

Desert Sage

An Interview with Gary Nabhan

by T. Stone

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Gary Paul Nabhan is one of the premier science and nature writers of the American Southwest. He's written or edited over 35 books, mostly on the subject of arid-land farming, indigenous culture, and food production. He is an integral part of the lineage of Southwest writers which includes Charles Bowden and Edward Abbey. But it's not just writing he is known for.

Nabhan was born in 1952, and grew up in Gary, Indiana. He earned a BA from Prescott College in '74 and a Ph.D. from the University of Arizona in Ethnobotany in 1982. Besides writing popular books such as *Gathering the Desert*, *Enduring Seeds*, and *Where Our Food Comes From*, he also helped write a political/environmental statement in collaboration with ranchers and environmentalists called *An Invitation to Join the Radical Center* ("One of the things I am most proud of."), which you can find online.

He has worked at the Arizona-Sonoran Desert Museum, served as Director of the Center for Sustainable Environments at NAU, and was an Associate Director of Research and Collections for the Desert Botanical Garden. (He even spent a short time, in his early days, volunteering at Boyce Thompson Arboretum!) Gary also cofounded *Native Seeds/SEARCH* and is currently Senior Contributing Editor of the regional magazine *Edible Baja Arizona*. He has volunteered much of his time in helping various food-related organizations around Tucson.

Dr. Nabhan lives atop a soft-spined hill near the town of Patagonia, Arizona. He owns more than 5 acres of land, with greenhouses, garden, and 150 fruit and nut trees. He considers this an experimental farm and has named it "Almuniya de los Zopilotes", translated into English as "Private Experimental Farm of the Turkey Vulture." A painted steel sculpture of a vulture perches beside his winding driveway. On the April day that Lori Coletta and I visited there, it was quiet, with only Gary at home fielding a few phone calls. With its open courtyard and myriad plants, his home felt like a cloister—comfortable and with an atmosphere conducive to introspection. Gary was kind enough to invite us to lunch. He made tortellini with red sauce and we shared a salad freshly picked from his greenhouse. After lunch, I asked him a few questions.



Q: Your life started in Gary, Indiana and you've ended up in southern Arizona. How did that happen?

A: I was fascinated from the very first time I saw the southwestern deserts; I thought that they were calling me. And because I grew up in the Indiana dunes, I sort of allied myself with open spaces, not forests. Also, scientifically, the plants here interested me. How do desert plants live in harsh places with low soil fertility, winds, and high surface heat? It wasn't that big of a leap going from being a sand dune junkie to being a desert rat.

Q: There are sand dunes in Indiana?

A: My family lived right in Indiana Dunes National Lakeshore. When I played hooky from school, I would hang out in the sand dunes along Lake Michigan. I once followed an old shoreline map drawn up by the naturalist Donald Culross Peattie and hiked along the dunes on consecutive weekends from downtown Chicago all the way up into Michigan. By the way, the first articles in the United States that used the term "ecology" were written about the Indiana Dunes.

Q: Is there a connection between your Lebanese heritage and the Sonoran Desert?

A: I have a strong identification with the early explorers of Arab descent who came to the Southwest. Keep in mind that an Arab-speaking Moroccan called Estevanico was with



Cabeza de Vaca in the European discovery of the North American deserts in the 1530s. I've gone back to Morocco and traced the history of this one man. He was sold into slavery as a child to the Spanish and was so good at learning languages that they took him on this voyage thinking that they would run into languages spoken in Africa or the Americas that he could help translate. When Cabeza de Vaca and a few of his men, including Estevanico, got lost in the southwest desert wilderness, they had to survive for eight years. Because Estevanico lived as a child in the Moroccan deserts, the knowledge he had about desert plants was helpful to the survival of the Spaniards. I'm also interested in Hadji Ali, one of the Middle Easterners who brought camels to Arizona. On top of that, nearly every one of the border towns from Brownsville, Texas to Tijuana has been dominated by Lebanese and Jewish traders. In the 1880s-1890s, both from the Mexican side and the U.S. side, Lebanese and Syrians gravitated to the border because they were good at cross-cultural trade. There are a number of old Lebanese and Syrian families in Globe and Superior as well.

Q: What were their particular trades?

A: A lot of them were grocers, like Eddie Basha's grandfather, who came to the U. S. from Lebanon in the late 1800s. Kalil Bottling Company was started by another

Lebanese family. The town in Organ Pipe National Monument called Lukeville, was originally called Kalilville.

Q: What did your dad do?

A: He worked for my grandfather in the fruit peddling business in Indiana until he broke his leg trying to push a truck out of sand. He became a minor politician—a city council chair in our hometown. He was also a salesman like many Lebanese were. But he didn't farm. I wish I would have learned directly from my grandfather who knew a lot about farming.

Q: What would you say the desert can teach us about sustainability?

A: Americans have had this heady notion that we are above having to deal with the inherent constraints of a place and that technology can always fix any scarcity we see before us. Ours is one of the countries with the most fertile soil and abundant water supplies in the world and yet we are now facing water scarcity and soil depletion. From World War I, when we started pumping water with mechanical pumps in Arizona, to the last few years, we have treated water as limitless, but now water scarcity is forcing a restructuring of both California and Arizona agriculture. Most traditional desert farmers around the world, rather than trying to override constraints, are masters at accepting and dealing with constraints to have productive farms.

Q: The Tohono O'odham, for example, were people who

had to live within the constraints of the desert for hundreds of years, no?

A: Their traditional crops such as tepary beans use only about a third of the water that conventional beans require. The Tohono O’odham would also locate their fields on the one to five acres amid thousands of acres where water accumulated and soil nutrients accumulated. So they were not only rainwater harvesting like Brad Lancaster and the other permaculture gurus, but they were nutrient harvesting by collecting water off mesquite dominated watersheds and allowing nitrogen-rich mulch to flow down into the fields. When I worked with that last generation of flood-water farmers who were part of a 4000 year unbroken chain of such farming—up until about 1975 or so —the soil fertility in their fields was equal to modern Corn Belt corn fields that are annually fertilized with nitrogen. In short, the Tohono O’odham selected areas where water and nutrients accumulated in little desert oases rather than trying to change the entire desert. When I was out there working between 1975 and 1985, kind of as an extension agent, I had no idea that I was seeing the end of an era. In 1935, they had 20,000 acres of flood-water farming that did not require pumping any water. By 1955 it was down to 2,000 acres. By the time I got there, in ’75, it was less than 200 acres. Now there’s between 2 and 20 acres.

Q: Why was 1975 the time when that kind of farming changed?

A: That was the end of the last generation that grew up with totally subsistence farming, before depending on surplus commodity foods that the government distributed. Old-timers said that when the government started bringing in one hundred pound bags of pinto beans, there was no longer a reason to grow tepary beans. Some of the most remarkable desert farmers in the world were dissuaded from a 4000 year old tradition by a dependency program – well intended but one we now know as being riddled with problematic cultural and nutritional effects. The Tohono O’odham—like most other indigenous desert dwellers—now suffer from a diabetes epidemic.

Q: Why?

A: Like many Americans, they suffer from an over-abundance of calories and from an absence of gut microbes because of anti-biotics. Their microbiome, which was helping them digest an incredible range of high fiber/low-glycemic foods such as tepary beans, chia seeds, mesquite pods, and prickly pear - foods that protected people who were genetically pre-disposed to diabetes – has been compromised. In the 1940s, for instance, only about 2%

of the Tohono O’odham suffered from diabetes, but by the 1980s, that disease afflicted over 50% of the adults. That’s a dramatic change. And it has been a combination of the homogenization of our diet, the loss of gut microbes, food dependency, and an economy that encourages agricultural over-production, buying the surplus and giving it to poor people. We give the Tohono O’odham gallon cans of lard, fatty beef, and sugary foods. It takes ten to fifteen years of diabetes prevention, nutrition, and exercise programs to turn things around. Programs also have to include feeling good about yourself and your culture. If you don’t feel good about yourself, your vulnerability to junk food and alcohol is enormous. You have to take a “whole person approach” to prevent diabetes. It’s not just about diet alone.

Q: What about the environmental problems and food issues associated with a world population of seven billion people?

A: We’ve grown up being taught that the best way to help the environment is to keep our hands off and lock it up so we don’t negatively impact it. Stay on the trail. Don’t taste the wild foods. But we know that the kind of environmental education that works best with our kids is having a participatory hands-on experience. I think ecological restoration is a way for us to participate in the healing of nature’s wounds. And sustainable agriculture—including getting kids involved with school gardens and community gardens and wild foraging trips—is a way to deal with society’s wounds and our food system’s wounds. Basically, when we re-engage people and they know where their food comes from, they have a new appreciation for the farmers who are doing things right and how hard it is to do that, and an appreciation for the ranchers who are trying to heal decades of over-grazing by rotational grazing. I think the solution to feeding over seven billion people is thinking about how you can get the details right in your own community while creating models that can be multiplied in other communities. In other words, we need personal engagement in the specific things that benefit both people and nature, not a lot of hand-wringing about a population of seven billion people.

Q: Would you advocate for any specific kind of diet?

A: I don’t think that there’s a “silver bullet” diet. Each culture has somewhat different needs, as do young children, pregnant mothers, and the elderly. We should give up on a one-size-fits-all miracle diet. We need to foster dietary diversity because we know we need a range of vitamins and minerals and that some of our commercial foods are vitamin-depleted and, growing on crappy soils, mineral-depleted. By having a full range of plants in our diet and a minimum of animal products—and I don’t have anything

against animal products—I think we will be better off than thinking some superfood will save us. Even the idea that mesquite, or tepary beans, or prickly pear, as “superfoods” leaves me cold because we shouldn’t deify one food above all others. We need diversity and common sense. The marketing mechanisms of the food industry love “superfoods” and quick fixes, but it doesn’t help us and it doesn’t help the land either.

Q: How about fewer calories? Americans tend to overdo their calories.

A: Yes, I prefer smaller meals with tapas and meze. And it’s great to pick things out of the garden and add the fresh ingredients to leftovers. The other problem, besides too many calories, is that we waste 40% of our food. What you are asking about is a part of the idea of voluntary simplicity that our generation has dipped in and out of over the years. Why do we want excess? It didn’t work for our parents or grandparents. Why not something simple and more elegant?

Q: We should have learned that lesson after the 1950s and 60s.

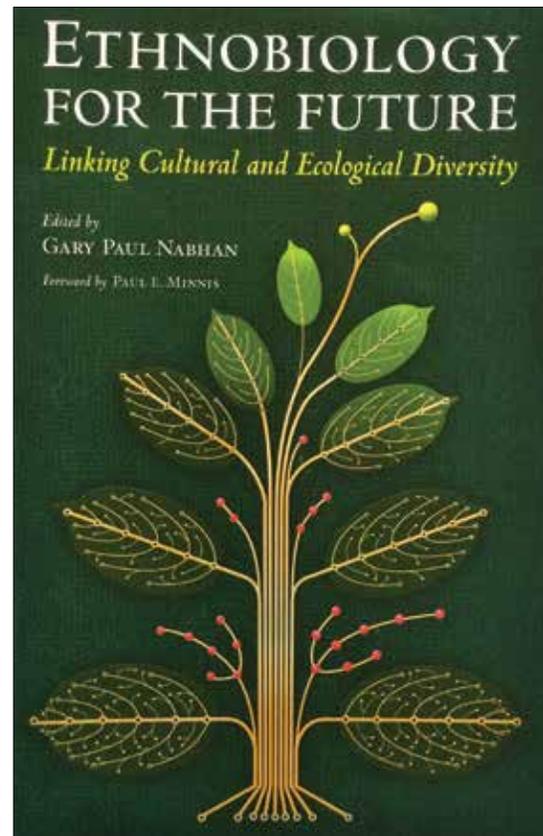
A: Just think of the advertising that tries to push people the other way. We are made to feel that we are always lacking something—conspicuous consumption taken to the max. There’s a county fair in Tucson right now and you can go there and buy deep-fried sticks of butter. People are driven towards excesses because of the media, not because of our own physiological needs. We might be better off to be hungry more hours per day.

Q: Recently, Tucson was selected by UNESCO to be the first “City of Gastronomy” in the United States. With *Edible Baja Arizona* magazine, Native Seeds/SEARCH, and the fact that Tucson straddles a crossroads of biodiversity and multiple cultures, you must feel satisfied that things are moving in the right direction in regards to community awareness and participation.

A: The most exciting thing about the UNESCO designation is that it recognizes the innovation and entrepreneurial spirit in our desert communities. There are the Tucson Originals, chefs who run independently-owned restaurants, people working to rebuild flour mills, distilleries, micro-breweries, other independently-owned food businesses throughout Arizona, non-profit organizations like Iskashitaa Refugee Network, educational institutions, and even the government all rowing in the same direction.

Q: Yes, that seems pretty rare since, these days, it appears Americans don’t want to work together.

A: Lately, what we are seeing in so many other parts of the country is divisiveness. The tone of our political debates is so divisive that even people like Barry Goldwater would have been embarrassed by the rancor and hatred. Stewart Udall once told me that when he was a congressman in Arizona, even though he completely disagreed with Goldwater on certain issues, they would still golf together once a week and would have a luncheon each week with the entire Arizona delegation to see how they could collaborate on getting things done for Arizonans. People don’t even talk across the aisle anymore. When it comes to the environment, I think that collaborative conservation works far better than confrontational politics. We need to heal the rancher/environmentalist divide, the urban/rural divide, and the left/right divide. Whenever we walk towards the middle and try to understand someone else’s needs that are different from our own, we become better people and together get a lot more done. That’s what most Arizonans want—tangible benefits, not “holier-than-thou” posturing. There’s too much at stake.



Nabhan’s most recent book.