2015

Dr. Francisco Hernández Ate Tacos: The Foods and Drinks of the Mexican Treasury

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INTRODUCTION

Francisco Hernández (ca. 1517-1587) was one of the most important physicians and botanists of sixteenth-century Spain. More than anything else, he was a Renaissance man. He wrote poetry in Renaissance Latin, commentaries on Aristotle, translations of Pliny, as well as identifying and describing more than three thousand New World plants previously unknown in Europe. However, he did not live to see any of his works in print. While his writings began to circulate in the seventeenth century, only recently have translations of his work appeared in English, alongside other important scholarship on his valuable contribution to the history of botany and medicine (Somolinos, 1960). No portrait of Francisco Hernández survives—if indeed one ever existed. However, the great hernandista scholar Germán Somolinos D’Ardois (1911-1973) provides us with an excellent portrait in words:

…I have forgotten how I bore such great burdens for seven years, long years
(I languished because I was already an old man without the ardent blood of my youth)
having twice crossed the ocean, and experienced remote lands and foreign climates,
having to eat food everywhere that took a long time to get used to.]³

Francisco Hernández

In memory of Simon Varey

Transeo quam tulerim fastidia longa per annos
(Sanguine jam gelio languens, sterilique senecta)
Septenos, mare bis mensus, terrasque repostas,
Expertus caelum mutatum, alimentaque passim
Jam pridem consueta mihi, lymphasque malignas.

[I have forgotten how I bore such great burdens for seven years, long years
(I languished because I was already an old man without the ardent blood of my youth)
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Francisco Hernández
He was a thin man with a graying beard, agile with ardent blood in his youth and still energetic in his later years. He was intelligent, hardworking, and full of curiosity in the fields of both the sciences and letters. He was fond of drink and enjoyed eating well.

During his scientific expedition to New Spain/Mexico (1570-1577), Hernández tasted and ate foods that he had never eaten or seen before (Somolinos, 1971, 21). While his writings on materia medica, philosophy, and Aztec culture have received some attention, scholars have not focused critical attention on his commentaries of food. In 2000, José Enrique Campillo Álvarez, in a biography of Hernández, stated the following:

Hernández mostró un interés especial por la gastronomía. Entre los pocos momentos agradables que proporcionaron sus viajes, algunos fueron los derivados del placer de degustar algún guiso nuevo con el que le obsequiaron. (Campillo Álvarez, 2000, 9)

Hernández was especially interested in gastronomy, during the few free moments which his journeys allotted him, some of the most pleasant were the opportunities to taste some of the new dishes which were offered to him.

In 2007, scholars of the history of Mexican cuisine, Cristina Barros and Marco Buenrostro, published an anthology of Hernández’s writings on food, based on selections from his Natural History of New Spain. They include descriptions of plants (roots, leaves, flowers, fruit, seeds, fungi, maguey, and algae); animals (insects, crustaceans, batrachians, fish, reptiles, birds, and mammals); minerals and honey. Except for a brief introduction, Barros and Buenrostro do not discuss these in detail (11-27). Diana Salomé Corona Ortega mentions Hernández in her 2011 study of gastronomy in New Spain that focuses on culinary mestizaje from a philological perspective. And more recently, Rebecca Earle has offered important research on the Spanish encounter with unfamiliar foodstuffs and examination of the relationships between food, culture, health and colonization.

In his research on the medicinal qualities of native plants, Francisco Hernández described several foods, such as corn (maize), chile (chilli),4 tomatoes, and cacao; products that were to revolutionize the European diet. In addition to being central to the Mexican diet then, these foodstuffs today are central to the diets of Latin Americans, U.S. Latinos, and in general to the United States. It is the purpose of the present study to focus on these foods, as well as any information that the Spanish physician provided on cooking and eating during the early colonial era of New Spain. Furthermore, a close reading of Hernández’s texts on food provides ample opportunity to reflect on what Spaniards, Indians, and mestizos consumed in New Spain during the sixteenth century. These texts also remind us of foods and foodstuffs depicted in the famous so-called “Casta paintings.”

Our research is a continuation of work on the life and works of Hernández, as well as our study of the history of Spanish food and cuisine (Chabrán, 2002). Our approach to the Hernández food texts will be based, where possible, on a close reading of the original Latin texts, rather than subsequent Spanish translations.6 Finally, we have made use of information on research into New World plants as undertaken by the late José María López Piñero and his team of scholars at the University of Valencia (López Piñero and Pardo Tomás, 1994; López Piñero and Pardo Tomás, 1996; Pardo Tomás and López Terrada, 1993). This valuable work has been continued by Dr. José Pardo Tomás of Barcelona (2002; 2010).

Francisco Hernández was trained as a physician at the University of Alcalá de Henares, a more recent of the Spanish Renaissance universities. There, in addition to his medical education, he became well-versed in the classics and pillars of Renaissance humanism. In addition to botanizing in both Spain and Mexico, he was court physician to Phillip II and Protomédico de Indias, and a renowned scientist in sixteenth-century Spain. Apart from his studies on the medicinal uses of plants, animals, and minerals of the New World, he was an active physician with clinical and experimental experience.

While he did not live to see his works appear in print, information from his writings quickly spread through Mexico and Europe. Translations of his works into Spanish had to wait until the twentieth century, when they appeared in Mexico in 1942 and 1983. Recently, his work has
attracted a great deal of critical and scholarly attention, as well as some English translations. Nevertheless, his interest in food and foodstuffs has not been studied with sufficient critical attention.

Before coming to Mexico, Hernández was familiar with various Spanish food traditions. He grew up with the regional foods of his native province of Toledo, particularly the Jewish *Converso* foods of his home in La Puebla de Montalbán (Somolinos, 1960, 97-99; Campillo Álvarez, 2000, 17-23), and he was familiar with the “student meals” served at the University of Alcalá de Henares, where he studied medicine, the city of Cervantes’ birth. Later he would become familiar with the meals at the Monastery Hospital of Guadalupe in Extremadura, as well as the delicacies of the Andalusian cuisine of Seville.7 Finally, he tasted the sumptuous meals of the court of Phillip II accorded to him as royal physician. Besides these experiences, he had read and studied about foods and foodstuffs in the classical medical and scientific texts of his times, such as Pliny’s *Natural History*, a work he translated and wrote commentaries about, following the traditions of Renaissance humanists (Hernández, 1999; Somolinos, 1999, vii-xxi).

It was with this culinary baggage that he traveled to the New World (the Caribbean and Mexico), after first spending time in the Canary Islands, and partaking in “ship food” during the transatlantic journey to the Americas (Somolinos, 1960, 152-159). Like other Spaniards, Hernández first tasted American hemisphere food in Santo Domingo, now called the island of Hispaniola, today Haiti and the Dominican Republic. Once based in the colonial realm of Mexico, he began his scientific expedition commissioned by the King, which had as its purpose to research, identify, and describe native materia medica in Mexican plants, animals, and minerals.

While travelling through the vast regions of Mexico, most of the time on foot or being carried, Hernández observed various medical and cultural practices. During his journeys and fieldwork, he had occasion to see, study, and taste indigenous foods, as well as comment on culinary practices. After all, he had to eat what there was and at the same time was deeply interested in the connections between food and medicine. Through his interviews with natives, on some occasions more successful than others, and in the process of countless meals with Spanish monks and friars in the monasteries and convents at his various stops through the Mexican countryside, he learned a great deal about native foods and preparation. His work provides a unique perspective into Aztec cuisine as seen through the eyes of a Spaniard.

### EATING TLAOILLI: TACO TASTING

Perhaps what he ate first were “tortillas” or what was then called “Pan de Indias,” the base of the indigenous diet. First, we shall turn our attention to his description of *maíz* or maize, one of the most extensive of his botanical descriptions. In his entry on corn, the substance of which tortillas are made, Hernández refers to it by the Nahuaatl term “Tlaolli,” which the Spanish call “Indian wheat” and the people of Haiti call “maize.” He accepts the term “Indian wheat” but rejects “Turkish wheat,” a term commonly found in the botanical literature of his time (Hernández, 1998, v2: 607).8

While valuable descriptions and illustrations of maize are to be found in the work of the German physician and botanist, Hieronymus Bock, in 1552, information on the American origins of the plant had to wait until the publication in 1535 of the works of Gonzalo Fernández de Oviedo and Nicolás Monardes, especially through the latter’s translations and editions by Clusius.

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We have found two mentions of maize and tortillas in Hernández’s writings, the first and most extensive in his *History of the Plants of New Spain* and the second in his translation of Pliny’s *Natural History* (Hernández, 1998, v2, 602-611; Hernández, 1999, 743). To the best of our knowledge, the latter has not received any critical attention. In the section on “Tlaolli” in Hernández’s *History of the Plants of New Spain*, we have evidence that he was aware of some version of “tacos” and “tamales.”

Of maize, Hernández writes: “…ali tlaolli, quod nostri frumentum Indicum, Hiatini uero maizium appellant,
They also call it "Tlaolli," which we call "Wheat from the Indies" and the Haitians call "maize." He goes on to state that by calling it "Wheat from the Indies," he does not mean to denigrate but rather:

\[ \text{Neque hoc dictum uolo in uilipendium tlaolli, quod tantum abest ut uituperem, ut maxime laudem mirerque Hispanos, rerum externarum diligentissimos imitatores atque trallatores et alienorum inuentorum, picas suis usibus adhuc non accomodasse …} \] (Hernández, 1998, v2: 111)

I praise it highly and do not understand how the Spanish, always diligent imitators of all things foreign … have neither adapted (it) for their own use, nor attempted to plant and cultivate (it) … (Hernández, 2000 c: 111)

Furthermore, he adds that it has become and continues to be important and useful not only among the Indians but also among the Spanish (Hernández, 1998, v2, 610).

With respect to eating corn, he says this “bread is made into the shape of small cakes” and that it is easy to digest. During his discussion of corn, Hernández mentions the corn ("masa") gruel-like drink, “atole,” (nequatolli) and its medicinal qualities. We find very interesting in this section the development and evolution of what we will call the "mestizo palate:" that is, how the distinct culinary tastes of both the Spanish and the Indians eventually came to be shared between the two cultures: “Cepit iam huisusmodi uictus placere Hispanis, sed precipe his qui Hispanis et Indis …” (Hernández, 1998, v2, 610) [This food has begun to be pleasing to the Spanish, as well as to those who have been born of Spanish and Indian parents …] (Hernández, 2000 c: 111).

Before leaving Hernández’s section on corn, we must review what he has to say about the “making of tortillas” ("De modo parandi panem ex maizo"). His description is so vivid and realistic that it could be easily found today in Mexican and Mexican American kitchens:

\[ \text{Eolliunt eo quo diximus modo maizij grana, mox pinsunt ac, palmis utrisque admotis, efformant tenues ac ambitus mediocris plancentulas, quas, statim ut oportet, in comalli carbonibus coquant imposito.} \] (Hernández, 1998, v2, 610)

They soften corn in the manner I have described above, then grind it, and in their hands they form thin, medium-sized round tortillas, which they cook straight away on a comal over hot coals. (Hernández, 2000 c: 113)

In this same section, he also describes the cooking/baking of corn with meat in a hole with hot rocks in the ground, perhaps a kind of tamal. He refers to this style of cooking as “barbacoa,” a word of Caribbean roots, a word that today refers to goat meat cooked in an underground pit:

\[ \text{Cum carnes libet coquere, scrobes in ipsa terra effodunt; mox ignitis lapidibus sternunt, medias collocant carnes frumenti Indici massa obuolatas acdemum simulibus saxis et terra obruunt, tamdiu ibi manere permanicentes quandiu intelligent sufficere exquisite decoquendis.} \] (Hernández, 1998, v2, 610)

When these people want to eat meat, they hollow out a hole in the ground and fill it with red hot stones, and they wrap the meat in cornmeal, they put another layer of hot stones on top of that, and cover everything with earth; they leave it like that for as long as necessary to cook the meat perfectly. (Hernández, 2000 c: 104)

Again in reference to what we have called the “sociology of taste and eating,” its popularity and the borrowing of culinary traditions, Hernández states: “This method began to catch on among the Spanish residents of Mexico, so I was able to experiment a bit myself; it is no secret that it is delicious” [ut et huis rei sumere possemus experimentum …] (Hernández, 1998, v2, 608-611). He
ends this section on the preparation, cooking, and eating of corn by mentioning that natives also eat toasted corn on the cob.

The second mention of corn that we find in Hernández’s writing is in his Spanish translation and commentary of Pliny’s *Natural History* (Hernández, 1999). As we might suspect, it is to be found in the reference to “wheat.” In this work, there are two mentions of maize: First in Book 18, Chapter 10, “De la sémola …”. Speaking of the Indians of México, Hernández writes: “Los de México, maíz, de que hazen tanta diversidad de panes y bebidas …” (Hernández, 1999, 743). In the same Book (18), this time in Chapter 11, he mentions “tortillas”:

No es mucho de espantar, pues mezclan hoy los mexicanos yeso para que mas facilmente y mejor se cueza y se ablande, y molido se hagan dello sus tortillas … (Hernández, 1999, 745)

We should not be surprised, that today Mexicans mix maize with lime in order to soften it and so that it might cook more easily and then it is ground and made into tortillas … (Chabrán, Rafael. Unpublished translation, 2014.)

Here, Hernández is describing the typical process of “nixtamización” (nixtamalization) in which corn is soaked in an alkaline solution, cooked, and hulled, there by increasing its nutritional value (Paredes López, et al. 2008: 60-70; Coe, 1994, 17-18).

A TACO WITH CHILE

And so, when travelling through the many regions of Mexico and questioning native health practitioners on the use of medicinal plants, what else did Hernández eat? What else did he put into his tortilla or “pan de maíz”? No doubt he put *chiles y tomate* into his folded tortillas, thus eating a “taco.”

What did Hernández know about “chile” (chilli), perhaps the most emblematic plant of Mexico? Chile has a very long and complicated cultural and culinary tradition in Mexico (Andrews, 1984; Long Solís, 1986). According to some, it is one of the earliest cultivated plants in Mesoamerica. In the fifteenth century, Fray Bartolomé de Las Casas said of chile and its importance in the Mexican diet: “without it Mexicans don’t feel like they are eating” (Long-Solis, 1986, 34).

The Spanish quickly became interested in chile (*Capsicum sp.*) because of its association with black pepper, treasured spice in the Old World. They most frequently referred to it as *axí, aji* or “pimienta de Indias” (Pepper from the Indies) (Pardo Tomás and López Terrada, 1993). In his *Natural History of the Indies* (1535), Fernández de Oviedo said of this spice: “Del aji, que es una planta de que los indios se sirven e usan en lugar de pimienta, e aun los cristianos han por muy buena especie” [Concerning chile, it is a plant that the Indians use instead of pepper and even the Christians use it as a very good spice] (Fernández de Oviedo, cited in López Piñero, et al. 1992, 64).

Often European botanists referred to chile with the word *siliquastrum*, a botanical term used by Pliny (Hernández, 1999, 821). As was the case with corn, Francisco Hernández mentions chile in both his *Natural History of the Plants of the New World* and in his translation of Pliny.9 In his research on Mexican medicinal plants, he referred to chile using the Nahuatl word “chilli”, as well as the Spanish “Pimiento de Indias”: “De chilli seu pipere Indico.” He described it in the following manner:

*Chilli seu peper Mexicanum planta est ferens siliquas illas que ab Haitianis agies, a antiquis, ut quidam uolunt siliquastra et ab Hispanis peper Indicum uocatur et capsicum ab Actuario nun-cupatur. (Hernández, 1998, v1, 404)*

Chili, or Mexican pepper, is the plant that produces pods that the Haitians called *agies* and that were known to some, by the ancients, as *capsicum* (peppers). The Spanish called them peppers of the Indies”. (Hernández, 2000 c: 109)

He also tells us that this plant (he only referred to it as one) was taken to Spain and cultivated there in gardens and pots. While Hernández does not give any details in his text, he writes that for the Spanish, “the plant” was both very useful, as well as ornamental.

Throughout his description, Hernández discusses the colors, levels of spiciness and medicinal qualities of
“the plant.” With respect to its use as a condiment and a food, he writes that it “is usually eaten with corn or with tortillas” and that there is not a table without chile: “ut nullam sit reperire mensam sine chilli” (Hernández, 1998, v1,404).

A SALSA WITH CHILE AND TOMATE
As the Spanish saying goes: “Con tomates, mil manjares” (With tomatoes, a thousand delicacies). Today it is almost impossible to imagine Spanish, or Italian food for that matter, without tomatoes. And so Hernández for the first time in his life, like many Spaniards, saw and tasted those round and plump fruits that the native Nahuatl people called “tomatl.”

In 1992, the late José María López Piñero and his colleagues lamented the dearth of serious scholarship on the history of the tomato (López Piñero, et al. 1992, 222-227). Eight years later, Janet Long, an anthropologist and food historian from Mexico, shed more light on this paucity of information by offering us a great deal of information on Mexican tomatoes and the arrival of tomatoes in Spain and Italy (Long, 2000, 351-357; Davidson, 1992).

The Spanish term tomate has generated a great deal of lexical and philosophical analysis as seen in the works of Fray de Molina, F. Santamaría, R. Siméon, and F. Karttunem. The most extensive study of the term “tomate” [tomato] is found in Santamaría (1974), who provides us with a quite lengthy encyclopedic treatment of the word. According to Santamaría, the word originates from the Nahuatl, and refers to both plants and fruit as *Lyopersicum esculentum*. He also cites Robelo, who indicates that tomatoes are a fruit that relieve the burning or spiciness of chilies (Santamaría, 1974, 1070). Karttunem (1983) cites Fray Alonso de Molina who states that tomatoes are a fruit that provide acidity in sauces. She also makes the distinction that the Nahuatl “tomatl” refers to the green husk tomato and that the large red tomato is specifically called “Xilomatatl.” (Karttunem, 1983). Here we will recall that what is referred to as tomatoes in English are “jitomates” in Mexico, as opposed to green “tomatillos” (*Physalis philadelphica*) which is not the same plant, but related to the cape gooseberry of central importance in the preparation of Mexican green salsas.

There is no reason not to believe that Hernández ate his tacos with tomato, or chile mixed with tomatoes, as he makes specific reference to this salsa (Hernández, 1998, v 2, 692-697). Hernández's description of tomatoes represents one of the most serious and important contributions to the study of New World plants. Unlike previous studies on New World plants and foods, those dedicated to this plant do not offer much information, especially as a food. The earliest references to tomatoes are to be found in the writings of Mattioli, specifically in his translation and commentary of the work of Dioscorides published in 1544. The Italian botanist discussed tomatoes in his chapter on “Mandragora” in his work on Dioscorides in a brief note dealing with “malum in sanum” (*Solanum melongena* or egg-plant; López Piñero, et al. 1992, 253). In this section, Mattioli refers to the tomato as “pomi d’oro,” hence the modern Italian word. German botanists, in a similar manner, called it “malum aureum” and “pomum amoris” (love apple) in botanical works (López Piñero, et al. 1992, 253). The Spanish Renaissance physician and botanist, Andrés de Laguna, also used these terms in his famous translation and commentary of Dioscorides in 1555 (Laguna, 1984).

However, valuable and useful botanical illustrations of tomatoes had to wait until the publication and dissemination of the works of Lobel and Dodoens (López Piñero, et al. 1992, 223). But interestingly enough, the Nahuatl term did not appear until the publication of Guilandini’s commentaries to Pliny in 1572, during the time when Hernández was still working in Mexico. Nonetheless, important information on tomatoes also appeared in the writings of the Spaniards José de Acosta and Gregorio de los Ríos. In 1592, after Hernández’s death, Gregorio de los Ríos said of tomatoes that they “were good for making salsas” (López Piñero, et al. 1992, 223).

Hernández discusses and describes tomatoes in two sections of his writings on New World plants: “De Tomatl seu planta arenosa” (Tomato or the plant of acid fruit) and “De Xaltomatl” (Hernández, 1998, v2, 692-697). The most interesting and detailed is the first, in which he describes this fruit:

Tomatl seu planta acinosa inter solani speties connumerari potest. Etsi a nostri orbis solani generibus differt. Reperiuntur namque in Nouo Orbe aliae spetis quorum fructus ... (Hernández, 1998, v2, 692)
Apart from the other species of solanam, which we will discuss among the plants of our world [Europe], there are in this new world other fruit called tomato … (Hernández, 2000 c: 115)

He continues his description and tells us of the different shapes, sizes, and colors of tomatoes, also indicating that European botanists refer to them as “Love Apples,” thus demonstrating his knowledge of the botanical literature of his times: “Europei rizotomi quos ex his norunt fructus poma amoris …” because of its suggestive and lascivious shape (Hernández, 1998, v2, 696). With respect to culinary uses of the tomato, he states: “Ex his inritris ac permixtis chilli intinctus gratissimus paratur et qui olimnum fere ferculorum et nutrimentorum saporem comendet … (Hernández, 1998, v2, 696) [With respect to food, one can use them in ground form or mixed with chili to make a very agreeable sauce that improves the flavor of many dishes …] (Hernández, 2000 c: 116).

And so, as Sophie Coe has also indicated, tomatoes provided the Spanish, and later Italians, the savor and acidity for their foods which later became part of their national cuisines (50). In addition, as García Rivas states, the Aztecs prepared a tomato soup and a tomato juice that they enjoyed (García Rivas, 1991, 109-112). Much later, after the death of Hernández, Spaniards would eat “pan con tomate” (bread with tomato), not just in Catalunya (pa amb tomaquet), but throughout Spain. In the same way, the emblematic, Andalusian gazapacho (cold tomato soup) would become a mainstay in southern Spain, with few Spaniards realizing its Mexican origins.12

HE DRANK ATOLLI

Mexicans love to repeat popular sayings or dichos. And none are so popular as those which refer to atole: “Correrle atole por las venas” (atole runs through his veins), “Estar como atole de enfermo” (to be like the atole of a sick person), and countless others. Without a thought, if you are sick in Mexico, especially in the countryside, you will be given atole for whatever ails you. Derived from the Nahuaatl word atoll, a drink made from corn flour, mixed with water and boiled (Santamaría, 1974, 94-95), this thick drink was included in Hernández’s comments (Hernández, 1998, v2, 604-606); he was very interested in all the medical practices of the native peoples he encountered. He refers to it as “nequatolli:” “Nequatolli, id est atollcui calx sit permixta, ita ut aquae …” (An atole mixed with lime …); he also notes that it was served during all times of the day, but especially for the sick: “Quid quod tabidis exhibitum ptisanae ordeacee gerit uices, et gruissimus morbis …” (604).

In his discussion of atole, he refers to various types: “white atole,” “acidic atole” (xocoatolli), “chilatole” (atole with chile), “nechilatolli” (atole with chile and honey), “chianatolli” (atole with chia seeds), and others (606-607). In regard to this health drink, so common to both Mexicans and Mexican Americans, we wish to recall what Hernández says of the type of atole known as “ayocomatzolli,” made with beans and corn meal (masa). Of this drink, the Spanish doctor states that: “Nutrimenti id optimi et pergrati uicem preset…” (606) [constitutes a splendid and most pleasant food …] (Hernández, 2000 c: 113).

Father Francisco Javier Clavijero (1731-1787), a Jesuit scholar and author of an important history of ancient Mexico, was well familiar with Hernández’s work.13 Concerning the latter’s discussion of atole, he states that Hernández described seventeen different types of atole, each with different ingredients and distinct manners of preparation.14 Clavijero also provides us with information concerning Spanish attitudes toward atole. He states: “Es insípido al paladar de los españoles; pero lo usan en sus enfermedades” [While it is insipid to the Spanish palate, they use it when sick] (Clavijero, 2000, 1204). As for the Indians, he says that they “can’t live without it.”

Aside from atole, what else did Hernández drink?

DID HE DRINK PULQUE?

Did the Spanish doctor and “preguntador” drink pulque? It was very hot and he traveled extensively, and great distances (Lozoya, 1991). There was no wine, only water: “… [It] took a long time to get used to, and drinking impure water, I passed over the intense heat…” (Chabrán and Varey, 1992).15 It is uncertain if Hernández drank pulque, what the natives called “octli,” more specifically “izac octli” (white wine), but as was his scientific method, he tasted the plants and herbs that he described, while noting their medicinal qualities.

Pulque is a traditional Mexican drink (García Rivas, 1999, 58-69; Hernández Palomino, 1979). It is a milky-colored viscous beverage made from the fermentation of aguamiel or sap (juice) of the maguey plant. According to Santamaría, it is: “[Una] Bebida embriagante, espiritusa,
blanca y espesa, de aspecto nauseabundo y sabor desagradable …”[An alcoholic spirit which is white and thick, with a nauseating aspect and a disagreeable taste] (Santamaria, 1974, 894-895).

Hernández’s description of the fermented agave nectar is found in his interesting discussion of the “metl” or maguey plant (Agave americana). In his Natural History of the Plants of New Spain, he wrote: “Metl plantae, quam Mexicenses maguei appellect, plures sunt differentiae, de quibus seorim aequam, incipientes ab ea folia aloes fert, sed longe maiora et crassiora …” [The metl plant which the Mexicans call “maguey” has many varieties. We will begin with the one that has leaves like the aloe but much larger and thicker …] (Hernández, 1998, v2, 648; De Laet, 2000, 170).

According to Hernández, this plant provides the natives with wine, vinegar, and sugar: “uina, mel, acetum ac sacharum” (Hernández, 1998, v2, 648). In his description of this emblematic Mexican plant, he further states that this “wine” is a vice and easily produces drunkenness among the natives [This drink is very rooted among the natives, especially those who have become bored with their rational nature and desire to become like wild beasts and quadrupeds] (Hernández, 1998, v2, 648).

We have no records of whether our Spanish doctor drank or even tasted “Indian wine” on his many travels through Mexico. Perhaps he did have the very rare opportunity to drink “altar wine” in the convents that he visited along his journey through New Spain. Yet, he was experimental, and otherwise would have to wait until 1577 to taste the Spanish wines of his homeland.

AND THEN, HE DRANK CHOCOLATL

In his beautiful historical novel about sixteenth century Seville, La puerta de oro (The Golden Door), the Catalan gastronomic journalist and novelist, Nestor Luján (1922-1995), records a fictional conversation between Nicolás Monardes, a noted physician and botanist from Seville and classmate of Francisco Hernández, and his friend, Don Antonio, concerning the sugar industry in the Americas. Monardes states the following: “Un gran negocio, como debéis saber, es tener en América molinos de azúcar, y gracias al azúcar, el chocolate se está volviendo una golosina universal” [As you know, it is big business to have sugar mills in America and thanks to sugar, chocolate is becoming the universal sweet] (Luján, 1990, 30). Agreeing with his friend, Don Antonio goes on to comment on a recipe that Dominican nuns in Oaxaca have developed using chocolate powder.

When we modern Westerners think of chocolate, we think of it in its solid, sweetened form, and this is reflected in the undue emphasis which much food writing gives to solid chocolate. Yet during nine tenths of its long history, chocolate was drunk, not eaten. (12)

However, even the Mexican chocolate used for hot chocolate today, such as Carlos Queto*, La Abuelita*, or Ibarra*, is vastly different from what the native peoples of ancient Mexico consumed. As noted in the Coe history, “the current form of chocolate bears little resemblance to the pulp-surrounded seeds of the cacao plant” (13). As to what Hernández said about this plant that was to become the world’s universal “candy” (some might say “drug”), when he first drank and wrote about it in New Spain, his most interesting comments are to be found in the work of Johannes de Laet and in the writings of Francisco Ximénez. Ximénez, who knew Hernández and transcribed and translated Hernández’s work, provides the following description:

Es pues el cacahuaquahuitl un árbol de grandezza y ojas del naranjo y más anchas el fruto largo y semejante a un gran pepino, pero acanalado y rojo, el qual se llama cacahuicintli, el cual está lleno se simiente de los granos del cacao …” (Ximénez/Hernández, 1888, 49)

And so the chocolate tree is a large tree like the size of and leaves of an orange tree but with larger and wider leaves. The fruit is long and similar to a cucumber but striped and red. It is called cacahuicintli and is full of seeds of the cacao … (Chabrán, Rafael. Unpublished translation, 2014)
Hernández begins his description of chocolate, today known as Theobroma cacao, with a long history of money and bartering, and the ways that cacao beans were used as money in the New World. But it was also used as a drink: “Concinnabuntque potum nondum uini conficiendi rationi reperta...” (Hernández, 1998, v1, 310-311) [They also made from it a drink, since they never discovered a way of making wine...] (Hernández, 2000 c: 107). Hernández described four different types of chocolate: quancacahoatl, mexcacahoatl, xochicucahoatl, and tlalacacahoatl. He also tells how the drink was made: “Ergo contrite omnia un fictile fundunrtur agitanturque ligo pistilio...” [They are mixed and stirred together with a wooden pestle.] (Hernández, 1998, v1, 310). Here, Hernández is describing the ways in which chocolate is mixed with a wooden molinillo in order to make it frothy and airy, in the same way it is prepared today in many Mexican and Mexican American kitchens. Initially, chocolate was also mixed and flavored with honey, maize, chile, vanilla and other ingredients. Here we must also remember that the native people did not use milk or sugar in making their chocolate drink.

CONCLUSIONS

While we have reviewed the botanist Francisco Hernández’s commentaries on specific native origin (Mexican) foodstuffs, especially corn, tortillas, chile, tomatoes, and drinks such as chocolate, atole, and pulque, in this brief study we have only skimmed the surface of Hernández’s culinary interests and knowledge. Working with his original texts in Latin, we have tried to stay as close as possible to his descriptions and observations. And when possible, we have underscored what Hernández said about who ate what and how, witnessing the early processes of a culinary mestizaje. For example, with respect to atole, Hernández states: “Cepit iam huismodi uictus placere Hispanis et Indies...” (1998, v2, 604), that is, that Spaniards, especially mestizos, those born of Spanish and Indian parents, have come to enjoy it (Hernández, 2000 c: 112).

During his journeys through Mexico/New Spain, from 1571 to 1577, Hernández came to learn and write about many other native Mexican foods and cuisine. Future food historians will no doubt have much to say about the insects, fish, fruit, seeds and fungi which were investigated, smelled, and tasted by our Spanish physician botanist in his search for the secrets of Mexican medicinal plants, animals, and minerals.

ENDNOTES

1 Simon Varey (1951-2002) was a teacher, scholar, critic, editor, translator, and cook. He was my close friend and collaborator on what was “The Francisco Hernández Project” at UCLA’s Center for Medieval and Renaissance Studies. As such, he was the heart and soul of the project, work that culminated in two major publications: Searching for the Secrets of Nature: The Life and Works of Dr. Francisco Hernández (Stanford, 2000a), and The Mexican Treasury: The Writings of Dr. Francisco Hernández (Stanford, 2000b). When the writer of the present essay uses the plural subject pronoun “we,” he means it to refer to Simon Varey and the author himself. On the life and works of Varey, see Clingham and Varey (2007). On Varey’s contribution to the Hernández Project, see R. Chabrán (2007), 57-64. Lastly, Varey will also be remembered as an avid food historian, see Varey (2002): 85-112.

2 This poem is also found both in the original Latin and in parallel Spanish translation in “Poema a Arias Montano, muy docto y preclaro varón” in Hernández, “Escritos varios” (1984): 28-35. Unless otherwise noted, all translations are by the author.


4 According to the OED, the word “chilli” first appeared in English in Henry Stubbe’s The Indian Nectar in 1662, and again in Chamberlayne, The Manner of Making Coffee, Tea & Chocolate in 1685. “Chile,” which the OED accepts as a variant of “chilli” appeared in Spanish throughout sixteenth century in Spanish texts. Stubbes and Chamberlayne are very important for early information on both chilli and chocolate in English. See Varey and Chabrán (1995).


6 For this article, the following editions of Hernández have been used: Quatro libros de la naturaleza y virtudes de las plantas, y animales que están reclusos en el vaso de medicina en la Nueva España, y el método, y corrección, y preparación que para administrarlas...


8 Hernández, see “Tlaolli” in “Capitulum XL. De Tlaolli…” in Hernández (1998), v2: 607. Throughout this study, we have used R. Álvarez and F. Fernández González’s 1998 edition as our source for Hernández’s original Latin texts. We have also used the facsimile edition of Rerum Medicarum Novae Hispaniae Thesaurus (1992) edited and published by the Accademia Nazionale dei Lincei. See G. B. Marini Bettòlo (1992). With respect to “Tlaolli,” students and scholars are cautioned against relying and using the Spanish translation of this plant found in Hernández, Historia de las plantas de Nueva España in Hernández. Obras completas (1960), v2: 66, as the text is incomplete and conflated in parts.


11 Ibid.

12 It is interesting to note that early references to “gazpacho,” such as Sebastian de Covarrubias’s Tesoro de la lengua castellana o española (1611) do not mention the tomato as an ingredient.

13 Clavijero, Francisco J. and Gregorio Biasini (2000) was first published in Italian: Storia Antica Del Messico: Cavata Da’migliori Storici Spagnuoli E D’a Manoscritti E Dalle Piture Antiche Degl’indiani, Divisa in Dieci Libri E Corredata Di Carte Geografiche E Di Varie Figure E Dissertazioni Sulla Terra, Sugli Animali E Sugli Abitatori Del Messico. In Cesena, per Gregorio Biasini, 1780.

14 See “atole” in Clavijero’s Historia antigua de México, Book 6, Section 64, 1204-1205, online version: <www.el-librototal.com/ltotal/?t=1&d=5006_5010_1_1_5006>.

15 He never explains what made it “impure.”


17 Carlos V® is a brand of Mexican chocolate (both in candy bar and powdered form) produced in Mexico since the 1970s. The Mexican company, La Azteca, previously owned it. In the 1990s, it was bought by Nestle. Abuelita® is also a type of Mexican chocolate (tablets or powder) which is also owned by Nestle. It was first produced in Mexico in 1963. Chocolatera de Jalisco, Guadalajara, another Mexican “table chocolate,” produces Ibarra.

18 As one can imagine, the bibliography on chocolate is extensive. See for example, West (1992): 105-121, the recent massive work Grivetti and Howard-Yana Shapiro (2009), and the beautiful book and DVD by Dreiss and Greenhill (2008); Norton (2008); and Earle (2013): 131-4. Donatella Lippi (2013) in her research explores the history of chocolate as medicine, as well as the healthy effects of chocolate. In Spanish, see Martha Chapa (2003), with a good collection of recipes.

19 Johannes de Laet (1581-1649) was a noted Dutch geographer and director of the Dutch West Indies Company. He was also an important disseminator of Hernández’s writings. Among his works we find, Nieuwe Wereldt Ofte Beschrijvinghe Van West-Indien, … Veelderhande Schriften Ende Aen-Teeckeninghen Van
Dr. Francisco Hernández Ate Tacos: The Foods and Drinks of the Mexican Treasury


Francisco Ximénez (c. 1560-c. 1620) was a sixteenth century Spanish monk who lived in Spain and Italy and finally settled in Mexico where he cared for the sick at the Hospital de Huaxtepec where he came into contact with Francisco Hernández. Later Ximénez edited, translated, and published a compilation of Hernández's writings in Latin, which was later published as Cuatro libros de la naturaleza y virtudes medicinales de las plantas y animales de la Nueva España (1888). On Ximénez, see Somolinos (1960) and “Quatro libros de la naturaleza” in The Mexican Treasury (2000): 117-156.

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