

Sweet Potatoes (*Ipomoea batatas*) And Inaccuracies of the Spanish Chroniclers

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Abstract

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SWEET POTATOES (*Ipomoea batatas*) AND INACCURACIES OF THE SPANISH CHRONICLERS. A chapter in the History of Hispanic American Food

BATATAS (*Ipomoea batatas*) E IMPRECISIONES DE LOS CRONISTAS ESPAÑOLES. Un capítulo en la historia de la alimentación hispanoamericana

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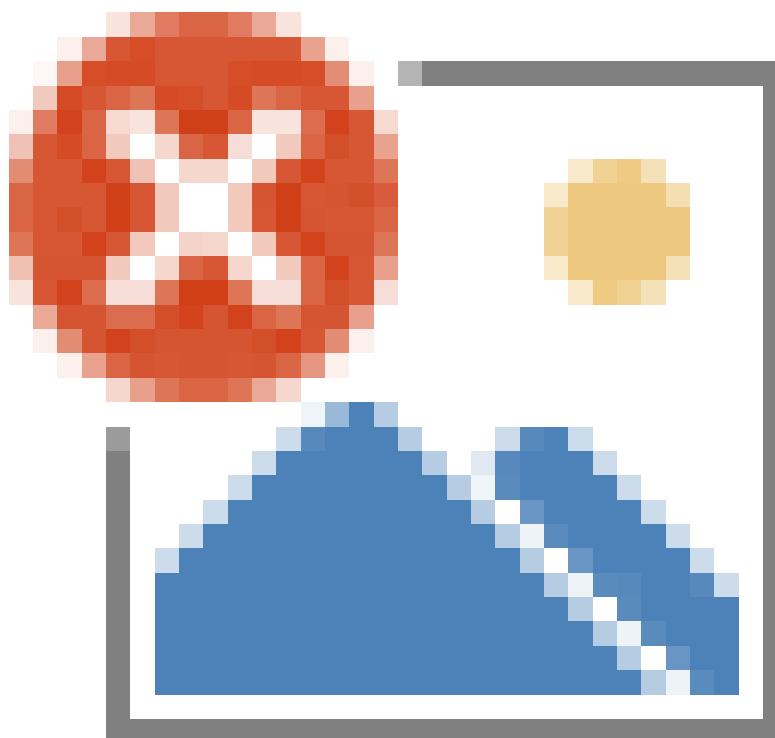
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ABSTRACT

In American chronicles of the sixteenth and seventeenth centuries mention is made of the edible tuberous root sweet potato (*Ipomoea batatas*), highlighting the characteristics of the fruit and the way to consume it. But some of these characteristics are present in other similar edible tuberous roots, except those that are eaten raw, which suggests that the Spanish chroniclers may have been frequently confused in their names, calling sweet potato another edible root that was, in fact, the jícama (*Pachyrhizus ahipa*, *P. erosus*) or the yacon (*Samallanthus sonchifolius*, *Polymnia sonchifolia*). In this article, after a thorough bibliographic review, we examine and try to elucidate this question.

Keywords :

Spanish chroniclers, edible roots, sweet potato, batata, camote, jicama, yacon.

RESUMEN

En crónicas americanas de los siglos XVI y XVII aparece mencionada la raíz tuberosa camote o batata (*Ipomoea batatas*), destacando las características del fruto y la manera de consumirlo. Pero algunas de esas características están presentes en otras raíces tuberosas parecidas, excepto las que se consumen crudas, lo que hace pensar que los cronistas españoles pudieron haber incurrido en frecuentes confusiones en sus nombres, llamando camote o batata a otra raíz comestible que era, en realidad, la jícama (*Pachyrhizus ahipa*, *P. erosus*) o el yacón (*Samallanthus sonchifolius*, *Polymnia sonchifolia*). En este artículo, tras una minuciosa y exhaustiva revisión bibliográfica, se intenta dilucidar esa cuestión.

Palabras clave:

Cronistas españoles, raíces tuberosas comestibles, batata, camote, jicama, yacón.

The inaccuracies of the chroniclers The American fruits taken to Europe changed part of their alimentary customs and their vocabulary. Many of these changes resulted from lexical-semantic adaptations of Spanish taken to the New World by conquerors and settlers, who accommodated their vocabulary to a reality different from that of their origin. Each product of the so-called "flora Indiana" with its common or Hispanic denomination, has a history related to the contact between the two societies. From the perspective of cultural history, the incorporation of American voices of this flora into Spanish from Spain - after the arrival of Christopher Columbus - refers not so much to the interpretative emphasis as to the botanical imprecisions that affected the knowledge of American food. It is necessary, then, to investigate the flora of the Indian world, contributing to the history of food. This work investigates the place that sweet potato (*Ipomoea batatas*) occupies about other similar tuberous edible roots. It is sought to establish, within a specific cultural and material map of the relations between colony and metropolis, how the characteristics of the fruit (shape, colour, taste) and the way of consuming it (cooked or raw) confused the Indian chroniclers when describing the flora and give the first testimonies about the American fruits (García Guatas and Barbacil, 2015: 17). At the beginning of the Spanish conquest, the New World was described by clerics, soldiers, merchants, historians and geographers, in relationship letters, memorials and chronicles until October 1571. That year the Spanish crown established the position of "chronicler and major cosmographer of the states and kingdoms of the Indies, islands and the mainland of the oceanic sea" (Compilation of the Laws of the Indies, 1680), entrusting it to Juan López de Velasco. Its functions were: "a compilation of the general history, moral, as well as memorable events and exceptional natural things and especially everything related to the cosmography and descriptions of the Indies" (Compilation of the Laws of the Indies, 1680). That year appeared the Royal Ordinances of the Council of the Indies, a kind of questionnaire on matters related to geography, nature, military and ecclesiastical organisation, as well as on the uses, beliefs and rites of the indigenous people. The chroniclers of Indians were in charge in future to leave a record of the American history (Tijeras, 1974: 13). The Crown was thus informed of everything related to land, seas, nature, food and other uses of the people, and temporal affairs, ecclesiastical and secular, past and present (Esteve Barba, 1964: 113).

The chronicles touched on matters of geography, flora, fauna, societies, indigenous religions, forms of food and products used for food, medicine and crafts (Cuesta, 2007: 119). The chroniclers wrote from different perspectives, with access to official documentation, exposing their experience, direct or indirect, American. They tried to describe what was being discovered, giving it historiographical density, seeking, perhaps, "to enrich the adventure by narrating it" (Martínez Estrada, 1942). They reported everything without subjecting the seen to great criticism: they wrote the birth certificate of the New World. (Esteve Barba, 1964: 7). The list of chroniclers is long. Outstanding is the Italian Pedro Mártir de Anglería, the priest Antonio de Herrera, the Jesuits Joseph de Acosta and Francisco López de Gómara, the Sevillian Bartolomé de las Casas, the Venetian Nicolás Pigafetta and the Spaniard Gonzalo Fernández de Oviedo y Valdés. The latter was the most valued, for his interdisciplinary training, with competence in writing, ethnography and botany.

Among the chroniclers, there were rivalries, plagiarism and exaggerations. Pedro Mártir de Anglería never visited the New World, which did not prevent him from writing work in three volumes on American nature. Another, Antonio de Herrera, was very inspired by the writings of Las Casas and Cieza de León (La Crónica del Perú, 1553). The Dominican friar Tomás de la Torre wrote the newspaper of the trip from Salamanca, Spain, to Ciudad Real, Chiapas, 1544-1545 (Martínez, 1983: 252-293), noting that the sweet potato "is common fruit of those lands". Thus, a large documentary corpus was constructed, more subjective than objective.

The images of the Indian speech During the discovery and the conquest, a utopian image of representations that survived in the American imaginary was projected. The differences (landscape, flora and fauna, people, beliefs and customs) disturbed the chronicler, forging mythology that presented America as a region of beings and fabulous events. It is the Indian discourse. On what images was the Indian discourse constructed? The first look is that of Columbus. Some ideas are repeated in the descriptions of the landscape in his

Diary, confessing himself dazzled by the exuberance of that land. However, Columbus also sees an almost magical nature. A kind of Edenic worship projects your imagination. He mentions fable sirens, men with tails, and places the Earthly Paradise there. Another look is that of Pedro Mártir de Anglería, in *Decades of the New World* (1516). The Milanese, unlike Columbus, is aware of the novelty of the lands discovered, although he never visited the New World, which is reproached by other writers who did live in the Indies, such as Fernández de Oviedo or Las Casas. His descriptions differ from the Columbus, obsessed in magnifying the Indies - the "most fecund error of all time," according to the German historian Leopold Ranke. Fernández de Oviedo, despite his careful eye, also incurred exaggerations, mixing fantasy with reality, influenced by books of chivalry or classical mythology (Cartay, 1991). Nicolás Pigafetta, companion of Magallanes in his travels, described the inhabitants of Patagonia as giants who devoured a basket of biscuits in a bite or drank in a single gulp a bucket of water. Magallanes called them "patagones", remembering the monster Patagón, taken from *Primaleón*, a cavalry novel by Francisco Vázquez, from 1512. Fernández de Oviedo said that they measured more than 2.70 m. The legend persisted until Darwin reduced them to their normal stature (Rosenblat, 1977: 154-155). Fernandez de Oviedo was not the only one who exaggerated. Others spoke of eagle-headed dragons and bat wings or turtles so large that three men could fit in their carapace (Vannini de Gerulewicz, 1974: 229-230). The indirect look of the chronicler built an extraordinary image of American nature. The greatest beneficiary was the imagination: as if the exaltation of risk and value had risen with the overseas adventure (Medina, 1992: XIV). In the register of American reality, what is "seen" is more in the imagination than in reality. To describe America was to imagine it (Ariza *et al.*, 2007). Elliot (1972: 21-22) mentions the apparent European slowness to fit America within his field of vision. That slowness was born of the novelty that America represented for Europe, and that forced us to draw up an inventory of the things found and their legends. The chronicler Juan Bautista Muñoz entered "in a state of universal doubt" to find the truth before so much exaggeration of his colleagues (Lemmo, 1977: 33). They accused each other of committing plagiarism and falsehood at a time when "intellectual property was not discussed" (Morón, 1957: 29). De Las Casas used to say of Fernández de Oviedo, for example: "What I believe about the writing of Oviedo and all its parish, what it says about the trees and herbs of this island, that it writes truthfully (...)", although what is written about the Indians is "false". Alternatively, Lopez de Gomara, who "took from Oviedo's History everything false about the cleric Casas, and added many other things that not even through his thought ...)" (Casas, 1986: III, 523-526). Fernández de Oviedo said of Mártir: "Pedro Mártir could not, from so far away, write these things as his own as they are, and matter requires it; and those who informed him or did not know how to say it, or he did not know how to understand it "(Fernández de Oviedo, 1959: Chapter VII, Book 12). The chroniclers projected onto the American world the tangible reality of their European world and their literary, mythological and religious tradition (Rosenblat, 1977: 160). Croizat, analyzing the work of Girolamo Benzoni, author of *The History of the New World* (1967), published in Venice in 1565, noted that: "Seen by ten different authors, the same plant or the same animal provided materials for ten descriptions that, substantially identical, however, differ in the details. Of the ten authors, some may also be net naturalists, that is, be able to observe analytically and synthetically at the same time, while these are not formed as soon as they see the universe more than an overall impression more or less confused "(Croizat, 1967). When described, the American reality was distorted (*Historia Real y Fantastico del Nuevo Mundo*, 1992).

Ipomoea batatas are known as sweet potato, chaco, camote, apichu. Batata comes from the Taíno, a language spoken on the island of Hispaniola (Alonso, 1967: 18-19) or the language quizqueya or itis, spoken in what would be Haiti (Humboldt, 1967: 99). Camote comes from camotli, from Nahuatl (León, 1968: 43). In Yucatan, they called it is (Meléndez Guadarrama, Hirose López, 2018: 199), and the Andean apichu (de la Vega, 1960: Chapter X, Book 8, 307).

About the primary centre of originThe primary centre of origin of the sweet potato (sweet potato, hereafter) is unknown. For Vavilov (1926) it was located in southern Mexico and Central America. For others, Central America or northwest of South America (O'Brien, 1972, Austin, 1987, 2011, Seminar, 2014). According to archaeological evidence, it was cultivated in the Peruvian-Ecuadorian highlands for thousands of years (Yen, 1974). Others argue that it grew in Polynesia since ancient times, in the triangle between

New Zealand, Easter Island and Hawaii. When Magellan arrived in Oceania, in 1521, he found it there. How could the sweet potato have gotten this far, without being transported by ocean currents? It is argued that indigenous Americans spread it on that continent. Others argue that Polynesian navigators travelled to America and brought it back, along with the pumpkin (*Lagenaria siceraria*) (Yen, 1974, Clarke *et al.* , 2006, Green, 2005). Alternatively, that the sweet potato, an Andean food package for long trips, was abandoned in an American boat dragged to Polynesia by marine currents (Yañez Arroyo, 2002, Seminario *et al.* , 2003). The mystery increases because the Polynesians call kumara the sweet potato, Quechua name of a Peruvian variety. Chilean and New Zealand researchers found chicken bones in the El Arenal conchal, in southern Chile, dated between 1321 and 1407, which coincided in their DNA with the bones of chickens that lived 2,000 years ago on the Polynesian island of Tonga (Storey *et al.* , 2007, Ramírez Aliaga, Matisoo Smith, 2008). Gradually the hypothesis of exchanges between indigenous people of Polynesia and America is confirmed. Henríquez Ureña said that "The origin of the sweet potato is discussed: it existed in all of America, even outside the tropics, but it is said that it also existed in China and in islands of Oceania. The Spaniards took it to the Philippines and the Moluccas; to Japan and the islands of the Indian Ocean, the Portuguese "(1938: 19). Another controversy related to the sweet potato occurred about its primary centre of origin. Until recently it was accepted, based on archaeological and linguistic evidence, that the sweet potato originated in the Peruvian coast. This hypothesis was questioned by Mexican researchers, arguing that the genus *Ipomoea* has 600 species distributed in the tropics and subtropics, with the sweet potato being among the eight species of native sweet potato section found from Mexico to South America. They argue that Central America is the primary centre of sweet potato and that the South American region acted as a secondary centre (Linares *et al.* , 2008: 11-15). Seminario (2014: 17) notes, contrary, evidence of ancient remains of sweet potato registered in the site Tres Ventanas, in the Chilca Canyon, Peru, about 10,000 years ago, certified by Yen (1974). There was, he says, a primary centre of diversity in northern Peru, Ecuador and Colombia, and two secondary centres, one in southern Peru and the other in Central America. Scaglione (2005) and Scaglione and Cordero (2007) do not share the thesis that the term sweet potato derives from the *camohtli* voice, from Nahuatl, which means edible root, indicating that it comes from the term *coal*, used by the ancient *cañari*, who lived in the Gulf of Guayaquil, in Ecuador. In the texts of the chroniclers, there are many references to the sweet potato, often confused and contradictory (Pardo Tomás and López Terrada, 1993), leaving the impression that these scribes made mistakes that led to misleading ethnobotany. The existence of thirteen wild relatives of *Ipomoea batatas* complicates things further (Huamán, 1992).

The sweet potato in the texts of the chroniclers 1-The first mention of the sweet potato, or a similar fruit, corresponds to the Italian philosopher Nicolaus Scillacio (1494), who narrated the second voyage of Columbus, noting that the navigators found fruits that they called "asses" (or ages), large as melons, which eaten raw had the taste of parsnips (or parsnips, *Pastinaca sativa*, a root similar to carrots, but paler and slightly spicy), and toasted they tasted like chestnuts. Scillacio was a professor in Padua and transcribed several letters of Guillermo Coma, which recounted the wonders found by Columbus on his trip. 2-Pedro Mártir de Anglería was an Italian humanist who served the Catholic Monarchs. He began writing *De Orbe Novo* in 1516, the first "Chronicle of the Indies," using the testimonies of sailors returning from the Indies, and which he compiled in personal interviews. Although he was never in the New World, his chronicle represents an extraordinary ethnographic work using interviews. In the second of his *Decades* he pointed out that: "In any way they are seasoned, roasted or cooked, there are no cakes or any other delicacy of more softness and sweetness: the skin is somewhat stronger than in potatoes and turnips, and They have earth colour, but the meat is very white (...) They are also eaten raw, and then they mimic the taste of the green chestnut, but they are sweeter".

3-Gonzalo Fernández de Oviedo y Valdés, noted in *Historia general y natural de las Indias* (1599, 1535), that "Batatas is a great maintenance for the Indians on that Spanish island and elsewhere (...) it resembles the ages, but the sweet potato is more delicate *fructa* or *manjar*, and the leather or crust is thinner, and the advantageous flavour and of better digestion (...) eat cooked or roasted, and in potions and preserves (...) ". Fernández de Oviedo pointed out the existence of five species of sweet potatoes: *atribiuneix*, *guaraca*, *guacaraica*, *guanoganox* and *aniguamas*, being the last "the best and most *preciada*". 4-Fray Tomás de la

Torre was a Dominican friar who accompanied Bartolomé de las Casas on his trip from Spain to Chiapas in 1544, and later became bishop of Asunción in Paraguay and Tucumán. De la Torre said, quoted by Ximénez (1720), that sweet potatoes are "roots that are raised underground like turnips", white or red, that are eaten roasted or cooked, "so they knew us well", and that "they have the taste in nothing different from chestnuts" (Martínez, 1983: 259). Roots that are raised underground, he says, despite describing it as "Indian fruit" (252). 5-Francisco López de Gómara wrote General History and Conquest of Mexico (1552-1553), without knowing Mexico, using testimonies of Hernán Cortés, of whom he was a secretary, and of his travelling companions. López de Gómara said that "(...) ages and batatas are almost the same things in size and taste, although the sweet potatoes are sweeter and more delicate (...) they taste like chestnuts with sugar or marzipan". López de Gómara (1979, XVI: 32) pointed out that Columbus took Spain back from his first trip: "ten Indians, forty parrots, ten rabbits, many rabbits (called hutias), sweet potatoes, peppers, corn, which they made bread, and other things strange and different from ours ..." (1979, XXII: 167).

6-Francisco Hernández was appointed protomédico general of the Indies by Felipe II. He made the first scientific expedition to America between 1571 and 1576, collecting more than 3,000 species of plants, 500 of animals and making more than 2,000 illustrations. In New Spain he conducted experiments, between 1574 and 1577, at the Royal Hospital of Naturales in Mexico, with 200 beds, using Indians to test the efficacy of indigenous medicines. He wrote History of the Plants of New Spain (1943), where he noted that the sweet potato is the root that is eaten raw or cooked or as a culinary ingredient. 7-Antonio de Herrera was a chronicler and writer of the Spanish Golden Age, who narrated, masterfully, the history of the Castilians in America using works written by others, such as Juan López de Velasco or Gonzalo Fernández de Oviedo, for which he is accused of plagiarism. Prolific author is known for the Decades (1601), which refers to the Spanish feat in America. Of the sweet potatoes, he said that they are "roots that look like turnips, blacks from the outside and inside are very white, they are cooked or raw, and they taste like good chestnuts" (Herrera, 1943). 8-Father RP Labat, a Dominican missionary residing in the French Antillean islands, pointed out in the Voyage to the Islands of America (Antilles) (1722) that the colonists of the islands "cook them in a cauldron with salt and a little water and they cover them with their leaves (...) The sweet potatoes are removed from the cauldron, the skin is removed, which is detached by little that is squeezed, and they are eaten by dipping them in the sauce" (a hot sauce made with crushed chilli, lemon and salt) (Labat, 1979).

9-But Hernández mentioned in Comments of Alvar Núñez Cabeza de Vaca (Valladolid, 1555), of which he was secretary, several times the sweet potatoes or sweet potatoes. On December 28, 1555, he pointed out that the Guarani Indians of Tugui left the road to receive the "Adelantado y gobernador del Río de la Plata", bringing "many provisions, in such a way that the people were always very much provided ... the people of the villages sow corn and cazabi and other seeds, and sweet potatoes in three ways, white and yellow and red, very thick and tasty, ..." (1922: 175). 10-Bernal Díaz del Castillo, in Conquest of New Spain (chapter 8), indicated that on the island of Cozumel, in front of Yucatan: "there were very good apiaries of honey and good sweet potatoes". On the other hand, Juan de Castellanos, in the Elegies of illustrious men of the Indies (Part I, Elegy I, canto IV), puts in the mouths of Antillean Indians who: "We will give them of our increases guayas, auyamas, yuccas and sweet potatoes; let's give them cazabes and corn with other loaves made from roots ..." (Henríquez Ureña, 1938: 21) We reviewed ten mentions trying to identify the sweet potato or sweet potato according to their mode of cooking and consumption: three indicated that they eat cooked; four, cooked or raw, and three do not mention the form of their consumption. For most, the sweet potato is a root shaped like a turnip, with a strong skin, an earthy colour and a sweet taste similar to that of the green chestnut. The sweet potato is root tuberose, resistant skin and sweet pulp for its content of sucrose, glucose and fructose. It was eaten by frying it in thin slices with sugar, either roasted between ashes, or cooked with sugar and cinnamon" (López, 1871: 240), but not raw. The reason is its high content of glycosidic resins (between 5% and 18%), which causes flatulence, diarrhoea and even severe purgation. The sweet potato contains, also, dioscorin, an alkaloid that alters the central nervous system of the consumer (Linares, Bye, Rosa-Martínez and Pereda-Miranda, 2008), with the risk of seizures, depression and delirium (Repetto, 1995). For avoiding this, the root is consumed cooked, boiled or roasted, as is customary throughout the Americas. The Maya mixed it with corn to make tortillas and drinks (Meléndez-Guadarrama 2018). If the

chroniclers called sweet potato or sweet potato to a root that was not it, then, to which root they alluded? To know, we resort to two clues: organoleptic and linguistic.

The organoleptic characteristics as differentiating elements If you look at the characteristics of the fruit (shape, texture and taste) and the way of cooking and consumption, we find similarities between several tuberous roots, creating confusion. It happens with the jícama (*Pachyrhizus ahipa*, *P. erosus*) and the yacon (*Smallanthus sonchifolius*, *Polymnia sonchifolia*). The jícama is a climbing plant, reaching about four meters, of the Fabaceae. It grows at less than 1,400 masl, and its origin between South America and Mesoamerica is not well known, where the cultivar *Pachyrhizus erosus* was recorded. Two other cultivars have been identified: *Pachyrhizus tuberosus*, from the Amazon basin, and *Pachyrhizus ahipa*, from the Andean altiplano, although for Yacovleff (1933: 63-64) it became extinct in Peru. This rounded root, brittle texture, yellowish rind and white flesh, is eaten raw, like fresh fruit, and is considered refreshing for its juicy pulp (86 to 90% water) and sweet taste for inulin, an oligofructose not metabolizable by the human organism, which makes it recommendable for the consumption of diabetics. Apart from being a food (rich in vitamin C, calcium, phosphorus, potassium, iron and traces of protein and lipids), it is used as a medicine as a contraceptive and against gout, kidney pain, jaundice, scabies. The root is consumed raw, except for the seed containing rotenone, a natural insecticide. The yacon is an erect plant, of the Asteraceae, relative of the sunflower, 2 meters high, probably originating from the Peruvian-Bolivian altiplano. Its fruit is a tuberous root with a rounded shape, resistant skin and orange to purple colour, as well as its pulp. It is consumed raw or cooked. Its taste is sweet, due to inulin. Its sweetness increases when it is dried in the sun. The three plants described present a certain similarity in the shape of the root, of resistant skin compared to that of the potato. The colour of the skin changes according to the species, as does the pulp, with a sweet taste (due to inulin in two cases). Botanists point out that the cultivated species of the genus *Ipomoea* include variable plants in their morphology, whose reserve root presents a surface with veins and furrows, varying in shape, colour and size according to the cultivar and the type of soil where it grows (Huamán, 1992). In this case, they resemble species of the farinaceous root genus (Ramírez Ascheri *et al.*, 2014, Zardinie, 1991, Sorensen *et al.*, 1997). The pulp is eaten raw in the cases of jicama and yacon, but not in that of sweet potato. The water content is similar in all three cases (from 71% to 90%), as well as their nutritional values. The storage period is, in the three cases, from one to two months, in dry and ventilated places, being the jícama more resistant to rotting, staying fresh up to eight days, which was mentioned by Poma de Ayala (1615) and Cobo (1943, 1653). For Cobo, it was a "wonderful fruit to ship it because it lasts a long time". In summary, the appearance and certain organoleptic characteristics of the three roots are similar, justifying to some extent the imprecisions of the chroniclers when mentioning them. With linguistics, the confusion is even greater.

The word inaccuracies in some American fruits The food products travelled through America with their names. Linguists speak of an ultramarine Spaniard, born in the first contact between Spaniards and indigenous Antilleans, from 1492 to 1519. That language is an "Americanized" Spanish that was nourished by many indigenous words from the Caribbean region. Some call it the language of the Antillean period, when the Spanish presence in the New World was reduced to the islands and southern coasts of the Caribbean (Guitarte, 1983, Rivarola, 1990, Vaquero de Ramírez, 1991). For others, it is about lexical-semantic adaptations of Castilian taken to the New World by the Spaniards who accommodated their vocabulary to the American reality (Frago García, 2015: 17). Each product of the Indian flora with its indigenous common name, or the adopted one, had its history when transplanted to Mexico and Peru. The word batata, for example, of Taíno or Caribbean origin, was one of the voices that the Spanish they learned in Hispaniola, by contacting the natives and establishing the first populations as Santo Domingo, founded in 1496. From there came most of the first Americanisms that arrived in Europe during the thirty years following the discovery, before the Mexican terms were circulated and Peruvians (Henríquez Ureña, 1938: 16). The chroniclers described using American voices, adding connotations to the European voice to evoke the unknown object, or joining the indigenous word with the Castilian voice. The chroniclers first described the referent without naming it. Then they compared it with what is known in Spanish, alluding to the color, size and shape of the thing that belonged to other realities. Thus they "reinvented" America using two methods: the comparison of the known with the unknown, and the reasoning about the denomination (Rojas, 2007: 1068). Fernández

de Oviedo (1959: Chapter VI, Book 8) noted that the Spanish conquistadors brought to Peru the names learned in Santo Domingo and in Cuba. The yucca "that does not kill" was called sweet potato (not to refer to the sweet potato or sweet potato, but as "Haxí boniatum", that is, good, harmless) (Arrizabalaga, 2007: 330, note 17). Fernández de Oviedo, like other chroniclers, designated American things with Spanish names, using American voices "only when he judges them indispensable for the precision and clarity of what he is writing" (Moreno de Alba, 1993: 59). Many of these terms are Castilianized and incorporated into the Spanish of the sixteenth century New Spain. Many of these antillanisms, taken from the Arawak and the Taíno, "suffocated" the native voices. This is the case of voices such as cassava, corn, manatee, mamey, jején, guanabana, barbecue, sweet potato, guava, bija, cazabe, crab, papaya, hammock, macaw. Of them, some were defeated. This is the case of ají, replaced by chili, or sweet potato replaced by sweet potato (Antúnez Reyes, 1991: 135). Henríquez Ureña (1940: 122-123) noted that in Mexico came the sweet potato first word, sweet potato before chile, or bija before annatto, changing later.

The use that mixed denominations of different indigenous languages, adapting them to the Castilian, initially produced confusions, even among the Spanish intellectuals. Moreno Gómez (2010, 2017) referred to the confusion generated in Spain with the names of sweet potato, potato and potato. For more than two centuries the terms sweet potato and potato were used as equivalents, admitted by the DRAE in its editions from 1726 to 1817 when confusion was partially clarified, although the potato continued to be called potato. The sweet potato is an Antillean word, from the Taíno, sharing other common names: sweet potato (from Nahuatl, Aztec language, Camotli), apichu (from Quechua), sweet potato, sweet potato, chaco. In Spain, the sweet potato was eaten by frying it in slices, roasted or simply cooked. It was used in preserves, in pastry and confectionery, or for soup and puree. Alcedo, in the vocabulary of American words of Geographic-Historical Dictionary of the West Indies, Madrid, 1789, pointed to the sweet potato as: "the name given in Peru to the batata de Málaga" (Henríquez Ureña, 1938: 23).

Jicama derives from Nahuatl xicamatl, which means edible tuber. It also receives other common names: jíquima, jiquimilla, Mexican turnip, pelenga. It is also called yacon and llaqon. Yacon is a word derived from Quechua yacu or yaku, which means water. They call it jicama in Ecuador, for more confusion.

Conclusion The Spanish chroniclers were confused when describing three important American tuberous roots in the diet of Native Americans. These word uncertainties were due to the similarity that these three fruits have among themselves, despite the differences in the size of the plant and its ways of propagation and consumption. These inaccuracies multiplied because of many chroniclers.

BIBLIOGRAPHY

- Alonso, M. 1967. *Sobre el español que se escribe en Venezuela*. Mérida: Universidad de los Andes.
- Antología de libros de caballerías castellanas*. 2001. Alcalá de Henares: Centro de Estudios Cervantinos.
- Antúnez Reyes, E. 1991. El idioma español en los puertos de Nueva España. Memorias del I Simposio Internacional. Octubre 1990. *España y Nueva España: sus acciones transmarítimas*. México: Universidad Iberoamericana/CONDUME.
- Ariza, M, Biscu, M.G., Fernádes García, M.I. 2007. The Madness of Imagining New Worlds. *Scenario (Language, Culture, Literature)*, 2: 7-25.
- Arrizabalaga, C. 2007. Comentarios a un pasaje de Gonzalo de Fernández de Oviedo. *RILCE*, 23. 2: 318-330.
- Austin, D.F. 1987. The taxonomy, evolution and genetic diversity of the sweet potatoes and related wild species. International Potato Center. *Exploitation, maintenance, and utilization of sweet potato genetic resources*, 27-59.
- Austin, D.F. 2011. Indian Potato (*Ipomoea pandurata*, Convolvulaceae)—A Record of Confusion. *Economic Botany* 65: 4, pp 408–421 <https://doi.org/10.1007/s12231-011-9176-x>
- Benzoni, G. 1967. *La Historia del Nuevo Mundo*. Caracas: Academia Nacional de la Historia.

- Casas, B. de las. 1986 (1875-1876). *Historia de las Indias*. Caracas: Biblioteca Ayacucho.
- Cartay, R. 1991. *Historia de la alimentación del Nuevo Mundo*. San Cristóbal: Editorial Futuro.
- Clarke, C.; Michael K. Burtenshaw; Patricia A. McLenachan; David L. Erickson; David Penny. 2006. Reconstructing the origin and dispersal of the Polynesian bottleguard (*Lagenaria siceraria*). *Molecular Biology and Evolution* , 23 (5), 893-900.
- Croizat, L. 1967. *Estudio preliminar* , en: Benzoni, G. *La Historia del Nuevo Mundo* . Caracas: Academia Nacional de la Historia.
- Cuesta Domingo, M. 2007. Los Cronistas oficiales de Indias. De López de Velasco a Céspedes del Castillo, *Revista Complutense de Historia de América* , vol. 33, 115-150.
- Esteve Barba, F. 1964. *Historiografía indiana* . Madrid: Gredos.
- Frago García, J.A. 2015. De los nombres de las cosas de comer traídas de América hasta la Independencia. García Guatas, M. y J. Barbacil (Eds.). *Los alimentos que llegaron de América* . II Simposio de la Academia Aragonesa de Gastronomía. Aragón.
- Fernández de Oviedo, G. 1959 (1535). *Historia general y natural de las Indias*. Madrid: Ediciones Atlas. 2 vols.
- Folquer, F. 1978. *La Batata (Camote)* . *Estudio de la Planta y su Producto*. San José de Costa Rica. Editorial hemisferio sur.
- García Guatas, M. y J. Barbacil (Eds.). 2015. *Los alimentos que llegaron de América* . II Simposio de la Academia Aragonesa de Gastronomía. Aragón.
- Gil, J. y Varela, C. 1984. *Cartas de particulares a Colón. Relaciones coetáneas* . Madrid: Editorial Alianza.
- González Holguín, D. 1989. *Vocabulario de la lengua general de todo el Perú llamada lengua qquichua del Inca (1608)*. Lima: Universidad Nacional Mayor de San Marcos.
- Green, R. C. 2005. Sweet Potatoes. Transfert in Polynesian Prehistory. En: Ballard, et al. *The Sweet Potato in Oceania: a reappraisal* . Ethnology Monograph, 19. Oceania Monograph 56, 43-62.
- Guamán Poma de Ayala, F. 2013 (1615-1616). *Nueva Crónica y Buen Gobierno*. México: Siglo XXI.
- Guitarte, G. 1983. Para una periodización de la historia del español en América. En: *Siete Estudios sobre el español en América*. México: Universidad Autónoma de México, 167-182.
- Henríquez Ureña, P. 1940. *El Español en Santo Domingo*. Buenos Aires: CONI.
- Henríquez Ureña, P. 1938. *Para la historia de los indigenismos. Papa y Batata. El enigma del aje. Boniato. Caribe. Palabras antillanas* . Buenos Aires: Ediciones de la Facultad de Filosofía y Letras.
- Hernández, F. 1943. *Historia de las plantas de Nueva España*. México: Universidad Nacional Autónoma de México. Tomo II.
- Historia Real y Fantástica del Nuevo Mundo* . 1992. Presentación José Ramón Medina; selección, prólogo, notas y bibliografía Horacio Jorge Becco. Caracas: Biblioteca Ayacucho.
- Huamán, Z. 1992. *Botánica sistemática y morfología de la planta de batata o camote*. Boletín de información Técnica 25. Lima: Centro Internacional de la Papa.
- Humboldt, A. de. 1967 (1818-1829). *Del Orinoco al Amazonas* . Barcelona: Editorial Labor.
- Labat (RP), J.-B. 1979. *Viaje a las islas de la América*. La Habana: Casa de las Américas.
- Lemmo, A. 1977. *Historiografía colonial de Venezuela*. Caracas: Facultad de Humanidades y Educación de la Universidad Central de Venezuela.

- León, J. 1968. *Fundamentos botánicos de los cultivos tropicales*. San José de Costa Rica: IICA-OEA.
- Linares, E.; Bye, R.; Rosa-Martínez, D.; Pereda-Miranda, R. 2008. El Camote. *Biodiversidad*, CONABO-México, 81, 11-15.
- López de Gómara, F. 1799. *Historia general de las Indias y Vida de Hernán Cortés*. Caracas: Biblioteca Ayacucho.
- López, L. (Ed.). 1871. *El libro de las familias. Novísimo manual práctico de cocina española, francesa y americana, higiene y economía doméstica*. Madrid, Librería de L. López (14a edición, revista, corregida y aumentada).
- Martínez, J. L. 1983. *Pasajeros de Indias: viajes transatlánticos en el siglo XVI*. Madrid: Alianza Editorial.
- Mártir de Anglería, P. 1989 (1516). *Décadas del Nuevo Mundo*. Madrid: Polifemo.
- Meléndez L., Hirose J. 2018. Patrones culinarios asociados al camote y la yuca entre los mayas yucatecos, ch'oles y huastecos. *Estudios de Cultura Maya*, Vol. 52, 193-226.
- Monardes, N., 1574. *Primera, segunda y tercera partes de la historia medicinal de las cosas que traen de nuestras Indias Occidentales que sirven en medicina*. Sevilla: Casa de Alonso Escribano.
- Moreno de Alba, J. G. 1993. *El Español en América*. México: Fondo de Cultura Económica.
- Moreno Gómez, J. 2017. *De las Indias al Mediterráneo. La batata en la Axarquía*. Málaga: Libros de la Axarquía.
- Moreno Gómez, J. 2010. De las Indias al Mediterráneo: la batata/ patata: fruto de Málaga por antonomasia. *Isla de Arriarán*. No. 35, 47-67.
- Morón, G. 1957. *Los Cronistas y la Historia*. Caracas: Ediciones del Ministerio de Educación.
- Núñez Cabeza de Vaca, A. 1922 (1555). *Nafragios y comentarios. Un tomo, con dos cartas*. Madrid: Calpe, 1922.
- O'Brien, D.J. 1972. The sweet potato: Its origin and dispersal. *Am. Anthropologist*, 74, 343-65.
- Pardo Tomás, J. y López Terrada, M. L. 1993. *Las primeras noticias sobre plantas americanas en las relaciones de viajes y crónicas de Indias, 1493-1553*. Valencia: Instituto de Estudios Documentales e Históricos sobre la Ciencia-Universidad de Valencia.
- Pigafetta, A. 1986 (1524). *Primer viaje alrededor del Globo*. Barcelona:
- Ramírez Aliaga, J. M.; Matisso Smith, E. 2008. Polinesios en el Sur de Chile en Tiempos Prehispánicos: evidencia dura, nuevas preguntas y una nueva hipótesis. *CLAVA*. 7, 85-100.
- Ramírez Ascheri, J. L.; Luz Haydee Bravo Zamudio; Carlos Wanderlei Piler Carvalho; Arturo Melendez Arevalo; Lais Martins Fontoura. 2014. Extraction and Characterization of Starch Fractions of Five Phenotypes *Pachyrhizus tuberosus*. *Food and Nutrition Sciences*. Vol. 5, No. 19, 1875-1885.
- Repetto, M. 1995. Estado actual de la toxicología alimentaria. En: Cameán, Ana; Repetto, M. *Toxicología Avanzada*. Madrid: Ediciones Día de Santos, 148-201.
- Rivarola, J. L. 1990. Para la historia de los americanismos léxicos. En: *La formación lingüística de Hispanoamérica*. Lima: Pontificia Universidad Católica del Perú.
- Rojas, A.E. 2007. Cronistas, descubrimientos y colonización. Glosario documentado de voces indígenas en la Apologética Historia Sumaria de fray Bartolomé de las Casas. En: Arrogoes, E.P.; Hernández A., C.; Castañeda, L. (eds.). *El Español de la América*. Actas del VI Congreso Internacional de "El Español de América". Tordesillas: Diputación de Valladolid.

- Román y Zamora, Fray J. 1897 (1575). *Repúblicas de Indias. Idolatrías y gobierno en México y Perú antes de la Conquista*. Dos volúmenes. Madrid: Victoriano Suárez Editor.
- Rosenblat, A. 1977. *Los Conquistadores y su lengua*. Caracas: Universidad Central de Venezuela.
- Sahagún, B. 1938 (1590). *Historia General de las Cosas de Nueva España*. México: Editorial Pedro Robredo.
- Scaglione, R. 2005. Kumara in the Ecuadorian Gulf of Guayaquil? En: Ballard, *et al.*, *The Sweet Potato in Oceania: A reappraisal*. Ethnology Monograph 19, Oceania Monograph, 56, 35-41.
- Scaglione, R. y Cordero, M. A. 2007. Camote Ecuatoriano en Polinesia: posible evidencia de su dispersión en tiempos prehistóricos. *Revista de la Casa de la Cultura (Núcleo del Azuay)*, 19, 78-114.
- Scillacio, N. 1989 (1494). Las islas del mar Meridional e Indico Recientemente Descubiertas. en: Vannini de Gerulewicz, M. *El Mar de los Descubridores*. Caracas: Exlibris.
- Seminario, J. 2014. *Origen de las raíces andinas*. Lima: Centro Internacional de la Papa.
- Seminario, J.; Valderrama, M.; Manrique, I. 2003. *El Yacón: fundamentos para el aprovechamiento de un recurso promisorio*. Lima. Centro Internacional de la Papa-Universidad Nacional de Cajamarca-COSUDE.
- Sorensen, M., *et al.*, 1997. Status of the South American Tuberous legume *Pachyrhizus tuberosus* (Lam.) Spreng. : field observations linguistic studies and agronomic data on the diversity of the South American *Pachyrhizus tuberosus* complex with special reference to the identification of two new cultivars groups from Ecuador and Peru. *Biodiversity and Conservation*, Vol. 6, No. 12, 1581-1625.
- Tijeras, E. 1974. *Crónica de la Frontera. Antología de los Primitivos Historiadores de Indias*. Madrid: Ediciones Júcar.
- Torre, T. de la. 1985 (1545). *Diario de viaje de Salamanca a Ciudad Real de Chiapas, 1544-1545*. Caleruega: Editorial OPE.
- Vaquero de Ramírez, M. 1991. Español de América y lenguas indígenas. *Estudios de Lingüística Universidad de Alicante*, No. 7, 9-26.
- Vannini de Gerulewicz, M. 1974. *El Mar de los Descubridores*. Caracas: III Conferencia de las Naciones Unidas sobre los Derechos del Mar. Editorial Ex Libris.
- Vavilov, N.I. 1926. *Studies on the origin of cultivated plants*. Leningrad: Inst. Appl. Bot. Plant Breed.
- Vega, G. de la. 1960. *Obras Completas*. Madrid: Ediciones Atlas.
- Ximénez, F. Fray. 1977 (1720). *Historia de la Provincia de San Vicente de Chiapas y Guatemala de la Orden de Predicadores*. Guatemala: Biblioteca Goathemala, Vol. XXVIII.
- Yacovleff, E. 1933. La jícama: raíz comestible extinta en el Perú. *Revista del Museo Nacional*, 2.1, 51-66.
- Yáñez Arroyo, V. O. 2002. *Aislamiento y caracterización de marcadores moleculares microsatélites a partir de la construcción de librerías geonómicas enriquecidas de camote (Ipomoea batatas)*. Tesis para optar al título profesional de Biólogo, con mención en Genética. Lima: Universidad Nacional Mayor de San Marcos de Lima.
- Yen, D. 1974. The Sweet potato and Oceania. *Bishop Museum Bulletin*, 236.
- Zardini, E. 1991. Ethnobotanical notes on “yacon” (*Polymnia sonchifolia*). *Economic Botany*, 45 (1), 72-85.