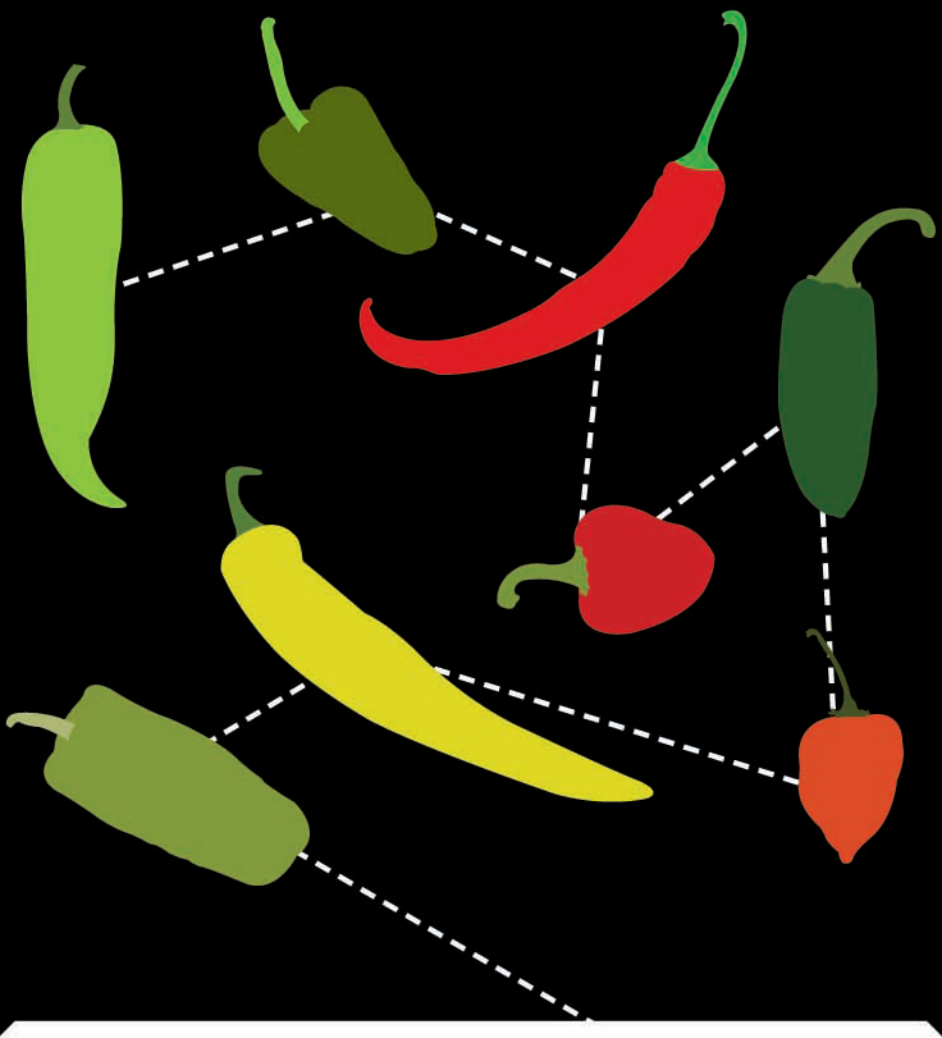

CHASING CHILES

HOT SPOTS ALONG THE PEPPER TRAIL

KURT MICHAEL FRIESE, KRAIG KRAFT,
AND GARY PAUL NABHAN

Chasing Chiles

Hot Spots Along the Pepper Trail

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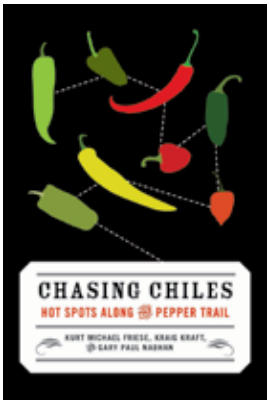

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A Unique and Personal Perspective of Food, Culture, and Climate Change

Two years ago, *The Economist* reported that "the diet in the rich world was heating up," as Europeans and North Americans increasingly began incorporating chiles into their cooking, chasing the adrenaline rush of ever-hotter varieties, and flooding the market with products like chile chocolate and chile-infused olive oil. But climate change could soon render the trend obsolete. In *Chasing Chiles*, three American chile-lovers—an agroecologist, a chef, and an ethnobotonist—set off on a year-long "pepper pilgrimage" to uncover the cultural traditions and humble beginnings of North and Central America's own most beloved, and most threatened, varieties.

Setting out in a van they dub their "Spice Ship," Kraig Kraft, Kurt Michael Friese, and Gary Paul Nabhan invite readers along on their journey through eight pepper-growing states and to Mexico in search of rare chiles, along with the local dishes and cultural traditions they inspire. The voyage takes them to the dusty streets and roadside stands of Sonora, Mexico where they find the incediary chiltepin stuffed in old bottles and to northern Florida where salty growers eke out a living from the endangered datil pepper.

Chasing Chiles is both a rollicking travelogue from three guys on the hunt for authentic food and cultural experience, as well as an adventure with a larger, sobering mission: to understand the effects of climate change by zeroing in on one critical crop and the people whose lives are most deeply intertwined with it. Kraft, Friese, and Nabhan seek out and listen to farmers, chefs, and others who rely on the chile, and document their struggle to protect local foods and livelihoods in the face of unpredictable weather, decreased biodiversity, and sporadic availability.

Chasing Chiles—complete with hard-to-find recipes for place-based cuisine—is the story of three unlikely travel companions united by a shared passion and a quest to uncover not only the future of peppers, but the future of food.

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Brianne Goodspeed at: bgoodspeed@chelseagreen.com or (802) 295-6300 ext. 107

For more information go to:
http://media.chelseagreen.com/chasing-chiles/

Praise for *Chasing Chiles*:

"All food has a story behind it—a story about people, culture, land, ecology, and economy. *Chasing Chiles* looks at the stories behind 6 chile pepper varieties, and the land, culture, food traditions, and farmers that, together, make their existence possible, and the changing climate that threatens all. But this isn't just about vulnerability; it is a book about the hope and resilience we create when we eat food with a story that makes us proud."
—Josh Viertel, president, Slow Food USA

"An instant classic of chile pepper lore, *Chasing Chiles* is the best social history of chiles since Amal Naj's *Peppers* from 1992. In fact, I think it's better—because it's not just journalism; it has fascinating science and entertaining humor as well. Highly recommended!"
—Dave DeWitt, "The Pope of Peppers" and coauthor of *The Complete Chile Pepper Book*

"*Chasing Chiles* is truly one of the most inspiring and unique treatments of climate change in current literature. The book provides us with an entirely fresh and critical perspective on this contentious issue directly from farmers and chefs, focusing on one particular crop. And the proposed solution to this complex problem is both plain and prudent: 'Eat and farm as if the earth matters, as we should have been doing all along.'"
—Frederick Kirschenmann, Distinguished Fellow, Leopold Center for Sustainable Agriculture, and president of Stone Barns Center for Food and Agriculture

"*Chasing Chiles* makes you feel like you are riding shotgun on Gary, Kraig and Kurt's Spice Ship! This book is a agri-culinary-eco-botanical odyssey that brings some of the most important issues about food, eating, and the impact of climate change to the fore in a way that is both engaging and compelling. A truly pleasurable read for anyone who appreciates authentic flavors and the pleasures of the table–and of course, the wisdom of our farmers. Practical principles we can all 'swallow' is the guiding light here."
—Tracey Ryder, CEO, Edible Communities

"A treasure trove of chile lore and a wake-up call to everyone who cares about real food, *Chasing Chiles* will amuse and alarm you. These three gastronauts carry a wealth of culinary and botanical knowledge, and their journeys in their Spice Ship uncover an incredibly diverse world of chiles that is changing with breathtaking speed. Stop worrying about the impact of climate change on future harvests; cross your fingers for this year's instead."
—Rowan Jacobsen, author of *American Terroir* and *Fruitless Fall: The Collapse of the Honey Bee and the Coming Agricultural Crisis*

"The noble chile—and its equally noble growers—illustrate the key principle we need for a world stressed by an ever-more-fickle climate: resilience. This book will make you understand the situation far better than most dry tomes on the subject."
—Bill McKibben, author of *Eaarth*, Founder of 350.org

"This book will fascinate not only chile aficionados, but also those students of biodiversity who are alarmed at the disastrous effect that climate change is wreaking on our food crops in general. With this book in hand, I happily climbed aboard the authors' Spice Ship to embark on their personal odyssey, and saw up close the devastating effects of climate change on the environment, farmers, and their crops whose very existence is at stake."
—Diana Kennedy, author of *The Essential Cuisines of Mexico* and *The Art of Mexican Cooking*

"How can our hemisphere's 'spice of life' be ignored after reading *Chasing Chiles*? I mean, what will there be to live for?"
—Wes Jackson, President, The Land Institute

From left to right: Nabhan, Kraft, Friese
Photo credit: Kim McWane Friese

Chef **Kurt Michael Friese** is author of *A Cook's Journey: Slow Food in the Heartland* (Ice Cube, 2008) and owner and founding chef of Devotay, a restaurant in Iowa City that is a community leader in local and sustainable cuisine. He is owner and publisher of *Edible Iowa River Valley Magazine*, a board member of Slow Food USA and the Iowa Food Systems Council, and a graduate and former chef-instructor at the New England Culinary Institute. **Kraig Kraft** is an agroecologist and writer based in Managua, Nicaragua. He completed his PhD on the origins and diversity of wild and domesticated chile peppers at the University of California, Davis. Kraft is the author of a popular blog titled *Chasing Chiles* and has written for several regional magazines, including *Edible Sacramento*, as well as technical journals, and is currently working on a coffee sustainability project in Central America. **Gary Paul Nabhan** is an award-winning natural-history writer and ethnobotanist, recognized by *Mother Earth News* and *Time* as a pioneer in the local foods movement. His collaborative conservation work as been honored with lifetime achievement awards from the Quivira Coalition and the Society for Conservation Biology, and with the Vavilov Medal. A pioneer in heirloom seed saving, he raises rare chile peppers and Mission-era orchard crops in Patagonia, Arizona.

Chasing Chiles

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Dedication

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LIST OF RECIPES

HOT SPOTS: AN INTRODUCTION

THE WORLD AROUND us is changing in ways we don't always take time to notice or have the perspective to understand. To even begin to comprehend these changes, we sometimes need to contrive an excuse, a mission, that is, *any old reason* that allows us to break away from our ordinary routines so that we may see the earth with fresh eyes. With this in mind, the three of us—Gary, the ethnobotanist, Kraig, the agro-ecologist and Kurt, the chef—discussed with one another how best to approach a problem like the effects of climate change on our food system. Together, we considered how we might bring new and different perspectives to the table—including the voices of folks whose points of view have yet to contribute to the discussion. And somewhat audaciously, we decided to narrow our focus to a single, albeit iconic, food, as a means to facilitate such a discussion. We were going to listen to farmers and chefs, so that we could hear how they felt climate change was affecting them and their livelihoods.

Yes, that's right, *climate change:* everyone's issue du jour or their favorite straw man. It's a topic with geophysical, ecological, social, and political dimensions, but saying anything precise about it seems difficult and very

contentious at best. That is because predictions about climate change—at least at this point in time—are prone to be educated guesses and are therefore fraught with some level of uncertainty. Still, while the details of the degree of change, the rates of change, as well as the when and whys of climate change are still up for debate, the change itself is not.

In order to move the discussion forward, some scientists now prefer to call it global climatic destabilization. In *The New York Times,* journalist Thomas Friedman proposed that we dump the term *global warming* altogether, and replace it with *global weirding.* The injection of the term *weirding* implies increasing uncertainty; it concedes that we are not only facing the prospect of an increasingly warmer planet, but one subject to extreme weather events, with more droughts and deluges than previously expected. We just don't know exactly how it will affect the lives—tangibly and on the ground—of food plants, livestock, and humans in any particular locality at *any* point in time.

The notion that we should "go out and look for climate change" was so huge and amorphous as an idea that we feared we could not say it out loud without someone laughing at us. Yet the three of us, representing three very different livelihoods, decided to dedicate a year of our lives to discerning how accelerated climate change *and* other factors might *already* be affecting the diversity of foods grown on this earth. We were going out to the farm fields and into the kitchens to find out. For if these pressures were diminishing the availability and diversity of certain foodstuffs, there was a very real chance that they could also disrupt the food security of our families, our closest friends, and our neighbors.

As a young student prophetically told Gary, the oldest of the three of us: "Climate change will be *the* fundamental issue which shapes what members of my generation do or don't do for the rest of our lives, perhaps just like civil rights was *the* issue for your generation."

Nevertheless, we sensed that we needed to make such an all-encompassing issue as food and climate change a bit more tangible when talking to our friends, and frankly, to ourselves as well. We needed to refocus the mission, to define the boundaries. Our mission would be based around an iconic food that had a fervent following and distinct

regional variation in cuisines and products. Wine? Cheese? Beer? No. It was none of these. We would be going on a pepper pilgrimage to the "hot spots" of our continent—the landscapes where unique chiles are grown and are part of the local cultural fabric. Yes, chile peppers were what we sought and why we traveled so many miles. We had pledged like blood brothers to be gastronauts, explorers on what our friend Blake Edgar called a "spice odyssey."

In truth, our purpose was more nuanced than that: We had set out to explore one symbolic food—the chile pepper in all its myriad forms—and how shifting weather has been affecting the pepper's own destiny and the destinies of those who habitually harvest or cook with chiles. We could have chosen any iconic food to serve as our lens for examining climate change, but we had our own personal reasons for selecting peppers.

Some of those reasons had to do with our backgrounds, our skills, and, of course, our own peculiar taste preferences. For starters, Kurt Michael Friese is the chef and owner of Devotay, a restaurant in Iowa City, Iowa, where he creatively incorporates local and seasonal ingredients into a Spanish-inspired, savory cuisine. Over his years as a chef, Kurt has grown to love the smoky Spanish paprikas and the is-this-one-spicy-or-is-it-not roulette of the piquillo peppers. He keeps the very fiery ones in his repertoire as well, and is quick with a sly smile when anyone says "It's never too hot for me!" In his so-called spare time, he also publishes a magazine called *Edible Iowa River Valley*—part of the Edible Communities family—and serves on the board of directors of Slow Food USA. On occasion, he and his wife, Kim, have been known to ramp up their gardening endeavors to try to supply much of their restaurant's own fresh produce from their own soil, harvesting it with their own hands.

Kraig Kraft, the youngest in our trio, spent part of his wild youth in New Mexico, where he developed a penchant for eating all kinds of chile peppers. This predilection grew into a bit of an obsession and then the objective of a PhD dissertation in agroecology. By the time we started this joint project, Kraig had already spent two years of his life

doing fieldwork on wild chile diversity, covering thirty thousand miles in Mexico while collecting wild chile populations and evaluating the local spicy fare. The project led him to characterize the probable center of domestication for *Capsicum annuum,* the species of chile peppers that most of humankind habitually eats. Kraig also sought out the best vehicles for chile consumption: *tacos de carne asada* in Sonora, or maybe the blue corn *gorditas* with *chorizo* in Peña de Bernal, no definitely the *salbutes* in Mérida . . . well, it looks like he'll have to keep sampling. While residing in Northern California, Kraig looked for ways to communicate agricultural and food issues to the larger public, through writing and photography.

Like Kraig, Gary Paul Nabhan has been a chile junkie for as long as he can remember. Some have wondered whether his addiction to piquant peppers is due to his mother using a legendary Aztec method to wean her babies, although Mrs. Nabhan denies this. Aztec women once dabbed chile powder on their nipples to encourage their toddlers to seek other sources of nourishment. Long after he was weaned but before he dropped out of high school, Gary began hanging out with Latinos in a midwestern cantina where a rather daring domesticated rabbit would be enticed to stand up on its hind legs to nibble on pickled jalapeño peppers. Soon after that, he became the wild-chile-eating champion of Baja, Arizona and a small-scale food producer by avocation, as well as an ecologist and ethnobotanist by vocation. The two tracks converged when he became hell-bent on discovering just *why* chiles are hot and why many cultures favor fiery foods. To frame it as an evolutionary riddle, he wondered why chiles were the only members of the deadly nightshade family that protect themselves not with toxic alkaloids, but by having "hot" fruit. Along the way, Gary became involved with the ecological restoration and market recovery of traditional foods such as the wild chiltepin, and spearheaded the designation of the first protected area in the United States that was dedicated to a wild relative of a major food crop.

In fact, all of us have been involved in Renewing America's Food Traditions (RAFT), Slow Food USA, and other grassroots efforts to

promote and preserve rare place-based foods. Why? Such foods link together our love of certain tastes with our love of particular places, cultural traditions, and culinary preparations. We don't want any more of our food history and favorite local flavors to slip away, as if they could simply be replaced by some facsimile cheaply grown or made in China or Chile, at the same time homogenizing the regional culinary differences that make travel and discovery such stimulating and pleasurable experiences. To advance this food restoration work, we collectively brought to the table our skills as chefs, ecologists, ethnobotanists, folklorists, oral historians, writers, photographers, activists, eaters, and chile addicts. We hoped to model a collaborative approach to culinary conservation, forming a functional squad of gastronauts that could explore some hot spot to listen and to learn what folks thought about the dynamic relationships among shifting weather, pepper production, and chile-tinged cuisines.

Of course, we could not always be sure which apparent shifts in weather patterns or catastrophic events were tightly linked to long-term climate change. In fact, the tightness of linkages between certain plausible causes and their presumed effects in the climate change arena were being not only scientifically challenged but hotly debated during the very months we began our odyssey. We had begun our fieldwork together just prior to the International Conference on Climate Change held in Copenhagen in the early days of 2010.

Even before we left on our spice odyssey, we knew very well what the prophetic voices like those of Al Gore and Bill McKibben had warned about impending climate change, as well why naysayers like Rush Limbaugh and David Bellamy were skeptical that such changes were truly evident. We were appreciative of how Anna Lappé had been working to alert everyone from iPodded students to TV-watching couch potatoes that "the climate crisis is at the end of your fork" through her proposing a *Diet for a Hot Planet*. But we were also painfully aware that the American Farm Bureau Federation's President Bob Stallman had come out against climate change legislation, drawing a line in the sand between his membership and activists concerned with the way certain

industrial agricultural practices may be aggravating global climate change:

> A line must be drawn between our polite and respectful engagement with consumers and how we must aggressively respond to extremists who want to drag agriculture back to the days of 40 acres and a mule . . . At the very time when we need to increase our food production, climate change legislation threatens to slash our ability to do so. The world will continue to depend upon food from the United States. To throttle back our ability to produce food—at a time when the United Nations projects billions of more mouths to feed—is a moral failure.

Who we had *not* heard from in a satisfactory way were the people who stood to lose the most from radically shifting weather patterns, which appeared to be increasing the severity and/or frequency of hurricanes, floods, and droughts, whatever their immediate causes. They were North America's own farmers and foragers, its chefs and cooks—folks from all the walks of life that bring us our daily bread, our daily tortillas, and, of course, our daily salsa. Although the Farm Bureau calls itself the Voice of American Agriculture, we wanted to hear the diversity of voices on the land that national organizations often fail to listen to let alone represent.

Some farmers, we had heard, didn't waste much time debating what the causes or rates of shifting weather patterns were—they were too busy trying to adapt their crops and farming practices to respond to altogether unprecedented conditions. We had a sense that they did not see themselves as potential *victims* of either climate change or government programs to slow it. Instead they saw themselves as actual *problem solvers,* actively experimenting with ways to mitigate or adapt to changing conditions, just as they have always had to do as farmers.

Nevertheless, many farmers, food distributors, and chefs were will-

ing to admit that they are facing an unprecedented level of uncertainty in their businesses, and some of that uncertainty is directly related to global weirding. Many of them agree with what Kerry Trueman once wrote in the Green Fork blog: "Whatever you want to call it, it's real, so the sooner we stop dithering and start taking meaningful steps to halt climate change, the better our chances of avoiding its most catastrophic consequences."

Those consequences will not merely be *physical* challenges to their making ends meet. As the farmers and fishers who survived Hurricanes Katrina and Rita learned, those disasters had economic, ecological, emotional, social, spiritual, cultural, and culinary dimensions to them as well. Whether perceived as being triggered by human-made, natural, or even supernatural causes—or a mix of the three—the farmers, gardeners, and chefs we spoke with were already feeling some effects that were keeping them from doing business as usual. We met them in their fields and kitchens, not to pass judgment on the extent to which they accurately understood the causes of climate change, but to hear their own stories of how they were already grappling with and adapting to the effects of wildly fluctuating weather, water availability, pestilence, and plagues.

It was a fairly simple idea: *to listen*. We wanted to listen firsthand to the seldom-heard voices in our food system, rather than taking what bureaucrats in the USDA or the Farm Bureau were saying as the gospel truth. We wanted to see with our own eyes how farmers, farmworkers, food marketers, and chefs were already responding to variations in rainfall, temperature, the duration of the growing season, the frequency of hurricanes, tornadoes, hailstorms, and floods, as well as the movements of insects, viruses, and bacteria. All of these factors directly affect our food supply, and, ultimately, our food security and capacity for survival.

We had a hunch that climate change wasn't just *out there*—in the polar ice caps and in receding glaciers—but *in here,* in our food system, in our daily bread as well. Farmers and gardeners are well aware of the signposts pointing to shifting weather patterns, and they are seeing those signposts in the fields, fisheries, and fencerows of our nation, in our

community co-ops, cafés, and cultural festivals; in the calories, colors, and chemicals of the food we set on our tables that nourish our families.

Perhaps we were stumbling upon an altogether different approach to climate change than the one taken by scholars, bureaucrats, and politicians. Our view of the dilemmas we are facing was not so much filtered by a particular ideology, nor limited to any discipline, as it was focused on a particular crop and the many human hands and minds that brought it to our tables. Because the diversity of the foodstuffs that humans eat is mind boggling, it would become impossible to discern any pattern of change if we simply jumped from one food to another—from fish and fowl to fava beans, farina, and fennels. Instead, we chose to stick to chiles and, in particular, to use the somewhat translucent pods of place-based heirloom peppers as the lens through which we would examine a world in change.

So why chiles?

Well, as previously mentioned, the three of us happen to be quite fond of the hot little suckers, but perhaps our predilection for pungency was beside the point. Our professional training had made us well aware of the fact that chile peppers are among the world's most widely used crops, serving prominently and variously as spices, condiments, and vegetables in many cultures and cuisines. Not only that, but chile peppers had already survived several earlier bouts with climate change over the millennia. Archaeologists suggest that indigenous peoples of Mexico have been managing and harvesting, cultivating, and consuming chile peppers under shifting climatic regimes for upward of nine thousand years. This places them among the five oldest-known fully domesticated crops in all of the Americas.

Linguists suggest that, thirty-two hundred years ago, domesticated chiles had joined maize, magueys, and squashes in the gardens, songs, and stories of the ancestors of the Zapotec, Mixtec, and other Mesoamerican peoples. Over the last few thousand years, these initial crops of the Americas have had to adapt both to natural changes in the climates of their places of origin, as well as to their cultural diffusion and cultivation in altogether different climates and farming systems from the ones

they first found in the heartland of their domestication. From Mexico, the seeds of chile peppers were first passed to other Mesoamerican and South American cultures, then to those in the Caribbean.

By comparison, the cultivation of chile pepper in the "Old World" or Eastern Hemisphere has had a relatively short history, barely half a millennium. Chile peppers were unknown to the Old World until Columbus brought them to Iberia in the early 1500s. Soon after Columbus, Portuguese, Jewish, and Arab traders brought them to Africa, the Middle East, and South Asia. Since these relatively recent introductions, the diffusion and adoption of chile peppers in other lands has been rapid, for they are now cultivated and consumed on all six inhabited continents. Indian, Thai, Indonesian, Syrian, and Szechuan cuisines have especially embraced the chile pepper and incorporated its characteristic spice and heat as a main part of their dishes.

The chile has become so intertwined with a number of local cuisines that they have appropriated and developed their own varieties and their own ways of preparing or processing the chiles. Some of these examples include Hungarian paprika, the Aleppo or Halaby pepper, the Spanish piquillo pepper, the Thai pepper, and on and on. Globally, more than twenty-five million metric tons of chile peppers are harvested each year for consumption, with China, Mexico, Turkey, Spain, and the United States currently leading the world in both production and consumption of fresh chile peppers.

Spice, vegetable, condiment, colorant, medicine, pest repellent, preservative, weapon—the chile pepper has taken advantage of the various opportunities to accommodate humankind's different needs and gustatory desires. These diverse needs, and the diverse environments where humans live, have given rise to the innumerable varieties of peppers that populate the global landscape.

And yet, what better place to launch our spice odyssey than in Mexico, the motherland of at least three of the domesticated chile species, where wild chiles not only still grow in the sierras, but are still eaten, and still lauded in indigenous songs, stories, sayings, and other cultural lore?

Of course, it was not simply the survival of these diverse species and varieties of chile peppers that interested us, but the survival of time-tried relationships among crops, cultural communities, and their cuisines. As we were soon to see, the piquancy, pungency, and plurality of chile peppers have somehow become reflected in certain people's identities. Peppers are certainly more than mere food; they are also part digestive catalyst, part medicinal miracle worker, and part spiritual cleanser. Chiles even inspire a certain tribal devotion, so to speak, with cultures as disparate as Mayan and Florida Cracker proudly promoting their native chile pride. Their use in most cuisines has little to do with the calories they offer to a meal, and more to do with pleasure, stimulation, well-being, and excitement.

It's time for us to launch this little adventure, so let's all head out into the hot spots of the Americas to get a taste of what is happening with our changing world.

CHAPTER ONE

Finding the Wildness of Chiles in Sonora

WHEN WE CROSSED the US–Mexico border into the *estado de Sonora,* we could feel something different in the landscape. It was especially visible along the roadsides, a feeling that was palpable in the dusty air. Less than half an hour south of Nogales, Arizona, we began to see dozens of street vendors on the edge of the highway, hawking their wares. There were fruit stands, ceviche and fish tacos in seafood carts, tin-roofed *barbacoa* huts, and all sorts of garish concrete and soapstone lawn ornaments clumped together. Amid all the run-of-the-mill street food and tourist kitsch, we sensed that we might just discover something truly Sonoran.

Dozens of long strings of dried crimson peppers called *chiles de sarta* hung from the beams of the roadside stands, ready for making moles and enchilada sauces. Hidden among them were "recycled" containers used to harbor smaller but more potent peppers: old Coronita beer bottles and the familiar curvy Coca-Cola silhouette filled with homemade pickled wild green chiltepines. These were what we sought—little incendiary wild chiles, stuffed into old bottles like a chile Molotov cocktail and sold on the street.

They signaled to us that we had come into what the likes of Graham Greene and Carlos Fuentes have described as a truly different country—the Mexican borderlands. It is as distinct from the rest of Mexico as it is from the United States, for the borderlands have their own particular food, folklore, and musical traditions. This is a country where a beef frank wrapped in bacon can become a "Sonoran hot dog"—with jalapeños, refried beans, *crema*, and fiery-hot salsa soaked into a soft-textured roll—and where ballads are sung about rebels and renegades, both those of the past like Pancho Villa and those of the present like the *narcotraficantes* of the Sinaloan drug cartel. It is place where preservative-laden ketchup is frowned upon, and where freshly mashed salsas are nearly as common as water.

We were after the first and most curious of all the North American chile peppers, the chiltepin—the wild chile pepper of the arid subtropical sierras. It remains one of the true cultural icons of the desert borderlands, a quintessential place-based food, for it is still hand-harvested from the wild. Chiltepines are associated with human behaviors that are considered both sacred and profane. On the one hand, they are deified in an ancient Cora Indian creation story, and relied upon in Yaqui and Opata healing and purification rituals. On the other hand, they remain the favored spice in Sonoran cantinas and cathouses.

As to their own behavior, wild chiltepines are a fickle lot. They camouflage themselves and hide deep beneath the thorny canopies of hackberry bushes and mesquite trees, daring us to come after them and shed some blood. Exasperated, some Sonorans have tried to take them out of the wild and domesticate them. They have tried to cultivate them in drip-irrigated, laser-leveled fields, but they have had little luck taking the wildness out of this chile. In the US Southwest, the great demand among Chicanos for their unique flavor has created a market scarcity of the chiltepin. This has pushed prices up above sixty-five dollars per kilo in *mercados* on both sides of the border.

The difference in flavor and kick between the wild chiltepin and its domesticated brethren is much like the difference between Sonora and the rest of Mexico. Perhaps it is the potency of the desert itself that

is expressed in the *terroir* of the chiltepin. Or maybe that potency is because it is truly a food of the *borderland—verdaderamente de la frontera*—a place so filled with environmental, political, and mythical juxtapositions that it has fire-forged certain inimitable characteristics in the Sonoran psyche. A disproportionate number of Mexico's revolutionaries, rebels, presidents, dissidents, and saints have come from *el estado de Sonora,* a state of mind as much as a geographic one. No doubt, they were all eaters of the chiltepin, a food that the inimitable Dr. Andrew Weil once declared to be *psychotropic.* Perhaps in Sonora, you are really not *what* but *where* you eat.

The chiltepin is small but as fierce as the desert sun blazing on a summer day. Compared with other, bigger, but watered-down versions of peppers, it packs a terrific punch of pungency per unit ounce. And yet its fire quickly burns out; you are left with a lingering taste of minerals, the thirsty desert earth itself.

It is remarkable that the chiltepin remains one of few wild foods harvested in North America that grosses well over a million dollars in the international marketplace in a good year, for the chiltepin crop is very vulnerable to the vagaries of a harsh and variable climate. For us, Sonora's stressed-out patches of wild peppers were the perfect place to make our first "landing" of our spice odyssey.

And so we careened off the highway pavement and into the desert's dust, where a dozen roadside stands presented themselves on the edge of a Sonoran farming village named Tacícuri. That term is an ancient Pima Indian word for the wild pig-like peccaries known in the Sonoran Desert as javelina. Yes, there were still plenty of javelina, rattlesnakes, and Gila monsters in these parts, but that was not why we slid to a halt before this makeshift marketplace. It was the stunning sight of those six-foot-long strings of red-hot chile peppers that suggested chiltepines might be hidden nearby.

We piled out of our van (which we had long since christened the Spice Ship) and stood there amazed by all the paraphernalia, guaranteed to dazzle any spice lover. Not only were there dozens of fire-engine-red *sartas* strung with hundreds of long chile peppers, there were bottles and

bags and baskets and bins full of other chiles as well: *chiles del arbol,* serrano chiles, jalapeños, and chiltepines. There was enough heat on that roadside to cause a nuclear summer if all of the fiery capsaicinoids in those fruits were ever ground and instantaneously let loose into the desert air.

"We have *arrived,*" Gary said to Kurt, who was on his maiden voyage into the deserts of Sonora. Gary had spent most of his "adulthood" in the Sonoran Desert—if in fact he had ever grown up at all—so he was serving as our host for this leg of our journey. However, Kraig was at the helm, for he had recently surveyed most of Mexico on his own, searching for the origins and domestication of chile peppers. Once out in the desert sun, Kraig took Kurt along to rattle off the local names for certain shapes, colors, and sizes that described particular varieties. As a seasoned chef, Kurt knew many of these variants, but by names somewhat different from those used in Sonora.

"Take one and grind it between your fingers," Kraig demonstrated to Kurt, showing him how the locals put dried chiltepines in their food. "Just don't rub your eyes afterward!" Kraig added.

"And remember to wash your hands *before* you visit the *letrina,*" Gary interjected, with a wry smile and an exaggerated gesture toward a nearby outhouse.

Kurt eyed the two of them with a look that said, *I'm not the rookie you take me for.* He had handled far too many peppers in his twenty years as a chef to be vulnerable to that kind of calamity anymore.

Of course, there was more for us to look at than just chiles: huge bins packed full of pomegranates and quinces; monstrous piles of striped cushaw squashes; and coolers full of local cheeses called *queso asadero* or *queso cocido.* The cornucopia of the desert stood before us in all its ragtag splendor.

At the same time, we noticed something peculiar: We were looking at what remained of last year's chile crop, not any harvest gleaned from this year's production. Chiltepines are only harvested during a four-week-long window that shifts some from autumn to autumn, for the peak in their fruiting is triggered by the timing of the midsummer rains. The vendors made it clear to us that this year's crop was coming

in late—if at all—and would certainly be modest in scale. No bounty would suddenly appear here; the vendors were getting by with only the saddest remains of last year's harvest to sell. Normally a brilliant crimson, these dried chiltepines had lost a bit of their luster and their color had faded, as if they were sun-bleached.

Yes, the Sonorans reluctantly conceded, this summer's monsoons had not been as heavy as they had hoped. Hearing the vendors hint that this year's outlook might be dismal, Gary's face began to reflect concern that this might not be the best season to introduce Kurt to the wonders of Sonora's wild foods. He would soon ask some old Sonoran friends just what was going on, and he would get an earful.

After buying chile peppers great and small, all of the gastronauts got back into the Spice Ship, which shortly veered off the main highway and hung a right onto a winding country road that landed on the plaza of the pueblo of San Ignacio. There, an ancient mission still stands tall above the surrounding orchards of quince, pomegranates, figs, and limes. First built in 1687 by Jesuit missionaries, who called Sonora "an altogether blessed country," this very mission of San Ignacio had once hosted a grumpy German priest named Ignaz Pfeffercorn. When his Pima Indian neighbors decided to play a prank on old "Padre Peppercorn," exposing him to a little green chiltepin in the early 1700s, his very first bite immediately convinced him that he had experienced hell itself. Padre Peppercorn wrote the priests in a nearby parish that he had been seduced into sampling a culinary surprise that the others might wish to try only with their eyes wide open:

> A kind of wild pepper which the inhabitants call *chiltipin* is found on many hills. It is a bit more bitingly sharp than the [black pepper], yet it is manna to the American palate, and is used with every dish with which it harmonizes . . . I tried for the first time to still my hunger with such a dish. After the first mouthful the tears started to come. I could not say a word and believed I had hell-fire in my mouth. However, one

> becomes accustomed to it after frequent bold victories so that with time, the dish becomes tolerable and finally agreeable.

Pfeffercorn did at least recognize that his Pima hosts fondly regarded the same little green, immature chile fruits—the size of peas or capers—with exceeding pleasure, not anguishing pain. Without revealing Pfeffercorn's experience some 250 years prior to the arrival of chef Kurt Friese in the very same place, Kraig and Gary watched him with morbid fascination as their sidekick took his first culinary communion in the land of where chiles run wild.

Yes, they immediately noticed the cooling sweat pooling on his brow. Yes, they recorded a prolonged moment of silence, then an anguished cough. Yes, indeed, Chef Kurt had been rendered utterly speechless by his first close encounter with wild chiles on their native turf. The inevitable smile soon followed.

When we stopped to park the Spice Ship on the plaza opposite the mission, a friend immediately forewarned us that we were wanted in two places at once. Gary had come down to San Ignacio the week prior to the group's arrival, to alert several families to our group's odyssey, and all were now awaiting us. It was on that pre-trip that Gary had first heard about the magnitude of the summer drought and the toll it was taking on all perennial crops, both wild and cultivated.

One of the ladies-in-waiting was Doña Chata Gallego, a spry, ninety-one-year-old quince paste maker. Hardly eighty pounds soaking wet, with thin gray hair neatly trimmed into a style vaguely reminiscent of a pompadour, Doña Chata was still in control. A week earlier, she had Gary escort her into her backyard to show him an entire tub full of mottled, misshapen quince fruit, scarcely half the size that he remembered from the best years. She had picked up one of the smallest fruits then thrown it back in the bin, unable to hide her disgust and frowning like a sad-sack clown.

"What's going on, Doña Chata?" Gary had asked her in Spanish. He was there to listen, and listen he did.