Mexico's population.¹⁰ On the heels of NAFTA's passage, Mexican migration rapidly accelerated, as did the expense and risk involved with border crossing.¹¹ Moreover, the number of those living in poverty rose according to the government's own statistics and think tank calculations.¹² In addition, obesity and diabetes rose dramatically in Mexico in the same period: 71.3 percent of the population has come to be classified as overweight, and 32.8 percent obese, while obesity among women has increased 270 percent.¹³ By 2017, the rate of diabetics in Mexico had reached the rate of almost 16 percent of the population.¹⁴

I imagine that as a reader who has picked up this book, you might already be one of the many people concerned about the industrialization of food production, the decline of the small family farm, and the rise of

diet-related illnesses in the United States, but you may not be aware of the health consequences of these trends across our borders. While awareness about the industrialized food system and the health problems associated with processed foods and beverages has risen dramatically in the United States, few know about how these trends are playing out across borders and in markets that are adopting our foodways. Trade policies that promote the exchange of goods, including food, also change ways of eating. When we look at these ripple effects, it seems that the food and beverage industry is taking advantage of the lag time in popular awareness of the long-term risks of processed foods and beverages to sell them as broadly as possible in developing markets, no matter the consequences. But we must ask whether the health and human costs of diet-related illness are simply collateral damage along the path to the milestones of economic development established by Mexico's politicians as well as global financial institutions. If more Mexicans adopt an "American" way of eating and its related health effects, is a higher risk of death from chronic disease the cost of Mexico's trade and economic policies?

Twenty years after the passage of NAFTA, the small-scale farming of corn, traditional ways of eating, and the health of Mexican communities are threatened. Today, Mexico imports 42 percent of its food and has a persistently high rate of poverty, at 55.1 percent.¹⁵ The current state of affairs sometimes sounds like dystopian science fiction: a post-migration Mexico where social engineering has resulted in a low birth rate and the death of the family farm, while the poor receive cash incentives for conforming to certain kinds of middle-class behavior that distance them further from rural ways of life. Local green markets have been replaced with supermarkets overflowing with processed food and soda. "Gringos" clamor for handmade tortillas, while Mexicans have become the world's top consumers of instant noodles.¹⁶