

The Mexican Contribution to the Mediterranean World

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A great quantity of American plants traveled with the precious metals that arrived in Europe from New Spain after 1492. Some were brought over intentionally, perhaps in the hands of some Spanish Indian (Spaniards who had travelled to the New World to make their fortunes and had returned were called "Indians") who had become accustomed to new tastes in America. Others arrived by neither will nor invitation, hidden in the nooks and crannies of the ships or mixed in with the ballast that the galleons carried on their return trip to the Old World.

With the passage of time and the action of the wind, birds, or man himself, the seeds and the plants were left to scatter randomly across the hills bordering the Mediterranean valley. Now, almost five hundred years after their introduction, these plants form such an integral part of the local landscape that it would be unrecognizable to a Roman citizen in search of his old habitat.

The American plants were not well received when they first appeared in Europe. Some were the object of great mistrust due to their similarity to a group of hallucinogenic plants already known to Europeans; others had to undergo a genetic transformation before they were able to survive in these latitudes. Finally, they were incorporated into the Mediterranean diet and are now as much a part of the diet as are wheat, the olive tree, and the grapevine, plants that have been traditional in this area since antiquity.

The first people to bring back information about the new plants were some of the explorers and conquerors who showed a special interest in the vegetation of the New World. These were few, in reality, as the majority were interested in a different type of resources.

Christopher Columbus himself began the important exchange of plants between the two worlds, bringing various American plants

to Europe on the return leg of his first trip to the Caribbean and European plants to America on subsequent trips.

Spain was but the first stop for the new plants in their dispersion throughout Europe. The plants spread out via two different routes: one group was disseminated toward the north of the continent, while others prospered better in the south.

From Spain, this latter group arrived first in Italy, which is not surprising, given that the Spanish crown dominated parts of Italy in the sixteenth century, facilitating the introduction of American plants in the zone.

The well-established routes of commerce that the Spanish had formed long before the sixteenth century were important factors in the dispersion of these American products. The routes of commerce between Spain, Italy, and the Orient were controlled by the merchants of Aragon, who without doubt played an important role in the distribution of plants via these routes.

The moderate climate and the rich soil that predominates in the Mediterranean region helped to create a fertile ecological niche for the development of these new plants. Both corn, a staple food for many American cultures, and beans, which complemented corn to form a complete protein, prospered there. The pepper plant and the Mexican tomato or *jitomate*, whose flavors combined to create the characteristic flavor of Aztec cuisine, also adapted well to the new environment. Other cultivated plants that prospered were the squash, the sweet potato, the agave, and the prickly pear. The potato, which produced great changes in European life, adapted better to the colder climates and higher altitudes of the north of the continent, which were more similar to its place of origin, the mountains of the Andes.

Initially, as was noted, the American plants were not well received in Europe. Some of them, like the *jitomate*, the potato, and the pepper, members of the solanaceous family, had to confront the famous "curse of the bittersweet" before being accepted into European diets. Europeans were already familiar with some of the poisonous members of this group of plants, such as mandrake, henbane, and belladonna, hallucinogenic plants that were used by witches and sorcerers of the era. The three new plants, recognized as members of the same group, were therefore greatly mistrusted.

The calumnies heaped upon the innocent plants of the New World included claims that they were hallucinogenic and poisonous, and bearers of leprosy and syphilis. In addition, they soon

came to have a reputation as aphrodisiacs, although it is doubtful that this contributed to their rejection.

The principal interest in the new plants was due to their potential medicinal qualities. The terrible plagues of the Middle Ages were still pummeling parts of Europe, and doctors were in constant search of new remedies. The plants also served as ornaments in universities and royal houses.

American plants received their fullest and most rapid acceptance in the Mediterranean countries. This area was a center of great political and social activity in the sixteenth century and also served as a battle zone for the struggle between the Ottoman and Austro-Hungarian empires. Because of their dominant position in the region, these two empires probably played the most important role in the distribution of American plants throughout the Mediterranean countries.

The nomenclature of the American plants of the sixteenth century bears witness to the important role played by the Turks. Corn appeared in European herbariums under the name "the grand Turk," *blé de Turquie*, or *Turkish korn*; the pepper plant bore the name of "Turkish red pepper"; squash was called "Turkish cucumber"; and even the "turkey" retains the imprint of its Turkish origins in contemporary English.

During the Roman period, an event occurred that could be used as an analogy to explain the acceptance of these plants in the Mediterranean in the sixteenth century. In the first years of the Empire, the Romans followed a fairly simple diet; they were restrained in their eating habits, and there was very little difference between the diets of the rich and poor. This diet consisted mainly of boiled cereals like millet, rye, and wheat, and of vegetables indigenous to the zone.

With the expansion of the Roman empire, commerce flourished and some Roman merchants became quite rich, bringing back products from the farthest reaches of the Empire. They imported new plants, animals, spices, birds, and fish from Greece, the Iberian peninsula, Asia Minor, Syria, Persia, Africa, and the Orient. The best of ancient civilization was served at the tables of the Roman upper classes.

The variety of available foods grew surprisingly quickly and soon became a necessary part of the Roman diet. As much as possible, the new trees, plants, and herbs were made to adapt to the Mediterranean environment in order to obviate the need to import their

fruits. This stimulated agriculture and, in time, prepared the way for an elaborate and sophisticated cuisine. In the last centuries of the republic, this refined and exquisite cuisine induced the Romans to practice the great culinary excesses that have passed into history as a symbol of Latin civilization.

Only with the introduction, in the sixteenth century, of American plants would the Mediterranean region see a similar influx. Botanists calculate that 78 new plants were introduced during the Roman period, while the number of new plants introduced in Italy during the sixteenth century rose to 127. This introduction of new plants also affected Italian cuisine enormously, although it did not lead them to the excesses of the Romans.

According to the well-known book of recipes *Apicio de re Coquinaria*, the Romans had a special liking for salads and fresh vegetables. Their curious custom of eating in a prone position, supported by the left elbow, required a light and easily digestible diet. This was an important factor in the acceptance of American foods such as the *jitomate*, the pepper, and the squash, as the Roman appreciation for green vegetables has continued to this day.

The Roman empire collapsed in the fifth century, A.D.; however, its culinary traditions persisted into the Byzantine Empire in Constantinople and for centuries afterward in the medieval monasteries of the Mediterranean. Even today, evidence of Roman influence in the cuisine of the area remains.

Fernand Braudel, in his books about the Mediterranean of the sixteenth century, captures the feel of the region very well. He describes in an almost poetic way its natural resources, the sea, the climate, and the life of the peasant (incidentally, peasants made up somewhere between 80 percent and 90 percent of the population in the first centuries of the Modern Age). The delta regions of the zone were poor, exhausted by the over-cultivation to which they had been subjected for millenia, and harvests were never very abundant. If grains became an obsession for the people of the Mediterranean, it was because they were always scarce and hunger always threatened.

Famines – real famines – during which people actually died in the streets, were a fact of daily life in Italy during the sixteenth century. The Italian historian Piero Camporesi calls these years “the age of hunger” and describes the city of Padua in 1528, where each morning the bodies of those who had died of hunger during the night could be found thrown on top of piles of manure, as if they were of

equal value. Failed harvests, famines, and pestilences tend to go hand in hand, and it is clear that epidemics broke out with greater frequency among malnourished populations.

The great hunger in Spain of the sixteenth and seventeenth centuries is reflected in the "picaresque novel," a literary genre concerned with beggars and the consequences of an empty stomach. Hunger serves as a catalyst in the anonymous *El Lazarillo de Tormes*, in *Guzman de Alfarache*, by Mateo Alemán, and in *El buscón*, by Quevedo.

The homogeneity of the climate and the natural resources of the Mediterranean valley gave rise to a diet of a certain uniformity, based on bread, olive oil, and wine. There were certain regional differences, like the broth soups of Provence, Italian pasta, and Turkish yogurt, but even in the beginning of the Middle Ages there existed an identifiable "Mediterranean diet."

It is important to note that not all of the population was subject to such a monotonous regimen. The fifteenth and sixteenth centuries saw the age of sumptuous Renaissance banquets, when the Medici family of Florence competed with the doges of Venice to present the most opulent table. Gastronomy had little to do with these feasts, as the number of plates served was more important than the quality of the food.

During the sixteenth century there appeared on the scene the Mexican alimentary triad of corn, beans, and squash, which then confronted the millenary trinity of the Mediterranean: wheat, olives, and grapes. The plants of the New World did not arrive as competitors for the traditional plants of the Mediterranean; rather, their role was complementary. While wheat and other bread grains were planted in autumn and winter, corn, beans, and squash were planted in the spring. Neither was there an incompatibility in harvesting, as wheat was harvested in June, grapes and olives in the autumn, and the American crops at the end of the winter, thanks to the benign Mediterranean climate.

Initially the cultivation of American plants was limited to family gardens or orchards, as the vast majority of the plants of the New World developed as semitropical crops requiring moisture during their growth cycle and during the formation of their fruits. In the hot, dry summers of the Mediterranean, the New World plants needed artificial irrigation to produce fruit, and this was only possible on small plots of land. The cultivation of corn on a commercial scale was possible only in humid zones like northern Italy, in the

provinces of Venice and Lombardy, or the valleys of the region. Irrigation had never been a problem for the cultivation of the traditional grains of the Mediterranean, because these plants had evolved in semiarid zones of the Near East. Such plants require moisture after they are planted in the winter, but not during the last months of their agricultural cycle.

The American plants had certain advantages over the Mediterranean plants. Being new plants cultivated in family gardens, they were not subject to the "one-tenth," or tithe, system, a tax charged by the Church on agricultural production. It was only in the seventeenth century, and especially in the eighteenth, that corn and potatoes were no longer exempt from this tax.

These plants brought other advantages, as well. Beans are a noted soil enricher, as they have the capacity to release nitrogen into the earth by means of certain bacteria found on the nodules of their roots. The exhausted soil on which the Mediterranean crops grew were in great need of this help. The new plants also served well in crop rotation, because, given the worn-out soil, it was impossible to cultivate the same grain for more than two consecutive years.

Some of these crops were accepted easily in the Mediterranean because they were similar to certain crops already known in the zone. This was the case with the American bean, which is similar to the fava bean, from the genus *Vicia faba*, known from Roman times and dispersed by the Romans throughout the Mediterranean valley. The Spaniards knew them by the name "*fésoules*." Encountering the bean in the Caribbean, they gave it the same qualifier, which was then introduced in New Spain. At some point the term "*frijol*" was introduced, losing forever its old Náhuatl denomination of *etl*.

In Europe, beans received the somewhat crude nickname of "*hinchapanzas*" (belly-stuffers) and a reputation for causing flatulence. However, they had many positive qualities and soon were incorporated into Mediterranean diets, above all the white kidney bean, which was little used in Mesoamerica.

The corn plant is not morphologically similar to the other grains, but its preparation in the form of a ground meal in breads and mashed foods gives it a certain resemblance to the others. Cornmeal was combined with other bread meals to make "coarse bread," the sustenance of the poor. It also became a substitute for millet in the preparation of Italian polenta, an old Roman dish that sustained the poor for centuries. Corn offers many advantages over other cereals. It provides more calories in less space, in less time, and with less

work than the other cereals, with the exception of rice. This is due in part to the difficulty of growing grains in consecutive years (because of the exhaustion of the soil). Corn adapts itself to diverse climates, soils, and altitudes, as long as there is sufficient moisture. In addition, it offers the advantage of serving both as animal fodder and human food.

The squash plant, too, has similarities with certain cucurbitaceous (gourd) plants known to the Romans, even though it belongs to a different genus, since it is of American origin. It got its name *calabaza* from the African word "calabash," thus losing its Náhuatl name in the same way that the black bean lost its Náhuatl name of *ayotli*. In the sixteenth century it acquired a false identity as the "zucco of Syria," and from this term came its current Italian name, zucchini.

The pepper and the *jitomate* arrived as new and totally strange plants, and were therefore viewed with suspicion. Initially they were rejected as a result of their unjustly deserved reputation as being poisonous, hallucinogenic, and aphrodisiac; we must bear in mind, however, that the Europeans did not know how to prepare or eat them, and they were not familiar with any other fruits even vaguely similar. The pepper was so spicy that it was difficult to eat; as for the *jitomate*, as Rosa Casanova and Marco Bellingeri have written, "When green, it can't be eaten; when red, it looks rotten; and boiled or fried it comes apart." Europeans found it very difficult to become accustomed to these new plants.

One must recognize that the large *jitomate* (our tomato), of a vivid red color, smooth, and juicy as we know it today, bears little resemblance to the pallid, acidic fruit with a sickening odor that initially arrived in Europe. The first drawings of it, in the herbarium of Pietro Andrea Mattioli, show a small fruit, wrinkled, hard, and not very appetizing. We owe the improved version of the *jitomate* to the expert hands of Italian gardeners.

The pepper, too, was modified, transformed into a large fruit, with a sweet flavor and without the spiciness of the Mexican chile pepper. Converted into a sweet pepper, it could be eaten like any green vegetable, and it subsequently found an important place in Mediterranean salads.

It is interesting to note that the pepper, prepared with the *jitomate* or the tomato in the Aztec way, was more important in Mesoamerican cuisine than the tomato; however, the Europeans found more uses for the *jitomate* than for the pepper. The *jitomate* proved to be

an ingredient compatible with the traditional Mediterranean flavors and in general was more accepted than the pepper. The Spanish gastronome Nestor Luján affirms that “many people like to think that Italian and Spanish cuisines were born with the tomato, because it has become so important to their cuisines.” Today, Europe produces more tomatoes than any other continent, and most of them come from Italy.

The Mexican sweet potato adapted to zones where the climate permitted its cultivation; it has come to be a popular dessert and has gained a reputation as an aphrodisiac.

It is said that the prickly pear arrived on the island of Sicily as a curiosity along with other new plants, and that it was brought by a member of the court of King Fernando of Aragon. The Sicilians thought this little tree strange because it formed neither trunk nor branches and its new leaves sprouted from the old ones. It adapted easily to the dry climate and poor soil of certain areas of the island; in fact, it has become such a typical and expected sight among the local flora that it is difficult to imagine the Sicilian landscape without it. Its fruits are eaten fresh or dehydrated, although a way to convert the plant’s nutritious leaves into food has yet to be found.

Although there are few recorded facts about it, we do know that many of these plants were dispersed by the Turks among the countries of Mediterranean Spain and the Maghreb in the course of the sixteenth century, during the expansion of the Ottoman Empire. They were introduced to the Balkan peninsula during the Turkish invasions of the same century. Fernand Braudel argues that it was the Turks who introduced rice to the area in the fifteenth century, in addition to sesame, cotton, corn, and peppers in the sixteenth century and tobacco and coffee in the seventeenth. Is it not said that a country’s cuisine reflects the influence of its conquerors and invaders? In our day, a descendant of the pepper, called paprika, is one of the predominant flavors in the cuisines of the Balkan countries. Corn and tomatoes are also important crops in the region.

As has been shown, we do possess information concerning the arrival of new plants in the sixteenth century and about the way in which they were perceived by the Europeans. Nevertheless, the level of curiosity and interest in them decreased considerably in the seventeenth century. The Europeans had realized that these plants possessed little medicinal value; nor were they hallucinogenic, poisonous, or aphrodisiac. On the other hand, the paucity of information regarding their use in the seventeenth century is surprising,

since in those days one could hardly pass up any potential dietary sources.

The seventeenth century was a period of great agricultural and economic upheaval throughout the Mediterranean. In Spain, agriculture was affected by the expulsion of the Moors, who had contributed greatly to it in southern Spain. These lands were depopulated even more by the desertion of many farmers who emigrated to "try America." Nestor Luján affirms that hunger was widespread throughout the area. The seventeenth century also brought with it pestilence, famine, and bad harvests in almost the entire Mediterranean region. It seems unlikely that little use was made of the new plants, especially among the broad masses. No cultural barrier is so strong that hunger cannot overturn it.

Lacking recorded data, we have had to turn to indirect sources to prove the presence of these plants. Various writers of the Golden Age of Spanish literature had a certain fascination with the New World. Antonio Alatorre, in his work *Los 1000 años de la lengua española* (One Thousand Years of the Spanish Language), says many poets took special delight in using native American words in their writings. Among the most-used are the names of fruits and vegetables, variations of Náhuatl and Antillian words that carry with them images of strange and exotic cultures. Cassava (*casabi*), avocado (*aguacate*), mamey, the annatto tree (*achiote*), cactus (*pitahaya*), the sapodilla tree (*zapote*), corn (*maíz*), pimento, tomato, prickly pear, agave (*magüey*), and the holy wood tree (*güaic*) appear in many works, especially in Lope de Vega. Some philologists would say that the Spanish of the seventeenth century had been tainted with Americanisms. In fact, the new words enriched the Spanish language, constituting another contribution from America.

Although these plants did indeed arrive in Europe at the end of the fifteenth century and during the sixteenth, it was not until the eighteenth century that they began to play a significant role in the Mediterranean diet. At the beginning of the eighteenth century, they started to appear in the cookbooks and chronicles of travellers.

All classes benefited from the new social and economic well-being that characterized Western Europe in the middle of the eighteenth century. The terrible pestilences, wars, and famines finally had ended. This period was marked by the beginning of a population increase that was sustained for more than a century. Some historians attribute this increase to the integration of American plants into the European diet; they argue that the addition of these plants

allowed for a more abundant, varied, and nutritious diet. Two of the new plants, corn and potatoes, are among the four most important crops in the world. Together with wheat and rice, they sustain the vast majority of the world's population.

Another result of this widespread well-being was the emergence of a new social class with a new style of eating. The eighteenth-century bourgeoisie was able to rely on these new resources to live and eat well without having to abide by the rules and restrictions of court life. They developed a simple, hearty, substantial cuisine, tied to the earth and the seasons of the year. The new American ingredients played a major part in this cuisine, not as novel or exotic side dishes but as staples in commonly prepared dishes.

Corn and potatoes were soon used in stews and in other dishes of boiled meats and vegetables. The green bean ultimately replaced the Roman fava bean in the *fabada asturiana* (bean stew of Asturias), in the *cassoulet* (stew made from pork and beans) of French Provence, and in the side dishes of Tuscan cuisine. The Florentines adopted the green bean to such a great extent that most Italians began to refer to them, with a certain disdain, as *mangiafagioli*, or "green bean eaters."

The Neapolitans discovered that tomato sauce tasted good with pasta, (until the eighteenth century, pasta typically was served with seasoned butter or olive oil). Pizzas also benefited from the new taste and color of the tomato.

The tomato and the pepper entered easily into Greek and Balkan kitchens in dishes like moussaka, chicken paprika, and Hungarian goulash.

Andalusian gazpacho, an old Mozarabic dish, possibly of Roman origin, traditionally made with slices of bread, olive oil, garlic, and some liquid, suddenly took on a new form with the tomato and the pepper. Valencian paella incorporated various American ingredients, and it was not long before the Iberian dish *bacalao* did the same.

The tradition in the Islamic countries of filling green vegetables with meat and sauce found new containers in the cavities of American greens, like peppers, tomatoes, and squash. Sometime later, Moroccan couscous was prepared with tomato, and was topped with harissa sauce, made from tomato and peppers.

Innovative cooks created new dishes like the Spanish omelette with potatoes, and Catalan bread smeared with tomato and olive oil. *Peperonata*, made with a combination of red and green peppers

and fried in olive oil, occupies a place in all Mediterranean cuisines, from Portugal in the west to Yugoslavia in the east, including the Islamic countries of north Africa.

During the nineteenth and twentieth centuries, the improved American plants were reintroduced to the New World as part of the cultural heritage of European immigrants. Every immigrant group makes an effort to recreate something of the atmosphere of home in their new country. The easiest way to accomplish this is through food.

When the Italians arrived in Argentina, the northeastern United States, and other centers of Italian immigration, they introduced new uses for the tomato with concentrated sauces developed in the Old World. They also brought a sweet and fresh version of the Mexican pepper, and a new way to eat unripe squash, before it becomes the so-called "Castillian squash."

These plants brought many benefits, but they also produced certain side effects, including sicknesses. The importance and prevalence of corn in the delta regions of the Mediterranean valley is demonstrated by the number of countries affected by pellagra, a disease that is associated with a diet deficient in protein and niacin, and that affects the digestive system, the central nervous system, and the skin. Not a country in the region was able to protect its people from this terrible disease. It appeared first in Asturias at the end of the eighteenth century and from there spread throughout the region.

No single plant can provide all the nutrients required by the human body. This fact was made clear when certain groups of people began to depend on a diet based almost exclusively on corn. Corn does not contain the amino acid tryptophan, a substance that the human body uses to metabolize vitamins. Without this element, the body cannot absorb vitamins and the nutritional deficiency that ensues produces pellagra, a sickness that frequently ends in dementia and death. This disease did not become a problem in pre-Hispanic American diets because the black bean that normally accompanies the tortilla is known to provide certain amino acids that are not found in corn.

The countries most affected by this illness were Italy and Rumania, faithful consumers of polenta and *mamaliga*, substitutes for bread in the diet of the poor. Pellagra was eradicated in northern Italy only after the Second World War, with the improvement of the diet and living conditions of the local population.

After an uncertain beginning upon their arrival in Europe, the American plants were ultimately integrated into the Mediterranean diet. In an almost imperceptible manner, they replaced certain traditional products of the zone and became staples in the main dishes of the people. By providing a more nutritional diet, the plants helped to put an end to chronic famines and played a role in the population explosion that began in the middle of the eighteenth century. The fact that they were so well accepted was due to their capacity to complement the native crops of the region (in the agricultural cycle) as well as the traditional flavors of the Mediterranean diet.

Translated from the Spanish by Katherine Hagedorn

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