THE CULINARY REVOLUTION

The small port of Dire on the Niger River lies at the southern edge of the Sahara. In this part of the desert, temperatures easily reach 130 degrees Fahrenheit in the summer and at night barely dip below 100 degrees. Very little rain falls in the best of years, and some years see no rain. Severe dust storms harass the area at the end of the long, dry winter and turn day into virtual night. In April, even in years with good harvests, the young children, the elderly, and the weak start dying from malnutrition; in the years of drought, otherwise healthy people also die from starvation.

The mud houses of Dire surround a small mud mosque and a large market square filled with blue-veiled Tuaregs on their camels and with southerners who have ventured north to trade millet, wheat, and firewood for the slabs of Saharan salt and the dried dates of the nomadic Tuaregs. On a trip there I stayed in the home of one of these southerners, a successful Bambara merchant called Mamadou. He owned several small shops and ruled a large family compound. Behind unadorned and windowless walls of mud guarded by a thick metal door with locks the size of coconuts, his family occupied a dozen rooms, all of which opened onto a central courtyard. The courtyard contained a deep well, a squat privy in one corner, a kitchen and washroom, two

male goats, and several large barrels of kerosene and gasoline, as well as storerooms of food and other merchandise.

Mamadou lived with his two wives and ten children as well as a woman and child euphemistically called servants in English, but belonging to a hereditary class of serving women usually called captives or slaves, although such terms are now frowned upon by the government. Even though the merchant speaks Bambara, Arabic, and French creole, as well as several local dialects, he remains unschooled and illiterate; clerical work is beneath his dignity as a successful merchant. He depends on a neighborhood youth to read him the occasional letter, government notice, or invoice that he receives.

Moroccan blankets striped in bold bands of green, yellow, and red decorate the floor in the main room of his compound. A foam-rubber mattress lies shoved into one corner piled with dirty clothes, and a single chair rests in another. In this room Mamadou entertains the frequent guests who come to trade with him. He serves them coffee or tea, feeds them, and, if they wish to stay the night, offers them the mattress in the corner. One evening when a friend and I were there with an Arab merchant from Timbuktu and his two Songhai assistants, we were all entertained in the traditional and lavish style of desert hospitality. The evening began when the women brought in a kerosene lamp and buckets of hot water, and each man in turn stepped into a small alcove to wash the dust and grime of the Sahara from his body. After all the men had bathed, the women returned with a large pot of goat meat and seven loaves of long bread. The host broke the bread and handed each guest half a loaf, and the men drew in around the communal pot and began to dip small chunks of bread into the spicy sauce, taking care not to get any of the food on their fingers. The host then fished out fatty pieces of goat that he fed to each of us in turn. A pot of sliced tomatoes with green and red bell peppers followed the meat dishes, and the meal ended with coffee thickened with sugar to the consistency of syrup. After this the men burped loudly, and one by one rolled over and went to sleep for the night as the women silently entered to remove the debris of the banquet from among the snoring men.

This scene could have happened almost as easily a thousand years ago as today. The villages that cling so precariously to life

on the edge of the Sahara have barely altered their mud-brick architecture, their monotonous life, and their strict adherence to Islam. One of the few changes in recent centuries was the seemingly modest one of incorporating a few new spices and vegetables into their diets. The goat served us by the merchant was a traditional desert dish but had been cooked with a peanut sauce flowered with red chili peppers, and the vegetables were mostly peppers mixed with tomatoes. All of these are American Indian vegetables that have made their way around the world even into the most remote corner of the Sahara since Columbus's first voyage.

Unfortunately for accurate tracing of culinary history, much confusion surrounds the name "pepper." Prior to Columbus, the only known pepper was the black powder made by grinding the dried berry fruit of the plant *Piper nigrum*. If the outer shell of this fruit was removed before grinding it, the pepper would be white. Sometimes the category of pepper included other types of *Piper* such as cubeb, betel, and kava, but these plants were used more for their pharmacological and narcotic properties than for flavoring food and never found much of a market in Europe.

When Columbus arrived in America, thinking that he was in the East Indies near the Spice Islands, he erroneously called the natives Indians and assumed that if they were Indians then they must be flavoring their food with pepper. In fact, the Indians were using various forms of a completely unrelated plant, *Capsicum frutescens*. The fruits of this plant ranged from dark greens through bright oranges, purples, and yellows. Some were round, some oblong, some shaped vaguely like bells, and some the size and shape of small tears. Like the word "Indian," which today must do double duty to represent people in Asia and America, the overburdened word "pepper" must represent both a small Asian berry and a whole family of unrelated American fruits.

The importance of the American Indian peppers and tomatoes appeared much more poignantly to me in another part of Africa. On the island of Zanzibar in the Indian Ocean off the coast of East Africa, I spent a long, hot day wandering through rural villages looking at the deteriorating coconut and clove plantations after the government had seized control of the land and bungled

efforts to collectivize it. The market disappointed me, because it offered only a meager display of fish and a few high-priced vegetables. This contrasted greatly with the busy and prosperous markets that I customarily encountered in tropical places.

During the day I visited with villagers who drank strong coffees and tea sometimes laced with coconut cream and served with pieces of ripe jackfruit. The simple foods of the natives of Zanzibar stood in stark contrast to the dishes I saw later in the island's only hotel. Built in the international style of the 1970s, this hotel played host to a handful of European tourists, a team of Chinese who were in Zanzibar to teach rice cultivation, some Indians who were helping to build a shoe factory, and some government officials. The cavernous dining room that usually fed less than two dozen people during my stay there offered international specialities such as lasagna, steak and potatoes, tomato bisque, and local seafood curry topped with cashews. After the meal, waiters brought over large trays of tempting desserts that included freshly sliced pineapples, bananas, and papayas, as well as rich Black Forest tortes, any of which could be served with vanilla ice cream or whipped cream.

Aside from the incongruities of dining on such luxurious food in the midst of a supposedly socialist economy where many of the people were underfed and malnourished, another irony struck me. As a part of "international cuisine," each of the dishes was easily recognizable as the national or regional dish typical of one place in the world. The lasagna came from Italy, the curry from India, the torte from the German-speaking parts of Europe. The ice cream was in the style known as "French vanilla," and the fruits were the generic tropical fruits that I have eaten everywhere from the Caribbean to Bali. What struck me at that moment, however, was that even though none of those national cuisines was based on an American Indian staple, all of them had been built around American Indian foods.

American foods did much more for the world than merely provide a bonanza of calories and new crops for fields that had been only marginally productive in the past. American food and spices made possible the development of national and local cuisines to a degree not previously imagined.

This is shown quite clearly in the curries of India. The basic ingredients of rice, coconut, and vegetables are traditional Eurasian foods, as are some of the spices, such as cumin, turmeric, and coriander. Some of the most distinctive tastes of the curries, however, come from the chilies used to spice them. The cooks of India and Sri Lanka adopted the hot peppers and cayenne very quickly and assimilated them into their curry sauces to supplement their tangy black pepper and ginger. Because of the Hindu and Buddhist bias against eating meat, the cooks of India and Sri Lanka had a keen eye for new vegetable dishes; consequently they quickly incorporated the American tomato and potato into their cuisine, as well as the peanut and the cashew.

The Asian Indians have carried these spices on around the world as they migrated with the British to South and East Africa, England, and even back to the Americas, where they settled in great numbers in the British islands of the Caribbean and in Guyana on the South American coast. Even though the style of cooking is uniquely Asian, many of the ingredients are typically American.

American spices made a much more modest impact on Korea, Japan, Mongolia, and northern China, but the southern Chinese embraced the chili quite fondly. The Portuguese probably introduced most of the new American foods through their Chinese colony of Macao. With these new spices and foods the city of Canton, upriver from Macao, quickly became known for having the best cuisine in China. The inland provinces of Szechuan and Hunan, lacking the delicate variety of the cuisine of all the seacoast provinces of China, found in the chili a dietary diversion. Chilies became essential parts of Hunanese and Szechuan sauces and elicited new flavors from the traditional vegetables. The Chinese also found a variety of ways to mix the chilies with a few other sauces and oil to make a sauce that could be preserved and used any season of the year.

The Chinese shared the Indian fondness for the peanut, which quickly found a place in a range of meat and vegetable dishes. The Chinese also transformed the new sweet potato by making it into very delicate noodles that rivaled wheat noodles in popularity.

South Asians traditionally combined elements of both Chinese and Indian cooking to make their own cuisine, and they too borrowed heavily from the new American ingredients, particularly peanuts, chilies, tomatoes, and some of the fruits. Often each province selected a particular pepper as a favorite, and depending on the local growing conditions and practices, this created a diversity of cooking styles. In Thailand the population favors a very small orange pepper that they call *prik kee nu luang*, and it is one of the world's most powerful chilis. The Thais also use chilies with vinegar to make a common sauce, *nam som*, that can be used to flavor almost any dish. In addition, cooks often add dried chili flakes, called *prik kee nu bon*, before the dish ever comes to the table, and diners add more to suit their own tastes.

In Bali, the Hindu island in Indonesia, the preference is for milder chilies that the Balinese often grind with shrimp into a paste to which they add lime juice. Called *sambal*, this sauce is commonly added to all types of rice dishes. Another favorite sauce uses peanuts, to which the chilies may be added or not as desired. Peanuts are also used to make *rempeyek*, a favorite type of crisp cookie. It is in the use of American fruits, however, that the Balinese most deviate from western tastes. They make the American passion fruit into a liqueur called *markisa*, and they mix American avocados with rum, coffee, and sweetened milk to make a milkshake.

American spices and condiments had an even stronger impact on the diets of Europeans. Prior to the introduction of American tomatoes and sweet peppers, the Italians endured a dreadfully dull diet. Cooks had few choices of sauces to ladle onto their hundreds of varieties of pasta. Affluent diners had meats and gravies flavored with black pepper. The less affluent had cheeses and cream sauces; the poor had a few herbs and vegetables. Spaghetti with carrot sauce or lasagna made with beets lacked the sparkle of their contemporary counterparts.

With the arrival of the first foods from America, Italian cuisine exploded with new ideas, and the tables of rich and poor alike groaned under the weight of many marvelous new dishes. Yellow, orange, green, and red tomatoes from cherry to almost melon size

and in round and oblong shapes found their way into the Italian kitchen to be pickled, sliced, chopped, diced, dried, puréed, and made into hundreds of sauces. The Italians added as diverse a set of American sweet peppers, varying in more sizes and shapes than the tomatoes and named bell, banana, and cherry peppers because their shapes reminded the cooks of something already familiar to them. With virtually no other ingredients, the Italians had the perfect sauce for spaghetti, ravioli, lasagna, and a host of other noodle dishes, as well as for meats.

In addition, the Italians liked at least one of the American squashes. They adopted the long, thin, green one and called it *zucchini*, the diminutive of the Italian *zucca*, "gourd." And they added a few American beans to their diet, including the green bean and the kidney bean. These beans and peppers along with broth and some noodles became the standard ingredients in minestrone, the unofficial national soup of Italy.

The Spaniards also took the tomato and the pepper back home. They used it in very different dishes, such as gazpacho and other soups as well as sauces for meats, but without the flair of the Italian cooks. They also added beans and some potatoes, but overall the impact of the foods that they themselves discovered seem to be less on their own diets than on the diets of other Europeans.

Many eastern Europeans liked the sweet red peppers ground into the fine powder known as paprika. Particularly in Yugoslavia and Hungary this became a favorite spice for stews. Goulash without paprika would be virtually unthinkable, and different districts of Hungary developed their own particular blend of peppers to make just the right paprika. Paprika became the premier spice of choice in Hungary, making it almost an essential feature of Hungarian cuisine.

Never noted as good cooks, the British managed to take some of the most delicious of American foods and render them bland and unrecognizable. The potato was mashed into a purée and then baked with meat to make a dish called shepherd's pie, a plebeian imitation of Beef Wellington. The British also stuffed the potato along with a few meager spices and some occasional meat or fish into a baked dough shell to make what they called a "pasty." Other cooks chopped the potato into hunks and fried

it to serve it together with hunks of fried seafood, thereby making fish and chips, one of the country's most noted dishes. They took the American bean and served it over toast, making it not only more bland but dry as well. The uses that the British made of American foods lend credence to the oft-cited claim that English cuisine is an oxymoron.

The tomato encountered resistance in the north, which had all the vitamin C it needed in the new potato. Even today, northern European cooks use the tomato primarily as a garnish when it is in season, in contrast to the Mediterranean cooks, for whom it is a virtual staple used as much in the winter as in the summer.

The French did not seize on any one particular food, but they did integrate the tomato, potato, string bean, and several other beans thoroughly into their diets. Unlike the Italians, who fondly embraced the new American foods, the French, particularly under the influence of the Médicis queens, developed a new cuisine that combined traditional European foods with a variety of new spices and foods from Asia and Africa as well as from America. Despite these innovations, the French have long had a grave mistrust of foreign influences on either their language or their food. By and large they consistently preferred mild flavors based on dairy products, the residue of fat left after cooking meat, and wines or vinegars. To these they have added mild herbs and spices but have avoided the stronger flavors so popular in the south. Many of the baked and fried potato dishes of today owe their origin to French cooks who combined them with the traditional cream sauces, cheeses, and garlic of French cuisine.

A major hindrance preventing the French and the northern Europeans from eating the chilies and pungent spices of America was their heavy reliance on dairy products. They smear butter and cheese on bread. They add milk to their soups, cook vegetables in butter, add cream sauces and cheeses to some dishes, and make milk puddings, pies, and custards. Because of their high fat content, these dishes leave a residual coat of butterfat in the mouth of the eater, and this fat destroys the taste of the chilies. For this reason, Italian cooks did not add the chili to their cream sauces; instead, they had to develop the whole new tomato base as a complement rather than as a deterrent to the chili flavor. Even though the Italians were willing to make this

modification, the other Europeans were much too dependent on dairy products to do it.

In America the importance of Indian foods continued without interruption by the European invasion. Even though the Europeans did bring bread, dairy products, and new meats with them, these only supplemented but did not replace the American diet. Instead, the Europeans learned to eat American-style. This is nowhere more obvious than in Mexico, where beans and corn continued as the staples of the cuisine. Beef replaced venison, poultry, and human flesh in many of the tacos, tamales, and enchiladas, but the dishes remained fairly much the same.

Like Tex-Mex food, most regional cuisines in the United States stand on an Indian base. The bland New Englanders did not take to Indian spices very readily, but they accepted the bean and corn dishes. Rather than sharp spices, the New Englanders preferred the sweet taste of maple sugar and syrup, particularly when made into desserts, spread over bread or pancakes, or baked with Indian beans. This dish evolved into the several varieties of Boston baked beans eaten around the country today, but in time cheaper molasses was substituted for the maple syrup. The Americans often added a slab of hog fat to the dish to make the all-American dish of pork and beans, a dish shared with no one else in the world except the British.

The Indians taught the New Englanders to catch and enjoy a number of ocean foods that they had not known in Europe. The clam ranked primary among these, even though the Puritan settlers thought it poisonous until the Indians taught them to bake the clams in an earthen oven with seaweed. New Englanders still follow this same clambake procedure today.

The Narragansets taught the colonists to boil together whole corn kernels with lima beans and some mild flavorings in a mixture the Indians called *succotash*, an agglutinated plural meaning "cooked whole grains." Another mixed pot of Indian foods was adopted by the settlers under the name *squantum*, which had been the Indian name for an outdoor feast and celebration. The Indians of New England also taught the settlers to use the cranberry, particularly to accompany the Indian turkey.

In the American south, the diet became more Indian than probably in any other part of the country. Wheat grew very poorly there, and the population adopted with great gusto the various forms of corn. From the Indians, the settlers learned to enjoy the corn on the cob, stewed, in succotash, made into hominy, ground into grits, popped as a snack, and baked into bread. The commonest form in which it was consumed, however, was fried into thick cakes much like the Mexican tortilla. This fried cornbread formed the staple of southern food among the poor classes and was called by many names, including hoecake, ash bread, spoon bread, and johnnycake (possibly from *Shawnee*-cake); sometimes it was called by its Algonquian name, *pone*. *Pone* refers to a fried bread made the traditional Indian way without the milk and eggs so often considered necessary to European breads. Only the wealthy plantations had kitchens with ovens to bake the bread in the European style with sour milk or buttermilk. This elite version is what is now commonly called "cornbread."

Indians also dropped spoonfuls of cornmeal into pots of hot bear fat to make a fried bread that later became known to the settlers as "hush puppies." The settlers gradually substituted pork fat or corn oil for the bear fat, but the dish remained much the same. The same cooking procedure with wheat dough instead of corn dough produced fry bread or Indian bread. Indians often dipped this crispy fried bread into maple syrup or dusted it with sugar to make the precursor of the modern doughnut without the hole. The southerners also became great connoisseurs of the sweet potato, which they baked and then peeled like a banana to eat as a snack, or mashed, baked, and fried to make pies and pones.

The Jerusalem artichoke cultivated by the Indians of the south also became a popular condiment used in making southern pickles and relishes. The southerners also picked up tapioca, a residue from processing the cassava plant, as a favorite ingredient in making puddings, and as a thickener for watery dishes. Later, tapioca became more widely used in the United States as a major ingredient in many kinds of baby foods. Southerners also became very fond of the native American pecan, which they used in a number of dishes, notably pecan pie.

Southerners also adapted the custom of barbecuing food. The custom of basting fish and large pieces of meat with a special sauce and cooking them over an outdoor fire was adapted first from the Taino Indians of the island of Hispaniola. From the Taino language the word *barbecue* passed into the English language via the Spanish *barbacoa*. According to early explorers' accounts and early engravings from the Caribbean, the Indians used this method to roast whole leg of human. Even though there is no evidence that the Tainos or any Caribs ever ate human flesh, this image of the human barbecue gained wide notoriety in Europe. *Caribale*, the Spanish word for a Caribbean, soon became synonymous with man-eater and passed into English as the word "cannibal," thus giving "cannibal" and "barbecue" a shared etymology.

Different regions of the United States adapted the art of barbecuing to different styles and different sauces. North Carolina developed a vinegar-and-pepper sauce, while South Carolina still uses its own peculiar blend of mustard and molasses. The tomato sauces, however, became the most common and today are virtually synonymous with barbecue. In addition to the barbecue sauces, American cuisine uses related sauces such as catsup and meat sauces that are primarily tomato- or pepper-based.

The most distinctive of all southern cuisines, the creole and Cajun cuisine of Louisiana, is frequently associated more with French than with Indian cooks. But these foods are no more French than tacos and tamales are Spanish. Creole and Cajun foods came to us via the mixture of people who incorporated French, blacks, and Indians into their heritage. The resulting food is primarily Indian, secondarily black, and only tangentially French. The most basic ingredient of all the dishes is the Indian red bean. The base of this Louisiana cuisine comes from the mixture of tomatoes and hot peppers such as cayenne and sauces such as Tabasco made from the chilies. The other main vegetable and primary thickener is okra *(Hibiscus esculentus)*, which the black slaves brought over from the west coast of Africa. People outside of Louisiana, however, often eliminate the okra in the dishes; many do not like its mucilaginous consistency. Similarly they often reduce the amounts of sharp chilies, cayenne, and Tabasco.

One of the most common spices, gumbo filé, takes its name from a combination of an African and a French word, but in content it is the sassafras flavoring made from the leaves of the *Sassafras albidum* tree and first introduced to the settlers by the native Choctaw cooks of the area. Shrimp, crayfish, and fish form the featured parts of Cajun cooking, and even though the Indians certainly take no credit for domesticating the seafoods, they did teach the French settlers which ones to eat, how to catch them, and how to prepare them.

Each region of the United States prides itself on a special stew of local produce usually mixed with tomatoes, peppers, or potatoes to make a regional specialty. In addition to the gumbos, creoles, and jambalayas of Louisiana, we have the chilies of the American west. The southern United States developed various forms of catfish stew that combined tomatoes and potatoes with this unusual American fish with a skin instead of scales. East coast communities developed various crab and chowder dishes, mostly using potato bases rather than tomatoes. Farther from the ocean, the settlers used simple corn to make their chowders. From the Ojibwas in Minnesota, the Scandinavian settlers adopted the wild rice soup, but they added lots of their beloved milk products to it.

In Virginia and North Carolina, the settlers adopted a squirrel stew that the Indians made with corn, tomatoes, and beans. They popularized this under the name "Brunswick stew," but in time the squirrel gave way to chicken and beef.

Nowhere else in the American cuisine, however, have Indian foods had such an impact as in the snack foods. Potato chips and french fries have strictly American pedigrees. Similarly, corn chips, nachos, and tortilla chips are all corn products from the American southwest, as are the tomato sauces, salsas, and guacamole that people dip them into. The jerky and dried meat sticks which Americans sometimes eat with their beer are also from the Indians. Popcorn and peanuts are both of Indian origin. Indians sometimes dipped this mixture in maple syrup to make a snack that sells today as Cracker Jack in the United States.

In the domain of sweets, Indian chocolate and vanilla rank as the commonest flavors for snack foods, while Americans universally prefer maple as the flavor of their syrups. As much as any

other foods, these snacks form part of the modern diet and a part of the legacy of the American Indians to world cuisine.

Not all snack foods are as thoroughly processed as the chips and dips. Even many of the "natural" snacks are primarily a mixture of Indian foods. These include the mixture of peanuts, sunflower seeds, pumpkin seeds, pecans, and dried fruit that is often called "trail mix" in the United States or "student fodder" in Germany. Most of these ingredients originated in the temperate and tropical zones of America, where Indian farmers domesticated them over thousands of years.

Settlers in the tropical zones of Latin America maintained the wide variety of local fruits, but they supplemented them greatly with other fruits imported from Africa, Asia, and the South Pacific. Exotic Old World plants such as citrus fruits, breadfruit, and mangoes thrived in their adopted American home and supplemented the native American fruits of pineapple, papaya, cashew, and passion fruit.

On a side street in a middle-class neighborhood of Tegucigalpa, capital of Honduras, sits a house converted into a store called the Vegetable and Fruit Boutique. Under the guidance of the World Neighbors organization, the boutique sells the garden produce of the small community of Guinope, which is about an hour's drive from the city. Except for a few items such as bananas and citrus fruits, the produce of this small market is mostly traditional New World produce. There are baskets of corn, cassava, potatoes, tomatoes, peppers, avocados, peanuts, and papayas. In addition, there are mounds of products that the typical European or North American customer fails to recognize.

One shelf displays a variety of chayotes. This vegetable grows on a vine, *Sechium edule*, and resembles a yellow-green squash. Unlike squash, however, the plants are frequently cultivated on arbors, which make them look like giant grape vines with grossly exaggerated leaves and fruits. Like the squashes, the chayote is not so much *a* vegetable as it is a whole family of vegetables, for the chayotes come in many sizes and shapes. They vary from approximately the size and shape of a plum up to that of a medium melon. The skin texture varies from very smooth like that of eggplant to prickly and covered with thousands of very

fine bristles, and still others have large folds in their skins like the folds of a brain. Color varies from nearly white through a variety of green shades to very dark.

The chayote's name came into English from the Spanish, who borrowed it from the Nahuatl language of the Aztecs, who called it *chayotli*. In the Fruit and Vegetable Boutique, however, the housewives and staff still call it by its Maya name, *pataste*. In recent years at least one form of the chayote vegetable has been sold in some North American supermarkets, but it has not yet grabbed the shopper's attention. Even those adventurous cooks who have tried it probably do not suspect how versatile this plant is. The Indians of Central America eat virtually the entire chayote plant. They prepare the hard and nutritious root like cassava, and they cook the tender leaves as greens. After eating the fruit the Maya toast and eat the large seed in the middle. Few other plants in either the Old World or the New World garden can match the versatility of the chayote. Despite this, the chayote remains relatively obscure and is enjoyed primarily by the descendants of those Indians who first domesticated and cultivated it thousands of years ago.

The boutique in Tegucigalpa offers a variety of tropical fruits that are little known outside of their home areas. The granadilla, *Passiflora quadrangularis*, known as the passion fruit in English, sells very well. The fruit is contained in an orange-green shell about the size of a chicken egg. Breaking the shell open, one finds thousands of small seeds in a gray, slimy fruit that tastes quite sweet. Because of these edible seeds, the Spanish first called it the *granadilla*, "little pomegranate." Another form called the *maracuya* is particularly popular throughout Latin America as a fruit for making juice. In this form it also entered the North American market, but advertisers billed it as Hawaiian fruit juice rather than as a native American fruit.

The fruit section of the boutique offers the small greenish fruit called *ciruella corona* as well as various kinds of papaya. These vary from some as small as pears to others as large as watermelons. Encased in yellowish-green skins, the insides vary in coloring from pale yellow through a much darker yellow and even red, with corresponding subtle changes in the flavor of the flesh. They

are eaten raw or easily made into thick juices by themselves or in combination with tropical or temperate-zone fruits.

The list of Indian foods still in use today in Latin America often seems a bit exotic to people living far from the tropics. But throughout the North American continent grow nearly as many and as varied a set of cultivated plants. A Fruit and Vegetable Boutique in the United States might easily offer a large variety of products grown by the Indians of North America but today as unknown to the average eater as some of the foods in the boutique in Tegucigalpa. The larder of this boutique would include the green, leafy vegetable pokeweed, eaten primarily by the poor people in the United States in past generations, but now largely unused. Fruits would include the persimmon and the papaw, *Asimina triloba*, also known as custard apple. The papaw is a temperate-zone version of the papaya, and its name is probably a corruption of "papaya," since the fruits are similar superficially although not genetically. The passion fruit also has a North American relative, the maypop fruit from the vine *Passiflora incarnata*, which remains virtually unknown.

The pecans cultivated by the American Indians became popular in the United States, but they never spread to other parts of the world. Many other American nuts are now particularly unknown even in their country of origin. Most Americans have probably heard of the hickory because it became the nickname of President Andrew Jackson and because of its very hard wood. Few Americans, however, have ever tasted the smooth hickory nut, which formed the primary staple in the diet of many Indian groups such as the Muskogee Creek of the southeastern United States, who grew it in eleven varieties. Another such nut is the black walnut from the tree *Juglans nigra*. The strong-flavored nut grows inside a very hard and rough-skinned case about the size of a golf ball. This is in turn housed in a larger fruit about the size of a peach. While the fruit skin is easy to break, the shell of the nut almost always requires a firm blow from a hammer. Probably because of the difficulty of cracking the nut, it never became as popular as the plain walnut, which is sometimes also called the English walnut.

Acorns grew in great varieties throughout many parts of the Americas. In California, this was the staple of the Indian diet

and was made into a flour by the women. Because of the abundance of acorn trees, most California Indians did not have to plant corn or grow any crops. In addition to the acorns, Indians of that area also harvested the pine nuts from various types of pine trees.

The types of berries used by the Indians surpass even the nuts. Nearly every part of North America had several varieties of berry bushes that the local Indians nurtured. Forty-seven types of American berries have been identified. Some of these types, such as the blueberry, had up to twenty variations, and the gooseberry came in at least a dozen different varieties. Other berries included sour chokecherries, *Prunus serotina*; wild currants, *Ribes inebrians* and *R. cereum*; at least four varieties of elderberries, *Sambucus melanocarpa*, *S. mexicana*, *S. neomexicana*, and *S. coerulea*; wild grapes, *Vitis arizonica* and *V. californica*; ground cherries, *Physalis pubescens* and *P. fendleri*; hackberries, *Celtis pallida*, *C. reticula*, and *C. douglasli*; manzanita, *Arctostaphylos pringlei*, *A. pungens*, and *A. patula*; and squawberry, *Rhus trilobata*.

Even a plant as well known now as the avocado was virtually ignored outside Latin America as recently as only one generation ago. The name comes from the Nahuatl language of the Aztecs as *ahuacatl*, which means "testicle," and it has been eaten in the United States at least since the American Revolution. The avocado is one of the most nutritious fruits ever domesticated. Because it was a semitropical plant with a thin skin it did not travel as well as bananas and pineapples, and farmers ignored it until the development of modern transportation made it possible to move large quantities of avocados from Florida, Puerto Rico, and California to urban centers very quickly without damage to the fruit. Popularity of the fruit increased when merchandisers thought to change its name from the English "alligator pear," which made it sound both repulsive and possibly sweet, to something closer to the original Aztec name.

Avocado production has now spread from the Americas to new homes such as Israel and Kenya, where it is grown both for domestic consumption and as a cash crop for air export to Europe. Thus far, however, the Europeans have shown little interest in the plant as anything more than a novelty food, and they show

no sign of assigning to it the more extensive dietary role it has attained in the Americas.

"Squash" survives as one of the few English words from the language of the Massachuset Indians (derived from proto-Algonquian), who called it *askootasquash*. Even so the use of the word "squash" for a vegetable is still confined to American English; the same word in British English designates a citrus drink. Of the squashes only the zucchini found a reasonably wide following among Italians.

On Thanksgiving Day North Americans sometimes remember the Indians who gave them their cuisine by dining upon turkey with cornbread stuffing, cranberry sauce, succotash, corn on the cob, sweet potato casserole, stewed squash and tomatoes, baked beans with maple syrup, and pecan pie. Few cooks or gourmets, however, recognize the much broader extent to which American Indian cuisine radically changed cooking and dining in every part of the globe from Timbuktu to Tibet. Sichuan beef with chilies, German chocolate cake, curried potatoes, vanilla ice cream, Hungarian goulash, peanut brittle, and pizza all owe their primary flavorings to the American Indians.

The discovery of America sparked a revolution in food and cuisine that has not yet shown any signs of abating. Tomatoes, chilies, and green peppers formed the first wave of American flavorings to circle the globe, but the American Indian garden still grows a host of plants that the world may yet learn to use and enjoy. These plants may have practical uses, such as providing food in otherwise unusable land or producing more food in underused land. They also vary the daily diets of people throughout the world and thereby increase nutrition. Even in this high-tech age, the low-tech plant continues to be the key to nutrition and health. Despite all the plant improvements brought about by modern science, the American Indians remain the developers of the world's largest array of nutritious foods and the primary contributors to the world's varied cuisines.