# "A Verde Folha da Erva Ardente" Betel Chewing in 16<sup>th</sup> Century European Sources

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Around the year 1500, betel chewing was one of the most popular social habits in Asia, regularly practiced by many millions of people regardless of age, gender, religion or status. The consumption of the betel quid was usually done in coastal and tropical regions in a geographical area that extended from Madagascar in the west to the Pacific islands in the east. Perhaps no other natural intoxicating preparation had been so regularly consumed over such a vast area for such a long time for, in fact, archaeological and historical evidence show that betel chewing was practiced thousands of years ago in places as wide apart as South India, Thailand, the Indonesian archipelago, the Philippines, and South China. Betel chewing is definitely of Asian origin although in the course of time it was transplanted to regions in East Africa and the Pacific, mostly through trading connections and migrating communities. Today the habit persists all over maritime Asia and further beyond into the East African shores and the islands of Western Oceania, and, in terms of mass consumption of stimulants, its only serious rival seems to be caffeine.1

As with so many other Eastern realities, a significant body of information about betel chewing reached Europe only after the discovery of the Cape route, when the Portuguese became the eyes of Europe in the wider world. In fact, before Vasco da Gama's expedition reached India by the sea route in May 1498, news available to Europeans about betel chewing was rather scarce. Maybe the best source would have been Avicenna, the celebrated Arab physician, who mentions betel in his *Canon medicinae*, which was translated into Latin in the Iberian Peninsula in the 12<sup>th</sup> century and

widely circulated in Western cultural circles, first as a manuscript, and then after 1473 in sundry printed editions.<sup>2</sup> Another available source would have been the Description of the World by Marco Polo, composed around 1392 and widely circulated in manuscript copies and also printed ones after 1485 throughout Europe. The famous Venetian traveler mentions the habit of betel chewing in his description of the "City of Cail", or Kayal, on the Coromandel coast. He states that "the people of this city, as well as of the rest of India, have a custom of perpetually keeping in the mouth a certain leaf called tembul, to gratify a certain habit and desire they have, continually chewing it and spitting out the saliva that it excites." He does not go into details, only adding that the upper Indian social strata mixed the leaves of the plant with "camphor and other aromatic spices" as well as with "quicklime." Furthermore, this chewing preparation was said "to be very good for the health."3 It is not certain that even this scanty piece of information was available to late 15th century European readers of one of the many manuscript copies or printed editions of Marco Polo's travelogue in circulation since it has been suggested that the entire passage could have been a later interpolation introduced by Giovanni Battista Ramusio in his Italian edition of the text published in the second volume of Delle Navigationi et Viaggi, which came out at Venice in 1559.4 In sum, Europeans seem to have lived in almost total ignorance of one of Asia's most common and widespread social habits until the Portuguese arrived in India.

The "green leaf of the burning herb," as the great Portuguese poet Luís de Camões styled the betel leaf

in Os Lusiadas (Lisbon, 1572),<sup>5</sup> became widely known in Europe only after 1499 with the return of Vasco da Gama's fleet from its epoch-making voyage to the west coast of India. Álvaro Velho, the presumed author of the account of this expedition, is the first early modern European author to mention betel chewing. When he described the audience granted to the Portuguese by the Samudri, he noted that the ruler of Calicut was being fed by one his servants from a gold bowl standing to his right "some herbs that the men of these parts eat" and which "they call atanbor"; every once in a while, he would spit some sort of husk or bagaço into a gold pot standing to his left.<sup>6</sup> Although no further comments are

offered by Álvaro Velho, he clearly understood that he was witnessing an important local social habit practiced by kings and commoners alike that involved some sort of ritual preparations. He also transmitted a new word to his European readership, attambul, the Arabic designation for betel,7 not a word commonly used in Calicut rather a

Bem junto delle hum velho reuerente,
Cos giolhos no chão, de quando em quando
Lhe daua a verde folha da erua ardente
Que a seu costume estaua ruminando:
Hum Bramene, pessoa preminente,
Pera o Gama vem com passo brando,
Pera que ao grande Principe o apresente,
Que diante lhe acena que se assente.
Sentado

Reference to betel chewing, the "green leaf of the burning herb", by Luís de Camões (*Os Lusiadas* [Lisbon, 1572], VII-58).

result of the Portuguese using the Arabic language in their first dealings with the Indian authorities.

Similar references appear in the accounts of the next expeditions sent to India by the Portuguese crown. The anonymous description of Pedro Álvares Cabral's voyage of in 1500-1501 states that the people of Calicut, "the men as well as the women chew a leaf called *betola* all day long, which makes the mouth red and the teeth black." Only those "of the lowest sort" avoid such a practice, perhaps because they cannot afford it. Since the original Portuguese account has disappeared, and only Italian translations survive, such as the one included in the first volume of Ramusio's *Delle Navigationi et Viaggi*, published in Venice in 1550, it is hard to tell if the author used again the word

atambor as Álvaro Velho had done, which seems likely, or if he introduced betele, which comes from vettila, the Malayalam term for the leaf of the Piper betel, a word that shows up in Portuguese sources only slightly later. In 1502 Tomé Lopes mentions betel chewing in his account of the second expedition of Vasco da Gama to India. This time it was the ruler of Melinde, a polity on the east coast of Africa, who during a meeting with the Portuguese "had his mouth filled with atambor." This text, likewise, is only known through the Italian translation published by Ramusio in the 1550 edition of the first volume of his monumental compilation of travel literature. However, it seems plausible that Tomé

Lopes reverted to atambor, the now familiar designation of the betel quid, as the Portuguese were being introduced to oriental manners and customs by the medium of the Arabic language, which some of them could speak fluently.

However, soon enough the Portuguese would start to decode oriental practices since, as years drew by, ever more

powerful expeditions departed from Lisbon via the Cape route in a deliberate attempt to establish some sort of permanent enterprise in the East Indies. Strategic locations were occupied, fortresses were built, treaties were signed, factories were opened, maritime routes were monitored, trade in exotic goods was controlled, and soon the *Estado da Índia* became an established geopolitical feature of the oriental scene, mainly in the western part of the Indian Ocean. Furthermore, the Portuguese soon discovered that rich profits awaited the more enterprising individuals if they had something to offer the local oriental polities, be it a small trading vessel, some sort of financial power, or expertise in the fields of navigation or warfare. Thus a Portuguese "shadow empire", as it

has been styled by modern historiography, developed in sundry port-cities of the Gulf of Bengal and the South China Sea.

Empire building, official or otherwise, could not happen without intelligence gathering, so the Portuguese devoted a considerable amount of their energy to the collection of information in the first decades of the 16th century, giving rise to a vast production of texts of a variegated nature that purported to portray many different aspects of the eastern world. 11 Among the many new realities identified, of course, were betel, a natural product whose consumption was associated with several other products, and betel chewing, a social habit practiced in very specific circumstances. Portuguese authors, then, in the course of the 16th century would proceed to uncover some of the secrets connected with betel and betel chewing, committing to writing not only their personal observations but also the news they collected from oriental informants. Likewise, other Europeans traveling on board Portuguese ships in whatever capacity within the Estado da Índia also contributed to Europe's knowledge of Eastern products such as betel and Eastern manners such as betel chewing.

Ludovico de Varthema was perhaps one of the first Europeans to mention betel chewing in a printed work. As a matter of fact, in his Itinerario, published for the first time in Rome in 1510 after he returned from his extensive oriental journeys, the Italian traveler describes some of the habits of the sultan of Gujarat: "he eats certain fruits called *chofole*, which are like a nutmeg; he also eats certain leaves of a plant which some call tamboli, similar to the leaves of the sour orange tree; he eats, furthermore, a paste made of oyster shells, together with the said things."12 Varthema's list of the ingredients of the most common betel quid is quite correct: the green betel leaves (Piper betel, in Arabic at-tambul), which are used as an envelope for the whole preparation; thin slices of the seed or nut of the areca palm (Areca catechu, in Arabic *fooful*); and lime made of some sort of seashells. The betel quid is then chewed for a certain amount of time, producing abundant salivation and forcing its user to spit frequently.

However, the Italian adds incorrectly that when the sultan of Gujarat wants to kill someone he just spits the chewed stuff all over that person, who, "in a matter of half an hour will drop dead."<sup>13</sup> During his travels through Gujarat in 1504, Varthema certainly heard the rumour, also mentioned by Portuguese contemporary authors, that the local ruler, Mahmud I, had regularly eaten small portions of poison since childhood in order to become invulnerable to its deadly effects. <sup>14</sup> Eventually, the Italian mixed this rather strange habit with betel chewing, which would also have been a novelty for him. Later on, in the *Itinerario*, Varthema would repeat the description in connection with Calicut, mentioning some of the local names of the quid's components: *coffolo* (the areca nut, again from the Arabic *fooful*), areca (the tree, proper, from the Malayalam *adekka*), and *cionama* (the oyster lime, from the Malayalam *chunnambu*). <sup>15</sup>

Not many years later, two Portuguese authors, both of them living in Asia and both of them close collaborators of Afonso de Albuquerque, the Portuguese governor who laid the foundations of the Estado da Índia, would add significantly to Europe's knowledge of betel chewing. The apothecary Tomé Pires wrote his Suma Oriental, the first systematic geographical account of Asia to be produced in modern times, between 1512 and 1515 while living in the portcity of Malacca, which just recently had been conquered by the Portuguese. Among many other references to Eastern luxury products and exotic practices, he repeatedly mentions betel and areca in his treatise, using the terms which would become standard in the Portuguese language, bétele (from vetilla) and areca (from adekka), which means that it was in the Malabar region that the Portuguese first became acquainted with these products. 16 According to Pires, in Deccan there is "a great deal of areca and betel", 17 and the latter is widely exported from there, mainly to Cambay, Hormuz and Aden.<sup>18</sup> Malabar also produces "a great deal of betel", and there "are an enormous number" of areca trees.<sup>19</sup> Further south, Ceylon also boasts "a great deal of areca, which is called avelana Indiae in Latin. It is eaten with betel. It is a foodstuff and it is very cheap. It is sold in Coromandel."20

The *Suma Oriental* mentions that the best variety of betel was found in Goa, where it grew in abundance: "There is no doubt that the betel in Goa is better than anywhere else, mild and pleasant to the taste and highly prized." Besides, the Goan territory "has more and better areca or *avelana India* than any other place." Tomé Pires describes Goa, which had been conquered by the Portuguese in 1510, in

superlative terms, underlining all the local amenities. He mentions in passing that the Rumes had a saying that went: "Let's go to the kingdom of Goa to enjoy the shade and the groves of trees and to savour the sweet betel." The Portuguese apothecary's description of Goan betel suggests that during his years in India he must have tried the betel quid, although in the *Suma Oriental* he does not elaborate on the procedures to be followed. He does so, however, in a list of drugs that he sent to Portugal in 1516, where he adds detailed information about betel chewing: "The men of these parts can sustain themselves on betel three or four days without eating anything else." Furthermore, it also "helps digestion, comforts the brain, strengthens the teeth", and sweetens the breath.<sup>23</sup>

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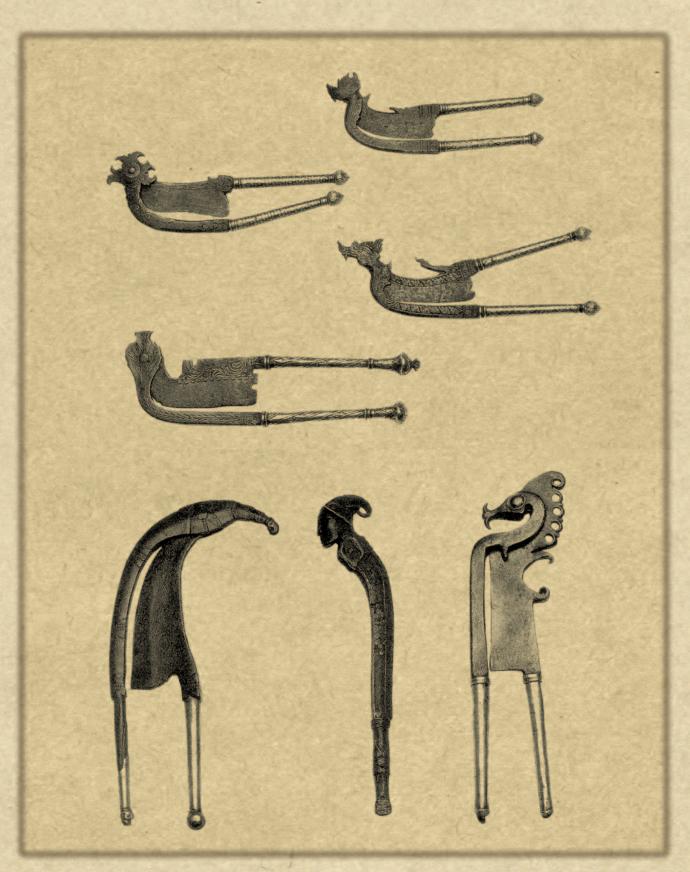
Another early account of oriental geography was prepared by Duarte Barbosa, who lived in India in the first decades of the 16<sup>th</sup> century. In his *Livro*, as it is simply known, first completed around 1516, he mentions betel chewing and its components allegedly from first hand experience. Since he lived many years in the Malabar, he could speak fluent Malayalam, and he frequently associated with Indians in Cananor and Calicut. First, Barbosa correctly describes the shape of the betel leaf, stating that it is "very aromatic" and that it grows on a tree that "climbs over other trees." He then alludes to the habit of betel chewing, stating that the said leaf "throughout India is habitually chewed by both men and women, night and day, in public

places and roads by day, and in bed at night, so that their chewing thereof has no pause." Finally, he lists the components of the quid: "this leaf is mixed with a small fruit (seed) called areca, and before eating it they cover it with moistened lime (made from mussel and cockle-shells), and having wrapped up these two things with the betel leaf they chew it, swallowing the juice only." Our author doesn't mention the constant spitting that betel chewing induces, but he adds that it "makes the mouth red and the teeth black", being "good for drying and preserving the belly and the brain", and also to subdue flatulence and take away thirst. As a sort of a linguistic conclusion, Barbosa declares that betel is styled tambul by "the Moors, Arabs, and Persians", a notion that would by now have been familiar to his readers.24

Tomé Pires, in the Suma Oriental, stated on two different occasions that betel leaves could be identified with folio Indio, first when he was describing Deccan and then when he was discussing the Maluku islands.<sup>25</sup> In this latter instance, he declared that as a physician in Portugal, he had been using dried leaves of the clove tree (Caryophyllus aromaticus) for more than twenty years, "instead of the said folio Indio, which is betel."26 Later, in his letter to the Portuguese monarch dated January 1516, the Portuguese apothecary confirmed his impression: "Folio Indio is betel."27 The nearly contemporary Livro of Duarte Barbosa shares this view, declaring "This betel we call [f]olio indio." 28\_As it turns out, both of them were wrong because the plant the Portuguese termed folio Indio was an altogether different product, more exactly the dried leaves of some kind of cinnamon, but the confusion would only be definitely dismissed decades later.<sup>29</sup>

By 1520 the Portuguese had collected enough information to identify the betel quid's essential ingredients and to understand that betel chewing was not some sort of exotic food but rather a widespread masticatory. Other sources available in Europe pointed to its existence in the outer reaches of the Indonesian archipelago. Antonio Pigafetta, one of the few survivors of the first voyage of circumnavigation led by Fernão de Magalhães, soon after his return to Seville in 1522 published a curious account of the journey. In his narrative he described betel chewing practices in several

Betel cutters.



islands of the archipelago later known as the Philippines, namely in Limasawa. According to his words, the people of this latter port "are constantly chewing a fruit which they call *areca*", cut "into four parts", which they wrap in some leaves "they call *betre*", and mix "with a little lime." This quid, although leaving them with "the mouth exceedingly red", is very popular because "it is very cooling to the heart, and if they ceased to use it they would die." Later Spanish observers would confirm the popularity of betel chewing among the Filipinos, calling attention to the specific terminology used in other islands of the archipelago, where betel was styled *buyo* and areca, *bonga*.<sup>31</sup>

In the 1530s António Galvão, who was captain of the Portuguese fortress in Ternate, also collected evidence of betel chewing in the eastern islands of Indonesia. In his manuscript, Tratado das ilhas de Maluco, written around 1544, he described the local areca trees, which "have the appearance of a cypress, only they are lighter in color and more beautiful; and their flowers give a fine smell, and their fruit looks like an acorn."32 The Portuguese captain further comments that the local population uses many types of herbs "for food and medicine, poisons and antidotes"; but the "one they use and avail themselves of most of all is the betel", which they use "so continuously that they never take it from their mouths, so these peoples can be said to go around always ruminating."33 António Galvão apparently never tried the quid, but he must have witnessed the practice of betel chewing because, besides stating that it was "intoxicating", he describes how it was prepared and stored. According to his words, the Ternatese mixed "cleaned areca nut" with "some green twigs", also adding some sort of "lime, called tjunambu." Unlike other Portuguese observers, the author of the Tratado das ilhas de Maluco also mentions some of the utensils associated in Maluku with betel chewing, namely the square copper boxes used to store the areca nuts and the "silver vessels like salt-cellars" where chunambo was kept.34

Available news, then, stressed that the betel leaf was used in the composition of some sort of masticatory from Melinde in the east coast of Africa to the Maluku islands in the farthest reaches of the Indonesian archipelago. Unquestionably, betel and areca were highly valuable commodities within the Eastern way of life. Duarte Barbosa had called attention to the intense betel trade that took place in the area around the Betel

River in India,<sup>35</sup> and slightly later João de Magalhães, another Portuguese informer, reported that countless Indian *cotias*, small sailing craft, took betel "all year round" to Gujarat.<sup>36</sup>

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However, there is no indication that the Portuguese authorities, or Portuguese merchants for that matter, showed any interest whatsoever in the trading potential of the betel leaf and the areca nut. Perhaps what Tomé Pires wrote about the former explains why it was ignored by the Portuguese in the early decades of the 16th century: the apothecary writes that the betel leaf turns dry very quickly, and then "it is good for nothing, for its virtue is so subtle that, when dry, it has neither flavour nor taste."37 It had to be fresh to be of any use, thus being most appropriate for petty traders and "small craft." The Portuguese, on the contrary, were more interested in oriental goods capable of enduring long-distance journeys. A 16th century Arab account of the Portuguese in Malabar, attributed to Zain al-Din al-Ma'bari, confirms that the European newcomers were profiting from trade in sundry valuable merchandise, but they had left to "the Muslims the trade in areca, coconut, clothes and similar products."39

In the course of the 16<sup>th</sup> century the Portuguese continued to gather intelligence on oriental matters either from first hand experience or from local informants as they got involved in new ventures, trading or otherwise, all across maritime Asia. They eventually collected more detailed information about the practice of betel chewing. Important contributions to the knowledge of exotic customs were advanced

by the Jesuits after they opened their Eastern mission in 1542. The members of the Society of Jesus were especially keen to understand oriental religious beliefs and social practices in order to be able to develop compatible missionary strategies, and it was a rule of their order that the Jesuits had to commit to paper and dispatch to Europe regular and detailed reports about the missionary fields where they were active. For these reasons, many of their Indian letters are filled with interesting details about everyday life in sundry parts of Asia.<sup>40</sup>

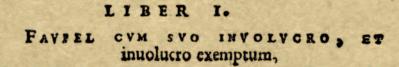
In 1552 Father Manuel de Morais Senior, who was stationed in Colombo, described the Sinhalese practice of betel chewing in a letter to his brethren in Portugal: "they eat the leaves of a certain tree that climbs into other trees, ivy-like; and they practically live on these leaves, mixing them with lime." Furthermore, the local people also "eat another fruit with these leaves", and the said fruit "has no taste or flavour, being like dry wood."41 Apparently, some Jesuits soon got into the habit of chewing the betel quid because years later, in 1561, another missionary claims that, when visiting some local Christians near the city of Belgaum, to the northeast of Goa, he was offered "betel, which is a sign of love and peace",42 and he accepted it. Jesuit letters clearly show the enormous geographical area over which betel chewing was practiced. Around 1570 Francisco Monclaro saw in Zanzibar "for the first time the areca palms, trees that in India are so fresh and esteemed by their fruit, which is eaten with betel."43 Not many years later, in 1576, Father Nicolau Nunes, in his general survey of the Maluku islands, mentions the existence of "betre" and its regular consumption among the islanders.44 However, besides testifying to the widespread practice of betel chewing, the references of the early European observers, including the Jesuits'letters, did not elaborate on the subject. The masticatory was seen merely as another specific trait of the eastern way of life, which by 1550 had become familiar enough to deserve no more than passing mention in the written materials dispatched to Europe.

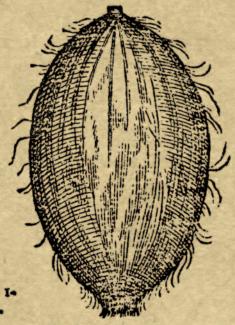
In the second half of the 16<sup>th</sup> century, however, several authors were going to delve more deeply into the matter, but not always with identical purposes. Foremost among Portuguese enquirers of eastern botany stands Garcia da Orta, the well-known physician of Jewish origin active in India after 1534 for

more than three decades. In 1563 he published in Goa his celebrated Colóquios dos simples e drogas da Índia, the first modern European treatise on Asian materia medica. Written in dialogue form, the book presented, besides some secondary figures, a character named Ruano, a paradigm of the bookish physicians then produced by Iberian universities, who maintained long conversations about botanical and medical matters with an experienced and open-minded Orta, who, besides his European university degree, could boast a profound firsthand knowledge of eastern medical practices. Among the many subjects debated by the two of them, betel chewing turns up more than once. In fact, Garcia da Orta's references to betel and betel chewing may be considered the most elaborate and well-informed discussion on these subjects that until then had appeared in print.<sup>45</sup>

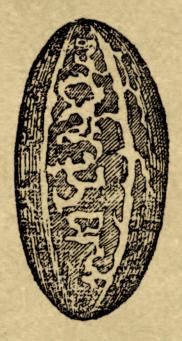
Orta himself never indulged in betel chewing because his first experience when he had arrived in Panjim hadn't been a pleasant one since he "tasted this betre" by itself, without any other ingredients, finding it extremely sour. 46 However, he certainly was familiar with the custom and with the sundry components used in the quid, which he terms "so sweet to the taste and so fragrant that everyone chews it continually" if they can afford it.<sup>47</sup> References to betel chewing are found in several chapters of the Colóquios dos simples. Besides minor references, the relevant materials are gathered in colloquium 22 "on faufel and on Indian figs", which includes a lengthy description of the areca nut, styled in Portuguese "avelam da India", 48 and in an unnumbered colloquium included at the end of the book "on betre and other things", 49 where betel chewing is duly explored.

Reverting to his standard procedure, Orta includes some linguistic data on the natural products he describes, underlining that the Portuguese use the Malayalam terms areca and betre because these were the ones they first became acquainted with on their arrival in India. In passing, he settles the disputed question of whether betel was the folium indum of European authors, stating with authority that the latter was, in fact, an altogether different plant. Orta recounts that in his first days in India he had confused them, but on one occasion the Nizam Shah, ruler of Ahmadnagar, had pointed out the difference between the two plants, showing him as proof an Arabic manuscript of Avicenna's treatise on materia medica,





AVELLANAE IND 1. cægenus oblongum.





where different chapters were dedicated to betel and to *folium indum*.<sup>50</sup>

Having settled the terminology questions, the Portuguese physician mentions the location of the producing areas and the quality of the available products. The areca tree abounds in the coastal regions of India, because it "loves the sea and doesn't grow away from it." It is especially abundant in Ceylon.<sup>51</sup> As for the betel, it also thrives "in all parts of India known to the Portuguese" that are close to the sea because "in the hinterland there is none of it."<sup>52</sup> Next, Orta gives a concise description of the areca nut, which "is similar to the nutmeg, but not so big, and very hard inside", <sup>53</sup> and of the betel leaf, which looks like the orange tree leaf, "except that it is longer and more pointed."<sup>54</sup>

Garcia da Orta must have seen the preparation of the betel quid quite often since he describes it in minute detail in his Colóquios dos simples.55 According to him, the consumer "takes a betel leaf in his hand" and with his thumb nail rips away the leaf's nerves; then he places on top of the leaf a "small quantity of lime paste" and some areca nut "chopped or ground"; next, the leaf is "folded three or four times" and then chewed away.<sup>56</sup> All the ingredients must be previously prepared, of course, and our author mentions the "big scissors" used to cut the areca nut into "small pieces." <sup>57</sup> The mixture produces intense salivation of a blood-red colour. "Some people spit away the first juice"; others don't, and keep on chewing. The process is then repeated with a new quid.<sup>58</sup> Other ingredients can be added to the normal betel chew, like cate (Acacia catechu), camphor (Dryobalanops aromatica), linaloes powder (Aquilaria agallocha), amber,<sup>59</sup> and also musk,<sup>60</sup> according to the consumer's taste or financial resources.

As a physician, Garcia da Orta pays special attention to the medical uses associated with betel chewing and with the ingredients of the quid. The custom was considered very healthy: good to strengthen the teeth, to fortify the gums, to comfort the stomach, and to cleanse the head. Orta himself used distilled fresh areca nut juice against "camaras colericas", and he stated that the green areca was an intoxicant "because the people who eat it get drunk, and they eat it not to feel any pain." It was also a powerful aphrodisiac

Betal nut. In Charles de l'Écluse, Aromatum et simplicium aliquot medicamentorum apud indos nascentium historia (Antwerp, 1567).

as, in the wording of the Colóquios dos simples, "para as vodas de Venus he principal alcoviteiro."61 About the social practices associated with betel chewing, there are some interesting hints in Orta's treatise that should be mentioned. People chewed the betel quid for a number of reasons. First and foremost because its mildly intoxicating properties produced a continuous state of well-being. Then they used it as a breath freshener, for in Asia no one dared to speak to someone of superior rank without chewing the betel quid beforehand. Also, "the woman who shall deal in love affairs will never speak to the male party without chewing it first." According to Orta, some Portuguese were so addicted to Indian ways of life that they even received the betel quid from the mouth of their female companions.<sup>62</sup> It was also used after meals by Portuguese and Indians alike to help digestion. And finally, our author mentioned that betel was used as a departure gift all over India: "the princes who bid farewell to some person, or he to them, never depart before an offer of "betre" has been exchanged."63

Orta's observations reveal that betel chewing involved important trade ramifications, so widespread was the custom in India alone. "In the hinterland and in places removed from the sea", the quid's ingredients were extremely valuable; and the ruler of Ahmadnagar, only by himself, spent "30 thousand cruzados" on it every year. 64 However, details about this admittedly valuable trade are lacking completely. Also, after his learned dialogue with Ruano about betel, the Portuguese physician invites his colleague to visit the betel plantations in the outskirts of the capital city of Goa: "let us ride and I will show you the "betre" in the orchards."65

The Colóquios dos simples, despite being printed in distant Goa, had a lasting impact on Europe. The book was bought in Lisbon around 1565 by the Flemish botanist Charles de l'Écluse, who used it to produce an "epitomized Latin version" that was published in Antwerp in 1567 under the title Aromatum et simplicium aliquot medicamentorum apud Indos nascentium historia. 66 Carolus Clusius, as he is more widely known, included in this version of Orta's treatise a chapter on betel and another one on the areca nut, where he repeats all the information the Portuguese physician had gathered, 67 the only novelty being the introduction of an illustration of the faufel or areca nut. 68 Wider Europe, then, was

receiving first-hand data on betel chewing through a Portuguese connection.

Shortly after Garcia da Orta's demise, another outstanding Portuguese physician, Cristóvão da Costa, lived and worked in India for a spell, between 1568 and 1572, during the governorship of Viceroy Dom Luís de Ataíde, to whom, apparently, he was related. After his return to Europe, and for reasons unknown, Costa settled in the Spanish town of Burgos as a physician. While in Goa, he had come across a copy of Garcia da Orta's Colóquios dos simples, which he decided to complement with new observations and sundry drawings. In Burgos in 1578 he published in Spanish his Tractado de las drogas y medicinas de las Indias Orientales, which is not a mere paraphrase of his countryman's earlier treatise but, on the contrary, stands on its own in terms of expertise in the field of Eastern materia medica. 69 Although Cristóvão da Costa knew well the Colóquios dos simples and used it extensively in the preparation of his own Tractado, textual comparison between the two books clearly shows that they "differ markedly in form, arrangement, and subject matter."70

The chapter on the "Avelā-Índica", or areca nut, included in the Tractado de las drogas is basically a reproduction of Garcia da Orta's colloquium 22, on faufel. Nothing new transpires about the areca tree or its fruit except that Costa adds some details about the shape of the trunk and the use of its wands in crocodile hunting, a practice which he claims to have witnessed frequently.<sup>71</sup> Unlike Orta, our author concludes the chapter with a long Latin quotation from the Liber aggregatus in medicinis simplicibus, a treatise by the 11th century Arab writer Ibn Serapion, also known as Ibn Serabi. $^{72}$  A drawing of the areca tree is included. $^{73}$ On the other hand, the chapter on the "Fólio-indio", besides describing the betel plant in a similar manner as the Colóquios dos simples, presents some new material. Cristóvão da Costa states, for instance, that the betel leaf is "much appreciated in China, where it does not grow on account of the land being cold, nor does it grow in Mozambique, nor in Sofala, the land being hot"; and because of its rarity, betel "is worth a lot in those parts."74 The betel plant, in fact, was then cultivated in Annam, its consumption being most popular in South China as a stimulant; the areca nuts, on the other hand, were imported from more southerly regions and used for chewing with betel as well as for medical purposes since Daoist texts indicated they were very effective against beriberi. Furthermore, Cristóvão da Costa mentions betel in his chapter on durians, where he explains that any indigestion caused by these allegedly delicious fruits can be cured by chewing some betel leaves or even by placing a betel leaf over the stomach of the ailing person. Finally, he states that there is such an opposition between the two plants that if some betel leaves are placed inside a ship loaded with durians, or in a house filled with them, or in the place where they lay, all [the durians] will be utterly corrupted and turn rotten.

Before the close of the 16th century, Europeans would be able to read the most thorough and most reliable printed description of betel and betel chewing produced so far: the one by Jan Huygen van Linschoten. The Dutch traveler lived from 1583 to 1588 in Goa, where he was the private secretary of Archbishop D. Vicente da Fonseca. While working among the Portuguese, Jan Huygen amassed a vast amount of firsthand information about Asia and collected all the materials on Asian geography and navigation he could get his hands on, including manuscript drawings, maps and written reports, as well as numerous printed Portuguese and Spanish books. Back in the Low Countries in 1592 he settled down with the help of his friend Berent ten Broecke, also known as Paludanus, to write his famous Itinerario, which was printed in Amsterdam four years later. This encyclopedic work about Eastern matters, which was widely circulated throughout Europe in sundry editions and translations, obviously included references to betel and to areca.

As a matter of fact, besides several passing remarks scattered through his book, <sup>78</sup> Jan Huygen dedicates a whole chapter of the *Itinerario* to the discussion of "the Bettele leaves, & the fruit Areca." <sup>79</sup> Both plants are minutely described, and the preparation of the betel quid is carefully explained. Attention is also called to the several ingredients that can be added to the mixture, such as *cate*, camphor, amber and *linaloes*. Also the medicinal properties are duly noted: "they say it is very good for the maw, and against a stinking breath, [a soveraigne medicin] for the teeth, and fastning of gummes, and [very good] against scurvy." <sup>80</sup> The Dutch traveler, based on his own overseas experience, mentions the popularity of betel chewing among the Indians regardless of gender, age or social condition: "there

is not any woman or man in all India, but that every day eateth a dozen or two of the same leaves or more" properly mixed with the other components.<sup>81</sup>

Linschoten stresses that betel leaves, together with the other ingredients, were sold "in every corner, and street, and shoppe" in Goa on account of betel chewing being such an important part of coastal India's daily life.82 The quid was everywhere present, in the privacy of homes and in the public streets, in official audiences and at parties or celebrations and, above all, in lovers' encounters because, besides all its other qualities, it was supposed to be a mild aphrodisiac. The "Portingale women" seemed to be especially addicted to betel chewing because, according to Linschoten, they did it all day long, sometimes even during the night, when for any reason they could not sleep. In fact, he adds, "if they were but one day without eating their Bettele, they perswade themselves they could not live."83 Meanwhile, many Portuguese men had also taken to the habit, influenced by their female companions.

The major literary source used by Linschoten in his betel chapter was, of course, the *Colóquios dos simples e drogas da Índia*, a copy of which he had probably brought home from Goa. His collaborator, Paludanus, produced two notes about the subject using Avicenna's textbook and also the "commentaries of learned Clusius, uppon the Chapter of Garcius touching Bettele", <sup>84</sup> that is, some edition of the epitome of Garcia da Orta's treatise published by Charles de l'Écluse. Thus, once more, to get acquainted with Oriental topics, Europe had to rely on Portuguese materials or the reports of other Europeans who had had the opportunity of traveling through the Asian seas with the Portuguese.

Linschoten was just one of many, but perhaps the foremost informant thanks to the enormous publishing success of his *Itinerario*. Most certainly, part of this success was due to the fact that the Dutch traveler included a large number of illustrations in his work depicting sundry Oriental peoples, social practices, houses and temples, ships and other artifacts, deities, plants and animals. If we acknowledge the fact that almost no Portuguese graphic depictions of 16th century Eastern topics were available, it will be easy to understand the extraordinary importance of Linschoten's drawings, even taking into account that in their printed version they had to sacrifice some of

their realism to European artistic conventions. Sure enough, one of the *Itinerario*'s plates depicted the "fruits called areca or *faufel* and the leaf called betel, which the Indians chew all the day long, mixed with lime, swallowing the juice to purge the body and for its other qualities." Betel and areca show up in two other of Linschoten's drawings, the first one depicting the ambassador from Balagate, where some of the utensils associated with betel chewing are represented; the other depicting the famous Goan *arvore triste*, where we can see an Indian woman holding a tray filled with the quid's ingredients. Both the service of the surface of the property of the service of the serv

All things considered, 16th century Europeans, mainly through Portuguese channels, had access to a significant body of data concerning the exotic Asian custom of betel chewing. The various ingredients of the masticatory were correctly identified, the geographical areas were it was used were perfectly mapped, the bodily effects it provoked were basically defined, the numerous circumstances of its consumption were well established, and the role it played as a regulator of human interactions was more or less understood. Information was only lacking, perhaps, about the finer points of the social symbology of betel chewing, which everywhere in Asia was linked to a multitude of different rites and beliefs, and about the artistic relevance of the several artifacts associated with the practice, which gave rise to a rich handicraft tradition, including a vast array of utensils made of more or less noble materials and crafted in more or less exquisite designs. Some of Garcia da Orta's pages introduce us to the former; and some of Linschoten's drawings give us a glimpse of the latter, but we cannot ask the impossible from our sources because, all in all, they seem to be extremely rich. RC

Author's note: A version of this text was published in Portuguese as "A verde folha da erva ardente: O consumo do bétele nas fontes europeias quinhentistas," in Mirabilia Asiatica – Produtos raros no comércio marítimo / Produits rares dans le commerce maritime / Seltene Waren im Seehandel, vol. 2, Jorge M. dos Santos Alves, Claude Guillot & Roderich Ptak, eds. (Wiesbaden: Harrassowitz Verlag & Fundação Oriente, 2005, pp. 1-20).

#### **NOTES**

- The best historical surveys of betel-chewing can be found in: Louis Lewin (who is quite familiar with some Portuguese sources), *Phantastica*, pp. 246-255; N. M. Penzer, *Poison Damsels*, pp. 185-300; Dawn F. Rooney, *Betel Chewing Traditions*, pp. 1-29; and Solange Thierry, *Le Bétel*, pp. 1-26. About caffeine, see the superlative work by Bennett Alan Weinberg & Bonnie K. Bealer, *The World of Caffeine*, passim, who, incidentally, assert that today "chewing betel is a steady habit for about 10 percent of the world's population" (p. 263).
- 2 Cf. Garcia da Orta, Colóquios, vol. 1, p. 326. Avicenna describes tembul in chapter 709 of his Canon medicinae (see Conde de Ficalho, Garcia de Orta, pp. 288-289). About the role of Avicenna in Western medical theory, see Nancy G. Siraisi, Medieval and Early Renaissance Medicine, passim.
- 3 Marco Polo, *The Travels*, ed. Yule & Cordier, vol. 2, p. 371. The description of Cail, however, is not included in the Portuguese translation of the book of *Marco Paulo*, printed in Lisbon in 1502 by Valentim Fernandes; in this edition, Polo mentions something that could be identified as betel only when he is describing the habits of the "Bramanos": "*Muytas vezes husam hua herua em ho comer que muyto aproueita aa digestom*" (*Marco Paulo*, fl. 68v). For such an identification, cf. Marco Polo, *The Travels*, ed. Masefield, p. 370, n. 3.
- 4 The suggestion was made by Henry Yule in one of his notes to Marco Polo, *The Travels*, ed. Yule & Cordier (vol. 2, pp. 374-375, n. 5).
- 5 Luís de Camões, Os Lusíadas, VII, 58: "Bem junto delle hum velho reuerente, / Cos giolhos no chão, de quando em quando / Lhe daua a verde folha da erua ardente / que a seu costume estaua ruminando." The Portuguese poet was alluding to the audience granted to Vasco da Gama by the ruler of Calicut (cf. infra). See Albano Pereira Júnior, "Riqueza Farmacognósica," pp. 415-416.
- José Pedro Machado & Viriato Campos, Vasco da Gama, pp. 172-174: "E tinha a mãoo esçequerda hua copa d ouro muito grande, d altura de hum pote de meo almude e era de largura de dous parmos na boca, a quall era muito grossa ao pareçer, na qual talha lancava bagaco de huas eruas que os homens desta terra comem pella calma, a qual erua chamam atanbor. E da banda derreita estaua hum bacio d ouro, quanto hum homem podese abranjer com os braços, em o quall estavam aquelas ervas."
- 7 Cf. Sebastião Rodolfo Dalgado, Glossário, vol. 1, p. 66.
- Giovanni Battista Ramusio, Navigazioni e Viaggi, vol. 1, p. 643: "Tutto il giorno, cosi uomini come donne, vanno mangiando una foglia che si chiama ibetola, la quale fa la bocca vermiglia e li denti negri: e quelli che questo non fanno sono uomini di bassa sorte." The Portuguese anonymous account was first published in Fracanzano da Montalboddo's Paesi nuovamente ritrovati (Vicenza, 1507). For a Portuguese translation, cf. António Cruz, O Porto nas Navegações, pp. 205-278.
- 9 Cf. Sebastião Rodolfo Dalgado, Glossário, vol. 1, pp. 121-122.
- 10 Giovanni Battista Ramusio, Navigazioni e Viaggi, vol. 1, p. 694: "e la bocca piena di atambor."
- 11 See Donald F. Lach, Asia in the Making of Europe, vol. 1, passim.
- The Itinerario of Ludovico de Varthema was also included in the 1550 edition of the first volume of Giovanni Battista Ramusio's Navigazioni e Viaggi (cf. vol. 1, p. 810: "mangia certi frutti che si chiamano chofole, li quali sono come una noce moscata, e mangia ancora certe foglie d'erbe le quali sono come foglie di melangole, che alcuni chiamano tambor, e appresso mangia certa calcina di scorze di ostreghe insieme con le presenti cose"). For a Portuguese translation on which my English rendering is based, cf. Ludovico de Varthema, Itinerário, p. 127: "come certos frutos chamados chofole, que são como uma noz moscada; come ainda certas folhas de ervas chamadas tamboli,

- parecidas com as folhas de laranjeira azeda; como, enfim, uma massa de cascas de ostras, juntamente com as ditas coisas."
- 13 Ludovico de Varthema, Itinerário, p. 127: "bufa aquilo tudo em cima da pessoa que quer matar, e esta, no espaço duma meia hora, cai morta."
- About this piece of lore, see N. M. Penzer, *Poison-Damsels*, pp. 31-34; and Donald F. Lach, *Asia in the Making of Europe*, vol. 1, p. 397, who quotes the Portuguese 16<sup>th</sup> century sources, which include works by Duarte Barbosa, Tomé Pires, Garcia de Resende and Fernão Lopes de Castanheda.
- 15 Giovanni Battista Ramusio, Navigazioni e Viaggi, vol. 1, p. 828. For the Asian names, cf. Sebastião Rodolfo Dalgado, Glossário, vol. 1, pp. 51-53, 121-124 & 282-283.
- Donald F. Lach, Asia in the Making of Europe, vol. 2, bk. 2, pp. 545-546.
- 17 Tomé Pires, *The Suma Oriental*, vol. 1, p. 52. Portuguese text: "tem mujta arequa & mujto betelle" (vol. 2, p. 372).
- 18 Tomé Pires, The Suma Oriental, vol. 1, p. 54.
- Tomé Pires, The Suma Oriental, vol. 1, p. 54. Portuguese text: "o fruito Das arequeiras chamam areqas he nos avelana. Imdie tem Destes Imfinjdade tem mujto betelle" (vol. 2, p. 362).
- 20 Tomé Pires, The Suma Oriental, vol. 1, p. 86. Portuguese text: "tem a terra mujta arequa que se chama avelana Imdia em latim comese com ho betelle he mamtimento & vaal mujto barata Vemdese em choromamdell" (vol. 2, p. 454).
- 21 Tomé Pires, The Suma Oriental, vol. 1, p. 57. Portuguese text: "nom he Duujda o Regno de guoa ter betelle mjlhor que em outra parte ssuaue gostoso mujto estimado [...] areça ou avelana Jmdia tem mais & melhor que outro luguar" (vol. 2, p. 374).
- Tomé Pires, *The Suma Oriental*, vol. 1, p. 57. Portuguese text: "domde se costumou amtre os Rumes E Jemtes brancas praticarem vamos ao Regno de guoa gostar das sombras E aruoredos E tomar o sabor do doçe betelle" (vol. 2, p. 375). About the Portuguese use of the word "Rumes", see Salih Ozbaran, "Ottomans as 'Rumes' in Portuguese Sources," pp. 64-74.
- 23 Tomé Pires, The Suma Oriental, vol. 2, p. 516. Portuguese text: "em betele se sostem os homes destas partes tres quatro de [sic] sem comer outra cousa. faz grandemte. digerir conforta o çelebro a Reyga os dentes [...] os que ho custumã comer lhe faz bom bafo" (Tomé Pires, A Suma Oriental, p. 456).
- Duarte Barbosa, *The Book*, vol. 1, pp. 168-169. Portuguese text: "É tamanho como ua folha de tanchagem e quase de sua feição. Nace em arvores como hera, e sobe por as outras arvores, e [há] dele em latadas. Não dá nenhum fruto nem semente; é folha muito a[ro]matica, a qual folha, em todas as Indias, os mouros e indios muito comer usam, assi homens como molheres; e comem-a sempre, de dia e de noite, nas praças e polos caminhos e em suas casas e na cama; sempre andam comendo esta folha, a qual é mesturada com um pomo pequeno a que chamão areca. E, quando a hão-de comer, primeiro é a folha untada com cal molhada, a qual é feita de cascas de ostras e ameij[o]as e berbegões, e ajuntam todas tres cousas, e assi comem o dito betele com grão de almiscre e ambar, não levando mais pera baxo que o çumo. Fas-lhe a boca vermelha e os dentes pretos, e dizem que é bom pera enxugar o estomago e pera conservar o miolo, e faz lançar ventozidades e faz que não bebem nem hão sede. É antre os indios muito estimado e costumado" (Duarte Barbosa, O Livro, vol. 2, pp. 15-16). The allegation that betel chewing blackens the teeth is not confirmed by modern medical research.
- 25 Tomé Pires, *The Suma Oriental*, vol. 1, pp. 54 & 219.
- 26 Tomé Pires, The Suma Oriental, vol. 1, p. 219. Portuguese text: "E em purtugall bem avera vinte annos que eu tenho vsado as ditas folhas em lugar do dito folio Jmdio que hee betelle" (vol. 2, p. 446).

- 27 Tomé Pires, The Suma Oriental, vol. 2, p. 516. Portuguese text: "Folio Indo he betelle" (Tomé Pires, A Suma Oriental, p. 456). See António Alberto Banha de Andrade, "Drogas do Oriente," p. 161.
- 28 Duarte Barbosa, *O Livro*, vol. 2, p. 15: "ao qual betele nós chamamos [f]olio indio" (my translation from the Portuguese).
- 29 It was Garcia da Orta, the famous Portuguese physician, who solved the riddle in his *Colóquios dos simples* (cf. infra).
- Antonio Pigafetta, The First Voyage Around the World, p. 42. Pigafetta's account was first published in French as Le voyage et nauigation faict par les Espaignols es Isles de Mollucques in Paris sometime after 1526; it had many subsequent editions, and it was included by Ramusio in the first volume of his Delle Navigationi et Viaggi, Venice, 1550 (see Francisco Leite de Faria, "As primeiras relações impressas," pp. 508-517).
- 31 See Ana Maria Prieto, El Contacto Hispano-Indígena, pp. 191-192.
- 32 Hubert Th. Th. M. Jacobs, A Treatise on the Moluccas, pp. 44-45: "Á ariqueiras que são archiprestes na feição, no pé e copa, senão que hé mais limpa e fremosa, e com ha ffrol cheirão bem, e o ffruito é como huma bolota: nace em cachos, guasta-se com ho betele, huza-se muito dele."
- 33 Hubert Th. Th. M. Jacobs, A Treatise on the Moluccas, pp. 56-57: "Á muytas ervas pera comer he medecynais, peçonhemtas e comtra-peçonha. a de que mais huzão e se servem é betele, e tão comtino que numqua ho tirão da boqua, por homde se pode dizer que estas gemtes sempre amdão a remoer."
- 34 Hubert Th. Th. M. Jacobs, A Treatise on the Moluccas, pp. 114-115: "arequa muito bem aparada com huns raminhos verdes e ffrores per amtre eles cheirosas numas caicinhas quadradas hou em bacias pequenas d'arame. Comem-no com ha cal a que chamão chunambo, trazem-no numas bucetas de prata como saleiro, a que dizem chunãobeiro."
- The *Book of Duarte Barbosa*, vol. 1, pp. 167-168. The *Rio do Bétele* of the Portuguese sources has been identified with Vijayadurg, a port in the West coast of India, to the north of Goa (cf. Duarte Barbosa, *The Book*, vol. 1, p. 167, n. 2).
- 36 Livro que trata das cousas da Índia, p. 59: "Betere todo ano amdavão cotias a levá llo." About cotia, from the Malayalam kottiya, cf. Sebastião Rodolfo Dalgado, Glossário, vol. 1, pp. 316-317.
- 37 Tomé Pires, The Suma Oriental, vol. 2, p. 516. Portuguese text: "seco pa nada nom presta q. tem a virtude tā sutill q. seco no te cheyro ne sabor" (Tomé Pires, A Suma Oriental, p. 456).
- 38 Duarte Barbosa, The Book, vol. 1, p. 168. See Vitorino Magalhães Godinho, Os Descobrimentos, vol. 2, p. 202.
- 39 Zinadim, História dos Portugueses no Malabar, pp. 91-92: "não deixando aos muçulmanos mais que o comércio do arenque, da noz de coco, roupas e produtos análogos." The arenque (herring) in the Portuguese translation is surely a misprint for areca.
- 40 About the informative value of Jesuit letters, see Rui Manuel Loureiro, "O descobrimento da civilização indiana," pp. 107-125.
- 41 Documenta Indica, vol. 2, pp. 433-434: "a mor matenença que tem, hé folhas de huma certa arvore que atrepa por outras arvores como hera; e destas folhas se mantem emvoltas com cal [...]. Comem tambem outra fruita, que hé como maçãs d'acipreste com estas folhas, a qual fruita nenhum gosto nem sabor tem, senam como pao sequo."
- 42 Documenta Indica, vol. 5, p. 134: "e nos derão betelle que hé sinall d'amor e paz."
- 43 Documenta Indica, vol. 8, p. 695: "Aqui vi a primeira vez as arequeiras, arvores na India tão frescas e estimadas pello fruito que se come com o hetele"
- 44 Documenta Malucensia, vol. 1, p. 685.
- 45 In Garcia da Orta's Colóquios dos simples, betel chewing is discussed in colloquium 22 (vol. 1, pp. 325-341) and in the last, unnumbered, colloquium (vol. 2, pp. 389-405). I use the standard Portuguese edition by the Conde de Ficalho (although he made some questionable choices in his editing of the original 1563 edition). All translations from the Portuguese are my own since I could not

- get hold of a copy of Sir Clements Markham's English translation, *Colloquies on the Simples and Drugs of India* (London, Hakluyt Society, 1913).
- 46 Garcia da Orta, Colóquios dos simples, col. betre, vol. 2, p. 389: "eu provei este betre, quando vim de Portugal, em Pangim, que he huma fortaleza pequena, que está na boca do rio, e amargoume, e assi amargua a todos os que o comem, se lhe nam misturam areca, e alguma pouca de cal." Orta's description agrees with the comments of Louis Lewin about first experiences of betel chewing (Phantastica, p. 251).
- 47 Garcia da Orta, Colóquios dos simples, vol. 2, p. 390: "he tam aprazivel ao gosto e faz tam bom cheiro, que todos o mastigam continuada-mente; porque muyto pouco tempo passa, que o não mastigam os que o podem gastar."
- 48 Garcia da Orta, Colóquios dos simples, vol. 1, pp. 325-341.
- 49 Garcia da Orta, Colóquios dos simples, vol. 2, pp. 389-405.
- 50 Garcia da Orta, Colóquios dos simples, vol. 2, pp. 393-394.
- 51 Garcia da Orta, Colóquios dos simples, vol. 1, p. 326: "e em Çeilam ha mayor cantidade della"; "esta arvore ama o mar, e longe delle nam se cria."
- 52 Garcia da Orta, Colóquios dos simples, vol. 2, p. 392: "E quanto he o que dizeis onde o ha, digo que em todas as partes da India sabidas dos Portugueses; e isto se entende nas terras que estão perto do mar; porque em todo o mais do sertam não o ha, senão trazido da fralda do mar."
- 53 Garcia da Orta, Colóquios dos simples, vol. 1, p. 327: "he este fruto semelhante á noz noscada [sic], e não he tam grande, e muyto duro per dentro"
- 54 Garcia da Orta, Colóquios dos simples, vol. 2, p. 395: "A feição da folha, como vedes, he ser mais comprida e mais estreita na ponta, que a da larangeira."
- 55 Incidentally, one may note that Orta probably discussed betel chewing with Luís de Camões, since both of them lived in Goa at the same time, and the first published work of the latter was a poem printed in the opening pages of the Colóquios dos simples (vol. 1, pp. 7-9).
- 56 Garcia da Orta, Colóquios dos simples, vol. 2, p. 391.
- 57 Garcia da Orta, Colóquios dos simples, vol. 1, p. 328.
- 58 Garcia da Orta, Colóquios dos simples, vol. 2, p. 391: "o betre tem humas veas ou nervos ao longo da dita folha, tomam huma folha na mão, e tiramlhos com a unha do dedo pollegar [...]; e assi dobram a folha, e lhe misturam a cal em pouca quantidade, e areca em pedaços, ou moida, e, dobrada a folha tres ou quatro vezes, a mastigam; e o primeiro çumo lançam fóra, o qual he de cor de sangue. E algumas pessoas não fazem isto, senam tudo mastigam logo, e tomão depois outras folhas pella mesma maneira feitas."
- Garcia da Orta, Colóquios dos simples, vol. 1, p. 328. See N. M. Penzer, Poison-Damsels, pp. 192-193. Chapters of Orta's Colóquios dos simples are dedicated to all of these Eastern products: amber (col. 3); camphor (col. 12); linaloes (col. 30); cate (col. 31).
- 60 Garcia da Orta, Colóquios dos simples, vol. 2, p. 390. See N. M. Penzer, Poison Damsels, p. 197.
- 61 Garcia da Orta, Colóquios dos simples, vol. 1, pp. 327-329.
- 62 Garcia da Orta, Colóquios dos simples, vol. 2, pp. 389-390: "quanto mais tomalo da boca da mulher como muitos o fazem (ainda que sejam portuguezes); porque nenhuma mulher conversa com homem, que o não leve mastigado na boca."
- Garcia da Orta, Colóquios dos simples, vol. 2, p. 391: "porque os principes que despedem alguma pessoa, ou ella se despede, nam se parte até que lhe não deem o betre, e com isto se vam, que é o sinal de se despedirem."
- 64 Garcia da Orta, Colóquios dos simples, vol. 2, p. 390: "porque no sertam e terras afastadas do mar, val muyto caro e por esta causa gasta o Nizamoxa cada anno em elle 30 mil cruzados."
- Garcia da Orta, Colóquios dos simples, vol. 2, p. 396: "cavalguemos, e mostrarvosey o betre nas hortas." Although nothing else transpires from the Colóquios dos simples, later sources mention that the "betel rents" of Goa, Bassein, Diu and other territories provided some sort

of income to the Portuguese. In 1571 the renda do betre for Goa had a value of about 2% of the total income of this territory (O Orçamento do Estado da Índia 1571, p. 57: "Sinco mil e outocentos pardaos a renda do betre"). However, in 1585 "the aforesaid betel rents were in sharp decay," being unsufficient to pay the salary of the bishop of Goa, as it had been normal in the previous decades (Archivo Portuguez Oriental, vol. 3, p. 38: "E ey por bem e mando que lhe sejão pagos [ao bispo] seus odenados pela remda do betre desa cidade de Goa, onde os senhores Reis meus amtecesores lhos tinhão amandados pagar [...]. E por ser eformado que a dita remda do betre está e muita deminuição do que amtes remdia"). Slightly later, the Tombo de Diu mentions that the local betel orchards, which produced a significant income, were explored by a Portuguese fidalgo (O Tombo de Diu 1592, pp. 94-95).

- 66 Donald F. Lach, Asia in the Making of Europe, vol. 2, bk. 3, pp. 434-435.
- Charles de l'Écluse, Aromatum et simplicium, pp. 90-94 (betel) and pp. 120-123 (areca nut). The only incongruity in these chapters is Clusius' mention of the visit to Calicut of one "Alois. Cadamust" (p. 94), probably a confusion with one of the Portuguese texts included in the first volume of Ramusio's Navigation et Viaggi (Venice, 1550), already mentioned, which describes the first Portuguese contacts with India. Cadamosto, as is well known, was a Venetian merchant who traveled to the Guinea cost on board Portuguese ships in the middle of the 15th century; the account of his African travels was also published by Ramusio (see Giovanni Battista Ramusio, Navigazioni e Viaggi, vol. 1, pp. 461-542).
- 68 Charles de l'Écluse, Aromatum et simplicium, p. 119.
- 69 In some literature, Cristóvão da Costa is mistakenly styled as Cristóbal de Acosta, of Spanish origin, on account of having written and published his treatise in the Spanish language.
- 70 Donald F. Lach, Asia in the Making of Europe, vol. 2, bk. 3, p. 437
- 71 Cristóvão da Costa, Tratado das drogas, p. 61.
- 72 Cristóvão da Costa, *Tratado das drogas*, p. 63. About Ibn Serapion, see Conde de Ficalho, *Garcia de Orta*, pp. 289-290.
- 73 Cristóvão da Costa, Tratado das drogas, p. 62.
- 74 Cristóvão da Costa, *Tratado das drogas*, p. 93: "É muito estimado na China, na qual não se dá por ser terra fria, nem se dá em Moçambique, nem em Sofala por ser terra quente, nas quais vale muito."
- 75 Edward H. Schafer, *The Vermilion Bird*, pp. 133 & 175.
- 76 Cristóvão da Costa, *Tratado das drogas*, p. 140.

- 77 Cristóvão da Costa, Tratado das drogas, p. 140: "É é coisa de admirar, a grande inimizade, que tem o bétele com o durião, e tanta, que se dentro de uma embarcação cheia de duriões, ou em uma casa deles, ou em lugar onde estiverem, puserem algumas folhas de bétele, se corrompem, e se apodrecem todos." About these allegations, see Lynn Thorndike, A History of Magic, vol. 8, p. 257.
- 78 Jan Huygen van Linschoten, *The Voyage*, ed. Burnell & Tiele, vol. 2, p. 62.
- 79 Jan Huygen van Linschoten, *The Voyage*, ed. Burnell & Tiele, vol. 2, pp. 62-68. For a Portuguese translation, cf. Jan Huygen van Linschoten, *Itinerário*, ed. Pos & Loureiro, pp. 227-230.
- Jan Huygen van Linschoten, The Voyage, ed. Burnell & Tiele, vol. 2, pp. 63-63. Portuguese translation: "Afirmam que esta mistura, bem mastigada e engolido o sumo (porque o resto cospem fora), faz muito bem ao estômago e ao mau hálito, e aos dentes e à firmeza das gengivas, e é um bom remédio contra o escorbuto" (Jan Huygen van Linschoten, Itinerário, ed. Pos & Loureiro, p. 228).
- 81 Jan Huygen van Linschoten, *The Voyage*, ed. Burnell & Tiele, vol. 2, p. 62.
- 82 Jan Huygen van Linschoten, *The Voyage*, ed. Burnell & Tiele, vol. 2, p. 64.
- 83 Jan Huygen van Linschoten, The Voyage, vol. 2, p. 64. Portuguese translation: "as mulheres portugesas têm o mesmo costume de comer este bétele, pois cuidam não poder viver se ficassem um dia sem o mastigar, e até de noite o têm à cabeceira da cama, para quando não conseguem dormir" (Jan Huygen van Linschoten, Itinerário, ed. Pos & Loureiro, p. 228).
- 84 Jan Huygen van Linschoten, *The Voyage*, ed. Burnell & Tiele, vol. 2, p. 66.
- A complete set of the original illustrations, along with the maps and plans, are included in the Portuguese translation of Jan Huygen van Linschoten's *Itinerário*, ed. Pos & Loureiro, passim. For a recent analysis of Linschoten's iconography, see Ernst van den Boogaart, *Civil and Corrupt Asia*, passim.
- 86 Jan Huygen van Linschoten, Itinerário, ed. Pos & Loureiro, pt. 31: "Frutas chamadas areca ou faufel e a folha chamada bétele, que os indianos mastigam todo o dia misturada com cal, ingerindo o suco para purgar o corpo e pelas suas outras qualidades."
- 87 Jan Huygen van Linschoten, *Itinerário*, ed. Pos & Loureiro, pts. 19 and 32.
- 88 On these aspects, see Dawn F. Rooney, *Betel Chewing Traditions*, pp. 30-65; Solange Thierry, *Le Bétel*, passim; and several of the essays included in *Opiums*, passim.

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