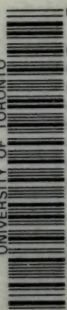
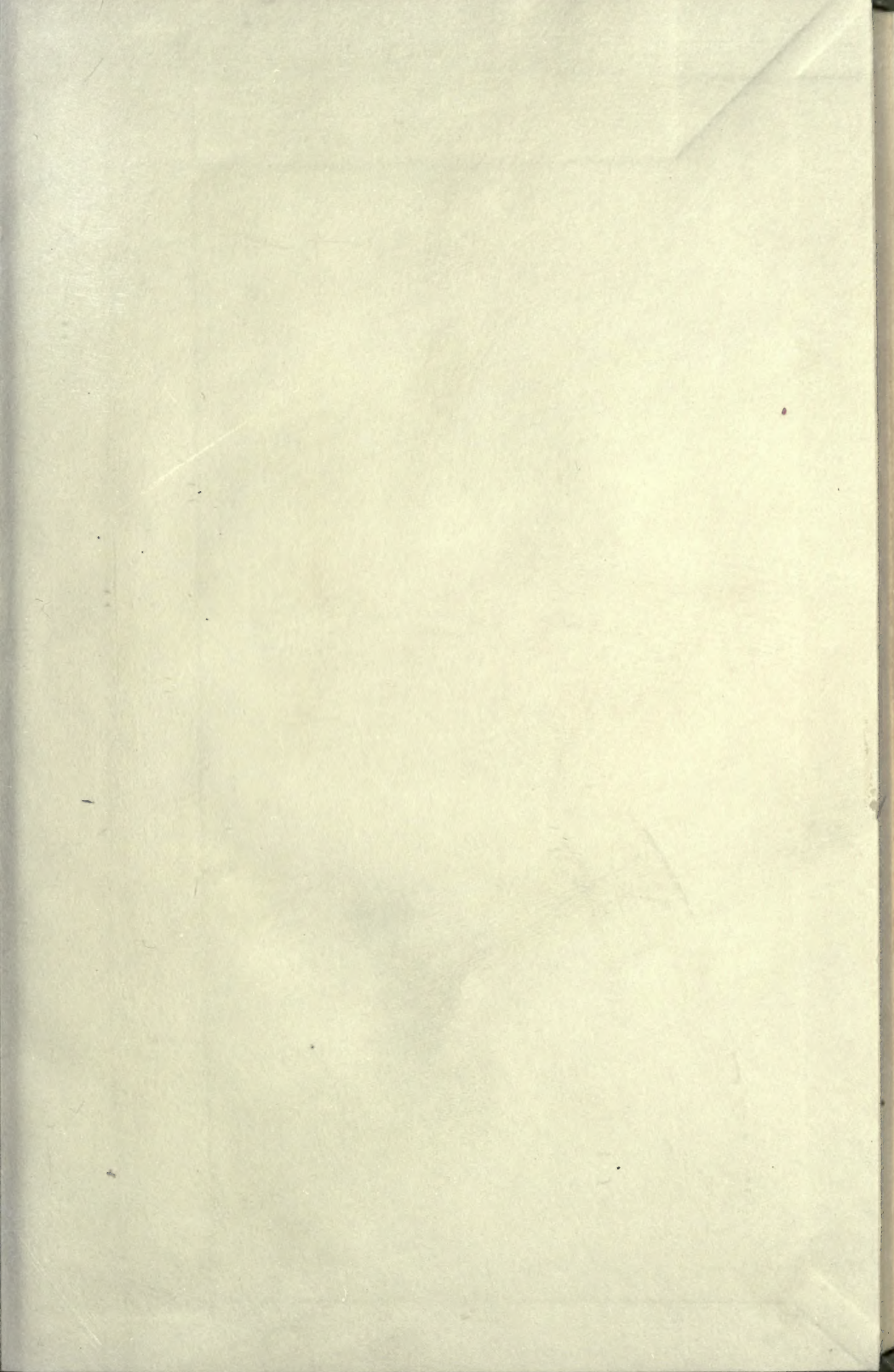



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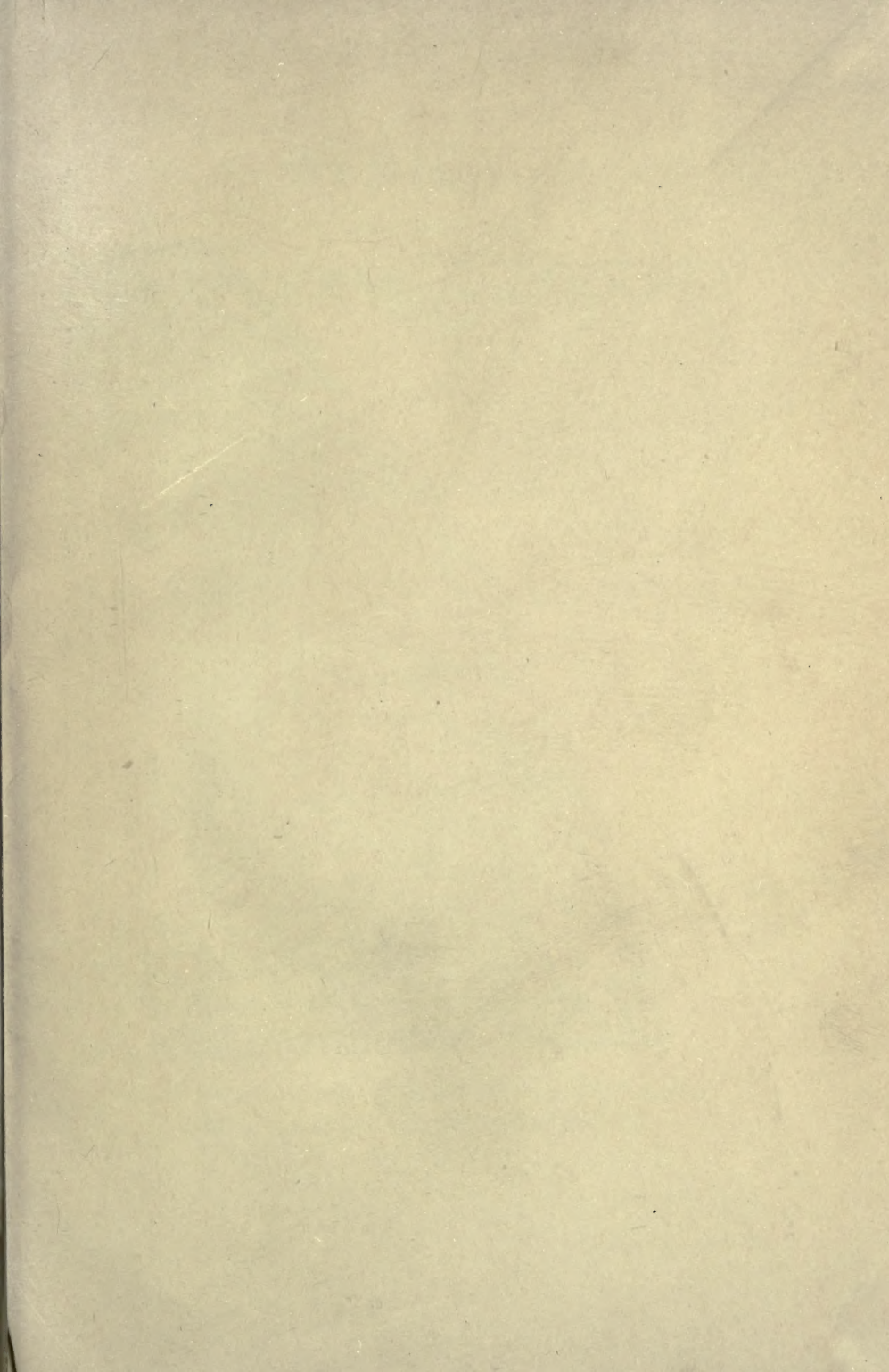






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AFRICA

AND THE

DISCOVERY *of* AMERICA

VOLUME I

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FOREWORD

While working on a *Comparative Grammar of American Languages*, I was confronted with a number of words which seemed to observe perfectly the phonetic laws, indicative of extreme old age, and yet were obviously introductions from Europe after the discovery of America. I intended to deal with this phenomenon in half a dozen pages, when it occurred to me that the cultural influences of Europe upon the Indian languages needed a far more thorough examination than they had been subjected to. When I began my scrutiny, I was firmly convinced, as is the universal belief, that tobacco, manioc, yams, sweet potatoes and peanuts were blessings bestowed upon the world by the Indians. A cursory study excluded the yams and the manioc. Soon the peanuts followed in their wake. Next came the sweet potatoes, and at last the tobacco. It turned out that American archaeology was to a great extent built on sand. But the most painful discovery was in the line of Indian religion. Here everything turned out to be topsy-turvy.

In this first volume I show that the Negroes have had a far greater influence upon American civilization than has heretofore been suspected. In the second volume I shall chiefly study the African fetichism, which, even with the elaborate books on the subject, is woefully misunderstood, and I shall show by documentary evidence to what extraordinary extent the Indian medicine-man owes his evolution to the African medicine-man, who, in his turn, derives his wisdom from the popular Arabic medical science and religion.



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CHAPTER I.

THE JOURNAL OF THE FIRST VOYAGE AND THE FIRST LETTER OF COLUMBUS.

The *Journal of the First Voyage* is clearly based on an account written by Columbus himself, but this account has been modified, enlarged, and, in spots, curtailed by some editor to such an extent that it is not always possible to reconstruct the original text by which to judge the veracity of Columbus. Nor is it possible to ascertain definitely the date of its composition, although it will appear from a study of the text that much of it, if not all, was already in existence when the *First Letter* appeared in 1493.

On October 11, 1492, land was first sighted and "they came to a little island of the *Lucayos*, which in the language of the Indians was called *Guanahani*".¹ These are not the words of Columbus, as may be gathered from the clause "they came." Here, right at the very first discovery, we are confronted with one difficulty. How could Columbus or any one connected with him have known on October 11 or 12, for it was two o'clock A. M., that they had come to an archipelago, which, besides, bore the name of *Lucayos*? All the names given by Columbus to islands, harbors, rivers, etc., are intelligible and drawn from a previous nomenclature. Then, what is *Lucayos*? The word does not occur again in any of the writings of the first voyagers to America, and so is unquestionably a miswriting of some other word.

¹ "Llegaron á una isleta de los *Lucayos*, que se llamava en lengua de Yndios *Guanahani*," *Raccolta di documenti e studi pubblicati dalla R. Commissione Colombiana*, Roma 1892, parte I, vol. I, p. 16.

Columbus never for a moment doubted the fact that, by going west, he would reach China, Japan, and the islands of the Indian Ocean, and he carried with him mappamondos in which that part of the world was given in the extreme east. We do not know what map or maps he carried with him, but it must be emphasized at the start that the assumption that Paolo Toscanelli had in 1474 sent Columbus a chart accompanied by a letter to Ferdinando Martini, which has formed the subject of such heated controversy,¹ is based on a series of blunders, such as are responsible for nearly all the nonsense contained in the writings connected with Columbus. We know from a large number of statements made by Columbus himself that one of his chief sources of geographical knowledge was Ptolemy. He wrote, in his *Journal of the Third Voyage*: "As your Highnesses know, only a short while ago no other land was known except what Ptolemy wrote about, and there was no one in my day who believed that it was possible to sail from Spain to the Indies".² Had Columbus received any such intimation from Toscanelli, he would have mentioned it as corroborative proof of his idea, with which, as he goes on to say, he pestered the court for seven years. He is even more specific about his obligation to Ptolemy, and expresses his individual theory as to the rotundity of the earth: "I had always read that the world, the earth and water, was spherical, and the authorities and experiences which Ptolemy and all the others who had written of this universe gave and proved by it, both by eclipses of the moon and by other demonstrations,"³ etc. He accepted Ptolemy's calculation of $56\frac{1}{3}$ miles to the degree.⁴

¹ H. Vignaud, *Toscanelli and Columbus*, London 1902, A. de Altolaguirre y Duvale, *Cristóbal Colón y Pablo del Pozzo Toscanelli*, Madrid 1903, etc.

² *Raccolta*, parte I, vol. II, p. 22.

³ *Ibid.*, p. 35.

⁴ *Ibid.*, p. 37.

He particularly referred, in his Fourth Voyage, to the correction made in this respect by Ptolemy, which had proved to be correct from experience: "Ptolemy thought that he had well corrected Marinus, and now his writing is found to be very near the truth. Ptolemy placed Catigara twelve lines from the east, which he had placed above the Cape of St. Vincent, in Portugal, at two and one third degrees. Marinus established the earth and boundaries at 15 lines. Marinus put down the equinoctial line in Ethiopia at more than 24 degrees, and now the Portuguese who sail there find it correct. Ptolemy says that the most southerly land is the first place, and does not go down more than $15\frac{1}{3}$ degrees. The world is small. The continent is six parts, and only the seventh is covered with water. Experience has shown it so and I wrote of it in other letters, with reference to Holy Writ, and the location of the terrestrial Paradise, which the Holy Church approves. I say that the world is not as large as people say, and that one degree of the equinoctial is $56\frac{1}{3}$ miles."¹

This passage has not come down in Columbus' own handwriting, but from the usual abbreviation of *Ptolomeus* by Columbus as *Phtolom*, *Pht*, and of *Marini* as *Marv̄*, we may be quite sure that the two in some copy appeared as *ptos* and *marv̄*, misread, the first as *P. Tos(canelli)* and the second as *Martv̄*, that is, *Martini*. With the aid of Columbus' own statements a clever forger or an ignoramus, such, as we shall soon see, as composed the *Journal of the First Voyage* and the *First Letter*, concocted the Letter of *Paolo Toscanelli* to *Martini*, in place of Ptolemy's corrections of Marinus. It is true, Las Casas again and again refers to the map which "Paulus physicus" had sent

¹ *Ibid.*, p. 183 f.

Columbus, and which he himself had seen,¹ but this only proves that Las Casas, who was far from being a critical author, as we shall later see, had absolute faith in the statement of the forger that Toscanelli had sent Columbus a map, and that the one he had was that very map.

As all the blunders in Columbus arise from mis-readings of words found in the Catalan, Fra Mauro's and Albertin de Virga's maps, it is most likely that he had one or more maps made up from these or similar mappamondos, and there is not the slightest need of invoking the aid of Toscanelli, who, outside of the spurious correspondence with Martini is not even known as a cartographer.

Now, the Catalan map of 1375² has at the bottom a siren, over which is the following legend: "Mar de les illes delles Indies hon son les especies; en la qual mar navega gran navilli de diverses gens. E son açi atrobades III natures de peix qui sappellen Sarenes: la una que es miga fembra e miga peix, et l'altre miga fembra e miga auçell." The Catalan map of the Biblioteca Estense of Modena, which is of the fifteenth century,³ has a fuller account of this sea:

Mar de les indies en la quall a moltis e diuerses illes en les quals se fan tota manera de spezies hon abiten gens fort flaques de cor per batalla. en aquella mar nauagan a gran nauiles e diuerses gens, e son asci atrobades tres natures de sirenes la vna es miga fimbria e mig pey l'altra miga fimbria e mig ocell l'altra miga fimbria e mig cauall les quals pasturen e de mangan per astes mars e ancara daltres.⁴

Sea of the Indies, in which lie many divers islands, where all kinds of spices are produced. Here live people who are cowardly in battle. On that sea navigate large ships of various nations. There are there three kinds of sirens,—one is half woman, half fish, another is half woman, half bird, and the third is half woman, half horse, that graze there and live on the fish of the sea and on other things.

¹ Altolaguirre, *op. cit.*, p. 384 ff.

² J. A. C. Buchon et J. Tastu (in *Notices et Extraits des Manuscrits de la Bibliothèque du Roi*, Paris 1841), p. 138.

³ K. Kretschmer, *Die Katalanische Weltkarte der Biblioteca Estense zu Modena*, in *Zeitschrift der Gesellschaft für Erdkunde zu Berlin*, vol. XXXII (1897), p. 65 ff.

⁴ *Ibid.*, p. 108.

Columbus, who was very credulous, is reported to have seen three sirens on January 9, 1493.¹ Apparently the reference is to *manatis*, but it is significant that he is made to see three sirens, for the three kinds of sirens of the Catalan maps. If we write *Illes de les Indies* in Gothic type, in order to reproduce approximately the semiuncial writing of the maps, **Illes de les Indies**, the last word may easily be misread *Lucaies*, the word which appears in the *Journal* as the name of the archipelago, which on October 11 or 12 was not yet discovered.

The first island Columbus saw, apparently at 2 A. M. of October 12, was called *Guanahani*. It does not appear that Columbus used that name in his First Voyage,² for, where his words are quoted, we hear only of the new name, San Salvador.³ In the *First Letter*, however, Columbus is made to say that he named the island San Salvador, which the Indians called *Guanahani*.⁴ The many variations of the name in the Spanish Letter do not permit us to determine what the original spelling of the word may have been, because *Guanahani* is obviously normalized, to bring it in keeping with the Latin form. We have fortunately a German translation of the Letter which will more than once prove of incalculable service to us.

¹ "El día passado, quando el almirante yva al río del oro dixo que vido tres serenas, que salieron bien alto de la mar; pero no eran tan hermosas como las pintan, que en alguna manera tenían forma de hombre en la cara. dixo que otras vezes vido algunas en Guinea en la costa de la Manegueta," *Raccolta*, parte I, vol. I, p. 93.

² "Los Yndios que consigo lleva, que tomó en la yslla de *Guanahani*," October 28; "ciertos Yndios de *Guanahani* que querían yr con él," October 30; "uno de los que consigo traía de *Guanahani*," November 2; "Yndios, que traía, que avía tomado en *Guanahani*, que llamó San Salvador," November 20.

³ Under October 14, 15, 19.

⁴ "Primeque earum 'Divi Salvatoris' nomen imposui, cuius fretus auxilio tam ad hanc quam ad ceteras alias pervenimus; eam vero Indi *Guanahanin* vocant," "los Indios la llaman *Guanahani* (*Guanaham*, *Guanabam*, *Guanahuni*, *Ghuanaham*)," *Raccolta*, parte I, vol. I, p. 121.

The German translation¹ claims to have been made in 1497 from a Catalan version together with the Latin Letter, and it is clear that the Catalan prototype had many variations which are older than those found in the Spanish and Latin versions. Here we read: "Die erst die ich gefundē hab, habe ich geheissen diui saluatoris. Das ist zū tuetsch des götlichen behalters vn selig makers. zū einer gedechtnysz syner wunderlichez hohen maiestat die mir dar zū geholffen hat. vñ die von India heissent sie *gwanahim*." If we write this *gwanahim* in Gothic type in semiuncials and slightly reduce the height of the first stroke of the *h*, we see at a glance that we have here a misreading of *giava min.*, Java the Less, the very first island we strike in the map of Fra Mauro² among the islands of the Indies. Here the island in the extreme east, hence to Columbus the first to be met with in the west, is marked *Isola Giava minor*, and to the right of it is the legend: "*Giava minor* isola fertilissima la qual a molti regni ed e circumdada da molte isole nele qual nasce le specie sotil et nela dita giava nasce zenzero e altre specie nobile in gran quantita e tute quele che nasce in questa e nele altre al tempo de recolte vien porta da a giava mazor e deli se despensa in tre parte una per zarione che baio latra per el mar de india a hormus zide e a la mecha e la terza per el mar de chataio da la parte de tramontana et in questa isola secondo el testimonio de quelli che navegano questo mar el se vede el polo antarticho levado uno brazo."

Columbus was not satisfied with the island, but decided on October 13 to leave the next day for the

¹ K. Häbler, *Der deutsche Kolumbus-brief*, Strassburg 1900.

² T. Fisher, *Fac-simile del mappamondo di Fra Mauro dell'anno 1457*, Venezia 1477,—but this is hardly legible. For the readings I use the reproduction in Santarem's *Atlas, composé de mappemondes, de portulans*, Paris 1842-53.

southwest, where many told him there was land, that is, he decided to lose no time and go in search of *Cipango*. As he was not satisfied with the islands which he discovered the next few days, there being no great quantity of gold there, even though Fra Mauro marked to the southwest *Capangu*, he was unable to give them names, "as the Indians called them," and so was satisfied with "Sancta María de la Concepción" and "Fernandina." For the time being we hear nothing more of *Cipango*, and on October 17 he writes: "I wanted to proceed to the south and southeast, because that region, as all those Indians say whom I am taking with me, and somebody else from whom I had signs of this part to the south, to that island which they call *Samoet*, where is the gold." The island he made for was just as disappointing as had been *Cipango*, and so "all these Indians returned to tell that this island was much smaller than the island of *Samoet*." On October 19 he reached a large island, "the large island which the people of San Salvador whom I brought with me called the island of *Saomete*, and which I named 'Islabela'."

It did not take Columbus long to see that *Saomete* was not the rich island of gold he expected it to be, so he cautiously said that very day: "There is here no village, except further inland, where the men I am taking along say there is the king and much gold. In the morning I wish to go far enough ahead, so as to find the village, and see or converse with this king, who, according to the signs they make, rules all these neighboring islands, and is covered with much gold. But I do not pay much attention to what they say, because I do not understand them well, and because I think that they are so poor in gold that any small amount the king may have appears to them to be much. This I called 'Cabo Feroso,' which, I think, is a

different island from *Saometo*, and there are other small ones between, and I do not care to see them in detail, because I could not do so in fifty years, because I want to discover as much as I can, in order to return, God willing, to Your Highnesses in April. The truth is that, if I find anywhere gold or spices in quantity, I shall stop there until I have of it as much as I can, and so all I do is to go and look for it." Having decided that *Saometo* was not worth the while, Columbus foxily dropped the name on October 20, when we hear of it for the last time. On Fra Mauro's map we have, south of *Capangu*, which has temporarily proved a failure, the large island "Isola Siamotra over Taprobana",¹ with the legend "in questa se trova auro et altre nobilie." It needs no further discussion to prove that Columbus' *Samoet*, *Saometo* is no other than *Siamotra*.

It is necessary here to direct the attention to Columbus' whimsicalness in naming and renaming islands. We notice that on October 19 he named the island *Isabela*. There can be no doubt that that was his original name, for he says of the first cape he saw, "and here I called it 'Capo Hermoso,' which is in the west, and is beautiful, round, and very deep, without shoals outside. . . . This whole coast, and the part of the island which I saw is all like a beach, and the island is the most beautiful I ever saw, and if the other islands are very beautiful, this one is more so." And yet, on the next day Columbus is quoted as calling it *Isabela*, and as such it is mentioned again under November 20. In the *First Letter* we have the readings *Isla bella*, *Isabela*, *Lisabetta*, *Hysabella*. Here again the German translation shows that the original reading was *Isla bella*, for we read: "Die vierde hab ich geheissen *die hübsche insel*." And yet, in his *Journal*

¹ H. Yule, *The Book of Marco Polo*, London 1871, vol. II, p. 238.

of the *Second Voyage*, Columbus is said to name the island "Ysabela, in memory of Queen Ysabel."¹

On October 21 all is again changed: "I wanted here to fill all the ship vessels with water, so that, if the weather was favorable, I might sail around the island, in order to call on the king and find out whether I could get from him the gold which I hear he has, and then to set sail for another very large island, which I think must be *Cipango*, from the indications given me by the Indians whom I have with me, and which they call *Colba*, in which island, they say, there are ships and very many skilled mariners, and that other island which they call *Bofio*, which, they say, is also very great; and the other islands which are intermediate I shall see in passing, and if I find any signs of gold or spices, I shall determine what to do. I have, however, made up my mind to go to the mainland and the city of Quinsay, and present the letters your Highnesses have given me to the Great Khan, and ask for an answer, and return home with it."

We may here state without circumlocution that Columbus lied every time he said that the Indians he had with him told him so and so. At most they could only have repeated the words which Columbus shouted at them, and it is clear that he asked them "*Cipango?*" and they made some kind of attempt to repeat the word. What really happened was this. Columbus failed to find *Cipango* where he had first placed it. He looked on various maps, and found it variously located and more variously named. We have already heard of Fra Mauro's *Capangu*. Albertin de Virga² called it "*caparu siue iaua magna*" and described it as "*ysola caparun soto lonperio dindia mazor soe seti rignami molto abitabili con pouolo*

¹ *Raccolta*, parte I, vol. I, p. 161.

² F. R. v. Wieser, *Die Weltkarte des Albertin de Virga, aus dem Anfange des XV. Jahrhunderts*, Innsbruck 1912.

magno."¹ The Italian MSS. of Marco Polo read *Zipagu*, *Zipangu*, *Zibagum*, *Gunpangue*,² *Gipangu*.³ *Caparun*, *Capangu* must have gone through a form *Cypangu*, *Cupangu*, or something like it. The various readings are due to the marking of *n* by a long stroke over the word, *Cupagu*, which did not make it possible to determine where the *n* belonged.

We do not know with what form of this *Cipango* Columbus pestered the Indians on his ship, but we know what they said, from an account preserved by Herrera, which is so circumstantial as to leave no doubt as to its authenticity and its presence in Columbus' original account: "Since the Spaniards asked a great deal about gold of the Indians whom they carried with them on the ships, they answered *Cubanacan*, and they thought that they wanted to say 'the Great Khan,' and that this land was near the Land of Cathay, because they indicated four days' voyage. Martin Alonso Pinçon said that it must be some great city which was four days' journey away, but they soon found out that *Cubanacan* was the province in the center of Cuba, because *nacan* meant as much as 'in the middle,' and that there were there gold mines."⁴

On October 23 Columbus wrote: "I should like to go to the island of *Cuba*, which, I think, must be *Cipango*, according to the indications which these people give of its greatness and wealth, and I did not stop

¹ *Ibid.*, p. 16.

² G. B. Baldelli Boni, *Il Milione di Marco Polo, testo di lingua del secolo decimoterzo*, Firenze 1827, vol. I, p. 151.

³ *Ibid.*, vol. II, p. 361.

⁴ "Como los Castellanos preguntaban mucho por el Oro à los Indios, que llevaban en las Naves, respondian, *Cubanacàn*, i ellos pensaban, que querian decir, el Gran Càn, i que debia de estàr cerca la Tierra del Catayo, porque tambien señalaban à quatro jornadas. Martin Alonso Pinçon decia, que debia de ser alguna Gran Ciudad, que estaba aquellas quatro jornadas de alli; pero no tardò mucho en saberse, que *Cubanacàn* era Provincia enmedio de Cuba, porque *Nacàn* significa tanto, como enmedio, i que alli havia Minas de Oro," I.1.15, and *Raccolta*, parte I, vol. I, p. 38.

here any longer, nor sail around it, in order to go to the settlement, as I had intended, in order to meet the king or lord, so as not to be detained too long, since I see that there are here no gold mines, and to sail about these islands there is need of various winds, and it does not blow here as the men would like it to, and I must go where there are great advantages. I say, there is no reason for stopping, and good reason for going on and discovering much land, until I find one very profitable, although it is my understanding that this land is very rich in spices." On October 24 he continues: "This night, at midnight, I weighed the anchors at the island of Isabela near Cape del Isleo, which is in the north, where I was staying, in order to make for *Cuba*, which I heard from these men was very great and prosperous, and where there was gold and spices, and great ships, and merchants, and they told me that I must go west-south-west. And I think so myself, for I think it is as all those Indians of these islands told me by signs, and also the Indians whom I am carrying with me in my ships, for I do not understand their language, namely that it is the island of *Cipango*, of which they tell marvelous things, and in the spheres which I saw and in the drawings of the mappamondo it is in this neighborhood."

As usual, *Cuba* was a will-o-the-wisp. After discovering an island, he decided on October 30 that *Cuba* was still further away: "Having proceeded fifteen leagues, the Indians who were voyaging in the caravel *Pinta* said that back of this cape was a river, and from the river to *Cuba* were four days' sailing, and the captain of the *Pinta* said that he understood that this *Cuba* was a city, and that this land was a very large continent, which extended much to the north, and that the king of this land waged war with the Great Khan, whom they called *camí*, and his land or

city *Saba* (*Fava*), and many other names. The admiral decided to reach that river, and to send a present to the king of the land, and to send him the letter of the King and Queen, and for this he had a sailor who had gone to Guinea on the same business, and certain Indians of Guanahani, who wanted to go with him, if they would afterwards be returned to their land. As it seemed to the admiral, the equinoctial line was 42 degrees distant from the north, if the text from which I translated this is not corrupt; and he says that he must try to go to the Great Khan, who, he thought, was nearby, or to the city of Cathay, which is the city of the Great Khan, which, he says, is very great, as he was told before leaving Spain."

On November 2 Columbus decided to send Rodrigo de Xerez and Luis de Torres, who had lived with the adelantado of Murcia and was a Jew and knew Hebrew and Chaldaic and some Arabic, to see the king of Cuba, in order to present the letters and find out all that was necessary. Naturally, a man who knew Arabic, and another who knew the language of Guinea, as we heard before, were especially adapted to hold converse with the kings of the Indies. There can also be no doubt that many of the queer etymologies which we shall encounter really proceeded from these two eminent philologists, the Guinea sailor and the Jew Torres. We saw that *Cipango* produced some such form as *Cupago*, which led to *Cubanacan*. Somebody at once suggested that this must be *Cublaycan* "the Great Khan," "but they soon found out" that the etymology really meant "inside of Cuba," Herrera suggesting the division *Cuba* + *nacan*. In reality the division is *Cubana* + *can*, where *can* stands for *Mandingo konno* "inside." Here obviously the Guinea ambassador suggested the etymology. Columbus at first accepted the first verdict and so wrote *Colba*,

for *Cobla*, as the name of the island, which he at once changed to *Cuba*.

On October 30 we saw the *Journal* mention *Cuba* also as *Saba* or *Fava*. Although Columbus was still in search of *Cipango*, he really was making for a large island to the south, which several maps gave as *Iaua*, that is, *Java*, though Fra Mauro placed it to the north, where Japan should be. This *Java*, written *Jana*, was in the Catalan map of 1375 identified with Ceylon, while in the Modena Catalan map *Iana* is placed next to Ceylon. Odoric of Pordenone called it *Fana*.¹ In the *Journal* we first meet it as *Saba* or *Fava*, and the description given of *Cuba* or *Fava* is identical with Odoric's, which says that it is a very large island, the second best in the world, and the Great Khan of Cathay has often waged war with this king; and Marco Polo says that it is the greatest island in the world, and that the Great Khan could never take possession of this island.² On December 5 the *Journal* suddenly speaks of "*Cuba* or *Juana*," to which Las Casas remarks: "It seems that here the Admiral called Cuba '*Juana*'." We have nowhere any statement that Columbus called it so, except in the *First Letter*, where it is most likely an afterthought, to bring it in line with Ferdinanda and Isabella, of which the latter is itself an afterthought. The forms *Saba*, *Fava* used in the *Journal* suggest that this *Juana* was originally *Jana*, again for *Java*.

Disappointed in his search for the island of gold, Columbus on November 12 decided "to go to the island which the Indians he had with him called *Baveque* (*Baheque*), where, they say by signs, the people pick up the gold on the beach at night by candlelight and then beat it into rods with a hammer." As usual,

¹ H. Cordier, *Les voyages en Asie au XIV^e siècle du bienheureux Frère Odoric de Pordenone*, Paris 1891, p. 161 f.

² Yule, *op. cit.*, vol. II, p. 217.

this *Baveque*, also spelled *Baneque*, *Vaneque*, *Veneque*, proved a disappointment. Here we can study the manner in which errors become perpetuated and multiplied. Certain editions of Odoric, apparently of a later date, make reference to *Bothonigo*, *Boteingo*, *Recemgo*, *Resengo*,¹ and the Ferari edition of Maundeville, published in 1491, similarly speaks of *Botegon*.² This island is placed between Sumatra and Java, but nothing is said of it. It is apparently due to Nicolo Conti's or his source's story, which in Nicolo Conti runs as follows: "In una parte della sopradetta isola, che chiamano *batech*, gli habitatori mangiano carne humana, e stanno in continua guerra con i lor vicini. e gli fu detto che serbano le teste humane per un thesoro, perche preso che hanno l'inimico, gli leuano la testa, e mangiata che hanno la carne, adoperano la crepa ouer osso per moneta, e quando vogliono comprare alcuna mercantia danno due ò tre teste all'incontro d'essa mercantia secondo il suo valore, e colui che ha piu teste in casa, vien riputato per il piu ricco."³ It is clear that *Batech* here refers to the *Bataks* or *Battas*, who are headhunters, but the story that they use heads, or pieces of the skull for money is the result of a series of blunders, which we shall now investigate.

Marco Polo tells of the cowries used in Carajan as follows: "Their money is such as I will tell you. They use for the purpose certain white porcelain shells that are found in the sea, such as are sometimes put on dogs' collars; and 80 of these porcelain shells pass for a single weight of silver, equivalent to two Venice groats, *i.e.* 24 piccoli. Also eight such weights

¹ H. Cordier, *op. cit.*, p. 159.

² "Asai apresso questa isola e un altra la quale se chiama *botegõ* la quale e molto bõa e de diuerse gẽte e perche uolẽdo parlare de tuto sarebe lõgissimo sermõe. io nõ parlero di tute ma pigliaro le piu notabile," chap. CXXXVII.

³ *Delle navigationi et viaggi raccolto da M. Gio. Batt. Ramusio*, Venetia 1588, vol. I, fol. 339 e.

of silver count equal to one such weight of gold."¹ One Latin manuscript² simply says: "Et expendunt pro moneta porcellanas albas quae inveniuntur in mare, et valent octuaginta porcellanae unum sagium de auro fino." The early sixteenth century Latin translation³ reads, "utuntur pro moneta lapillis quibusdam aureis et albis, qui in mari reperiuntur." Here the *porcellanae* "shells," have become gold stones. One Italian version⁴ has it: "egli spendono per moneta porcellane bianche che si trovano nel mare, e che se ne fanno le scodelle," where *porcellane* "shells" is confused with porcelain from which bowls are made, while another version⁵ says, "spendono per moneta porcellane bianche, le quali si trovano al mare, e ne pongono anco al collo per ornamento," where the cowries are worn around the neck as an ornament.

Speaking of the country of *Locac*, Marco Polo says:⁶ "In this kingdom too are gathered all the porcelain shells which are used for small change in all those regions, as I have told you before." One Latin version⁷ says the same: "ibi invenit unam provinciam quae vocatur *Locheac*, . . . et de ista provincia vadunt omnes porcellanae unde fiunt monetae de illis contractis." The sixteenth century Latin edition⁸ reads: "utuntur incolae (*Boëach*) pro moneta glebis quibusdam aureis." Here the shells have been changed into golden clods, and *Locach* has become *Boëach*. In Conti *Boëach*, confused with the *Bataks*, produces *Batech*, and the headhunters are made to

¹ Yule, *op. cit.*, vol. II, p. 39.

² *Recueil de voyages et de mémoires, publié par la Société de Géographie*, Paris 1824, vol. I, p. 402.

³ *Novus orbis regionum ac insularum veteribus incognitarum*, Basileae 1537, p. 381.

⁴ *Il Milione*, vol. I, p. 110 f.

⁵ *Ibid.*, vol. II, p. 263.

⁶ Yule, *op. cit.*, vol. II, p. 219.

⁷ *Recueil, op. cit.*, vol. I, p. 442.

⁸ *Novus orbis*, p. 400.

use the skulls and parts of the skulls as money, through a confusion of Lat. *testa* "potsherd" and Ital. *testa* "head," because cowries are "shells," that is, bits resembling potsherds.

Now, Marco Polo distinctly refers to *porcellana* as "Chinese porcelain:" "There is a town called Tyunju, where they make vessels of porcelain of all sizes, the finest that can be imagined."¹ In Ramusio's version² we are told that the earth for the porcelain is from mines. From all these confusions it appears that the porcelain is confused with gold, which is mined in a mine, obviously by candlelight, and is made into sherds or vessels. From this compound confusion we get the account in the *Journal* of gold mined by candlelight and beaten into rods, which is found at *Babeque*, *Baneque*, a phonetic descendant of *Batech*, *Boëach*, *Locac*. When this island, too, proved a failure, it was forgotten and is never mentioned again.

On October 21 Columbus placed the island of *Bofío* next to Cuba. On November 1 he said of the people of Cuba that "they wage war with the Great Khan whom they call *cavila*, and the province *Basan* (*Bafan*), and they go about naked, like the rest." If we compare this with the statement under October 30, we see that *cavila* must be a corruption of *caniba*, while in the place of *Fava*, *Saba*, that is, of Java or Sumatra, we now hear of a province *Basan*, *Bafan*. On November 4 *Bohío* is mentioned in the *Journal* as a "place:" "He showed them gold and pearls, and certain old men said that in a place called *Bohío* there was an infinite quantity of them, and that they wore it at the neck, ears, arms, and legs, and they wore pearls also. He understood also that they said that there were large ships, and commerce, and all this to the

¹ Yule, *op. cit.*, vol. II, p. 186.

² *Ibid.*, p. 190.

south-east. He understood that a distance away from there there were people with one eye, and others with dogs' snouts, who ate men and, when they caught one, they drank his blood and cut off his genitals." On November 13 the *Journal* was not yet sure that Cuba was distinct from *Vosío*, although the Indians claimed that it was. Indeed, on November 23 *Bohío* is still "a land or cape:" "After this cape there was another land or cape, which also stretched to the east, and which the Indians whom he carried with him called *Bohío*, which, they said, was very large, and that there were people in it with one eye in the forehead, and others called *caníbales*, of whom they were apparently very much afraid, and seeing that he was going that way they could not talk, because they ate them and they are a well armed people. The Admiral says that he believes there is something in it, but that, being armed, they must be a clever people (*gente de razón*), and he thinks that, having caught some of them who did not return home, they said they ate them. They thought the same of the Christians and of the Admiral, when they saw them in the beginning."

Here we have the evolution of a myth, which will become imbedded in human thought, from its beginning on October 30 to its complete formulation on November 23 of the same year.

1. (October 30). They wage war with the Great Khan (*camí*), whose city is *Fava*.
2. (November 1). They wage war with the Great Khan (*cavila*), the province being *Basan*.
3. (November 23). *Bohío* is a place where *caníbales* live, who eat human flesh.

All this has evolved from Marco Polo. Sumatra (or Java the Less, or Cipango, for all of these are confused, not only in the old maps, but also in the mind of Columbus), according to Marco Polo consists of

eight kingdoms, of which Marco Polo claims to have visited only six.¹ The first is *Ferlec*, where the hill people eat human flesh; the second is *Basma*, whose people are like beasts without laws or religion, and call themselves subjects of the Great Khan, although they pay him no tribute; then follow *Samara*, *Dagroian*, *Lambri*, *Fansur*.

The city of the Great Khan is called *Cambalu*, *Cambalech*,² etc.

From these two facts follows the myth of the *canibals*.

In the Latin copy of Marco Polo, printed in 1485, which Columbus owned and annotated,³ *Basma* appears as *Bosman*.⁴ This would be written by Columbus *Bosan*, or, if he read it *Bosinan*, it would be written *Bosia* or *Bosian*. Thus we get from it at once *Basan* and *Bosio*, and, if the stroke above the word crosses the long *s*, we also get *Bofio*. So far we have all three mainly as a province or place. These people, being subject to the Great Khan at *Cambalu* (this read as *Canibalu*), call the Great Khan *Caniba*, and, since they, like the people of *Ferlec*, are eaters of human flesh, the name of the city of the Great Khan is transferred to the people of whom they are afraid and who become the *canibales*. At the same time it must be remembered that on November 23 Columbus did not yet share the *Cannibal* myth with the men around him, and believed the *canibales* to be the clever people.

On November 26 Columbus sighted an island which, he thought, was the one the Indians called *Bohío*. "All the people whom he has found up to the present are very much in fear of the people of *Caniba* or *Canima*, and they say that they live in this island of

¹ Yule, *op. cit.*, vol. II, p. 226 ff.

² *Ibid.*, vol. I, p. 309, *et passim*.

³ *Raccolta*, parte I, vol. II, p. 446 ff.

⁴ *Ibid.*, p. 464.

Bohío, which must be very large, as it seemed to him, and he believes that they come and take them in their lands and houses, since they are very cowardly and know nothing of arms; and so it seems to him that the Indians whom he has with him do not settle near the seashore, because they are near to this land, and when they saw him take possession of the land, they could not speak, for they were afraid they would be eaten, and they could not get rid of the terror, and they said that they had only one eye and the face of a dog, and the Admiral thought that they were lying, and the Admiral thought that they must be subject to the Great Khan, since they captured them."

On December 5 Columbus is made once more to reiterate his belief that the cannibals had a bad reputation only because they were more clever than the rest: "Sailing this way he looked to the southeast and saw land, and it was a very great island, which, he said, he already had been informed by the Indians was called *Bohío* and was populated. Of these people the people of Cuba or Juana and of all these islands are in great fear, because they think that they eat men. The Indians told him other marvelous things by signs, but the Admiral said he did not believe them, except that the people of *Bohío* had more cleverness and better minds, and so they captured those who were very cowardly." On December 11 the Indians told Columbus "that the island of *Bohío* was larger than Juana, which they called Cuba, and that it was not surrounded by water, and he seems to imply that it is the mainland, which is behind this island of *Española*, which they call *Caritaba* and which is infinite; and so they are almost right for being very much afraid of the astute people, because all these islands live in great fear of the *Caniba*, 'and so he repeated as he had said before,' says he, 'that the

Caniba are none other than the people of the Great Khan, who must be very near to this place, and there will be there ships, and they will come to capture them, and since they do not return they think that they have eaten them. Every day we understand better these Indians, and they us, though many a time we have been at cross purposes,' says the Admiral."

At first *Bohío* was to have been the place of the Great Khan. When Columbus found himself disappointed, *Bohío* was at the same time supposed to be the island of Hispaniola, and not to be it, and the *Caniba*, the "clever" people, were put off further away. And all of a sudden *Bohío* is called *Caritaba*. But this is a mere miswriting for *Caribata*. On December 19 a province of *Bohío* or Hispaniola is called *Caribata*, and so a mountain is called *Caribata*. On December 26 we are specifically told that the province of *Caribata* was in Hispaniola, which they called *Bohío*. But *Caribata* is the *Garibalu* of the Catalan maps, an ancient city near *Cambalu*,¹ and Kretschmer is quite right, when he regards this *Garibalu* as a mere phonetic variation of *Cambalech*.² On the same December 26 the *Caniba* are by the Indians called *Caribes*, the *Caribata* having suggested the change of the consonant. Columbus promises the Indians that he will destroy the *Caribs*. On January 6, 1493, the Indians assured Columbus that there was a great deal of gold on Hispaniola, but that there was a great deal more at the island called *Yamaye* (*Ymaye*), "and the Admiral knew that towards the east there was an island where there were only women, and this, he said, he knew from a number of persons, and that this island of Hispaniola and the other island of *Ymaye* was near the mainland, ten days by canoe, which might be sixty or seventy

¹ "Sapian que costa la ciutat de cambalec auia una ciutat antigament que auia nom *garibalu*," Kretschmer, *op. cit.*, p. 192.

² *Ibid.*, p. 193.

leagues, and that the people there were dressed." *Yamaye*, of course, is the rich island of *Giava maior*, of which it is an ill-disguised corruption, and the only reason for mentioning the island, was to find a new possible source of gold, if Hispaniola proved a failure.

On January 13 Columbus still thought that there were *Caribs*, that is, cannibals, in Hispaniola, to which Las Casas remarked in the margin: "There were no Caribs and had never been any in Hispaniola." The *Journal* says: "The Admiral thought that that place must be inhabited by *Caribs*, who eat men, and that the gulf he had seen yesterday a distance away from the land must be a separate island. He asked of them about the *Caribs*, and pointed to the east from there to the place which he had seen the day before, as he was entering the bay; and the Indian told him that there was much gold there, pointing to the poop of the caravel, which was very large, meaning that the pieces were as large as that. He called the gold *tuob*, and did not understand *caona*, as they called it in the first part of the island, nor *noçay*, as they called it at San Salvador. In Hispaniola they call copper or base gold *tuob*. Of the island of *Matinino* this Indian said that it was all inhabited by women without men, and that there was in it much *tuob*, which is gold or copper, and that it is still further to the east of *Carib*. He also told of the island of *Goanin*, where there was much *tuob*. The Admiral said that he had notice of this island from several persons. The Admiral also says that in the islands where he has been they are in great fear of *Carib*, and in some islands they called them *Caniba*, but in Hispaniola *Carib*, and that they must be a bold nation, since they go over all these islands and eat the people that they can catch. . . . The people here about, says he, are ill intentioned, and he thought they were of the *Carib* and ate

men. . . and if they are not *Caribs*, at least they must be frontiersmen and of the same customs, and people without fear, and not like the others from the other islands, who are cowardly and without arms, and senseless."

We shall return later to the balderdash contained in this account of January 13. Here it is only necessary to point out how the *Journal* wavers by calling the *Caniba* now cannibals and now brave men, with more sense than the rest of the islanders. But where are the *Canibales* or *Caribes*? So far they have vanished into the circumambient air. They are again somewhere else. Before sealing their fate, we must retrace our steps and study Columbus' wavering mind and credulity from his attested writings.

In Columbus' *Libro de las Profecías*, which he wrote in 1502, we have some examples of his philological madness, which surpasses all belief. *Hystoria* he derives from "hystrión", which is "to see or know"; *allegorice* comes from "leon," which means "other," and *gore*, which is "to say, or speech."¹ From a man with such scientific equipment almost anything in the way of topsy-turviness may be expected. He was certainly right when in his letter to the King and Queen he anticipated the just accusation: "It may be that Your Highnesses and all others who know me and to whom this writing may be shown, will secretly or publicly reprehend me with reprehensions of every kind, that I am not learned in letters, that I am a lay sailor, a man of the world, etc.; to these I answer what St. Matthew says, 'O Father, because thou hast hid these things from the wise and prudent, and hast revealed them unto babes.'"² He was also right when he maintained that "for the execution of the emprise

¹ *Raccolta*, parte I, vol. II, p. 76.

² *Ibid.*, p. 80.

of the Indies neither reason, nor mathematics, nor mappamondos availed me."¹

Although Columbus places Tarshish in Cilicia, he at the same time identifies it with an island.² Similarly he quotes the gloss of Nicolao de Lyra to show that *Ophir* was a province of India.³ Then he goes on to prove that the island of *Ophir* is Tarshish,⁴ and immediately adds *Chittim*.⁵ In February, 1502, Columbus boldly wrote to Pope Alexander VI,⁶ "This island is *Tharsis, Cethya, Ophir, and Ophaz, and Cipanga*, and we have called it *Española*." Thus there is no doubt left as to his pell mell method of identifying islands, even as Peter Martyr says, "insula hec Hispaniola, quam ipse *Ophiram*, de qua legitur Regum tertio, esse asseverat."⁷ Columbus annotated a copy of Pliny, in which occurs the following passage: "Del ambra es çierto nascere in India soto tierra, he yo ne ho fato cavare in molti monti in la isola de *Feyti*, vel de *Ofir*, vel de *Cipango*, a la quale habio posto nome Spagnola, y ne ò trovato pieça grande como el capo, ma no tota chiara, salvo de chiaro y parda, y otra negra, y ve n'è asay."⁸ In the *Institución del mayorazgo* of 1498, but which has come down in a later copy, Columbus says "*Hispaniola*, which the Indians call *Feiti* and the Monicondos 'of *Zipango*'."⁹ There is something curious about this sentence, if not about the whole document. The Monicondos are the Manicongos, or people of the Congo, and one does not see what they have to do with calling the island *Zipango*. However that may be, the date of the copy prevents

¹ *Ibid.*, p. 82.

² *Ibid.*, p. 149.

³ *Ibid.*

⁴ *Ibid.*, p. 151.

⁵ "De insula *Cethyn*, quam dicunt esse *Tharsis* et *Ophyr*," *ibid.*, p. 153.

⁶ *Ibid.*, p. 164.

⁷ *Ibid.*, vol. I, p. 233.

⁸ *Ibid.*, vol. II, p. 472.

⁹ *Ibid.*, vol. I, p. 304.

our adducing the form *Feiti* as one used by Columbus in 1498, but there can be no doubt of his having used it, sometime after his writing of the *Book of Prophecies*. It is clear that Columbus began with the form *Ceti*, which he probably found written *Heti* or *Heiti*.

Indeed, Peter Martyr says: "The names imposed upon Hispaniola by its ancient inhabitants were, at first, *Quizqueia*, then *Haiti*, and this was not done merely by the arbitrary will of those who imposed them, but from the effect which they assumed for it. *Quizqueia* they call a large thing, like the which there is no greater. *Quizqueia* they interpret 'vastness' and the whole universe, just as the Greeks call Pan, because they thought that from its greatness it was the whole universe and that nothing else was warmed by the sun except this island and those adjacent to it: therefore they decided to call it *Quizqueia*. But *Haiti* means 'roughness' in their old language: and so they called the whole island *Haiti*, calling by metonymy the whole from the part, because this island in many places bristles with its rough mountains and horrible density of its forests, and valleys awful and dark from the high mountains, although it otherwise is very pleasant. . . . As we said, *Quizqueia* and *Haiti* are its old names. Many called the whole island *Cipanga* from the mountainous region, and the rich gold, just as we saw our poets call Italy Latium from its part. Behold, just as our ancestors called Ausonia and Hesperia Italy, so they called it *Quizqueia*, *Haiti*, *Cipanga*."¹

It is perfectly clear that Peter Martyr derived the three names, *Haiti*, *Quizqueia*, *Cipanga*, directly from Columbus' letter to Pope Alexander VI, *Cethya* changing to *Haiti*, and *Ophyr y Ophaz* to *Quizqueia*.² Then

¹ III. 7.

² The province of *Ornophay* in Bernaldez's account of the Second Voyage (*Raccolta*, parte I, vol. I, p. 250) is apparently another corruption of *Ophir y Ophaz*.

Columbus improved on *Haiti*, and spelled it, as was his custom, in the old fashion, *Feiti*.

Dr. Chanca, who went to the Indies with Columbus on the Second Voyage, said of his arrival in Hispaniola: "The part where we first arrived is called *Hayti*, and the province next this is called *Xamaná* and the other *Bohio*, in which we are at the present time."¹ We see here, as was already pointed out, that *Bohio* was originally identified as a province, that is, it was identical with *Bosio* and *Basan* of Columbus. *Xamana* is in the *Journal of the Second Voyage* called *Samana*.² We have already seen that *Bohio* is derived from *Bosman*, *Basman* of Marco Polo's *Sumatra*. In the same way *Samana* is Marco Polo's *Samara*, a province of the same island.

Under December 29, 1492, the editor of the *Journal* writes: "As the sun rose there came to the caravel a nephew of the king, a young man of good understanding and fair appearance, as the Admiral says, and, as the effort was always made to find out where the gold came from, he asked every one, for he already understood some by signs, and so this youth told him that four days' voyage from there to the east there was an island which was called *Guarione*, and others called *Maricorix* and *Mayonic* (*Mayonis*), and *Fuma*, and *Cybao*, and *Coroay*, in which there was an infinite amount of gold." Las Casas³ writes *Guarionex*, *Macorix*, *Mayonis*, and says: "In this it seems that the Admiral did not understand a thing the Indians said, because the places which they named were not islands in themselves, but provinces of this island and

¹ J. B. Thacher, *Christopher Columbus, His Life, His Work, His Remains, as revealed by Original Printed and Manuscript Records*, New York and London 1903, vol. II, p. 271.

² "Y allí hizo echar en tierra un Yndio de los que traía de Castilla, encargándole que ynduziese á todos los Yndios de su tierra, que era la provincia de *Samaná*," *Raccolta*, parte I, vol. I, p. 152.

³ *Historia de las Indias*, Madrid 1875, vol. I, p. 410.

lands of lords, and this was meant by the names: *Guarionex* was the Great King of this Vega Real, one of the wonderful things of nature." *Guarionex* as a name of a king does not occur until the Second Voyage, and so it must be that the name of the king was derived from the province, and not vice versa. *Maricorix*, *Macorix* appears in Ramon Pane¹ as *Maroris*, while *Mayonis*, *Fuma* and *Coroay* are not mentioned again. We take up the Latin version of Marco Polo, which Columbus annotated, and there we find a short distance below *Samara*: "sextum vero illius insule regnum dicitur *Farfur*."² This *Farfur* is in *Il Milione* read *Fanfur*, *Fansur*, which was, as usual, written *Fafur* and, no doubt, read *Fuma*. A little further down we have³ "De provincia *Maabar* quae dicitur *Yndia Major*." The first of these two produced *Macoris*, *Maroris*, the second *Mayonis*. The next chapter after this reads, "Habitatores regni *Far omnes ydolatrae sunt*." The sixteenth century Latin version reads *Var omnes*, and, no doubt, was written in the maps *Var ones*, producing *Guarionex*. That the last two were actually represented on the maps before Columbus is proved by the Mappamondo of the British Museum of 1489,⁴ where we have "provincia *Moabar*" and "regnum *Varr*," south of "provincia *Boceach*," which we have already discussed before. The same map has still further south "regnum *Coylū*," which seems to answer to *Coroay* of Columbus.

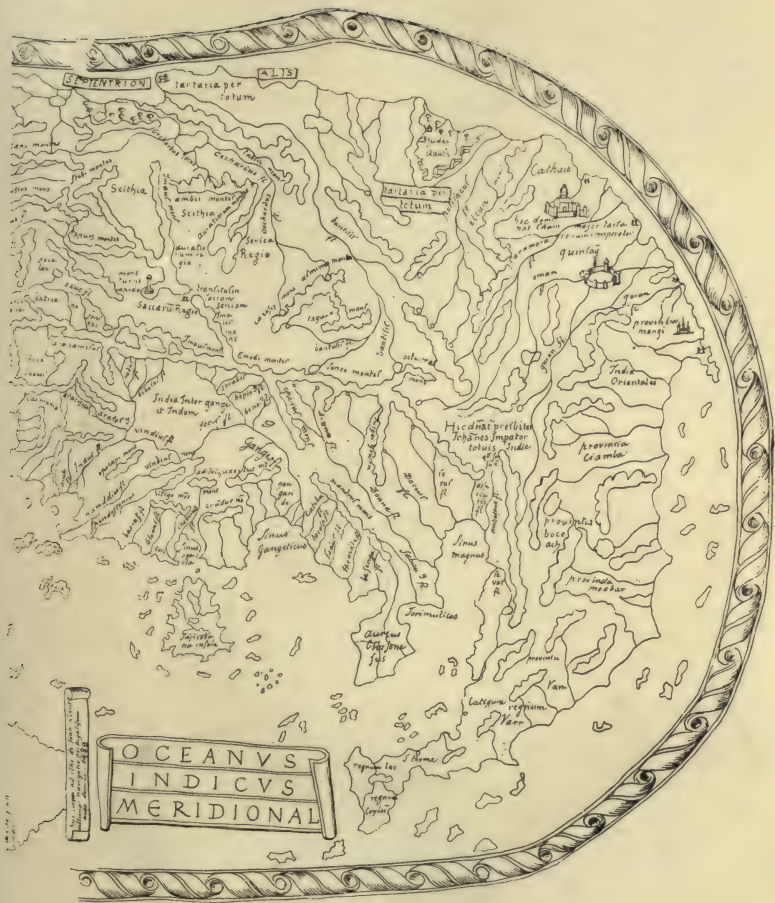
Columbus, who without compunction identified *Tarshish*, *Chittim*, and *Ophir* with *Cipango*, had no compunction in calling any island where he expected to find a great quantity of gold by the same name. On

¹ *Raccolta*, parte I, vol. I, p. 221.

² *Ibid.*, vol. II, p. 465.

³ The whole of this Latin edition is not accessible to me, so I quote the title from the early Latin translation in the *Recueil*.

⁴ Santarem, *op. cit.*



Mappamondo of the British Museum of 1489. From Santarem's *Atlas*.

December 24 and 26 the Indians spoke of *Cipango* as *Cybao*. On December 29 Columbus decided that *Cybao* was a province of Hispaniola, and on January 4, 1493, he similarly decided that *Cipango* was right there. Only during his Second Voyage did he return definitely to his *Cipango*, *Cibao*. Peter Martyr spoke of "*Cipangi*, alias *Cibavi* regio,"¹ and Bernaldez, an editor of the Second Voyage, called it *Cisbao*, and derived it from a word meaning "stone."² To this etymology we shall return later. In Peter Martyr the mountains of *Cibao* were not only "*montes Cibavi*," but also "*montes Ciguavi*"³ and "*montes Cipangi*."⁴

On January 6 the *Journal* for the first time suggests the *Island of Women*. "The Admiral knew that to the east from there there was an island where there were only women, and this he knew from many persons." On January 13, as we saw, the story is full-fledged, and the name of the island is given as *Matinino*. Now this *Matinino* becomes the obsession of Columbus. On January 14 an Indian promises to bring him a mask of gold, "of which there was a great deal here, and in *Carib* and *Matinino*," and the next day the *Journal* announces that "he now knew that all the mass of gold was in the neighborhood of the city of La Navidad, and that there was a great deal of copper in the island of *Carib* and of *Matinino*, but that it would be hard to get in *Carib*, because those people eat human flesh, and that their island appeared from here, and that he was determined to go to it, since it was on his way, and to the island of *Matinino*, which, he says, is all settled by women without men, and to see both, and to take with him some of them." On January 16 he set sail towards the east, "in order to go to the island of

¹ I. 3.

² *Raccolta*, parte I, vol. I, p. 235.

³ *Ibid.*, p. 265.

⁴ *Ibid.*, p. 266.

Carib, where were the people of whom all these islands and lands were so much afraid, because with their numberless canoes they navigated all these seas and they ate all the men they could capture. . . . The Indians told him that in that direction he would find the island of *Matinino* which was peopled by women without men, which the Admiral was very anxious to see, in order to take five or six of them to the king and queen; but he doubted whether the Indians knew the right direction, and he could not be detained any longer, because the caravels were taking in water, but he said that he was certain that they existed, and that during certain times of the year the men came from the island of *Carib*, which he said was ten or twelve leagues away, and if they bore a boy, they sent him to the island of the men, and if it was a girl, they kept her. The Admiral says that these two islands could not be more than 15 or 20 leagues from where he was, and he thought they were to the southeast, and that the Indians could not give him the direction." On January 18 he still thought that the islands of *Carib* and *Matinino* were to the southeast of Hispaniola. On February 14 Columbus still intended to go to the Island of the Women (Isla de las Mugerres), and after that both *Carib* and *Matinino* vanish from hope and are not mentioned again.

We are not interested in the vast subject of the Amazons,¹ but only in the immediate sources from which Columbus drew his account. Marco Polo tells of the two Islands called Male and Female as follows: "When you leave this Kingdom of Kesmacoran, which is on the mainland, you go by sea some 500 miles towards the south; and then you find the two Islands, Male and Female, lying about 30 miles distant from

¹ See G. C. Rothery, *The Amazons in Antiquity and Modern Times*, London 1910.

one another. The people are all baptized Christians, but maintain the ordinances of the Old Testament; thus when their wives are with child they never go near them till their confinement, or for forty days thereafter. In the Island however which is called Male, dwell the Men alone, without their wives or any other women. Every year when the month of March arrives the men all set out for the other Island, and tarry there for three months, to wit, March, April, and May, dwelling with their wives for that space. At the end of those three months they return to their own Island, and pursue their husbandry and trade for the other nine months. They find on this Island very fine ambergris. They live on flesh and milk and rice. They are capital fishermen, and catch a great quantity of fine large sea-fish, and these they dry, so that all the year they have plenty of food, and also enough to sell to the traders who go thither. They have no chief except a bishop, who is subject to the archbishop of another Island, of which we shall presently speak, called Scotra. They have also a peculiar language. As for the children which their wives bear to them, if they be girls they abide with their mothers; but if they be boys the mothers bring them up till they are fourteen, and then send them to the fathers. Such is the custom of these two Islands. The wives do nothing but nurse their children and gather such fruits as their Island produces; for their husbands do furnish them with all necessaries."¹

The Catalan map of 1375 places the *regio femnarum* in Jana, that is, Ceylon. The fifteenth century Catalan map puts the *insula de bene faminill* at the western edge of the Indian Ocean, near the coast of Africa. Fra Mauro gives the islands of *Nebila* and *Magla* near Zanzibar and has the following inscription: "Queste

¹ Yule, *op. cit.*, vol. II, p. 337 f.

do isole sono habitade per christiani in una do lequal zoe in *nebila* habita le done in l'altra zita *mangla* habita li lor homeni i qual solamente tre mesi del ano stanno con se done." The map of 1489 of the British Museum has *Insula mulierum* and *Insula virorum* in approximately the same position, and even later, in 1520, Apianus gives *Femine* and *Viri* in the Indian Ocean. Yule¹ thinks that Fra Mauro's *Nebila* is from Arab. *nabilah* "beautiful," but since in the *Livre des merveilles de l'Inde*² the Island of the Women is called *جزيرة النساء*, it is more likely that *nebila* is from Arab.

نيلا, a misreading of *نساء*.

In Columbus' Latin version of Marco Polo the islands are called *insula Masculina* and *insula Feminea*, and there is the statement, "in hoc mari est *ambri* copia magna." Columbus made the notes in the margin, "Duas insulas, *masculia*, *femenina*," and "ubi sit *ambar* copia."³ Yule is most likely right in identifying the substance with ambergris and not with amber,⁴ but the Marco Polo versions distinctly speak of amber, as which it was understood by Columbus, who, in his annotation to Pliny says: "Del *ambra* es cierto nascere in India soto tierra," and in the Italian account of the Second Voyage is made to speak of "minere di *ambra*."⁵

This *ambra* is mentioned by Columbus only after he identified it with the island of *Carib*, which, in his last despair, he placed somewhere to the east, in order to

¹ *Op. cit.*, vol. II, p. 339.

² Published by P. A. Van der Lith and translated into French by L. Marcel Devic, Leide 1883-6.

³ *Raccolta*, parte I, vol. II, p. 468.

⁴ The Latin version in the *Recueil* says: "Hic est copia de *ambra* pulcra et bona, quia in illo mari sunt cete grandia, in copia magna" (p. 468).

⁵ *Raccolta*, parte I, vol. I, p. 209.

keep the spirit of his men up on their homeward journey, after his failure to find any gold in quantity in the islands discovered by him. As usual, he was credulously making his change of front, because the gentle art of philology bore him out. The balderdash of January 13 becomes at once intelligible, if we consider that he had two "learned" men with him, a sailor who had been to Guinea, and therefore was to be intrusted with a mission to the king of the Indies, and the Jew, Luis de Torres, who, on account of his knowledge of a little Arabic, was to be dispatched to the Great Khan on a similar mission.

Under November 1 the *Journal* says that they, supposedly the Indians of Guanahani, called gold *nucay*. Under January 13 we are told that the people of San Salvador and the other islands called it *noçay*. No such word is recorded in Carib. It is the Arab.

نضار *nudār* "pure gold," which on account of ض would be written in Spanish *nuçar*, and be mistaken for *nuçai*, *nucai*, as recorded in the *Journal*. But it was necessary to find new words for "gold," because the Indians did not understand *nuçay*. The Arabic "scholar" suggested *tuob*, that is Arab. ذهب *dzahab*,

which Alcalá writes *deheb*, and which is found as *teheb* in the Arabic oases of Africa. The Guinea "scholar" suggested the Mandingo word for it, but before discussing this, we must determine the Negro words for "gold."

There is no native Negro word for gold. Arab.

سکه *sikkah* "coin" produces¹ Mekyll *esigè*, Akye,

¹ No attempt is made here to classify the linguistic groups, but only to trace the Arabic influence.

Ari, Adyukru, Neule, Ewe, Dahome, Agui, Asante, Fante, Tchi, Adampe, Hwida, Mahi *sika*, Alaguian *aseke*, Avikam *asike*, Abriui *segè*, Plaui *sekè*,¹ Ga *shika*, Orungu *esika* "gold." The Span. or Port. *oro* is responsible for Kanyop, Dsekiri *oro*, Akurakura *oru*, Pepel *moro*, Egba *ude*, Yagba *ode*, Dsumu *oromini*, Dsebu *ire*, Ife *ide*, Gurma *wura*, Kiamba *wuro*, Sobo, Bini *eromo*, Egbele *elumi*, Kabenda *wola*, Mimboma *wuolo*, Ntere *mulua*, Kasandi, Lubalo *wulo*, Songo *ulu*, Wolof *wurus*, Tumbuktu, Barba *wura*, Boko *wula*, Salum *wurus* "gold." The Eng. *gold* produces Filham *godi*, Dewoi *gul*, Basa *guli*, Kra *kori*, Krebo *guru* "gold." But by far the largest number of Negro languages derive their "gold" word from Arab. دينار *dinār*.

I shall arrange these words approximately in their phonetic order of transformation. We have Bornu, Karekare *dinar*, Mandara *dindar*, Pika *zinaria*, Hausa *zinaria*, *dzinaria*, Nupe *dzinaria*, Kupa *zonaria*, Esitako *zanalia*, Goali, Bode *dzinalia*, Puka *zinalia*, Ebe *zanalia*, Kamuku *edzinaria*. The Pul language, which has been of great influence on the Guinea languages, has *kanyere* "gold," from the *dzinaria*, *zinaria* of Hausa. Here this *kanyere* is used collectively in the apocopated form *kanye*, *kañe* "gold," *kañeje* "trinkets." This *kanye*, but also a form which begins with an *s*,² is represented in the Mande languages as follows: Mandingo *sani*, Kabunga *sano*, Toronka *sanyu*, Kankanka *sanu*, Bambara *sannu*, Kono *kanine* "gold," Mende, Vei *kani* "metal (gold or silver)." Other languages have similar forms, such as Biafada, Padsade *sanu*, Kisi *kani*, Gadsaga *kane*. For our purposes

¹ Chiefly from M. Delafosse, *Vocabulaires comparatifs de plus de 60 langues ou dialectes parlés à la Côte d'Ivoire*, Paris 1904, and S. W. Koelle, *Polyglotta Africana*, London 1854.

² *S* and *k* are interchangeable in the Mande languages (H. Steinthal, *Die Mande-Neger-Sprachen*, Berlin 1867, § 93).

the coast languages, especially Vei, which extends to the ocean, is most important. This Vei *kani* would form Span. *guani*, just as Vei, Malinke, Bambara, Mandingo *kana* "monitor, the African lizard" produced Span. *iguana* "the American lizard."¹ Herrera gives it as *ybana* (I. 5. 11), *yguana* (I. 9. 4), *yuana* (I. 1. 13, 4. 2), but nowhere is it mentioned as an Indian name. It is merely a transference of an animal from Africa, just as the names *manati* and *danta* were transferred from Africa to America by the early voyagers.

In the *Journal* under January 13, "gold" is given as *caona*, while *Goanin* is an island where there is much gold. Las Casas wrote in the margin: "This *Guanin* was not an island, as I think, but that base gold which, according to the Indians of Hispaniola, had an odor for which they valued it much, and this they called *guanin*." Similarly the Italian account of the First Voyage reads: "There were here pieces of *guanin* as large as half the caravel's poop."² In Bernaldez's *Journal of the Second Voyage* we have the following account of *guaní*: "The cacique wore on his neck a copper trinket from an island which is in this vicinity, which is called *guaní*, which is very fine and appears to be gold of eight carats. It was made in the form of a fleur de lis, as large as a plate."³ We can see that the *Journal of the First Voyage* was edited or corrected after the text on which Bernaldez based his account of the Second Voyage was known, for in the above passage "que se llama *guaní*" may be taken

¹ The dictionaries absurdly speak of a Haitian or Carib word from which *iguana* is derived. Oviedo called it *yuana* (*De la natural hystoria de las Indias*, Toledo 1526, chap. VI).

² *Raccolta*, parte I, vol. I, p. 96.

³ "El cacique traía al pescueço unas joyas de alambre de una ysla que es en aquella comarca, que se llama '*guaní*,' que es muy fino é tanto que parece oro de ocho quilates. hera de echura de una flor de lis, tamaña como un platto," *ibid.*, p. 263.

as referring to the island, hence the blunder under January 13, 1493. But this is not all. The quite natural statement in the *Journal of the Second Voyage* "tamaña como un platto, of the size of a plate," has here, through the misunderstanding of the badly spelled *platto*, become *popa*, "the poop of a ship."

In his *Journal of the Third Voyage* Columbus tells us that before starting for Hispaniola he was told by King Juan of Portugal that ships had come from the coast of Guinea with merchandise to the islands of the west,¹ and so he decided first to go to Guinea "to verify on his way the opinion of King Don Juan, and he wanted to find out what the Indians of Hispaniola had told him, that there had come to it from the south and southeast Negro people, who brought those spear points made of a metal which they call *guanín*, of which he had sent to the king and queen for assaying, and which was found to have in thirty-two parts eighteen of gold, six of silver, and eight of copper."² There is no escaping the fact that Columbus knew that the *guaní* came from Guinea and that there had been merchants or voyagers in Hispaniola before him. This confirms the derivation of *caona*, *guani* from the Mande word for "gold."

Philology was to help out, where facts failed. The *Caribs* did not exist where they should have been. It was, therefore, necessary to get some measure of relief from a study of the word *Carib*. All that seems to have happened on January 13, 1493. The "scholar" who suggested *tuob* for "gold," also must have known

that *Carib* was derived from Arab. كهر بة *kahrubah*

"amber." Presto! The *Caribs* were the people where amber was found, that is, on the Island of the Males,

¹ *Ibid.*, vol. II, p. 5.

² *Ibid.*, p. 6.

which was next to the Island of the Women, and all it was necessary to do was to sail back home and find it. But here the editor of the *Journal*, following the series of blunders in the *First Letter*, as we shall presently see, committed the atrocious blunder of confusing Span. *ambar* with *alambre* "copper," and so Columbus is made to say that copper was found in the Island of the Women and in *Goanin*, and on January 15 the *Journal* in the same breath says that there was a great deal of copper in *Carib* and *Matinino*, although a few lines further down we are told that there was no iron or other metal in the island.¹

We can now pass to the study of the atrocious forgery known as the *First Letter*.

In Columbus' letter referring to the First Voyage, which was printed in Latin and in Spanish in 1493, he says that the Caribs "had relations with the women of *Matinino*, which is the first island, voyaging from Spain to the Indies, and in it there are no men; they do not do any women's work and use bows and arrows, like the others, and they cover themselves with brass plates, of which they have a great number."² It will appear from a variety of causes that the Latin letter, translated by Cosco, lies at the foundation of the Spanish Letter, as it has come down to us. There naturally existed a Spanish Letter before Cosco's translation was made, but this has hopelessly disappeared, except for a translation into German, made in 1497, and specifically mentioned as made from the Catalan and Latin.³ Here we have a complete account of the island, which is practically identical, except for some blunders, with Marco Polo's story.

¹ "Allí diz que no tenfan hierro ni otro metal que se oviese visto," *ibid.*, vol. I, p. 98.

² *Ibid.*, p. 131.

³ K. Häbler, *Der deutsche Kolumbus-brief*, Strassburg 1900.

The story in German is as follows:

“Das synt die lüt die zû schaffen habē mit den wybern von *mattiua* die do synt in der insel so mañ vszfer Spania gen india. in der selben ist kein man über all. nur allein wyber. vnd sie bruchen keinerley wör ðañ die bogē wie vor dar von gesagt ist. Ich mein es syent ouch die die do ptolomeus ouch heisst anthrophagi. vnd den namen haben sie ouch vsz der vrsach. weiß sie ouch menschen fleisch essent. vñ tödēt ouch die menschen vnd roubent. vnd liget die insel nit wyt von d’insel da die synt die do schwencz hond. vñ synt kriescher lüt ðañ die andern. wañ sie bruchent lützel der vnküsheit. Die inszel da die frowen yñ sunt da mit sie zû schaffen hond als ptolomeus schribt hat zwey hundert myl lang und breyt. vnd zû iar eyymal so farent sie zû iren mannē. vrsach da sie enpfahen. Darnach ziehent sie wider heim. vnd bringent sie einen knaben so ziehent sie es sechs iar vnd schicket es dan von yn zû den mänen. Ist es aber ein medlin so behaltent sie es by yñ. vñnd die wyber synt geschickter zû kriegen vnd manescher dan and’ frowen, wañ sie pflegent selten unktüsheit.”

“These are the people who deal with the women of *Mattiua*, who are in the island as you go from Spain towards India. In it there is not a man, only women, and they do no work, except that they use bows and arrows, as was said. I believe they are those whom Ptolomeus calls anthrophagi, and they have this name for the reason that they eat human flesh, and they kill men and rob them. And the island lies not far from the island where are those who have tails. And they are more warlike than the rest, because they use little of unchastity. The island in which are the women with whom they have their dealings, as Ptolomeus writes, is two hundred miles long and wide, and once a year they go to their men, for the sake of conceiving. Then they go home again, and if they bear a boy, they keep him for six years and send him then from them to the men. But if it is a girl they keep her, and the women are more agile and more manly than other women, for they seldom practise unchastity.”

The German translator says in the colophon that he has added a passage from Ptolemy and the Cosmography (marked with *a*), which was communicated to the king, before he sent to find out about it.¹ The

¹ “Gettletschet vsz der katilonischen zungen vnd vsz dem latin zû Ellm. Und ist etwas wa ein *a* steet dar zû gesetzet nach ðē vnd es Ptolomeus vnd die anderen meister der casmographi lereht vnd schribent. wañ der es funden hat der schribet es ee vor dar von geschriben ist worden. vnd dem künig ouch darvō geseit ist worden. Ee das er gesandt ist worden dz zû erfaren.”

Only while reading the galley proof of this book did it dawn upon me that the specific statement in the German translation of the *First Letter*, that Ptolemy’s correspondence to Marinus had been sent to the King of Spain by Columbus before his discovery of America, and that the King thereupon sent out Columbus to verify Ptolemy’s contention, was a *prima facie* proof of the forgery of the Toscanelli-Martini correspondence.

passage referred to runs as follows: "Of the provinces and islands Ptolemy says that there are people there who have tails, and these islands are in the Indian Ocean toward midday three degrees beyond the middle circle of the heavens, called equinoctialis, and from occident to orient to figure at one hundred and seventy-five degrees. Thus you may, if you wish, figure out how many miles it is and how broad, although I do not find the above-mentioned isle called, as by the Indians, Gwanahim. But I understood that they lie in the breadth toward midday, like the now-mentioned province, and in length it extends toward the Orient, and I think that it does not lie far from the well-known island of Taprobana toward us, for of the same island the masters write just as he writes that he has discovered it."¹ It is clear that the German translation, which drew chiefly on the lost Catalan version, added the passage in regard to the location of *Guanahani* from Columbus' account, previous to his sailing for America. Now, if we compare the story of the *Island of Women* in the German translation with that in the Latin and Spanish *First Letter*, we find it practically identical with it, except that we have the specific reference to Ptolemy as the source from which this is taken. The German translator obviously confused Columbus' account of the correspondence of Ptolemy with Marinus, which he referred to in his passage marked *a*, with Marco Polo's account of the *Island of Women*, which

¹ "Von den prouintzen vnnnd inszlen sagt ouch ptolomeus wie do lüt sind die schwencz hond. vnd ligent die inszlen in dē indischen mör gen mittag dry grad günet dem mitlen zürckel des hymels equi noctialis genant. vnd von occident gen oriēt zū rechnen hundert vnd fünf vnd sybenczyg grad. dar durch wilt du so magst ouch wol rechnē wie vil myl es sy vñ wie wite vnd wie wol ich die vrogenantē insel besunder als sie die indischen heyssen gwanahim nit find al do geheysen. Doch vernā ich sie ligent in der breyte gen mittentag wie die yetz genāt prouintz vnnnd in lenge sendet sie sich basz gegenn Orient. vnnnd vermeyn ouch wie sie nit wyt ligent vō der namhafftigen Insel taprobana dar vor nach gen vns her. wen von dē selben inszlē schribēt die meister glich wie er es schribt dz ers erfarē hab."

apparently was specifically mentioned by Columbus as taken from *Polo*, which the translator, or his source, took for *Ptolo* and read *Ptolomeus*. In the Latin *First Letter* the reading originally must have been, "hi sunt qui coeunt cum quibusdam feminis que sole insulam femininam, primam ex Hispania in Indiam traucientibus, habitant." In speaking of the brass plate which these women wore, the word "laminis" is used. Several of the Spanish versions read this as *launes*, that is, *laminis* was written in the manuscript *lainis*, and the *m* stroke was neglected, causing merely the *i* to be read as *u*. Similarly, if *insulam femininam* be carelessly written *insulamfeininam*, and the lengthened *m* stroke be considered as crossing the *f* into a *t* and at the same time referring to an omission of *m* after *la*, we get the reading *insulā mteuninam* or *insulā mateuninam*, for the long stroke equally meant the omission of a vowel. Two copies of the Latin Letter actually have *insulā mateunin*,¹ and one needs only look at the facsimiles of Columbus' writing, in order to observe that my supposition is substantially correct. Often, when he leaves out any letters, especially *m* or *n*, he makes a long dash over the word, so that great caution must be used, to restore the right reading. Thus he writes "que alla fueren sean rrepartidos por los dichos" as "q alla fuere sea rrepartdos por los dchs,"² "compliendo con su mandamiento" as "copliedo co su madamieto,"³ "voluntariamente" as "volutariamete,"⁴ etc., etc. It is, therefore, clear that in Columbus' or Cosco's MS. there stood "insulam feinina," which produced the *Mateunin* of the Latin, and the *Matinino*, *Mattanino* of the Spanish, and *Mattiwia* of

¹ *The Letter of Columbus* (Lenox Library), New York 1892, p. 53.

² *Raccolta*, parte I, vol. III, p. 1, l. 15.

³ *Ibid.*, p. 9, l. 5.

⁴ *Ibid.*, p. 10, l. 4.

Unus aliter y p[ro]p[ri]o[rum] d[omi]n[orum] -

Unde dicitur to y l[ib]er - aliter y m[od]o d[omi]n[orum]
dicitur to y m[od]o d[omi]n[orum] p[ro]p[ri]o[rum] l[ib]er y m[od]o d[omi]n[orum]
in m[od]o d[omi]n[orum] l[ib]er y m[od]o d[omi]n[orum] m[od]o d[omi]n[orum]
dicitur m[od]o d[omi]n[orum] m[od]o d[omi]n[orum] m[od]o d[omi]n[orum] m[od]o d[omi]n[orum]

Item dicitur de p[ro]p[ri]o[rum] d[omi]n[orum] l[ib]er y m[od]o d[omi]n[orum]
m[od]o d[omi]n[orum] m[od]o d[omi]n[orum] m[od]o d[omi]n[orum] m[od]o d[omi]n[orum]
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Item dicitur de p[ro]p[ri]o[rum] d[omi]n[orum] l[ib]er y m[od]o d[omi]n[orum]
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m[od]o d[omi]n[orum] y m[od]o d[omi]n[orum] l[ib]er y m[od]o d[omi]n[orum]

Item dicitur de p[ro]p[ri]o[rum] d[omi]n[orum] l[ib]er y m[od]o d[omi]n[orum]
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Item dicitur de p[ro]p[ri]o[rum] d[omi]n[orum] l[ib]er y m[od]o d[omi]n[orum]
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m[od]o d[omi]n[orum] y m[od]o d[omi]n[orum] l[ib]er y m[od]o d[omi]n[orum]
m[od]o d[omi]n[orum] y m[od]o d[omi]n[orum] l[ib]er y m[od]o d[omi]n[orum]

Item dicitur de p[ro]p[ri]o[rum] d[omi]n[orum] l[ib]er y m[od]o d[omi]n[orum]
y m[od]o d[omi]n[orum] m[od]o d[omi]n[orum] m[od]o d[omi]n[orum] m[od]o d[omi]n[orum]
m[od]o d[omi]n[orum] y m[od]o d[omi]n[orum] l[ib]er y m[od]o d[omi]n[orum]
m[od]o d[omi]n[orum] y m[od]o d[omi]n[orum] l[ib]er y m[od]o d[omi]n[orum]

Specimen Page of Columbus' Writing. From the Raccolta.

the German Letters, to be further transformed to *Masemitro*, *Mathinina*, *Matrimino*, *Matrino*, etc.¹

Columbus was anxious to verify Marco Polo's statement in regard to *Insula feminina*, as we learn from the German translation of the *First Letter*. In the Latin and Spanish form of it the reference to *Ptolomeus*, that is, *Polo*, was omitted, because of the failure to prove the case. That it existed in the original draft and the Catalan form, from which the German translation was made, is shown by Bergamo's *Chronicle*, printed in 1503, where the account of the island of *Mateniena* or *Matinie* ends with the words, "as is the custom of the Amazons, the islanders of the Indies come to mate with them in the spring of the year,"² where both the passage and the alternative *Matinie*, like the German *Mattiuia*, point to the Catalan original. Only a purblind person will assume that this island of *Matinino* existed as an Indian legend. There was no Indian who told Columbus such a story, and Las Casas correctly wrote in the margin of the *Journal* under January 16, 1493: "it was never proved afterwards that there existed such women."

If there is any lingering doubt left in anybody's mind as to the forgery of the *First Letter*, we shall make the matter clearer by the discussion of another item. Columbus says: "I have already said that I sailed 107 leagues along the coast in a direct line from west to east along the island of *Juana*, and from this distance I can say that this island is larger than England and Scotland combined. Beyond these 107 leagues there are left on the west two provinces which I did not visit, one of which is called *Avan* (*Anan*, *Anau*, *Nhan*, *Naan*, *Anahan*), where the people with tails live, which provinces cannot be less long than

¹ *Ibid.*, vol. II, p. 555.

² "Cum his ueluti amazonibus coheunt indi insulani tempore ueris," Thacher, *op. cit.*, vol. II, p. 79.

50 or 60 leagues, as I could understand from the Indians whom I have with me and who know these islands."

Of course, *Juana* is *Java* (minor). In the Marco Polo edition annotated by Columbus it is given as *Yana*. After having told of six of its provinces, Marco Polo concludes: "Out of those eight kingdoms we have told you about six that lie at this side of the Island. I shall tell you nothing about the other two kingdoms, that are at the other side of the Island, for the said Messer Marco Polo never was there."¹ The people with tails are mentioned with one of the six provinces, *Lambri*, just shortly before the statement of not having visited the last two. It will be observed that it is right after this passage that the German translation gives the passage from *Ptolomeus*, that is, from *Polo*, about the people with tails. This, then, leaves no doubt behind. Either Columbus was quoting Polo verbatim, and then the whole *First Letter* is based on a lie, or the letter was made up by someone else than Columbus, and then it is a forgery. These are the two horns of the dilemma.

The island of *Carib*, in which only men live, appears in the *First Letter* as *Quaris*, *Charis*, *Quarives*, but it is not even mentioned in the German translation, another proof that the original letter of Columbus was far less apocryphal than the *First Letter* which has come down to us.

German translation.

Vñ ich hab nit fundē noch mütgē
erfaren kein kriegischer noch mer-
discher volck. vsz genōmen als ich
von india hinyñ bin gefarē. dar yñ
synt vsz der massen vast wilde lüt
die essent menschen fleisch.

First Letter.

Monstra aliqua non vidi: neque
eorum alicubi habui cognitionem:
excepta quadam insula *Charis* nun-
cupata: quae secunda ex Hispania
in Indiam transfretantibus existit
quam gens quaedam a finitimis
habita ferocior incolit. Hi carne
humana vescuntur.

Carib is a fiction, and no such name existed. "But,—*Carib* is an organic part of several American languages!" says the Americanologist, and eases his conscience as to the error he has helped to perpetuate. Here is what Karl von den Steinen says¹ of the Bakairi *k̄xarapa* "stranger:" "It is *k̄x-ara-pa* 'not like us,' not one of our kind, outsiders. One naturally thinks, in connection with it, of the famous *k̄x̄aráiba*, which is to be derived from it, since, indeed, it corresponds to the real meaning of *k̄xaráiba*. But *k̄xaráiba* has long ago become an independent form, and this possible origin is removed from the linguistic feeling of the modern Bakairi." "*K̄xaráiba* Brazilian, Portuguese = Carib. With this word they designated only us, and no Indian tribe. I was *pima k̄xaráiba* 'chief of Caribs.' If Roquefort says: 'tant y a que nos sauvages Antillois aiment si fort ce nom-là qu'ils disent perpetuellement à nos gens: Toy François, moy Caribe,' I am unable to see in it an original relation. The Tupis of the Kulisehu called us *Karáy* and *Karáib*. The form *k̄xaráiba* can be explained from the Tupi only in an artificial manner, and such an attempt belongs in the field of Tupi-mania, which without a blush explains foreign tribal names from the Tupi. It is most plausible that the word picked up in the north during the period of discoveries was received from a Carib tribe and not from the Tupis, and was given currency by the discoverers."² Von den Steinen forgot that Columbus claimed to have received the word from non-Caribs, and that it referred to the Caribs; then how, in the name of common sense, can it be derived from the Carib and have the contradictory meaning "not like us?"

¹ *Die Bakairi-Sprache*, Leipzig 1892, p. 18.

² *Ibid.*, p. 61 f.

The word *Carib* is found among all the coastal Indian tribes, whether of Tupi or Carib origin. We have Guarani *carai* "astute, clever, a word with which they universally honored their wizards, and which they also applied to the Spaniards and most improperly to a Christian and holy things, but we do not use it in this sense."¹ From this *carai* was formed Guarani *cará* "agility, cleverness, curiosity," which is not found in Tupi. In Tupi² we have *cary'ba* "white man, Portuguese," *caraíba* "astute," *carybebê*, *carai-bebê* "angel," and, as will be seen from the second volume of this work, the *Caribs* were by the Tupis considered to be enchanters. L. Adam³ records Abañeême *karaí* "master," Neêngatu *karaí* "angel," *karaíba*, *kariwa* "white man," Camayurá *karaíb* "stranger," Auetö *karaí* "stranger," Abañeênga *karaíba* "blessed, white man."

On the other hand we have R. Breton's⁴ statement for the Carib *Callínago*, in the women's language, *Callíponam* "the name of the Caribs, whom he, for his part, could not praise enough for their meekness," hence *callinémeti* "peaceable man," *li-callí-nemené* "his goodness." As the language treated by Breton is that of Guadeloupe and Haiti, we must assume that, after all, Columbus met Caribs in Hispaniola. Rochefort⁵ denied the derivation of these words from the Spanish ghost word, because he thought there were tribes in the interior, far removed from intercourse with the white man, who also called themselves *Caraib*. But this argument is useless, because for centuries there

¹ A. R. [de Montoya], *Tesoro de la lengua guarani*, Madrid 1639.

² J. Platzmann, *Das Anonyme Wörterbuch Tupi-Deutsch und Deutsch-Tupi*, Leipzig 1901.

³ *Matériaux pour servir à l'établissement d'une grammaire comparée des dialectes de la famille Tupi*, Paris 1896, in *Bibliothèque linguistique américaine*, vol. XVIII, p. 113.

⁴ *Dictionnaire caraïbe-françois*, Auxerre 1665, p. 105.

⁵ *Histoire naturelle et morale des Iles Antilles de l'Amérique*, Rotterdam 1665, p. 344 ff.

has not been such a spot in the two Americas, even as there is no spot where the horse, the dog, and the cat, and a large variety of European vegetables and fruits have not penetrated. There is no escape from the fact that *Cariba* was a variation of *Caniba*, and that *Caniba*, *Canibal* was derived from Marco Polo's *Cambalu*, for which Columbus was seeking.

There is another ghost word in the *First Letter* which must be ventilated, since it was the first "Indian" word to spread like wildfire throughout Europe.

The Canoe.

Under October 13, 1492, when land was first sighted, the *Journal* quotes the very words of Columbus: "They came to the ship with *almadías*, which are made from the trunk of a tree, like a long boat and all in one piece, and very wonderfully fashioned for the country, and large enough so that 40 or 45 men came in some of them, and others were smaller, some so small that only one man came in them. They rowed with a shovel like a baker's and go wonderfully well; and if they upset, then they all commence to swim and bail them out with gourds, which they carry."¹ This account of the canoes, in which, it will be observed, the word *canoas* does not occur, sounds suspiciously like the older accounts of the Negroes' boats. A. da Mosto wrote many years before the discovery of America, though his account was published later: "Three *almadías*, which we call zoppoli, which are all cut out of a piece of large trees,"² and immediately afterwards we are told that these *almadías* carried from twenty-

¹ "Ellos vinieron á la nao con *almadías*, que son hechas del pie de un árbol como un barco luengo, y todo de un pedaço, y labrado muy á maravilla, según la tierra, y grandes, en que en alguna venían .40. y .45. hombres, y otras más pequeñas, fasta á ver d'ellas en que venía un solo hombre. remavan con una pala como de fornero, y anda á maravilla, y, si se le trastorna, luego se echan todos á nadar, y la endereçan, y vazían con calabaças que traen ellos."

² Ramusio, *op. cit.*, vol. I, fol. 106 d.

five to thirty men. This Span. *almadia*, from Arab.

المعدية *alma'diyah* "ferry boat," is the usual one for the Negroes' canoe, and Columbus, who had been in Guinea, naturally applied it to the boats of the Indians. Not once, where Columbus is quoted verbatim, does he use any other word for "canoe" than *almadia*. The only exception seems, at the first reading, to be the entry under December 17.

"It blew that night strongly, the wind being east-north-east, but the sea did not change much, because the Isla de la Tortuga which is in front of it and makes a shelter for it, protected and guarded it. So he remained there during that day. He sent some of the sailors to fish with nets. The Indians associated with the Christians a great deal and they brought them certain arrows belonging to the people of Caniba or the Canibales, and these arrows are made of spikes of canes and they use some little sharp hardened sticks for them and they are very large. They showed the Christians two men who had lost some pieces of flesh from their bodies and made them understand that the Cannibals had eaten them by piece-meals. The Admiral did not believe it. He again sent certain Christians to the village, and by trading some worthless little glass beads they obtained some pieces of gold beaten into the form of a thin leaf. One Indian whom the Admiral took for the Governor of that Province and who was called *Cacique*, they observed to have a piece of that gold leaf as large as the hand and it appeared that he wished to trade it. He went away to his house and the others remained in the plaza and he caused that piece of gold to be broken into very small pieces, and bringing a piece at a time, he traded for it. After there was no more remaining, he said by signs that he had sent for more

and the next day they would bring it to him. All these things, and their manner, and their customs, and meekness and counsel show them to be a more alert and intelligent people than the others he had found up to that time, says the Admiral. In the afternoon a canoe came there from the Isla de la Tortuga with all of forty men and on reaching the beach all the people of the village who were together seated themselves as a sign of peace, and some from the canoe, and then almost all came on land. The Cacique arose alone and with words which appeared to be threatening made them return to the canoe and threw them water and took stones from the beach and threw them in the water: and after all had very obediently placed themselves in the canoe and embarked, he took a stone and placed it in the hand of my Alguacil whom I had sent on land with the Escribano and others to see if they could bring back anything valuable, that he might throw it, and the Alguacil would not do so. That Cacique there showed very plainly that he favoured the Admiral. The canoe then went away and they said to the Admiral after its departure that in Tortuga there was more gold than in the island of Española because it is nearer Baneque. The Admiral said that he believed there were no mines of gold either in the Isla Española or Tortuga, but that they brought it from Baneque and that they bring a small quantity because they have nothing to give for it, and that country is so rich that it is not necessary for them to work much to sustain themselves or clothe themselves, as they go naked. And the Admiral believed that this was very near the fountain head and that our Lord was about to show him where the gold originates. He was informed that from there to Baneque it was four days' journey which must have been thirty or forty leagues, which he could make in one day of good wind."

“Ventó aquella noche reziamente viento lesnordeste; no se alteró mucho la mar, porque lo estorva y escuda la ysla de la Tortuga, qu'está frontera y haze abrigo. así estuvo allí aqueste día. embió á pescar los marineros con redes; holgáronse mucho con los christianos los Yndios, y truxéronles ciertas flechas de los de Canibato de los Caníbales, y son de las espigas de cañas, y enxiérenles uno[s] palillos tostados y agudos, y son muy largas. mostráronles dos hombres que les faltavan algunos pedaços de carne de su cuerpo, y hizieronles entender que los Caníbales los avían comido á bocados. el almirante no lo creyó. tornó a embiar ciertos christianos á la población, y á trueque de contezuelas de vidro rescataron algunos pedaços de oro labrado de hoja deligada. vieron á uno, que tuvo el almirante por governador de aquella provincia, que llamavan caçique, un pedaço, tan grande como la mano, de aquella hoja de oro, y parecía que lo quería resgatar, el qual se fué á su casa, y los otros quedaron en la plaça, y él hazía hazer pedaçuelos de aquella pieça, y trayendo cada vez un pedaçuelo, resgatávalo. después que no ovo más, dixo por señas qu'él avía enbiado por más, y que otro día lo traerían. estas cosas todas, y la manera d'ellos, y sus costumbres y mansedumbre y consejo muestra de ser gente más despierta y entendida que otros que hasta allí oviese hallado. dize el almirante: en la tarde vino allí una *canoa* de la isla de la Tortuga con bien quarenta hombres; y, en llegando á la playa, toda la gente del pueblo, qu'estava junta, se assentaron todos en señal de paz; y algunos de la *canoa* y quasi todos descendieron en tierra. el caçique se levantó solo, y con palabras, que parecían de amenazas, los hizo bolver á la *canoa*, y los echava agua, y tomava piedras de la playa, y las echava en el agua, y después que ya todos con mucha obediencia se pusieron y embarcaron en la *canoa*, él tomó una piedra, y la puso

en la mano á mi alguazil, para que la tyrase, al qual yo avía enbiado á tierra, y al escrivano y á otros, para ver si traýan algo que aprovechase; y el alguazil no les quiso tyrar. allí mostró mucho aquel caçique que se favoreçía con el almirante. la *canoa* se fué luego; y dixeron al almirante, después de yda, que en la Tortuga avía más oro que en la isla Española, porque es más çerca de Baneque. dixo el almirante que creýa que en aquella isla Española ni en la Tortuga oviese minas de oro, sino que lo traýan de Baneque, y que traen poco, porque no tiene[n] aquellos que dar por ello; y aquella tierra es tan gruessa que no a menester que trabajen mucho para sustentarse ni para vestirse, como anden desnudos. y creýa el almirante qu'estava muy çerca de la fuente, y que Nuestro Señor le avía de mostrar donde nasce el oro. tenía nueva que de allí al Baneque avía quatro jornadas, que podrían ser. .XXX. ó .XL. leguas, que en un día de buen tiempo se podían andar."

The *Raccolta* has obviously been misled by the clause "y la puso en la mano á mi alguazil, para que la tyrase, al qual yo avía enbiado á tierra," into the belief that everything from "dize el almirante" is quoted from Columbus, whereas it is clear that the reflection on the manners of the Indians, which precedes this "dize el almirante," does not proceed from the editor, but from Columbus. In the Latin First Letter the words *scapha* and *biremi* are used to translate *canoa*. "Habet unaqueque insula multas *scaphas* solidi ligni, etsi angustas, longitudine tamen ac forma nostris *biremibus* similes, cursu autem velociores; reguntur remis tantummodo. harum quedam sunt magne, quedam parve, quedam in medio consistunt, plures tamen *biremi* que remiget duodeviginti trans- tris maiores, cum quibus in omnes illas insulas, que innumere sunt, traicitur, cumque iis suam merca-

turam exercent, et inter eos comertia fiunt. aliquas ego harum *biremium* seu *scapharum* vidi, que vehebant septuaginta et octuaginta remiges." "Habent predicti *biremium* genera plurima, quibus in omnis indicas insulas traiciunt, depredant, surripiunt quecunque possunt." Had the Latin translator read *canoa* in his original, he could not possibly have avoided it. That there was no such word in the Catalan version also follows from the German translation, where we have *schiff* and not *canoa*: "Und sie habēt in allen inszlen vil *schiff* die synt in der gestalt wie die schiff vō vier benekē etlich grösser vñ ouch etlich kleiner. vñ synt vō eym eynigē brett vnd holtz gemacht. Uñ ist nit zū gloubē das sie so vast mit farēt vō einer insel zū der anderē. vñ sie triebēt ouch kouffmāschatz yn den inszlen vñ fierēt die kouffmāschatzung vff den selbigē *schiffen* hyn vñ her. Uñ ich hab ouch wol gesehen etliche *schiff* dar iñ synd gewesen zwentzyg oder acht vnd zwentzyg mā vnd yeglicher mit synem eygen rüder gefaren ist." "Uñ die selben habent vss den massen vil *schiffung* darmit sie farent in all inszlen hin vñ her. in india. vñ stelent vñ roubent. vnd tödtent was sie ankōmen mügent." It will be observed that the German version speaks of twenty to twenty-eight men in each boat, which is nearer to A. da Mosto's statement.

We have already seen how blunders and misreadings were perpetuated in the Latin First Letter. We can now see how an additional blunder was transferred from the Latin to the Spanish First Letter. *Scaphas* was in the manuscript or in the Gothic text read as *canoas*, producing the ghost word which has gone down in history as the first Indian word to reach Europe. It swept Europe like wild fire. There is not a book or a letter which announced the discovery of America which did not contain this precious word *canoa*, as

a proof of this discovery, and in the Second Voyage Columbus may have used this word himself, but we have no "ipsissima verba" from him.

The word is found in many Carib languages. We have Chayma, Cumanagote *canagua*, *canahua*, Galibi, Cariniaco, Ouayana, Aparai *canaua*, *canua*, Carib, Macusi, Oponi *canaoa*, Carijona *canaua-ya*,¹ Paravilhana *kanau à*;² but it is not in Bakairi, that "pure" Carib language of the interior, where we should expect it to be, if it were originally a Carib word. One may easily judge how dangerous it is to accept a word as Carib, simply because it is found in several Carib languages, from a discussion of "boat" and related words in them.

Breton³ and Rochefort⁴ record Carib *kanabire*, Pelleprat⁵ gives Galibi *cannábira* "boat," and Rochefort rightly remarks, "cela vient sans doute de notre mot françois," since it is *ka* + *navire*. Pelleprat gives Galibi *patáche* "barque, batteau," and this is Span. *patache* "guard boat." Breton has *barca*, which is from the Spanish; and *corial* of the Carib Arecuna and Macusi in British Guiana, recorded as *couliala* by Breton and as *kuljara* in Arawak, is unquestionably a corruption of Span. *caravela*. In the interior of the continent we have the native words, Bakairi *pepi*, which is recorded in Carib as *biüeri*, while Von den Steinen⁶ has Mehinaku, Kustenu, Waura *itsá*, Yaulapiti *iržra*, Paressi *kötto*. Here is also given *kanoa*, which Von den Steinen rightly denominates as "Portu-

¹ L. Adam, *Matériaux pour servir à l'établissement d'une grammaire comparée des dialectes de la famille Caribe*, Paris 1893, p. 101.

² K. F. P. Martius, *Glossaria linguarum brasiliensium*, Erlangen 1863, p. 227.

³ *Dictionnaire caraïbe-françois*, Auxerre 1665.

⁴ *Histoire naturelle et morale des Iles Antilles de l'Amerique*, Rotterdam 1665.

⁵ *Introduction à la langue des Galibis*, Paris 1655.

⁶ *Unter den Naturvölkern Zentral-Brasiliens*, Berlin 1894, p. 527 ff.

guese." This form *itsá* is widespread.¹ We have Manao *ytscha*, Marauha *yschaly*, Uirina *idā*, Bare *yschá*, Cariay *ytzá*, Uaimuna *ita*, Tariaua, Baniva *ita*. Only at the coast do we find *canoa*, to which may be added Goajira *anúa*, which is formed from Span. *canoa*, as *arnero* is formed from Span. *carnero* "ram."

In order to make it clear with what rapidity Spanish words spread among the coast Indians and sometimes even in the interior, I shall quote here the words of Spanish origin in Galibi, Carib and Arawak, where the Indians speaking these languages have since the beginning of the seventeenth century ceased to be under Spanish influence, since the country they inhabit became a French possession.

Span. *aguja* "needle."

Galibi,² Biet *cacossa*, *acoussa*, Pel. *cacousa*, Boy. *caossa*, *acoussa*.

Carib³ *acoúcha*. Arawak⁴ *akussa* "needle," *akúsan* "to sew."

Span. *alambre* "brass."

Galibi, Pel. *yoüarapirou*, Roch. *tialapirou*.

Carib *tialápirou*.

Span. *alfiler* "pin."

Galibi, Pel. *aloflérou*, Roch. *alopholer*.

Carib *allopfoler*. Araw. *halpileru*.

Adam⁵ also gives Macusi *arufuretu*, Ouayana *aruh-pereru*, and draws attention to the phonetic permutations *p*, *pf*, *f*. But since these must have existed from

¹ Martius, *op. cit.*

² A. Biet, *Voyage de la France équinoxiale*, Paris 1664, P. Pelleprat, *op. cit.*, P. Boyer, *Véritable relation de tout ce qui s'est fait et passé au voyage que Monsieur de Bretigny fit à l'Amérique Occidentale*, Paris 1654, C. de Rochefort, *op. cit.*

³ R. Breton, *op. cit.*

⁴ Crevaux, Sagot, Adam, *Grammaires et vocabulaires Roucouyenne, Arrouague, Piapoco, etc.*, Paris 1882, in *Bibliothèque linguistique américaine*, vol. VIII.

⁵ *Matériaux pour servir à l'établissement d'une grammaire comparée des dialectes de la famille Caribé*, Paris 1893, in *Bibliothèque linguistique américaine*, vol. XVII.

the very beginning, phonetic permutations are of no value for the determination of the native origin of words.

Span. *arquebuz* "gun."

Galibi, Boy. *aracabousa*, Pel. *aracaboússa*, Biet *arquabousa*, Roch. *rakábouchou*.

Carib *racaboúchou*. Araw. *arrakabussa*.

Span. *asno* "ass."

Galibi, Pel. *másso*.

Span. *azucar* "sugar."

Galibi, Boy. *siccarou*, *carou*, Roch. *choucre*.

Carib *sicarou*, *carou*. Araw. *sükaru*.

Here, as under *alambre*, *aguja*, we see how readily syllables, representing Carib personal pronouns, are added or subtracted, thus creating unrecognizable words.

Span. *batía* "melon."

Galibi, Roch. *battia*. Araw. *pattia*.

Span. *caballo* "horse."

Galibi, Boy. *cauaye*, Pel. *cabáño*, *cauálle*.

Carib *cabayo*.

Span. *cadena* "chain."

Araw. *karéna*.

Span. *caja* "box."

Galibi, Boy. *cassa* "trunk."

Span. *camisa* "shirt."

Galibi, Boy. *camisat* "underwear," Pel. *camicha* "garment."

Carib *cámicha* "garment."

Span. *candela* "candle."

Galibi, Pel. *cololéta*.

Span. *canon* "cannon."

Galibi, Boy. *kaloon*.

Carib *calhon*.

Span. *caracoles* "snails, mussels."

Galibi, Boy. *caracoulis* "copper trinkets," Roch. *cacones* "trifles, trinkets."

Adam gives Carib *calluculi*, Accawai *corrocori*, Chayma, Cumanagote *carcuriri*, Cariniaco *cureuco* "trinkets, gold." To this may be added Roucouyenne *caracouli* "silver." The word *caracol* was used by the Spaniards in America for any small trinkets, hence "un collar de *caracoles*."¹ Las Casas wrote: "Dábanle tambien joyas de oro, los que las tenian, para las orejas ó narices ó para los pechos, que llamaban *caricuries* en una lengua de las de por aquella tierra."²

Span. *carta* "card."

Galibi, Boy. *carata* "letter, writing," Roch. *calita*, *calata* "paper," Biet *calata* "paper."

Carib *carta* "paper, book."

Span. *casa* "house."

Galibi, Boy. *caza* "lodging."

Span. *clavo* "nail."

Galibi, Roch. *crabou* "iron."

Carib *crá bou* "iron."

Span. *cuchillo* "knife."

Galibi, Roch. *cuchique*.

Span. *culebra* "snake."

Galibi, Roch. *couloubéra*.

Span. *espada* "sword."

Galibi, Roch. *echoubara* "sword," Pel. *soubára* "sword," *sibárari* "iron," Boy. *ousipara*, *anchipara* "sword," *sipáraly* "iron," Biet *cachipara* "sword."

Araw. *kássipara* "sword," *siparálli* "iron."

Span. *machete* "hatchet."

Galibi, Boy. *maceta* "hatchet," *monceta* "scythe," Pel. *manceta* "scythe," Biet *maceta* "scythe."

Span. *metal* "metal."

Galibi, Roch. *emétali* "rock."

Span. *mucho* "much."

¹ L. T. de Mendoza, *Coleccion de documentos inéditos, relativos al descubrimiento, conquista y organizacion. . . de América y Océania*, Madrid 1869, vol. XII, p. 340.

² *Op. cit.*, vol. V, p. 537.

- Galibi, Boy. *mouche*.
Span. *pelota* "bullet."
- Galibi, Boy., Pel. *piroto*, Roch. *piroté* "lead."
Span. *pequeño* "small."
- Galibi, Roch. *pikenine* "small child."
Span. *perro* "dog."
- Galibi, Pel. *pero*.
Span. *pipa* "keg."
- Galibi, Boy. *pipa*.
Span. *plata* "silver."
- Galibi, Pel. *ourata*, *ouraourárou* "silver," Roch. *bouláta* "gold, silver."
Carib *bouláta*, *oúlla-oúllarou* "silver." Araw. *platta* "silver, money."
Span. *plato* "plate."
- Galibi, Boy. *parapi*, *prapi*, Pel. *palabi*, Roch. *palapi*.
Carib *balabi*.
Span. *polvora* "powder."
- Galibi, Boy. *couroupara*, Pel. *bouroúboura*, Roch. *couroubara*.
Carib *boúrbrê*. Araw. *kúlbara*.
Span. *puerco* "pig."
- Galibi, Boy. *poingo*, *poingé*, *poniqué*, *pinqué* "pig,"
Roch. *boüirokou*, *coincoin* "pig," Biet *poïnga* "pig,"
Pel. *poinco* "native wild boar."
Carib *boútrocou* "pig," *boínké* "wild boar." Araw. *porka* "pig."
Span. *ratón* "rat."
- Galibi, Roch. *karattoni*, Pel. *ratoní*.
Span. *sapato* "shoe."
- Galibi, Boy. *sapato*, Roch. *sapata*.
Carib *sapato*. Araw. *sapatu*.
Span. *sombbrero* "hat."
- Galibi, Boy. *sombraire*, Pel. *sombréro*.
Araw. *sambuléru*.
Span. *tijeras* "scissors."

Galibi, Boy. *quereci*, Roch. *chirachi*.

Chirachi, that is, *širaši*, is apocopated from *tiširaši*, that is, *tišeras*.

Span. *timon* "rudder."

Araw. *temona* "rudder," *attimân* "to ferry over."

Span. *tiro* "piece or ordnance."

Galibi, Boy., Pel. *tirou* "cannon."

Span. *vaca* "cow."

Galibi, Boy., Biet *paca*, Pel. *vacca* "beef."

Carib *bacachou* "beef." Araw. *baka*.

Span. *vela* "veil."

Galibi, Boy., Roch. *pira*.

Of these words *camisa* is mentioned by Columbus in 1493 as already in use among the Indians: "They came to the Christians without any fear and, touching the skirt or shirt, said *jubon*, *camisa*, to show that they knew the names of these things."¹ After the *First Letter* the word *canoa* went like wildfire through Europe and was immediately brought back to America as an Indian word. The Indians, who had no compunction in accepting foreign words for native objects, such as *culubera* for "snake," *meco* for "monkey," gladly accepted *canoa* as the proper word for their canoes. But the word did not penetrate far beyond the coast, and in the interior it is found only sporadically.

¹ *Raccolta*, parte I, vol. I, p. 153.

CHAPTER II.

THE SECOND VOYAGE.

Before proceeding to the great concurrent forgery by Columbus and Ramon Pane, we may study the origin of the forgeries in the *Journal of the First Voyage* and the *First Letter* by means of some of the blunders perpetrated in the writings referring to the Second Voyage. For this Second Voyage we have not Columbus' own *Itinerario*, which is quoted by Bernaldez and Ferdinand Columbus. We shall be able to reconstruct certain passages in it from the use made of it by Ferdinand Columbus, Las Casas, Peter Martyr, and Bernaldez. Our purpose, however, is not to get at the correct text of Columbus, but to study the manner in which the errors were perpetuated and finally received the sanction of Columbus himself, who thus became a coadjutor in the forgeries.

Of the weapons of the Indians Ferdinand Columbus says: "A mariner who landed there went with a gun to kill a bird or animal in the bush, and he found thirty persons with the weapons which they use, that is, lances and sticks, which they carry in place of swords and are by them called *machane*."¹ Las Casas tells the same story, but is more specific about the shape of the weapons: "They had weapons, lances and arrows, and some like swords, resembling a spade up to the end, and from the end to the hilt they keep narrowing down, and they are not sharp but flat at the end. They are made of palm wood, because the palms have not the rough edges as in Spain, but are smooth and

¹ *Raccolta*, parte I, vol. I, p. 187.

are as hard and heavy as if they were made of bone or steel, and they cannot be harder: they call them *macanas*."¹

Like *canoa*, this word *macana* spread immediately throughout Europe and America as a specifically Indian word. Peter Martyr wrote of the Indians of Darien: "Their weapons are not bows and poisonous arrows. . . they generally fight hand to hand with long swords which they call *macanas*, and these are made of wood, since they have no iron."² The word found its way into several of the Indian languages, and the absurdity of its Indian origin is proved by the fact that, while it is recorded in the *Second Voyage* as from Cuba, it is given in the earliest Peruvian dictionaries as *makana*, *makaña* "wooden sword," hence *makay* "to fight, beat," and in Aymara *mak-haña* "a stick with an iron or bone point," but here no verb "to fight" has developed from it. The word backed in from its first use by Garcilasso de la Vega,³ the first historian of the Yncas, who committed more than one blunder by quoting from non-Peruvian sources. He says: "Then they were placed in rows, and a captain, being a master in the use of arms, came forward with a weapon like a post, or rather a club used with two hands, which the Indians called *macana*, or else with a spear called *chuqui*."⁴ Similarly Pedro de Cieza de Leon says of the Indians in the Cauca valley: "Their arms are darts, long lances of black palm, slings, and two-handed clubs, called *macanas*."⁵ Cabeza de Vaca says of the Guaranis of La Plata: "The Indian considered the bravest among them now

¹ *Ibid.*

² II. 3.

³ C. R. Markham, *First Part of the Royal Commentaries of the Yncas* (*The Hakluyt Society*), London 1871, vol. II.

⁴ VI. 25, *ibid.*, p. 171.

⁵ C. R. Markham, *The Travels of Pedro de Cieza de Leon* (*The Hakluyt Society*), London 1864, p. 49.

takes a wooden sword in his hand, called in their language *macana*."¹ The Chilean Vocabulary of 1642 has *macane* "club."

As a matter of fact, *maçana* is an old Spanish and Portuguese word, which is retained in Modern Port. *maça, maçan* "club, mace, scepter," and which is recorded in Old Spanish as *macana, mazana* "knob" as early as the twelfth century.² The word was taken out by Columbus from a Spanish or Portuguese translation of Marco Polo, where he tells of the Japanese that they could not be killed with iron weapons, because they had a charm sewed into their arms, and so had to be killed with wooden clubs. *Il Milione* has here, "gli feciono ammazzare con *mazze*,"³ and the French translation writes, "il les font amazer con *maque*."⁴

Las Casas speaks of the parrots, "which they call *guacamayos* (*guacamayas*), which are as large as cocks, of many colors, and most of them are a little blue and white,"⁵ and again, "they found parrots, those large, colored ones, which we mentioned above under the name of *guacamayas*, which are like cocks, although they have no large legs."⁶ The Italian version, by Ferdinand Columbus, in both cases omits the name, though in the first case the description is nearly the same. The addition may be entirely due to Las Casas, but it is interesting to note that *guacamayo* is most likely gotten from Nicolo Conti, who

¹ *The Conquest of the River Plate (The Hakluyt Society)*, London 1891, p. 130.

² "1^a corona de auro cum suas petras preciosas, et alia de argento cum sua *macana* exorata (1112)," *Fuentes para la Historia de Castilla por los PP. Benedictinos de Silos*, Madrid, etc., 1907, vol. II, p. 52, and Ducange gives Port. *masana, maçana* for the thirteenth century. In all these it apparently has the meaning of knob-like ornamentation, hence they all, as well as OFrench *mace, maque*, are most likely developments of *manzana*, that is, LLat. *maliana* "apple."

³ Vol. I, p. 153.

⁴ H. Cordier, *op. cit.*, p. 186.

⁵ *Raccolta*, parte I, vol. I, p. 144.

⁶ *Ibid.*, p. 226.

says: "In Bandan three kinds of parrots are found, some with red feathers and a yellow beak, and some partly coloured, which are called *nori*, that is, 'brilliant,' both kinds of the size of doves, also some white of the size of hens. These last are called *cachi*, which means more excellent: they excel in talking, imitating human speech in a wonderful manner, and even answering questions."¹

Barbosa knows only of *mire*,² obviously a corruption of *nori*, but Pigafetta says that in the Molucas "one also finds there parrots of various colors, and among the other varieties, some white ones called *cathara*, and some entirely red called *nori*. One of those red ones is worth one bahar of cloves, and that class speak with greater distinctness than the others."³ Ramusio writes *cachi* and *nori*.⁴ Thus it is pretty certain that *guacamayo* arose from a misreading of *cachi nori*, the two being taken as one.

A similar blunder seems to be due to Las Casas in the case of *guaminiquinajes*. He says: "And they found much fish and those conies of the island which we call *guaminiquinajes*."⁵ Herrera writes: "animales, llamados *gadoquinaxes*, maiores que liebres, i de mejor carne"⁶ and "las *guadatinajas* son como liebres."⁷ Oviedo calls the tailless animal *guacabitinax*: "la cabeça tiene como un lechon, é el hoçico

¹ R. H. Major, *India in the Fifteenth Century*, London 1857, p. 17. The Italian reads: "Bandan nutrice pappagalli di tre sorti, cio è una di rossi col becco giallo, l'altre di varij colori, i quali chiamano *Noro* che vuole inferir lucido, e ambe due le sorti sono della grandezza di colôbi, la terza sono bianchi e grandi come galline chiamati *Cachos*, che vuol dire piu pregiati, per esser migliori de gli altri: perche imparano à parlar mirabilmente, e rispondono à quel che vien lor dimandato," Ramusio, vol. I, fol. 341 c.

² Ramusio, *op. cit.*, vol. I, fol. 319 f.

³ J. A. Robertson, *Magellan's Voyage Around the World*, by Antonio Pigafetta, Cleveland 1906, vol. II, p. 115.

⁴ Vol. I, fol. 368 a.

⁵ *Raccolta*, parte I, vol. I, p. 179.

⁶ III. 10. 3.

⁷ VIII. 4. 10.

como de conejo."¹ Another animal of equal culinary value, which also resembles the coney, he calls *guabiniquinax*.² Acosta³ calls a small coney-like animal *guaditinajas*, and Pedro Simon a little later knew them as *guadatinajas*.⁴ Thus we see that chronologically we have the development *guaminiquinajes*, *guacabitinax*, *guadaquinaxes*, *guadatinajes*. Obviously only the first one needs an explanation. This is found in Bernaldez's account of Columbus' First Voyage,⁵ where he says: "There were there no quadrupeds, nor could they see any animals in the islands such as are over there, except some small lap dogs, and in the fields some large rats, which they call *hutias* which they eat and are very savory, and they eat them *as over there the conies*, and they value them very much."⁶ "As over there the conies, *como acá los conejos*" produced *guaminiquinajes*, which was taken to be the name of the animal. That such is really the case is proved by another atrocious blunder in the *Journal of the Second Voyage*.

The Italian version of the Second Voyage says that wherever Ojeda journeyed through the country, where the Indians already knew of the Christians, it happened that wherever the admiral passed there came said

¹ *Historia general y natural de las Indias*, Madrid 1851, XII. 31.

² *Ibid.*, XII. 33.

³ *Historia natural y moral de las Indias, publicada en Sevilla, Año de 1590*, Madrid 1894, vol. I, p. 436.

⁴ "Es un animal como diximos de la *baclayra* (mistake for *bachira*), aunque algo diferente, es carne de monte buena," *Primera parte de las Noticias historiales de las conquistas de tierra firme en las Indias Occidentales* (Cuenca 1627), in the *Vocabulary*.

⁵ A. Bernaldez, *Historia de los Reyes catolicos Dn. Fernando y Da. Isabel*, Sevilla 1869, vol. I, in *Bibliofilos andaluces*.

⁶ "No habia res de cuatro piés, ni alimaña de las de acá pudieron ver en cuantas islas de esta vez descubrieron, salvo unos gozquillos chiquitos, y en los campos unos ratones grandísimos, que llaman *hutias* que comen y son muy sabrosos, y cómo lo *como acá los conejos*, y en tal precio los tienen," *ibid.*, p. 368.

Indians into the streets, to receive him with presents.¹ Earlier in the *Journal* the Spanish version of Las Casas says that on November 27 "there came a boat full of Indians, and it went up to the Admiral's ship, and they asked for him, saying *almirante, almirante*. And they received the answer that they could come in, and that he was there."² Again, under August 23, 1494, that is, after the event first quoted, the same Spanish version writes: "There came to the ships a lord or cacique of this land, saying *almirante, almirante*, and other words."³ There the Italian version simply says that he called the Admiral by his name.⁴ From all these it follows that the Spanish version of the first incident, which contains a supposedly Indian word for *almirante*, is based on a blunder. The Spanish version runs as follows: "Y porque . . . abía enviado el almirante á Alonso de Hojeda, pocos días abía, que viese aquella provincia, y la gente d'ella estaba ya avisada de la venida de los christianos, y supieron que el *guamiquina* de los christianos venía ('*guamiquina*' llamaban al señor grande), por esta causa, por todos los pueblos que pasaban salían á recibir al almirante y á sus christianos con grande alegría, trayéndoles presentes de comida y de lo que tenían."⁵ Here

¹ "Ora, perciocché, come si è detto, l'Ogieda havea già caminato per quel paese, e però gl'Indiani haveano già notitia de' christiani, avvenne che dovunque l'ammiraglio passava, venivano detti Indiani alle strade a riceverlo con presenti di cose da mangiare, e con alcuna quantità d'oro in granella, da lor raccolto, dopo che intesero che egli era venuto là per questa cagione," *Raccolta*, parte I, vol. I, p. 170.

² "Á la entrada del puerto de la Navidad çurgió con los navíos, miércoles, á .27. de noviembre. hacia la media noche vino una canoa llena de Yndios, y llegó á la nao del almirante, y preguntáronle por él, diciendo '*almirante, almirante*'; respondiéronles que entrasen, que allí estava. ellos no quisieron, hasta que el almirante se paró al bordo de la nao; y . . . luego entraron en la nao dos d'ellos, y dánle sendas carátulas," *ibid.*, p. 153 f.

³ "Sábado, .23. de agosto, vino á los navíos un señor ó cacique de aquella tierra, nombrando '*almirante, almirante*,' y otras palabras," *ibid.*, p. 196.

⁴ "Sabbato, a' .XXIII. di agosto, venne a' navigli un cacique, che chiamava l'ammiraglio per suo nome, ed esprimeva altre cose," *ibid.*

⁵ *Ibid.*, p. 170.

“and they knew that the *guamiquina* of the Christians had come (*guamiquina* they called a great lord)” arose from a marginal gloss to *almirante*: “*como acá llamaban al señor grande,*” and here this *como acá* produced *guamiquina*, just as *como acá los conejos* produced *guaminiquinajes*. Apparently Columbus was not guilty of this ghost word.

We can study the formation of another ghost word in a passage contained in Peter Martyr and Bernaldez, and, although this ghost word is not necessarily due to Columbus, the lie told in connection with it was published in 1504 in the *Libretto*, and Columbus never took the trouble to deny it. The *Libretto* passage runs as follows: “Afterwards they found farther onward some fishermen in certain of their boats of wood excavated like *zopoli*, who were fishing. In this manner they had a fish of a form unknown to us which has the body of an eel and larger: and upon the head it has a certain very tender skin which appears like a large purse. And this fish they drag, tied with a noose to the edge of the boat, because it cannot endure a breath of air. And when they see any large fish or snake, they loosen the noose and this fish at once darts like an arrow at the fish or at the snake, throwing over them this skin which he has upon his head; which he holds so firmly that they are not able to escape and he does not leave them if they are not taken from the water; but as soon as he feels the air he leaves his prey and the fishermen quickly seize it. And in the presence of our people they took four large *calandre* which they gave our people for a very delicate food.”¹

¹ Thacher, *op. cit.*, vol. II, p. 498, from the Italian on p. 469: “Trouarono dapoi piu auãti alcuni pescadori i certe sue barche de uno legno cauo come zopoli ch pescauão. In q̄sto mō haueuão un pesce duna forma a noi incognita ch ha el corpo d̄ āguilla: & mazor: & supra ala testa ha certa pelle tenerissima che par una borsa grãde. Et q̄sto lo tiẽono ligato cō una trezola ala spōda dela barcha p che el nō po patir uista de aere: & cōe uedẽo alchun pesce grãde o bisia scudelera li lassão la trezola: & q̄llo subito corre como

This *Libretto* was based on Peter Martyr's *First Decade*, which, however, was published only in 1511. Here the story runs as follows: "Altero vero die piscatorum canoam a longe videns, ne nostris visis piscatores aufugerent, veritus, ut illos tacitis cymbis intercipient imperat. illi autem intrepidi nostros expectant. audi novum genus piscationis. non aliter ac nos canibus gallicis per equora campi lepores insec-tamur, illi venatorio pisee pisces alios capiebant. piscis erat forme nobis ignote, corpus eius anguille grandiori persimile, sed habens in occipite pellem tenacissimam, in modum magne crumene. hunc vinctum tenent in navis sponda funiculo, sed tantum demisso, quantum piscis intra aquam carine queat inherere; neque enim patitur ullo pacto aeris adspectum. viso autem aliquo pisee grandi, aut testudine, que ibi sunt magno scuto grandiores, piscem solvunt. ille quum se solutum sentit, sagitta velocius, piscem aut testudinem, qua extra conchile partem aliquam eductam teneat, adori-tur, pelleque illa crumenaria iniecta, predam raptam ita tenaciter apprehendit, quod exolvere ipsam, eo vivo, nulla vis sufficiat, nisi extra aque marginem paulatim glomerato funiculo extrahatur; viso enim aeris fulgore, statim praedam deserit. preda igitur iam circa aque marginem evecta, in mare saltat piscatorum copia tanta, quanta ad predam sufficiat sustinendam, donec e navi comites eam apprehendant. preda in navim tracta, funiculi tantum solvunt, quantum venator possit ad locum sue sedis intra aquam redire, ibique de preda ipsa per alium funiculum escas illi demittunt. piscem incole '*guaicanum,*' nostri '*rever-sum*' appellant, quod versus venetur. quatuor testudines

una saeta al pesce o ala biscia: butādoli adosso ōlla pelle ch̄ tien sopra la testa cō laḡl tiē tāto sorte ch̄ scāpar nō possono: & non li lassa si nol tiri for de laḡ: elḡl subito sentito laire lassa la preda. & li pescadori p̄sto apigliare. Et i p̄tia de li n̄ri p̄sero .iiii. gran calādre. leḡle donorono ali n̄ri p̄ cibo dilicatissimo."

eo modo captas, que naviculam illis fere implebant, nostris dono dant.”¹

Bernaldez gives the identical story as follows: “El día siguiente, estando el almirante en mucho deseo de aver lengua, bino una canoa á caça de pezes, que así le llamaban ellos *caza*, que cazan con unos pezes otros, que traen atados unos peces por la cola con unos cordeles, y aquellos peces son de hechura de congrios y tienen la boca larga, toda llena de sosas, así como de pulpo, y son muy osados, como acá los *urones*, é, lançándolos en el agua, ellos ban á pegarse á qualquier peçe; d’estos en el agua non los desapegarán fasta que lo saquen fuera, antes morirá, y es peçe muy lijero, y desde se apegan tiran por el cordel muy luengo en que lo traen atado, y sacan cada vez uno, é tómanlo en llegando á la cumbre del agua, así que aquellos caçadores andavan muy desviados de las caravelas, y el almirante inbió las barcas armadas y con arte que no les fuyesen á tierra, y, llegados á ellos, los hablaron todos aquellos caçadores como corderos mansos sin malicia, como si toda su vida los ubiera visto, que se detubiesen con las varcas porque tenían uno d’estos peçes pegado en fondo á una grande tortuga, fasta que lo ubiesen recojido adentro en la canoa, y así lo fieieron, y después tomaron la canoa, y á ellos con quatro tortugas, y cada una tenía tres codos en luengo, é los truxeron á los navíos al almirante; y allí aquellos le dieron nueva de toda aquella tierra y yslas, ye de su cacique, que estava allí muy cerca, que los avía enviado á caçar, y rogaron al almirante que se fuese allá, y que le harían gran fiesta, y diéronle todas quatro tortugas, y él les dió muchas cosas de las que llevaba, con que fueron muy contentos.”²

¹ *Raccolta*, parte I, vol. I, p. 248 f.

² *Ibid.*

Both stories are based on the *Journal of the Second Voyage*.¹

"In un di questi canali videro una canoa di pescatori indiani, i quali con molta sicurtà e quiete, senza far moto alcuno, aspettarono la barca, che andava alla volta loro; e poi, quando fu loro vicina, fecero segno che dovesse fermarsi un poco, finché finivano di pescare. il modo col quale essi pescano a' nostri parve tanto nuovo e strano, che si contentarono di compiacer loro; ed era questo. havevano legati con spaghi alcuni pesci alla coda, che da noi son detti 'pesci *riversi*'; i quali pesci vanno incontro agli altri pesci, e con certa asprezza, che han nella testa e scorre fino al mezo della schena, si attaccano così fortemente col più vicin pesce, che, sentendo ciò gl'Indiani, tirando il filo, tirano l'uno e l'altro ad un tratto. e fu una testuggine quella che i nostri videro allhora esser presa da quei pescatori, al collo della qual detto pesce s'era appiccato; ove sogliono sempre appiccarsi, perciòché son sicuri, così, che il pesce, da lor preso, non li può mordere. ed io ne ho veduti di attaccati così a grandissimi *tiburoni*. or, dopò che gl'Indiani della canoa hebbero finita la loro caccia della testuggine e di due altri pesci, che havevan presi prima, subito si accostarono alla barca con molta pace."

"En una d'estas ysletas vieron una canoa de Yndios que estaban pescando, los quales, viendo á los christianos que yban en la barca á ellos, se estuvieron seguros como si vieran á sus hermanos, y hizieron señas que se detuviesen. detuviéronse hasta que pescaron; y la pesquería era que toman unos peçes que se llaman '*revesos*,' que los mayores serán como una sardina, los quales tienen en la barriga una aspereça, con la qual, dondequiera que se pegan, primero que se despeguen los hazen pedaços. estos ataban de la cola un hilo delgado. luengo de çiento y doçientas braças, y vase el peçe quasi por ençima del agua ó poco más baxo. y, en llegando que llega adonde están las tortugas en el agua, pégansele en la concha baxa, y tiran del cordel y traen una tortuga que pesa quatro y çinco arrobas. lo mismo vemos quando se toman tiburones, que son unas bestias crueles, carnizeras, que comen hombres quando los hallan: que vienen muchos de los peçes *revesos*, que dixen, en las barrigas de los tiburones pegados."

According to these accounts the "*pesci riversi*" are supplied with some rough surfaces on their bodies against which the fish or turtles get caught. That this story in Ferdinand Columbus and Las Casas is older or based on an older original from which Bernaldez got his version, is proved from Bernaldez's "*como acá los urones*," which has no meaning, as there is no such word as *urones*, and which is the result of the misreading of *tiburones* "*sharks*," that, accord-

¹ *Ibid.*, p. 184.

ing to the other two accounts, are caught by means of the same fish. It is not certain that the whole story was really told by Columbus, even though Columbus never denied it. What really happened is, in all probability, this. In Ferdinand Columbus' account of the Second Voyage the passage under discussion is preceded by the sentence: "Vedeansi medesimamente in queste isole corvi & grue come quelle di Spagna, & *corvi marini*, & infiniti uccelli piccioli, i quali cantavano soavissimamente." *Corvi marini* means "cormorant," and this suggested the story of the catching of fish with cormorants, as told in Odoric of Pordenone: "De ceste montaigne m'en alay XVIII journées jusques à un très grant fleuve; en travers de ce fleuve a un grant pont d'en costé lequel je fus hostellez. Mon hoste me fist bonne chière, et pour moy esbatre li me demanda se je vouloie veoir très bien peschier. Si me mena à ce pont là où sa nef estoit. Il avoit en sa nef trois questes l'une à un bout et l'autre à l'autre et la tierce au milieu, puis avoit en sa nev sur perches estans pluseurs plungons. Quant il vout peschier, il lia le col à ces plungons d'un petit filz affin qu'ilz ne peussent point mengier de ces poissons et dont les laissoit aler en l'eaue. Ces plungons se mirent au fons et prirent de ces poissons tant que en bien petit d'eure ces III questes furent emplies. Adonc il leur délia les colz et les remist en l'eaue aler paistre de ces poissons et quant ilz eurent assez mengié, il les reprenoit et mettoit en leurs lieux. De ces poissons je mengay tout mon saoul."¹

In the Italian version of the story the *plungon* "diver" is changed into *maragone* "diver." "Partendomi per altre xviii giornate passando cittadi e castella arrivai a un grande fiume ch'ae un grande ponte a traverso sopra il fiume; e albergai in capo del

¹ *Op. cit.*, p. 266 f.

ponte. E l'oste, volendomi fare a piacere, mi disse, 'Vo tu venire a vedere pescare, vieni qui.' E menomi in sul ponte; quivi di sotto erano barche. E vidi *maragoni* in su pertiche; e l'uomo gli legò la bocca, ovvero la gola con filo, che non potessero mangiare de pesci. Poi puose tre gran ceste nella barca; poi isciolse i *maragoni* in quali si gitavano nell'aqua, e prendeano de' pesci, e metevagni nella barca, e tosto l'ebbero piene. Poi isciolsono i *maragoni* il filo ch'aveano legato a collo, e mandavano nel fiume a pascergli."¹ In the Latin version this *maragone* becomes *mergos*, from *mergere* "to dive." In the Italian edition of Ramusio *marigione* is a fish which is also called *sea-calf*, and the passage runs as follows: "E lo hostieri p darci piacere, ci disse, se noi voleuamo ueder pescare, e menocci al lato del ponte, doue il fiume era piu largo: la oue erano molte barche, & eracene una, che pescaua con un pesce, che loro chiamano *marigione*. E l'hoste ne haueua un'altro, e quello tolse, e teneualo con una corda messa in una bella collana: e ben vero che noi ne haueuamo ueduti ne' nostri paesi assai: e molti lo chiamano *Veglio marino*. Questa bestia hauea il muso, e 'l collo com' una volpe, & i piedi dauanti com' un cane, ma hauea le dita più longhe, & i piedi di dietro com un' oca, e la coda col resto del busto come un pesce: quale l'hoste lo mando giù nel fiume: & egli cacciatosi dentro cominciò a prendere di molto pesce con la bocca tutta via mettendolo nella barca. E giuro che in meno di due hore n'empì piu di dui cestoni: e similmente fecero gli altri pescatori: quando poi non volean piu pescare, lasciauano la bestia nell'acqua, accioche andasse a pascerci: e quando era ben pasciuta, ritornaua ciascuna al suo pescatore, come cosa domestica."² Here we have the whole trans-

¹ Sir Henry Yule, *Cathay and the Way Thither* (*The Hakluyt Society*), London 1913, vol. II, p. 352.

² *Ibid.*, p. 189.

formation. *Corvo marino* has become *Veglio marino*, and the story is that of a catch by means of a fish. A marginal note, no doubt, read in Spanish "*caza con un pez*, fishing with a fish," where Bernaldez took *caza* to be the name of the fish, while Peter Martyr mis-read *caza* as *caia*, and took *caia con un* as the gloss for "pez," producing the outlandish *guaicanum* as the name of the fish. But *mergo* was by him read as *verso* or *reverso*, producing another name for the same fish. It is significant that the passages referring to *tiburones* "sharks" are absent from the manuscripts of Ferdinand Columbus' and Las Casas' versions of the Second Voyage. This suggests the assumption that this passage, like those from which the previous ghost words were derived, were originally marginal glosses in Columbus' bad handwriting, which gave rise to the misreadings and misconceptions.

Thus we cannot place any of the previous atrocities at Columbus' door, but there is one, which lies at the foundation of an enormous amount of misconceptions as regards Indian antiquity, which in the *Journal of the Second Voyage* is by Ferdinand Columbus definitely ascribed to him.¹

"Idolatria, nè altra setta io non ho potuto comprendere in loro, quantunque tutti i loro re, che son molti, sì nella Spagnuola, come in tutte le altre isole, e nella terra ferma, habbiano una casa per ciascun di loro, separata dalla popolazione, nella qual non è cosa alcuna, eccetto alcune immagini di legname, lavorate in rilievo, che da lor son chiamate '*cemi*'; nè in quella lor casa si lavora per altro effetto o servitio che per questi *cimi*, per certa cerimonia e oratione, che eglino vanno a fare in essa, come noi alle chiese. in questa casa hanno una tavola ben lavorata, di forma rotonda, come un tagliere, nella

I have been unable to find with them any idolatry or other sect, although all their kings, of whom there are many, both in Hispaniola and in all the other islands and on the mainland, have a house for each of them, separated from the people, in which there is nothing except a few wooden images worked in relief which by them are called *cemi*; in this house of theirs no service is rendered except to these *cimi*, by means of a certain ceremony and prayer, which they render in them as we do in our churches. In this house they have a well finished table, of a round form, like a plate, on which there are certain powders

¹ *Raccolta*, parte I, vol. I, p. 209 ff.

qual sono alcune polveri, che da lor son poste sopra la testa de' suddetti *cimi*, facendo certa cerimonia; poi con una canna di due rami, che si mettono al naso, succiano questa polvere. le parole, che dicono, non le intende alcuno de' nostri. con la detta polvere vanno fuori di sentimento, diventando come ubriachi. pongono essi un nome alla detta statua, e credo che sia quel del padre, dell'avolo, o di ambidoi, perciocché n'hanno più di una, ed altri più di .X., tutti in memoria, come ho detto già, di alcun de' suoi antecessori. io ho ben sentito lodarne più una che un'altra, e gli ho veduti haver più divotione e far più riverenza ad una che ad un'altra, come noi facciamo nelle processioni, quando fa mestiero. e si vantano i caciqui ed i popoli, gli uni con gl' altri, di haver miglior *cimi*. e, quando vanno a questi lor *cimi*, ed entrano nella casa, dove egli è, si guardano da' christiani, e non li lasciano entrare in essa; anzi, se han sospetto della lor venuta, tolgono via il *cimi*, o i *cimini*, e gli ascondono ne' boschi, per paura che non siano lor tolti. e, quel ch'è più da ridere, han fra loro in costume di rubbarsi i *cimi* l'uno all'altro. ed avvenne che una volta, havendo essi sospetto di noi, entrarono con loro in detta casa i christiani; e di subito il *cimi* gridò forte e parlò nella lingua loro. da che si scoperse, che era fabricato artificiosamente; perciocché, essendo egli vuoto, haveano alla parte inferiore accomodata una tromba, o zarabottana, la qual riusciva ad un lato oscuro della casa, coperto di foglie e di fronde, ove era una persona, che parlava quel che il cacique volea che ei dicesse, per quanto si può far con una zarabottana. laonde i nostri, avvedutisi di quel che poteva essere, diedero de' piedi al *cimi*, e trovarono esser quel c'ho narrato. la qual cosa il cacique vedendo scoperta da' nostri, con

which are by them placed on the heads of abovesaid *cimi*, while performing certain ceremony; then with a reed of two branches which they place to the nose they inhale this powder. None of us understand the words which they say. With said powder they lose their consciousness, becoming intoxicated. They give a name to said statue, and I think it is that of a father, or grandfather, or both, for they have more than one, and some have more than ten, all of them in memory of some of their ancestors, as I have already said. I have heard them praise one more than another, and I have seen them have more devotion and do more reverence to one than to another, as we do in processions, when it is necessary. And the caciques and the people boast with each other of having a better *cimi*, and when they go to these their *cimi*, and enter into the house where it is, they keep away the Christians and do not let them enter; and if they suspect their coming, they take away the *cimi* or the *cimini*, and hide them in the woods, for fear that they will be taken away, and, what is most laughable, they have among themselves the custom of stealing each other's *cimi*. It happened one time when they had suspected us that some Christians entered with them into said house; and suddenly the *cimi* cried out aloud and spoke in their tongue, by which it was found out that it was made artificially, because it was empty and they had attached to the lower end a trumpet which went to a dark part of the house, covered with leaves and branches, where there was a person who spoke whatever the cacique wanted him to say, as much as may be said through a trumpet. Then our men, being sure what it was, kicked the *cimi* and found it to be as told. When the cacique saw that the thing was discovered by us, he earnestly begged them not to say anything to his

grande istanza pregolli a non dir cosa alcuna agl'Indiani suoi sudditi, nè ad altri; periciodché con quella astutia egli teneva tutti in obediensa. questo possiamo noi dire che habbia alcun colore d'idolatria, almeno in quelli che non sanno il secreto e l'inganno de' lor caciqui; pioché credono che colui che parla sia il *cimi*, e tutti in general sono gl'ingannati; e solo il cacique è quel, ch'è consapevole e copritore della lor falsa credulità, col mezzo della quale tragge da' suoi popoli tutti quei tributi che pare a lui. parimente, la maggior parte de' caciqui han tre pietre, nelle quali essi edi loro popoli hanno gran devotione. l'una dicono che giova alle biade ed a' legumi seminati; l'altra al partorir delle donne senza doglie; e la terza giova per l'acqua e per lo sole, quando ne hanno bisogno. io mandai a Vostra Altezza tre di queste pietre con Antonio di Torres, ed altre tre ne ho da portar meco. medesimamente, quando questi Indiani moiono, fan le loro essequie in diversi modi; ed il modo, nel qual sepeliscono i caciqui, è questo: aprono il cacique, e lo seccano al fuoco, accioché si conservi così intero. degli altri solamente pigliano la testa. altri sepeliscono in una grotta, e mettono lor sopra la testa una zucca di acqua, e del pane. altri abbruciano nella casa ove moiono; e, quando li veggono nell'estremo punto, non lascian lor finir la vita, ma gli strangolano; e ciò si fa a' caciqui. altri gli cacciano fuori di casa, ed altri mettono in una hamaca, che è il loro letto di rete, e mettono loro acqua e pane dalla banda del capo, e li lascian soli, non tornando a vederli più. alcuni ancora, che son gravemente ammalati, li menano al cacique, e egli dice loro se debbono strangolarli o no, facendo quel ch'ei comanda. io mi son faticato per intendere che cosa credono, e se san dove vadano dopo morti; specialmente da Caunabò, il quale era il

Indian subjects, nor to anybody else, because he kept them all in subjection with this piece of cleverness. We may say that there is some color of idolatry in this, at least in those who do not know the secret and deception of their caciques, since they believe that it is the *cimi* that speaks, and all in general are deceived; it is only the cacique who knows and abets their false belief, by means of which he collects all the tribute which is due him. Similarly the greater part of the caciques have three stones to which they and their people show great devotion. They say that one of them is good for the sowed grain and vegetables, the other to make their women bear children without pain, and the third helps them with the water and sun, when they need them. I sent Your Highnesses three of these stones with Antonio de Torres, and I have three others to bring with me. Similarly, when these Indians die, they bury their dead in various manners, and this is the way they bury their caciques: they open up the cacique's body, and dry it at the fire, so that it may be preserved whole. Of others they keep only the heads. Others they bury in a grotto, and they place over their heads a bowl of water and some bread. Others they burn in the house where they have died; and when they see them in their extremities, they do not let them live, but strangle them, and this is done to caciques. Others they drive out of their house, and others they place in a hammock, which is their bed of netting, and they place water and bread for them at the head, and leave them alone, and never return to see them. Others, again, who are severely ill, they take to the cacique, and he tells them whether they ought to strangle them or not, and they do what they are told. I have tried to understand what they believe, and if they know where they go after their death, especially from Cau-

principal re della Spagnuola, e huomo di età, e di gran sapere, e di acutissimo ingegno; ed esso, e gli altri rispondevano che vanno ad una certa valle, la quale ogni principal cacique crede che giaccia nel suo paese, affermando quivi ritrovare i loro padri e tutti i loro antecessori, e che mangiano, e hanno donne, e si danno a'piaceri e solazzi, come più copiosamente si contiene nella seguente scrittura, nella quale io commandai ad un fra Roman, che sapeva la loro lingua, ch' ei raccogliesse tutti i lor riti, e le antichità; benché sono tante le favole, che non se ne può trarre altro frutto, se non che ciascun di loro ha certo natural rispetto al futuro, e tiene l'immortalità delle anime nostre."

nabò, who was the principal king of Hispaniola, and a man of advanced age and great knowledge, and very sharp judgment, and he and the others said that they went to a certain valley, which, all the caciques believed, lay in his country, saying that there were found their fathers and all their ancestors, and that they eat and have women and give themselves over to pleasures and solaces, as is more fully related in the following writing, which I entrusted to a Fra Roman, who knew their language, asking him to collect all their rites and antiquities. But they are so many fairy tales, and no other result follows from them than that every one of them has a certain respect for the future, and believes in the immortality of our souls.

The enormous amount of balderdash contained in this passage can be discussed only in connection with the forgery of Columbus' coadjutor, Ramon Pane, but a few points of minor importance may be taken up separately. When the cacique *Caunabo* is first mentioned in the *Journal of the Second Voyage*, it says of him that he was the master of the mines.¹ Similarly, Peter Martyr speaks of him as the master of the mines.² There obviously existed some cacique whose atrocities and death are accounted for in the *Journal*, but his name, *Caunabo*, is mere philological camouflage. The *Libretto*, which got its material from Peter Martyr, gives away the whole story, for here we have: "Our people understood also that there was a certain king in the mountains from whence the rivers came, who was called *Cazichio Cannoba*, that is to say, Lord of the House of Gold; *boa* meaning 'house,'

¹ "Un cacique, chiamato *Caunabó*, il quale è signor delle minere," "un señor que se llamava *Canabó*, que señoreava las minas," *ibid.*, p. 156.

² "Ad *Caunaboam* deinde, Cibavorum montium, id est, auree regionis, dominum," *ibid.*, p. 265.

canno, 'gold,' and *Cazichio*, 'king.'"¹ We have already seen that *caona*, *canna* is the Mande word for "gold." Similarly *boa* is the same as Vei *boi* "hut, shed without walls, resting merely on posts." The word for "house" in the other Mande languages is given in Koelle² as follows: Mandingo *bong*, Kabunga *bungo*, Toronka *bo*, Bambara *bun*, *bong*, etc. Similar forms are found outside of the Mande languages, and it is most likely that in all these we have a derivative of Arab. بيت *baït* "house," which is found in the

African oases as *beat*, *bet*, *bai*. This *boi*, as recorded in Vei, lies at the foundation of *bohío*, *buhío*, the Spanish word for "Indian house," which, like so many such words, has found its way into Arawak as *bahü*.³ Similarly *cazichio* is the Mande, Bambara, Dyula *kuntigi* "chef ou général." This *tigi* "owner" is attached to the word of which a man is an owner or chief, hence *dugu-tigi* "chief of a village." *Kun* in *kuntigi* means "head," hence *kuntigi* "head chief." Unfortunately it is not possible to determine precisely the dialect of Mande from which the Guinea "scholar" drew his etymologies, but since *kun* "head" is found as *kan*, *ku* in several of them, and *t* and *s* constantly change in Mande,⁴ there can be no doubt that *kasigi* was already found in Mande. Indeed, Steinthal

¹ Thacher, *op. cit.*, vol. II, p. 495, from the Italian on p. 466: "A li nostri (uisto questo) tornorono ad lo ammirante per che hauea comandato sotto pena dela uita ch nisciuno facesse altro che descoprire. Intesero etiam che lera uno certo Reali monti; doue uenian li fiumi loqual chiamano *Cazichio canoba* cioe signor dela casa de loro: *boa* uol dir casa: *canno* oro: & *cazichio* re."

² *Polyglotta Africana*, London 1854.

³ The Carib root for "house" is *pata*, a root which ultimately is related with the "house" words of Asia and Europe, hence also with Arab. *baït*, as I shall show in my *Comparative Grammar of American Languages*, which is in preparation. But here the *bohío* is a new importation from Africa, together with *caona* "gold," which found its way into Galibi as *caounage* (Pelleprat) and *kaouanam* "alloy" (Rochefort).

⁴ H. Steinthal, *Die Mande-Neger-Sprachen*, Berlin 1867, § 86 (p. 49).

records Soso *kandži*¹ "chief," which would presuppose *kandžigi* as a fuller form. That three words in juxtaposition should all turn out to be Mandé words, still in use today in slightly changed forms, makes chance coincidence quite out of the question. Besides, the word for "gold" here given is found only sporadically in Galibi, for "house" only in Arawak, and for "chief" not at all. It is certainly beyond all probability that the personal name of the chief in whose province gold was found should have been "Lord of the Gold Mine." This name is just as much a ghost word as is that of the other chief, *Guariones*, which we have seen to be derived from the province, which itself is the result of the misreading of *Vari omnes*.

We shall now take up Ramon Pane's account of the religion of the Indians.²

"I, Brother Roman, a poor hermit of the order of Saint Jerome, by command of the illustrious admiral and viceroy and governor of the islands and of the mainland of the Indies, write what I was able to learn and to find out about the belief and the idolatry of the Indians, and how they worship their gods, of which I shall treat in the present writing.

"Everyone, in adoring the idols which are in the house, called by them *cimini*, observes a particular kind of superstition. They hold that he is immortal as if in heaven, and that no one can see him, and that he has a mother, and that he has no beginning, and this they call 'Iocahuuague Maorocon,' and his mother they call 'Atabei,' 'Iermaoguacar,' 'Apito,' and 'Zuimaco,' which are five names. All this is from the island of Hispaniola, because I know nothing of the other islands, not having ever seen them. They also know from what part they came, and where the sun and

¹ *Ibid.*, § 75 (p. 45).

² *Raccolta*, parte I, vol. I, pp. 213-223:

moon had their origin, and how the sea was made, and where the dead go to. And they believe that the dead appear to them in the streets, if they walk alone, because, if many walk together, they do not appear to them. Their ancestors make them believe all that, because they cannot read or count more than ten.

1. "From which part the Indians came, and in what manner.

"Hispaniola has a province called 'Caanau,' in which there is a mountain called 'Canta,' where there are two grottoes, one named 'Cacibagiagua,' and the other 'Amaiauuu.' From Cacibagiagua came the greater part of the people that settled the island. Standing in this grotto they watched all night, one named 'Marocael' being in charge. Having one day failed to come to the gate, they say the sun carried him off. Seeing that the sun had carried him off because he had not watched carefully, they closed the gate, and thus he was transformed into a rock near the gate. They also say that others, who had gone out to fish, had been taken by the sun and became trees, called by them *iobi*, otherwise called 'myrobalans.'

"The reason why Marocael was watching was to find out in what part he was to send the people, but he stayed behind for his greater ill.

2. "How the men separated from the women.

"It happened that one who was named 'Guagugiona' told another named 'Giadruuaua' to fetch some herb, called *digo*, with which they clean their bodies, when they wash themselves. He went early in the morning and the sun took him on the road, and he became a bird that sings in the morning like the nightingale and is called 'Giahuba Bagiael.' Guagugiona, seeing that the man he had sent out to fetch the *digo* had not returned, decided to leave the grotto Cacibagiagua.

3. "When Guagugiona saw that those whom he had sent to pick the *digo* with which to wash had not returned, he was angry and decided to leave, and he said to the women: 'Leave your husbands, and let us go to other countries, and let us carry with us enough joy; leave your children, and let us carry only the herbs with us, for we shall come for them later.'

4. "Guagugiona went away with all his women, and looked for other countries, and stopped at *Matinino*, where he suddenly left the women, and he went to another region, called 'Guanin,' and they had left the little children near a brook. Later, when hunger began to trouble them, they say they cried and called their mothers, who had departed, and their fathers could not assist their children, who were calling in hunger for their mothers, saying 'mama,' in order to say something, but in reality to ask for the breast. And, weeping like this, and asking for the breast, saying 'too, too,' as when one asks with great desire for a thing, they were transformed into small animals, resembling frogs, which are called *tona*, on account of the demand for the breast, and in this manner all men were left without their wives.

5. "The women once more went away from said island of *Hispaniola*, which was formerly called 'Aiti,' and thus are the inhabitants thereof called; and these, and the other islands are called 'Bouhi.' And, since they have no writing nor letters, they cannot give a good account, as they understood it from their ancestors; and so they do not conform with what they say, nor is it possible to write in order what they tell. When *Guahagiona*, who carried off all the women, went away, he also took the wives of his cacique, who was called 'Anacacugia,' cheating him as he had cheated the others, and besides he was a brother-in-law of *Guahagiona*. *Anacacua*, who went away with

him, entered the sea, and Guahagiona said to his brother-in-law, who was in the canoe: 'See what fine *cobo* is in the water,' which *cobo* was a sea snail. And while he was looking at the water, in order to see the *cobo*, Guahagiona, his brother-in-law, took him by his legs and threw him into the sea, and thus he carried off all the women, and left those of Matanino, where they say there are today none but women, and he went to another island, which is called 'Guanin,' and it is called so on account of what he carried away from it, when he went there.

6. "Guahagiona turned to said Canta, whither he had taken the women.

"They say that when he was on the land where Guahagiona had gone, he saw that he had left on the sea a woman, with whom he had had much pleasure, and suddenly he looked for many bathing spots to wash himself in, because he was full of that plague which we call 'the French sickness.' At last she put him in a *guanara*, which means 'a place apart,' and he staying there was cured of the plague. Then she asked his permission to go her way, and he gave it to her. This woman was called 'Guabonito,' and Guahagiona changed his name, calling himself ever afterwards 'Biberoci Guahagiona,' and the woman Gualonito gave Biberoci Guahagiona many *guanini* and many *cibe*, that he should wear them tied to the arms, because in these countries the *colecibe* are of stone which resemble much the marble, and they wear them tied to the arms and neck, and the *guanini* they wear in their ears, the holes being made when they are small, and they are of metal, like a florin. The beginning of these *guanini*, they say, were Guabonito, Albeboraël, Guahagiona, and the father of Albeboraël. Guahagiona remained in the land with his father, who was called 'Hiauna.' His son was called, for his father's

sake, 'Hia Guaili Guanin,' which means Hiauna's son, and from that time on he was called 'Guanin' and is so called today. And, since they have no letters, nor writing, they cannot tell these fables well, and I cannot write them well, and so I think that he put first what should be last, and last what should be first. But everything I write is just told that way by them as I write it and thus I relate it as I understood it from the men of the country.

7. "How there were women a second time in said island of Aiti, now called Hispaniola.

"They say that one day the men went to wash themselves and when they were in the water it rained much, and, as they were very anxious to have some women, and several times, when it rained, they had gone to look for the traces of their women and had not been able to get any news about them, except that on that day, as they were washing themselves, they say, they saw dropping from some trees, but holding on to the branches, a certain form of beings which were neither men nor women, nor had the nature of a male or female, whom they went to take. But these escaped as though they were eels. So they called two or three men by order of their cacique, because they could not take them, to watch them where they were, and to look for men who were *caracacacol*, because their hands were rough, so that they might hold them fast. They told the cacique that there were four, and so they brought four men who were *caracacacoli*; which *caracacacol* is a disease like the itch which makes the body very rough. When they had taken them, they counseled among themselves how they could change them into women, since they had the nature of neither male nor female.

8. "How they found means to make women.

"They looked for a bird which is called *inriri*,

anciently called *inrire cahuuai*, which hollows the trees, and in our language is called woodpecker. And they took these women without the nature of a male or female, and tied their hands and feet, and brought the above-said bird and tied it to the body, and the bird, thinking that they were beams, began to do its accustomed work, pecking and slitting in the spots where is the nature of the women. In this manner, the Indians now say, they had their women, as the very old men tell, but I wrote in haste and did not have enough paper, and so I could not put in the right place what I transferred into another; but, with all that, I have not erred, because they believe it all, as I have written. Now we shall turn to what we should have placed first, that is, about their idea of the beginning and origin of the sea.

9. "How they say the sea was made.

"There was a man, called 'Giaia,' whose name they do not know. His son's name was 'Giaiael,' which means Giaia's son. This Giaiael wishing to kill his father, he sent him into exile, where he stayed four months, and then his father killed him and put his bones in a calabash and nailed it to the roof of his house, where it remained for some time. It happened that one day Giaia, wishing to see his son, said to his wife: 'I want to see my son,' and she was glad of it, and, bringing the calabash, she turned it upside down, in order to see the bones of her son. But from it came many large and small fish, and they, seeing that these bones were turned into fish, intended to eat them. One day, they say, when Giaia had gone to his *conichi*, which means farm, which was of his property, there came four sons of a woman, named 'Itiba Tahuuaua,' all of one womb and quadruplets. When this woman died in child birth, they cut her open and brought out the four sons, and the first they brought out was

Caracaracol, which means 'covered with the itch,' which Caracaracol had the name the others had no name.

10. "When the quadruplets of Itiba Tahuuaua, who died in child birth, went to put together Giaia's calabash, where was his son Agiael, who was changed into fish, none of them had any desire to take it away, except Dimiuan Caracaracol, who opened it, and all had their fill of the fish, and, while they were eating, they saw that Giaia was coming from his farm, and they, wishing in a hurry to close the calabash, did not close it well, so that it fell on the ground and broke. They say there was so much water which came out of the calabash that it filled the whole earth, and with it a lot of fish escaped, and from this, they say, the sea had its beginning. They went away from there and found a man who was called 'Conel,' who was mute.

11. "The things experienced by the four brothers when they fled from Giaia.

"The moment they came to the gate of Bassamanaco and saw that he carried cazzabì, they said: 'Ahiacauo Guarocoel,' which means: 'We know this our grandfather.' At the same time Deminan Caracaracol, seeing his brothers in front of him, entered, to see whether he could get some cazzabì, which cazzabì is the bread which is eaten in the land. Caracaracol, having entered Aiamauaco's house, asked him for cazzabì, which is the above-said bread, and he put his hand to his nose and knocked his *guanguaio* from his shoulders, which *guanguaio* was full of *cogioba* which he had made that day, which *cogioba* is a certain powder which they occasionally take to purge themselves with and for other purposes, as you will later understand. This they take with a reed of half an arm's length, and they put one part to the nose and

the other into the powder, and thus they snuff it through the nose, and this makes them purge greatly. And thus he gave him this *guanguaio* for bread, and Cirtose (?) bread which he made, and he went away very much provoked, because they had asked him for it. After this Caracaracol turned to his brothers and told them what had happened to him with Baiamanicoel, and about the stroke which he gave him with the *guanguaio* on the shoulder, and which was hurting him greatly. Then his brothers looked at his shoulder and saw that it was very much swollen. And this swelling grew so much that he was about to die. Then they tried to cut it out, but could not do so, and, taking a stone, they opened it, and there came a living rooff, a woman. And thus they built their house and raised the roof. Of this I did not understand the rest, and what I have written is of little use.

“And then they say that the sun and moon came out of a grotto which lies in the country of a cacique, called ‘Maucia Tiuuel,’ which grotto is called ‘Giououaua,’ and they esteem it much, and have it all painted in their manner, without any figures, with many leaves and similar things. In this grotto stood two small *cimini* made of stone, of the size of half an arm, with hands tied, and it seemed that they were sweating. These *cimini* they esteemed greatly, and when it did not rain, they say, they went in to visit them, and it suddenly rained. And of these *cimini* one was by them called ‘Boinaiel,’ the other ‘Maroio.’

12. “What they think of the roaming of the dead, and of what manner they are, and what they do.

“They hold that there is a place to which the dead go, which is called ‘Coaibai,’ and it lies in a part of the island which is called ‘Soraia.’ The first who was in Coaibai, they say, was one who was called ‘Machet-

aurie Guaiaua,' who was the master of said Coaibai, house and habitation of the dead.

13. "Of the shapes they say the dead have.

"They say that in daytime they are shut up and at night they walk about, and that they eat a certain fruit which is called 'guabazza,' which has the flavor of . . . that in daytime they are . . . and at night they turn into fruit, and that they celebrate and go together with the living. To find them out they observe the following procedure, namely, they touch their paunches with the hand, and if they do not find the navel they say that it is *operito*, that is, 'dead,' because they say that the dead have no navel, and thus they are sometimes deceived, because they do not watch it, and they sometimes lie with a woman from Comboi, who do not exist at all, whereas they think they have them in their arms, because they suddenly disappear. This they believe up to this day. When the person is alive, they call the spirit *goeiz*, and when it is dead, they call it *opia*. They say that this *goeiz* appears frequently in the form of a man or woman, and they say that it has happened that one has tried to fight with it and that it disappeared, as soon as he came into his arms, and that the man put the arms somewhere else, as some tree to which he remained attached. And this is believed by all, small and great, and that it appears in the form of a father, mother, brothers, or relatives, and in other forms. The fruit which they say the dead eat is of the size of a quince. And the above-said dead do not appear in daytime, but always at night, hence a man risks only with the greatest fear to walk alone in the night.

14. "Whence they get it, and who keeps them in this faith.

"There are some men who practise among them and are called *bohuti*, who do much cheating, as we

shall say further on, by making them believe that they speak with them, and that they know all their deeds and secrets, and that, when they are sick, they take away their sickness, and thus they cheat them, for I have not seen with my own eyes, like the other things I told only that which I understood from the principal men, with whom I have conversed more than with others, for they believe these fables more surely than the others, just like the Moors they have their religion reduced to old songs, by which they are ruled, as the Moors by their writing. And when they want to sing their songs, they play a certain instrument which is called 'maiohauau,' which is of wood and concave, made strong and very fine, an arm and a half in length, and the place where it is played is made in the form of a horseshoer's tongs, and on the other side it resembles a club, then again it resembles a calabash with a long neck, and this instrument they play, and it makes such a noise that you can hear it one and a half leagues off. To this sound they sing their songs which they learn by heart, and they are played by principal men who have learned to play them from childhood, and to sing to it, according to their custom. Let us pass now to the discussion of many things in regard to other ceremonies and customs of the Gentiles.

15. "Of the observations of said Indian *buhuitihu*, and how they profess medicine and teach the people; and they are often deceived in their medical cures.

"All or the major part of those of the island of Hispaniola have many *cimini* of various kinds, which have the bones of their fathers or mothers or relatives or ancestors, which are made of stone or of wood, and there are many of two sorts, some which speak and others which produce the things they eat, and others which make it to rain, and others which make the winds blow, which things are believed by those simple

ignorant men who make these idols, or, to speak more properly, these demons, since they have no knowledge of our holy faith. When one is sick, they take to him the *buhuitihu*, the above-said doctor. The doctor is supposed to keep fast like the sick man himself, and to look like the sick man, which he does in this manner, as you shall presently understand. It is necessary for him to purge himself just like the sick man, and to do so he takes a certain powder called *cohoba*, drawing it in through the nose, which intoxicates them in such a way that they do not know what happens to them, and so they say many extraordinary things, when they claim to be talking with the *cimini*, and that from them the disease has come.

16. "What said *buhuitihu* do.

"When they go to call on a sick man, and before they leave their houses, they take some pine cones or crushed coal from the ashes and make their faces all black, in order to make the sick man believe anything they think about the disease, and then they take some small bones and a little flesh, and wrap all this into something, so that it should not fall, and put it in their mouths, the sick man being already purged with the powder, as we have said. The doctor enters the sick man's house, sits down, and all are silent, and, if there are any children present, they tell them to go out, so that they may not interfere with their work as *buhuitihu*, and there remain in the house one or two of the most important ones, and standing thus alone, they take some herbs from the trinkets . . . large, and another herb, wrapped in an onion leaf, half a quarter in length. And one of these trinkets is the one which usually all pick, and, rubbing them with the hands, they knead it, and then they put it over night into the mouth, in order to vomit up what they have eaten, so that it should not hurt them. Then they

begin to sing the above-mentioned song, and, lighting a press, they take the juice. This having been accomplished and having remained a while, the *buhuit-ihu* arises, and walks up toward the sick man, who sits alone in the middle of the room, as has been said, and he turns him around twice, as he likes, and then he puts himself in front of him and seizes him by the leg, touches his calves and runs down to the feet. Then he pulls him suddenly, as though he wanted to carry something away. Then he goes to the door of the house, and closes the door, and says to him, 'Go to the mountain, or to the sea, or where you please,' and with a blow he turns him a second time, and puts the hands together and shuts the mouth, and his hands shake, as though he were very cold, and he blows into his hands, and he draws in the breath, as though sucking the marrow of a bone, and he sips at the sick man's neck, or stomach, or shoulders, or cheeks, or breasts, or belly, or many parts of the body. This done, they begin to cough, to look ugly, as though they had eaten something bitter, and spit on the hand, and take out, as we have said, what they put into the mouth at home or in the street, either a stone, or bone, or flesh, as was said, and, if it is some eatable, he says to the sick man: 'See, you have eaten this thing which has given you the disease from which you suffer. See, how I have taken it out of your body, for your *cemi* has put it into your body, because you did not pray to him, or did not build a temple for him, or did not give up some of your possessions.' And if it is a stone, he says: 'Keep it well.' And sometimes they are sure that these stones are good, and that they will help the women in childbirth, and they keep it carefully wrapped up in cotton, putting it into a small box, and they give it to eat of what they themselves eat, and the same they do to the *cimini*, which they

have in the house. Some festive days they bring much to eat, fish, meat, bread, or anything else, they put everything in the house of the *cimiche*, that the idol may eat of the same. The next day they take all the food to the house after the *cimiche* has eaten. And thus may God help them, as the *cimiche* eats this or that, since the said *cimiche* is a dead thing, made of stone or wood.

17. "How above-said medicine men are sometimes deceived.

"When they have done the above things, and the sick man is about to die, if the dead person has many relatives, or is the lord of a castle and can resist said *buhuitihu*, which means 'doctor,' because those of small account do not care to contend with these doctors, the one who wants to do him harm, does this: he wishing to find out whether the sick man has died through the doctor's fault, or did not keep diet, as he commanded, they take an herb which is called 'gueio,' which has its leaves resembling the Sweet Basil, large and thick, which otherwise is called 'zachon.' So, taking the juice of the leaf, they cut the dead man's nails and hair, which they have in front, and make powder between two stones, and mix it with the juice of above-said herb, and give the dead man to drink through the mouth or nose, and, doing this, they ask the dead man if the doctor was the cause of his death, or if it was the diet. This they ask him several times, until he speaks as clearly as though he were alive. Then he answers everything which they ask of him, saying that the *buhuitihu* did not observe the diet, or was the cause of his death this time; and they say that the doctor asks him if he is alive, and how he speaks so clearly: and he answers that he is dead, and when they know what they want, they put him back in the grave, from which they took him to find

out from him what we have said. They do this witchcraft also in another way, in order to find out what they want. They take the dead man and make a great fire, like the one made by a charcoal burner, when he makes charcoal, and when the wood has become glowing coal, they throw the corpse on that fire, and then they cover him with earth, just as the charcoal burner covers the coal, and there they leave him standing as long as they please, and, while it is standing there, they ask as said before. He answers that he knows nothing, and they ask him this ten times, and then he does not speak again. They ask him if he is dead, but he does not speak more than these ten times.

18. "How the dead man's relatives avenge themselves, after having received an answer by means of the drinking witchery.

"Some day the relatives of the dead man come together and lie in wait for the above-said *buhuitihu*, and beat him so that they break his legs and arms and head. Thus they maul him and leave him for dead, and at night, they say, there come adders of various sorts, white, black, and green, and of many other colors, who lick the face and the whole body of the doctor who was left for dead, as we have said. He stays that way for two or three days, and while he stays that way, they say that the bones of the legs and of the arms come together and unite, and he gets up, and walks slowly, and goes home. And those who see him ask him, saying: 'Are you not dead?' But he says that the *cimini* came to his aid in the form of adders. And the dead man's relatives, very much angered because they thought they had vindicated the death of their relative, seeing him alive, are in despair and try to get him into their hands, in order to kill him, and, if they can get him again, they put out his eyes and break his testicles, because they say that

none of these doctors can die, no matter how much beating they have received, unless their testicles have been removed.

“How they know what they wish from him whom they burn, and how they take their revenge.

“When they open the fire, the smoke which comes from it rises, until they lose him from sight, and he shouts as he goes out of the furnace. He gets up a second time and goes to the house of the *buhuitihu*, the doctor, and suddenly this one, who has not kept diet, falls ill and is filled with wounds, and his whole body peels off. And thus they know by this sign that he had not been careful and therefore the sick man died. Then they try to kill him, as has been said before, but these are the witcheries which they usually do.

19. “How they make and keep the *cimini* of wood and of stone.

“The stone *cimini* are made in the following manner. When a man goes on a journey he says that he sees a tree that moves its roots, and the man stops in great terror and asks him who he is, and he answers: ‘I am called *bihuitihu*, and it will tell you who I am.’ And this man, coming to the above-said doctor, tells him what he has seen, and the wizard runs at once to see the tree, of which the other has told him, and sits down nearby, and makes it *cogioba*, as we have said above in the story of the four brothers. After doing the *cogioba* he gets up and tells him all his titles, as of a great lord, and asks him: ‘Tell me who you are, and what you are doing here, and what you want of me, and why you have called me. Tell me if you want me to cut you, or if you want to go with me, or if I am to carry you or build you a house with a farm.’ Then the tree, or *cimiche*, turned into an idol, or devil, answers him, telling him the shape into which he

wants to be made, and he cuts him and does as he is told. He builds him a house with a farm, and several times a year he makes him *cogioba*, which *cogioba* is for a prayer, and to make him gracious, and to ask and find out certain things from said *cimi* of what is good or bad, and to ask him for riches. And if they want to find out if they will carry off victory over their enemies, they enter a house in which there are none but the chief people, and their master is the first who begins to do the *cogioba* and goes to sleep. And while he does the *cogioba*, none of those who are in the company discuss matters, until the master has finished; but, when he has finished his prayer, he stays a while with bent head and with his arms on his knees. Then he raises his head, looking at the sky, and speaks. Then they all answer at once in a loud voice, and when they have all spoken and given thanks, he tells the dream which he has had, while he was intoxicated from the *cogioba*, which he snuffed through his nose, and went to his head, and he says that he has spoken with the *cimi*, and that they are to carry off a victory, and that their enemies will flee, and that there will be a great mortality, or wars, or famine, or anything else, according to what he, who is intoxicated, happens to say. Consider in what condition his brain is, for they say that they seem to see the houses upside down, and that men are walking with their feet towards the sky. And this *cogioba* they also do to their *cimini* of stone and of wood, as to the dead bodies, as we have said above.

“The stone *cimini* are of diverse kind. There are some which the doctors say they get from the body, and the sick have those which are better for making the pregnant women have child labor. There are others which speak, which are of the shape of a large turnip with the leaves stretching on the ground and

long like a caper bush, which leaves for the most part have the form of elm leaves; others have three points, and they hold that they make the *giuca* grow. They have their roots resembling a radish. The leaves of the *giutola* have generally seven points, nor do I know what to compare it with, because I have seen none resembling it in Spain, nor any other country. The stalk of the *giuca* is a man's height.

"We shall now speak of the belief which they have in regard to the idols and *cimini*, and the great deceptions which they receive from them.

20. "Of the *cimi* Bugia, and Aiba, which, they say, when there were wars, was burnt by them, and then, washing it with the juice of the *giuca*, there grew out again his arms, and his eyes, and his body.

"The *giuca* was small, and with the above-said water and juice they washed it, that it might grow, and they affirm that it gave the infirmity to those who had made said *cimi*, because they had not brought anything to eat of the *giuca*. This *cimi* was called 'Baidrama,' and when anyone got ill, they called the *buhuitiu* and asked him from whom the disease proceeded, and he answered that Baidrama had ordered it, because he had not sent him anything to eat by those who had charge of his house, and this, the *buhuitiu* said, the *cimi* Baidrama had told him.

21. "Of the *cimi* of Guamorete.

"They say that when they made the house of Guamorete, who was a chief, they sent there a *cimi* which he had on top of his house, which *cima* was called 'Corocote,' and in the days when they had wars among them, the enemies of Guamorete burned the house, where said *cimi* Corocote was located. Then, they say, he got up and went away a long distance, the distance of a bow's shot, to a water, and they say that when he was on top of the house he descended at

night and lay with the women and that later Guamorete died, and that said *cimi* came into the hands of another cacique, and that he all the time lay with the women. And, they say, besides, that on his head grew two crowns, because they said: 'Since he has two crowns, he is certainly the son of Corocote,' and this they knew for sure. This *cimi* was owned later by another cacique, named 'Guatabanex,' and his place was called 'Giacaba.'

22. "Of another *cimi* which was called 'Opigielguouiran,' and it was owned by a chief called 'Cauauaniouaua,' who had many subjects under him.

"This *cimi* Opigielguouiran, they say, has four feet, like those of a dog, and he is of wood, and that many a time he walked out at night from the house to the woods. So they went to look for him and bring him home, and they tied him with ropes, but he returned to the woods, and, when the Christians arrived in said island of Hispaniola, they say, he escaped and went into a lagoon, and that they followed him in his tracks, but that they never saw him, nor do they know anything else of him. As I have bought it, so I am selling it now.

23. "Of another *cimi* which is called 'Guabancex.'

"This *cimi* Guabancex was in the country of a great chief cacique, called 'Aumatex,' which *cimi* is a woman, and they say there are other two in her company, one is a herald, the other a gatherer and governor of the waters, and when Guabancex gets angry, they say, she puts the air and water into motion, and throws down the houses, and uproots the trees. They say that this *cimi* is a woman and is made of stones of this country, and the other two *cimini*, who are in her company, are called, the one, 'Guatauua,' and is a herald, who by command of Guabancex, orders all the other *cimini* of this province to help in making

much wind and water; and the other is called 'Coat-rischie,' who, they say, gathers the waters in the valley from the mountains, and then lets them go, in order to destroy the country, and that they hold for certain.

24. "What they think of another *cimi*, called 'Faraguuaol.'

"This *cimi* belongs to a principal cacique of the island of Hispaniola, and is an idol, and they attribute to him different names, and he was found in the following manner, as you shall understand. They say that one day, before the island was discovered in the past, they do not know at what time, as they were out hunting they found a certain animal, and they ran after it, and it escaped into a ditch, and, looking for it, they saw the trunk of a tree which seemed to be alive. Then the hunter, seeing it, ran to his master, who was a cacique and father of Guaraionel, and told him what they had seen. So they went there and found the thing as the hunter had said, and, taking this trunk, they built him a house. They say that he went away from this house several times, and went to the place where they had found him, not in the same place, but nearby, because the above-said master, or his son Guaraionel, who was sent to look for him, found him hidden, and that another time they tied him and put him in a bag. With all this, tied as he was, he went away as at first. And this these ignorant people consider most certain.

25. "The things which two chief caciques of the island of Hispaniola are said to have told; one of them was called 'Cazziuaquel,' father of above-said Guarionel, the other, 'Gamanacoel.'

"And that great lord, who, they say, is in heaven, about whom it says in the beginning of the book, that Caizzihu, who here did an abstinence, which

usually all of them do, for they are shut up six or seven days without eating anything, except the juice of herbs, with which they also wash themselves. When this time is past, they begin to eat something which gives them sustenance, and during the time that they have been without food, they say that, on account of the weakness which they feel in the body and in the head, they have seen something, which, perhaps, was desired by them, for all do this abstinence in honor of their *cimini* which they have, in order to know whether they will carry off a victory over their enemies or will acquire riches, or anything else which they desire. And they say that this cacique affirmed that he had spoken with Giocauuaghama, who had told him that whoever would remain alive after his death would enjoy his rule but a short time, because into their country would come a people in clothes, who would rule them and would kill them, and they would starve to death. But they thought at first that these were the Canibals, who, taking into consideration that they did nothing but rob and run, thought another people was meant by what the *cimi* had said. Therefore they now think that it was the admiral and the people whom he brought along. Now I want to tell what I have seen and lived through, when I and the other brothers went to Spain, and I, Fray Roman, poor hermit, remained and went to Maddalena to a fort, which was built by Christofer Columbus, the admiral, viceroy and governor of these islands, and of the main land of these Indies, by order of King Ferdinand and Queen Isabelle, our masters. So, when I was in this fort, in company with Artiago, its captain, by order of above-said governor Christofer Columbus, it pleased God to illumine with the light of the holy Catholic faith a whole house of the chief people of the above-said province of Maddalena, which province

was called 'Maroris,' and its master was called 'Guauauoconel,' which means 'Guauanechin's son.' In the above-said house are his servants and favorites, who are surnamed 'Giahuuuariú,' and there were in all sixteen persons, all relatives, among whom were five brothers. One of them died, and the other four all received the water of holy baptism, and I think they died as martyrs, as may be seen by their death and constancy. The first who received death, or, rather, the water of holy baptism was an Indian, called 'Gua-ticaua,' who later was called 'John.' He was the first Christian who suffered cruel death, and it certainly seems to me that he died the martyr's death, because I have understood from some who were present at his death that he said: 'Dio Aboriadacha, Dio Aboriadacha,' which means, 'I am a servant of God.' And thus died Antonio, his brother, and with him another, who said the same thing as he did. Of this house and people all were in my company, to do as I pleased. Those who are left alive and live today are Christians, by the work of above-said Christofer Columbus, viceroy and governor of the Indies, and now there are many more Christians by the grace of God.

"Now let us say what happened in the Island of Maddalena.

"When I found myself again in above-said Maddalena, the said Admiral came to the succour of Ariaga and some Christians, who were besieged by enemies, the subjects of a chief cacique, called 'Caonabo.' This Admiral then told me that the province of Maddalena Maroris had a different language from the rest, and that its language was not understood in the whole country, and that I should go to stay with another chief cacique, called 'Guarionex,' master of many people, whose language was understood in the whole land. Thus, by his command, I went to stay with

said Guarionex. And it is true that I said to the governor, Christofer Columbus, 'Sir, how does Your Excellency want me to go and stay with Guarionex, since I do not know any other language than that of the Maroris? Let Your Excellency give me permission to take along one of those of Nuhuirci,' who were Christians and knew both languages. He gave me the permission and told me to take him whom I like best. And God in his goodness gave me for company the best of the Indians, the one best versed in the Catholic religion, and then he took him from me. God be blessed that he gave him to me and that he took him from me, for I held him truly as a good son and brother, and it was Guaicauanu, who then was Christian and was called 'John.' I, poor hermit, will tell a few of the things which happened to us there, and how I and Guaicauanu went away and went to Isabella, and there waited for the admiral, until he would come from the aid given to Maddalena, and as soon as he came we went to where the governor had sent us to go in company of one, who was called John of Agiada, who was in charge of a fort, which the said governor, Christofer Columbus, had built half a league distant from this place, where we were to live. And the admiral commanded said John of Agiada to give us to eat of what was in the fort, which fort was called 'Conception.' So we remained with the cacique Garionex about two years, always instructing him in our holy faith and the habits of the Christians. At first he showed good will and gave hope of doing everything that we wished, and of wishing to be Christian, asking us to teach him the Lord's Prayer, the Ave Maria, and the Creed, and all the other prayers and things which belong to a Christian. And so he learned the Lord's Prayer, and the Ave Maria, and the Creed, and many people of his house learned the same

thing, and he said his prayers every morning, and ordered that those who were in his house should say them twice every day. But later he became mad and left his good intentions, through the influence of other chiefs of this land, who reproached him for paying attention to the law of the Christians, because the Christians were sad and held them from their land by force. They advised him not to pay any attention to anything of the Christians, and they plotted together to kill them; because they could not satisfy them, they had made up their minds never to do in their manner. Since he withdrew from his good intentions, and we, seeing that he was withdrawing and giving up what we had taught him, made up our minds to leave and to go where we could expect better results, teaching the Indians and instructing them in matters of holy faith, and so we went to another principal chief, who showed us good will, saying that he would become Christian, which cacique was called 'Mauiatue.'

"How we departed to go to the country of said Mauiatue, that is, I, Fray Roman Pane, poor hermit, and Fray John the Burgundian of the order of San Francis, and John Matthew, the first who received the water of the holy baptism in the Island of Hispaniola.

"On the second day, as we parted from the people and settlement of Guarionex, to go to the other cacique, called Mauiatue, the people of Guariones built a house near the house of prayer, where we left a few images, before which were to kneel and pray and console themselves the catecumens, that is, the mother, brothers, and relatives of said John Matthew, the first Christian, to whom other seven were joined. Then all of this house became Christians and remained in their good intentions, according to our faith, so that the whole of above-said house remained in charge of said

house of prayer and of some property, which I had built up and made them build, and, while they were in charge of said house, on the second day after our departure to above-said Mauiatue, six men came to the house of prayer, which said catecumens, of whom there were seven, had in charge, and, by order of Guarionex, told them that they should take the images which Fray Roman had left in charge of above-said catecumens, and should break and tear them, because Fray Roman and his companion had left, and they would not know who had done it. And so the six servants of Guarionex went there and found six children who were guarding said house of prayer, fearing what later happened, and the children, thus ordered, said that they did not want them to enter there, but they entered by force and carried off the images.

26. "What happened to the images, and the miracle which God did, to show his power.

"Having come out of the house of prayer, they threw the images on the ground and covered it with dirt, and then made water upon them, saying, 'Now your fruits will be good and large,' and this they said, because they buried them in a field, saying that the fruit which was planted there would be good, and all this through malice. Which when it was seen by the children who were guarding said house of prayer, by order of above-said catecumens, they ran to their elders, who were on their farms, and said that the people of Guarionex had torn and insulted the images. When this was heard by them, they left off their work and ran weeping to tell it to Bartholomew Columbus, who was in this government for his brother, the admiral, who had gone back to Spain. This one, as lieutenant of the viceroy and governor of the islands, brought suit against the evil doers, and having learned the truth,

had them publicly burnt. But, with all that, Guarinex and his subjects did not change their evil intention, which they had, of killing the Christians one day, when they were ordered to bring their tribute of gold, which they paid. But their conspiracy was found out, and so they were seized the very day they wished to execute their deed, and yet they persevered in their guilty efforts, and, putting them into execution, killed four men and John Matthew, the chief scribe, and Anthony, his brother, who had received the holy baptism, and ran to where they had hidden the images, and tore them to pieces. A few years later the owner of the farm went to dig up some *agi*, which are roots resembling turnips, and others resembling radishes, and in the place where the images had been buried there had grown two and three *agi*, as though one had been put in the middle of the other, in the form of a cross; nor was it possible for any man to find the cross, but the mother of Guarionex, who is the worst woman that I knew in these parts, found it, and she considered this to be a great miracle and said to the keeper of the fort of Conception: 'This miracle was shown by God where the pictures were found.' God knows why.

"Let us say now how the first who received holy baptism became Christians and what should be done in order to make them all Christians.

"Indeed, the island has great need of men, to punish the lords, when they deserve it, to teach the people the things of the holy Catholic faith, and to make them firm in it, because they cannot and do not know how to contradict, and I may say in truth, because I have labored to find it all out, as I am sure will be understood from what we have said so far, and to a good understanding few words are sufficient.

"So the first Christians were those of whom we have spoken above in the Island of Hispaniola, that is,

Giauauariu, in whose house there were seventeen persons who all became Christians, by making them only know that there is one God, who has made all things, and created heaven and earth, without anything else being discussed or given them to understand, for they were of easy faith. But with the others it is necessary to use force and reason, because we are not all of the same nature, since, if these had a good beginning and better end, they will not be like those who begin well and then will laugh at what has been taught them, for whom there is need of force and chastisement.

“The first who received holy baptism in the island of Hispaniola, was John Matthew, who was baptised the day of the evangelist San Matthew in the year 1496, and then his whole house, where many Christians were made, and then there should be others who should teach and instruct them in the holy Catholic faith, and people who should restrain them, and if anyone should wish to know why I make this work so easy, I say, because I have seen the experience, and especially in a principal cacique, called ‘Mahuiatiuire,’ who has now been three years continuing in his good will, saying that he wanted to be Christian, and that he did not wish to have more than one wife, because they usually have two or three, and the chiefs have ten, fifteen, and twenty.

“This is what I have been able to find out and to know regarding the customs and rites of the Indians of Hispaniola, through the diligence used by me, in which I do not claim any spiritual, nor temporal use. May our Lord, if this is for his joy and service, give me grace to be able to persevere, and, if it has to be different, may he deprive me of reason.

“End of the work of the poor hermit Roman Pane.”

In his *Historia apologetica*, written after 1527, Las Casas tells of Ramon Pane as follows: "The Admiral says that he had tried to find out if the people of this island had any religion which savored of pure idolatry, and that he could not understand it, and that for this reason he sent a Catalan who had taken the hermit's garb and was called Fray Ramon, a simple and well-intentioned man, who knew a little of the language of the Indians, to inquire as far as he could into the rites, religion, and antiquity of the people of this island, and to put it all down in writing. This Fray Ramon investigated the matter as much as he could, according to the knowledge he had of the languages, of which there were three in this island. But he knew only one of these, which was spoken in the small province of Lower Maçorix, and that one not perfectly, and of the universal language he did not know much more than the rest, although more than others, because nobody, neither cleric, nor monk, nor layman, knew any of them perfectly, except that there was a mariner from Palos or Moguer, who was called Cristobal Rodriguez, the interpreter, and even he, I believe, did not grasp completely the one he knew, which was the common language, even though no one knew it but he himself. And the absence of knowledge of the languages of this island was not due to the fact that they were very hard to learn, but because no ecclesiastic nor secular person cared in those days a whit to give instruction regarding God to these people, but only wanted to use them, so that they learned no more sentences of the languages than 'give bread,' 'go to the mines,' 'dig gold,' and such other as were needed for the service or pleasure of the Spaniards. Only this Fray Ramon, who had come to this island in the beginning with the Admiral, seemed to have found some zeal and good will, which he employed for the

purpose of giving the knowledge of God to these Indians, though, being a simple man, he could do nothing more than tell the Indians the Ave Maria and Lord's Prayer with a few sentences, such as that there was in heaven a God who was the creator of all things, which he imparted to them the best way that he could, with great trouble and confusion. There were also in this island two friars of Saint Francis, good laymen, whom I knew as well as Fray Ramon, and who were also possessed of good zeal, but who equally lacked the knowledge of the language. They were strangers, either Picards or Burgundians, the one being called Fray Juan the Red or Burgundian, the other, Fray Juan de Tisim. It is this Fray Ramon that the Admiral ordered to leave the province of Lower Maçorix, the language of which he knew and which extended but a short way, and to go to the Vega and land where King Guarionex was ruling and where he could do more good, because there were there more people and the language was universal throughout the island, and so he did, and he stayed there two years and no more, and did there what he could, according to his small faculty, and with him was one of the two above-mentioned ecclesiastics of Saint Francis."¹

In another place Las Casas speaks of Ramon as having arrived in America five years before him,² which would place his arrival in 1497, or in the Third Voyage of Columbus; but this is an inadvertency of Las Casas, for Peter Martyr, in his 177th letter, dated June 13, 1497,³ tells of Ramon's labors, and in this letter and the 180th letter of July 27, 1497, gives in substance the story related by him, so that Ramon must have arrived in America with Columbus on the Second Voyage, that is, in 1494. This is borne out

¹ *Historia de las Indias*, Madrid 1876, vol. V, p. 435 f.

² *Ibid.*, p. 473.

³ Thacher, *op. cit.*, vol. I, p. 80.

by Ramon's own statement that he baptised the first Indian in MCCCCLXXXVI. But this latter date in the only surviving Italian version of the account is unquestionably a mistake for MCCCCLXXXIV, that is, 1494, since the first Christians were baptised while Ramon was in Maroris, and we have the specific statement that at the time of the writing of his account, which from Peter Martyr's testimony was before June 27, 1497, John had been a Christian for three years. However, the account which Columbus took with him to Spain, on his return in 1496, could not have contained the matter beginning in the 25th chapter with the words, "Now I want to tell," to the end of the story, because there is reference there to Bartholomew Columbus, who was governing the island during the absence of his brother in Spain. The date of this part cannot be ascertained, but must be considerably later. Peter Martyr never utilized it, since his account in the *Decades* ends immediately before that part.

Ramon Pane was, indeed, an ignorant person, and even the Italian translation does not admit of any sensible rendering of certain passages, and there is such variation in the spelling of the supposedly Indian words that they can be ascertained only approximately. We know nothing more of him than what is reported by Las Casas, but we may readily add that he was not only an ignorant person, but also a dupe of dishonest men, or himself a downright cheat, as will appear from what follows.

Chapter 4 of Ramon Pane's story shows that he was well acquainted with the *First Letter*, since the name *Matinino* for the Women's Isle is by him used without any compunction. He speaks of *Guanin* as a region whither Guagugiona went after leaving the children at *Matinino*. Here the story of the children which the women kept, if they were girls, and sent

back to the men, if they were boys, has blossomed out into a whole fairy tale, but *Guanin* is due to the same source which in the *Journal of the First Voyage* produced the island of *Guanin* where there was much gold.¹ Indeed, when Ramon Pane in the next chapter spoke of the island of *Guanin*, which was so called because of what he carried away from there, he showed conclusively that he knew that *guanin* meant "gold." In the next chapter Ramon speaks of Hispaniola's old name *Aiti*, while the islands are all called *Bouhi*. It is not possible to tell what the spelling of these words was in the original manuscript, but, as it is here, it shows the development of the words after the First Voyage, and may be due to a later time; and the same may be said of his use of the word *canibali*, which had already established itself.

¹ See p. 33 f.

CHAPTER III.

TOBACCO.

The Graeco-Roman medical science used a large number of glutinous substances in the healing of wounds. Plasters with which to draw the flesh together were made of fish-glue, myrrh, pitch, bitumen, and a large number of vegetable substances possessing astringent or adhesive qualities. For this reason ἰξός *viscus* "bird-lime" and ἰχθυοκόλλα *gluten ex garo* "fish-glue," were translated into Syriac by ܕܒܩܕܐ *debqâ*, from

ܕܒܩܐ *dbeq* "he stuck to." We have also ܕܘܒܕܩܐ *dûbdqâ*

"bird-lime, elm glue." We have Arab. دبق *dibq*,

دابوق *dābūq* "bird-lime, viscum." However, the Arabs

borrowed the Syriac word *dûbdqâ* in the form of

طباق *tubbāq* "a species of tree growing upon the moun-

tains of Mekkah, having long, slender, green leaves, which slip between the fingers when squeezed, applied as a dressing to a fracture, which, remaining upon it, they consolidate; it is beneficial as an antidote against poisons, taken internally and applied as a dressing, and as a remedy for the mange, or scab, and the itch, and fevers of long continuance, and colic, and jaundice, and obstructions of the liver, and is very healing." It has been identified with the "ocimum agreste, eupatorium, conyza," that is, with some strongly aromatic

flea-bane. The verbal root *طبق* *tabaqa* means "he covered, put a flat thing on another," hence we have

طبق *tabaq* "plate, flat basket, top of a table," etc.

Odoric of Pordenone has a reference to the Arabic cure by the means of a glutinous dressing in his chapter "On the Island of the Kingdom of Natem, which others call Panthen." He tells of an island near *Fana*, that is, *Java*, where certain reeds grow: "There is there another kind of reeds which are very large and tall and which are called *cassay* (*casan, cassan, cansalle, casar, cassati*). These reeds are not half as large and tall as the others, but they grow like grass, and their roots extend a league away. In these reeds there are precious stones which are of such a nature that if anyone carries them on his person, no iron can touch or harm them, and commonly the people of this country carry this stone upon their persons. And on account of the virtue of the stone they take their sons and cut a deep gash into their arms, and into this wound they place the stone, then they take a kind of powder and put it on the wound and it closes and soon heals up. This powder is made of some kind of fish. And by the virtue of these stones they are generally victorious on the sea, but their neighbors have taken notice of it. They have devised a remedy and fight them with lances and arrows without iron, because they know that the iron cannot hurt them. And because these people are not well armed, they often wound and kill them."¹ An

¹ "En ceste manière de contrée treuve on une manière de roseaulz aussi grans comme grans arbres, et sont ces roseaulz si grans que ilz ont bien quarante audains de long. Une autre manière de roseaux y a qui sont moult grant et hault et les nomme on là *Cassay*. Ces roseaulz ne sont mie si grant d'assés ne si hault comme les autres, mais ilz croissent dru comme herbe, et leurs racines se estendent bien une lieue loings. En ces roseaulz treuve on pierres precieuses qui sont de telle nature que qui conques les porte sur soy, fer ne le peut entamer ne blecier; et communement les gens

Italian version specifies the "fishglue" more completely: "Here there grows a fish which has this nature, that when one takes this fish and breaks it into two parts, and one of these parts touches the other, the two are immediately spliced, as if nothing had happened. From this fish they make the powder, and this they carry when they go into battle, and they place it on their wounds, and they heal up at once."¹

When I discussed the *macana*,² I referred to the corresponding story in Marco Polo, but it is far more likely that it was taken out of Odoric of Pordenone, because here it is an integral part of the "stone" and "powder" story, both of which are mentioned in the passage in Columbus under discussion. Columbus speaks of three stones used as charms, which he has sent to Spain, and Ramon Pane says that stones were worn tied to the arm and neck.³ We shall return to these stones later. Here it must be pointed out that Columbus mentions them in connection with their religious ceremonies of the powder, just as the two are put in juxtaposition in Odoric.

Odoric was obviously quoting, directly or indirectly, some Arabic source in which there was a juxtaposition

de ce pays portent de ces pierres sur eulx. Et pour la vertu de la pierre, ilz prennent leurs filz et leur taillent une plaie profonde au bras, et en celle plaie ils mettent celle pierre, puis prennent une manière de poudre et la mettent sur la plaie et elle se reclot et encontinent est saine. Ceste poudre est faite de je ne scay quel poisson. Et par la vertu de ces pierres, ils sont communement victorieux par mer, mais leurs voisins s'en sont piéça aperçeu. Si se sont avisé de remede et se combatent a eulx de lances et de sajettes sans fer, car ilz scevent que fer ne les peut grever. Et pour ce que ces gens ne sont point bien arméz, les navrent-ilz et tuent souvent," Cordier, *op. cit.*, p. 175 f.

¹ "Quivi nasce un pesce ch'à cotale natura che quando altri pigliase questo pesce e ricideselo in più parti e una di queste parti si racozi e tochi l'altra incontinente si rapica insieme e saldasi come se mai non v'avesse avuto niente. Di questo pesce fanno seccare e fannone polvere, e portala con loro duunche vanno in battaglia, e pongosela i loro ferite e'ncontinente salda," Yule, *Cathay and the Way Thither*, vol. II, p. 161 f., note.

² P. 56 f.

³ Chap. 6.

of قصبه *qaṣabah* "reed, pipe," and طباق *tubbāq* "the powder used in dressing wounds," which apparently even then was used for smoking, hence its relation to *qaṣabah*. Arab. قصبه *qaṣabah* is quoted corruptly

as *cassay*, etc., but the *tubbāq* is not mentioned by name. Obviously Columbus had before him the same or a similar source from which Odoric was quoting, and, although he did not give any foreign words, he spoke of placing the powder on a round table, a redundant circumstance, which is due to the fact that the source from which Columbus quoted gave some philological speculation on طباق *tubbāq*, relating it to طبق

tabaq "plate, cover, table," etc. Though Columbus failed to give us any indication as to the Arabic origin of the story, Ramon Pane gave himself away by using the word *cogioba*, which, of course, is the Italian spelling of Arab. *qaṣabah*. However, he mistook it for the powder which is taken into the nose by means of a reed, for the purpose of purging¹ and intoxication,² instead of applying it, as others did, to wounds. Ramon Pane does not mention the reed as being forked, but gives us the important statement that the powder, which was used for purging, was inhaled through the nose, which is precisely the Arabic way of taking aromatic powders, and which is in Arabic called سعو

sa'ūt.

In the Graeco-Roman medicine the method of applying a sternutatory and the implement used for the purpose were known as ἔρρινον *errhinum*. In

¹ Chap. 11.

² Chaps. 15 and 19.

Galen the sternutatory is simply called *πταρμηκόν*. The head-purging sternutatory of Heraclides of Tarentum is by him described as follows: "Aethiopic cumin, white pepper, soapwort, castor oil, cut and sift equal parts of each, place in a brass box; when needed, shake the box, bring it to the nose, while stirring the ingredients with the finger or even blowing it in through a reed."¹ Galen gives a large number of other sternutatories, all of which contain strong aromatic plants, ginger, euphorbium, cassia, hyssop, cardamum, myrrh, aloe, etc. Oribasius writes under the title of *Περὶ ἐρρῖνων*: "Errhines are employed in the following manner: one takes a thin straight reed, six fingers long, which is so constructed that it will enter the nostril. The whole cavity of the reed is filled with the medicine. Either a reed or a copper tube may be used. When this is put in place, one blows through the other end than the one through which the medicine passes into the nose. As medicines are used triturated mustard, juice of cyclamen, red beet, triturated wild cucumbers, oil of cedar, or a similar substance."² The noted Paré, in the sixteenth century, gave a long discussion of errhines or sternutatories, of which a few passages will be of interest to us: "*Errhines* are medicines for the nose, in order to purge the brain and extract its excrements through the nose, or to wash and detach those which adhere to the nose, as in the case of polyps, ozenes, and other nasal ulcers. These errhines are either liquid or dry or of emplastie consistency. These liquids which the Romans call *caputpurgia* are sometimes made from the juice of herbs, such as beets, cabbage, marjoram, pimpernel, hyssop, balm, or from their waters mixed

¹ *Claudii Galeni opera omnia*, Lipsiae 1826, in *Medicorum graecorum opera quae exstant*, vol. XII, p. 583 f.

² Bussemaker and Daremberg, *Oeuvres d'Oribase*, Paris 1854, vol. II, p. 187 f.

or cooked with wine, or some syrup, such as oxymel scylliticum, syrupus de hyssopo, syrupus rosatus, or mel anthosatum. Often they are made of powdered pepper, bartram, horehound, Roman nigella, castoreum, myrrh, white hellebore, euphorbium, cyclamen, or other powders mixed in small quantity. . . . The dry errhines, which the Romans call *sternutatoria*, because they provoke sneezing, are made only of well triturated powders. The powders resemble those mentioned before, or are other aromatic substances, which are made and mixed in small quantities. . . The dry errhines must be blown into the nostrils with a feather tube or something similar."¹ Holland, in his translation of Pliny, in 1601, gives in the vocabulary: "*errhines* be devises made like tents, sharper at one end than the other, to bee put up into the nose, either to cure some ulcer there, or to draw downe and void humors out of the head or to provoke sneezing."²

From all this it follows that the implement used for errhines was a small funnel, which would be represented as Y, and which Columbus, who apparently saw the illustration in a book, mistook for a forked reed. It was the thinner end which was inserted in the nose, and it is not practicable to devise a forked reed, in order to insert the fork into the nose. Certainly no such implement could have been used for smoking, as has been shown by experiment.³

The African Sudan owes its fetichism overwhelmingly to Arabic medicine and witchcraft, in spite of the denial of the fact by professional anthropologists, and this will be shown by a study of fetichism in its linguistic aspects. We can trace the Arabic influence

¹ J.-F. Malgaigne, *Oeuvres complètes d'Ambroise Paré*, Paris 1841, vol III, p. 586 ff.

² *The historie of the world. Commonly called, the Naturall historie of C. Plinius Secundus*, London 1601.

³ A. Ernst, *On the Etymology of the Word Tobacco*, in *The American Anthropologist*, vol. II (1889), p. 134.

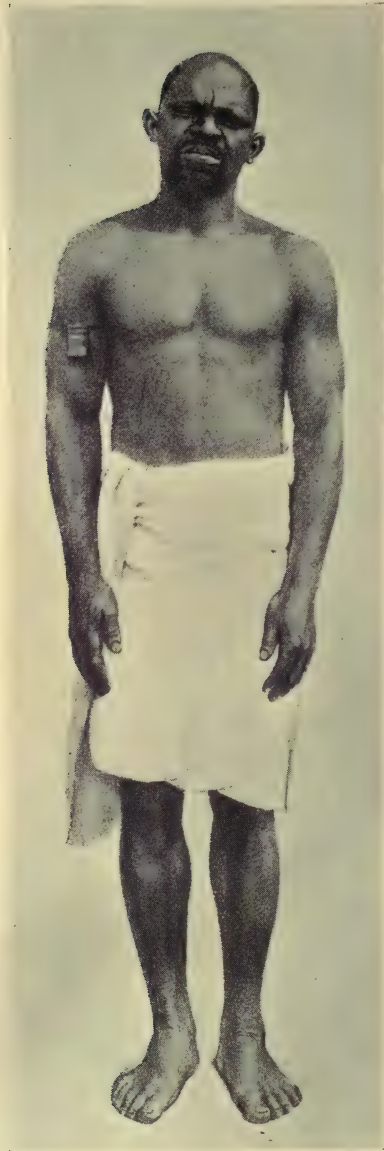
from the Berber country down to the Congo and even beyond, wherever there have been Arabic colonies or merchants. At the present time we must determine the extent of Arabic medicine in the Sudan.

We have Arab. شفاء *šifā'*, سفاء *sifā'* "medical, curative treatment, medicine, remedy," and this, becoming confused with سفر *sifr* "book," has pro-

duced the "medicine" words throughout a large part of the Sudan. We find it in the Berber languages, Tuareg (Taitag, Ghat) *asafar*, pl. *isefran*, Zenaga *ešafar*, Redames *asūfar*, Tachelhit *asafar*, pl. *isufar*, and in Soho *šefā'*, Afar *asafar* "medicine." Pul, which has come more closely into contact with Arabic and the Berber, has *safāra*, pl. *safaje* "medicine, amulet," *t'iafrowo*, pl. *safrōbe* "doctor," *safrorde* "hospital, and we have Hausa *tsafi*, *zafi* "magic."¹ We also have Songay *safari* "medicine," *safarikoy* "doctor." The word is found sporadically throughout the Sudan. In the Mande languages, the confusion with Arab. *sifr* "book" is complete, for here we have Mande *safe*, *sebe* "writing, letter, paper,"² Bambara *sebē* "writing, letter, amulet," Vai *sewe* "charm, amulet," con-

¹ "Zafi, magic which is more or less for the sake of the whole community; *tsafi* is the worship of bori," A. J. N. Treamearne, *The Ban of the Bori*, London [1914], p. 448. *Gidan tsafi* "medicine-hut," *ibid.*, p. 150.

² "He was distinguished (as may be seen by referring to his portrait) by a row of Saffis which he wore as a fillet round his head. Saffi, I may explain, is the Mandingo name of a little case, usually of leather, containing a portion of the Koran or other sacred writing, which is almost invariably worn by the pious Mussulman in West Africa; it is usually provided with a plaited leather cord by which it is slung round the neck, like the Agnus Dei worn by a devout Roman Catholic, to which article indeed it is in many respects closely analogous. Primarily of course, the Saffi is a mark of the Mahomedan faith, but among the superstitious and ignorant it degenerates into a mere charm or amulet, and as such is worn by pagans as well as Mussulmans, as in the case of our friend Koffi who worshipped his native fetish," R. A. Freeman, *Travels and Life in Ashanti and Jaman*, Westminster 1898, p. 137 f.



Negro with Amulet on the Arm. From Hartmann's *Nigritier*.

sisting of a strip of paper sewn into cloth and leather, and worn about the body as a safeguard against all sorts of misfortune, Soso *seri* "charm, amulet, medicine, poison."¹ But we have also Solima *sena*, Kisekise *sera*, Gbandi, Toma *sale*, Gbese *şare* "medicine," in this same Mande group, and Landoro *hahale*, Mende *hale*, of the same family, are apparently developments
o *sale*

In the neighborhood of the Mande languages the same Arabic word is to be found. We have Gbari *shigbe*, *shigwe* "medicine, poison, charm," hence *shigbeda*, *shigweda* "doctor," Nupe *shigbe*, *tshigbe* "medicine, poison," Kupa *tsidbe*, Esitako *etsigbe*, Musu *shigbe*, Basa *tsibe*, Ebe *tsigwe*, *tigwea*, Opanda *esigwa*, while the Wolof *abdshabar*, *dshabar* "doctor" has still more closely preserved the original *safare*, which is found in Pulo (Goburo) for "medicine," while "doctor" is *jon-safare*. It is interesting to observe that in the Arabic oasis of Adirar we have *shafu* "doctor."

There is another Arabic word which means "writing" that has become the Negro word for "poison, medicine," proving once more the influence of Arabic medical amulets upon the Sudan. We have Arab.

ذبر *dzabr* "a piece of paper or skin upon which some-

thing is written." This also occurs as دبر *ḍabr*. In

this form it has an evil connotation, for *ḍabara* means

"to try to hurt anyone," دبرة *ḍabraḥ* "a turn of evil

fortune," hence مدبور *maḍbūr* "unfortunate." Hence

Pul *dabare* "operation of magic, amulet," *dabrude neddo* "to work magic against one," *dabo* "magic,"

¹ Steinthal, *op. cit.*, § 105 (p. 54).

Hausa *dabō* "sorcery,"¹ Kanuri *debeli* "bad medicine," Soninke *dabare* "poison," Bambara *dabali* "sorcery, expedient, means," *dabalike* "to poison, cast a spell or charm," Mande *dabari* "poison, means, expedient."

I shall return to other "medicine" words later. What has been given shows conclusively the influence of Arabic medicine and witchcraft on the Sudan, especially in the Mande region. We can now pursue the study of the sovereign remedy, the tobacco plant, in the same localities.

Arab. حسارة *ḥasrah* "grief, regret" is found in

Berber as *ḥasra* "pain, affliction, sorrow, regret," and is used, as in Berber, as an exclamation, *ia ḥasra* "alas," and in the northeast, in Soho, as *hasar* "to be in trouble, sorrow," *shassar* "to trouble, torment." This Arab.

حسرة, confused with خسارة *ḥasārah* "damage,

profanation," leads to Hausa *asara*, *hasara*, *hasari* "loss, misfortune," and *asara* is also given as "snuff." Now it is a curious fact that over a large territory *asara* has at the same time the meaning of "trouble, sickness" and also "snuff." Thus we have Asante *asra*, *asara* "snuff," *sra*, *sara* "to stroke, rub, plaster." In Akra we have *asra* "snuff, a kind of fever, said to be the consequence of poisoning," similarly, Ewe *asra*, *asrā* "fever," *asrā* "snuff." Here we fortunately get an intermediate meaning, namely, *asrā* "to be lacking, be in trouble," which is precisely the meaning of Arab.

خسارة *ḥasārah*. This shows that so far we have here

the progressive meanings "to trouble, torment, torture, cause fever, rub, triturate, make snuff," and this leads

¹ "Dabbo sometimes has a bad meaning, but is more often used for conjuring," Treamearne, *op. cit.*, p. 448.

to the conclusion that in Hausa *sara* "to bite, wound, calumniate, chop fine" we have the same development. Exactly the same relation is found in Mande *sira* "tobacco, to be sick," Bambara *sira* "tobacco, to filter honey in cooking," *sirabla* "to commit an injustice," *siramba* "one who is afraid." Delafosse¹ gives *asara* forms for "tobacco," Adyukru, Baule, Kulango, Agni *asra*, Soninke *sira*, Gbiu, Yoruba *asara*, Asante, Abron, Afema, Agni, Baule *bosro*, but here the material is too scant to admit of any comparison with "siek" words. Dagomba (in Tago) *nasara* "snuff" brings us back to *asara*, but Dahome *azo* "labor, trouble, tobacco," *azō* "sickness" once more proves the origin of the whole group, throughout the Sudan, from Arab.

حسرة *hasrah* and خسارة *hasārah*.

The *Nicotiana tabacum* grows wild in Africa,² and so does the *Nicotiana rustica*.³ At the end of the sixteenth century it is recorded as in use among the Negroes,⁴ and an Arabic source speaks of it as in use in the middle of the ninth century of the hegira, which would be about the middle of the fifteenth century.⁵ This date, however, is not certain and needs verification. But what is certain, is that the two names for "tobacco" are derived from Arabic words, which shows conclusively that the use of the weed is in some way connected with the Arabic medicine, for the first of these, *taba*, *tawa*, *tama* in the Mande languages and over a great part of the Sudan, is derived from Arab. طَبَاق *tubbāq* "an aromatic plant

¹ *Op. cit.*

² F. Welwitsch, *Catalogue of the African Plants*, London 1898, vol. I³, p. 754.

³ G. Schweinfurth, *Im Herzen von Afrika*, Leipzig, London 1874, vol. I, p. 295.

⁴ Cap. Binger, *Du Niger au Golfe de Guinée*, Paris 1892, vol. II, p. 364.

⁵ *Ibid.*

used for a styptic," while the second, for "snuff," is equally derived from an Arabic word, meaning "to crush." As the native African plant furnished qualities for which styptics and errhines have been used before, it is not to be wondered at that it took the place of the plants which were exotics in Africa. But "the first place in the magic Mussulman pharmacopoea is occupied by the aromatic plants for burning, and there is no important ceremony, no serious invocation of the gins without specific indications as to what aromatic plant is to be burned."¹ Hence, from the medical

use of the **طباق** *tubbāq* and the magical use of the

aromatic plants there arose in Africa the habit of smoking, which by the Arabs had earlier been in use in connection with hemp and opium.

Hemp was used as a narcotic, apparently in smoking, from very early times. It is mentioned in the Vedas, and Herodotus says that the Scythians intoxicated themselves by inhaling its vapor. In Hindu its old name *bhāng* is substituted by *kusumba*, as though from Sanskrit *kusumbhā* "safflower," with which it has nothing whatever in common. However old the use of opium may be as a narcotic, it is certain that it was introduced into China in or before the fifteenth century by the Arabs, since Wang Hsi, who died in 1488, says that it was obtained in Arabia.² Now this opium is named in Zanzibar *kasumba*, obviously

from Arab. **قصة** *qaṣabah* "reed, pipe," more com-

monly **قصة** *quṣṣābah*, **قصة** *qaṣṣībah* "pipe,"

since the reference is merely to the smoking of a nar-

¹ E. Doutté, *Magie et Religion dans l'Afrique du Nord*, Alger 1909, p. 72.

² G. Watt, *A Dictionary of the Economic Products of India*, London, Calcutta 1892, vol. VI¹, p. 28.

cotic plant. Indeed, while the Swahili of Zanzibar uses *kashiba* only in the sense of "barrel of a gun," the Luba of the Congo has *kashiba ka twanga* "pipe," and by considering *kashiba* as a noun of the *ka*-prefix class and transferring it into another, the *mu*-class, we get *mushiba* "tube, barrel of a gun, stem of a pipe," while in the Kimbundu of Angola we have *mushiba* "artery, nerve." From this Congo *kashiba* or Zanzibar *kasumba* comes the Tupi *catimbao* "pipe," the Port. *cachimbo* "pipe," *cachimbar* "to smoke." Tupi *catimbao* produces the Tupi-Guarani root *timbo* "smoke, incense," hence Guarani *amotymbo* "to smoke," Tupi *motimbōr* "to burn incense," *timboi* "smoke." While these may all be purely new formations, it must not be forgotten that we have in the Congo region the form *mushiba* for *kashiba*, hence the whole formation may be originally African. This then removes Ramon Pane's *cogioba* from America and transfers it to an Arabic source. We shall now investigate the tobacco-smoking in America in its original sources.

Neither Ramon Pane nor Columbus refers to the *smoking of cogioba*, but only to its use as an inhaled powder. In the *Journal of the first Voyage* Columbus says, under October 15, 1492, that an Indian brought him a piece of red earth, in the form of a powdered ball, and "some dry leaves, which must be highly appreciated by them, because they had already presented that to me at San Salvador."¹ As these are the words of Columbus, they must have been written down near the time of the discovery. As Columbus in the same continuous passage speaks of the island of *Samoet*, that is, *Sumatra*, it is possible that he draws on some Arabic

¹ "Falle un hombre solo en una almadía, que se passava de la isla de Sancta María á la Fernandina, y traía un poco de su pan, que sería tanto como el puño, y una calabaza de agua, y un pedaço de tierra bermeja, hecha en polvo y después amassada, y unas hojas secas, que deve ser cosa muy apreciada entr'ellos, porque ya me truxeron en San Salvador d'ellas en presente," *Raccolla*, parte I, vol. I, p. 21.

source, accessible to him through the Portuguese or Spanish, in which there was a description of the use of hemp, or hasheesh, in that island. This is the more likely, since the juxtaposition of the dry leaves and a ball of powdered earth is precisely what an Arabic source would have. "In Persia and Syria there exists the custom of making a paste of the blossoms of the female hemp plant, which has been triturated and mixed with hot ashes, to be formed into small balls."¹ If, however, Columbus really saw what he describes, then there is only one conclusion possible, and that is that *cogioba*, the Arabic method of smoking, was known in America before its discovery by Columbus. On November 6, 1492, the *Journal* records that two Spaniards reported that the Indians had a firebrand in their hands and leaves with which to take their incense, as was their habit.² Las Casas tries to describe this taking of the incense as smoking of tobacco, while Ferdinand Columbus merely speaks of the burning of incense.³ Whichever this may be, the account is of no value, since the Spaniards also reported that they saw *yams* (*mames*) growing there, whereas these were introduced from Africa.⁴ Thus we have nothing in the account of Columbus' first two voyages which makes it sure that the smoking of tobacco was an Indian custom.

Had smoking been universal in America soon after its discovery, Oviedo, who was anxious to give everything remarkable in his *De la natural hystoria de las Indias* of 1526, would certainly have mentioned it. But we have only an account in his *La historia general*

¹ F. Tiedemann, *Geschichte des Tabaks*, Frankfurt a.M.1854, p. 401.

² "Hallaron los dos christianos por el camino mucha gente, que atravesaba á sus pueblos, mugeres y hombres, con un tizón en la mano, yervas para tomar sus sahumeros que acostumbraban," *Raccolta*, parte I, vol. I, p. 37.

³ *Ibid.*, in footnote.

⁴ See chapter IV.

de las Indias of 1535: "The Indians of this island use, among other of their vices, one which is very bad, and that is smoking, which they call *tabaco*, in order to lose consciousness. And this they do with the smoke of a certain herb, which, as much as I could understand, is of the quality of henbane, but not of the same form, from its appearance, because this herb is a weed of about four or five palms or less in height and has narrow, thick leaves, soft and hairy, and in its color it resembles somewhat the leaves of the ox-tongue or bugloss (as the herbalists and doctors call it). This herb, as I say, in some manner resembles henbane, which they take in the following manner: the caciques and chief men had some pipes of the size of half a foot or less, of the thickness of the small finger, and these pipes had two reeds corresponding to one, as here drawn, and all in one piece. And the two they placed in the nostrils and the other in the smoke and the herb which was burning; and these were very smooth and well-worked, and they burned the leaves of this herb twisted and wrapped in the manner in which the boys of the nobles make their smokes; and they placed the other part of the simple pipe in the herb which was burning; and they drew the breath and smoke two or three or more times, as much as they could endure, until they lost their senses for a long time, stretched out on the ground, drunk and sleeping a very heavy sleep. The Indians who did not get these pipes took their smoke through a reed, and this instrument with which they take the smoke or the reeds the Indians call *tabaco*, and not the herb or sleep which overtakes them (as some thought). This herb the Indians considered as something very precious, and they raised it in their gardens and fields for the sake of the above-mentioned effect, by which they gave to understand that this use of the herb and smoking was not only a

wholesome, but also a holy thing. And so, when the cacique or principal falls to the ground, his wives (of whom there are many) take him and place him in his bed, if he ordered them to do so before, but if he did not tell them so and provided for it at first, he means that they should leave him so until his intoxication or sleep has passed. I cannot understand what pleasure is taken in such an act, except the desire to drink [until falling down on the back: but] I know that some Christians are already using it, especially some who are affected by syphilis, because they say that they are thus transported that they do not feel the pain of their sickness, but it seems to me that this is nothing but being dead while alive for anyone to do so: which I considered worse than the pain for which they excuse themselves, since they do not get well from it. *At present many Negroes of those who are in this city and in the whole island have taken to the same custom, and they raise on the ranches and farms of their masters this herb for the above-said purpose, and they take them in the form of smoke, because they say that when they get through with their work and make these tabacos they are relieved of their tired feeling.*"¹

¹ "Usauan los indios desta isla entre otros sus vicios uno muy malo, que es tomar unas ahumadas, que ellos llaman *tabaco*, para salir de sentido: y esto hazian con el humo de cierta yerua, que alo que yo he podido entender, es de calidad del veleño; pero no de aquella hechura o forma ala vista: porque esta yerua es un tallo como quatro o cinco palmos, poco mas o menos de alto y con unas hojas anchas y gruessas y blandas y vellosas: y el verdor tira algo al color de las hojas de la lengua de buey o Buglosa: que llaman los erbolarios y medicos. Esta yerua que digo en el genero es muy semejante al Ueleño. La qual toman de aquesta manera. Los Caciques y hombres principales tenian unos palillos huecos: del tamaño de un xeme o menos, de la grosseza del dedo menor de la mano. Y estos cañutos tenian dos cañones respondientes a uno, como aqui esta pintado y todo en una peça. Y los dos ponian en las ventanas de las narizes, y el otro en el humo y yerua que ardia. Y estauan muy lisos y bien labrados, y quemauan las hojas de aquella yerua arrebujadas o embueltas de la manera que los pajes cortesianos suelen echar se ahumadas: y ponian la otra parte del cañuto senzillo en la yerua que ardia: y tomauan el aliento y humo para si una y dos y tres y mas vezes quanto lo podian porfiar, hasta que quedauan sin sentido grande espacio tendidos en tierra, beodos o adormidos de un graue y muy pesado

Oviedo's account is a mixture of myth and truth. If he knew that tobacco was smoked through the mouth and not through the nose, and he must have known it, since he knew of white men and Negroes who smoked it, he could not have told of smoking with a forked reed through the nose, which has been shown to be an impossibility. Oviedo was bound by his authorities, Columbus, Ramon Pane, and Peter Martyr, who quoted the two, and so he had to repeat the impossible story of smoking through the nose and becoming intoxicated by tobacco. But he is cautious. He tells the whole thing in the past tense, claiming to follow an account of what was, and not what is. In his edition of 1547 he repeated the identical account, but in his later notes, which, however, were published only in the nineteenth century, he significantly corrected his impossible story so as to make it conform with the truth. The sentence, "until falling down on the back: but," which is given in the above passage in brackets, is corrected so as to read: "which at first they do by taking the smoke or *tabaco*, and some

sueño. E los Indios que no alcançauan aquellos palillos, tomauan aquel humo con unos Calamos o Cañuelas de Carrizos. E aquel tal instrumento con que toman el humo, o alas Cañuelas que es dicho llaman los Indios *Tabaco*: y no ala yerua o sueño que les toma (como pensauan algunos). Esta yerua tenian los Indios por cosa muy preciada, y la criauan en sus huertos y labranças para el efecto que es dicho; dando se a entender que este tomar de aquella yerua y sahumerio no tan solo les era sana: pero muy sancta cosa. Y assi como cae el Cacique o principal en tierra, toman le sus mugeres (que son muchas) y echan le en su cama, si el antes se lo ha mandado. Pero si no lo dixo y proveyo primero, no quiere sino que lo dexen assi, fasta que se le passe el vino y aquel adormescimiento. Yo no puedo penssar que plazer se saca de tal acto, sino es la gula de beuer [hasta dar de espaldas: pero] se que ya algunos Christianos lo usauan: en especial los que estauan tocados del mal de las Buas: porque dizen los tales que en aquel tiempo que estan assi trasportados: no sienten los dolores de su enfermedad. Y no me parece ques esso otra cosa sino estar muerto en vida el que tal haze: lo qual tengo por peor que el dolor de que se escusan, pues no sanan por esso. *Al presente muchos Negros de los que estan en esta cibdad y en la yslla toda han tomado la misma costumbre y crian en las haziendas y eredamientos de sus amos esta yerua para lo que es dicho. Y ellos toman las mesmas ahumadas, porque dizen que quando paran del trabajo e hazen estos Tabacos les quitan el cansancio,*" lib. V, cap. II.

drink so much of a certain wine which they make that, before they begin to smoke, they fall down drunk, but when they feel that they are full, they take this perfume. And many, however, without drinking too much, take the *tabaco* and do as has been said, namely, fall on the back or side on the ground, but without nausea, only like a sleeping man."¹

Here Oviedo admits that the account about getting drunk and losing consciousness is incorrect, since it is due to wine and not to tobacco, and with this collapses the whole of Columbus' story as regards the use of tobacco in America. But every little incident in the relation by Columbus and, through him, by Peter Martyr, became an organic part of the lives of the Indians, and the obvious fact that the Negroes and white men smoked is put in the background, in order to save the story in connection with the Indians. Before proceeding any further in the investigation of the use of tobacco in America, it is necessary to ascertain two important facts, first, how rapidly did error become embedded in American history, and secondly, how rapidly did European and African cultural matters become disseminated among the Indians. We begin with *maize*, which is unquestionably of American origin, but the name of which is due to a misunderstanding.

Soares de Sousa says, "In all of Brazil there is a native plant, which the Indians call *ubatim* (it should be *abati*), which is Guinea millet, and which in Portugal is called *zaburro*. . . The Portuguese plant this millet with which to feed the horses, cattle, chickens, goats, sheep, and pigs, and they provide it to the Guinea Negroes, who do not like it, although it is the best of

¹ "Que primero hacen que tomen el humo ó *tabaco*, y algunos beben tanto de cierto vino que ellos hacen, que antes que se zahumen caen borrachos; pero quando se sienten cargados é hartos, acuden á tal perfume. E muchos tambien, sin que beban demassiado, toman el *tabaco*, é hacen lo que es dicho hasta dar de espaldas ó de costado en tierra, pero sin vascas, sino como hombre dormido," ed. 1851.

their land.”¹ In 1552, that is, nearly fifty years earlier, Jão de Barros described the Wolofs, among whom the people lived on *milhos de maçaroca*, “which we call *zaburro*,”² but much earlier a Portuguese pilot described the island of San Thomas in Africa, where “in the month of August they begin to sow the grain, which they call *miglio zaburo*, and in the West Indies *mahiz*, which is like white chick-pease, and is eaten in all the islands above-mentioned, and along all the coast of Africa, and forms the sustenance of its inhabitants.”³ “They eat this seed, . . . and make of its flour bread, or, rather, cakes baked in the ashes.”⁴

What is *zaburro*? In the Tehi language of the West Coast of Africa we have *abürów* “maize,” which is from *aburo* “European, American,” and this from *Oporto* “Portugal,” hence *Abüro quiri* “the white man’s country, Europe, America,” that is, “corn” is recognized by the Negroes to be imported from America. We have, similarly, for “maize” Abron *abro*, Afema, Baule *able*, Dahome *gbli*, Ewe *bli*, etc. But far more interesting is the influence of Portuguese *milho de maçaroca*, that is, “cob millet,” on the African languages.

Maçaroca is an old word, for it is recorded as Span. *mazorca* “the distaff with its flax” in Alcalá, where it is also given as an Arabic word. Whatever its origin, it is older than the discovery of the New World, and it was very early applied to any plant which forms tufted ears, such as Guinea corn. Hence Columbus,

¹ “Dá-se outro mantimento, em todo o Brazil, natural da mesma terra, a que os indios chamam *ubatim*, que é o milho de Guiné, que em Portugal chamam *zaburro* . . . Plantam os Portuguezes este milho para matença dos cavallos, e criação das gallinhas e cabras, ovelhas e porcos; e aos negros de Guiné o dão por fruta, os quaes o não querem por mantimento sendo o melhor da sua terra,” *Tratado descriptivo do Brasil em 1587*, Rio de Janeiro 1879, p. 162.

² *Decada primeira da Asia*, Lisboa 1628, liv. III, cap. 8, fo l.49 b.

³ Ramusio, vol. I, fol. 115 a.

⁴ *Ibid.*, fol. 117 b.

in his Third Voyage, of 1498, said of maize "it is a seed which makes an ear like a *maçorca*, of which I brought some back and of which there is now a great quantity in Spain."¹ H. J. Bleek² records a Port. *mazirri* "maize," which is apparently the local East African word, and derived from *maçaroca*. We can now follow up Port. *maçaroca* in the African languages.

Koelle³ records Bornu, Munio, Nguru, Ngodsin *másārmī*, Kanem *mázarmī*, Pika *dā másāli*, Karekare *dá masar*, Doai *másarbē*, Kamuku *limásara*, pl. *amásara*, Isuwu *mbázi*, Duala *mbāsi*, Baseke *mpódşu*, Musentandu, Nyombe *mása*, Babūma *máşa*, Kasands *māza*, Basunde *sángu*, pl. *masángu*, Angola *désa*, pl. *mása*, Lubalo *mása leindéle*, Kandin *úbōra másar*, *dāmásara*, Tumbuku *másara hama*, Mandara, Bagirmi *másar*, Hausa *másārā*, Salum *másāra*, Goburu *baeri másar*, Kano *mazardi*, pl. *mazarádşī*, Undaza *eşángu*, pl. *maşángu*, Arabic at Adirar *máka*, at Beran *makári*, Sarar *pumaidşī*, *mumbawo*, Pepel *bumádşa*, *bumbawa*, Kanyop *búmāgi*. To these must be added Arabic-Hassania, Soninke, Pular, Bambara *maka*, Wolof *makande*. Thus we see that the Port. *maçaroca* is found in West, Central, and East Africa, through the forms *masara*, *masa*, *maidsi*, *maka*. The latter, obviously the Arabicized form, occurs again in India in Hindustani *makka*, *makai*, and similarly throughout India,⁴ which shows that from Africa it was transferred to India; but we have also in Africa Kikongo *mahindi*, Swahili *mahindi* "Indian corn," which is of Arabic origin, and may refer to India or the West Indies.

Port. *maçaroca* was originally applied to "Guinea corn," as may be seen from the few cases, mostly in

¹ "*Mahíz*, que es una simiente que haze una espiga como una *maçorca*, de que llevé yo allá, y ay ya mucho en Castilla," *Raccolta*, parte I, vol. II, p. 32.

² *The Languages of Mosambique*, London 1856, p. 91.

³ *Polyglotta Africana*, London 1854.

⁴ See Watt, vol. VI⁴, p. 327.

Portuguese territory, where *masa*, or some such form, refers to Guinea corn. We have Bola *búmād*, Sarar *púmād*, Pepel *bomádsa*, Biafada *mádyá*, Padsade *máhadye*, Kabundo *mádšo*, Legba *mési*, Kaure *míše*, Kiamba *meze*, but more particularly Musentandu *mása moambála*, Lubalo *másambála*, Songo, Kisama *mása mam-bála*, Bidsogo *némái*, *némádsi*, Wun *mmagi*. Fortunately we can show, by documentary evidence, that the Portuguese word for "Guinea corn" is older than for "maize." In the first place, the *masa* form for "Guinea corn" is exceptional. Over an enormous territory other words are used, especially at the Guinea coast, where the plant was first found by the Portuguese. In Pigafetta's account of the Kingdom of Congo,¹ in 1591, we find mention of "*mazza di Congo*" and "*mazza manputo*" "maize," that is "Portugal grain."² Andrew Battell³ wrote about the same time: "They have four sorts of corn in Congo. The first is called *Masanga*, and it groweth upon a straw as big as a reed, and hath an ear a foot long, and is like hempseed. The second is called *Masembala*. This is of great increase, for of one kernel there springs four or five canes, which are ten foot high, and they bear half a pint of corn apiece. This grain is as big as tares, and very good. Thirdly, they have another that groweth low like grass, and is very like mustard-seed: and this is the best. They have also the great Guinea wheat, which they call *Mas-impoto*. This is the least esteemed." Three of the varieties mentioned by Battell were introduced from other continents, and only one, *masembala*, is our Guinea corn. From this it follows that *mazza* of Pigafetta is merely an abbreviation of Port. *mazaroca* "ear of Guinea corn, Guinea corn itself."

¹ *Relazione del reame di Congo et delle circonvicine contrade*, Roma 1591.

² Book II, chap. I, *ibid.*, p. 40.

³ *The Strange Adventures of Andrew Battell of Leigh* (The Hakluyt Society), London 1901, p. 67.

portuguese - Guinea corn - mazaroca -
then the appellation was applied to similar fruit
with soft ears.

It is a curious fact that Columbus did not use the word *maize* before his Third Voyage, after which it becomes universal. He always referred to it as *panizo* "millet," the corresponding word to Port. "milho" or "milho de maçaroca." It has generally been assumed that *mahiz*, *maiz* is a Carib word, but that is entirely out of the question. The Tupi forms *abati*, *awati*, *awassi*, *avatsi*, *havatsi*¹ and the Carib forms *anachi*, *anahi*, *añaze*,² especially Galibi *awassi*, Insular Carib *awaši*,³ are unquestionably derivatives of *awiš* "maize plantation" of the Maya languages,⁴ which itself is a compound of *au* "to sow" and the Central American *ix* "maize." *Maiz* is not a corruption of the Carib forms, because it occurs in Breton's Dictionary side by side with *awaši*, namely, *márichi*, *aouáchi* "bled d'Inde, autrement de Turquie." Wherever two words occur for the same thing, one is under suspicion. But *maiz*, in use by the Spaniards, spread over America, and many Carib tribes in the interior of South America have lost *awaši* entirely, and keep only *maiz*; hence we have Mehinaku, Kustenuu, Waura, Yaulapiti *maiki*, but Aueto, Camayura *avatsi*.⁵ In all the other Carib languages, not recorded in the sources above, the form *awaši* prevails, but in Arawak we have, as in Insular Carib, *marichi*. This is the form imposed by the Spanish, from the Portuguese form for "Guinea corn," which itself is from Port. *mazaroca* or its Arabic equivalent, as recorded in Alcalá, and centuries older than the discovery of America. It must not be forgotten

¹ L. Adam, *Matériaux pour servir à l'établissement d'une grammaire comparée des dialectes de la famille Tupi*, Paris 1896, in *Bibliothèque linguistique américaine*, vol. XVIII, p. 83.

² L. Adam, *Matériaux pour servir à l'établissement d'une grammaire comparée des dialectes de la famille Caribe*, Paris 1893, in *Bibliothèque linguistique américaine*, vol. XVII, p. 93.

³ K. von den Steinen, *Die Bakaïri-Sprache*, Leipzig 1892, p. 46.

⁴ O. Stoll, *Die Maya-Sprachen der Pokom-Gruppe*, Wien 1888, pt. I, p. 150.

⁵ K. von den Steinen, *Unter den Naturvölkern Zentral-Brasiliens*, Berlin 1894.

that "Guinea corn" was grown in Spain long before the discovery of maize, and the appellation *maize* for the "Indian corn" rests on a misunderstanding of a passage in Peter Martyr's *First Decade*: "Panem et ex frumento quodam panicò, cuius est apud Insubres et Granatenses Hispanos maxima copia, non magno discrimine conficiunt. Est huius panicula longior spithama, in acutum tendens, lacerti fere crassitudine. Grana miro ordine a natura confixa, forma et corpore pisum legumen aemulantur: albescent acerba: ubi maturuerunt, nigerrima efficiuntur: fracta, candore niuem exuperant: *maizium*, id frumenti genus appellant."¹ This is translated by F. A. MacNutt:² "The islanders also easily make bread with a kind of *millet*, similar to that which exists plenteously amongst the Milanese and Andalusians. This millet is a little more than a palm in length, ending in a point, and is about the thickness of the upper part of a man's arm. The grains are about the form and size of peas. While they are growing, they are white, but become black when ripe. When ground they are whiter than snow. This kind of grain is called *maiz*." The translation is absurd. Peter Martyr said before that the Indians made bread of yuca, "which they cut into pieces, mash and knead." Then he goes on to say: "They also make a bread, in somewhat the same manner (non magno discrimine), from a kind of millet, of which there is a great quantity in Milan and Andalusia. . . This grain is called *maize*." Peter Martyr mistook the Indian maize for the "Guinea corn" (*sorghum vulgare*), and applied to it the name which was already current in Spain or Portugal. Now let us turn back to Columbus' statement in 1498: "*Maize* is a seed which makes an ear like a *maçorca*, which I brought there and of which there is now a great

¹ I. 1.

² *De Orbe Novo: The Eight Decades of Peter Martyr D'Anghera*, New York and London 1912, vol. I, p. 64.

deal in Spain." It is perfectly clear that Columbus brought some *mahiz* to Spain, where it was growing before 1498. But from where did he bring it? Columbus is talking of wine which the Indians brought and which he supposed was made of *maize*, etc. Columbus knew that in Africa wine was made of "Guinea corn," and he supposed that the same was the case here. In his First Voyage Columbus says, under October 16, "I have no doubt that they sow and harvest millet (panizo) all the year," which shows conclusively that, if he saw *maize* in the West Indies, he mistook it for millet. On November 6 the *Journal* refers apparently to Columbus' statements of October 16 and November 4, and speaks of millet as *eso mismo panizo*, "that very millet," for which some later manuscripts add, "a grain which the Indians call *maiz*." But let us compare the two passages:

Columbus.

Ella es isla muy verde y llana y fertilíssima, y no pongo duda que todo el año siembran panizo y cogen, y así todas otras cosas, Oct. 16, *Raccolta*, pt. I, vol. I, p. 22 f.

The *Journal*.

La tierra muy fértil y muy labrada de aquellas mames y fexoes y habas muy diversas de las nuestras, eso mismo panizo, Nov. 6, *Raccolta*, pt. I, vol. I, p. 37.

Columbus did not say that he saw any *maize*; he simply surmised that Guinea corn grew there the year round. The editor of the *Journal* jumped to the conclusion that Columbus described *maize* "*eso mismo panizo*." When, therefore, Columbus in 1498 spoke of having taken *mahiz* "there, and there is now a great deal of it in Spain," he could have referred only to Guinea corn, which he had brought years before from Africa, and which, he had no doubt, also grew in the West Indies. Not until the *Third Decade*, that is, in 1511, did Peter Martyr distinguish between *maize* and Guinea corn, when he said "bread of *maize*, which

Guinea corn - ~~was~~ not important ^{diets} ~~in the~~
 in S. Nigeria

is *like* bread made of Milan millet."¹ It is doubtful whether Columbus in 1498 knew the difference between millet and maize. When maize became actually known, the African name, from the Portuguese word for "Guinea corn," was firmly and ineradicably attached to it, and it even entered into the languages of the American Indians, who came more nearly under Spanish influence.

Not an author dared after that to use any other word for *maize*, no matter of what country in America he wrote. Pigafetta, who set out in 1519 to circumnavigate the world, gives *maiz* as the Tupi word for grain.² How unreliable he is, is shown by the fact that he also says of them, "they live in certain long houses which they call *boij*, and sleep in cotton hammocks called *amache*. . . They have boats called *canoe*."³ The words are all from Peter Martyr and refer to Hispaniola, if to anything at all in America. What is interesting about them is that they were given to Pigafetta by the pilot, Johane Carnagio, or Carvalho, who had lived in that land for four years,⁴ and who apparently had introduced some words among the Tupis, as we shall later see. Pigafetta could not tear himself away from an older tradition, even when his information was not received from his pilot, hence he tells of the Tupis that "they make bread from the marrowy substance of trees, which is not very good, and is found between the wood and the bark and resembles buttermilk curds."⁵ This is identical with the description of the production of sago, as given by Odoric of Pordenone, and in no way refers to any bread obtained from a plant in Brazil. Pigafetta also

¹ "*Maizio* pane, qui est uti paniceus Insuber," III. 3.

² Robertson, *op. cit.*, vol. I, p. 44.

³ *Ibid.*, p. 38.

⁴ *Ibid.*, p. 40.

⁵ *Ibid.*, p. 42.

calls the Indian king *cacich*,¹ and near the Antaretic Pole he found people called *Canibali*.²

Cortes used the words *maiz*, *canoa* and *cacique* in 1519 as a matter of course in relation to things seen in Mexico, but he has not a word to say about tobacco. Not until after 1552 is there any distant reference to the smoking of tobacco in Mexico. Bernal Díaz del Castillo says that after Montezuma had partaken of his dinner he smoked liquid amber wrapped in leaves called *tabaco*, which put him to sleep.³ Gomara, who wrote his *Conquista de Mexico* in 1552 and fully described Montezuma's repast in the chapter, "De la limpieza y majestad con que se servía Motezuma," has not a word to say about his smoking. And yet it would be surprising if at that time smoking had not been universal in Mexico, since Cortes brought Negroes with him to Mexico,⁴ and the Negroes, who were inveterate smokers, soon swarmed over Mexico and lorded it over the Indians.⁵ And yet, Fray Toribio

¹ *Ibid.*, p. 40.

² *Ibid.*, p. 46.

³ "También le ponían en la mesa tres cañutos muy pintados y dorados, y dentro traían liquidámbar revuelto con unas yerbas que se dice *tabaco* y cuando acababa de comer, después que le habían cantado y bailado, y alzada la mesa, tomaba el humo de uno de aquellos cañutos, y muy poco, y con ello se dormía," *La Conquista de Nueva España*, Paris, Buenos Aires [1912?], vol. II, p. 34, in *Biblioteca económica de clásicos castellanos*.

⁴ "Había también doscientos isleños de Cuba para carga y servicio, ciertos negros y algunas indias," in chapter, "Los hombres y navíos que Cortés llevó á la conquista."

⁵ "La cuarta plaga fué los *calpixques* ó estancieros y *negros*; que luego que la tierra se repartió, los conquistadores pusieron en sus repartimientos y pueblos á ellos encomendados criados ó *negros* para cobrar los tributos y para entender en granjerías, y estos residían y residen en los pueblos, y aunque por la mayor parte son labradores de España, acá en esta Nueva España se enseñorean y mandan á los señores y principales naturales; y porque no querría escribir sus defectos, digo que me parece á los opresores egipcianos que afligían al pueblo de Israel, porque en todo les semeja en las obras y en el hacer de los ladrillos. También son como las moscas gravísimas de la cuarta plaga de Egipto que agraviaba la casa de Faraon y de sus siervos: y de esta plaga fué corrompida la tierra: bien así estos *calpixques* que digo agravian á los señores naturales y á todo el pueblo, y así se hacen servir y temer más que si fuesen señores naturales, y nunca otra cosa hacen sino demandar, y nunca están contentos a do están y allegan:

de Motolinia, who complains of the presence of these Negroes soon after 1541, and who has carefully described all the aromatic plants in use, especially liquid amber, does not say a thing about tobacco, but says only that the Indians of New Spain wrap the liquid amber in large leaves, apparently any kind of large leaves, and use it as perfume or cure diseases with it.¹ This proves conclusively that tobacco was not common in Mexico in the middle of the sixteenth century.

While *maiz* and *tabaco* were traveling merely as words over America, the banana plant itself spread with amazing rapidity throughout the two Americas.

The Arabs introduced the banana into Spain, where it was cultivated in the twelfth century.² Unquestionably the banana was early known in Africa, even if it was not native there. In the Sudan and in the Congo we find, however, that the large variety becomes wide spread through Spanish or Portuguese influence, since corruptions of *platano* are found over a large territory. We have Mwi *balanda*, Agni, Guimini *baranda*, Abe, Afema, Agni *bonda*, Baule, Agni *manda*, Teui,

todo lo enconan y corrompen, hediondos como carne dañada de moscas por sus malos ejemplos; moscas en ser perezosos y no saber hacer nada sino mandar; zánganos que comen la miel que labran las abejas, esto es, que no les basta cuanto los pobres indios pueden dar, sino que siempre son importunos, como moscas gravísimos. En los años primeros eran (tan) absolutos estos *calpixques* en maltratar los indios y en enviarlos cargados lejos tierra, y poniéndolos en otros trabajos, de los cuales hartos murieron," *Memoriales de Fray Toribio de Motolinia*, published by García Pimentel, Méjico, Paris, Madrid 1903, cap. 2, p. 22 f.

¹ "Aquí en estos montes se hallan árboles de pimienta: difieren de la de Malabar, que no requema tanto ni es tan fina, pero es pimienta natural más dulce que la otra. También hay canela: la canela es más blanca y más gordilla. Hay muchas montañas de árboles de liquadambar: son hermosos árboles y muchos de ellos muy altos: tiene la hoja como hoja de yedra: el licor que de ellos sacan se llama liquadambar. los indios lo llaman *xuchi* ó *cozolith* (*xuchiocozolith*): es suave en olor y medicinal: es virtud y precioso entre los indios. Los indios de la Nueva España mézclanlo con su misma corteza para lo cuajar, que no lo quieren líquido, y hacen unos panes envueltos en unas hojas grandes: usan de ello para olores, y también curan con ello algunas enfermedades," *ibid.*, cap. 56, p. 158.

² *Le Livre de l'Agriculture d' Ibn-al-Awam*, edited by J. Clément-Mullet, vol. II, p. 368.

Mande *banana*, Zema, Afema *bana*, etc. The small variety, known as "plantain," spread from India eastward to the Congo, hence northward, as the linguistic development shows. Sanskrit *kadali*, which is also found in several Dravidian languages, and as *kela*, *kala*, *kula* in modern Hindu languages, for the banana, occurs as *akondro* in Malagassy, whence comes Swahili *mkungu*, Bangi *lo-komo*, Lolo *ngunda*, Poto *ingunda*, Kongo *di-kondo*, pl. *man-kondo*, etc. From the Bantu languages it goes north, among the Negro languages, and we get Ewe *akaɖu*, Tchi *kwadu*, Ga *akwadu*, Yoruba *oggyedeh*, Dahome *kokwe*, Goua *mgogo*, Meki-*ibo*, Abure, Kyama *koko*. These latter languages are on the Guinea Coast, and many of these form their plural of names by prefixes.¹ The most common prefix seems to be some form of *ma*. We find, however, a large number of Guinea Coast languages displaying a *b* prefix, whether this has a plural value or not. We found this in *bosro* for the usual *asara* or *sara* "snuff." Thus we should expect a form *bakoko* for *koko* somewhere, but unfortunately the material is scant on the word "banana." Indeed, Kongo *makondo* would be expected somewhere in its neighborhood to produce the form *bakoko*.

One gets a good idea of how rapidly plants become acclimated from Oviedo's account of the cassia and banana. In the edition of 1535² he says that there were native cassia in these islands, but that the Spaniards had introduced, apparently from Africa or Asia, the cultivated kind, which had multiplied enormously, and every ship returning to Spain carried barrels full of cassia. The first tree in the island was in the monastery of San Francisco, in the city of De la Vega. In the edition of 1526 Oviedo tells of the egg plants

¹ F. W. H. Migeod, *The Languages of West Africa*, London 1911, vol. I, p. 180.

² Lib. VIII, cap. I.

that were brought from Spain, that they had become as natural to the soil as Guinea was to the Negroes.¹ Indeed, in the last edition Oviedo said that there was no use bringing egg plant seeds to America, because they were as natural to America as Guinea was to Negroes, and far better than those that grew in Spain.² In the edition of 1526 he also speaks of the banana as follows: "There are some plants which the Christians call *platanos*." Then follows their description, and then, "they are not native to these parts, but the first were brought from Spain, and they have multiplied to such an extent that it is a marvel to see their abundance in these islands, and on the mainland, wherever there are settlements of Christians."³ In the edition of 1535 he mentions the several varieties which developed out of the banana or plantain, for he seems to describe both, and of their origin he says, "They are not native to these parts, nor do they know their name. . . These were brought from the Great Canaries in the year 1516 by the Reverend Fray Thomas de Berlanga of the Order of Preachers to this city of San Domingo, and from here they have spread to the other settlements of this island and in all the other settlements of the Christians, and were taken to the mainland, and everywhere else, and they have done very well, and there is not a man in these parts, the owner of a ranch, who has not a great lot of

¹ "Calabaças y verenjenas de España ay muchas que se han hecho d' la simiente delas que se lleuaron de España pero las verenjenas acertaron en su tierra y es les tan natural como alos negros Guinea," cap. LXXX, fol. xliij a.

² "Verenjenas: destas no es menester traer mas simiente dellas, porque acá les es tan natural, é á su propóssito esta tierra, como á los negros la Guinea, porque acá se hacen muy mejor que en España, y un pié de verenjenu tura dos é tres é mas años, dando siempre verenjenas, é las unas estan pequeñas é las otras mayores é otras estan en flor. Yo he visto algunos piés de verenjenas muy mas altos que la comun estatura de un hombre. En fin se hacen mejor que en parte alguna de España," edition of 1851, vol. I, p. 373.

³ Fol. xliij a.

~~bananas~~
 banana - plantain - not native - carried
 from
 brought from the Canaries by the

them. I think in my ranch there are four thousand of them, and there are larger ranches than mine. . . As I said, the first were brought from the Great Canaries, and I saw them here in the Monastery of San Francisco in 1520." In less than twenty years they had become universal in America.

We turn to their name in the Indian languages, and shall take them in the order of their phonetic proximity to *platano*. We have Arawak *práttana*, *platena*, Piapoco *paratuna*, Galibi *paratanon*, *parantana*, Bara *parana*, Oyampi *palanu*, Manao, Baré, Araicú *banala*, Uirina *panala*, Culino *banara*, Passé, Cocamas, Pebas *pánara*, Coeruna *banāura*, Roucouyenne *paruru*, Carijona *balulu*, *paru*, Galibi *balulura*, *paru*, *paluru*, Cariniaca *palulu*, Piaroa *paruru*.¹ These languages of the northern part of South America show how Span. *platano* has led to the universal word *banana*. Galibi *baccuccu*, which refers to the small bananas, and which is found as Oyapock *backo*, Oyampi *bacome*, Tupi *pacoba*, Apiacas *pacowa*, Puri *bahoh*, Coroada *bacoeng*, is obviously due to African *ba-koko*, which, as we have already seen, refers to the plantain. In the other Indian languages there is a great variety of words for "banana," which are not derived from *platano*. According to that myopic philology which judges only from phonetic precedence, the universality of *banana* words in the Carib-Tupi languages would be a *prima facie* proof of the existence of the plant in America before the separation of the Caribs from the Tupis, which was probably many milleniums before the Christian era, whereas we know absolutely that the first bananas were intro-

¹ B. Tavera-Acosta (*En el Sur*, Ciudad-Bolívar 1907, p. 47) adds the following: Carúzana *parana*, Yabarana *padurru*, Maco *pálulu*, Puinabe *tootpalot*, Maquiritare *pádurru*, Uajibo *prátano*, Yabitero *jarátan*, Cuiba *balatuna*, Baria *pánara*, Sáliba *plátuna*, Mandauaca *parana*, Tamanaco *paruru*, Otomaco *paruru*, Ayamáu *pratan*, Macusi *baluru*, Uuaicura *banana*, Mirripú *tiparantan*, Campi *pariantí*, Chontaquiرو *parianta*, Conobo *paranta*, Antis *pariantí*, Cocaima *panara*.

duced into the New World in 1516, and that in 1535 the fruit was one of the most common ones of tropical and sub-tropical America.

It is interesting to read of the controversy between Humboldt and the botanists as to the antiquity of the banana in America. When Humboldt was worsted in his argument, he tried to prove the presence of the banana in America before its discovery from the fact that *Tamanaco paruru*, *Maypuri arata* were native words.¹ We have already seen that *paruru* is derived from *platana*, and *Maypuri arata* is unquestionably a corruption of *pratana*. De Candolle decided against Humboldt, and to do so he had to insist that Garcilasso, who said that the banana was cultivated in Peru before the conquest, was mistaken.

Thus it appears that the banana, imported into America in 1516, was very abundant in the islands and on the mainland in 1526, and universal in 1535. But articles of vice, such as tobacco, wine, etc., have the tendency to spread even more rapidly than articles of food. The havoc played by liquor among savages immediately after their contact with the white man is too well established to need any documentary proof. But such proof, fortunately, is abundant in the case of the consumption of tobacco by the Indians. We first turn to its use in Brazil.

Thevet, who passed the year 1555 in Brazil, was the first to give a description of the tobacco and its use. According to him the plant, called *petun* by the Indians, was rolled up and smoked just like a cigar, and this is borne out by the picture which he gave of Indians picking the leaves and smoking. The Indian men, sometimes also the women, draw in the smoke through the mouth and emit it through the nose,

¹ A. De Candolle, *Géographie botanique raisonnée*, Paris, Genève 1855, vol. II, p. 922.

“which attracts and distils the superfluous humors of the brain.” The Christians had acquired the habit, although at first it caused them uneasiness. The savages use the leaves of the plant in diseases, especially in case of wounds and ulcers.¹ Léry tried to pick

¹“Auant que se mettre en chemin, ils ont vne herbe fort singuliere, qu'ils appellēt *Petun*, laquelle est tres-vtille à plusieurs choses. Ils la cueillent avec soing, et la mettēt seicher dans leurs logettes: et en vsent en ceste sorte. Elle estant seiche, ils en enuolopent quelque quantité dans vne feuille de Palmier, fort grande, en faisans vn rouleau de la longueur d'vne chandelle: puis mettans le feu par vn bout, en hument la fumee par la bouche, et la rendent par le nez, à cause qu'elle attire et fait distiller les humeurs superflus du cerueau: et mesmement fait passer la soif et faim pour quelque temps, qui est cause qu'ils en vsent ordinairement: mesmes en parlant avec vous, ils en tirent la fumee, et puis parlent et recommencent ainsi plus de deux cens fois, tenans telle contenance: et leur est de grand seruice mesmes allans à la guerre, pour obuier aux vapeurs et autres incōmoditez qui pourroient se presenter par les chemins, les femmes en vsent aussi, mais peu souuent. Or si l'on prend de ceste fumee plus que de raison, elle enteste et enyure, ne plus ne moins que font les fumees de quelque fort vin, à celui qui le tire longuement. Les Chrestiens qui sont pardela, en sont friands, iaçoit qu'au commencement l'vsage n'en est point sans danger, pource qu'auant qu'on y soit accoustumé, elle cause grandes sueurs et foiblesses, iusques à vous faire tomber an syncope, ainsi que j'ay experimenté en moymesme. Le me puis vanter auoir esté le premier en France, qui a apporté la graine de ceste plante, et pareillement semee, et nōmé ladite plante, l'herbe *Angoumoisine*. Depuis vn quidam, qui ne fait iamais le voyage, quelque dix ans apres que ie fus de retour de ce pais, luy donna son nom. Ce sont folies de me vouloir faire accroire, que les Sauvages en leurs maladies se seruent des feuilles de ceste plante (comme quelques vns ont descrit): et principalement ceux qui ont playes et ulceres: Car le n'a autre vertu ou efficace, sinon ce que ie vous ay dit. Dauantage, ie suis esbahy d'autres qui recitent auoir deux sortes de *Petun*, sçauoir masle et femelle, comme paraurenture se pourroient trouuer autres Simples, mesme quelques arbres fruitiers, comme sont les Palmiers, où ie ne doute qu'il n'y ait masle, et femelle. Mais quāt au *Petun*, c'est vne chose mal entendu à eux. Et ne fault mettre icy en admiratiō, que l'vne plante soit plus haulte, ne les feuilles plus larges les vnes que les autres: comme si la graine des Choulx et Porec, semee en vn mesme iardin, et Horties qui viennent sans semer, ne croissoiēt les unes plus grosses que les autres. Outre plus, ils ont mis en auant, que de mon herbe Angoumoisine, par distillation d'Alēbic, l'on en peult tirer de l'eau (ce que ie ne veux nier) aussi bien que de toutes autres herbes du monde: mais d'en tirer de l'huile, c'est se moquer. Et ne sçache Empiriques, Alchemistes, tireurs de quinte escence, ou Antimoniés, qui me le peussent faire accroire. Et un certain Italien qui a si curieusement escrit de la proprieté de ceste herbe, raconte la plus lourde bourde de tout le monde, et monstre bien qu'il ne voyagea iamais, assurens le Lecteur que ladite herbe de *Petun* seiche, soustient (au pays de la Floride, dont elle a esté apportee) ces pauures Barbares quatre jours sans manger, en receuant la vapeur d'icelle par le nez, estant sur un rechault. J'ay honte de lire tels discours, veu qu'il n'y eut iamais hōme soubz le ciel, qui ait veu vne seule



Indians Smoking Tobacco. From Thevet's *Cosmographie*.

a quarrel with Thevet on the real value of *petun*, but he substantially gave the same account of it, except that he had not seen any women smoking it.¹ Stade

plante de *Petun* à 'la Floride, ny mille lieuës à la ronde. Somme, les Sauvages, avec lesquels i'ay long temps conuersé, n'vsent ne appliquent ceste herbe *Petunienne*, a autre chose, que pour les effets cy dessus declarez, et de laquelle vous voyez cy dessus le pourtrait au naturel," A. Thevet, *La Cosmographie Universelle*, Paris 1575, liu. XXI, vol. II, fol. 926 f. "Autre singularité d'une herbe, qu'ils nomment en leur langue *Petun*, laquelle ils portent ordinairement avec eux, pour ce qu'ils l'estiment merueilleusement profitable à plusieurs choses. Elle ressemble à notre buglosse. Or ils cueillent sogneusement ceste herbe et la font seicher à l'ombre dans leurs petites cabannes. La maniere d'en user est telle. Ils enueloppent, estant seiche, quelque quantité de ceste herbe en une feuille de palmier, qui est fort grande, et la rollent comme de la longueur d'une chandelle, puis mettent le feu par un bout, et en reçoivent la fumée par le nez, et par la bouche. Elle est fort salubre, disent ils, pour faire distiller et consumer les humeurs superflues du cerueau. Dautantage prise en ceste façõ fait passer la faim et la soif pour quelque temps. Parquoy ils en usent ordinairement, mesmes quand ils tiennent quelque propos entre eux, ils tirent ceste fumée, et puis parlent: ce qu'ils font costumièrement et successivement l'un apres l'autre en guerre, ou elle se trouue trescõmode. Les femmes n'en usent aucunement. Vray est, que si l'on prend trop de ceste fumée ou parfun, elle enteste et enyure, comme le fumet d'un fort vin. Les Chrestiens estans auourd'huy par delà sont deuenus merueilleusement frians de ceste herbe et parfun: combien qu'au commencement l'usage n'est sans danger auant que l'on y soit accoustumé: car ceste fumée cause sueurs et foiblesses, iusques à tomber en quelque syncope: ce que i'ay expérimenté en moymesme. Et n'est tant estrãge qu'il semble, car il se trouue assés d'autres fruits qui offensent le cerueau, combien qu'ils soyent delicats et bons à manger," A. Thevet, *Les singularitez de la France Antarctique*, ed. by P. Gaffarel, Paris 1878, p. 157 ff.

¹ "Pour l'esgard des simples, que ceste terre du Bresil produit, il y en a un entre les autres que nos *Toïoupinambaouults*, nomment *Petun*, lequel croist de la façon et un peu plus haut que nostre grande ozeille, a les feuilles assez semblables, mais encore plus approchantes de celles de consolida maior. Ceste herbe, à cause de la singuliere vertu que vous entendrez qu'elle a, est en grande estime entre les sauvages: et voici comme ils en usent. Apres qu'ils l'ont cueillie, et par petites poignées pendue et fait secher en leurs maisons, en prenant quatre ou cinq feuilles, lesquelles ils enveloppent dans une autre grande feuille d'arbre, en façon de cornet d'espice: mettans lors le feu par le petit bout, et le mettant ainsi un peu allumé dans leurs bouches, ils en tirent en ceste façon la fumee, laquelle, combien qu'elle leur ressorte par leurs narines et leurs levres trouees, ne laisse pas neantmoins de tellement les sustanter, que principalement s'ils vont à la guerre, et que la nécessité les presse, ils seront trois ou quatre iours sans se nourrir d'autre chose. Vray est qu'ils en usent encor pour un autre esgard: car parceque cela leur fait distiller les humeurs superflues du cerueau, vous ne verriez gueres nos Bresiliens sans avoir, non seulement chacun un cornet de ceste herbe pendu au col, mais aussi à toutes les minutes: et parlant à vous, cela leur servant de contenance, ils en hument la fumee, laquelle, comme i'ay dit (eux reserrans soudain la bouche) leur ressort par le nez et par les levres

mentions, in 1559, *bittin*, with which the soothsayers fumigated their *tamaraka*, that is, rattle.¹ Soares, in 1587, describes the smoking of tobacco, which the Indians call *petume*, in an identical manner.²

It is here, in Brazil, that we get consistently the correct story of the plant, which is used as a styptic in wounds and, like an errhine, to purge the head, that is, we get precisely the description of the Arab. طباق

tubbāq. But Stade brings it in connection with the wizard's rattle, the *tamaraka*, and this is already mentioned in Pigafetta as *itanmaraca* "bell,"³ from *ita* "stone" and *maraca* "rattle;" but this, in its turn, is nothing but Port. *matraca* "rattle." If the very wizard rattle is of Portuguese origin, how much more must *petume* be of Portuguese origin! This word is

fendues comme d'un encensoir: et n'en est pas la senteur mal plaisante. Cependant ie n'en ay point veu user aux femmes, et ne scay la raison pourquoy: mais bien diray-ie qu'ayant moy-mesme experimenté ceste fumee de *Petun*, i'ay senti qu'elle rassasie et garde bien d'avoir faim. Au reste, combien qu'on appelle maintenant par deçà la *Nicotiane*, ou herbe à la royne *Petun*, tant s'en faut toutesfois que ce soit de celuy dont ie parle, qu'au contraire, outre que ces deux plantes n'ont rien de commun, ny en forme ny en propriété, et qu'aussi l'auteur de la *Maison Rustique*, liv. 2, chap. 79, afferme que la *Nicotiane* (laquelle dit-il retient ce nom de monsieur Nicot, qui premier l'envoya de Portugal en France) a esté apportée de la Floride, distante de plus de mil lieues de nostre terre du Bresil (car toute la zone Torride est entre deux) encore y a-il que quelque recherche que i'aye faite en plusieurs iardins, où l'on se vantoit d'avoir du *Petun*, isuques à present, ie n'en ay point veu en nostre France. Et à fin que celui qui nous a de nouveau fait feste de son *angoumoise*, qu'il dit estre vray *Petun*, ne pense pas que i'y ignore ce qu'il en a escrit: si le naturel du simple dont il fait mention ressemble au pourtrait qu'il en fait faire en sa *Cosmographie*, i'en di autant que de la *Nicotiane*; tellement qu'en ce cas ie ne lui concede pas ce qu'il pretend: assavoir qu'il ait esté le premier qui a apporté de la graine de *Petun* en France: ou aussi à cause du froit, i'estime que malaisement ce simple pourroit croistre," J. de Léry, *Histoire d'un voyage fait en la Terre du Brésil*, ed. by P. Gaffarel, Paris 1880, vol. II, p. 23 ff.

¹ "Wann sie dann alle bey einander sein, so nimpt er dann ein iedern sein *Tamaraka* sonderlich und bereuchert es mit kraude, welchs sie *Bittin* nennen," K. Klüpfel, *N. Federmanns und H. Stades Reisen in Südamerika, 1529 bis 1555*, Stuttgart 1859, p. 183.

² *Op. cit.*, cap. 164.

³ Robertson, *op. cit.*, vol. I, p. 44.

universal in the Tupi languages. Adam¹ gives Guarani *petym*, Abañeême *pety*, Barbosa *petéma*, Brazilian *pytyma*, Chaffanjon *pitima*, Emerillon *petime*, Oyampi *petún*, and yet it will be shown that these are mere corruptions of a Portuguese word.

We have already seen that the Arabic word which leads to *tobacco*, derives its origin from its glutinous quality. The corresponding Low Latin word for a substance of glutinous quality is *bitumen*. We have the glosses² "*betumen guttae, alii piculam, alii resinam dicunt, lutum.*" The eighth century Anglo-Saxon glosses³ have "*bitumen liim,*" while the OHGerman glosses⁴ read "*lim gluten, viscus bitumen,*" so that there is not the slightest doubt that *bitumen* was used for any sticky mass. Hence we have OFrench *betun* "mud," OSpan. *betun* "wax, pitch," Port. *betume* "any pasty substance." At the end of the fifteenth century the Arabic influence in medicine was not yet extinct

in Portugal and Spain, and if the Arab. طباق *tubbāq*

passed into their languages in all its different significances connected with that aromatic plant, then *betume* must have acquired the same various meanings. It is this word which was taken by the Portuguese, with the tobacco plant, to Brazil, at the same time that Portuguese *matraca* entered into Tupi. The latter fact happened before 1519, possibly through that very pilot who accompanied Pigafetta on his Voyage around the World. Hence *tobacco* was known there before 1519.

In 1534 Jacques Cartier made his first voyage to Canada. In the description of this voyage⁵ he has

¹ *Matériaux pour servir à l'établissement d'une grammaire comparée des dialectes de la famille Tupi*, Paris 1896, p. 127.

² Goetz, *Corpus glossariorum latinorum*.

³ Hessels, *An Eighth-Century Latin-Anglo-Saxon Glossary*, Cambridge 1890.

⁴ Graff, *Althochdeutscher Sprachschatz*.

⁵ H. Michelant, *Voyage de Jaques Cartier au Canada en 1534*, Paris 1865.

not a word to say about the use of tobacco among the Canadian Indians, but in the account of his second voyage, made in 1535 and 1536, and published in 1545, he says: "They have also an herb which they gather in the summer for the winter and which they esteem greatly and which only men use in the following fashion. They dry it in the sun, and wear it about their necks in a small leather pouch, with a stone or wooden pipe; then, at any hour they crush said herb to powder, and put it into one end of the pipe, then place a piece of charcoal on it and suck through the other end, and when the body fills with smoke it passes through the mouth and the nostrils as through a stove pipe, and they say that this keeps them well and warm, and they never go without said things. We have tried said smoke, and, after we put it into our mouth, it felt as though we had put powdered pepper upon it, so hot was it."¹

There would seem to be no escape from the fact that tobacco was in common use in Canada before 1535. As the "*Nicotiana tabacum*" is not native there, it must have been brought from a distance, but there are so many inaccuracies in Cartier's book that nothing positive can be said of his account of tobacco. According to him, tobacco is smoked only in the winter to keep the Indians warm. At the

¹ "Ilz ont aussi une herbe de quoy ilz font grand amastz l'esté durand pour l'yuer. Laquelle ilz estiment fort et en vsent les hommes seulement en facon que ensuit. Ilz la font seicher au soleil, et la portēt à leur col en vne petite peau de beste eu lieu de sac, avec vng cornet de pierre ou de boys: puis à toute heure font pouldre de ladicte herbe, et la mettēt en l'ung des boutz dudict cornet, puis mettent vng charbon de feu dessus, et sussent par l'autre bout, tant qu'ilz s'emplēt le corps de fumée, tellement qu'elle leur sort par la bouche, et par les nazilles, cōe par vng tuyau de cheminée: et disent que cela les tient sains et chauldement, et ne vont iamais sans auoir sesdictes choses. Nous auons esprouuē ladicte fumée, apres laquelle auoir mis dedās nostre bouche, semble y auoir mis de la pouldre de poyure tāt est chaulde," M. D'Avezac, *Bref récit et succincte narration de la navigation faite en MDXXXV et MDXXXVI par le Capitaine Jacques Cartier*, Paris 1863, fol. 31 a.

same time he mentions figs,¹ cloves, and cinnamon,² oranges, almonds, and apples,³ as known to the Indians and possessing Indian names. If they knew these European and Asiatic plants, there is no wonder that they also knew tobacco, especially since Canada had been visited by French voyagers before.⁴ But there is one circumstance which casts a doubt on the whole story. Of the Indians he says that the people live in the community of possessions very much as do the Brazilians,⁵ and of the maize which they raise he says that it is the same as the maize that grows in Brazil.⁶ As there exists no printed account of Brazil of as early a date as 1545, when Cartier's book was published, the reference, if taken from books, can only be to Pigafetta or Vespucci, but from neither could he have gotten the name "Brazil" or the fact that the maize of Canada was identical with that of Brazil. Obviously, Cartier, like so many Frenchmen before him, had been to Brazil, and it is impossible to tell whether Cartier is describing the Brazilian or the Canadian custom of smoking.

In 1545 smoking had become fairly universal in America, and Benzoni, who visited Central America from 1541 to 1556, wrote as follows: "In this island, as also in other provinces of these new countries, there are some bushes, not very large, like reeds, that produce a leaf in shape like that of the walnut, though rather larger, which (where it is used) is held in great esteem by the natives, and very much prized by the slaves whom the Spaniards have brought from Ethiopia. When these leaves are in season, they pick them, tie them up in bundles, and suspend them near

¹ *Ibid.*, fol. 47 b.

² *Ibid.*, fol. 48 b.

³ *Ibid.*, fol. 34 b.

⁴ *Ibid.*, in the Introduction, especially fol. VII ff.

⁵ *Ibid.*, fol. 30 b.

⁶ *Ibid.*, fol. 31 a.

their fire-place till they are very dry; and when they wish to use them, they take a leaf of their grain (maize) and putting one of the others into it, they roll them round tight together; then they set fire to one end, and putting the other end into the mouth, they draw their breath up through it, wherefore the smoke goes into the mouth, the throat, the head, and they retain it as long as they can, for they find a pleasure in it, and so much do they fill themselves with this cruel smoke, that they lose their reason. And there are some who take so much of it that they fall down as if they were dead, and remain the greater part of the day or night stupified. Some men are found who are content with imbibing only enough of this smoke to make them giddy, and no more. See what a pestiferous and wicked poison from the devil this must be. It has happened to me several times that, going through the provinces of Guatemala and Nicaragua, I have entered the house of an Indian who had taken this herb, which in the Mexican language is called *tabacco*, and immediately perceiving the sharp fetid smell of this truly diabolical and stinking smoke, I was obliged to go away in haste, and seek some other place. In La Española and the other islands, when their doctors wanted to cure a sick man, they went to the place where they were to administer the smoke, and when he was thoroughly intoxicated by it, the cure was mostly effected. On returning to his senses he told a thousand stories, of his having been at the council of the gods and other high visions."¹ It is

¹ W. H. Smyth, *History of the New World, by Girolamo Benzoni (The Hakluyt Society)*, London 1857, p. 80 ff., from the Italian version: "In questa Isola, come in alcune altre Prouincie di questi nuoui paesi, vi sono certi arboscelli, non troppo grandi, à modo di canne, che producono vna foglia di forma, come quella della noce, però più tosto maggiore, della quale da' paesani (doue si costuma) è tenuta in grandissima stima, e da gli schiaui pregiata assai, i quali danno condotti gli Spagnuoli d'Etiopia. Essendo adunque queste foglie di stagione, le colgono, et legate in mazzi, doue fanno fuoco le sospendono, sin' à tanto che siano ben secche, e quando le vogliono

clear, however, that in this description, in which the words *tabaco* and *bocchiti* are used, Benzoni repeats the information from Oyiedo and other earlier writers, and repeats the statement that the Negroes were very much addicted to the use of the tobacco.

In 1539 Ferdinand de Soto knew nothing of smoking among the Indians of North America.¹ Nor does Laudonière, in 1564, nor John Ribault, in 1565, nor De Gourgues, in 1567, know anything about smoking in Florida.² But Sir John Hawkins went in 1564 to Florida, and in a region where the French had settled the Indians were using tobacco: "The Floridians when they travell, have a kinde of herbe dried, who with a cane and an earthen cup in the end, with fire, and the dried herbs put together, doe sucke thorow the cane the smoke thereof, which smoke satisfieth

usare pigliano vna foglia di spiga del lor grano, e mettendoui dentro vna di quelle altre, le auolgono come vn cannone insieme, poi da vn lato v'appiccano fuoco, e tenendo l'altra parte in bocca tirano il fiato à loro, onde quel fumo vâ in bocca, in gola, e nella testa, e quanto posson tollerare, lo sopportano hauendone piacere, e tanto s'empiono di questo fumo crudele, che vanno fuori del sentimento: e vi sono di queglii, che tanto forzatamente lo pigliano, che cadono in terra, come se fossero morti, e quiui stanno la maggior parte del giorno storditi, ò della notte. Se ne trouano di queglii, che si contentano bere di questo fumo, tanto che la testa vadi attorno, e non più. Vedete che pestifero, e maluagio veleno del diauolo è questo. A me è accaduto spesse volte andando per la prouincia di Guattimalla, e Nicaraqua, entrare in casa di qualche Indiano, che presa haueua quest'erba, che in lingua Meticana è chiamata *tabacco*, e subito sentito il fetore acuto di questo veramente diabolico, e puzzolente fumo, era forzato à partirmi con gran prestezza, ed andare in altro loco. Nell' Isola Spagnuola, ed in tutte l'altre, quando i lor medici voleuano curare qualche infermo, andauano nel luogo dou' egli staua à darli il fumo, e quando era bene imbriciato era fatta la maggior cura; poi ritornando in se diceua mille materie, di essere stato al concilio de gli Dei, passando visioni alte," *La historia del Mondo Nuovo*, Venetia 1572, lib. I, fol. 54 ff.

¹ "Ferdinand de Soto, in 1539, entered Florida on the west coast, and, crossing the Alabama, Tombigbee, and Black Warrior rivers, reached the Mississippi north of the Arkansas, though he does not appear to refer to the smoking habit. The inference drawn is negative, it is true, but had the natives smoked to the extent which they did a hundred years later all over the continent it can hardly be supposed that there would not have been reference to it," J. D. McGuire, *Pipes and Smoking Customs of the American Aborigines*, in *Annual Report of the Board of Regents of the Smithsonian Institution*, for 1897, p. 411.

² *Ibid.*, p. 412.

their hunger, and therewith they live foure or five dayes without meat or drinke, and this all the Frenchmen used for this purpose: yet do they holde opinion withall, that it causeth water and fleame to void from their stomacks."¹ It is impossible to assert that the Frenchmen learned the habit of smoking from the Floridians, since Europeans in America were addicted to this habit at least thirty years earlier.

It is not at all surprising that the Mande *taba, tama, tawa* "tobacco," which is found in Africa over an enormous territory,² should be equally widespread in America. Von den Steinen³ quotes Bakairi *tawe, tawi*, Cumanagote *tamo*, Chayma *caguay*, Palmella *tama*, Galibi, Akawai *tamoui*, Carijona *taumouinto*, Macusi, Arecuna, Tamanaco *kauwai, kawai*, Paravilhana *kauwai* "tobacco," Chayma *tamo* "cigar," Pimenteira *tamitze* "pipe." But we find the same root in the languages of North America. In the Algonquian languages it is found as Micmac *tamawa, tomahoue*, "tobacco," *tomakan* "pipe," Abnaki *udaman* "tobacco," *udame* "he smokes," Natick *wuttamāuog* "tobacco," *wuttamagon* "pipe," Chippeway *assēma* "tobacco, snuff." But the word is not merely common to the Algonquian languages. The root *tam, sem* is found in Choctaw *hakchuma, hakchumak* "tobacco," in which *hak* is the article, attached to a large number of nouns. What is more remarkable: it is early found on the Pacific Coast of the United States. In 1540 Fernando Alarcon, who visited the Pacific Coast, found there Indians who "carry certaine little long bagges about

¹ R. Hakluyt, *The Principal Navigations, Voyages, Traffiques and Discoveries of the English Nation*, Glasgow, New York 1904, vol. X, p. 57.

² "Die Monbuttu, welche gleichfalls nur den virginischen Taback cultiviren und den Bauerntaback ebenso wenig zu kennen scheinen als die Niamniam, nennen ihn *E-Tobu*. Bei den übrigen Völkern dieses Theils von Centralafrika drehen sich alle Namen um die Wurzelsilbe *tab, tabba, tabdiht, tom*," Schweinfurth, *op. cit.*, vol. I, p. 278 f.

³ *Die Bakairi-Sprache*.

an hand broade tyed to their left arme, which serve them also in stead of brasers for their bowes, full of the powder of a certaine herbe, whereof they make a certaine beverage.”¹ It is not certain that Alarchon here described the tobacco, but Sir Francis Drake, in 1579, says that in latitude 38° the same Indians “brought with them feathers and bags of *tabacco* for presents.”² F. Fletcher, who described the same voyage, and whose book was published in 1628,³ gives a much fuller account, and mentions *tobacco* on three different occasions. In latitude 48° an Indian came who “brought a little basket made of rushes, and filled with an herbe which they called *tabáh*.”⁴ A few days later some Indians “came now the second time unto us, bringing with them, as before had been done, feathers and bagges of *tobáh* for presents, or rather indeed for sacrifices, upon this perswasion that we were gods.”⁵ Again a few days later there came Indians who brought “a bagge of the herbe *tabáh*.”⁶ That *tabaco*, first mentioned in Hispaniola, should have found its way so far to the northwest, in addition to the rest of the continent, is a *prima facie* proof that the distribution of *tobacco* follows from its first appearance under Arabic influence, from Guinea to all countries where Spanish, Portuguese, and French sailors navigated via Guinea or after having taken part in Guinea expeditions.

Hariot, in 1587, described the tobacco plant as it grew in Virginia, where the Indians called it *uppówoc*: “There is an herbe which is sowed a part by it selfe

¹ R. Hakluyt, *The Principal Navigations, etc.*, Glasgow, New York 1904, vol. IX, p. 285.

² *Ibid.*, vol. XI, p. 119.

³ *The World Encompassed by Sir Francis Drake (The Hakluyt Society)*, London 1854.

⁴ *Ibid.*, p. 119.

⁵ *Ibid.*, p. 122.

⁶ *Ibid.*, pp. 125 and 126.

and is called by the inhabitants *uppóvoc*: In the West Indies it hath diuers names, according to the seuerall places and countries where it groweth and is vsed: The Spaniardes generally call it *Tobacco*. The leaues thereof being dried and brought into powder: they vse to take the fume or smoke thereof by sucking it through pipes made of claie into their stomacke and heade; from whence it purgeth superfluous fleame and other grosse humors, openeth all the pores and passages of the body: by which meanes the vse thereof, not only preserueth the body from obstructions; but also if any be, so that they haue not bene of too long continuance, in short time breaketh them: whereby their bodies are notably preserued in health, and know not many greeuous diseases wherewithall wee in England are oftentimes afflicted. This *Vppóvoc* is of so precious estimation amongst thē, that they thinke their gods are maruelously delighted therwith: Wherupon sometime they make hallowed fires and cast some of the pouder therein for a sacrifice: being in a storme vppon the waters, to pacifie their gods, they cast some vp into the aire and into the water: so a weare for fish being newly set vp, they cast some therein and into the aire: also after an escape of danger, they cast some into the aire likewise: but all done with strange gestures, stamping, sometime dauncing, clapping of hands, holding vp of hands, and staring vp into the heauē, vttering therewithal and chattering strange words and noises. We our selues during the time we were there vsed to suck it after their maner, as also since our returne, and haue found manie rare and wonderful experiments of the vertues thereof; of which the relation woulde require a volume by it selfe: the vse of it by so manie of late, men and women of great calling as else, and some learned Phisitions

also, is sufficient witness.”¹ Strachey calls the tobacco by the Indian name *apooke*: “There is here great store of tobacco, which the salvages call *apooke*; howbeit yt is not of the best kynd, yt is but poore and weake, and of a byting tast, yt growes not fully a yard above ground, bearing a little yellowe flower, like to hennebane, the leaves are short and thick, somewhat round at the upper end; whereas the best tobacco of Trynidado and the Oronoque is large, sharpe, and growing two or three yardes from the ground, bearing a flower of the bredth of our bell-flowers in England: the salvages here dry the leaves of this *apooke* over the fier, and sometymes in the sun, and crumble yt into poulder, stalks, leaves, and all, taking the same in pipes of earth, which very ingeniously they can make. We observe that those Indians which have one, two, or more women, take much, but such as yet have no appropriate woman take little or none at all.”² One need only look at the juxtaposition of *tobacco*—*apooke* to convince oneself that the second is an apocopation of the first, the *t*- appearing as a pronominal suffix. While in the *Dictionarie of the Indian Language* attached to this work we have, “tobacco *vhpooc*, tobacco pipe *vhpoocan*,” in which various attempts are made to represent the *b*, which is lacking in many Indian languages and is absent from the *Dictionarie*, while a “tobacco bag” is *uttamancoih*, where the *tam*- of the other languages is actually preserved. Now it is remarkable that the word for “pipe” is found all along the coast and away into Canada independently from linguistic affiliations. We have, from *vhpoocan* in Virginia, Delaware *hopoacan* “pipe,” hence *hupal* “smoke,” *ju hopottam*

¹ *A Briefe and True Report of the New Found Land of Virginia*, London 1900, p. 30 ff.

² R. H. Major, *The Historie of Travaile into Virginia Britannia (The Hakluyt Society)*, London 1849, p. 121 f.

"let us smoke," Natick *hopuonck*, *uhpuonck*, Chipeway *opwāgan*, Montagnais *shpuagan*, Cree *ospwāgan* "pipe, calumet."

It is also interesting to observe that in Canada the word for "to smoke" is derived from the French *petuner*, which itself is from the Brazilian term. We have Montagnais *pituan*, Cree *pittwāw* "he smokes." But *petun* for "tobacco" was invariably used by the French in Canada, since it was generally imported from Brazil, both for the Frenchmen and the Indians of Canada.¹ Early in the seventeenth century ships brought to Canada "all the merchandise which these Gentlemen use in trading with the Savages; that is to say, the cloaks, blankets, nightcaps, hats, shirts, sheets, hatchets, iron arrowheads, bodkins, swords, picks to break the ice in Winter, knives, kettles, prunes, raisins, Indian corn, peas, crackers or sea biscuits, and tobacco; and what is necessary for the sustenance of the French in this country besides."² The mention of prunes, raisins, and pease as articles of importation makes it clear that the mention by Jacques Cartier of Canada words for prunes, raisins, oranges, almonds, apples, figs, cinnamon and cloves³ indicates an intercourse between the Indians and

¹ "Et noz François qui les ont hanté sont pour la pluspart tellement affollez de cette yvrongnerie de *petun* qu'ils ne s'en scauroient passer non plus que du boire et du manger, et à cela dependent de bon argent, car le bon *Petun* qui vient du Bresil coute quelquefois vn écu la livre," E. Tross, *Histoire de la Nouvelle-France par Marc Lescarbot*, Paris 1866, vol. III, p. 811.

² "Ces deux nauires apportent toutes les marchandises que ces Messieurs traientent avec les Sauvages, c'est à scauoir des capaux, des couuertures, bonnets de nuit, chapeaux, chemises, draps, haches, fers de fleches, aleines, espees, des tranches pour rompre la glace en Hyuer, des coutteaux, des chaudières, pruneaux, raisins, du bled d'Inde, des pois, du biscuit, ou de la galette, et du *petun*; et outre ce qui est necessaire pour le viure des François, qui demeurēt en ce pais là, en eschange ils emportent des peaux d'ornignac, de loup ceruier, de regnard, de loutre, et quelquefois il s'en rencontre de noires, de matre, de blaireau, et de rat musqué; mais principalement de Castor, qui est le plus grand de leur gain," R. G. Thwaites, *The Jesuit Relations and Allied Documents: Travels and Explorations of the Jesuit Missionaries in New France, 1610-1791*, Cleveland 1897, vol. IV, p. 206 f.

³ D'Avezac, *op. cit.*, fols. 34 and 47.

Europeans previous to 1534, which, indeed, is well established.¹ Therefore the use of Brazilian tobacco, which led to the cultivation of *Nicotiana rustica* in Canada, must also be older than the date of Cartier's visit, and the *petun* words in the north may be exceedingly old. The Tionontates, a tribe related to the Hurons, were called "Nation du *Petun*," presumably because they raised tobacco for barter,² though Champlain only speaks of their raising maize.³ None of the Huron tribes have any word for "tobacco," but simply use the word for "smoke" for it, such as Huron *ayentaque*, *testena*, *tisdenda* "tobacco," *ayettaya* "I smoke," all from a root *yen*, just as Onondaga *ojenqua* "tobacco," Iroquois *kienkwaks* "to chew tobacco," *kaienkwiio* "good tobacco," *kaienkwaro-wanen* "great smoke" proceed from *oienkwa* "tobacco," *oienkwaro* "smoke," apparently from the same root *yen* "smoke." This total absence among the Hurons, who were the first to cultivate tobacco, for a word for the plant is sufficient evidence that it did not become known to them until its introduction for smoking. It is hard to tell where the Tionontates got their tobacco originally, but Sagard⁴ tells in his book, originally published in 1632, that the Epicerins, who wintered in the country of the Hurons, often told him of a certain nation where they went every year, not farther than a moon and a half by land and water, whither there came to barter by sea in wooden boats a certain people, carrying all kinds of merchandise, such as hatchets, made like partridge tails, socks

¹ P. Gaffarel, *Les découvreurs français du XIV^e au XVI^e siècle*, Paris 1888, p. 117 ff., and H. P. Biggar, *The Precursors of Jacques Cartier*, Ottawa 1911.

² *The Jesuit Relations and Allied Documents*, vol. I, p. 22.

³ *Oeuvres de Champlain*, edited by C.-H. Laverdière, Québec 1870, pp. 545, 930.

⁴ G. Sagard-Théodat, *Le Grand Voyage du Pays de Hurons*, Paris 1865, vol. I, p. 75.

with the shoes attached, which were as supple as gloves and many other things which they exchanged for pelts. Sagard thought that the people must have come from the West, but it is just as likely that some country on the Gulf of Mexico is meant. In any case, we have a relation of the Hurons with Europeans directly or indirectly, which must have begun very early.

It will be observed that the people who told Sagard about this are called *Epicerins*, apparently from the French *épicerie* "spices," that is, "the people who bring the spices." This throws an entirely new light on Jacques Cartier's list of words, in which Indian names for tropical fruits are given, especially since we have the specific statement by Cartier that the Indians told him that a month's journey away there was the country where these fruits could be obtained. Thus we get the important conclusion that the Hurons were before the middle of the sixteenth century in some relation, apparently commercial, with Europeans on the Gulf of Mexico, where alone they could obtain oranges, cinnamon and cloves. We can easily understand, therefore, why the words for "tobacco" and "pipe" should have traveled up to Canada from Florida and Virginia, while the word for "smoke," from French *petun*, was sporadically given the Indians by the early French traders.

In Mexico we find in 1547 *yetl* "incense."¹ Molina, in his *Vocabulario* of 1571,² does not record the word, but only gives *piciell* "an herb like henbane, which is medicinal." In less than twenty-five years the meaning has passed from "incense" to "herb," through a compounding with *pic*, given as derived from *piciliui* "to make small," although *yetl* is not at all recorded.

¹ A. de Olmos, *Grammaire de la langue nahuatl ou mexicaine*, published by R. Siméon, Paris 1875, p. 22.

² A. de Molina, *Vocabulario en lengua castellana y mexicana*, Mexico 1571.

This *yetl* is ostensibly derived from a root *iya* "to smell (badly), stink," which produces *iyaya* "to smell badly," *iyelli* "the breaking of wind," *au-iyaya*, *au-iyaya* "to exhale a perfume," *iyaua* "to burn incense, to offer as a sacrifice." This root *iya* is unquestionably a development of the root *ihio*, found in *ihiotl* "breath, respiration, evaporation," hence *ihio* "spiritual, that which breathes." However this may be, *yetl* refers to "perfume, incense" in general, in which sense it is given by Olmos, and we know from Fray Toribio, who wrote after 1541, that the Mexicans used copal¹ for incense, while the people equally enjoyed liquid amber.² Lopez de Gomara wrote:³ "They perfume the idols with herbs, flowers, powders and resin, but the best and most common smoke is the one they call *copalli*, which is like incense and is of two kinds, one is wrinkled, which they call *xolochcopalli*; in Mexico it is soft, in the cold country it is very likely hard; it likes to grow in hot countries and to deteriorate in cold countries. The other is the gum of *copalquahuitl*, which is so good that many Spaniards esteem it like myrrh. They wound the tree and even without wounding it distils drop by drop a white liquid which soon coagulates, and from this they make something that resembles cakes of transparent soap. This is their perfect odor in sacrifices and an esteemed offering to the gods." Gomara, no more than Toribio, has one word to say about tobacco in any form whatsoever.

The amazing rapidity with which the Mexicans adopted European methods of manufacture and European customs has been the subject of a great deal of comment among Spanish writers. Ten years after the

¹ "Allí le ofrecían muchas veces *copalli* que es el incienso de esta tierra," *op. cit.*, p. 86; "otros ofrecen *copalli*, que es incienso de esta tierra," *ibid.*, p. 97; also p. 129.

² *Ibid.*, p. 158.

³ *Historia de Mexico*, Anvers 1554, fol. 324.

conquest of Mexico Bishop Zumarraga wrote: "This country is very thickly settled, and the inhabitants are very clever: they imitate at once everything which is brought to them from Spain, without having ever learned how to manufacture it."¹ In 1536 Indian children were instructed in Latin and in the sciences, and sixty of these entered college.² But the most interesting account of the marvelous progress made by the Mexicans is given by Fray Toribio. They learned to read and write Spanish and Latin, to sing plain chants, to paint in colors in the European fashion, as well as Flemish painters, to cast bells, to tan hides, to build houses with the plumb and line, to weave cloth of the finest kind, in fact, to do any work performed by Spanish artisans.³

In 1576 Sahagun told of all kinds of Indian artisans, among them of those who sold tobacco pipes: "He who sells tobacco pipes at first cuts the reeds, cleans them of their leaves and polishes them carefully. Then he carefully pulverizes some coal, which he dampens in order to bore with it through the reeds. Some he adorns with paintings, others he gilds, or he makes them without any embellishment, all united, very long, blackened with coal or whitened with chalk which is put upon them, when they are not glistening with gold with which they are covered. Some of these tubes have hidden paintings which appear only as the fire develops them. Some are marbled, others have paintings representing flowers, fishes, eagles, etc. The common ones and the most poorly made are manufactured in order to be sold in the market. They easily lose the carbon with which they are covered. There is a great variety of pipes, which are made with

¹ H. Ternaux-Compans, *Voyages, relations et mémoires originaux*, vol. XVI, *Second recueil de pièces sur le Mexique*, Paris 1840, p. 72, and again, p. 77.

² *Ibid.*, p. 265 f.

³ *Op. cit.*, part I, caps. 59 and 60.

all kinds of pulverized aromatic herbs which are mixed together and are used to bore with just as other aromatic substances, the bitumen called *chapopotli*, certain mushrooms, the rose called *poyomatli*, and others. What is *chapopotli*? *Chapopotli* is a bitumen which comes from the sea and which resembles Castille pitch when it is brittle. The waves of the sea throw it up, generally on certain days, during the increase of the moon. It floats on the waves like a thick piece of cloth, and the people by the sea pick it up. This *chapopotli* is odoriferous and very much esteemed by the women. When it is thrown on the fire, its odor is borne far away."¹

There is nothing new under the sun: Meerschaum pipes were manufactured by the Mexicans in 1576! If there were pipes, there were also merchants who sold *picietl*: "He who sells *picietl*, dampens the leaves, mixing them with a little chalk, then he rubs the mixture very much with his hands. Some make the *picietl* with native incense. Placed in the mouth, it produces vertigo and intoxicates. It helps the digestion and is good for driving away fatigue."² "For a cold or catarrh of the nose one takes the herb called in Mexican *yecuxoton* or *picietl*. One smells the green or powdered leaves or rubs it in with the finger inside the mouth, in order that the humors may be expelled. One must keep from eating or drinking cold things and keep away from the air, the cold or the sun."³ "The disease of the glands of the neck are treated by lancing the swelling with a small knife. After extracting the matter to the root, one applies to it powdered *picietl*, mixed with an herb called *yietl* and salt, all very hot."⁴

¹ D. Jourdanet and R. Siméon, *Histoire générale des choses de la Nouvelle-Espagne, par le R. P. Fray Bernardino de Sahagun*, Paris 1880, p. 630.

² *Ibid.*, p. 633.

³ *Ibid.*, p. 646.

⁴ *Ibid.*, p. 648.

Sahagun is confused on the plant called *yietl*, for in another place he speaks of *yietl* as "pipes."¹ In Ximenez's translation of Hernandez,² of the year 1615, the word *yettl* is not used, but in the edition of 1651³ we read "*picielt* seu *yelt*," where the two are confused. In another place of the first edition⁴ we read: "Llaman *tauacos* en la ysla Española à ciertos pedaços huecos de caña, de palmo y medio de largo, que por defuera estan vntados con polbo de carbon, y por dentro llenos de *tauaco*, liquidambar (ó xochi ocoztotl)," where the second edition⁵ reads: "*Tabacos* vocant, arundinum caua perforataque fragmenta; sesquidodrantem longa, puluere carbonum extrinsecus illita, intrinsecus vero *yelt*, liquidambra, xochicoçotl . . . referta." Thus it is seen that *yettl* is given as equal to "pipes, tobacco, some other kind of herb." This is due to the fact that *yettl* was merely a back formation from *picyetl* and had no especial meaning, unless it meant, as in Olmos, "incense." *Picyetl* itself is an un-Mexican formation, for *pic-* does not occur in any other word whatsoever. We have only *piciliui* "to crush, triturate," and *picyetl* is some Spanish attempt to form a word from this *piciliui*, for in the Maya languages *may* "tobacco" is derived from Maya *may-ah* "to triturate." It is even possible that *picyetl* is a mere Nahuatl transformation of Maya *ppicil* "that which is triturated."

Besides, the use to which the *picyetl* is put in curing colds and catarrh is identical with the European method of treating the same diseases, which precedes the American method by hundreds of years, and is identical with

¹ *Ibid.*, p. 36.

² *Cuatro Libros de la naturaleza y virtudes medicinales de las plantas y animales de la Nueva España*, Morelia 1888, p. 136.

³ *Nova plantarum, animalium et mineralium mexicanorum historia*, Romae 1651, p. 173.

⁴ P. 245.

⁵ P. 312.

the similar use of errhines in Arabic medicine. We find in Sahagun the mention of a temple dedicated to a Nahuatl divinity, in which the priest, called *tlaçolquacuilli*, carried a calabash full of *picietl*. This priest did not permit any person to enter who carried into the temple any uncleanness.¹ There cannot be the slightest doubt that this temple was established after the arrival of the Spaniards, for the *tlaçolquacuilli* is derived from *tlaçolli* "uncleanliness," *quaitl* "the head," and *cui* "to take," and means "he who takes the uncleanness away from the head," which refers to the European method of cleaning the head by the use of a sternutatory; and we have seen that the *picietl* was also called in Mexican *yecuxoton*, which means "sternutatory," from *ecuxoa* "to sneeze."

McGuire, in his elaborate essay on the tobacco pipes,² quotes Cyrus Thomas as an authority that a certain picture in *The Manuscript Troano*, representing a person with a pipe in his mouth, is that of a man smoking. As the figure is apparently identical with that on the Palenque altar, which represents "the Maya rain god, Tlaloc, blowing the winds from his mouth,"³ there is nothing by which we can prove that the pipe is a tobacco pipe, or that the person is smoking. In both the smoke radiates in two directions, as if blown, whereas in smoking the radiation would be from the mouth, and not from the end of the pipe. Indeed, D. Charnay⁴ says: "The slab represents an old man, clothed in a tiger's skin, *blowing out air*."

McGuire quotes two figures from Kingsborough's *Antiquities of Mexico*,⁵ which are supposed to be smoking.⁶ If that is true, then the first figure

¹ *Op. cit.*, p. 192.

² *Op. cit.*, p. 371.

³ *Ibid.*, p. 364.

⁴ *The Ancient Cities of the New World*, London 1887, p. 217.

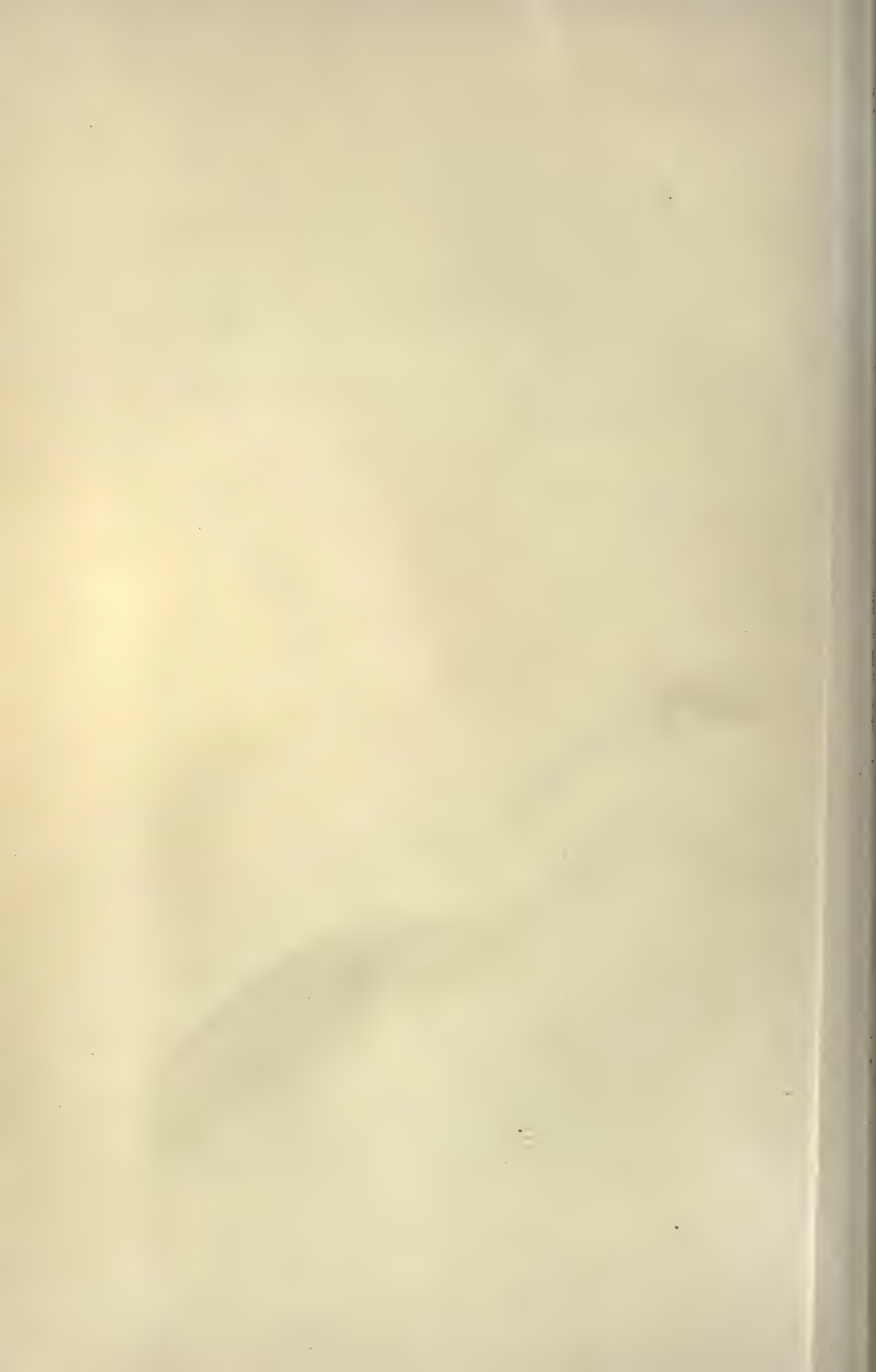
⁵ Vol. II.

⁶ McGuire, *op. cit.*, p. 374.

represented must be smoking with the chin, and the second from a club, as anyone may convince himself by looking at the representations.¹ But let us assume, by a stretch of imagination, that in spite of the Spanish explanation of the manuscript in question, which refers to fighting with clubs and not to smoking, the persons really are smoking. What trust can there be placed in Aztec manuscripts, of which one was made in 1553, and the other contains events as late as 1562? The first of these, a manuscript preserved in the Vatican, apparently made under the direction of A. Theuet, whose name is given at the beginning, several times refers to the tribute in copal and liquid amber for incense,² but never mentions tobacco. From page 136 on it contains a series of vivid representations of events since the arrival of the Spaniards, on page 139 there is a picture of a Christian church, and on page 142, a Negro hanging from the gallows. The second manuscript, the *Codex Telleriano-Remensis*, has a similar series of events, and the Negro on the gallows is given on page 31. The Spanish explanation of this event reads as follows: "In this year 1537 the

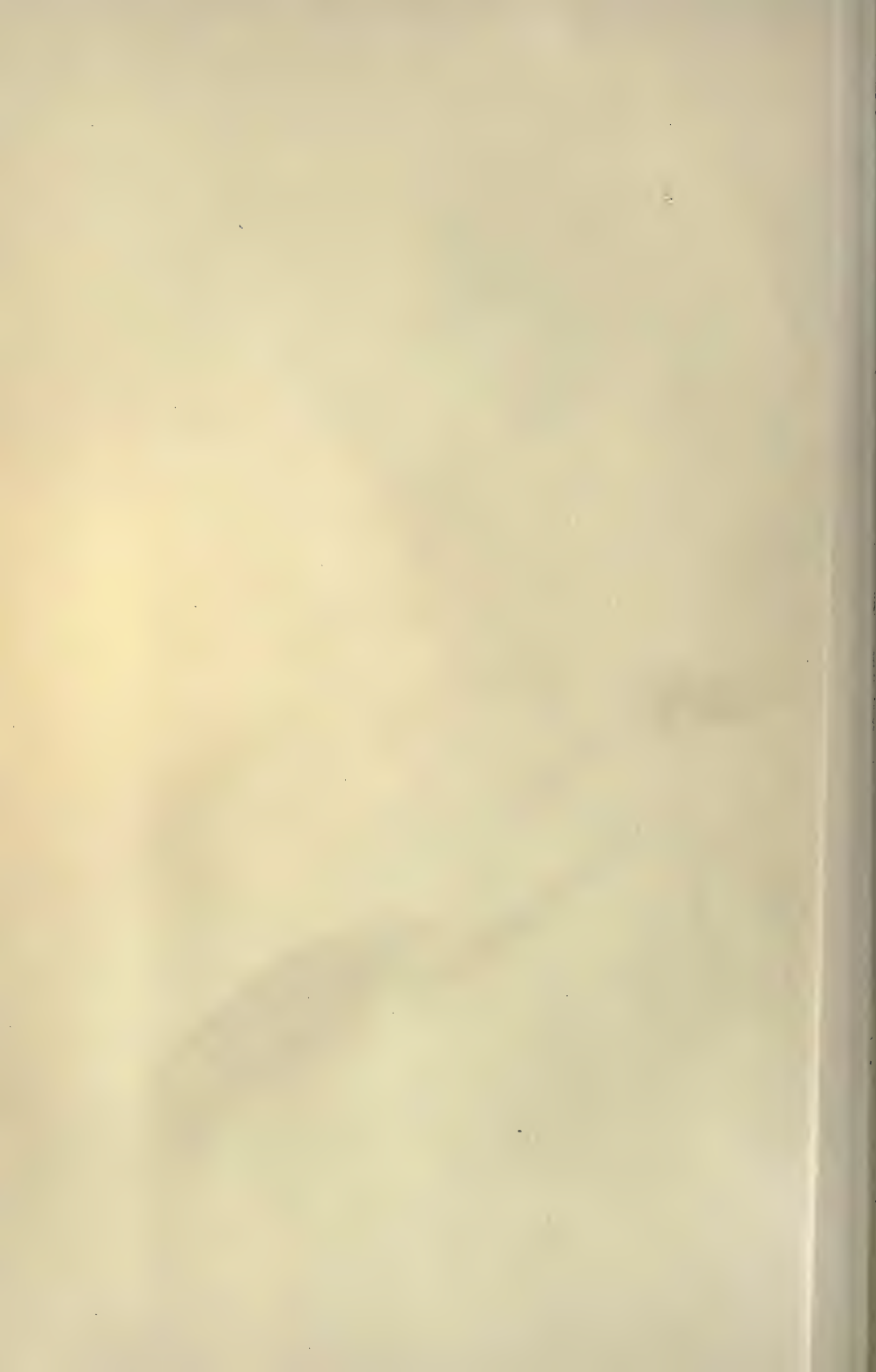
¹ McGuire has an amazing capacity for blundering. In that encyclopedic work of American archaeology, *Handbook of American Indians north of Mexico*, published by the Smithsonian Institution (Washington 1910, vol. II, p. 768), McGuire says: "Diego Columbus in his will dated May 2, 1523, made a legacy to a tobacco merchant of Lisbon, showing how rapidly traffic in the new panacea sprang up." McGuire fished this information out of Thacher (*op. cit.*, vol. I, p. 561): "We find the following item in the second Will of Diego Columbus, executed May 2, 1523, wherein he makes a legacy to a tobacco merchant of Lisbon showing that there must have been then trafficking in that weed which to one half the world comes as a panacea and to the other half as an abomination: A Antonio, tobaco mercador, ginoves, que solia biber en Lisbon, etc., To Antonio, tobacco merchant, etc." If Thacher had studied Spanish, he would have known that "tobaco mercador" is an impossible Spanish combination. As a matter of fact, the will, executed September 8, 1523, reads, "A Antoniotto Baço, m. r. .co ginobes" (*Raccolta*, parte I, vol. III, p. 207), and this *Raccolta* was published before either McGuire or Thacher wrote down their statements. It would be well, if this were the worst of sins in American archaeology!

² Vol. I, plate 37: "copale blanca para sahumeros," 38: "copale blanco refinado, pellas de copale por refinar," 39: "cestillas de copale blanco, pellas de copale por refinar," 47: "cien ollas ó cantaras de liquid-ambar fino."



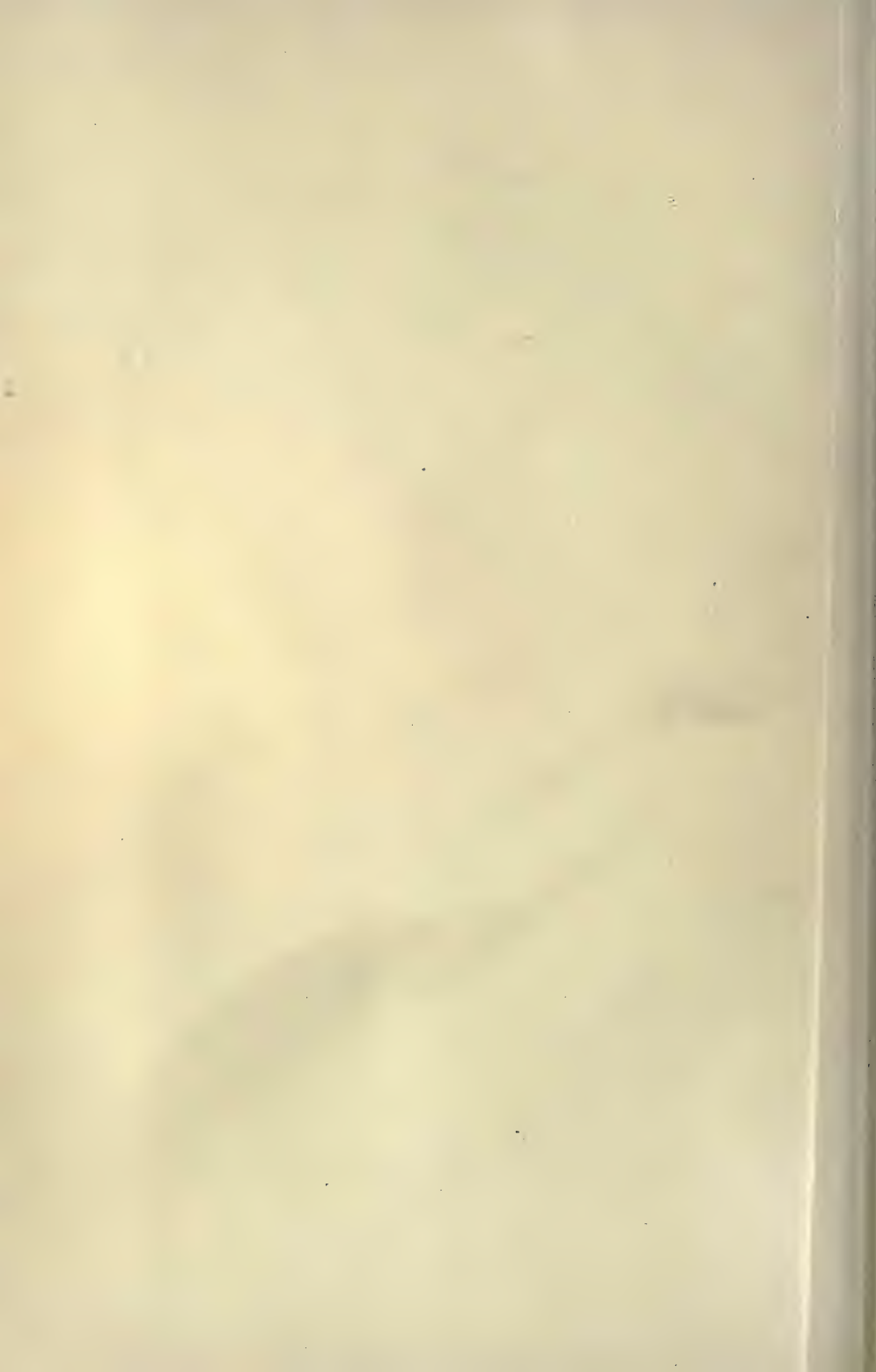


McGuire's Proof of Smoking in Mexico. From Kingsborough's *Antiquities of Mexico*.





A Page from a Mexican Manuscript. From Kingsborough's *Antiquities of Mexico*.



Negroes wanted to rise in the city of Mexico, and the instigators of this rebellion were hanged."

Antonio de Mendoza, the first viceroy of Mexico, wrote of this uprising as follows: "The twenty-fourth of last September I was told that the Negroes had elected a king and had resolved to kill all the Spaniards. All the country was to rise and the Indians were also in the plot: I did not put any faith in it, because it was a Negro who denounced this conspiracy to me; however, to assure myself of the truth, I ordered some of my servants to go out that evening and mingle with the Indians, so as not to be recognized by them, and to observe if anything suspicious was going on, for I did not wish to be taken by surprise if by any chance the fact was true. Indeed I picked up in this way some threads of the conspiracy. I immediately had the one arrested whom the Negroes had chosen for their king and the chief conspirators. I immediately told the Spaniards in the mines and in the country to be on their guard and to keep an eye on the Negroes. Those who were arrested confessed their participation. About two dozen of them in the city and in the mine of Amatepec, whither I had sent Francisco Vazquez de Coronado, were quartered. The Indians brought me the soiled bodies of four Negroes and of one Negress, because I had ordered them brought dead or alive. Thus everything was pacified. We tried to find out to what extent the Indians had taken part in the conspiracy, but nothing has so far been discovered, although it is very probable that they knew all about it and that they would have joined the Negroes, if these had been successful."¹ This passage shows that in Mexico there was a close relation between the Indians and the Negroes, as in Hispaniola and elsewhere. But of the Negroes and Indians of

¹ Ternaux-Compans, *op. cit.*, p. 256 ff.

the neighboring Guatemala and Nicaragua, Benzoni said that they were addicted to the use of tobacco. However, most of his account is merely a repetition of what Peter Martyr said of the use of tobacco in Hispaniola, but there can be little doubt that the habit came up in Mexico from the south, where Spaniards had been settled since the very beginning of the sixteenth century.

The presence and familiarity of the Negroes with the Indians of Mexico in 1537, suggests a new explanation of the term *yell* for "tobacco, incense, pipe." The derivation from *iya* "to smell" is merely popular etymology, since the word was rare and did not get into Molina's dictionary. The very variability of meaning presupposes an un-Mexican origin. We shall trace the fate of the Mandingo word for "tobacco" along the northern coast of South America. The Mande (Malinke) form is more nearly *dyamba*. This explains at once the forms recorded chiefly in South America by Martius,¹ such as: Guipinavi *dema*, Tariana *iema*, Maypures *jema*, Guahiba *sema*, Caveri *scema*, Piapoco *tchemi*, Atorai in Guiana *schama*, Baniva *djeema*, *eeli*, *eri*, Chavantes *waari*, *oali*, *ouani*, Acroamirim *uari*, Cherentes *oanijeju*, *quanyeu*, Arawak *yaari*, *yeury*, *yoli*, Carib *iouli*. Indeed, Martius himself noticed the resemblance of these words to *diamba* of the country of Guey on the Gambia in Africa. Baniva *eeli*, *eri*, Chavantes *waari*, *oali*, Acroamirim *uari*, Arawak *yaari*, *yeury*, *yuli*, Carib *iouli*, Goajira *yülli*, *yüri*, *yüre*, are, however, not corruptions of the other forms, but are due to a confusion with the Mandingo *duli* "smoke," which in Bambara means "tobacco." We have Kisekise *turi*, Tene *tefure*, Gbandi, Landoro *ndure*, Mende *nduli*, *luli*, Gbese *dulu*, Toma *duli* "smoke." Hence we have in Carib and Arawak

¹ *Op. cit.*, p. 424 f.

the *taba* and *iouli* words side by side for "tobacco." But the Negroes and Indians of Hispaniola were those who were the first to carry the article and the words to all the countries about them. We can observe the phonetic deterioration of Mandingo *duli* in geographical sequence. In Hispaniola and the islands it is *iouli*; on the north shore of South America we have Arawak *yuli*, *yeury*, *yaari*; further to the west we get Goajira *yülli*, *yüri*, *yüre*; in the interior this develops to *eeli*, *eri*, *wari*, *oali*, etc.

We have no means of determining what the form was in Darien and Nicaragua, where the Spaniards and Negroes settled early, but we do know that *tabaco* became universal there, for we have, in Costa Rica,¹ Bribri *davá*, Chirripo, Tucurrique *doáh*, Boruca *duah*, Terraba *dovóh*, Guatuso *tuah*. Since the Negroes poured into Mexico from the islands in 1520 and later, they naturally carried with them the tobacco and the name for it, and so it is not unlikely that the vague Mexican *yetl* is merely an attempt to reproduce the *yuli* of the islands in all the acceptations connected with the smoking of tobacco.

It is necessary here to point out the important part the Negroes have played in transferring European and African ideas to the Indians, hence I give here a list of the Negroes mentioned by early writers for the first half of the sixteenth century. The information, where not otherwise referred to, is obtained from Herrera.

1501. Negro slaves, born under Christian rule, are permitted to enter the colonies of America.
1503. Ovando, the governor of Hispaniola, procured a prohibition of the importation of Negroes to Hispaniola, because they fled to the Indians and taught them bad manners, and they could never be apprehended.

¹ B. A. Thiel, *Apuntes lexicograficos de las lenguas y dialectos de los Indio de Costa-Rica*, San José de Costa-Rica 1882.

1506. Many Negroes were introduced from Guinea, because the work of one Negro was worth more than that of four Indians.
1518. It is to be observed that anciently there was no sugar except at Valencia and then in Granada, whence it was taken to the Canaries, and from there to the Indies: this gave rise to the need of employing Negroes in the sugar mills, and this roused the Portuguese to the desire to go to Guinea in search of them, and as the levy was large the duties increased, and the king applied them to the building of the Alcazar at Madrid and at Toledo. The Negroes of Hispaniola proved the statement that if it were not for the hanging of the Negroes they would never die, for no one had ever seen a disease taking them off: and thus the Negroes found in Hispaniola their own country, where they flourished like oranges which are more native there than in Guinea; but when they were placed in the sugar mills they began to die from the drinks made from the sugar cane, and they quit working and fled, whenever they could, in squads and started rebellions and committed murders.
1520. A Negro in Narvaez's army of occupation in Mexico spread the contagion of small-pox, with which he was taken, to the Indians of Mexico, causing a terrible plague.
1521. It was ordered that the Negro slaves should not be employed on errands, because it was known that they were prejudicious to the Indians.
1522. Many Negroes in Hispaniola rose in rebellion in the sugar plantations, when they began to discontinue the Indians. Twenty from the Admiral's mill, uniting with twenty others who spoke the same language, fled and killed some

Christians with whom they fell in. The Admiral went in search of the Negroes. He knew that they were nine leagues away, in the ranch of Melchior de Castro, where they killed a Spaniard and sacked the house. One Negro there rose with twelve Indian slaves and killed nine Christians in other parts. After much trouble and fighting, the Negroes were apprehended five days later and the major part of them was hanged.¹

1523. Many Negro slaves fled to the Zapoteca and walked rebelliously through the country, putting up many crosses and claiming to be Christians; but getting tired of living without subjection, they slowly pacified themselves and the majority returned to their masters. Lorenzo de Garrebod received the permission to send 4000 Negro slaves, men and women, to the Indies within eight years. The order was revoked for one permitting him to take 1500, of which number 300 were for Fernandina, 500 for San Juan, 300 for Jamaica, 500 for Castilla del Oro.
1524. Pizarro landed at Orejon with a Negro, who attracted great attention from the Indians.
1527. There was an uprising of the Indians and Negroes of Fernandina. Alvar Nuñez Cabeza de Vaca describes Narvaez's expedition in this year to Florida, in which there was also a Negro. The greater part of the company perished, but Alvar Nuñez and the Negro survived and reached Mexico after many years.
1528. Negroes were not allowed to go from Hispaniola to Cuba, because they escaped.
1531. Negroes born in America were found to be better laborers than those brought from Guinea.

¹ A full account of this rebellion is found in Oviedo (last edition), vol. I, p. 108 ff.

1532. Avendaño gathered together some soldiers in the island of San Juan, to take to Antonio Sedeño; but he found some difficulty, because the Caribs of the neighboring islands gave him much trouble. At the same time the king had sent the force of two ships to make war on the Caribs and to restrain them, to keep them from committing outrages in the island. It was the general opinion that the troubles of this island were caused by Negro slaves, Wolofs and Berberisei, and so the king was asked not to send any more.
1533. The Wolofs of San Juan were declared to be haughty, disobedient, rebellious, and incorrigible, and could not be taken to any part of the Indies without express permission.
1540. In Quivira, of Mexico, there was a Negro who had taken holy ecclesiastic orders.
1542. There were established at Guamanga three brotherhoods of the True Cross of Spaniards, one of Indians, and one of Negroes.
1548. An uprising of Negroes took place in San Pedro, of Honduras.

These references are sufficient to show the close relationship which existed between the Negroes and Indians, and that the Negroes were by far the more active and more restive under restraint, hence more likely to affect the Indians, than the Indians were to affect the Negroes. We shall later see how the Negroes, mingling their fetichism with a light veneer of Christianity, affected the religious conceptions of the Indians. Here it is sufficient to point out the important fact that in Mexico the Negroes pretended to be Christians as early as 1523, only three years after the Conquest, that in 1540 a Negro had taken holy orders, and so, most likely, was active among Indians, and that in

1542 there was at least one holy brotherhood of Indians and one of Negroes in Mexico.

Negro languages and beliefs have persisted until the present time in America. Ewe is still spoken in Surinam, or at least it forms a considerable part of the structure of the Creole dialect spoken there,¹ and Yoruba fetichism is rampant at Bahia.² Far more interesting is the case of the Black Caribs, who in 1796 were transferred by the English from St. Vincent to Roatan, a small island near the coast of Honduras, whence they have spread to Guatemala and British Honduras. These are Negroes, who have mixed with Caribs and have adopted their language.³ This at once leads us to the conclusion that in Hispaniola, where the Negroes came so early in contact with the Arawaks, and, possibly, Caribs, whom they ultimately superseded, the Arawak and Carib must have been strongly impregnated with Negro words from the very start, hence the Mandingo "tobacco" words in both. But we have a better proof of the influence which the Negroes there exerted from the beginning, in the fact that nearly all the "Indian" words in Ramon Pane's account are Mandingo. Of course, these words may have been received by him from a Mandingo Negro, but since several of them entered the Arawak, the effect remains the same.

In chapter 4 Ramon Pane tells of the transformation of children into frogs, who were called *tona*, because they asked for the breast, "saying *too, too*, as when one asks with a great desire for a thing." But *toto*, *tötö* is the Mande word for "frog," according to E.

¹ D. Westermann, *Wörterbuch der Ewe-Sprache*, Berlin 1905, 1 Theil, p. 12* f.

² Nina-Rodrigues, *L'animisme fétichiste des nègres de Bahia*, Bahia 1900.

³ Otto Stoll, *Zur Ethnographie der Republik Guatemala*, Zürich 1884, p. 29 ff.

Hopkinson,¹ while in another dialect² it is *toti, tori*. Koelle gives Kabunga *toto*, Mandingo, Toronka, Dsalunka, Kankanka *todi*, Kono *turi*.

In chapter 5 Ramon Pane mentions *cobo* "a sea snail." In the Malinke dictionary we have *kobo* "nom d'un insecte coléoptère."

In chapter 7 *caracaracol* is "a disease like the itch which makes the body very rough." One at once recognizes the terrible West African itch, known in English as *crawcraw* or *crowcrow*. We find this word in a large number of languages in the Western Sudan. We have Hausa *kaikai* "itching pain, the itch, crow-crow, a disease very common on the West coast of Africa," Vai *kerikeri* "the common itch," Asante *keka* "to itch," Gbari *gyegye* "the itch." As the Arabic

name for the itch is جرب *garab*, while جرب *garib*

is "to itch," it is most likely that all these Sudan words are ultimately derived from the Arabic. In any case, the medical term *crawcraw* and the localisation of the disease in West Africa puts the origin of Ramon Pane's *caracaracol* beyond any doubt.

In chapter 8 the woodpecker is called *inriri*, anciently called *inrire cahuaial*. One is never sure of the spelling of words in the Italian text of Ramon Pane, since, when a word occurs several times, it is variously spelled. But this much is certain: the word *inriri* is an abbreviation of a longer word. Now the woodpecker is called in Mandingo *yirokonkonna*, literally "woodpecker." The first part of the word, that is, "tree," is in Malinke *iri*, *dyiri*, and Koelle records Mano *yiri*, Gio *giri*, Gbandi *nguri*, Kisekise *wuri*, etc.

¹ *A Vocabulary of the Mandingo Language as Spoken in the Gambia*, London [1912].

² *Dictionnaire français-malinké et malinké-français*, par un Missionnaire, Conakry 1906.

In chapter 9 *conico* is "farm." This word is used by Oviedo and Las Casas¹ for "plantation," and seems to have been universal in the islands. It is Mandingo *kunko* "farm," Bambara *kungo* "brush a distance away from the village, farm," Dyala *kongo*, *koñgo* "plantation."

The words connected with religion will be discussed in the second volume. What is given here is sufficient to show the dependence of Ramon Pane's account on a Mandingo source. The Negroes made common cause with the Indians, and we have constant references to the flight of the Negroes and Indians into the woods. Of course, most of these fugitives remained in the islands, but the wide distribution of the Arawaks, both on the continent of South America and in what was called Florida, indicates that forcible migrations took place from the islands into the regions still unknown to the discoverers. Herrera tells of a colony of Arawaks from Cuba in Florida as follows: "Ponce de Leon went in search of the *Fountain of Bimini*, and of a River in Florida, following in this the statement of the Indians in Cuba and of others in Hispaniola, who said that bathing in it, or in the Fountain, old men became young; and it was true that many Indians of Cuba, being sure that such a river existed, passed over a few years before the discovery of this island by the Spaniards to the country of Florida, in search of it, and there they remained and formed a settlement, and the descendants of these Cuban Indians live there up to this day. This reputation which moved them to enter into Florida, has moved all the kings and caciques of this region to inquire seriously which river it might be that did such good work as to turn old men into youths; and there was not a river or brook in the

¹"Esta labranza, en el lenguaje de los indios desta isla, se llamaba *conúco*," Las Casas, *op. cit.*, vol. V, p. 307.

whole of Florida up to the lagoons and swamps where they did not bathe, and some persist up to the present in the search of this mystery, many thinking in vain that this river is the Jordan, at the Point of Saint Helena, without considering that it was Spaniards who so named the river in the year 1520, when the country of Chicora was discovered."¹

Herrera got this account chiefly from the story of Escalante Fontaneda written after 1551, for on the manuscript of this story there are notes in Herrera's hand.² "The Jordan that is talked of, is a superstition of the Indians of Cuba, which they hold to because it is their creed, not because there is such a river. Juan Ponz de Leon, giving heed to the tale of the Indians of Cuba and Santo Domingo, went to Florida in search of the River Jordan, that he might have some enterprise on foot, or that he might earn greater fame than he already possessed and close his life—which is the most probable supposition; or, if not for these objects, then that he might become young from bathing in such a stream. This thought was of itself proof that all must have been fiction that was told by the Indians of Cuba and its whole neighborhood, who, to satisfy their tradition, said that the Jordan was in Florida; to which at least I can say, that while I was a captive there, I bathed in many streams, but to my misfortune I never came upon the river. Anciently, many Indians from Cuba entered the ports of the Province of Carlos in search of it; and the father of King Carlos, whose name was Senquene, stopped those persons, and made a settlement of them, the descendants of whom remain to this day. And the same objects that they who left their country came in

¹ *Historia general de los hechos de los castellanos en las islas i tierra firme del mar oceano*, Madrid 1726-7, I. 9. 12.

² *Memoir of Hernando de Escalante Fontaneda, respecting Florida*, translated from the Spanish by Buckingham Smith, Washington 1854.

quest of in the River Jordan, the kings and caciques of Florida, although savages, took information of and sought after, as though they had been a more polite people, that they might see what river that could be which did such good work, even to the turning of aged men and women back to their youth. So earnestly did they engage in the pursuit, that there remained not a river nor a brook in all Florida, not even lakes and ponds, in which they did not bathe; and to this day they persist in seeking that water, and never are satisfied. In the attainment of the promises of their faith, those of Cuba determined, for such was their vow, to venture their lives on that sea; and it ended in all that numerous people who went over to Carlos forming a settlement: but to this day youth and age find alike that they are mocked, and many have destroyed themselves. It is cause for merriment, that Juan Ponz de Leon went to Florida to find the River Jordan."¹

Fontaneda's account is obviously the older one, and it does not take much ingenuity to observe that the Indians, newly converted to Christianity and carried away by religious fervor and possibly under the influence of oppression at home, set forth to find the Christian River Jordan, in which it was only necessary to be immersed, in order to come out rejuvenated as Christians. Fontaneda says that "the substance of the Indians of Cuba and Honduras who were lost while in search of the River Jordan, and who came well off, were taken by Carlos, and by the chiefs of Ais and Jeaga,"² which shows that the River Jordan was the subject of a quest to the Arawaks some time in the beginning of the sixteenth century. Herrera says that a River Jordan existed in Florida and was

¹ *Ibid.*, p. 17 f.

² *Ibid.*, p. 24.

so called in 1520 by the Spaniards. Oviedo says that Ayllon set out in 1526 from Puerto de Plata to Florida, landing near a river, "which they call River Jordan, which is to the east of the province of Florida, on the mainland, 150 leagues away: the mouth of the river is thirty-three and two-thirds degrees from the equinoctial line."¹ Garcilasso de la Vega, writing at about the same time, ventured the remark that the river was so called because the mariner who first saw it was so called.²

But Fontaneda tells us specifically that the River Jordan was sought by the Indians of Cuba and of Florida, and Herrera, no doubt, had good reason to believe that the search was older than the expedition of Ponce de Leon in 1512. Peter Martyr, in his *Second Decade*, written in 1514 and first published in 1516, says: "Among these countries, about three hundred and twenty-five leagues from Hispaniola, those who have explored its interior say that there is an island, by the name of *Boiuca*, otherwise *Agnaneo*, with a perennial fount so noble that old men drinking its water become young," "Inter quas ad lequas ab Hispaniola quinque ac XX supra tercentum unam esse insulam fabulantur, qui eam explorarunt ad intima, nomine Boiuca, alias Agnaneo, fonte perēni, adeo nobilem, ut eius fontis aqua epota senes reiuenescant."³

Peter Martyr must have gotten this information from some work, possibly of Columbus himself, in which Columbus was quoting D'Ailly's account of the River Jordan. D'Ailly says: "Iordanis, Indie fluvius, a duobus fontibus nominatur quorum unus vocatur *Jor* alter *Dan*." In the edition annotated by Columbus himself, the marginal note reads, "Fluvius Jor-

¹ Lib. XXXVII, cap. I, edition of 1851, vol. III, p. 627 f.

² *La Florida del Inca*, Madrid 1723, lib. I, cap. II, p. 4.

³ II. 10.



Peter Martyr's Beimeni. From HARRISSE'S *Découverte*.

danus, fontes."¹ If we write in the crabbed marginal writing of Columbus "*vo. Jor alter Dan,*" we can easily see how this may be misread "*boiuc alias Agnan,*" which never occur again. Indeed, in a map attached to Peter Martyr's *Decade* of 1511 there is a coast line north of Cuba, with the reading *isla de beimeni parte*.² Obviously the cartographer had before him the reading *fonte perēni*. The first he read as *parte*, and, taking the line above *e* for an *m* after *r*, which he read as *i*, he got *beimeni*. In Pineda's map of 1519³ the reading is: "La Florida, que decian *Bimini* que descubrió Juan Ponce." In 1512 the letters patent granted to Ponce de Leon read *Beniny*.⁴ Thus we see that the same reading produced *Bimini*, which Peter Martyr never used, and *Boiuca* and *Agnane*, which no one else used.

It is possible to ascertain what led Peter Martyr and his cartographer to the introduction of the River Jordan. By the treaty of Tordesillas, in 1494, the line of demarcation between the Spanish and Portuguese colonial possessions was to be drawn 370 leagues to the west of Cape Verde.⁵ The Pope, in his First Bull of the previous year, gave the new lands discovered and to be discovered to the King and Queen of Spain on condition that the Catholic faith should be propagated among the savages. Amerigo Vespucci, in his lying account of his First Voyage, garbled this matter in a most atrocious manner. Speaking of a region somewhere in the Gulf of Mexico, he says: "This land is within the Torrid Zone directly below the parallel described by the Tropic of Cancer, where the pole of the horizon rises 23 degrees in the end of

¹ *Raccolta*, parte I, vol. II, p. 403.

² H. HARRISSE, *Découverte et Évolution Cartographique de Terre-Neuve et des Pays Circonvoisins*, Paris, London 1900, p. 78.

³ *Ibid.*, p. 79.

⁴ H. HARRISSE, *The Discovery of North America*, Paris, London 1892, p. 135.

⁵ Thacher, *op. cit.*, vol. II, p. 187 ff.

the second clime. There came to see us there many people and they marveled at the sight of us and our whiteness, and they asked us whence we came, and we gave them to understand that we came from heaven, in order to see the world, and they believed it. In this land we placed the fountain of baptism (il fonte del baptesimo), and an endless number of people were baptized. And they called us in their language *Caraibs*, which means 'men of great wisdom.' We left this port, and this province is called Lariab (Paria), and we navigated along this coast, always in sight of land, towards the north west for 870 leagues."¹ Waldseemüller's Latin translation, of about the same time, has the better readings, hence is based on an older copy, now lost. Here the 870 leagues are written "DCCCLXX leucas," which unquestionably arose from CCCLXX of the Treaty of Tordesillas, even as the establishment of the fountain of baptism refers to the Pope's demand of the Christianization of the Indians. Similarly, the reference to coming from heaven and being called *Caraibs*, that is, wise men, is based on Columbus' statements in the First Voyage, while Paria is taken from his Third Voyage. It is this "fountain of baptism," which gave rise to the "fonte perenni" of Peter Martyr, the "Isla de *Beimeni*" of his cartographer, and the story of the River Jordan, whose position in Asia is given precisely by Oviedo, when he locates it at $33\frac{2}{3}^{\circ}$ north.

There is no likelihood that the Indians knew of Bimini before the search for it by Ponce de Leon, but immediately afterwards it became an object of universal inquiry by the Indians, who, as Fontaneda tells us, took it to be the River Jordan. The cartographers localised it in 1527 on the east of Florida,² but as

¹ *Raccolta*, parte III, vol. II, p. 150.

² Harrisse, *Découverte*, p. 97.

Fontaneda lived in Florida after that date, it is clear that in the mind of the Indians it was not yet discovered. The Indians received their information of the river from the Spaniards, but it spread throughout Florida, that is, throughout a great part of what is now the United States, and we can see at once why Jacques Cartier should have met Indians among the Hurons of the North who traveled to Florida, where they saw the tropical fruit of which they spoke. These Hurons passed in a south-easterly direction, most likely through Iroquoian territory, down to Florida, where the Iroquoian Cherokee were settled, and there met the white men, from whom they got their fruit and their tobacco.

This latter fact is emphasized by the presence of tobacco pipes of a similar make in the mounds of the so-called moundbuilders, whose operations extended from Florida to the country of the Hurons. Whether the Huron-Iroquois moved from the north towards the south, or vice versa,¹ it is certain that the tobacco-pipes of that region, as found in the mounds, represent chiefly the two types, known as monitor and straight based forms, indicating a common origin. In McGuire's maps,² the monitor pipe is found in the whole Atlantic region down to South Carolina, and as far west as Missouri, while the southern mound type³ extends from Florida to North Carolina and Tennessee. Similarly the curved-base mound type⁴ is found in the region of the Great Lakes, and as far east as Virginia. Whatever the differences of these pipes may be, they all have in common a flat base, and, in case of ornamentation, generally represent animals.

¹ See C. Thomas, *The Cherokees in Pre-Columbian Times*, New York 1890, p. 87 ff.

² *Op. cit.*, plate 4.

³ *Ibid.*, plate 3.

⁴ *Ibid.*, plate 1.

McGuire admits that "the finding so commonly in remains of the mound period objects of European manufacture raises the suspicion, almost amounting to a conviction, that the pipes were contemporaneous with the early whites, probably the French."¹ The greater part of the sculptured monitor pipes found in the mounds represent animals. Among these there are seven pipes which represent the manati, an animal not found north of Florida.² "The sculptures of this animal are in the same style and of like material with the others found in the mounds. One of them is of red porphyry, filled with small white and light blue granules."³ Another pipe, delicately carved from compact limestone, represents a toucan, "a tropical bird, and one not known to exist anywhere within the limits of the United States."⁴ A pottery fragment, either from a vessel or a pipe, taken from a mound in Butler County, Ohio, is an unmistakable representation of the Brazilian toucan.⁵ A stone pipe from Davidson County, Tennessee, has a fine representation of a Florida alligator,⁶ and other pipes in imitation of alligators were found in the Ohio mounds.⁷

All these prove beyond a shadow of a doubt that, although native pipes must have existed in the mounds, all those of finer workmanship, which confessedly resemble the pipes representing the manati, came from somewhere in the south or from beyond the sea. They are not clumsy representations of native animals, but carefully designed sculptures by someone acquainted

¹ *Ibid.*, p. 524.

² E. G. Squier and E. H. Davis, *Ancient Monuments of the Mississippi Valley*, in *Smithsonian Contributions to Knowledge*, vol. I, Washington 1848, p. 251.

³ *Ibid.*, p. 254.

⁴ *Ibid.*, p. 260.

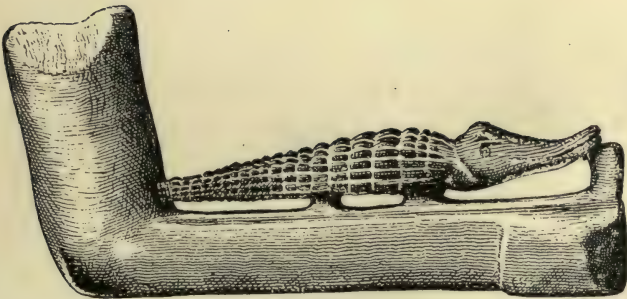
⁵ *Ibid.*

⁶ G. P. Thruston, *The Antiquities of Tennessee and the Adjacent States*, Cincinnati 1890, p. 207 f.

⁷ *Ibid.*, p. 208.



Manati Pipe. From Squier's *Ancient Monuments*.



Alligator Pipe. From Thruston's *Antiquities of Tennessee*.



with European methods. This is the more likely, since many copper and silver crosses have been unearthed in these mounds.¹ To this must be added the fact that two pipes have excellent sculptures of the elephant,² and "that the objects wrought by their artistic skill reveal no less certainly their familiarity with animals of southern and even tropical latitudes, and the materials employed in their manufacture include mica of the Alleghenies, obsidian of Mexico, and jade and porphyry, derived probably from the same region or from others still farther south."³ McGuire, however, contends that "these views will, however, meet with little agreement in America, for there appears absolutely no proof of any southern influence affecting the work on the American mound-builders' pipes."⁴ We shall soon see that we have ample proof of such a contact.

The human form is frequently represented on the mound pipes, either the head alone being given or a man crouching, with head turned back. Among the first, Squier reproduces one of which the workmanship "is unsurpassed by any specimen of ancient American art which has fallen under the notice of the authors, not excepting the best productions of Mexico and Peru."⁵ One of the finest crouching figures is that of the bowl of a long pipe, to judge from the large orifice. It is deposited in the museum of the Historical Society of New York, but its history is unknown.⁶ The front and side views are given in Choris' *Voyage pittoresque*.⁷ It is unmistakably the representation

¹ Squier and Davis, *op. cit.*, p. 208. See also *Twelfth Annual Report of the Bureau of Ethnology*, pp. 309, 710 ff.

² McGuire, *op. cit.*, p. 523.

³ *Ibid.*, p. 524.

⁴ *Ibid.*

⁵ *Op. cit.*, p. 246.

⁶ *Ibid.*, p. 249 f.

⁷ *Voyage pittoresque autour du Monde*, Paris 1822, table X, under *Port San-Francisco*.

of a Negro. The thick lips and broad nose are well defined. Besides, the compound bracelets, five on the wrist, six on the upper part of the arm, and four on the calf of the leg, are such as are found only in Africa and in Mexico. The headgear consists of whirl figures on the right and left and a tuft in the middle. The whole seems to be a kind of hood, of which the flaps come over the neck. Now, it is a remarkable coincidence that the great majority of the heads, although representing Caucasian or Indian faces, have just such hoods with a tuft in the middle. This is the case with the finely chiseled head mentioned above, and in other heads, represented by Squier,¹ where the bowl obliterates the tuft in the middle, there still are left the two knots at the side. The same is true of a crouching figure, of which Squier says: "The posture is the same, but the limbs are barely indicated. The head however is better carved and is more characteristic. It will be observed that it is also distinguished by a line bounding the face, and has similar markings extending from the eyes. A large serpent is folded around the neck, the head and tail resting together upon the breast of the figure. The head is surmounted by a knot, resembling the scalp lock of the Indians. It is carved from a compact red sandstone, and is six inches in greatest length by five inches in height, with a broad flat base. It was found on the banks of Paint creek, one mile distant from the city of Chillicothe. It is also adapted as a pipe. Several other articles, closely resembling these two, have been found at various points on the surface, but none have been taken from the mounds. Both in the character of their material and style of workmanship they sustain a close relationship to certain 'stone idols', as they have been termed, found, for the most part, in the States of Tennessee and Miss-

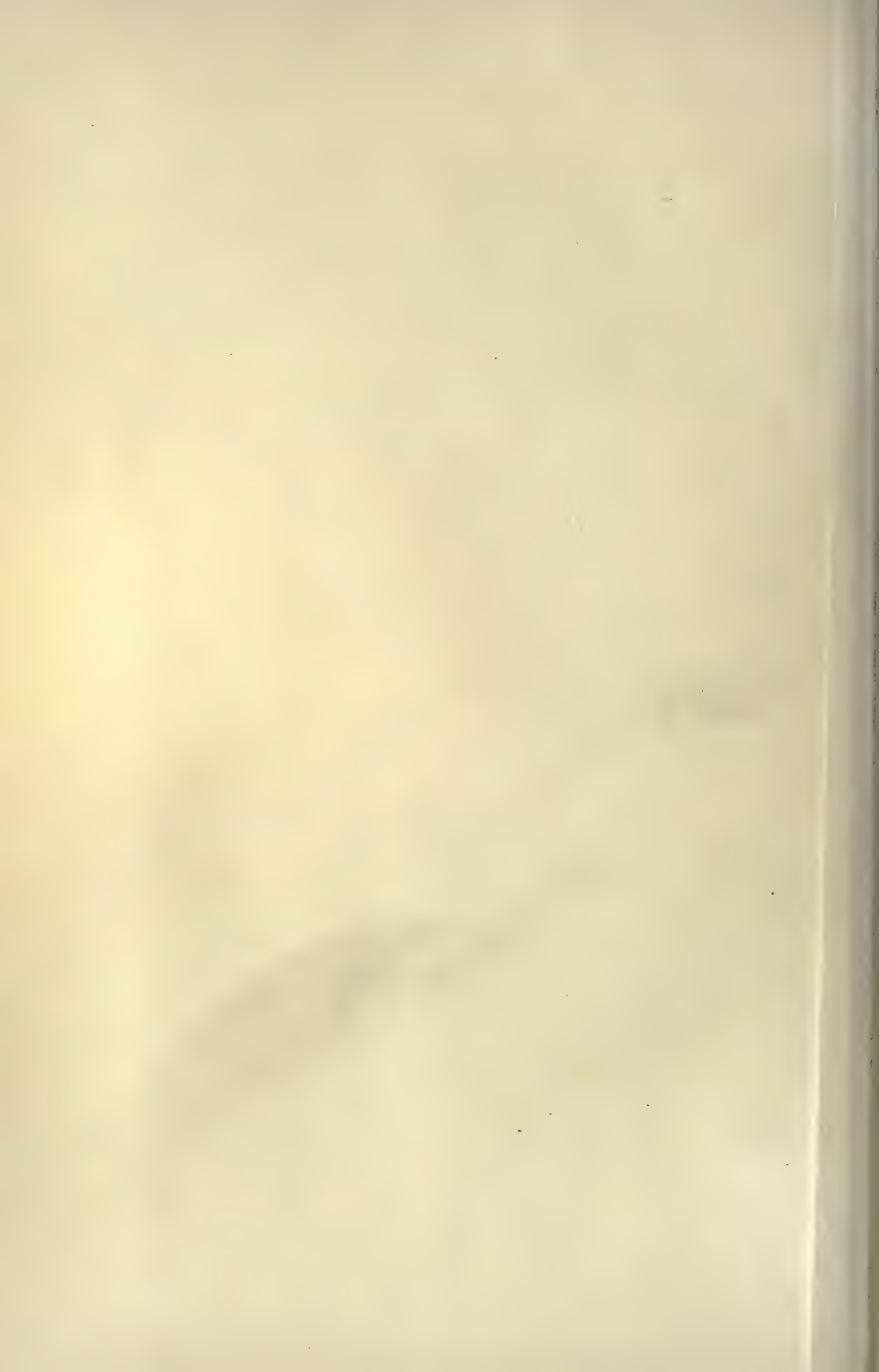
¹ *Op. cit.*, p. 244 ff.



Polipora Choris

Ces deux sculptures se trouvent à Tahiti, (tumulus) sans (sans-doute) dans le Cercle-oriental, et furent à M. de Humboldt par M. G. B. Hyde de Sarsville, (Humboldt) de France en 1791.

Crouching Figure Pipe. From Choris' *Voyage Pittoresque*.




issippi. One of these 'idols' was discovered some years since, in ploughing upon the Grave creek Flats in Virginia. It represents a human figure in a squatting attitude, with its elbows drawn back and its hands resting upon its knees. It is thirteen inches high by six inches and a half broad. In material and workmanship it is identical with the articles last described, and, like Fig. 148, is distinguished by a crown-tuft or 'scalp-lock.' There are two orifices communicating with each other in its back. It was probably designed to serve as a pipe. A stone 'idol,' destitute however of orifices, was found not long since near the mouth of the Scioto river. It represents a human figure in a squatting attitude, the arms clasped around the knees, upon which the chin is resting. This is the common position of the North American Indians, when seated around the fires in their wigwams. It seems most likely that these rough sculptures have a comparatively recent date, and are the remains of the tribes found in possession of the country by the whites."¹

The same tufts appear on figurines in the mounds of Tennessee. "The square crown or ornament rising to a point in a series of layers on the large light head in the frontispiece was a favorite head dress of the Stone Grave race. We have not observed it on the pottery heads from other sections. It was, doubtless, copied from the fashions of the times, in the Cumberland valley, and is not unlike some of the modern conceits of the white race."² A terra cotta head, from a cemetery near Nashville, is distinctly that of a Negress.³ "The head of a large image of marble or crystalline limestone, illustrated in Figure 25, was found by Mr. H. L. Johnson, in 1887, in a mound on the Wallace farm, near Clarksville, Tennessee. The

¹ *Ibid.*, p. 248 f.

² Thruston, *op. cit.*, p. 100. See also plate opposite p. 102 and frontispiece.

³ *Ibid.*, p. 98.

head had been broken from its body. The latter could not be found, though diligent search was made for it. The face was also considerably injured. The outlines of the head show very clearly the flattened or vertical occiput, a distinguishing characteristic of the crania of the Stone Grave race, the transverse or parietal diameter being fully as great as the longitudinal. The features of the face are of heavy Ethiopian cast, somewhat similar to those of the dark image in Plate III."¹ The topknot is represented on an exceedingly large number of figurines, whether on pipes or pottery. In fact, it is the predominating feature in the Tennessee pottery.² But what is still more characteristic is the striation on the faces of the mound figures. A stone head, apparently of a Negro, in the Johnson collection of Nashville³ has lines running from the nose downward, which may be intended to represent wrinkles. But the Riggs Face Bowl⁴ has four ridges running from the nose to the ear and one under the chin, which cannot be mistaken for wrinkles. A  shaped striation runs from the eye downwards in a crouching figure of a pipe from Miami County, Ohio,⁵ and precisely the same striation is found in another crouching human form, and in this case the head is surmounted by a knot.⁶ More complex striation is found on several heads having side knots,⁷ while gorgets from Missouri mounds have either an M striation about the mouth⁸ or parallel lines.⁹

¹ *Ibid.*, p. 105.

² *Ibid.*, pp. 93, 98, 100, 106, 107, 109, 110, 112, 138, 142, 143, 152, 154, 167. See also W. K. Moorehead, *The Stone Age in North America*, Boston and New York 1910, vol. II, p. 285.

³ Thruston, *op. cit.*, p. 104.

⁴ *Ibid.*, p. 94.

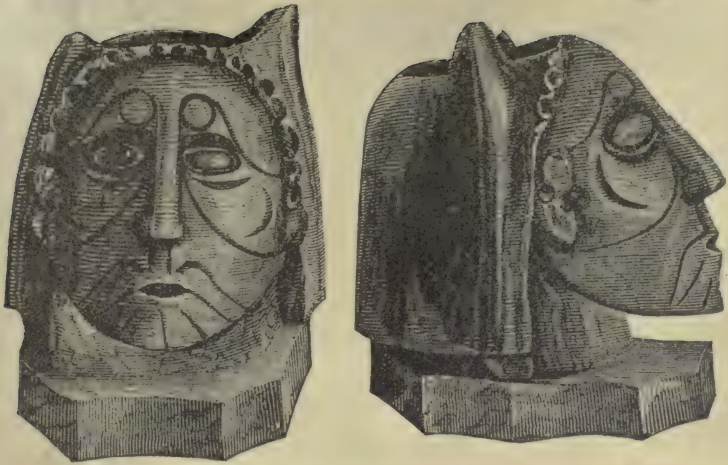
⁵ Squier, *op. cit.*, p. 247.

⁶ *Ibid.*, p. 248.

⁷ *Ibid.*, p. 244.

⁸ Thruston, *op. cit.*, pp. 340, 342.

⁹ *Ibid.*, p. 350.



Tattoo Head. From Squier's *Ancient Monuments*.



Tattoo Head. From Thruston's *Antiquities of Tennessee*.





From Beatty's *Human Leopards*.

The development of the topknot from the headdress of Choris' Negro is unmistakable. Absolutely the same arrangement of three topknots may still be seen on the heads of women of the Sierra Leone Hinterland.¹ But the striation is precisely that of the Negroes of West Africa. The Krus tattoo a blue stripe down the middle of the forehead; the Yorubas tattoo a blue line down the center of the forehead to the root of the nose; but the "plain incised marks are much the most common forms of cutaneous embellishment to be found in West Africa, and like the other classes of marks, are used either to indicate the tribe to which the individual belongs or to set forth some fact connected with his position in his family or his status as a slave. In some cases, however, the markings appear to be entirely ornamental in character, and these are generally situated upon the trunk or limbs, the face-marks having, I think, invariably some special significance. Examples of incised face-marks are to be found among the Accras (a small cross on each cheek under the eye, sometimes tattooed), the Fantis (three short lines on each cheek), the Moshis (five long lines on each side of the face, reaching nearly from the forehead to the chin, and a line slanting down from the ala of the nose on each side), the Dagombas (very similar to the Moshis), and the Gruinsis (three long lines on either side of the face). The Ashantis alone among the peoples of the Gold Coast region have no marks of any kind. Among the Ang-laws (or Awoonas) it is customary to distinguish certain members of the family by characteristic face-marks—the elder of twins, for instance, being distinguished by an oblique line passing downwards from the ala of the nose—and I believe this custom exists in other tribes. The incised marks denoting the condition of a slave vary

¹ K. J. Beatty, *Human Leopards*, London 1915, picture facing p. 83.

considerably, and they are often so numerous and extensive as to produce extreme disfigurement. Among the Gruinsi slaves a common form is a series of three broad lines radiating from the outer angle of each eye, in addition to the ordinary lines on the cheek."¹ Binger² has given elaborate tattooing tables for a large number of African tribes, and the Mande striations are identical with the American.

We now turn to Mexico. But few pipes are recorded from there.³ "The whole construction has something remarkably modern about it." One of these pipes is supposed to represent "a Christian cacique in Spanish costume." "It is this last figure which suggests the idea that in all three pieces we have fantastic images of recent date." We are, however, far more fortunate in regard to terra-cotta masks which Charnay⁴ picked up on the site of the Pyramid of the Sun at Teotihuacan. Charnay had already quoted Torquemada to the effect that even at his late date, in the eighteenth century, Mexican temples were in use, which leads him to remark that "the ruins are not so ancient as some writers have maintained; but that temples and palaces were extant at the time of the Conquest, and that pyramids were repaired by the successive occupants of the soil, even during the wars which a displacement of races naturally entailed."⁵ It is, therefore, not to be wondered at that among the masks he picked up there was "a Negro, whose thick lips, flat nose, and woolen hair proclaim his African origin." In the plates which he gives, there are several that are unmistakably

¹ R. A. Freeman, *Travels and Life in Ashanti and Jaman*, Westminster 1898, p. 424 ff.

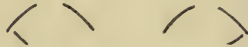
² *Op. cit.*, vol. II, pp. 408-411.

³ *Mexican and Central American Antiquities, Calendar Systems, and History*, in *Bureau of American Ethnology, Bulletin 28*, Washington 1904, p. 101 ff.

⁴ *The Ancient Cities of the New World*, trans. by J. Gonino and H. Conant, London 1887, p. 132 f.

⁵ *Ibid.*, p. 130.

FAMILLES KIPIRGA



FAMILLES FALAFALLA
TAGOUANO



FAMILLES MANDÉ ET SAMOKHO



Sonninké



Mandé Dioula de Kong



FAMILLES SIÉNÉ-RÉ



FAMILLES ZAZÉRÉ

Apparentés aux Pakhalla
Environs de Kong



FAMILLES KOMONO,
DOKHOSIÉ, TIÉFO.



Les Siéné-Ré du Follona
ont les mêmes incisions ils
y ajoutent les trois raies
longitudinales à toutes les séries

Ce tatouage est commun à
plusieurs tribus Komono,
mais les Morou qui en sont
une fraction l'ont adopté tous.





Indian Gorget from Etowah Mound. From Thruston's *Antiquities of Tennessee*.

Negroes. One of these has woolen hair and two side knots. Another has a head adornment with three excrescences, and still another has a knot with a rosette design. A granite figure, representing the head of a Negro with cross striation on the face, is also reported from Vera Cruz.¹

On the other hand, it has long ago been observed that the gorgets of North America have unmistakable resemblances to Aztec picture writing, but are considerably modernized in form.² The very bracelets, armbands and anklets, which appear on Choris' Negro and in the gorgets of the Etowah Mound of Georgia,³ are identical with similar adornments in old Mexican monuments. How are these facts to be reconciled? We have already seen that Negroes were present in Mexico in 1523, that soon after 1541 Mexicans were manufacturing anything the Europeans produced, and that in 1576 Mexicans produced a variety of pipes. There can be no doubt that Negroes smoked from their first appearance in Mexico and that Mexicans were associating themselves with Negroes from the very beginning. It can now be shown that the Negroes were not only addicted to smoking in the sixteenth century in America, but that in Africa they were cited as inveterate smokers from pipes in the very beginning of the seventeenth century.

William Finch, who visited Sierra Leone in 1607, wrote:⁴ "Tobacco is planted about every mans house, which seemeth halfe their food: the boll of their Tobacco-pipe is very large, and stands right upward, made of clay well burnt in the fire. In the lower end thereof they thrust in a small hollow cane, a foot and a halfe long, thorow which they sueke it,

¹ S. K. Kabell, *America för Columbus*, Rönne 1892, p. 235.

² Thruston, *op. cit.*, p. 350 ff.

³ *Ibid.*, p. 342.

⁴ H. C. Lukach, *A Bibliography of Sierra Leone*, Oxford 1910, p. 39.

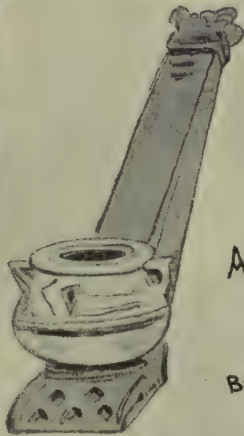
both men and women drinking the most part down, each man carrying in his snap-sacke a small purse (called Tuffio) full of Tobacco, and his pipes. The women doe the like in their wrappers, carrying a Pipe in their hands. Unto their Tobacco they adde nothing but rather take from it: for I have seene them strayingn forth the juyce of the leaves, being greene and fresh, before they cut and drie it (making signes that otherwise it would make them drunke) thus doe they shread it small, and drie it on a sherd upon the coles." The pipe is of the same kind as the Dahomey calumet, given by R. T. Pritchett.¹ Precisely the same account is given by Bosman a hundred years later: "This country produces none of those green Herbs common in Europe, except Tarragon and Tobacco; of both which here is great Plenty, especially of the last, which stinks so abominably, that it is impossible for one that is even not very nice to continue near the Negroes when they smoak this devilish Weed; which yet agrees very well with them. Some of them have Pipes made of Reeds, which are about six Foot long; to the End of which is fixed a Stone or Earthen Bowl, so large that they cram in two or three Handfuls of Tobacco; which pipe thus filled, they without ceasing can easily smoak out; and they are not put to hold their Pipe, for being so long, it rests on the Ground. All the Inland Negroes take this Tobacco, but those who live amongst us, and daily converse with the Europeans, have Portugueze, or rather Brasil Tobacco; which, tho' a little better, yet stinks to a great degree. Both the Male and Female of the Negroes, are so very fond of this Tobacco, that they will part with the very last Penny which should buy them Bread, and suffer Hunger rather than be without it; which so enhances the Price, that for a Portugueze Fathom, which is much less than one Pound

¹ *Smokiana*, London 1890.

AFRICA. W. COAST



LAGOS.

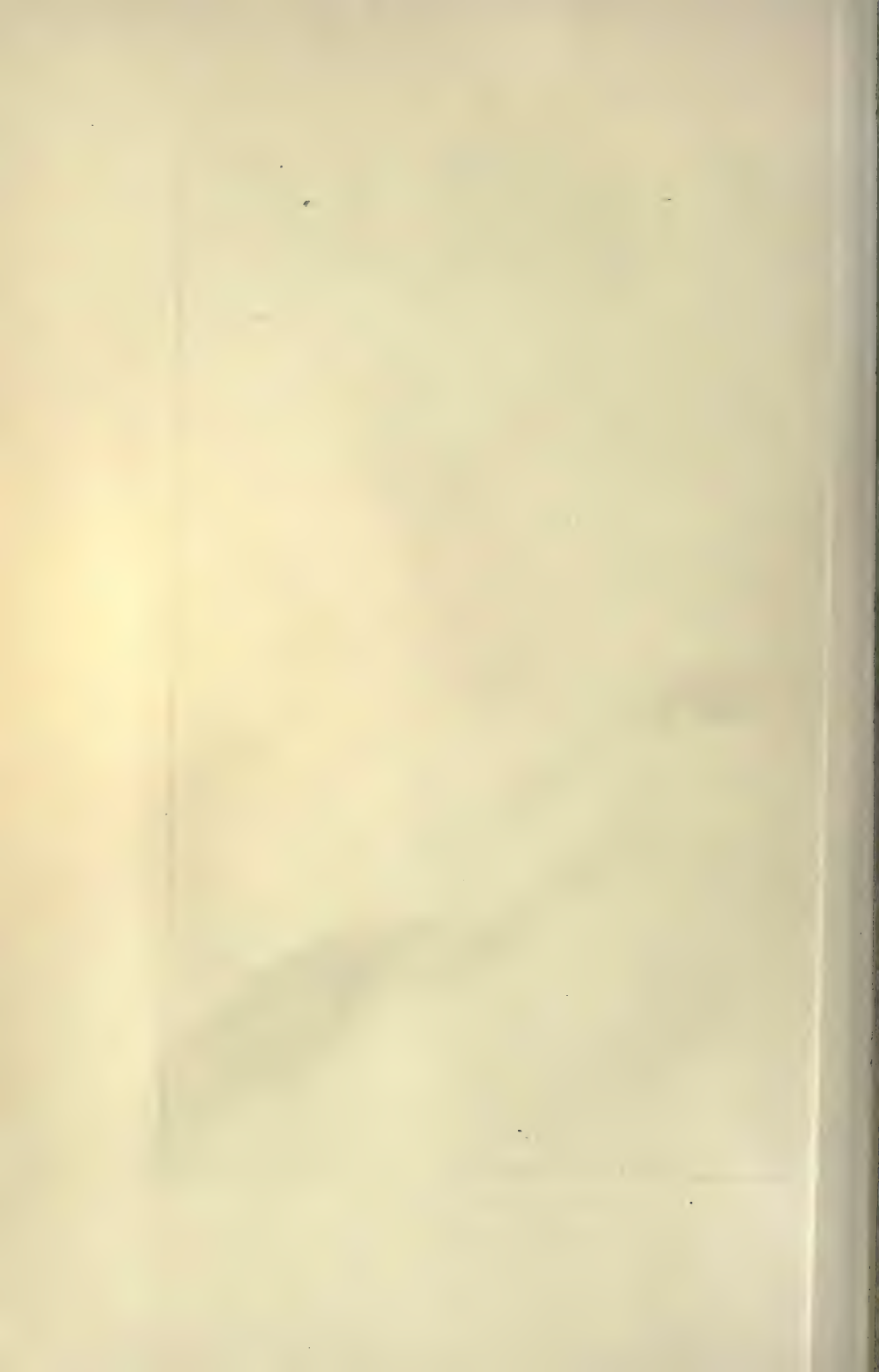


ASHANTEE.

BRITISH MUSEUM.

COLL^d

From Pritchett's *Smokiana*.



Dahomey.

W. AFRICA

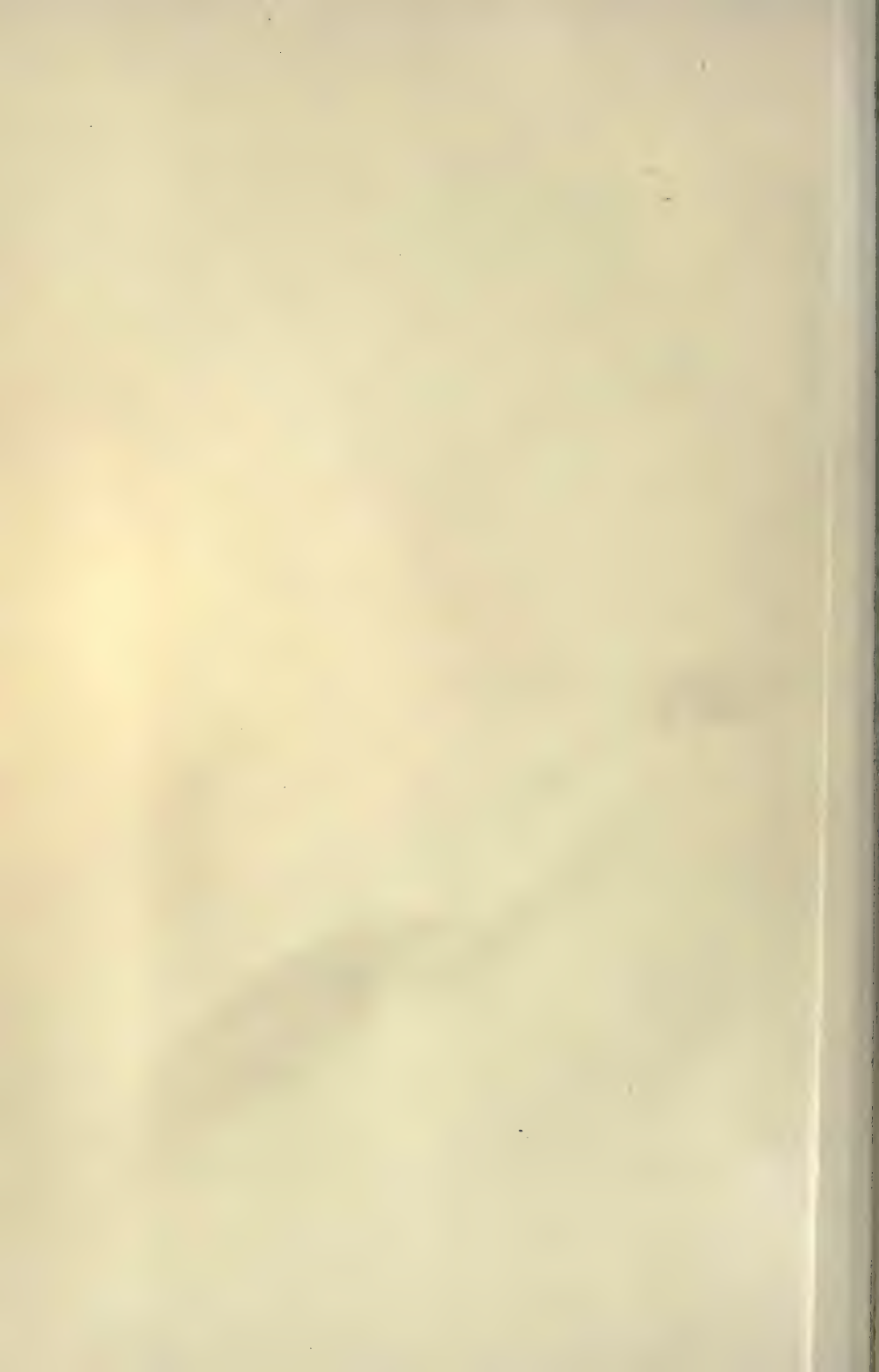


Brought by Cap^t. BURTON.

BRITISH MUSEUM

IDDAN. LOWER NIGER

From Pritchett's *Smokiana*.



of this Trash, they will give five Shillings, or a Gold Quarter of a Jacobus. Let us therefore rather praise those Smoakers (my good Friend) who take the noble Spanish or Virginia Tobacco; but as for those stupid Wretches who content themselves with the Amorsfort Weed, I heartily wish, as a Punishment of their depraved Taste, that during their Lives they may never smoak better than our Negroes, and Brasil on Sundays and Holidays; yet under Condition they be obliged to keep Company with each other, and be banish'd the Company of genteel Smoakers: But this by the way only."¹

Pritchett some time ago remarked the amazing similarity of the Guinea pipes with those of the North American Indians. Unfortunately, only the few illustrations of African pipes which are given by him are accessible for comparison. We have here two Ashantee flat pipes, one of them having for ornamentation a bird looking back at the bowl:² "The light colored red clay of the Ashantee pipes is very striking, and the form of the bowls still more so. There is a decidedly classical character about them, as if started from Roman lamps and Pompeian ideas and then supplied to their colonies." We have also a long Dahomey calumet pipe, with hair tuft adornment:³ "the hanging tufts are of Red Indian character."

As the Negroes are mentioned as smokers in the very beginning of the sixteenth century in the New World, there can be little doubt that the pipe was equally introduced by them into America, and that the Arawaks and Negroes carried it north, to Florida, together with the tobacco. Here it took a northern direction to the Huron country, because at about the same time the

¹ *A New and Accurate Description of the Coast of Guinea*, London 1721, p. 286 f.

² *Op. cit.*, p. 31.

³ *Ibid.*, p. 33.

French adventurers who came up the St. Lawrence before Jacques Cartier also carried with them the tradition of tobacco from Brazil. However, the chief path of dissemination was from the South up, because French *petun* remained sporadic in Canada, while *tabaco*, as we have seen, spread upwards from the south.

But the monitor pipe, that is, the pipe with a flat, curved base, is of American origin, due to the substitution of the tobacco pipe for the Negro amulet. To the Negro amulet I shall return when I speak of the origin of the medicine man. Here it is enough to refer to Ramon Pane's *cibe* and *colecibe* (chapter 6), which are of stone, resembling marble, and which are worn around the neck or on the arm, and the *guanini*, which are worn in the ear. It has already been shown that both *cibe* and *guanini* are Mandingo words, and that *cibe* refers to the amulets worn on the arm. But a stone amulet must be curved and flat to adapt it elf to the arm. When the Negroes and Arawaks came to Florida, they naturally brought with them the new amulet *par excellence*, the tobacco pipe, hence the necessity of making it in the form of a *cibe*, with the bowl of the pipe in the middle of the base. The almost exclusive use of animal subjects, including the elephant, for the ornamentation is distinctly African in origin, and thus the date of the mounds in which the tobacco pipes have been found is beyond a shadow of a doubt posterior to the appearance of Negroes or of white men acquainted with Guinea, and this can at best be forty years earlier than the so-called discovery of America by Columbus.

The presence of obsidian in Ohio mounds has been a puzzle to anthropologists. "This mineral is a volcanic product, and occurs, so far as known, no nearer than Mexico, where it is found in abundance. It is also found in Peru, and was extensively used by the ancient

inhabitants of both countries, for cutting and warlike implements. They also, notwithstanding its obstinacy and fragility, worked it elegantly into mirrors, ornamental rings, and masks. Some specimens have been discovered in the mounds of Tennessee, which were doubtless obtained from the same source with those found on the Ohio. All the specimens discovered are glassy black, subtranslucent, and break with a clear conchoidal fracture. According to Humboldt, the mountains of Jacul or Cerro Gordo, on the route between Vera Cruz and the city of Mexico, furnished the celebrated *itzli* quarries or mines of the ancient Mexicans; the locality is still known as El Cerro de los Nabijas, the Mountain of Knives. This is believed to be the nearest point of its occurrence."¹ This makes it clear that objects from Mexico in some way reached Florida and the country to the north of it. But we have Fontaneda's statement that a large number of ships from Mexico were stranded in Florida, and a large number of articles of Mexican manufacture found their way to the caciques of Florida.² "The King of Ais and the King of Jeaga are poor Indians, as respects the earth; for there are no lands of silver or of gold where they are; and, in short, they are rich only by the sea, from the vessels that have been lost well laden with these metals, as was the case with the transport in which Farfan and the mulatto owner were; with the vessel of the Vizcaíno, in which came Anton Granado, who was a passenger, and was captured; and with the vessel of which Juan Christóval was master and captain, lost in the year '51, when the Indians murdered Don Martin de Guzmán, the Captain Hernando de Andino, Procurador of the Province of Popayán, and Juan Ortiz de Zárate, Distributor of

¹ Squier, *op. cit.*, p. 285 f.

² Other wrecks are recorded by Hawkins. See *Twelfth Annual Report of the Bureau of Ethnology*, p. 712 f.

Santa Martha; and there came in her also two sons of Alonzo de Mena, with an uncle, all of them rich. He that brought least was I, but with all I brought twenty-five thousand dollars in pure gold; for my father and mother remained in Carthagena, where they were *comenderos*, and served His Majesty in those parts of Peru, and afterwards in the city of Carthagena, where they settled, and I and a brother were born. Thence they sent us to Spain to be educated; when we were wrecked on Florida, as I have stated. Other vessels have been lost; among them the armada, of which it was said the son of Pedro Melendez was General; for the Indians took a Spaniard that reached the shore whom they found famishing, and I afterwards saw him; also one Juan Rodriguez, a native of Nicaragua, spoke with him. He told us that he came from New Spain, and was going to Castile; that the General was a son of Pedro Melendez, the Asturian; that he came as a sailor in another vessel; and that the people of neither knew anything of what had befallen the other, until the Indians armed themselves to go to the coast of Ais, when he saw them go and return with great wealth, in bars of silver and gold, and bags of reals, and much clothing.”¹ “I desire to speak of the riches found by the Indians of Ais, which perhaps were as much as a million of dollars, or over, in bars of silver, in gold, and in articles of jewelry made by the hands of Mexican Indians, which the passengers were bringing with them. These things Carlos divided with the caciques of Ais, Jeaga, Guacata, Mayajuaci, and Mayaca, and he took what appeared to him well, or the best part. These vessels, and the wreck of the others mentioned, and of caravels, with the substance of the Indians of Cuba and Honduras who were lost while in search of the River Jordan, and who came well

¹ *Op. cit.*, p. 21 f.

off, were taken by Carlos, and by the chiefs of Ais and Jeaga. The Indians of the Islands of Guarungunve are rich; but, in the way that I have stated, from the sea, not from the land."¹

There can be little doubt that the fine gorgets of the Etowah and other mounds of Georgia owe their origin to the salvaged "jewelry made by the hands of Mexican Indians," and there can be no more doubt that the exquisite pipes representing tropical animals have found their way into North America in the same manner, although, of course, many may have been introduced in the regular way by traders. But it can be shown that the manufacture of pipes in Mexico is posterior to the manufacture of pipes in Europe, where they were unquestionably at first supplied to the African trade.

After telling us that *chapopotli* is "meerschaum," Sahagun goes on to say: "There are two kinds of this bitumen. One of these is mixed with the matter which is introduced into the fragrant pipes. The other forms a kind of pitch, which the women call *tzictli*."² Then he goes on to explain at great length the chewing of gum, which is now known under the name of *chicle*, and adds that while the chewing of *tzictli* is good for the head, the chewing of the gum made from *chapopotli* produces headache.³ Ximenez, who published a Spanish version of Hernandez in 1615,⁴ says: "The *chapopotli* is a kind of mineral which is reddish black and which the ancients called Indian bitumen and which shines with a purple color and emits a heavy odor like rue or trefoil or asphaltum, and has the same qualities. It originates in the sea and comes as a liquid to these shores of New Spain, and is found in mines,

¹ *Ibid.*, p. 23 f.

² *Op. cit.*, p. 630.

³ *Ibid.*, p. 631.

⁴ *Op. cit.*, p. 276.

some pieces very large, sometimes two or three spans long, and is sold in the markets at a very low price, because there is such an abundance of it on the shores of New Spain. The Mexican women buy it, in order to chew it, and they keep it in their mouths with especial pleasure, because it cleanses and comforts the teeth, and renders them white."

Unfortunately there is no meerschaum to be found any nearer than Spain and Morocco. The Latin edition of Hernandez, published in 1651, runs as follows: "Minerale quoddam est *Chapopotli* ex atro fuluescens, ab antiquis bitumen Iudaicum nuncupatum. Purpureo siquidem colore splendet, ac Trifolij, *Asphaltitidis*, *Rutaeuè*, grauem quendam odorem spirat, et eisdē facultatibus pollet. Septemtrionali seaturit oceano, et liquidum fluens statim in huius Hispaniae nouae littora decurrit. In laminas cogitur, bina passuum milliaria quandoque longas; crassas verò, duas, tresuè (vbi sors tulit) spithamas. Vili (tanta est eius in his regionibus copia) venditur precio. Vtuntur eo mulieres Mexicanae commanso, ac passim non sine voluptate quadam ore retento, ad extergendos, et nitori antiquo restituendos dentes."¹ To this Fabius Columna Lynceus has a note: "De Succini, et Bituminis generatione, varietate, natura, splendore, colore, piscatu, tempore, modo, et loco, atque herbis marinis in ipso vigentibus usu medico vide Goebellium, Bellonium ac Ferdinandum Imperatum in sua historia naturali italica lingua Neapoli impressa lib. 14. cap. 5. usque ad 9. et Franciscum Imperatum eius filium in lib. de Fossilibus."² Ferrante Imperato wrote his *Historia naturale* in 1599.³ He describes a substance, *pissasphaltho*, in almost the same terms

¹ *Op. cit.*, p. 336.

² *Ibid.*, p. 895.

³ I can only quote from the second edition: *Historia naturale di Ferrante Imperato Napolitano*, Venetia 1672, p. 357 f.

which Sahagun used in connection with *chapopotli*. He quotes Belon, who wrote half a century earlier, to the effect that a kind of bitumen judaicum called *pissasphalto*, a word composed of "pitch" and "bitumen," on account of its odor, is found near Ragusa, where it is used to caulk ships. It resembles gages, but lacks its transparency. *It is sold in Venice in large bulk at a very low price*, and as it is very dry and has not the proper fluidity for use, it is liquefied with grease or oil, or something similar. A like substance is found near the Italian shores. It has neither the sweet odor nor transparency of amber, but *has a purplish black color* (*purpureggia nel nero*). Belon, whose book appeared in 1553,¹ tells of the liquid bitumen found in Naples, then mentions the "aspalatus," called by some "asphaltum," which has the odor of *trifolium asphaltites*.² *Pissasphaltum*, which is confused with asphaltum, is a mineral used in caulking. It is found near Ragusa, whence it is sent to Venice and Ancona. It is sold at a very low price, and it may be seen in large bulk in any naval stores in Venice.³

There can be little doubt that the *chapopotli* of Sahagun is a Mexican corruption of *asphalto* or *pissasphalto*. The reference to *trifolium asphaltites* (in the margin in Belon), to the purplish black color, and to the great cheapness in the market is identical in all three, and if Sahagun tells the truth that this material was used for pipes in Mexico, it could have been imported only from Spain, Italy, or Ragusa, and Sahagun is giving us the important information that such meerschaum pipes were already in use in Europe. Indeed, Belon, who traveled in Turkey in the years 1546-49, and whose

¹ *P. Bellonii Cenomani De admirabili operum antiquorum et rerum suscipiendarum praestantia*, Parisiis 1553.

² *Ibid.*, fol. 42 a.

³ "Pissasphaltum vilissimo precio venditur, ut in naualibus officinis passim Venetiis in glebas maximas coactum videre licet," *ibid.*, fol. 42 b.

book¹ appeared in 1554, gives us the pictures of two pipes, which he found for sale in a mercer's shop, where he also found opium. Unfortunately he did not know their use, having apparently been misled by some jester, who told him a story about them that is worthy of Rabelais or Ramon Pane.² There can be no doubt that what he reproduced in his book are the first pipes mentioned in Europe, which was thirty years earlier than their mention by Sahagun. This, in connection with the fact that meerschaum was exported from the Dalmatian litoral or from Spain to Mexico, points to the manufacture of pipes in Mexico from foreign material. The original pipes were, no doubt, intended for the African trade, and the Mexicans, who manufactured these pipes, naturally reproduced the Negro heads and the Mandingo totems, manatis, elephants, frogs, serpents, alligators, and birds, in the bowls of these pipes, because the specimens which they imitated had the same. Binger³ gives the following *tenné* (totem, fetich) for some of the Mandes. The Mande proper have the *manati* as their good and bad genius. The Samanke have the *elephant*, the Samokho, the *snake*, the Bambara, the *crocodile*; others have the *snake*, the panther, etc., From all this follows the inevitable conclusion that the tobacco pipe in America began its career as a Mandingo amulet, and that the tradition once established persevered at a time when the totem and amulet had lost their original meaning.

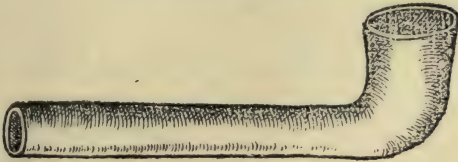
It is now possible to show that the Iroquois word for "tobacco" is Arawak or Carib, that is, ultimately of Mandingo, origin. Jacques Cartier's printed vocabulary has no words for "tobacco," but "smoke" is given as *quea*. The manuscripts add: "Ils appellent

¹ *Les observations de plusieurs singularitez et choses memorables, trouvees en Grece, Asie, Iudée, Egypte, Arabie, et autres pays estranges*, Paris 1554.

² *Ibid.*, Book III, chap. 11.

³ *Op. cit.*, vol. II, p. 375 ff.

La canelle pour les masles.



Ilz ont des petites canelles faictes de buys, qu'on trouue en vente chez les merciers, expressement faictes pour seruir au petits enfans, qui sont creuses & cro-

ches par vn des bouts, & ne sont pas plus gros qu'un doigt, ne longues que six. Le bout recroché sert à mettre le membre du petit enfant. Lon en faict de deux sortes, l'un pour les masles, & l'autre pour les femelles. Celuy des masles est en rond, de telle figure. L'autre qui est pour la femelle, est long, & auoir est que le

La canelle pour les femelles.



bout soit vuide, plus large en longueur, comme monstre ceste autre figure. Qui ne scauroit la maniere comme

ilz les appliquent, trouueroit difficulté de l'entendre. C'est que quand ilz

From Belon's Observations.



lherbe de quoy ilz usent en leurs cornetz durant lyver *quiecta*.”¹ This word is apparently derived from *quea* “smoke.” The language of the Hochelaga is Iroquoian.² But in Sagard the Huron words for “tobacco” and “smoke” are derived from a root *ye* or *yen*, and the same is true in Onondaga. Sagard gives in Huron for “smoke” a word of which the base seems to be *oussata*. It would, therefore, appear that *ye*, *yen* in the Iroquoian languages is an innovation, which has proceeded from the south, with the introduction of tobacco from the Arawaks or Caribs, their *iouli*, *yari*, *yeury* giving rise to *yen*. This is the more probable, since the Siouan Biloxi along the Gulf of Mexico has *yani* “tobacco.”

We have still a few terms for “tobacco” which must be accounted for. In Araucanian we have *pùthem* “tobacco,” *pùtemn* “to smoke, to burn,” *pùthen* “to be burnt,” *pùthon*, *pùchon* “to smoke, burn incense,” *pùchocan*, *pùthocan* “to make a smoke fire.” As Chile was a part of the Province of Rio de la Plata, the Guarani-Tupi word for “tobacco” and its derivatives naturally were transferred to the west. How universally such foreign words were incorporated in Araucanian may be seen from the presence of *macane* “clava ferrea” in the Vocabulary of 1642.³ This early vocabulary has *wietum* “fumus,” and *vitun* is even now “smoke” and “to smoke.” The earliest Araucanian vocabulary, of 1606,⁴ has already *ptem* “tobacco,” *pten* “to burn,” *vitun* “smoke.” There can be little doubt that all these words are derived from *pùthum* “tobacco,” even as Guarani *petỹ* means “tobacco” and *apetỹú* “to smoke.”

¹ *Op. cit.*, fol. 65 b.

² J. A. Cuoq, *Lexique de la langue iroquoise*, Montréal 1882, p. 183 ff.

³ R. R. Schuller, *El vocabulario araucano de 1642-3*, Santiago de Chile 1907, p. 10.

⁴ Luiz de Valdivia, *Arte y gramatica general de la lengua que corre en todo el Reyno de Chile*, Lima 1606.

Garcilasso de la Vega says that "the Indians (of Peru) made great use of the herb of plants which they call *sayri*, and the Spaniards *tobacco*. They applied the powder to their noses to clear the head. There has been much experience of the virtues of this plant in Spain, and it has been called the sacred herb."¹ It is clear that Garcilasso knew nothing more of tobacco than what was known to European medicine. In another place he says, "Of the plant which the Spaniards call *tobacco*, and the Indians *sayri*, we shall speak in the other part,"² but he never said anything further about the plant, no doubt because he could get no more information than what already had been known for more than fifty years. *Sayri* sounds very much like *sira*, the Negro word for "snuff." This is most likely the etymology of the word, since we are informed by Herrera that in the early part of the sixteenth century a load of shipwrecked Negroes had landed in Peru, where they formed a settlement with the Indians.³

We can now make a résumé of the material so far disclosed and get at some chronological order in the distribution of tobacco in America in the sixteenth century.

Neither Columbus nor any contemporary writer ever saw the Indians smoke. They all fell back on the account by Columbus, based on a book source, that the powdered tobacco was snuffed through a forked pipe. Even as late as 1535 Oviedo was all at sea about the tobacco. Being bound by his earlier authorities, he repeated the absurd story of inhaling the tobacco through a forked pipe, but reality taught him that the

¹ C. R. Markham, *First Part of the Royal Commentaries of the Yncas* (*The Hakluyt Society*), London 1871, lib. II, cap. 25.

² *Ibid.*, lib. VIII, cap. 15.

³ "Los Quiximiés, quatro Rios antes del Portete, adonde los Negros que se salvaron de un Navio, que diò al través, se juntaron con los Indios, i han hecho un Pueblo," *Descripcion*, cap. XVII, *op. cit.*, vol. I, p. 38.

tobacco was smoked, so he corrected the absurd story to one even more absurd, that it was the smoke that was so inhaled. He was only correct when he added that the Negroes, who were addicted to the vice, raised tobacco, in order to take it in the form of smoke. Only many years later was he able to correct the misstatement, inherited from Columbus, that tobacco intoxicated, by adding that it was only after drinking wine that tobacco was indulged in, when intoxication followed. The confusion in Oviedo's mind is also illustrated by the fact that in 1535 he specifically called *tabaco* "the reed through which tobacco was taken," while later he just as specifically referred to *tabaco* as "smoke."

And yet it is clear, from the reference to the Negroes' smoking in 1535, that the vice had already begun to spread. In the same year Jacques Cartier saw Indians in Canada smoke a pipe. If he did not quote a custom which he knew from Brazil, even as he refers to Brazil on other occasions, we have here the first direct reference to smoking among the Indians. But we have also the direct information as to the intercourse of the Hurons of the north with the people along the Gulf of Mexico, which, according to the statement made by an Indian, was a moon's journey away.

Here we strike a fruitful subject for discussion. Florida, dimly known before, was opened up to adventurers by Ponce de Leon's search for Bimini, the fountain of youth, in 1511. The island of Bimini and the fountain of youth are due to a misunderstanding of the map of Western Asia and of the River Jordan as a region north of Cuba. Not only the white men, but also Indians began the search for the River Jordan, where they could jump in and come out rejuvenated. The story took possession of the Indians of the eastern part of America, and for at least half a century they

journeyed to Florida and Georgia in search of that wonderful fountain. Fontaneda, who was captured by Florida Indians in 1551 and lived among them for seventeen years, has given us a graphic story of this Utopian search, to which all the caciques of Florida, that is, of North America, were addicted.

It was not, however, the misunderstanding of the Christian mystery of baptism that was the chief cause of this southward migration. The eastern shore of Florida and Georgia saw many wrecks of ships which left Mexico and other countries along the Gulf of Mexico, and the Florida Indians became enormously enriched with gold and copper trinkets intended for the Europeans. It is here that the Indians of Canada, who had come in contact with Breton fishermen ever since 1506, and later with French traders under Cartier, could barter their furs for the much coveted trinkets, during the absence of French traders from their shores.

Besides, the River Jordan myth had sent a stream of Arawak or Carib Indians from Cuba into Florida, and these brought with them the newly acquired vice of smoking, which, according to Oviedo, was already well established in 1535. White men had constantly been making encroachments into Florida. Ponce de Leon, Ayllon, Cabeza de Vaca, De Soto have left themselves or through others circumstantial accounts of their predatory expeditions. But there was also a constant stream of traders and adventurers who reached the shores of Florida unobtrusively, and who brought the spices and wares that the Hurons of the north told Cartier about, and who have left no account of their successful ventures, in order not to attract attention. These traders were all addicted to smoking, as we are informed by Hawkins in 1564. Hence the Hurons, or at least one tribe of them, carried back home, not only the habit of smoking, but also the method

of raising tobacco, which became to them, as to the traders in Florida, a medium of exchange.

Wherever the white man traded, he left the tobacco and the vice after him. In 1540 the Indians of the Northwest, where ships landed on their way to the East Indies, were already addicted to smoking, carrying the tobacco and the pipe in a bag tied to their arms just as the Canadian Indians carried them tied to their necks, in each case in imitation of the African amulet, as which the tobacco served the Mandingo Negroes, the first to come to the shores of America. Indeed, throughout the greater part of America, exclusively the Mande words for tobacco have produced Indian words for the weed, even in the north west, where it is given as *tabah*.

It is now well established that the mounds of the moundbuilders are not of great antiquity.¹ What has so far kept the archaeologists from definitely associating these mounds with Europeans, has been the presence in the mounds of the distinctive type of mound pipes, which have been supposed to be related with the pre-Columbian custom of smoking in America, and the presence of Mexican antiquities, which were supposed to link these mounds with the pre-Columbian Aztec past. Now that a study of Fray Toribio, Sahagun, and Fontaneda on the one hand, and of the African origin of the habit of smoking from the Arabic errhines has been undertaken, the very last vestige of a pre-Columbian existence of the mounds disappears, and the suspicion of Cyrus Thomas that the Europeans had something to do with the erection of the mounds is proved beyond a shadow of a doubt. These mounds were fortifications which the traders, whether Whites or Indians, erected all the way up from Florida to the

¹ Cyrus Thomas, *Twelfth Annual Report of the Bureau of Ethnology to the Secretary of the Smithsonian Institution*, Washington 1894, p. XLVI.

Huron country, in order to vouchsafe the trade which was established in the beginning of the sixteenth century, before the arrival of Cartier, between Canada and the south. That this tendency to build forts and stockades proceeded from the Antilles, whence the Arawaks had come in the beginning of the sixteenth century, is proved by the presence of similar works in Cuba.¹ These are found in the most abandoned and least-explored part of the island,² and there can be little doubt that they were locations of fugitive Negro and Indian stockades, precisely such as were in use in Africa. It is not possible to prove the direct participation of the Negroes in the fortifications of the North American Indians, but as the civilizing influence on the Indians to a great extent proceeded from Cuba over Florida towards the Huron country in the north, the solution of the question of the moundbuilders is to be looked for in the perpetuation of Arawak or Carib methods, acquired from the Negroes, as well attested by Ovando's complaint in 1503 that the Negroes spoiled the manners of the Indians, and transferred to the white traders, who not only adopted the methods of the Indians, but frequently lived among the Indians as part of them, especially in Brazil, where we have ample documentary evidence of the fact. Later, when I shall deal with the transference of African fetichism to the Indians of South and North America, this fact will become amazingly clear and conclusive.

In Brazil, as in the Antilles, the tobacco is similarly mentioned in connection with fetichism, but here we have a definite and circumstantial account of the smoking of cigars in 1555. The name *petun*, from Port. *betume*, is a translation of the Arabic term which has produced *tabaco*. The French traders, at the end of the

¹ M. Rodriguez-Ferrer, *Naturaleza y civilizacion de la grandiosa isla de Cuba*, Madrid 1876, vol. I, chap. IV.

² *Ibid.*, p. 186.

sixteenth century, carried the word and the Brazilian brand of tobacco to Canada, and *petun* became imbedded in several Indian languages. The older Huron word for "tobacco" is derived from the Carib *yuli*, which itself is from a Mandingo word. Thus, while the Carib and Arawak influence is apparent in the direction from Florida to the Huron country, the Brazilian influence proceeds up the St. Lawrence. The whole Atlantic triangle included between these two converging lines was left uninfluenced by these two streams, and here neither Carib nor Brazilian words for "tobacco," nor the moundbuilders' craft have been found. Here the "tobacco" words proceeded northward from Virginia, where the oldest form of the word is an abbreviated Span. *tabaco* or Fr. *tabac*. As time proceeded, the various streams overlapped, but even at this late day the cultural monuments are distinctly marked, in archaeology and in language, and the chronological data furnished by Columbus, Oviedo, Las Casas, Ponce de Leon, Jacques Cartier, Fontaneda, and the other early discoverers, bear out in every particular the patent fact that tobacco, the Negro's vice and solace, has played an enormous part in the civilization of the North American Indian, along the geographical trails trodden by the early trappers, *coureurs de bois*, and traders.

CHAPTER IV.

THE BREAD ROOTS.

I

On the fourth of November, 1492, Columbus entered into his logbook the following statement: "These lands are very fertile, and are full of *mames*, which are like carrots and have the flavor of chestnuts."¹ This logbook has not come down to us, except as worked up into a *Journal of the First Voyage*, and preserved to us, both in Las Casas' *Historia*, and in a manuscript belonging to Las Casas. In the margin of the latter, Las Casas, in the middle of the sixteenth century, wrote against *mames* "los *ajes* ó *batatas* son estos."² Just above this marginal note Las Casas rightly accused the author of the *Journal* and, with him, Columbus, of two blunders. Against the statement of the Indians that cinnamon and pepper grew nearby, Las Casas wrote, "the Indians must have lied." To the statement that *Bohio* was the name of a place, Las Casas wrote, "the Admiral must have misunderstood them." This illustrates the unreliability of Columbus and his editor as to things Columbus saw and heard on that fourth of November. When Las Casas identified the *mames* of Columbus as *ajes* or *batatas*, either one or the other, or both, made a mistake. The *mames*, from what follows below, are unquestionably the "yams" (*Dioscorea*), whereas the

¹ "Estas tierras son muy fértiles, ellos las tienen llenas de *mames*, que son como çanahorias, que tienen sabor de castañas," *Raccolta*, parte I, vol. I, p. 35.

² *Ibid.*

ajes and *batatas* are sweet potatoes (*Ipomaea*), and, according to Oviedo, who wrote thirty years later, the yams were an African plant; hence there is a confusion at the very start, which becomes worse as we proceed.

On December 16, 1492, the editor of the *Journal* describes the *ajes* on the island of Tortuga as follows: "They have planted in their fields *ajes*, which are little branches, which they plant, and at the bottom of these grow roots, like carrots, which serve for bread, and they grate them and knead them and make bread of them, and afterward they plant the same little branch again in another place and it again produces four or five roots, which are very savoury, and taste just like chestnuts; these here are the largest and best he had seen anywhere, for, says he, they are also found in Guinea; those found here were as thick as the leg."¹ Here everything is topsy-turvy. Bread was never made of sweet potatoes, nor can it be made, because they contain too much sugar. Hence Columbus is describing what is impossible. Besides, if Columbus saw these plants in Guinea, and there is no reason to doubt his statement, then he must be describing the *manioc*, from which bread is really made, and in that case *manioc* is an African plant. But the description of the planting of the *ajes* exactly corresponds to the planting of sweet potatoes, and if he saw these in Africa, Africa must also have had sweet potatoes before the discovery of America. But, on the other hand, if the roots were the size of a leg, then they could have been only yams or manioc roots, and

¹ "Tienen sembrado en ellas *ajes*, que son unos ramillos, que plantan, y al pie d'ellos naçen unas raýzes como çanahorias, que sirven por pan, y rallan y amassan y hazen pan d'ellas; y después tornan á plantar el mismo ramillo en otra parte, y torna á dar quatro y çinco de aquellas raýzes, que son muy sabrosas, proprio gusto de castañas; aquí las ay las más gordas y buenas que avía visto en ninguna [tierra], porque también diz que de aquellas avía en Guinea; las de aquel lugar eran tan gordas como la pierna," *ibid.*, p. 65.

Columbus did not see any sweet potatoes in the West Indies. Whichever way we take it, Columbus was drawing on his imagination, and no conclusion whatsoever can be made as to what Columbus saw on December 16, 1492. On December 21, 1492, Columbus saw at San Thomas "men and women running hither and thither to bring him bread made of *niamas*, which they call *ajes*, which is very white and good,"¹ and, in the words of Columbus, "the women were the first to come and give thanks to heaven, and they brought us what they had, especially things to eat, bread of *ajes*."² Here we have again the impossible statements that *ajes* are "yams," and that bread was made of them.

We can, however, see how all these impossible statements arose. If the Indians brought Columbus bread, it must have been maize bread, but the mistake was made by him, because on December 13 he sent out some Spaniards to an Indian settlement nearby, "where every one brought them something to eat, namely bread of *niamas*, which are certain roots as large as turnips, which they sow and raise in all these lands and live on; and they make of it bread, and cook and bake them, and they taste like chestnuts, and anybody eating them would take them for chestnuts."³ It is unquestionably the report brought to Columbus by sailors, who had, like himself, visited the coast of Guinea, that made him generalize and assume for certain

¹ "Los unos corrían de acá y los otros de allá á nos traer pan que hacen de *niamas*, á qu'ellos llaman *ajes*, qu'es muy blanco y bueno," *ibid.*, p. 72.

² "Y ay muy lindos cuerpos de mugeres, y ellas las primeras que venían á dar gracias al cielo, y traer quanto tenían, en espeçial cosas de comer, pan de *ajes*," *ibid.* And, again, on Jan. 15, 1493, Indians came with bread and *ajes* (*ibid.*, p. 98).

³ "Dixeron los christianos que después que ya estavan sin temor, yvan todos á sus casas, y cada uno les traía de lo que tenía de comer, que es pan de *niamas*, que son unas raíces como rábanos grandes que naçen, que siembran y naçen y plantan en todas estas tierras, y es su vida; y hazen d'ellas pan, y cuezen y asan, y tienen sabor proprio de castañas, y no ay quien no crea, comiéndolas, que no sean castañas," *ibid.*, p. 62.

that all the bread he saw anywhere in the West Indies was made from yams, sweet potatoes, or manioc.

We do not know the date of the writing of the *Journal*, but Columbus' logbook must have become public property immediately after his return from America, for there is not a word about *niames* or *ajes* in Columbus' *First Letter*, whereas Peter Martyr knew all about it on September 13, 1493. "He found men content with nature, naked, consuming native foods, and bread of roots; certain plants, the joints of which are frequent, are covered over in the ground for certain periods of time, from each joint of which grow round-shaped things like a pear or gourd. These they dig out when ripe as we do turnips and radishes, dry them in the sun, break them open, grind them into flour, crush them, cook and eat them. They call these vegetables by the name of *Agies*."¹ The next year Syllacio wrote: "The production of this island which excels all others is what they call *asses*; they are very like turnips of a tapering shape, except that they grow somewhat larger, like pumpkins. It must not be omitted that these *asses* have different tastes according to the manner in which they are prepared. When eaten raw, as in salads, they have the taste of parsnips; when roasted, that of chestnuts; when sodden with pork, that of squashes; when sprinkled with juice of almonds, nothing can taste more delicious, or is eaten with greater avidity. These esculents afford

¹ J. B. Thacher, *op. cit.*, vol. I, p. 56, from the Latin original on p. 55: "Homines reperit natura contentos, nudos, cibis depastos natiuis, et pane radicali, ex Spitalmalibus quibusdam fructetis internodiis plenis, quae ipsi terra suis contegunt temporibus, ex quorum internodiis singulis, singuli turgescunt globi, in piri, aut cucurbitulae similitudinem. Hos maturos, uti nos rapas, et rafanos eruunt, ad solem siccant, scindunt, terunt in farinam, pinsunt, coquunt, comedunt, vocant hos globos *agies*." And again, on the same day: "radicali quodam pane gens illa vescitur" (*ibid.*, p. 57); and later, Jan. 10, 1495, "radicali patriae illius pane vesci malunt nostri, quam tritico, quod sapidi sit gustus, faciliusque stomacho concoquant; utrumque sunt experti" (*ibid.*, p. 72).

an excellent material for the exercise of the culinary art, and are well adapted for use in eating houses and taverns. They furnish an agreeable variety of dishes very palatable on account of their savoury taste. You might compare them, for their good properties, to the manna gathered by the Israelites; *i. e.*, the Syrian dew. And, since they do not injure the body, nor oppress the stomach, they are prescribed, as wholesome food for invalids and the sick by the physicians appointed by the government to accompany the fleet. Seeds have been brought over to Spain, that our part of the world may be supplied with these prolific and many flavoured vegetables."¹ In the same year Dr. Chanca went out with Columbus on his second voyage. He, too, in a letter written some time later, described the *ages*: "They all came loaded with *ages*, a sort of turnip, very excellent for food, which we dressed in various ways. This food was so nutritious as to prove a great support to all of us after the privations we endured when at sea, which in truth were more severe than ever were suffered by man; and as we could not tell what weather it would please God to send us on our voyage, we were obliged to limit ourselves most rigorously with regard to food, in order that, at all events, we might at least have the means of supporting life; this *age* the Caribbees call *nabi*,

¹ *Ibid.*, vol. II, p. 249, from the Latin original on p. 229: "Fructus in ea maxime inter caeteros praestabiles *Asses* nominant, napsi persimiles figurae teretis: nisi quod paulo in maius excreuerint ut pepones. Illud non subtrahendum quod saporibus reddant varios: si vices mutaueris diuersa experire. Cruda degustata ut in acetariis solemus: pastinachas referunt: tosta castaneas: cum suilla carne elixa cucurbitas edere te credes. Quibus si amigdalinum lac inieceris: nihil gustaueris mollius: nihil voraueris gulosius. In omnes artes culinarum ususque popinarios aptissima fercula: varietate iocunda: sapiditate gratissima: ut iudaeorum mana idest rorem syriacum arbitreris. Cunque intima corporis non laedant neque ullo accepto incommodo ventrem grauent: inedicorum consilio qui regio salario deducuntur: aegrotis et male affectis exhibentur salubriter. Quorum semina faecunda et multisapida ne in nostro orbe desiderarentur: in hispaniam translata sunt."

and the Indians *hage*.”¹ Here we notice that *ages*, according to him, is not the Indian name, but that the Indians call it *hage*, the Caribs *nabi*. Dr. Chanca at least did not confound the *age* with the maize, for he distinctly mentioned that the bread of the Indians was made from a plant which was between an herb and a grass, which was not the *age*: “Their food consists of bread, made of the roots of a vegetable which is between a tree and a vegetable, and the *age*, which I have already described as being like the turnip, and very good food.”² Here we are on safer ground. We at last know that the Indian bread was made of a grass-like tree, and that *agé* was another plant. But we also see distinctly that the Indian name *hage* for the sweet potatoes is an imitation of *age*, which apparently is not Indian.

Amerigo Vespucci, in the Soderini letter of 1504, ventured on a fuller statement, by saying, “They have no seed of wheat, nor other grains, and for their common use and diet they use the root of a tree, of which they make flour, and it is tolerably good, and they call it *iuca*, and another which they call *cazabi*, and another, *ignami*.”³ The *Magliabecana MS.*, an eighteenth

¹ “Todos vienen cargados de *ages*, que son como nabos, muy excelente manjar, de los cuales hacemos acá muchas maneras de manjares en cualquier manera; es tanto cordial manjar que nos tiene á todos muy consolados, porque de verdad la vida que se trajo por la mar ha seido la mas estrecha que nunca hombres pasaron, é fue así necesario porque no sabemos que tiempo nos haria, ó cuanto permitiría Dios que estoviesemos en el camino; así que fue cordura estrecharnos, porque cualquier tiempo que viniera pudieramos conservar la vida. Rescatan el oro é mantenimientos é todo lo que traen por cabos de agujetas, por cuentas, por alfileres, por pedasos de escudillas é de plateles. A este *age* llaman los de Caribi *nabi*, é los indios *hage*,” R. H. Major, *Select Letters of Christopher Columbus, with other Original Documents, relating to his Four Voyages to the New World (The Hakluyt Society)*, London 1870, p. 63 f.

² “El mantenimiento suyo es pan hecho de raices de una yerba que es entre árbol é yerba, é el *age*, de que ya tengo dicho que es como nabos, que es muy buen mantenimiento,” *ibid.*, p. 68.

³ “Non tengono semente di grano ne daltre biade: ed alloro comune uso e mangiare usano una radice duno arbore dellaquale fanno farina ed assai buona e la chiamano *Iuca* ed altre che la chiamano *Cazabi* ed altre *Ignami*,” *The Soderini Letter 1504 in Facsimile, in Vespucci Reprints, Texts and Studies, II*, Princeton University Press 1916, p. 9.

century copy of a 1505 original, reads *carabi* for *cazabi*. In the Latin translation by Waldseemüller (Ilacomilus), which appeared in 1507, we have instead *chambi*, and we are told that *iucha*, *chambi*, and *ygnami* are names for the same root.¹ Whichever way we read it, the statement is wrong. If three separate roots are intended, we have *cazabi* as a root, whereas it is the flour from the root of the *yuca*. If we take the second reading, *igname* and *yuca* are the same, which is again impossible. In the *Epistola Alberici De novo mundo*, of possibly the year 1504, we have no name given at all for the roots.²

Here *yuca* occurs for the first time. Fragoso, a botanist of the sixteenth century, gives *yuca* as a Peruvian plant,³ whereas in 1504 Peru was not yet discovered. Obviously Vespucci could not have obtained the word from Peru, and the Peruvian word, if not the plant itself, is not native. This is corroborated by Garcilasso de la Vega, who describes all the roots in use in Peru, but has nothing to say about the *yuca*.⁴ It is also noteworthy that Garcilasso says, "all the names which the Spaniards give to the fruits and vegetables of Peru belong to the language of the Antilles; they have been adopted by the Spaniards, and therefore we speak of them as Spanish words."⁵

¹ "Omni farris granorumque aliorum semine carent. Communis vero eorum pastus siue victus arborea radix quedam est quam in farrinam satis bonam comminuunt et hanc radicem quidam eorum *iucha* alij *chambi* alij vero *ygnami* vocitant," Fr. R. v. Wieser, *Die Cosmographiae Introductio des Martin Waldseemüller (Ilacomilus) in Faksimiledruck*, Strassburg 1907, p. 57.

² "Gignuntur et ibi innumerabilia genera herbarum et radicum: ex quibus panem conficiunt, et optima pulmentaria," E. Sarnow and K. Trübenbach, *Mundus Novus*, Strassburg im Elsass 1903.

³ *Piva; Theatri Botanici Caspari Bauhini*, Basileae Helvet. 1623, p. 91.

⁴ "Of the vegetables that they grow beneath the ground," Book VIII, chap. 10.

⁵ *Ibid.*, in C. R. Markham, *First Part of the Royal Commentaries of the Yucas (The Hakluyt Society)*, London 1871, vol. II, p. 360.

Andagoya,¹ writing in the middle of the sixteenth century, says that in some provinces of Peru there were to be found *yucas*,² which he also mentions in Central America³ and Bogotá.⁴ This shows that *yuca* was a general name, used by the Spaniards, of a plant whose presence in America before its discovery is by no means certain. Nor is it certain that Andagoya saw *yucas* in Peru, for Garcilasso does not know them. He simply added *yucas*, because everybody since the days of Vespucci spoke of *yucas*. This is proved by the fact that Andagoya mentions in the same passages melons in Central America, cows and sheep in Bogotá, all of which were introduced from Spain; hence the *yuca* in some of the places in Peru and elsewhere could have been introduced in like manner. Similarly, Cieza de Leon, in 1553, said of Peru: "In these valleys the Indians sow maize, which is reaped twice in the year and yields abundantly. In some parts they grow *yucas*, which are useful for making bread and liquor, when there is want of maize. They also raise sweet potatoes, the taste of which is almost the same as that of chestnuts, besides potatoes, beans, and other vegetables."⁵ But he also mentions the grape vine, fig-trees and pomegranates, all of which were imported, and Levinus Apollonius, writing but thirteen years later, distinctly says that the Peruvians were also using those vegetables and roots which the Spaniards had introduced.⁶ Thus we have as yet

¹ C. R. Markham, *Narrative of the Proceedings of Pedrarias Davila (The Hakluyt Society)*, London 1865.

² "In all the provinces of this government they have these provisions, and in some of them they also have *aji* and *yucas*," *ibid.*, p. 74 f.

³ "A very fine land abounding in supplies of maize, *aji*, melons different from those here, grapes, and *yucas*," *ibid.*, p. 29.

⁴ "The food of the people consists of maize and *yucas*," *ibid.*, p. 84.

⁵ C. R. Markham, *The Travels of Pedro de Cieza de Leon (The Hakluyt Society)*, London 1864, p. 233 f.

⁶ "Elixo pistoque frumento et ferina vescuntur, quam ad diuturnum succidiarum usum veluti apud nos cardum, petasones et farcimina solent, fumo condurant, praeterea siccatis piscibus, et diuersis radicum olerumque

no proof that the *yucas* were known in Peru before the arrival of the Spaniards.

In 1504 there was published the *Libretto*, which Peter Martyr declared in 1516 to have been stolen from a manuscript copy of his *First Decade*, which, however, was not published until 1511. This *Libretto* and the *Paesi nuovamente ritrovati*, which appeared in 1507 and reprinted the *Libretto*, have no mention whatsoever of *yuca* or *cazabi*, but the *ages* appear there, as in the earlier references.¹ Similarly there is no reference whatsoever to *yuca* in Columbus' account of his Second Voyage, but Fernando Colombo's *Historie*, written many years later, contains in this account an insertion in regard to the *yuca*.²

We can now study the growth of the information conveyed by Peter Martyr in regard to yams, sweet potatoes, and manioc. In the *First Decade*, which appeared in 1511, Peter Martyr was able to combine the statement made by Vespucci that *yuca* was a root from which bread was made, and the statement of Dr. Chanca that the plant from which bread was made was different from the *ages*, which were eaten cooked. He also knew that the root of the *yuca* was poisonous.³

In the *Second Decade*, which appeared in 1516, he gave the information that *batatas* grew wild and that

generibus, et ijs denique omnibus quae postea Hispani intulere," *De Peruviae Inventione*, Antverpiae 1567, fol. 29 a.

¹ "I homini de quella isola usano in locho de pane certe radice de grandezza: et forma de nauoni alquanto dolce chome castagne fresche: elqual chiamano *Ages*," Thacher, *op. cit.*, vol. II, p. 459.

² "Maizium tamen et *iuccam* agesque isti colunt, uti diximus in Hispaniola fieri," *Raccolta*, parte I, vol. I, p. 260.

³ "Radicibus ij mites, nostris napis et magnitudine et forma, sed gustu dulci, castaneae tenerae adhuc similibus, ad cibum utuntur. Has, *ages* vocant ipsi. Est et aliud radicis genus, quam *iuccam* appellant, ex hac et panem conficiunt. *Agibus* vero magis assis aut elixis utuntur, quam ad usum conficiendi panis. *Iuccam* vero sectam et compressam, succosa namque est, pinsunt, et in placentas coquant. Sed mirum hoc: aconito lethaliorem esse aiunt *iuccae* succum, qui epotus, ilico perimit: panem autem ex eius massa, sapidum et salubrem esse omnes experti sunt," *Decade I*, book I.

they were also grown in gardens, and that they could be eaten raw.¹ The sweet potato, however, is not found in the wild state and cannot be eaten raw. In the *Third Decade*, which appeared together with the *Second Decade*, Peter Martyr, foreseeing that the Europeans would have to eat the *yuca*, gave a complete account of its planting and of the compression of the dried *yuca* into bricks, like our cheese, which is then called *cazabbo*. Here he again says that *ages* and *batatas* were used as fruits and not as bread. He also makes the blunder of stating that maize is used only when there is a lack of *yuca*,² the fact being universally that it is *yuca* which takes the place of maize, when this has failed. At the same time he gives the names of a large variety of *ages*, such as *guanaguax*, *guaraguei*, *zazauei*, *squiete*, *tunna*, *hobo*, *atibunieix*, *aniguamar*, *guaccaracca*.³ Even if it were possible to identify these as Carib words, we should not be able to assert that they are the expressions for native plants, any more than we could assume that the name "Early Rose" proved that potatoes are native to England. With the new varieties come the new names, and these cannot be used as an argument for the origin of the plant itself.

The first really great natural history of America is that by Oviedo,⁴ which appeared in 1526. Oviedo speaks from personal knowledge, having lived a long

¹ "Effodiunt etiam e tellure suapte natura nascentes radices, indigenae *Batatas* appellant, quas ut vidi, Insubres naps existimaui, aut magna terrae tubera. Quocunque modo condiantur assae vel elixae, nulli crustulo, aut alio cuius edulio cedunt dulcorata mollitie: cutis aliquanto tenacior quam tuberibus aut naps, terreique coloris, caro candidissima. Seruntur etiam et coluntur in hortis, uti de iucca diximus in *Decade prima*. Comeduntur et crudae. Viridis castaneae gustum cruda imitatur, est tamen dulcior," *Decade II*, book IX.

² "Diximus habere frumenti genus quoddam, panico fere simile, sed grandioribus granis nobilius. Id in farinam contusum, vi lapidum manu actorum pinsunt, iucca deficiente: estque vulgarior panis," *Decade III*, book V.

³ *Decade III*, book IX.

⁴ *De la natural hystoria de las Indias*, Toledo 1526.

time in America, and, although he perpetuates a considerable number of errors, due to imperfect information, he never wilfully mystifies. In order that one may comprehend the enormous changes that had taken place in America since its discovery, that is, in less than thirty-five years, we must listen to what he has to say about the imported animals and plants: "All the other animals which exist here were brought from Spain, of which I do not need to speak, since they were brought from there, and all I have to do is to note the great amount of them to which they have increased, both the cattle and others, but especially the cows, of whom there are so many that there are many proprietors who have from one to two thousand heads, and some even more than three and four thousand, and even as high as eight thousand . . . Similarly, there are many flocks of sheep, and pigs in great quantity, and many of them, as well as the cattle, have become wild."¹

Oviedo wrote in 1526 that there were certain plants called *ajes*, others called *batatas*, which were planted from slips, and that the *ajes* were dark blue and the *batatas* darker.² In the edition of 1535 he said, "In this island and in all the other islands, and on the mainland, at least in the places which the Christians have conquered and settled, there is a plant which is called *ajes*. . . As they cost very little and grow quickly, *there are many who give nothing else to eat to their Indians and Negroes but this and meat and fish,*

¹ Cap. II, fol. iiij b.

² "Ay otras plantas que se llaman *Ajes* y otras que se llaman *Batatas* y las vnas y las otras se siembran d' la propria rama la qual y las hojas tienen quasi como correhuela o yedra tendidas por tierra y no tan gruesa como la yedra la hoja: y debaxo de tierra nascen vnas maçorcas como nauos o çanahorias: los *ajes* tiran a vn color como entre morado azul y las *batatas* mas pardas: y assadas son excelente y cordial fruta assi los *ajes* como las *batatas*: pero las *batatas* son mejores," cap. LXXX, fol. xlj b.

and thus it is in all the settlements."¹ The *batatas* he describes as being of better taste than the *ajes*, and, in his opinion, the two are different varieties of the same plant. From the manner of the planting of the *ajes* and *batatas* it is clear that Oviedo is describing the sweet potato, for yams are not propagated from the branches, but from the root. At the end of book VII in the last edition, unpublished until the nineteenth century, we find a description of the yams, of which Oviedo says, "*Name* is a foreign fruit and not native to these Indies, having been brought to this Hispaniola and to other parts of these Indies. It came with

"Nesta yslla española y en todas las otras ysllas y tierra firme alo menos en lo que hasta agora los christianos han sojuzgado en ellas y poblado ay vna planta que se llama *ajes*: los quales queren parecer alos nabos grandes d'españa: pero estos *ajes* son mayores por la mayor parte. Crianse debaxo d' tierra y hazen encima d' tierra vna rama a manera d' correhuela pero mas gruessa. La qual con sus hojas y rama cubre toda la superficie d' la tierra do esta sembrada: la hechura d' la hoja es como la d' la correhuela o quasi yeora o panela: con vnas venas delgadas y los astilejos de que penden sus hojas luengos. All tiempo que se han de sembrar los *ajes* hazen la tierra montones por sus liños como se dixo en el capitulo d' la yuca antes deste. Y en cada monton ponen cinco o seys tallos de aquesta rama hincados en el monton con sus hojas: y luego prenden y se encepa: y por encima d' la tierra como he dicho se estiende y la cubre toda: y debaxo en las rayzes que haze echa el fruto: que son estos *ajes*. Los quales estan sazoados desde a tres: y a quatro: y a cinco: y a seys meses los mas tardios: pero en esto segun la tierra donde se ponen es buena o flaca: assi responde el fruto mas tarde o temprano: pero no passan d' seys meses en estar para cojer los *ajes*: aun que sean los mas vagarosos o tardios: y quando son sazoados con un açadon descubren el monton y sacan diez y doze y quinze y veynte y mas y menos *ajes* los quales son buen mantenimiento y muy ordinario aca para la gente de trabajo: y como son de menos costa y tiempo muchos ay que no dan otro manjar a sus indios y negros sino este y carne o pescado: y assi en todas las haciendas y heredamientos ay muchos montones y haças destos *ajes*: los quales cozidos son muy buenos: y asados tienen algo mejor sabor: pero d' la vna o d' la otra manera tienen sabor d' castañas muy buenas: y es muy gentil fruta para los christianos: porque como no la comen por principal ni ordinario manjar sino de quando en quando sabe mejor: assados y con vino son muy cordiales de noche sobre mesa: y en la olla son buenos: y hazen las mugeres d' castilla buenos potajes y aun fruta de sarten destos *ajes*: y tal que aun que fuesse fuera d' indias la aurian por buena. Son de buena digestion aun que algo ventosos: ay los tan grandes que pesan algunos dellos dos y tres y quatro libras o mas: y como he dicho generalmente son mayores que los nabos de Castilla: por defuera tienen vna corteza blanca y otros la tienen leonada y mas grossezuela que la delos nabos y cortandolo assi crudo parece nabo en la carne o fructo suyo," lib. VII, cap. III, fol. lxxiiij a.

that evil lot of Negroes, and it has taken very well, and is profitable and good sustenance for the Negroes, of whom there is a greater number than is necessary, on account of their rebellions. These *nnames* look like *ajes*, but they are not, and generally are larger than *ajes*. They cut them in pieces, and plant them a hand's distance under ground, and they grow. Thus came the first, and they have increased greatly in the islands where Christians have settled, and also on the main land, and they are a good sustenance."¹

The yams were obviously as common as the sweet potatoes, and like these they were used as food for the Negroes. Both seemed native to the soil, but we shall later see that Oviedo had good reason to know that the yams came from Africa, whereas he did not find in his sources any reference to sweet potatoes. We shall also see that *age* is originally the name of the yam, and not of the sweet potato, and that throughout the world the two were confused, and the same name served for both. Hence we have nothing in Oviedo to warrant the conclusion that the sweet potato was a native of America.

We find a mention of *yuca* in all the early voyages to Brazil. It is noteworthy that a number of these voyages were made by men who first visited the coast of Guinea and by accident or purpose were carried across the Atlantic. The very first of these, Alvares Cabral, was in 1500 carried by winds from Africa to

¹ "Name es una fructa extrangera é no natural de aquestas Indias, la qual se ha traydo á esta nuestra Isla Española é á otras partes destas Indias: é vino con esta mala casta de los negros, é háse fecho muy bien, é es provechosa é buen mantenimiento para los negros, de los quales hay mas de los que algunos avrien menester, por sus rebeliones. Estos *nnames* quieren paresçer *ajes*; pero no son tales, é son mayores que *ajes* comunmente. Córtaños á pedaços, é siembran soterrándolos un palmo debaxo de tierra, é nasçen; é assi vinieron los primeros, é despues de la planta é rama que haçen, se han multiplicado mucho en las islas que hay pobladas de chripstianos, é assi mismo en la Tierra-Firme; é es buen mantenimiento," *op. cit.*, vol. I, p. 286.



Manioc. From Thevet's *Cosmographie*.



Brazil, but there is a possibility that the Dieppe sailor Cousin had discovered Brazil in a similar way twelve years earlier.¹ There certainly were many voyages to Brazil immediately after 1500, of which no account is given,² and in 1503 Gonneville and other Frenchmen landed in South America, in order to load there their ships with brazil wood, cottons, monkeys, parrots, and other things.³ French intercourse with the Indians of Brazil began at once and continued uninterruptedly, but none of the early voyagers reported having seen yams or manioc in the newly discovered country. In 1518 there was published in Paris *Eusebii Caesariensis Chronicon cum additionibus Prosperi et Mathiae Palmerii*,⁴ in which an account was given of seven Indians who had been brought to Rouen with their boats, wearing apparel, and arms. Of these it said that they ate dried meat, and drank water, and knew neither bread, wine, nor money. This may be somewhat of an exaggeration, but about 1535 Parmentier described the Indians of Brazil, which he had visited, and said of them that they ate beans, carrots, millet,⁵ and had nothing whatsoever to say about *yuca* or *ages*. That by millet he meant maize is proved from the fact that he tells of their making an intoxicating drink from this millet. It is inconceivable that he would have omitted mentioning *yuca* and *ages*, which by 1535 were in everybody's mouth. While numerous Frenchmen visited Brazil in the beginning of the sixteenth century and traded extensively with the natives, Portuguese were similarly carried from Africa to Brazil. The earliest account

¹ P. Gaffarel, *Histoire du Brésil français au seizième siècle*, Paris 1878, p. 1 ff.

² *Ibid.*, p. 18 ff.

³ *Ibid.*, p. 23.

⁴ *Ibid.*, p. 58.

⁵ Ramusio, *op. cit.*, vol. III, fol. 426 b.

of such a voyage is by Duarte Fernandes,¹ and this does not tell anything of the native plants, but contains an interesting list of animals taken back to Portugal, parrots, cats, and three macaos,² that is, *monkeys*. I purposely emphasize "monkeys," because this gives us an opportunity of ascertaining the rapidity with which foreign words were adopted by the natives even for native commodities, if these formed a subject of commerce.

In the first place, Varnhagen, the editor of the voyage, makes the mistake of considering the large number of "cats" as maracayas, that is, as "felices pardales," whereas in reality they are monkeys, for in the beginning of the sixteenth century monkeys were generally known under the name of *gatos monillos*, as which they are described by Oviedo. Wild cats were not a subject of exportation, while monkeys were. In 1526 Oviedo mentions the large number of longtailed monkeys which were exported to Spain.³ In the Italian translation of Oviedo, made in 1534, these monkeys are called *gatti mammoni*,⁴ which are mentioned as *gatti maymones* as early as 1302.⁵ Acosta, on the other hand, mentions these monkeys as *micos* or *monos*.⁶ I have treated the whole question of "monkey" names in an article entitled *Μορμώ*, for Vollmöller's *Romanische Forschungen*, of which I read the proof in 1915, but with whose fate during the war I am unacquainted. Hoping that it may have appeared, I shall quote from it only as much as is necessary for our present discussion. Span. *mono* is very old, for, in

¹ *Diario da navegação de Pedro Lopes de Souza e Livro da viagem da Nao "Bretoa" ao Cabo Frio*, Rio de Janeiro 1867.

² *Ibid.*, p. 108.

³ "Cada dia se traen a España," *op. cit.*, fol. xxij b.

⁴ *Libro secondo delle Indie occidentali*, Vinegia 1534, cap. XXV, fol. 28 b.

⁵ In the *Chronicon estense* and in Muratori, vol. XV, p. 348.

⁶ "De los Micos, o Monos de Indias," *Historia natural y moral de las Indias*, Seuilla 1590, lib. IV, cap. 39.

the form *monnekin*, it is found already in J. de Condé's *Li dis d'entendement*, "A *Monnekin*, le fil *Martin*, Le singe, qui bien sot latin, Et qui estoit elers couronnez, Estoit li offices dounez D'escire a court."

We have seen that monkeys were known as cats, but we have the very old French tom-cat names *marginut*, *marcou*, which are found dialectically in Allier *macot*, Vosges *morcot*, *mouarcot*, Norman *marcau*, Centre *macaud*, Berry *macau*, *machau*, etc., hence also the Fr. *magot*, Wallon and Picard *magaiot*, Champagne *magui* "monkey." We have also the Spanish cat names *mizo*, *micho*, Ital. *micia*, *mucia*, etc., from which we get the good Span. *mico* "monkey," as recorded by Acosta. It is most likely that Portuguese *macao* for "monkey," as recorded in Fernandes, is nothing but the French Norman word for "cat" or "monkey," since the French sailors from Normandy were the first to trade in Brazil. To illustrate the manner in which the monkey words have traveled, I first give the whole list of Fernandes:

It. ho capytam tres papagayos e dous toys e hu gato e sam p. todos hj peças	6
It. ho espruam hu papagayo	1
It. ho mestre dous gatos e hu çagoym e sam p. todos iij peças	3
It. ho pylloto dous gatos e b çagoys e tres papagayos e biiij toys e sam p. todos xbiiij peças	18
It. domjngos sera carpemteyro tres macaos e dous gatos e sam p. todos b peças	5
It. Juramj despemseyro b gatos e b çagoys e iiiij papagayos e biiij toys e sam por todos xxiiij peças	23
It. amdre a° hû gato e hû çagoym	2
It. njçollao Royz marynheyro tres gatos e hû çagoym iij peças	3
It. fernam galleguo marynheyro hû papagayo	1

It. allu.° aões marynheyro hû papagayo	1
It. allu.° Royz marynheyro hû papagayo	1
It. ho comtramestre hû toym	1
It. dyoguo frz. grumete dous çagoyz	2
It. Jom ferador grumete hû papagayo e hû toym	2
It. p.° Jorge grumete hû çagoym	1
It. fernando page hû toym foram.” ¹	

First as to *çagoy*, *çagoym*. G. Soares de Sousa² described the *saguins* as small hairy monkeys, which were kept as pets in the houses. Martius records in the Tupi languages, *sagui juru tinga*, in Portuguese “*macaquinho de cara branca*,” the hapale leucocephala; *sagui-merim*, the hapale penicillata; *sagui-oçu* or *sagui-piranga*, the hapale rosalia; *sagui pixuna*, the simia callithrix; *sahú*, *saó*, *saú*, the simia callithrix personata; *sai*, *sahy*, *çahy*, the simia macaco, cebus fatuellus; *sai-taiá*, *sai-tauá*, the simia cebus flavus. It would seem, therefore, that there cannot be the slightest doubt that *çagoy*, *çagoym* is a Tupi word. Yet that is far from the truth. The Tupi-Guarani dictionaries record no word *sai*, *sao*, but *cai* for “monkey,” and this is corroborated by Léry and Maregraff, who write correctly *cai*. Just as Martius erred in writing *çai* for *cai*, so Maregraff wrote *cagui* for *çagui*, for which he gave a picture,³ and which he compared with the Kongo *pongi*. Léry not only described the marmoset, which the savages call *sagouin*,⁴ but he also knew that the controversy between the poet Sagon and Marot brought the *sagouin* into poetry,⁵ which was some time in the thirties of the sixteenth century. This shows how rapidly the word *çagoy* spread into

¹ *Op. cit.*, p. 108 f.

² *Tratado descriptivo do Brasil em 1587*, Rio de Janeiro 1879, p. 233.

³ *Historia naturalis Brasiliae*, Lugdun. Batavorum, Amstelodami 1648, p. 227.

⁴ *Histoire d'un voyage fait en la Terre du Bresil, autrement dite Amerique*, Rochelle 1578, chap. X.

⁵ See Godefroy, sub *sagouin*.

Europe, on account of its forming an important object of importation. Before monkeys were brought from America, they were imported from Africa, and, as Maregraff's constant references testify, chiefly from the Congo and Guinea. In the Congo country we find the name for "monkey" Portuguese *bugio*, in Lunda *buji*, *pugi*.¹ Whether the Portuguese is original and refers to *Bugia* in the north of Africa, or Lunda *buji* is original, I do not wish to discuss here. Whatever it may be, it illustrates the interrelation between Western Africa and the Portuguese in matters of trade. Similarly, the Portuguese "monkey" name *çagowim* is found in Dahome *ziwũ* (i. e. *ziwun*) "any longtailed monkey," Akwapim *soa* "a species of monkey," also "small." *Sua, sue* "small" is universal over a large territory in Guinea, and that is unquestionably the underlying meaning for the species of monkey under discussion. There cannot be the slightest doubt that the Guinea appellation was brought to Brazil in 1511, even as *macao, mico, mono*, European words, have traveled the same way.

Martius records Galibi *makaque* "white monkey," Tupi *macaca, macaco* "monkey," *mono* "monkey," *mono-miri qui* "simia ateles hypoxanthus," *mono juru tykur* "Macaco bosca d'agoa, callithrix brunnea," *mico* "cebus fatuellus." *Mono* we may dismiss at once, as the European origin is obvious. *Mico* is recorded in Carib, by Breton, as *mecu*, while "cat" is *mechu*. As cats were introduced into America from Spain,² the first being mentioned only in 1535,³ it is obvious that *mechu* is simply Span. *micho*. Similarly, *mico* "monkey" is the Spanish name. As to *macaco*, this word is found wherever the Portuguese traded. Marc-

¹ H. A. Dias de Carvalho, *Methodo pratico para fallar a lingua da Lunda*, Lisboa 1890, p. 347.

² Herrera, *op. cit.*, I. 1. 5.

³ *Ibid.*, V. 7. 9.

graft¹ says of the *cercopithecus angolensis*, "in Congo vocatur *macaquo*." The word is not found in any Bantu language, except in Kimbundu, which was under Portuguese influence. The Portuguese also carried the word to Madagascar, where it is found as *maki*, *macouco* in European writers, such as Brisson,² and as *maka* in Richardson's Malagassy Dictionary, but in the very full account of the lemurs of Madagascar by James Sibree³ there is not one which even distantly bears such a name.

About the year 1558 we get several accounts in which the *manioc* is mentioned in Brazil. In Nicholas Barré's account of Villegaignon's expedition,⁴ published in 1558, we read, "This country produces only millet, which in our language is called Sarracin corn, of which they make wine with a root which they call *maniel*, which has a leaf like paeonia mas, and I thought that it was it. It grows into a tree of the height of an alder; of this they make a soft flour, which is as good as bread."⁵ We observe here that *manioc*, which the author calls *maniel*, is only a secondary food, maize apparently forming the chief sustenance. As Villegaignon also mentions sugar cane, oranges, lemons, and citrons as growing in Brazil, there is no way of ascertaining whether *maniel* was any more native than the other fruits. Léry, who was in Brazil shortly afterwards, in 1578 described the two roots *maniot*

¹ *Op. cit.*, p. 227.

² *La regne animal*, Paris 1756.

³ *The Mammals of Madagascar*, chap. IV, *The True Lemurs*, in the *Antananarivo Annual*, No. XIX, vol. V, p. 279 ff.

⁴ *Copie de quelques lettres sur la navigation du Chevallier de Villegaignon es terres de l'Amerique oultre l'Aequinoctial, iusques soubz le tropique de Capricorne*, Paris 1558.

⁵ "La terre ne produict que du Mil, que lon appelle en nostre pais bled sarrazin, duquel ilz font du vin avec vne racine qu'ils appellent *Maniel*, qui a la feuille de Paeonia mas: & pensois veritablement que s'en fut. Elle vient en arbre de la haulteur du Sambucus. D'icelle ils font de la farine molle, qui est autant bonne que du pain," *ibid.*, p. C 2 b.

and *aypi* in full,¹ but that does not help us, in the first place, because Peter Martyr described it before then, in 1511, and because the variation of the word, *maniot*, like Villegaignon's *maniel*, casts a suspicion on its being native. Thevet, in 1558, called the plant *manihot*,² which he said grew from the Straits of Magellan to Florida and Canada.³

In 1557 there appeared Federmann's Journeys to South America, which were made from 1529 to 1532.⁴ This is of particular interest to us on account of an article of manufacture in America, which will be discussed in volume II. Here I shall only mention that it deals with the German colonization scheme of Welser, for whom Federmann made explorations in the interior of Venezuela. Among other things he mentions the use of maize by the Indians,⁵ but not a word is said about *manioc*. One cannot, of course, assert that the Indians did not have it, but the omission is certainly strange.

Hans Stade⁶ visited Brazil in and after 1548. He, too, went by the way of Madeira and the coast of Africa. After eighty-four days at sea he reached Brazil at Marin, where the Portuguese had established a settlement. The governor of the land asked the ship's crew to occupy the settlement called Garasu. The force that went to the aid of the settlement consisted of ninety Christians and thirty Moors and Brazilian slaves, who belonged to the inhabitants.⁷

¹ *Op. cit.*, chap. IX.

² *Les singularitez de la France Antarctique, autrement nommée Amerique*, Anvers 1558, fol. 111 a.

³ *Ibid.*, fol. 111 b.

⁴ *Indianische Historia*, [Hagenaw] 1557, in K. Klüpfel, *N. Federmanns und H. Stades Reisen in Südamerika*, Stuttgart 1859.

⁵ "Mahys das ist ihr korn," *ibid.*, p. 44; "im hausz uff vier pfeilern, und dreier männer hoch stunde, darinn sie ihr korn oder Mahys pflegen zuhaben," *ibid.*, p. 74.

⁶ K. Klüpfel, *op. cit.*

⁷ "Darneben dreissig Moren und Prasilianische schlaven, welche der einwoner eigen waren," cap. III, *ibid.*, p. 103.

The thirty Moors were apparently Negroes, who were the Brazilian slaves of the inhabitants. The food of the besieged settlement soon ran out, "for it is in that country the custom to fetch fresh roots every day or every other day, and to make meal or cakes thereof."¹ After the siege, the ship proceeded, having taken in water and mandioca meal for food.² So far we have heard only of *manioc* as used by the Portuguese. After a while the ship returned to Portugal, suffering from scarcity of food, and to each of them "daily was given one small cup of water, and a little Brazilian root meal."³ In 1549 Stade sailed again, this time by Cape Verde and Guinea. The ship anchored at the island of San Thomas, where the Portuguese lived "with many black Moors, who are their slaves."⁴ Then the ship arrived in Brazil, at St. Catherine's harbor, where they found a Spaniard. "Then he asked us whence we came. We said that we were the king's ships from Spain, and we purposed sailing to the Rio de Platta, also that there were more ships on the way, and we hoped (if it pleased God) that they would also soon arrive, for here we intended to meet. Then he declared himself well pleased and thanked God, for he had three years previously been in the province of Rio de Platta and had been sent from the place called La Soncion, held by the Spaniards, down to the coast, which is some three hundred miles journey, in order to induce the tribe known as Carios, and who are friends of the Spaniards, to plant roots called *mandioca*, so that the ships might there again (if it happened that they were in want) obtain provisions from the savages. Such had been the orders of the captain who took the

¹ *Ibid.*, cap. IV. I use the translation of A. Tootal, *The Captivity of Hans Stade of Hesse* (*The Hakluyt Society*), London 1874, p. 22.

² *Ibid.*, p. 24.

³ *Ibid.*, cap. V, p. 25.

⁴ *Ibid.*, cap. VI, p. 27.

last news to Spain; he was named Captain Salaser, and had also returned with the next ship."¹

It will be observed here that a Spaniard had been sent up from La Plata, some 1200 miles, to ask the friendly Carios to plant roots called *mandioca* for the Europeans wrecked on the coast. A little distance away they found a Biscayan living among the Indians.² Still further down the coast, two leagues opposite the Island of San Vincente, they found a Portuguese settlement.³ At San Vincente they found an *ingenio*, that is, a sugar plantation. In the neighborhood of Brikioka, another Portuguese settlement, they found Indians who made wine out of *maize* and *manioc*.⁴ Not far from this place, Stade was captured by the Indians, and was taken thirty leagues down the coast. Here "we ran up on a beach which borders the sea, and close to it were their women in the plantations of the root which they call *mandioka*."⁵ These Indians were in constant relations to the Europeans, and a Frenchman was living only four leagues away.⁶ In 1554 "during the fifth month of my stay with them, there arrived another ship from the island of S. Vincent, for the Portuguese are accustomed to sail well armed to their enemy's country, and to barter with them, giving them knives and reaping hooks (hepen) for *mandioca* meal, of which the same savages there have much in various places, and the Portuguese, who have many slaves for sugar cultivation, procure this meal, wherewith to feed these same."⁷ Again we see that the Indians planted *manioc* for the sake of the Portuguese, who fed it to their Negro slaves. In chapter X of the Second

¹ *Ibid.*, cap. IX, p. 35 f.

² *Ibid.*, cap. X, p. 37.

³ *Ibid.*, cap. XIII, p. 42.

⁴ *Ibid.*, cap. XVII, p. 49.

⁵ *Ibid.*, cap. XXI, p. 59.

⁶ *Ibid.*, cap. XXVI, p. 67.

⁷ *Ibid.*, cap. XXXVIII, p. 88.

Part Stade describes the manner of planting the manioc, to which the English annotator has the footnote, "This is the modern Brazilian style of cultivation, and it remarkably resembles that of Unyamwezi;"¹ that is, the resemblance to the African method of planting is observed.

We see from this whole account that *manioc* was raised chiefly for the sake of the Portuguese and, so far as we know, only in the neighborhood of European settlements, where there were also Negro slaves. Again we find at Las Reyes, on the River La Plata, Indians who lived in friendly relations with the Spaniards, raising maize and manioc;² and another German, Ulrich Schmidt von Straubingen,³ in 1567, found the same Carios whom Stade had described, planting "*mandeochade, padades, mandeoch parpie, mandioch mandapore,*" etc.⁴ By no means all Indians raised *manioc*, as may be seen from the fact that a special expedition had to be set on foot "to find Indians who had *manioc* and Turkish corn."⁵ But by that time, even as in 1555, *manioc* was quite universally planted, and nothing can be deduced as to its frequency in 1500. The same Indians raised geese and chickens,⁶ and these were importations from Europe.

Very few writers on Brazil mention the sweet potatoes. In 1519 Pigafetta claimed to have received *batatas* from the natives in Brazil;⁷ but as he talks in

¹ *Ibid.*, p. 130.

² *The Commentaries of Alvar Nuñez Cabeza de Vaca (1555)*, in *The Conquest of the River Plate (1535-1555) (The Hakluyt Society)*, London 1891, pp. 118, 155, 199.

³ *Voyage of Ulrich Schmidt to the Rivers La Plata and Paraguai, ibid.*

⁴ *Ibid.*, pp. 14, 19.

⁵ *Ibid.*, p. 37.

⁶ *Ibid.*, pp. 15, 19, 63, 66, 68, 118, 168.

⁷ "Do ue pigliassemo grã refresco de galine *batate* pigne molte dolci fruto in vero piu gentil que sia carne de anta como vaca canne dolci et altre cose infinite q̄ lascio p non essere plixo p vno amo da pescare o vno cortello dauano 5. ho 6. galinne p vno petine uno paro de occati p vno spequio ho vna forfice tanto pesce q̄ hauerebe bastato a X homini p vno sonaglio o vna

the same breath of *boii*, *amache*,¹ and *maiz*,² as Brazilian words, although they were used by Columbus for the Caribs, and tells of having received from the Indians sugar cane,³ which was imported into America from Africa, it follows that either Pigafetta did not get any *batatas*, or, if he got them, they were as little native to the soil as was sugar cane. Pigafetta also found *batatas* in the islands of the Ladrões, in Borneo, and in the Maluchos,⁴ and if this be correct, the *batatas* are more likely an Asiatic plant. But if the Asiatic *batatas* are yams, then what are the Brazil *batatas*? Thus Pigafetta gives us no answer at all. It is significant that Soares de Sousa, in 1587, identified the *batatas* with yams, as he distinctly says that they are planted from the roots, and not from the slips, as in the Antilles.⁵ He also mentions *carazes* and *mangarazes*, as roots similar to the *batatas* and planted in the same way. If this is the case, then the *batatas* of Pigafetta are also yams, and if he really got them in Brazil in 1519, the African yams must have been established there before that time. Similarly, Léry calls the *batatas* by their native name, *hetich*, and, from the fact that they are planted from pieces of the root, it is clear that he is describing the yams.⁶ Thus

stringa vno cesto de *batate* queste *batate* sonno al mangiare como castagnie et longo como napi," J. A. Robertson, *Magellan's Voyage Around the World*, by Antonio Pigafetta, Cleveland 1906, vol. I, p. 36.

¹ *Ibid.*, p. 38.

² *Ibid.*, p. 44.

³ *Ibid.*, p. 36.

⁴ *Ibid.*, p. 94, vol. II, pp. 20, 110.

⁵ *Op. cit.*, cap. XLIV.

⁶ "Quant aux racines outre celles de Maniot et d'Aypi, desquelles comme i'ay dit au neuvieme chapitre les Sauuages font de la farine, ils en ont encores d'autres qu'ils appellent *Hetich*, lesquelles non suelement croissent en aussi grande abondance en leur terre que font les raues en Limosin, ou en Sauoye, mais aussi il s'en treue communément d'aussi grosses que les deux poingts et longues d'un pied et demy plus ou moins. Et combien que les voyant arrachees hors de terre on iugeast de prime face à la semblance, qu'elles fussent toute d'une sorte: tant y a neantmoins d'autant qu'en ciusant les unes deuenans violettes comme certaines Pastenades de ce pays, les autres iaunes comme Coins, et les troisiemes blancheastres, i'ay opinion qu'il y

we are once more confronted with the fact that the most important foodstuff of the Brazilian natives must be of African origin.

II.

Pliny says:¹ "Among the varieties of the bulb, too, there is the plant known in Egypt by the name of *aron*. In size it is very nearly as large as the squill, with a leaf like that of *lapathum*, and a straight stalk a couple of cubits in length, and the thickness of a walking-stick: the root of it is of a milder nature, so much so, indeed, as to admit of being eaten raw." *Aron*, of course, is the Greek form of what should appear in Egyptian as *aru* or *aro*. Unfortunately the botany of Egypt is very imperfectly recorded, and it is not possible to identify many of the terms; but we have a plant *aru*, or, as Erman writes, *izaro*, which has after it the plant sign of the lotus, and so is most likely the *aron* of the Greeks and Romans. Pliny mentions two other varieties of arum, the *dracunculus*, Gr. *dracontion*, which is used against snake bites,² and *aris*, or *arisarum*, which also grows in Egypt, and which has the miraculous property of destroying any female animal with whose generative

en a de trois especes. Mais quoy qu'il en soit ie vous puis asseurer que quand elles sont cuites aux cendres, principalement celles qui iaunissent, qu'elles ne sont pas moins bonnes à manger que les meilleures Poires que nous puissions auoir. Quant à leurs fueilles, lesquelles traissent sur terre comme *Hedera terrestris*, elles sont fort semblables à celles de Cocombres, ou des plus larges Espinars qui se puissent trouuer par deçà: non pas toutes-fois qu'elles soyent si vertes, car quant à la couleur elles tirent plus à celles de *Vitis Alba*. Au reste parce qu'elles ne portent point de graines, les femmes Sauuages, qui sont soigneuses au possible de les multiplier, pour ce faire ne font autre chose (oeuvre merueilleuse en l'Agriculture) sinon d'en couper par petites pieces, comme on fait icy les Carotes pour faire salades: et semans cela par les champs elles ont au bout de quelques temps autant de grosses racines d'*Helich* quelles ont semé de petits morceaux. Toutesfois parce que c'est la plus grande manne de ceste terre du Bresil, et qu'allans par pays on ne voit presque autre chose, ie croy qu'elles viennent aussi pour la pluspart sans main mettre," *op. cit.*, ed. of 1578, p. 214 ff.

¹ XIX. 96.

² XXIV. 149.

organ it comes in contact.¹ We have also in Assyria a plant *šam ere* "the plant used as a love philter," which is derived from *erū* "to become pregnant, conceive." There is also *aru* "germ, sprout," which either refers to the same, or to a similar plant.

We meet with the name and the plant once more in Arabic, where the name undoubtedly is of Greek origin. Ibn-al-Auwam,² writing in the twelfth century in Spain, says: "According to Abu'l-Khair, the *arum*

(اللوف *al-lūf*) is the same as the *šarākhah*. There is

one kind with a large root from which rises a stalk marked like the skin of a serpent. This is known under the name *arṭaniša* or *dragition* (i. e. *dracontion*), which, according to Ibn-Obeid-al-Bakri, means 'dragon's eye.' According to Ibn-al-Faṣel the *arum* root is planted in August in the garden borders or little frequented spots. It is treated in the same manner as a rose-bush. According to Abu'l-Khair there is one kind which is called *arūn*. In Barbary it is called *ayerbā*. It produces a stalk about a span high, it has the form of a pestle; it is of purple color; its fruitage is saffron yellow; its foot is of average thickness. One reads in the Nabataean Agriculture: The *arum* (*lūf*) is a wild plant which the inhabitants of Babylon cultivate in their gardens. It has a thick white root which in the cultivated state has no acidity at all, or very little of it. The wild species is much more acid. It has a long white speckled leaf, but often the leaf has no spots. The length of the stalk is a little more than a span; its color is that of the sweet violet; it is round and thick; it produces a small fruit which some ancient writers believed to be a kind of colocassia(?). Accord-

¹ XXIV. 151.

² J.-J. Clément-Mullet, *Le Livre de l'Agriculture d'Ibn-al-Auwam*, Paris 1866, vol. II, chap. XXVIII, art. XIII, p. 306 ff.

ing to the Nabataean Agriculture they cook the root, which is eaten with all kinds of seasoning and spices and herbs; in this case it is a good food. They also eat the leaves, which are seasoned with vinegar and cooked. They also cook the foot of the stalk and the leaves with different culinary preparations. From the root of the arum bread is prepared in the following manner: it is dried, broken in pieces, and reduced to flour, either the root alone, or by adding the leaf, flower, and stalk, only when the root and fruit are used without the other parts of the plant, the bread is better and more nourishing. This arum (*luf*) resembles the plant called *dragintun* (*dracontion*), which likes shady, cold, and moist places, where the sun cannot reach it and the trees and everything else forms a shade. Its leaf resembles that of the dragonwort, with this difference, that the leaves are spotted with white and that it is much larger than its congener. Its stalk grows without knots or divisions. It has spots of yellow, red, green, white, violet and serpentine. This plant resembles a large cane of two cubits or a little more in size. Its fruitage resembles a bunch of grapes: when it begins to appear it is green; after a short time it becomes yellow, partly of a very dark, and partly of a lighter shade. The root is large, round, covered by a thick shell; it is eaten after being prepared as mentioned before. This plant grows abundantly and spontaneously in places where the sun shines a little during the day. The arum does not suffer at all from prolonged presence of water on the root, because it is a plant which by nature is protected from rotting. According to the Nabataean Agriculture the root is added to the fruit, the whole is dried, peeled, and ground up, and one gets a bread which is eaten with fat, butter, or jam; it is nourishing and of good quality; it needs no other preparation but

slow baking. The root is taken up in the month of haziran (June), and at the end of May; the seed is collected earlier. This root must not be used as food without being ground, because in the grinding it loses its acidity, which disappears only under the pestle or the grindstone."

In a chapter in which Ibn-al-Auwam treats of the preparation of fruits and roots, "which, according to the Nabataean Agriculture, may produce a bread that can be eaten in case of need and when other food is lacking,"¹ there is mention also of arum. "Know well, says the Nabataean Agriculture, that all these cultivated or wild plants, either in their entirety, or in their fruits, or in their roots only, have a bad taste, which makes men to reject them as food, such as bitterness, acidity, stypticity, sourness, and excess of salt and such like, all these bad tastes, we say, can be removed by a stay of twenty-four hours in fresh water. This water is renewed several times, at least twice, then the product is boiled twice in another water, which has to be changed each time, operating in about the same manner as before."

The two passages are of great importance from many standpoints. The *arum* is called "the crier." Ibn-Baitar calls it thus,² because, according to the common opinion in Spain, this plant emits cries on the day of the 'anşarah (June 24, Pentecost, birth of John the Baptist), which is the *Mihriğān* (مهرجان), and he who hears the cry dies that very day. Ibn-al-Auwam says, in the Calendar,³ that in the month of June is the *Mihriğān*, called 'anşarah. *Mihriğān* is even now in use in Persian in the sense of "autumnal equinox,

¹ Chap. XXIX, art. XIII.

² *Ibid.*, p. 306, note.

³ *Ibid.*, p. 428.

autumn." Albīrūnī¹ says that on the sixteenth of September the Persians celebrated the *Mihriḡān*, which he etymologized wrongly to mean "the love of the spirit." "The Persian theologians have derived various symbolic interpretations from these days. So they consider *Mihriḡān* as a sign of resurrection and the end of the world, because at *Mihriḡān* that which grows reaches its perfection and has no more material for further growth, and because animals cease from sexual intercourse."² This *Mihriḡān* is the "feast of Mithra," which was widely celebrated in Armenia, Cappadocia, and elsewhere.³ What is interesting for our purposes is the fact that it was connected with the end of the crops and the sexual season.

We learn from Ibn-al-Auwam and Ibn-Baitar that this *Mihriḡān* was transferred from September 6 to June 24, the birth of John the Baptist. This makes it clear that we are here dealing, not with the original Persian Mithraic myth, but with a Christian transference to Saint John's day, which naturally made it necessary to alter the relation to the end of the crops and the sexual season. That we are really concerned with a Christian holiday is shown from the fact that it was celebrated in Spain by Spaniards and Arabians alike.⁴ But who could it have been that introduced the changed feast to the Mohammedans and Christians? This could have happened only through the Nestorian Syrians who had scattered as far as China and came to Spain with the Arabs, and who transferred many an Eastern myth and story to the West. It is only in this way that can be explained the extraordinary fact that the mandrake, which was connected with

¹ C. E. Sachau, *The Chronology of Ancient Nations*, London 1879, p. 207 ff

² *Ibid.*, p. 208.

³ F. Cumont, *Textes et monuments figurés relatifs aux mystères de Mithra*, Bruxelles 1896-1899, vol. II, p. 6, vol. I, p. 230.

⁴ R. Dozy and W. H. Engelmann, *Glossaire des mots espagnols et portugais dérivés de l'arabe*, Leyde, Paris 1869, p. 136.

the Mithra worship, received an addition and transformation from China, by infusing into it the Chinese philological speculation connected with the *arum*.

The mandrake is called in Latin *mandragora*. All we know of it in antiquity is contained in the description given of it by Pliny: "Some persons, too, were in the habit of employing mandragora for diseases of the eyes; but more recently, the use of it for such a purpose has been abandoned. It is a well-ascertained fact, however, that the root, beaten up with rose oil and wine, is curative of defluxions of the eyes and pains in those organs; and, indeed, the juice of this plant still forms an ingredient in many medicaments for the eyes. Some persons give it the name of 'circaeon.' There are two varieties, the white mandragora, which is generally thought to be the male plant, and the black, which is considered to be the female. It has a leaf narrower than that of the lettuce, a hairy stem, and a double or triple root, black without and white within, soft and fleshy, and nearly a cubit in length. Both kinds bear a fruit about the size of a hazel-nut, enclosing a seed resembling the pips of a pear in appearance. The name given to the white plant by some persons is 'arsen,' by others 'morion,' and by others again, 'hippophlomos.' The leaves of it are white, while those of the other one are broader, and similar to those of garden lapathum in appearance. Persons, when about to gather this plant, take every precaution not to have the wind blowing in their face; and, after tracing three circles round it with a sword, turn towards the west and dig it up. The juice is extracted both from the fruit and from the stalk, the top being first removed; also from the root, which is punctured for the purpose, or else a decoction is made of it. The filaments, too, of the root are made use of, and it is sometimes cut up into segments and kept in wine. It is not the man-

dragora of every country that will yield a juice, but where it does, it is about vintage time that it is collected; it has in all cases a powerful odour, that of the root and fruit the most so. The fruit is gathered when ripe, and dried in the shade; and the juice, when extracted, is left to thicken in the sun. The same is the case, too, with the juice of the root, which is extracted either by pounding it or by boiling it down to one third in red wine. The leaves are best kept in brine; indeed, when fresh, the juice of them is a baneful poison, and these noxious properties are far from being entirely removed, even when they are preserved in brine. The very odour of them is highly oppressive to the head, although there are countries in which the fruit is eaten. Persons ignorant of its properties are apt to be struck dumb by the odour of this plant when in excess, and too strong a dose of the juice is productive of fatal effects. Administered in doses proportioned to the strength of the patient, this juice has a narcotic effect; a middling dose being one cyathus. It is given, too, for injuries inflicted by serpents, and before incisions or punctures are made in the body, in order to ensure insensibility to the pain."¹

To this must be added what Josephus Flavius has to say about it: "In the ravine which surrounds the city on the north side, there is a certain place called Baaras, which produces a root of the same name as itself. Its colour is like that of fire, and towards evening it sends out a ray like lightning, and is not easily taken by such as approach it and wish to take it, but recedes from their hands, and is not stationary until either a woman's urine or menstruous blood be poured upon it; nay, even then it is certain death to those that touch it, unless one take and hang the root itself down from the hand, and so carry it away. It is also taken another

¹ XXV. 147-150.

way without danger, namely, as follows. Persons dig quite round it, till the hidden part of the root is very small; they then tie a dog to it, and when the dog starts to follow the person that tied him, the root is easily plucked up; but the dog dies immediately, as if a victim instead of the man that would take the plant away. Nor after this need any one be afraid of taking it into his hands. Yet after all this risk in getting it, it is only sought after on account of one property it has, that if it be only brought to sick persons, it quickly drives away those who are called demons (who are no other than the spirits of the wicked) that enter into men that are alive, and kill them, unless they can obtain some help against them."¹

It is clear from the two accounts that the highly poisonous quality of the root caused the exaggerated accounts of the danger of digging it up. It is also clear that *mandragora* is a corruption of an Avestan word of which the first part is *mithra*, since in Persian *mihra* means both "mandrake" and "sun," that is, "Mithra." Since the mandrake was distinctly connected in antiquity with love philters and was supposed to be in some way favorable to the sexual process, the mandrake is called in the Bible דודי *dudai*, which is etymologically connected with דוד *dōd* "love." Similarly Pers. *mihra* also means "friendship, love," and the original meaning of *mandragora* must have been "love wort." This is brought out in the Persian explanation of the *Mihriḡān*, which brings an end to the sexual relation of the animals, hence the mandrake must in some way have been connected with the celebration of the autumnal equinox, when no mandrake, which was sacred to Mithra, could be touched. Whatever the real significance of the mandrake may have been, we

¹ *De bello iudaico*, VII. 6, 3.

have not a trace in antiquity of the mediaeval conception that the mandrake *shrieked* when touched. This idea did not arise until the confusion of the *arum* with the mandrake, after the seventh century of our era.

When the Nestorians transferred the *Mihriḡān* from September to June, there was no sense in taking over the mandrake, which ripens and loses its stalk in September. It was necessary to find a plant which ripened in June, and we have already seen that the *arum* roots were taken up in June. Now we have Chinese 芋 *yü* "to flourish, the taro, also applied to other edible tubers." This ideogram is, according to the Chinese etymology, derived from 艸 "plant" and 吁 "moaning sound." The first part, represented in *yü* as 艸, need not detain us, since it is merely the denominative "plant." The second, which represents the sound, is a pictorial contraction of 呼 *hsü* "to sigh sorrowfully, an interjection alas! dear me! pooh!" As the Chinese etymology indicates, there must have originally been a word which stood nearer to the latter in sound than to the first. This is shown conclusively by the pronunciation *hsü* for this very word, in the sense of "great," i. e. "flourishing," when it has the same tone. The old pronunciation is given as *wu*. The various varieties of tuberous plants which resemble the *arum aquaticum* are formed in Chinese from this *yü* and some specifying word. Thus "taro" is given as *yü teu*. Annamese *da vu* for the same "taro" indicates that there was also a Chinese word which sounded approximately *ta wu*. We see at a glance that we have here Polynesian *taro*, hence *wu* must go further back to a sound *ru*, that is, to *aru*, with which we began.

The Nestorians added the etymology of the Chinese word for *arum* to the mythology of the mandrake and

transferred it to the *arum*. The story, as it now spread in Spain and the rest of Europe from the Syrians, has led to some startling results. Here I wish only to mention that OHG. *alrūna* "mandrake" proves that

the Arab **الأرُون** *al-'arūn* "arum" was transferred by the Germans to the more popular mandrake.

Chinese *wu*, *yü*, or whatever the dialect forms of the word for "arum, edible root" may have been, occur in most of the Polynesian, Melanesian and Malay languages as the generic word for "edible root, more especially yams." We have Malay *ubi*, Javanese *uwi*, *wi*, Sundanese *huwi*, Madurese *obi*, *uwi*, Alfur, Tontemboea *uwi*, Gorontalu *wiwi*, New Guinea (the Four Rajas) *wili*, Busand *ube*, Tobelore *ubi*, Malagassy *ubi*, *ovi*, Kayan *uvi*, Sikayana *ufi*, New Caledonia *ubi*, New Ireland *u*, Efate *uwi*, Fiji *uvi*, Motu *uhe*, Samoan, Tongan *ufi*, Tahitian, Maori, Hawaiian, Mangarevan, Paumotan *uhi*, Mangaian *ui*, Sulu *ūbī*, Tagalog, Bisaya *obi*. We see that *uwi* is found over an enormous territory, from the Philippine Islands to Australia, and to Madagascar.

In Madagascar yams are mentioned by nearly all the travelers, from 1506 on,¹ hence they must have existed there before the discovery of America. We have descriptions of several varieties which were cultivated there in 1604,² and we hear also of a variety which grew wild in the forest.³

Watt⁴ tries to dispose of the statement that there are no Sanskrit names for the yams, and mentions *dandālu* (*Dioscorea alata*), *maohvālu* (*D. aculeata*), *pindālu* (*D. globosa*), and *raktālu* (*D. purpurea*).

¹ *Collection des ouvrages anciens concernant Madagascar*, Paris 1903, vol. I, pp. 33, 38, 41, 50, 54, 117, 127, 138, 153, 156, 457.

² *Ibid.*, vol. VII, p. 171 f.

³ *Ibid.*, vol. IV, p. 297 f.

⁴ *A Dictionary of the Economic Products of India*, London, Calcutta 1890.

Unfortunately these occur only in very late dictionaries, not earlier than the sixteenth century. It seems pretty clear from Watt's discussion that wild growing varieties of yams occur in India and that *ālu*, *āru* (in the modern dialects) were not applied to the colocassia nor the *amorphophallus campanulatus*, but only to some tuberous roots resembling the dioscorea or identical with it. It is hard to tell where the *āru*, *ālu* came from in India, but from its universal occurrence in Africa, it would seem most likely that it is of Arabic origin, because **أروم** 'arūm is used in Arabic as a generic name for "edible roots."

أروم 'arūm, **أرومة** 'arūmah is given by the Arabic dictionaries as "the root-stock, or rhizoma, the part from which branch off the **عروق** 'urūq, or roots properly so called." It naturally would be applied to a root like a carrot or yam, hence the Arabic dictionary says of the carrot: "a certain root, **أرومة** 'arūmah, which is eaten." A more usual word for a yam-like root is **جبة** gambah, recorded since the eleventh century in dictionaries, hence unquestionably of Arabic origin. The dictionaries say of this word: "every kind of plant, or every kind of tree in general that produces new leaves in the spring; a name given to many plants, all of them **عروق** 'urūq; so called because less than large trees and higher than those

that have no root-stock (أرومة 'arūmah) in the earth;

of the kind of which the root remains in the winter while the branches perish; herbage of which the root is deep in the earth." Mere fragments of the botanical works of the Arabs have come down to us. Fortunately we have a passage in Ad-Dīnawarī's *Book of Plants*,¹ written in the ninth or tenth century, in which the botanical term *gambah* is explained: "What grows up from the root but belongs to those plants

whose stalk dies down is called جنبه *gambah*, because it differs from a tree whose trunk and roots are perennial and so form an intermediary (جنبه *gambah*) between the two."² We have the Arabic root

جنب *ganaba* "he led him by his side," from which comes

جنب *gamb* "the side, the armpit extending to the

flank," from which we get Ital. *gamba*, Fr. *jambe*, etc., and Ad-Dīnawarī tries to etymologize *gambah* "root," by saying that it was standing aside between the perishable and permanent roots, but the etymology is forced and impossible. There can be little doubt that

Arab. جنبه arose from a misreading of Syr. حبصا 'embe,

which means "grape" and was used for the expression of bulbous roots. We have Syr. حبصا زقرا'ة 'embai zar'ā

"mandrake," lit. "earth tuber." The etymology is of

¹ B. Silberberg, *Das Pflanzenbuch des Abū Hanīfa Aḥmed ibn Dā'ūd ad-Dīnawarī*, in *Zeitschrift für Assyriologie*, vol. XXIV, p. 225 ff., vol. XXV, p. 39 ff.

² *Ibid.*, vol. XXV, p. 64.

little consequence to our purpose. What is important is that since the tenth century, at least, Arab. *جنبه gambah* referred to bulbous roots.

If we consider that the Nabataean Agriculture in the ninth century directed the attention to the use of roots as food in time of famine, and that Ibn-al-Auwam in the twelfth century gave precise instruction how to make bread from the root of the arum and similar plants, we can easily see of what importance this practical science must have been to the Arabs who traversed the Sahara, in order to reach the Guinea coast and beyond. Not only were there frequent caravan connections between the Western Sudan and the Arabian north, but the greater part of the Niger region fell under some kind of influence of Islamism, and Arabic words can be traced in the most distant Negro and Bantu languages. Without the edible roots it would have been well nigh impossible to travel for months through desert country, and the occasional gardens in the oases were of doubtful value after the season of ripening and in times of drouth, whereas the roots that stay in the ground may be relied upon at any time. No wonder, then, that we find throughout the greater part of Africa direct evidences, not necessarily of the discovery and first exploitation of root plants, but certainly of the intrinsic Arabic influence upon Negro agriculture.

The Arab. *جنبه gambah* is found in the French Sudan as *diambi*, *niambi*, *gnambi*, *niami*, the name of a wild growing Dioscorea.¹ We have also Mandingo *nyambo* (Mende *ngawī*), Malinke *nyeme ku*, *ku nyambi* "wild growing yam," Bambara *niambi*, *diambere*,

¹ A. Chevalier, *Un voyage scientifique à travers l'Afrique occidentale*, [Paris 1902], p. 96.

Wolof *nyambi*. Thus we see that the Arab. *gambah* is found only in the region of Guinea and the Western Sudan, in the Mandingo languages and in Wolof, where Arabic influence was paramount. In the rest of Africa other appellations prevail. When Columbus spoke of *niames* which were larger than those in Guinea, he was quoting a Guinea name, as we see from the above. We have ample evidence that *igname* was used by the early voyagers, not as a name for "yams," but for any edible roots, such as savages were supposed to live on. Pero Vaz de Caminha, in a letter of May 1, 1500, described Cabral's discovery of Brazil, and under April 30 he wrote: "They do not work nor plant, and there is here neither ox nor cow, nor goat, nor sheep, nor chicken, nor any other animal on which men usually live; nor do they eat anything but *inhamé*, of which there is here a great quantity, and the seeds and fruits of trees which grow here and which the trees shed, and yet they are as well and healthy as those of us who eat wheat and vegetables."¹ It is clear that if the Indians did not work nor plant, they could not have lived on yams, of which no variety, certainly none that grew wild, existed in Brazil. Caminha simply used *inhamé* in the general sense of "edible roots," which tells us absolutely nothing about the food of the Indians.

Pedro Alvares, in the same year, voyaged around Africa to India, and in describing the region of Cape Verde he says that the people there eat a root called *igname*, "which is the bread which they eat."² As

¹ "Eles nom lauram nem criam nem ha aquy boy nem vaca nem cabra nem ovelha nem galinha nem outra nenhuã alimarea que costumada seja ao viuer dos homeês nem comen senom dese *inhamé* que aquy ha muito e desa semente e fruitos que a tera e as aruores de sy lançam, e com isto andam taaes e tam rrijos e tam nedeos que o nom sono nos tanto com quanto trigo e legumes comemos," *Centenario do descobrimento da America; Memorias da Commissão Portugueza*, Lisboa 1892, p. 77.

² Ramusio, *op. cit.*, vol. I, fol. 121 f.

bread is not made from yams, *igname* here refers to all edible roots. A little later a Portuguese pilot described Saint Thomas in Africa, and of the food of the Negroes there he said: "The root which by the Indians of Hispaniola is called *batata*, the Negroes of Saint Thomas call *igname*, and they plant it as the chief article of sustenance; it has a black color, that is, in the skin, but inside it is white and of the size of a large turnip with many branches; it tastes like chestnuts, but much better, and it is much more tender; they eat it roasted in the ashes and also boiled; they are substantial and satisfy like bread; they have no quality, that is, they are neither cold nor warm; they are easy of digestion and are considered wholesome. There are several varieties of these roots, that is, *igname cicorero*, which are used by the ships which come to Saint Thomas to take on sugar for clothing and carry off a great quantity of them by the sea, and they stay fresh for many months, and sometimes a year will pass before they spoil. There are three other sorts of above mentioned *ignames*, that is, of Benim, of Manicongo, and a third that are yellow; but they do not last so long. The Benim *igname* is more delicate to the taste than any other. The Negroes plant a lot of them, because the ships take off a lot. This is the way they plant them: the roots are cut into slices, and in each they leave a bit of the black skin; this slice is planted where the earth has been worked with a hoe, that is, where the grass has been removed, and nearby they put in a long stick. It produces a leaf resembling in form and brilliancy that of the citron, but smaller and thinner. It takes five months for the plant to ripen, and when the roots are ready to be taken up, they find out by the sticks around which are the *igname* leaves and which are all dry. If it were not for the sticks the roots could not be found, on account

of the thick growth of leaves all around; but, seeing the sticks, they dig around them, and they find that one root has produced four or five large roots, which are dug up and put in a hill to dry in the sun and the wind for a few days, when they are ripe and properly seasoned."¹

We learn from this full account of the yams that they were planted from Guinea to the Congo, and that they were not only the food of the Negroes, but were exported extensively in ships, that is, that they were as much a necessity to the white man as to the Negro. Moreover, if the pilot is not mistaken in identifying the *batata* of Hispaniola with the *igname*, the *batata* was not only a sweet potato, as assumed by Oviedo, but also a yam. If the pilot was mistaken, we have still the fact that sweet potatoes and yams were mistaken for each other. Another worse mistake is recorded by Duarte Barbosa,² who in 1514 said that in the Island of San Lorenzo, of the east coast of Africa, "their principal food is roots, which they sow, and it is called *yname*, and in the Indies of Spain it is called maize." A little earlier the continuator of Cadamosto told of having received in 1500 from the Negroes "a certain root which is called *igname*, from which their bread is made and which the Arabs also use,"³ confusing *ignames* with the manioc. From all these accounts, however, it is clear that it was originally in Guinea that the word was employed by Spanish and Portuguese navigators, and that it was loosely used for any edible roots used by the Negroes and forming a subject of commerce for the ships which touched on the African shores.

¹ *Ibid.*, fol. 117 e.

² H. E. J. Stanley, *A Description of the Coasts of East Africa and Malabar in the Beginning of the Sixteenth Century* (The Hakluyt Society), London 1866, p. 14.

³ J. Huttich, *Novus orbis*, Paris 1532, cap. LXV, p. 57.

In Guinea to the south of the Wolofs and Mandingos the words for "yam" are generally derived from one which must have sounded very much like *aru*. M. Delafosse gives the following forms for *igname* on the Ivory Coast in the neighborhood of Asante: Asante *odye*, Abron *edye*, Zema *elüe*, Afema *elüe*, *edüe*, Baule *duo*. Koelle gives Ekamtulufu *elu*, Udom *elu*, pl. *belu*. These two languages are from Sierra Leone, and the plural of the Udom form helps us to classify a large number of forms over an enormous territory, but, before doing so, we must observe that a variant form *enu*, pl. *benu*, is recorded near Udom, in Mbofon. Therefore we have in Vei, where Koelle locates *dyambi* as the name of the wild growing Dioscorea, the compound *sinabeli*, in which *beli* is apparently a plural. In his Vei Grammar¹ Koelle writes *dşambi* for the first and *sina beri* for the second. Similarly a compound is to be suspected in Tene *urebili* "yam," which is in the same region. This is made a certainty in the light of Bambara *diambere*, by the side of *niambi*, and of Malinke *nyeme ku*, in which *ku* is apparently the original word for "yam" in the Mandingo languages. We also have, in the same neighborhood, Gbandi *mbulei*, Landoro *mbole*, *mboe*, Mende *mbole*, Gbese *bele*, Toma *boe*, Gio *ble*, Okuloma *buru*, Nki *bero*, Kambali *muro*, Alege *berui*, Udso *bulu*. The most interesting of all forms of this type is Kanuri, Bornu *bermä*, because the ending *-ma* occurs also in the "yam" words in Filham *ekāma*, Goali *şīāma*, Puka *dşīāma*, Pika *ntsumo*, *nzumo*, Baseke *yoma*, pl. *bioma*, Kiriman *mu-tsāma*, Nkele *dyōma*, pl. *biōma*, all of which go back to Arab. 'arūmah "root."

The *belu* forms, as a singular, have found their way into the Moko languages of Sierra Leone, namely, Isuwu, Diwala *mba*, and into the Fula languages of

¹ S. W. Koelle, *Outlines of a Grammar of the Vei Language*, London 1853.

Upper Nile, A-Sandeh *mbala*, *mbarra*, Dyur (Shilluk) *baddo*, Bongo *motto*. As these languages are related to Bornu, where the word is *berma*, and to Fula, where it is, as in Hausa, *dauea*, it is clear that no original word for "yam" existed, but that it was borrowed from other tribes, according to proximity. But more especially have the *belu* forms found their way into the Bantu languages of the Congo. Koelle records Kabenda, Mimboma, Musentandu, Mutsaya, Nyombe, Basunde *mbāla*. Nearly all of them form the plural *zimbāla*, or a form like it, and thus Vei *sinabeli* is either the form from which the Kongo words have been formed, or vice versa. Fortunately we can verify the Bantu forms from more recent and fuller grammars. From these it appears that there is no uniform word for "yam" in the Bantu languages, and that only on the West Coast, that is, in the region which stood in relation to the Arabs, are there *mbala* words for "yam" or "sweet potato," as in Kongo, Fiote, and Vili. When we consider, besides, that the Fula tribes of the Upper Nile migrated there within a century or so from the West Coast, it appears clearly that the *mbala* words are all derived from the West, from an original Negro *ba-* plural of *elu*. We thus arrive at the conclusion that the Niger valley is the distributing region of the words of this type for "yam" and, in all likelihood, of the yam itself as a cultivated plant, due to the agricultural activity of the Arabs.

The *enu* variety of the word is not widely distributed. We have Timne *anai*, Bulom *anei*, Sobo *one*, Bini *inya*, Mbofon *ēnu*, pl. *bēnu*, Limba *ne*, pl. *neni*, Opanda, Egbirama *enu*. By far the most common, and most widely distributed variation from *aru*, is the one that appears as transformations of *aḍu*, where *ḍ* is a cerebral *d*. But before discussing this most common group, it is necessary to point out, as was done in America

in the case of "banana," that a wide distribution of a term, may, contrary to philological speculation, be the result of a late importation. For this purpose I shall choose the words for "rice," which in Koelle's *Polyglotta africana* immediately precedes "yam."

Two great groups are discernible in the two hundred languages quoted by Koelle. One is derived from a root *maro* or *mora*. I shall quote these languages approximately in the order of the phonetic changes this original root has undergone. In the Arabic Beran we have two varieties of rice, *māro* and *lurdsu*. We have also Pulo, Nalu, Gadsaga, Kaure, Baga *maro*, Fulup, Filham *emāno*, Sarar, Pepel *omāno*, Bola *omānam*, Kanyopi *umāni*, Biafada *womāno*, Padsade *pamāno*, Bidsogo *ōman*, Wun *bōman*, Banyun *mānu*, Madenga, Bambara *malo*, Soso *malla*, Hwida, Mahi *māliku*, Kisi *mālon*, Gbese *moron*, Dewoi, Basa *mo*, Gbe *mōso*, Anfue *emōli*, Dahome *mōliku*, Mose *mui*, Dselana *muri*, Guresa *mūe*, Koama *mīrin*, Bagbālan *mīren*, Kasm *mūru*, *mīru*, Yula *mīru*, Ekamtulufu *amōrante*, Udom *amorāmog*, Asante *emō*, Barba *mo*, Boko *mole*, Tumbuktu *mō*, etc. The second group is in all likelihood all borrowed directly from Hausa *šinkafa*, since the Hausas have traded in all the territory where similar words are recorded. We have Yagba *šikafa*, Eki *dšinkapa*, Oworo *dšikapa*, Ife *sinkafa*, Igala *ōdšikapa*, etc., etc. In the Congo region there are only derivatives of Portuguese *arroz*, namely, Kabenda, Mimboma, Musentandu, Kasands, Basunde, Lubalo *lōso*, Angola *lōs*, etc. In Yoruba we have both *mo* and *sinekafa*, and similarly, Gurma *emūri* and *šinkafa*. L. Krapf¹ throws a light on the first of these two varieties. In Swahili we have *mora*, pl. *miora*, "a bag in which an inferior kind of rice exported from

¹ A *Dictionary of the Suahili Language*, London 1882, under *mora* and *gunia*.

India is packed; this rice is mixed up with dirt, little stones, etc." And again: "gunia is a kind of bag made in India of hemp to hold rice; *this kind of rice the Arabs call mora*; in the opinion of the Suahili it is bad rice." That *mora* or *maro* is, indeed, an Arabic term is proved by Arab-Hassania and Soninke *maro* "rice,"¹ which is in the Western Sudan. We see, then, that the first group of words for "rice" is derived from an Arab. *mora*, whatever its origin, for a poor variety of rice, which, apparently, found its way to the Guinea Coast. We should, therefore, expect the second variety, expressed in Hausa as *šinkafa*, to be winnowed or cleaned rice. Indeed, we have Swahili *singwa* "to be rubbed, scoured, cleaned," *sugua* "to rub hard," etc., which explains the second variety. But Swahili *singwa* is as little Bantu as Hausa *šinkafa* can be referred to a Hausa root. They all come from a corrupted Arabic word, as may be seen in Bedauye *senhafa*, a Barka participial form of *nehaf* "pure, clean," which L. Reinisch² considers to be a by-form of *nehas*, which he compares with Arab. *نصح* *naṣaḥa*,

but that is extremely doubtful. We most likely have here a North African participial form from Arab. *نظف*

nazafa "to purify, cleanse." As the Hausas extended their commercial enterprises from Barka to the Western Sudan, it is not to be wondered at that the North African term should have found such wide extension. Now that we have discovered the origin of the "cleaned rice" from Barka, we can show that the "unclean rice" is derived similarly from the Bedauye language. Here we have *āra* "fruit, seed," a Hamitic root repre-

¹ L. Faidherbe, *Langues sénégalaises*, Paris 1887.

² *Wörterbuch der Bedauye-Sprache*, Wien 1895, p. 182.

sented in Egyptian *izaru*, "plant" that is, the very root which we have seen to lead in the Assyrian to *āru* "plant," hence to our *arum*, and this produces *me-āre*, *me-āri* "food, sorghum vulgare," which is found in Nubian *māre*, *māle* "durra corn, sorghum, bread." In Bilin we have similarly *ar* "corn, wheat, any product like durra or sorghum, and the same word is used for "corn" in Agua, Chamir, Ouara and other Semitic languages of Africa. It is clear, therefore, that Bedauye *meāri*, Nubian *māre*, universal African *mara*, etc., represent the chief food, which, in our case, is rice.

There is a strange stray root, *saka*, found in unrelated languages all over the west coast of Africa, which, like the Swahili *sugua*, *sigā* "to rub hard," means "to shake, put in disorder," or else, "rice." Thus we have Pul (Fulah) *sakkude* "to put topsy-turvy," Ewe *sakā*, *sakasaka* "disorderly," Akra *sakasaka* "disorderly," Yoruba *sakasaka* "hay, groundnut leaves, dried provender," Asante *sakā*, *sakasaka* "disorder, confused, scattered," *saka-mo* "to sow rice," Sotho (in the Transvaal) *ḡakaḡakana* "to get into disorder," Grabwa, Neule, Alaguan, Awikam, Adyukru *saka* "rice." These words occur only in the neighborhood of old Portuguese and Spanish trading posts, and the meaning "hay, groundnut leaves, dried provender" in Yoruba, as well as the form *sakkude* in Pul, at once suggest that we have here Port. *sacudir* "to shake up," *sacudo* "violent, hasty," that is, that *saka* represents, as in the case of Hausa *sinkafa*, the winnowed rice, as opposed to *mora* "unclean rice." Thus we have throughout Africa two sources for all the rice words, the Arabic, distributed by the Hausas, and the Portuguese, along the western coast, whether in Bantu or Negro country.

We return to our *aḡu*. In Ewe we have *aḡē*, which is dialectically *aḡe*. Koelle records Aku, Ota, Egba,

Yoruba, Eki, Oworo *īdṣu*, Idsesa *ēṣu*, Yagba, Dsumu, Ife, Ondo *īṣu*, Isoama, Isiele, Aro *idṣi*, Abadsa *dṣi* and *ghi*, Nupe *edṣi*, Kupa *ītsi*, Esitako *īdṣi*, etc. The forms may be greatly increased from the modern dictionaries. What is given suffices to show how we get at the *te*, *do* and *ku* forms from *aḍu*. We have already found Abadsa *dṣi* and *ghi* side by side. We have similarly Dewoi, Basa, Kra *si*, and in the related Krebo *ki*, in Adampe, Anfue *ete*, Dahome *te*. Bola *katoḥ*, pl. *ītoḥ*, Sarar *katōk*, pl. *itōk*, Pepel *kītōk*, pl. *ītōk* show that the root is approximately *ito*. In Biafada *wulādṣo*, pl. *mālādṣo*, Padsade *mārādṣo* we have similarly a root *adṣo*. About Bornu *do* prevails. We have Munio, Nguru, Kanem, Karekare, Bagirmi, Hausa *dōya*; and Anan *ēdīa*, Akurakura *edog* show that *edo*, *ado* are the underlying roots. In Mandingo *kū* prevails, which is also found scattered over a large territory, including Kongo *kwa*; but if we compare Undaza *ākūa*, pl. *bēkūa*, with Murundo *ēo*, pl. *bēo*, Ndob *dṣīan*, pl. *bedṣīan*, Nkele *dyoma*, pl. *bioma*, Mfut *kedīen*, pl. *bedīen*, Ntere *kēkōa*, pl. *bēkōa*, there can be little doubt left that we are dealing here with a root *kua* for *dōya* of the north. The correspondence of *k* and *s* may be shown in a large number of African languages, but it will suffice to refer to the Mande languages, that is, Mandingo, where this is a very common occurrence.¹

Thus we arrive at the amazing uniformity, in spite of phonetic variations, of the "yam" words, as derived from an original *aru*. The question is here whether we are dealing with an exceedingly old Egyptian *aru*, or a later Arabic form. The first seems improbable, as the ancient *aru* refers throughout the known world of antiquity to the "arum" or "colocassia," whereas in the derivatives of *aru*, *aruma* in Africa, and *aru* in

¹ H. Steintal, *Die Mande-Neger-Sprachen*, Berlin 1867, p. 51.

India we are dealing exclusively with the "yam." When we consider that *aru* is not even recorded in the old Hindu literature, it becomes more than probable that the Niger valley in Africa is the original region of the "cultivated yam," from which the roots were carried throughout Africa and by the Arabs to India and the East Indies. In Africa the linguistic departure from *aru* or *alu* spreads and grows from the Gold Coast, and this group does not reach the East Coast or the South at all. Had the group proceeded from Egypt, the departure would have gone the other way. Indeed, we have a proof that in Zanzibar and the opposite shore the importation was from Madagascar. Here we have *kiazi*, pl. *viazi* "sweet potato," while *kiazi kikuu* is "yam." This *kiazi* is a back formation from the plural *viazi*, which itself is from Malagassy *ovihazo* "sweet potato," from *ovi* "yam" and *hazo* "tree," but the latter is merely a popular etymology for the West African *adže*, *adze* "yam, sweet potato." It appears, therefore, that the Swahilis did not get their words for "yam" and "sweet potato" until the latter was introduced into Madagascar. Outside of the Arabic and Portuguese and Spanish trade routes we have hardly any records of the yams, and certainly no words which belong to our group. Thus it is quite certain that the cultivation of the yams was the result of the need experienced by the Arab traders in obtaining in Africa permanent supplies of easily raised food, as suggested by the Arabian agricultural works which go back to the eighth century.

The yams were taken to Asia, or native wild growing varieties were cultivated in Asia by the Arabs some time before the sixteenth century, possibly as early as the eighth or ninth century. But the case is quite different with the sweet potatoes. The evidence of the Asiatic languages is for a very late introduction,

that is, after the beginning of the Spanish and Portuguese voyages to Asia. The "sweet potato" is called in Malay *ubi jawa*, that is, it is supposed to be a native of Java, but in Javanese it is *kastela*, in Amboy *ubi kastela*, that is, "Castillian yam." This excludes Indo-Polynesia as the native home of the sweet potato. We have, however, another interesting word for sweet potato in Indo-Polynesia. We have for the *Ipomoea chrysorrhiza* Samoan *umala*, Tahitian *umara*, *uara*, *uala*, Hawaiian *uwala*, Tongan, Wagap (New Caledonia), Futuna *kumala*, Marquesan *kumaa*, Mangarevan, Easter Islands, Maori, Fiji *kumara*. In several of these islands the plant is especially referred to as lately introduced, and we have long mythological accounts of the boats in which the *kumara* was brought to New Zealand;¹ but here chronology fails us completely, although there is no doubt as to the late importation of the sweet potato into Indo-Polynesia. To make matters worse, at Quito in Peru the sweet potato is called *cumar*.² It is clear that in all these cases we have an importation of the sweet potato from a region where its name should approximately be *kumara*, and there cannot be the slightest doubt that it was imported into Asia by the Spaniards or Portuguese from the Congo, where we have Kongo *kwa kiambala*, Kikongo *kikwa kimbala*. We have already seen that both *kwa* and *mbala* are derived from the Guinea Coast *aru*, *alu*, and that both are used indiscriminately in the Congo region for "sweet potato" and "yam," but in the Congo region "sweet potato" is generally a develop-

¹ J. White, *The Ancient History of the Maori, His Mythology and Traditions*, Wellington 1887-88, vol. III, p. 97 ff., vol. IV, p. 3 ff.

² C. R. Markham, *The Travels of Pedro de Cieza de Leon (The Hakluyt Society)*, London 1864, p. 234.

ment of "yam." Thus, in the interior of the Congo we find:

Gmbwaga	<i>ba</i>	"yam"	<i>bande</i>	"sweet potato"
Gbanziri	<i>ba</i>	"	<i>badoro</i>	" "
Ifumu	<i>kwa</i>	"	<i>libala</i>	" "
Gbea	<i>goro</i>	"	<i>bado</i>	" "

while further in the interior we have a *bad* form for "yam," A-Sandeh *mbala*, *mbarra*, Dyur *baddo*, Bongo *motto*. But the word which gave *kumara* was just as well applied to some imported varieties of the "yam," for the two are constantly confused, even in the Congo, and we have Fr. *cambar* in Mauritius¹ and Madagascar² chiefly for the "*Dioscorea alata*".³ But it is precisely the *Dioscorea alata* which in the interior of Africa (as well as at the West Coast) is called *mbarra*, as in A-Sandeh. It is, therefore, not an accident if in India we get Bengali *kamalu* "*Dioscorea alata*" and *kummara* in Telugu for "*Dioscorea aculeata*."

We now turn to the manioc in Africa. In the Arabian oases the Arab. عروق '*urūq* "roots" is found as Soa *rūga*, Wadai *ērig*, Adirar *arug*, pl. *urūgu*, Beran *arug*, and Bedauey *arāg* "root." In the Negro languages there seem to be a few borrowings from the Arabic,

¹ "Those of the Indies, called *cambar*, weigh often upwards of a pound. its skin is blue, like a violet: but it is white within, and its taste very insipid: it affords a variety to the food of the Negroes: it multiplies considerably, as well as the potatoe, some kinds of which are preferable to the European chesnut," Ch. Grant, *The History of Mauritius, or the Isle de France*, London 1801, p. 51.

² "Les *cambares* aussi, dont il y en a de deux sortes, les unes violettes, et les autres blanches, qui sont tres agreables au goust," E. de Flacourt, *Histoire de la grande isle Madagascar*, Paris 1661, p. 115.

³ H. Jumelle, *Les cultures coloniales*, Paris 1901, vol. I, p. 34.

namely, Ngodsin *ālou*, *ālug*, Doai *arou*, *arugidem*, Ekamtulufu *ndog*, Udom, Mbofon *ndog*, pl. *arog*. In Hausa we have *rogo*, "which bears some resemblance to cassava,"¹ but we have also recorded for "manioc" Hausa *rogo*, *lōgo*, *rožia*, Kano *rōgōhi*, pl. *rogodše*, Koro *kōdširogo*, pl. *agīrogo*, Puka *lōgo*, Mbofon *arōgantī*, so that there cannot be the slightest doubt that "manioc" worked its way south from the original meaning "root." We have already seen that for "root" we have the forms *ndog* by the side of *arog*. It is the Negro *ba-* plural of this *ndog* that produces a large number of forms on the Guinea Coast. We have Bambara *bandugu*, and, in the same Mande group, Mandingo *banaku*, *bananku*, Malinke *bananku*, *bantara*, Toronka *bayangū*, Dsalunga *bantara*, Kankanka *banangu*. In Landoro *batanga* we have a form which is intermediate between Malinke *bananku* and *bantara*; it gives rise to the unpluralized Mende *tānga*, while in the neighboring Toma *manaku*, Gbese *manan*, we have further corruptions of original *bandugu*. In some languages a shortened *banta* is added to the *nyambi*, which originally meant "any edible root," hence Padsade *banta nyāmbi*, Kabunga *banta-nyāmbō*. Along the whole Ivory Coast this *banta* has survived as *bende*, *bede*, hence Gbanyan *bende*, Alaguian, Avikam, Zema *bede*, Ari *fede*, Abi, Afema *vede*, Tafile *gbedi*, Guimini, Degba *gbende*, Duala *nbondo*, Jaunda *mbong*, while Asante has *obankye*. In Adampe we have both *agbēde* and *agbēri*, which at once explains Anful, Ewe *agbeli*. Of the other forms the most persistent, from original Arab. 'urūq, is Baga, Timne *ayōka*, Bulom *yōka*, Mampa *yēke*, Kisekise *yōkāi*, *dšōkāi*,

¹ C. H. Robinson, *Hausaland*, London 1896, p. 156.

Tene *yōka*, which found especial favor in the Congo country, where we have

	Singular	Plural
Kabenda	<i>yāka</i>	<i>mayāka</i>
Mimboma	<i>iyāka</i>	<i>māyāka</i>
Musentandu	<i>dīōko</i>	<i>madiōko</i>
Mutsaya	<i>leyāka</i>	<i>mayāka</i>
Nyombe	<i>dīyāka</i>	<i>mayāka</i>
Basunde	<i>dīōko</i>	<i>madiōko</i>
Kongo	<i>edioko</i>	<i>madioko</i>
Kikongo	<i>dīoko</i>	<i>madioko</i>
Fiote	<i>i iaka</i>	<i>ma iaka</i>

Thus it appears that the *yōka* forms are restricted in the north to the neighborhood of Sierra Leone, whence they apparently were carried by the Portuguese to the Congo. But there are a considerable number of corrupted forms of *yōka* in the north, such as Isioma, Aru *idšiākū*, Mbofia *giāku*, Sobo *mādaka*, Bini *madāka*, Okuloma *dšēagp*, Nupe *dšikoya*, Kupa *esitako*, Ebe *ītsikōya*, Egvira-Hima *ōdšoka*, Banyun *dšonko*, Nalu *māndiōg*, Landoma *tandīoro*, pl. *mandīoro*, Pepel *kemandīok*, pl. *imandīok*, Biafada *budīoka*, pl. *mādiōka*, Pepal *kemandīok*, pl. *imandīok*, Sarar *putok*, pl. *mundōk*, Matatan *mondeōko*, Wun *mandeōgo*, some of which may be late importations, even as Portuguese *farinha* occurs as a name for the manioc in Kiriman *fālīnya*, pl. *vefālīnya*, Dahome *felīe*, Mahi *farīa*, Nyamban *mfāda*. In Madagascar manioc is mentioned in the sixteenth century¹ as *mungo*, now *mangahazo*, unquestionably some corruption of Portuguese *mandioca*, but Swahili *mahogo*, *hogo*, *mhogo* would indicate a borrowing from a Negro word, possibly across the continent. That the Guinea words and even the Congo

¹ *Collection des ouvrages anciens concernant Madagascar*, vol. I, p. 101.

words for "manioc" are older than those of Brazil will appear later, from a study of the various Brazilian products of the manioc.

In some localities in Africa there are recorded *karasa* forms for "manioc," Bornu, Munio *karāsa*, Kanuri *karāse*, *karāsa*, Teda *karāsu*, Udom *elu ākarāra*, Kandin *kalāsa*; but there seems to be some mistake about this, since P. A. Benton¹ gives *karase* "leaves of a plant used as a vegetable," which he identifies as Hausa *yakua*, which is given as a plant resembling a mallow. Possibly the name was also transferred to the manioc, for in Central Africa the leaves of the manioc were used in the preparation of a sauce similar to the one made of *yakua*.² We shall meet with this word later.

III.

De Candolle³ says of the manioc: "The Abbé Raynal propagated an error when he said that the manioc had been brought to America from Africa. Robert Brown affirmed the opposite in 1818, however without giving any proof, and since then Moreau de Jounès, Humboldt, and A. de Saint-Hilaire have insisted on the American origin. It is hard to doubt it. Indeed: 1) The two kinds of manioc had been cultivated by the natives of Brazil, Guiana, and the warm parts of Mexico before the arrival of the white man; 2) this cultivation was very common in the Antilles in the sixteenth century; 3) it is even now more common in the New World than in the Old; 4) it was imported into the Isle of Bourbon, within the memory of man, by the Governor de la Bourdonnais, and in India it is still an object of curiosity; 5) there is a mass of varieties and of native names in America, which does not

¹ *Kanuri Readings*, Oxford University Press 1911.

² *Zeitschrift für afrikanische Sprachen*, 1889, p. 68.

³ *Op. cit.*, vol. II, p. 816 ff.

seem to be the case in Africa; 6) the manioc genus has not less than forty-six kinds in Brazil alone, nearly all of them spontaneous, but no indigenous species has been found in tropical Africa. It is true, it is difficult to understand how the Negroes of the coast of Guinea and of the Congo have received the manioc; but all the botanical and historical probabilities militate in favor of an importation from the New World." De Candolle goes on to say that apparently no native manioc, the parent of the cultivated ones, has been found in Brazil.

If the first point is proved fallacious and contrary to fact, the rest are of no value whatsoever.

Stade has a chapter: "What their bread is, how their fruits are called, how they plant them, and prepare them to be eaten. In those places where they intend to plant they cut down trees, and leave them for about three months to dry, then they light fire among them and burn them. After this they plant their roots between the trunks, from which the former derive support; they are called *Mandioka*, which is a tree about a fathom in height, giving out three roots. When they want to eat of the roots, they pull up the tree, and break off the roots; then they break off twigs from the stem, and stick them again into the earth. These put forth roots, and in three months become so large as to be eatable. They prepare these roots in three different ways. Firstly, they rub them upon a stone, into small crumbs, and then they press off the juice with a thing made of hollow palm trees, called *Tippiti*, in such manner, that it becomes dry; afterwards they rub it through a sieve; and, lastly, they bake, with the meal, thin cakes. The utensil in which they dry and bake the meal is of burnt clay, shaped like a large dish. They also take the roots fresh, and put them in water, leaving them to rot therein; then

they remove them and place them above the fire in the smoke, allowing them to dry. The root thus dried they call *Keinrima*, and it keeps a long time. When they want to use it, they pound it in a mortar made of wood, when it becomes white like corn-flour, therefrom they make cakes called *Byyw*. They also take rotten mandioka before they dry it, and mix it with the dry and the green. From this they prepare and dry out a meal, which lasts fully a year, and which can be eaten as it is. They call this meal *Vy-than*. They also make meal from fish and flesh, and do it in this way: they roast the flesh or fish above the fire in the smoke, and they allow it to become quite dry; then they pull it to pieces, dry it once again on the fire in pots called *Yueppaun*. Thereupon they pound it small in a wooden mortar, and they pass it through a sieve, reducing it in such a manner to powder. This lasts a long time; for they have not the custom of salting fish and meal. Such meal they eat with the root-meal, and it tastes pretty well."¹

It has already been remarked that the burning of the woods is identical with that practised at Unyamwezi. But it is the very basis of African agriculture,² and we have already seen that *mandioka* is a Bantu plural of *yōka*, the very word which Vespucci gave for some indefinite place in America. The root which has been rotting in water and then is dried, is by Stade called *keinrima*. Soares says, similarly, that *carima* is the manioc soaked in water and dried over

¹ II. 10.

² "Il commence son travail à l'aide du feu. C'est ce grand défricheur qu'il envoie en avant sonder la forêt épaisse, dont il n'aime guère à troubler les ombres. Vers la fin de la saison sèche, les lueurs rougeâtres s'en répandent sur la campagne, éclairant la nuit gabonaise, comme nos feux à la Saint-Jean d'été: ce sont les plantations qui se déblaient," P. Barret, *L'Afrique occidentale*, Paris 1888, vol. II, p. 212. Of the cultivation of the manioc he says: "Pendant la saison sèche, le feu est mis à la brousse, les troncs dépouillés par la flamme sont coupés," etc., *ibid.*, vol. I, p. 343.

a fire.¹ The same is told by Nieuhof,² who calls it *kaarima*. In Kongo the root peeled fresh and dried in the sun is called *kela*, while in Angola we have *karima* for it. The word comes originally from the Guinea Coast. We have Ewe *agbeli-mo* "manioc crushed raw," from *agbeli* "manioc" and *mo* "dough." Another word for "manioc flour" is *gali*, hence we could also have *gali-mo* for "manioc crushed after it was made wet." *Gali* is distinctly African, since we find it in Hausa *gari* "flour," where it seems to be a contraction of Pul *tonde gauri* "flour of millet." Hence *karima* is unquestionably African, and its origin is to be sought in Guinea.

Nieuhof says that the manioc which has been soaked four or five days in water, before being turned into *kaarima*, is called *puba*, *mandiopuba*, or *maniopuba*. The Brazilians call it "farinha d'agua," the Tupis, *ui puba*. It is also vulgarly known as *fuba*. When the manioc is beaten into flour, it is called in Kongo *mfumfu*, which is called on the markets *mfuba*, in the Angola *fuba*. *Mfuba* is obviously a corruption of *mfumfu*, but this is a good African word for just such a preparation of food. We have Asante *fufu* "a common food of the Negroes, prepared of yams or plantains, which, after having been cut into pieces and boiled, are then pounded in a wooden mortar till they have become a tough doughy mass, which, in the shape of a round lump, is put into the soup and eaten with it," Akra *fufu* "a favorite food of the natives, a dough of mashed yams, cassada or plantains, eaten in soup," Dahome *fufu* "plat indigène a base de mais, de poisson et d'huile de polme," Ewe *fufu* "round, doughlike dumplings of boiled yams, manioc, taro, or pisang," etc. In all these words we have derivatives of *fufu*

¹ *Op. cit.*, II. 41.

² *Gedenkweerdige Brasiliaense Zee- en Lantreize*, Amsterdam 1682, p. 199.

"white," found over an enormous territory.¹ Thus it is clear that Tupi *puba*, which does not exist except in the combinations *mandiopuba*, *ui puba*, is an African word.

The cakes made of manioc flour are by Stade called *byyw*. Soares calls them *beijú*,² Nieuhof, *beju*. This is from Kongo *mwiyi* "a plant with broad lanceolate leaves, often used in tying up the manioc pudding, which is then boiled or baked in the oven." This is apparently the same as Kikongo *mvuya*, *mviya* "excellent reed grass from which baskets are made." The pudding or pap itself is by Nieuhof called *mingau-pomonga*. Stade calls the thin pap *mingau*,³ Léry calls it *mingant*.⁴ This is Kikongo *mungodia* "cassava pudding."

The *vythan* of Stade is by Léry given as *ouy-entan*;⁵ Nieuhof calls it *viata* or *vicica*, in Portuguese, "farinha seca, farinha de guerra." Soares devotes a whole chapter to the "farinha de guerra",⁶ which was used not only in wars and expeditions, but as ship's bread by the Portuguese. This is the most interesting of all the preparations of the manioc, not only because it is also in use in war expeditions, but because the name, which Stade writes *vythan*, is the Kongo *vita* "war." The root *beta* "to strike, beat, make war" is not only found in most, if not all, of the Bantu languages,⁷ but also over an enormous Negro territory, as may be seen in Koelle under "war." Here,

¹ D. Westermann, *Die Sudansprachen*, Hamburg 1911, p. 182, and M. Delafosse, *Vocabulaires comparatifs*, Paris 1904, pp. 27, 52, 82, 121, 154, 206, 239.

² *Op. cit.*, II. 42.

³ *Op. cit.*, II. 11.

⁴ *Op. cit.*, ed. of 1578, cap. IX, p. 134.

⁵ "Ouy entan, de laquelle, parce qu'elle se garde mieux, ils portent quand ils vont à la guere," *ibid.*, p. 133.

⁶ II. 42.

⁷ L. Homburger, *Étude sur la phonétique historique du Bantou*, Paris 1913, Tableau 24, W. H. Stapleton, *Comparative Handbook of Congo Languages*, Yakusu, Stanley Falls 1903, p. 303 sub *war*, p. 270 sub *beat*. Add to these: Ovambo *oita*, Herreo *ovita*, Luba *mvita*, Bemba *ifita*, Wisa *vita*, Swahili *vita*, Kinyika *viha* "war," Sindebele *beta*, Yao *ku-wita*, Kirundi *kuka-wita*, etc., etc.

then, we have an African word of unquestionable antiquity, and the last of the Brazilian words connected with the manioc turns out to be from the Congo. From this *vythan* or *vita*, the Tupis formed their *ui*, *vi* "mandioeca flour." What we call "tapioca" is in Nieuhof given as Tupi *tipioja*, *tipioka*, *tipiabica*. Nieuhof explains it as the settling of the juice of manioc, which has been left standing for two hours. The flour made from this is called *tipiocui*. As *cui*, the Tupi word for "sand" is also used for *ui* "flour," we get a combination of which the first part is *tipi* or *tipio*. This is Kongo *ndiba* "pudding made of manioc meal stirred into boiling water."

Soares unconsciously gives us the proof that the manioc was planted only by Indians who had come under the white man's influence. He tells us that the manioc was planted by the Tupinambas, but at the same time he informs us that some years before Bahia was founded, which was in 1549, Frenchmen used to come to Brazil to trade with the Indians, and that from them there was left a large number of bastards.¹ The Tupinaes, who spoke the same language as the Tupinambas, also planted manioc, and so did the Amoipiras. But the Tapuias, the oldest tribe along the coast, which was driven inwards by the Tupinambas, did not plant manioc.² Thus we get the confirmation of Stade's statement that the Indians along the coast were requested by the white men to cultivate the manioc, ostensibly for the white man's purpose. The Indians learned the cultivation of the manioc from the Congo Negroes, whom the Portuguese brought in, hence the large number of Kongo words which found their way into Brazil.

¹ *Op. cit.*, II. 177.

² *Ibid.*, II. 184.

The great quantity of preparations from manioc makes it hard to classify the many appellations by which the manioc is known among the Indians. But it is possible to show that a considerable number of these are derived from *cazabi*, the word so early associated with the manioc, or, more correctly, from *cazada*, the Portuguese word for it. We have already seen that there is a confusion from the very beginning, in Amerigo Vespucci, as to what *cazabi* was. It was some kind of flour, but it was not certain whether it was the flour made from the manioc. There can be little

doubt that Vespucci knew the Arabic term قصب

qaşab "millet:" "The cassob seed, so little known in European countries, constitutes in Tripoli the most nutritive flour imaginable, and forms a principal part of the people's diet; it is contained in a spike about 3 inches in length, and as many in circumference; this grows on top of a reed, which seldom exceeds 3 feet in height; the seed is about the size of a large partridge shot, and of a light lead color; it is very abundant in general."¹ He extended it to include flour made of the manioc.

The word entered the Spanish and Portuguese as *caçabe*, *caçada*, and the latter has produced some curious Indian words. We have Cumanagote, Core, Paria *cazet*, *cachite*, Mapayo *tzede* "the sweet manioc." Just as Span. *espada* produced Carib *sipara*, so *caçada* has produced Roucouyenne *cachiri*, Bakairi *kixere*, Pimenteira *üütschöro*, *kitschere*, Macusi *kuisera*, Ipurucoto, Macusi *quissé*, Cumanagote *tichere*, *kichere*, Carib *kiere*, Paravilhana *köle*, Maquiritare *chere*, Yabarana *tzere*, Masacara *cachü*, *caü*, Camacan *cahatschi-eihih*, *kahutje*, Jucuna *cachi*, Arawak *kalli*. Similarly Tupi and Portuguese *beiju* are responsible for Puri

¹ E. Blaquiere, *Letters from the Mediterranean*, London 1813, vol. II, p. 39.

bihuh, Coroado *bifu*. Paravilhana *kôle* explains Waura, Mehinaku, Kustenau *ulei*, Yaulapiti *ula*, Trumai *ole*, Bororo *yureo*, Carijona, Roucouyenne *uru*, Apalai *ueyu*, Trio *ui*, Guarauna *aru*, Cariniaca *arepa*, Galibi *ereba*, Carib *aleiba*. One can almost follow geographically the deterioration of the word from original *caçada*, apparently upwards, from Brazil. *Yuca*, which is mentioned by all the early writers, has left no trace behind. This would seem to indicate that, in spite of the very elaborate explanation of the manioc by Oviedo and the reference to *yuca* by Columbus and the other writers, the manioc did not become so popular on the islands as the sweet potato and that it worked its way up from Brazil, where it was cultivated chiefly for the sake of possible castaways on the shore, in all probability even before the voyage of Cabral in 1500, in fact, before the discovery of America by Columbus. The authors who used the word *yuca* were describing the plant as known in West Africa, where *yoka* or similar words had long been in use.

It is only in Brazil that the Kongo *madioko* took root. Schmidt mentions in the middle of the sixteenth century *mandeoch parpie*, *mandioch mandapore*.¹ Another time he writes *mandeochade*, *mandeochparpij*, *mandepore*. These are obviously all developments of *mandioc*, of which the last syllable becomes obliterated, to give place to a compound. This process has considerably advanced towards the end of the century, when Soares² gives the varieties *mandioca*, *manipocamirim*, *manaibussú*, *manaitinga*; hence we get the root *mandi-*, *mani-*, to which *ok* is added to express the root of the manioc, and *yb*, to express the stalk, but the two are not kept apart in all the languages that have borrowed the word. However, the Guarani

¹ *The Conquest of the River Plate (The Hakluyt Society)*, London 1891, pp. 14, 19.

² *Op. cit.*, II. 37.

dictionary of 1639¹ corrects the misunderstandings of Schmidt and Soares, and shows that there is but one word *mandioca*, from which all are derived. It gives the varieties *mandióg ete* (apparently Schmidt's *mandeochade*), *mandióg poropi* (obviously Schmidt's *mandeoch parpie*), etc., in which the second part can in some cases be identified as a Tupi word, such as *eté* "good." In some compounds *mandioc* contracts to *mandio*. But for the tree we have *mandiř iba*, for the leaf *mandiř hoba*, *řba* being the Tupi word for "tree," and *mandio* contracting to *mandiř* on account of the following vowel.

In this place it will be proper to show that the peanuts, for which an American origin has been claimed, were equally imported from Africa. In Brazil Schmidt frequently mentions *manduis* or *mandues*, "which resemble hazel-nuts,"² while Cabeza de Vaca calls them *mandubis*, *mandubies*, which "are like hazel nuts or *chufas*, and grow near the ground."³ Soares calls them *amendois*,⁴ and extols their good taste. The Guarani dictionary of 1639 translates Guarani *mandubi* by Span. *mani*, a word which Acosta quoted already in 1590.⁵

The origin of the peanut is wrapped in obscurity, because it is from the start confused with a number of tuberous roots, especially with the *cyperus esculentus*. Bauhin⁶ was unable to harmonize the various descriptions of the *cyperus esculentus*, because of the divergent description of the plant and its tubers. Whatever the ground nuts were which were then to be found in cultivation, it is clear that they did not

¹ A. R. de Montoya, *Tesoro de la lengua guarani*, Madrid 1639.

² *Op. cit.*, p. 37. See also pp. 25, 40, 41.

³ *Ibid.*, p. 155. See also pp. 118, 199.

⁴ *Op. cit.*, II. 47.

⁵ *Op. cit.*, lib. IV, cap. XVIII.

⁶ J. Bauhin and J. H. Cherler, *Historia plantarum universalis*, Ebroduni 1651, vol. II, p. 504 ff.

all belong to the same species, and that it was chiefly Italy where the ground nuts were to be found. But the various Italian appellations show that the names are derived from an Arabic source. In Italy we find the names *dolcichino*, *dolzolino*, *bacicci*, *babbagigi*, in Sicily, *cabbasisa* for the "cyperus esculentus." The

first two are mere translations of Arab. حب اللذيد

ḥabulladzīdz, literally, "the nut of sweetness," which is applied to both the rush-nut and peanut. Another form

in Arabic, corrupted from or giving rise to حب اللذيد

ḥabulladzīdz, is حب العزيز *ḥabu'l'azīz*, or حب عزيز

ḥab'azīz, which produces Sicilian *cabbasisa* and the

corrupted Ital. *bacicci*, *babbagigi*. As حب عزيز *ḥab-*

'azīz occurs already in Ibn-Baitar, the precedence of the Arabic word is established, even though it may have originally referred only to the "cyperus esculentus."

However, when we turn to Africa, it may be shown that over a vast territory the Arabic appellation spread southward as the name for "peanut," showing conclusively that the peanut must be an Arabic importation into Africa, and as the Negro word, derived from this Arabic source, lies at the basis of the Brazil word for the same plant, it is clear that it must have been imported from Africa into Brazil.

Where did the Arabs get the plant? That is hard

to answer, but it would seem that حب عزيز *ḥab'azīz*

is based on some misreading of the Chinese term for "peanut." In Chinese we have Mandarin *lo hwa*

shang, literally "the plant which scatters the flowers," which would have been rendered in Arabic as لعزنج

la'azang, but which, by reading نخ as نر , would

lead to (habu)l *aziz*. This is merely a suggestion, which should be investigated.¹ It has only a distant bearing on our question. The Arab. (*habulla*)*dzidz* is apparently responsible for *dzudzāru*, plural of *dzurādzu* "peanut" in the Adirar oasis. In the Beran oasis this *dzurādzu*, *dzudzāru* becomes *gertere*, plural *gerte*. In Pul we have *tigāre*, plural *tigādze*, the latter unquestionably a development of Adirar *dzurādzu*, since *r* and *g*, as we shall soon see, are interchangeable. Similarly, *gerte* is a development of *dzurādzu*, since *dz* and *t*, *dz* and *g* are interchangeable in many of the African languages. That the Pul forms are derived from the Arabic is shown by the dialectic variations. By the side of *tigādze*, we have Goburu, Kano *birīdzi*, which produce a singular *mbiriu*, while Salum has *gerte*. The *gerte* forms are found in Hausa *gedda*, Bagirmi *gedādzi*, Gadsaga, Soninke, Wolof, Arab-Hassania *gerte*. That Bagirmi *gedādzi* arose from a form *gerādzi*, is proved by the neighboring Bornu *koldzi*, Doai *kokorokodzi*, Buduma *koldzian*, Kasm, Yula *golesi*. It is generally assumed that Hausa *gudzīa*, the name of a variety of

peanut, is derived from Arab. جوز *gouz* "nut," but

it is more likely that it is a mere variation of Bornu *koldzi*. We have also Nupe *gusa*, Esitako, Ebe *gusia*, Kupa *busoa*, Bode *gudzēdo*, Basa *igōsi*, Kamuku *agodzia*, Kambali *agusia*.

¹ Malay *kachang china* "peanut," literally, "Chinese bean," seems to indicate that the peanut became known from China.

All the preceding forms are of interest only as showing the successive disintegration of the original word, as we proceed southward. For our purposes the Mandingo forms and those derived from them, are alone of importance. Pul *tigādze*, which on the one hand deteriorates into Alaguian *ñgate*, Asante *ñkatye*, Afema *ñgate*, Gbin *kare*, Degba *gātye*, and, still worse, into Ewe, Adampe, Anful *azi*, Dahome *azē*, produces Malinke *tiga*, Mandingo *tia*, Dzalunka *tira*, *tika*, Bambara *tigo*, *tira*, Gbese *teran*, Toma *tera*, Gbe *diri*, *deri*. This *tiga*, *tira* produces in the languages that have a *ma*-plural, Biafada *ntīa*, plural *mantīa*, Kiriman *ndūwe*, plural *mandūwe*. Of course, since *ma* means "much" in the Mandingo and other similar languages, the forms *matiga*, *matia* would be possible in Mandingo. A large number of African languages have the latter pluralized form: Isuwu *matōwi*, Ngoten *metowo*, Melon Nhalenwe *metōwe*, Muntu *mandūwi*, Matatan *mandūwe*, Tumbuku *māntire*, *matira*, Penin *matōbo*. Muntu, Kiriman, and Matatan are in East Africa, near Mozambique, where we have also Tette *mandwe*, Quellimane *ndūwe*, plural *mandūwe*, Mozambique *mandūwe*. All these are apparently Portuguese importations, since the other Bantu languages have totally different words. But the Port. *mandubi*, for which Soares, with a leaning to *amendoa* "almond," writes *amendois*, is itself a borrowing from the Western Sudan, and here Biafada *mantia* indicates that Span. *mani*, recorded by Acosta and in the Guarani dictionary, is not a contraction of *mandubi*, but a Guinea word. The modern Kongo does not seem to have a word from this root, meaning "peanut," but there is *etubu*, plural *matubu* "voandzeia subterranea," which is a plant that resembles the peanut very closely, and this is, most likely, derived from the older word for "peanut."

The peanut was known to Ibn-Batutah one hundred and fifty years before the discovery of America under the name which it still bears through a great part of the Sudan. "The natives of Malli (the Mandingo country) take out of the ground certain grains which

look like beans (*فول* *fūl*); they fry them and eat them,

and they have the savor of fried chick peas. Sometimes they grind these grains, in order to make of them a kind of round spongy cake, which they fry with *gartī*; thus they call a fruit resembling a prune, which is very sweet but injurious to white men who eat of it. They crush its nuts and extract from them an oil which serves the people of this country for several purposes. Such are, among others: 1) to be used in the kitchen; 2) to furnish light in the lamps; 3) to be used in frying of cakes, as mentioned before; 4) to rub their bodies with; 5) to be used, after mixing it with an earth found in this country, with which to plaster their houses, as elsewhere this is done with mortar."¹ The *gartī*, of course, is the *gerte* of the Sudan, and refers to the peanut used in the extraction of the oil. The *fūl*, used for the making of a cake, is most certainly another kind of peanut, since *fūl assūdān* "the Sudanese bean" is still the name for "peanut" in Morocco, and we have also Arab. (Wadai) *fūl* "peanut," from which, apparently, are derived Udom *mfili*, plural *afilī*, Ekamtulufu *mfirīkam*, Mbofon *mfiri*, plural *afiri* "peanut."

Ibn-al-Auwam has a chapter which runs as follows: "The cultivation of *hab-az-zelim*, which, according to Abu'l-Khair or others, is the *falfal as-Sūdān*. It is a seed which resembles the bean; it is sweet and soft as long as it is fresh; in drying it assumes a sweeter savor and also greater consistency. Abu'l-Khair says

¹ C. Defrémery and B. R. Sanguinetti, *Voyages d'Ibn Batoutah*, Paris 1879, vol. IV, p. 392 f.

that light, open soil, which is sandy and friable, and easy to cultivate and dress, is particularly adapted for this plant, but that it repels heavy earth, on account of its adhesion and bad nature. The seed of the *falfal as-Sūdān* is planted in April, like the bean, in prepared frames with well rotted manure, softened by water and brought to a good condition. The seed is set out in lines, and between each bean a space of two fingers is left. For ten frames a little more than a rotl (366 grains) of the seed is used. The plant is watered twice a week, because the *hab-az-zelim* cannot stand much water. They plant also the *hab-az-zelim* on the elevated balks between the frames and on those which border the irrigation canals, and it thrives there well. If, before planting the seed, it is left for a whole night in the water, it germinates more rapidly. The *hab-az-zelim* is harvested in October. This is done by wetting the earth in which it is planted, and, when the earth is sufficiently soft, the plant is seized by the leaves and is pulled out with all the roots. It is shaken in the sun, and the small tubers are gathered. The *hab-az-zelim* increases considerably the flow of the spermatie fluid; it is also used in aphrodisiac preparations."

As the "cyperus esculentus" grows in moist ground, and, on account of its size, must be planted further away than two fingers' length from each other, it is clear that the plant here described is not the "cyperus esculentus," as generally assumed. The name *falfal as-Sūdān* is obviously a mistake, for the plant in no way resembles the Sudan pepper. It should be *fūl as-Sūdān* "Sudan bean," as which it is still known. The excellent sixteenth century botanist, Rauwolf,¹ described the plant as follows: "In the drug stores of their bazaars one finds two kinds of roots, of which

¹ Leonharti Rauwolfen, der Artzney Doctorn, vnd bestelten Medici zū Augspurg, *Aigentliche Beschreibung der Raisz*, 1583, p. 63.

one is rather round, to be considered equal to the *dulcigni* of the Venetians, which at Verona, where they grow, (as learned Matthiolus shows) are called *thrasi*. A large number of these are brought from Egypt to Tripoli, to be eaten there, especially in the month of June, and are sold under the name of *habel assis* and *altzis*. As they are to be compared in name and quality with the *granis altzelem* of the Arabs, they are to be considered equal with them, although Rhazes counts them among the fruits." If Rhazes, who lived in the beginning of the tenth century, classed the *altzelem* as a fruit, it could not have been anything but a peanut, which, therefore, was already known in the tenth century.

As a matter of fact, the *habu'l-zalam* is the "cyperus esculentus," while the *habu'l-'aziz* is the "peanut," and Ibn-al-Auwam, like so many others, confused the two.

Arab. *ز لم* *zalam* comes from Coptic *čalm* "reed, stalk,"

and this is related to Gr. *χάλαμος*, etc. In Arabic *zalam* assumed the meaning "talk idly, make trifling, speak thoughtlessly." We have also Coptic *džouf* "reed, rush, papyrus," and this has produced Span. *chufa* "cyperus esculentus, rush-nut," and *chufar* "to brag, make fun of." These two etymologies prove conclusively that the common cyperus, given by the early botanists as "cyperus rotundus," was cultivated in Egypt, and that "cyperus esculentus" of Linné is identical with "cyperus syriaca, rotunda" of J. Bauhin.¹ This is borne out, not only by the specific statement of Linné, but also by the story of the plant in earlier botanies.

Indeed, Ibn-al-Auwam, who used the word *habu'l-zalam* for "peanut," none the less knew that there was also another plant, the "cyperus esculentus," which has tuberous roots. "In time of necessity

¹ *Op. cit.*, vol. II, p. 502.

bread may be made from the cyperus (جس su'd), a plant which grows spontaneously in the plains and inundated soils, and which is never cultivated. It has a narrower leaf than the Babylonian leek; it rises to the height of an ell or a little more; the stalk does not stand straight. The roots extend into the ground; they form tubers which resemble olives; some are long and others round; the first are more numerous; they have an aromatic odor, but are exceedingly styptic and tart, and this quality is communicated to all substances with which they are mixed."¹ Here Ibn-al-Auwam describes two varieties of cyperus, the "longus" and the "rotundus" of the sixteenth century botanists, the latter having been later renamed by Linné as "esculentus." Curiously enough, Alcalá,² in the sixteenth century, gives "juncia avellanada cúdde," and "chufas specie de juncia hábbe zulém habít zulém," which shows that the original meaning of *zalam* was preserved in Spain.

Matthioli, in his *Commentarii* of 1558³ gives a picture of the cyperus, and, after describing it, mentions that in Spain it is called *iuncia de olor* or *iuncia avellanada*, and in France *souchet*. In connection with "ornithogalus" he describes a plant *trasi* as follows: "In connection with the excellence of the sweet ornithogalus roots I am reminded of those which grow near Verona and nowhere else in Italy, so far as I know, and are called *trasi*, which more nearly resemble chestnuts in taste. . . These *trasi* are little tubers which in form resemble very closely silk cocoons which shrivel up in a hot bath, when the women pick off the silk. . . The plant germinates in the spring and has

¹ *Op. cit.*, vol. II, p. 364 f.

² P. de Lagarde, *Petri Hispani De lingua arabica libri duo*, Gottingae 1883.

³ *Petri Andreae Matthioli Senensis . . . Commentarii secundo aucti*, Venetiis 1558, p. 22.

in the summer leaves resembling fodder, and the *trasi* cling to its roots."¹ Matthioli knew of the plant only from hearsay, and drew a picture of it consisting of a bundle of tubers with a stemless sheaf of blades above them. He did not identify the plant with the cyperus, but could not think of any other leaves for it than those of the cyperus. It is clear from the description that he had before him peanuts, whose shells, indeed, resemble withered cocoons. The name *trasi* is found in Venetian as *trazea* "sweet," and so is another rendering of Arab. لذيذ *ladzīdz*. In the

greatly increased edition of the *Commentarii* of 1565² we have a somewhat longer account of the *trasi*. Here it is stated that the *trasi* resembles in leafage the cyperus, and that Franciscus Calzolarius of Verona had sent him the plant. The adjoining picture makes the plant above the ground identical with the "cyperus rotundus," as described by him before. J. Bauhin rightly remarked that he did not describe the plant from autopsy.³

The botanists of the sixteenth and later centuries confused these peanuts with the rush-nuts, and created the picture of a non-existing *trasi*, which resembled the "cyperus rotundus." And yet this plant bears in Bauhin, as in older authorities, the Spanish name of *iuncia avellanada*, as before. Either this *trasi* is identical with the "cyperus rotundus" or else it is the "arachis hypogaea." Nothing else is possible. The *chufa* of the Spaniards is, however, identical with the "cyperus rotundus," by Linné renamed "cyperus esculentus." Although the peanuts were apparently

¹ *Ibid.*, p. 303.

² *Petri Andreae Matthioli Senensis Medici Commentarii*, Venetiis 1565, p. 542 f.

³ *Op. cit.*, p. 505.

not extensively cultivated in Europe and were everywhere confused with the rush-nuts, it is clear that they were known in Europe in the sixteenth century, as they had been to the Arabs in the fourteenth, and were already cited by them in the twelfth century. In any case, the peanuts were known in Europe many centuries before the discovery of America.

It is clear from the history of the word in Africa and its geographical phonetic evolution that the peanut traveled south across the Sahara, and that the *manduwe* forms are good Negro words, which have nothing whatsoever to do with the Brazilian *mandubi*, except that the latter is derived from the first. Whatever the original home of the peanut may be, it was transferred from Africa to Brazil, and from there it slowly made its way north, where "peanut" words are found only at a late period. Span. *cacahuete* "peanut" is derived from Nahuatl (*tlal*)*cacauatl*, literally "earth cocoa bean," which, however, is not recorded in the early Mexican dictionaries.

In the United States we find the words *goobers* and *pinders* for "peanuts." Both are from the Kongo languages. We have Mimboma, Musentandu, Basunde *nguba*, pl. *zinguba*, Ngola *lungoba*, pl. *singoba*, Pangela *olonguba*, Lubalo *lunguba*, pl. *minguba*, Kongo *nguba* "peanut." Tette *zindwe* "peanut" would indicate that *zinguba* is derived from a form *zinduwe*, itself a variation of *manduwe*, so that ultimately we have here the same word as before. In the regions close to where we have the *matowe*, *manduwe* forms we find Orungu *mbenda*, *mpenda*, Param *menzo*, Baseke *mbenda*, Kabenda *mpinda*, pl. *mpindaz*, Mbamba *penda*, pl. *mpenda*, Kanyika *kabent*, pl. *tuwent*, Ntere *lepena*, pl. *mpena*, Mutsaya *levene*, pl. *pene*, Nyombe *pinda*, pl. *tsipinda*, Kongo, Fiote *mpinda* "peanut." Param *menzo*, Kabenda *mpindaz* show that we have here an original *mandzo*

for *mantowo*, in which the plural *ma-* is becoming obliterated as part of the word. That this is really the case, is shown by the fact that *nzo* has in some cases survived as a separate word. We have Babuma *dedzu*, pl. *ndzu*, Bumbete *lendzo*, pl. *ndzo*, Kasands *londz*, pl. *sondz* "peanut." We have also Nkele *rambenda*, pl. *mbenda*, Mfut *kendiu*, pl. *bendiu* "peanut," which show with what ease prefixes become incorporated in African languages, in order to form the basis of new words. However this may be, the American *goober* and *pinder* show that the Negroes brought with them the knowledge of the peanut from Africa and did not acquire it here.

It is not necessary to prove that the yam "dioscorea" is not a native of America, since Oviedo knew as much in his day; yet there is a deep-seated conviction that the sweet potato is of American origin. But it can be proved, beyond any possibility of cavil, that the sweet potato was cultivated in Asia before the discovery of America. Pigafetta¹ gives "a wonderfully accurate" Malay vocabulary, which he collected in 1520. Here we find

batate	<i>gumbili</i>
radice como rau	<i>ubi</i> .

We have already seen that *ubi* is the Malay word for edible roots, more especially yams. Pigafetta spoke of having received batatas in Brazil in 1519. If he was telling the truth, he could have received there only sweet potatoes. But *gumbili* is obviously of the same root as *kumbara*, *kumbala* "sweet potato," which has already been discussed.² It is even now used in the Malay languages for plants resembling the sweet potato. We have Sundanese *kumeli*, *gumeli* "name of a lowly

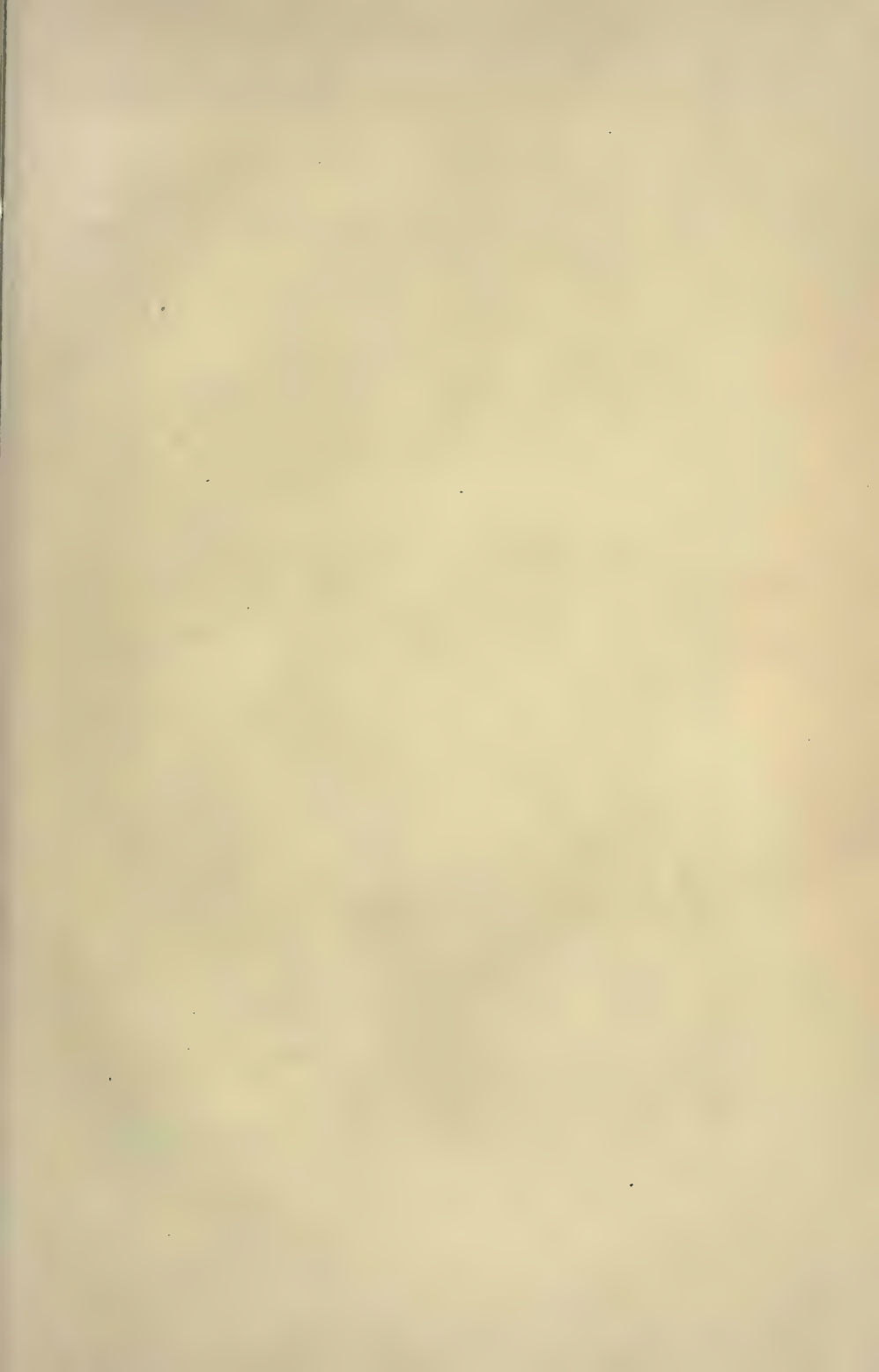
¹ *Op. cit.*, vol. II, p. 120.

² See p. 239 f.

plant with crenulated leaves, which is planted and produces a small potato, *plectranthus tuberosus*, also the Irish potato" and Gajoosch *gembulu* "sweet potato;" but more commonly the Malay name for the sweet potato is *ubi Java* "the yam of Java." From where-soever the sweet potato was introduced into the Malay peninsula, it was there before 1520, and it is a physical impossibility for the sweet potato to have reached there before 1520 from America, because Magellan, whose voyage Pigafetta described, was the first one to have touched at America before reaching the East Indies. If it was introduced only shortly before that date, it must have been carried to the Malay peninsula from Africa.

Indeed, when we turn to the appellations of the sweet potato and yam in America, we find nothing but African forms. Here as there the two are confounded, and chiefly those names have survived which Dr. Chanca mentioned in 1494. He called the plant he described, apparently the sweet potato, both *nabi* and *hage*. We see that the first is a phonetic variation of Wolof *nyambi*, etc., "yam," while the second, which unquestionably was at first an Italian form, hence sounds *hadzhe* or *hatche*, is similarly a variation of an African form for "yam" or "sweet potato." Von den Steinen¹ records in the Carib languages, Bakairi *nawi*, *nawe*, Carijona *nahake*, Carib *namouin*, Paria *inname*, Roucouyenne *appi*, Tamanaco *mappoi*, *nati* "yam," Bakairi *nahoto*, Galibi *napi*, *mabi*, Palmella *napihe*, Chayma, Cumanagote *mapuey*, Carib *mabi*, Paravilhana *maporu* "sweet potato." Adam also gives Ouayana *napi*, Aparai *naopo* "yam," and Ouayana, Apari *napi* "sweet potato." All these are obvious developments of *nabi*, which may be further pursued in Nahuqua *aniza*, Trumai *mani*.

¹ *Die Bakairi-Sprache*, p. 52.





Sweet Potato. From Thevet's *Cosmographie*.

The great confusion of nomenclature and identification of species in Brazil shows conclusively that neither yam nor sweet potato were at home there. Hans Stade¹ says: "There are also roots, which they call *jettiki*, of pleasant taste. When they plant them they cut small pieces, which are placed in the earth: these then grow, and spread over the ground, like hop trees, throwing off many roots." This, like Thevet's² and Léry's description of the *hetich*, refers to the yam and not to the sweet potato. And yet, Aveto *yeto*, Camayura *yetük*, Apinages, Carabos *yoto*, Abañeême *jety*, Oyampi *jetik*, Emerillon *zetik*, Brazilian *jetyka*, refer to the sweet potato. Hence it must be assumed that the early writers were mistaken as to the manner of its planting, or else *hetich* referred to both plants. Soares³ calls all roots *batatas*, as do also Schmidt and Cabeza de Vaca. But Soares adds that in Bahia there were larger roots than *batatas*, which the Indians called *carazes*, which were planted like *batatas*, that is, by cutting up the root. These *carazes* are eaten like *inhames*, but are of better taste. It is clear, however, that he has in mind one of the many varieties of yams. The Guarani dictionary throws a light upon the word. Here we have *yeti* "batata," and there are mentioned nearly twenty varieties of it, *yeti apiteru*, *yeti carapa*, etc. This *yeti* is Thevet's *hetich*, from Chanca's *hage*, pronounced *hadzhe* or *hatche*. The Indians found it necessary to distinguish the yam, which was cut up for cultivation, from the sweet potato, which was planted from the slip. Hence they called it *caraçi* "cut in pieces," that is, the yam was called *yeti caraçi*. This *caraçi* gave Soares' *caraz* "yam," but the word has survived only in the shorter form *cara*, which is the usual expression for "yam,"

¹ *Op. cit.*, II. 36.

² *La cosmographie universelle*, vol. II, p. 921.

³ *Op. cit.*, II. 44.

and is already found in the Guarani dictionary of 1639. It is, however, possible that we have here an African *karasa* "manioc."¹

The most instructive name for "sweet potato" is found in Mexico. Molina gives in his dictionary "batata, fruta conocida, *camotli*." The word was known to Sahagun² and to Acosta,³ and very soon led to Span. *camote*, which was introduced into Peru and the Philippine Islands. But it can be shown that it is derived from a word in the Philippine Islands, which existed before the discovery of America. The Philippine Islands were first discovered by Magellan in 1521. After that, the expeditions to these Islands were started from New Spain in America, hence the close relationship of some matters between the two countries. Villalobos' voyage in 1542 and 1543 did not leave us any document from which we can learn anything about yams and sweet potatoes in the Islands, but the next great expedition of Legazpi, which was started in 1559, proves beyond a shadow of a doubt that both yams and sweet potatoes were known in the Islands before that date, in fact, long before the discovery of America.

In January, 1565, Legazpi records that on the island of Guam, in the Ladrones, they had large *ñames* and small *batatas*.⁴ Similarly, he mentions *ñames* and *batatas* further west and in the Island of Negros.⁵ Another report of the same expedition refers to the "yams" and "sweet potatoes" at Guam as "*raizes*, roots."⁶ But we have also the explicit statement that in the Philippine Islands the roots, which are like

¹ See p. 243.

² *Op. cit.*, pp. 519, 537, 735, 736.

³ C. Bauhin, *op. cit.*, p. 91.

⁴ *Colección de documentos inéditos . . . de las antiguas posesiones españolas de ultramar*, Madrid 1886, Serie 2, vol. II, p. 392.

⁵ *Ibid.*, pp. 400, 401, 412, vol. III, p. 32.

⁶ *Ibid.*, vol. III, p. 227.

batatas, are called *oropisa* and *camotes*. The Spanish reads "unas rayzes quasi como patatas que llaman *oropisa*, *ñames* y *camotes*."¹ We are told that one of the manuscripts has not the word *ñames*,² which is an intrusion. That *oropisa* is a native word is proved by *olopai* "a kind of yam" in the Solomon Islands. *Camote* is similarly a native Philippine word which means "root." We have Panayana *gamot*, Sulu *gamut*, Bisaya *gamot*, *gamoy*, Bontoc, Igorote *lamot*, Bagob *ramot*, Pampanga *yamut*. It is found even in those Malay languages where the root *ubi* has disappeared, in Bugi, Makassar *lame*, Nias *lama*, Gajo *lumbu* "any tuberous plant, yam, sweet potato." In Japanese it is represented by *imo* "taro, yam, potato."

As there was no European colonization or settlement in the Philippines or in Guam before Legazpi, it is clear that the yams and sweet potatoes were already cultivated there before the arrival of the Spaniards, hence must go back to a source anterior to the discovery of America, even as Pigafetta described both the yam and the sweet potato in the East Indies more than forty years before the colonization of the Philippine Islands. The Chinese ideograms for Japanese *imo* are *yü* "taro" or *shu* "tuber," hence *imo* is not borrowed from the Chinese, for in that case the two syllables would be represented by two characters. Hence the sweet potato is not an importation from China to these islands. The universal reference in the Malay languages to the sweet potato as the "Java yam" would indicate that it came from the west. We have already seen that in Java the sweet potato is known as *kastela* "Castillian yam." Corrupted or abbreviated forms of this are found in Semang *katēlah*, *tēla'*, *tīla'*, Besis *telak*, *tīla'*, *hīla'*, Mentra *tīlak*, *tīla'*, Beduanda *sīla'*, *sīlak*, Mon

¹ *Ibid.*, p. 236.

² E. H. Blair and J. A. Robertson, *The Philippine Islands, 1493-1803*, Cleveland 1903, vol. III, p. 190 note, and p. 202.

selā "sweet potato."¹ There seems, therefore, no escape from the conclusion that the Philippine *camote* and the Malay "root" words, *lame*, *gamot*, *lamot*, *ramot*, etc., are developments of Span. *ñame*, just as Javanese *kastela* has produced the *telak*, *tilak* forms. But *ñame* has its origin on the Guinea Coast, and so the sweet potato must have been imported into Asia from Africa. However, while *kastela* points to a Spanish or Portuguese importation into Java, the words derived from *ñame* may have found their way into Asia at an earlier date, through the Arabs; that is, the words may not be derived from Span. *ñame*, but from Arab. جنبه

gambah "root," which would explain the many variations in the Philippine languages and the meaning "root." This seems the more plausible, since the Malay languages, where we found occasionally words beginning with *l* for "sweet potato," have incidentally preserved

the other meaning of Arab. جنبه *ganb*, جنبه *ganbah*

"flank of the body, thigh," namely, *lambung*, which is found in Malay, Tobabatok and Gajo, and the variants, Javanese *lambhung*, Busang *lekpeh*, Tontembo *lamet*. This Malay word, with the highly specialized meaning which is identical with the Arabic, is restricted to but a few languages, and is unquestionably a borrowed word. The Malay, which has not developed the meaning "root, tuber, sweet potato" from it, none the less has evolved the meaning "swelling," which is also localized, and is not found in other Malay languages, namely, *lambong* "swelling up, bounding up, darting up, expansive, swelling." This word may, however, not be connected with the previous

¹ W. W. Skeat and C. O. Blagden, *Pagan Races of the Malay Peninsula* London 1906, vol. II, p. 762 f.

one, because we have Tagalog *hambog*, Sulu *lubag* "to swell," which would indicate a native Malay origin.

However this may be, it is clear that Nahuatl *camotli* is based on Span. *camote*, and not vice versa, and Span. *camote* is derived from a Philippine word for "root," since the sweet potato was cultivated in the Philippines before the arrival of the Spaniards, even as it was found in the Moluccas in 1521 with a native word for it. *Camotli* is as little Nahuatl as *camote* is Peruvian. And yet, the dictionary of 1571 already has a derivation from *camotli*, namely *camotic* "soft and tender, like a sweet potato." Hernandez, who does not give *camotli* or *quauhcamotli*, has a plant "batata purgativa," which he renders by *cacamotic tlanquilonis*. Apparently *camotli* was not yet fully established as a name when he gave this appellation to the purgative yam, for *cacamotic* is a reduplicated *camotic* "soft as a sweet potato." Even as late as 1582 *camotes* are spoken of as the Philippine name of a sweet potato like the San Domingo batata: "rayçes como batatas de sancto domingo que llaman *camotes*."¹ Had the writer had in mind the name of the sweet potato in Mexico, he would not have gone out of his way to compare it with the San Domingo sweet potato, "which it resembled."

We can now arrange the results of our investigation in a geographical and chronological order. The Arabs fostered, if they did not actually create, in Africa the agriculture connected with the bread roots, manioc, yam, and sweet potato. The first was of extraordinary importance to those who in their travels had to depend on a staple food. Hence, when the Guinea voyagers were wafted across to Brazil, which, in all probability, happened before the so-called discovery of America by Columbus, they at once set out to teach the friendly natives the art of planting and preparing the manioc,

¹ Blair and Robertson, *op. cit.*, vol. V, p. 44.

primarily in order to aid those who had suffered shipwreck on the shores of America. From Brazil the manioc spread in all directions. As the greater number of words connected with the manioc are of Kongo origin, the chief effort must be due to the Portuguese and cannot precede the discovery of America by many years.

The yam, in all probability, is of Asiatic origin. Its cultivation in Asia is lost in antiquity, though it does not seem to have been known in India until very late. The yams may also have been native to Africa. They were certainly cultivated there before the arrival of the Europeans, and their introduction from Africa into America is based on emphatic and incontrovertible proofs, not the least of which is the derivation of most of the American words for it from African originals. The same linguistic affinity, combined with Pigafetta's definite reference to sweet potatoes in the Moluccas and the specific statements of the early voyagers to the Philippines in regard to these roots, are conclusive proof that Guinea was the distributing center of the sweet potatoes to America and, at an earlier time, to Asia. But here the distribution was considerably later than that of the yams. In America the sweet potatoes spread north and south from the Antilles, where they may have preceded the so-called discovery of America by a few decades, and only by a few decades, since the linguistic affinity of its names to their designation in Guinea and on the Gold Coast excludes their existence in America before the arrival of the Portuguese and Spaniards in Africa, which was less than half a century before the discovery of America.

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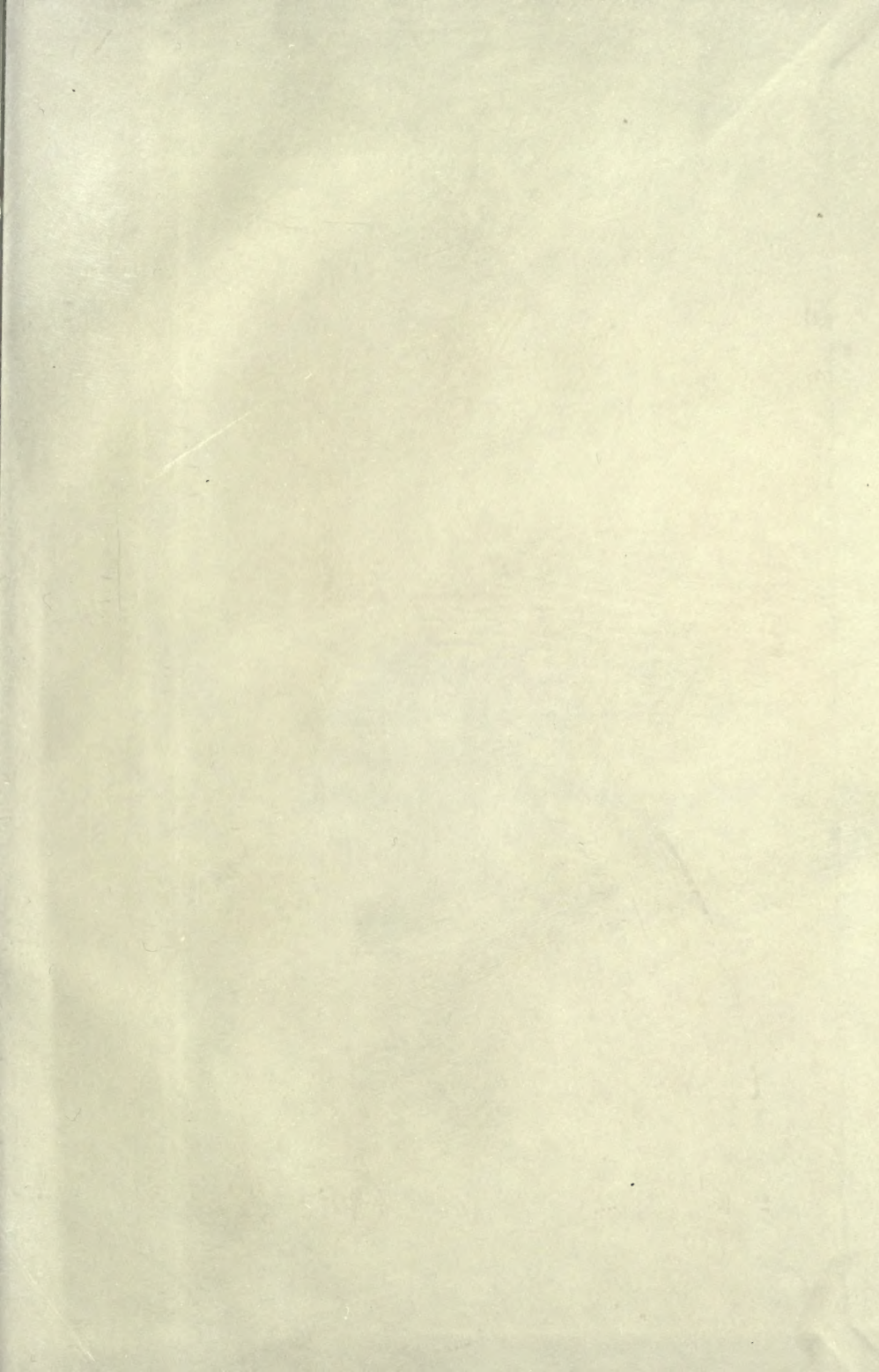
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