but this only increased the efficiency of oil extraction from around 45 per cent to less than 65 per cent of the available oil. A cheap type of mechanical mill — the Pioneer mill — has also been introduced but this has, for a number of reasons, proved an economic failure. Recently, an hydraulic handpress has been devised as a substitute for the screw-press, but it is too early to say how successful it will prove. While the hydraulic press gives a higher extraction rate than the curb-press it must be operated with a set of equipment which has been specially devised at the Institute. There is little doubt that the system can be operated very efficiently, but it remains to be seen whether it will take on in the villages.

For cracking nuts, a number of small crackers driven by petrol engines have been put on the market, but they have not been adopted in great numbers.

The poor bleachability of oil from West Africa has given cause for concern in recent years and the factors responsible for this are under active investigation.

The history of W.A.I.F.O.R. and a brief outline of the problems it has been tackling have been given above. It is disappointing to have to report that, following the attainment of self-government by the three territories served, it proved impossible to obtain agreement on the running of W.A.I.F.O.R. as a joint enterprise. The Main Station near Benin has thus reverted to Nigeria and the Sub-station in Sierra Leone has been taken over by the government of that country. The international character of the Institute has disappeared and, as a result, there will once more be staffing difficulties for a period of time. There is every hope, however, that the Nigerian portion of the Institute will be rebuilt on a sure foundation and that its vital work for the principle crop of the country will continue.

The results of the Institute's work have been faithfully recorded in its own Journal, the fourth volume of which is now in process of publication.

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# On The Etymology Of The Word Cocos

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Many explanations are given to account for the etymology of both the Portuguese word *coco* meaning "coconut" and the botanical name *Cocos* L. denoting a palm genus. The view widely current is that the root of both these words is the same and that the Portuguese who applied "*coco*" to the coconut, certainly did not derive it from the Latin *coccum* or *coccus* or the Greek *kokkos*. But De Candolle (1855) disagreed with this view. He regarded these two names as having two distinct roots; and whatever may be the origin of the *coco* in Portuguese (and he admitted the possibility of its having come from a Mexican word), De Candolle maintained that it is unrelated to *Cocos* L., which he derived from the Latin *coccus*. In support of this contention, he gave two mid-Seventeenth Century quotations where "palma indica *coccifera*" and "palma *coccos* ferens" occur. Beeler (1960), on the other hand, made *Cocos* L. to come directly from the Portuguese and Spanish word *coco*, but he derived the

latter from the classical Greek and Latin words mentioned above; and though the Portuguese and Spaniards applied *coco* to the fruit only, Beeler stated that they applied it to the palm-tree. Cook (1901 & 1910), who advanced a plea for the American origin of the coconut, made the word *coco* Amerindian in origin, brought from America to Europe by the Spaniards for its adoption finally into the systematic botany as *cocos*. A brief survey of the problem of the etymology of the word *coco* and *cocos* might not be without interest to the readers of PRINCIPES.

Early Arab traders in India and other visitors were attracted to the coconut (fruit) not only because of its many uses, but probably because of the refreshing and uncontaminated drink it furnished the weary travellers, and also its important value in its ripe state to the sailors of long distances as food and water in emergency. They wrote about the palm in detail, but they referred to it merely as the tree that produced "the Nut of India" in their own language or adopted some variants of *narel* or *nariel* as used to denote the fruit on the Konkan coast of India.

There was an abrupt change among the Europeans, however, when the Portuguese came to India and began to call the "Nut of India" *coco*, a name soon passed on to the Spaniards and later to other nations in Europe and elsewhere.

The first use of the word in this sense has been traced to the *Roteiro* (1498-1499), the Logbook of Vasco da Gama's first voyage to India. While returning from Calicut, De Gama's party met, near the island of Angediva off Goa, an Arab boat which they seized. It contained, among other things, the palm "*coquos*", a term plural in form with its singular as *coquo*, spelt also as *quoquo* but more elegantly as *coco*. Da Gama's *Roteiro* did not explain the reason for using this word or give its etymology; and the name did not agree with any of the words used in Malabar either by the indigenous peoples or by the Arab traders. But Da Gama's sailors must have given the reasons verbally to the people on their return to Lisbon where they had taken many samples of coconuts with them; for soon the Portuguese merchants and officials who came to the East began to use the word in their writings and letters as if it were a common term in the language. Etymological explanations then followed in Portuguese and other languages in Europe as to why the word *coco* was adopted to denote the "Nut of India." Thus Barros (1553), who in his *Decadas Asiaticas* wrote digests of the information gathered about Asia, gave the following explanation:

"This peel . . . is somewhat acute making it look like a nose placed between the two round eyes through which the sprouts come out on germination; because of this semblance of a face, even though it was not a real one, our men gave it [the fruit] the name of *coco*, this being a term applied by our women to anything with which they try to frighten children; and this name stuck, because nobody knew any other, though its proper name is *tenga* among the Malabarese and *narle* among the Kanarese [Goans]."

However, it appears that previous to its use by the Portuguese for the coconut, *coco* meaning "ape" had not become a dignified word in Spain or Portugal so as to be included in literature and dictionaries, a reason why it has not been found recorded in the books of those times. Covarruvias (1611) explains in his glossary of the Spanish language, that the name *coco* is given to the ape by the common people, because, when disturbed, it makes gutteral sounds

*koko*, from which came the name *coco* and the verb *cocar*.

The etymology of the word *coco* given by the Portuguese was, with one exception, widely accepted for over three hundred years, and it was also explained in some languages of Europe. Unfortunately, the Portuguese and the Spanish medical men who gathered a good deal of information on the medicinal plants of India and America, wrote their accounts in either Spanish or Portuguese, so that their works were not easily accessible to the medical men of other countries in Europe when the Latin was the language of the educated. These works were therefore abridged and translated into Latin by people from other countries and in so doing the word *coco* was generally latinized as *coccus*. Some botanists of the mid Seventeenth Century who wished to systematize knowledge about plants, adopted therefore the word *coccus* and "palma cocoifera" without being aware that the correct spelling should have been *cocus* or *cocos* and the palm might have been better described as "palma nucifera" as J. Bauhin (1650) had already done. The word *coccos* was also adopted in some accounts in Latin but rarely *cocus*.

In 1741 Rumphius, who wrote an extensive account on coconut and its uses and varieties, condemned the use of *coccus* and implicitly also *coccos*, in place of *cocus* for the *coco*. He showed that *cucus*, *cucas*, and their variants adopted to indicate the fruits of the Ethiopian and Egyptian palm called by Pliny and Theophrastus as *Cuciferus* and *Cuciophorus* respectively, were totally different from the *coco*. But curiously enough he maintained that the Turks called the coconut *cock-indi* and that this word passed through the peoples of North Africa and Spain to Portugal to become *coco*.

Yet he must have been aware of the fact that the coconut was hardly known even in commerce, much less in cultivation, to the people in Turkey and the peoples of North Africa and the Iberian Peninsula. Philologists, too, have been unable to find a Turkish word corresponding to *cock-indi* (vide Yule, 1886, and Conde de Ficalho, 1891). It is probable that the Turks who furnished the information to Rumphius were already influenced through the writings of the Italians, Portuguese or others who had adopted the word *coco* for the "Indian Nut." Moreover none of Vasco da Gama's party could name coconuts when, on their route to India, they found the palm and its fruits in Melinde on the east coast of Africa. They recognized the tree as of the palm category, but being totally unfamiliar with the fruit, they described its large size and the peculiar taste of its kernel without naming it. Had Rumphius' views regarding the origin of the word *coco* been correct, the nut could have been merely named in the *Roteiro* without any description, and not left unnamed after giving its description.

In fact there is no evidence whatsoever that the Spaniards knew of the word *coco* palm or fruit of India before Vasco da Gama's party had taken the coconuts to Europe in 1499. Further, all the early Spanish writers are unanimous that the Portuguese gave the name *coco* in India and brought it to Europe. This therefore disposes of Cook's theory that the word *coco* was first brought by the Spaniards to Europe from America, and also goes to add a further weight to the refutation that the *coco* had come to Portugal from Turkey via Egypt and Spain.

Linnaeus, who only in 1753 was able to consult Rumphius' *Herbarium Amboinense* (Richter, 1840), was evidently provoked to consider the question of the

correct form of latinizing the Portuguese *coco*. No doubt Clusius (1574 & 1582), when latinizing *coco* into *coccus*, had not omitted, in his translations, to give the etymology of the term as stated by Da Orta (1563) and Da Costa (1578). Despite this, however, *coccus* was a homonym of the earlier *coccum* and its variant *coccus*. The last terms, though originally taken from the Greek *kokkos* meaning berry, were applied by the early Romans not to any kind of berries, for which they had other adequate terms, but only to the "scarlet berries" producing "scarlet dye," which eventually were identified to be "kermes insects." As such *coccum* gave rise to the adjectives *coccineus - a - um* and *cocciferus - a - um* meaning "scarlet" and "carrying or bearing kermes insects" respectively. Thus *Ilex coccifera* of Camerarius (1586) and *Quercus coccifera* L. (1753) meant that these plants bore on them the "kermes insects," a fact that could have been also expressed in Latin as *Ilex* or *Quercus* "coccos ferens." On the other hand, when coccifera" and "coccos ferens" were applied to describe a palm in the Seventeenth and Eighteenth Centuries these expressions did not refer to the kermes insects or scarlet colour, but meant that the palm produced nuts called *coco* in Portuguese only.

Linnaeus, therefore, had to admit that Rumphius had good grounds for objecting to the use of *coccus* for the Portuguese *coco* if ambiguities were to be avoided. However, *cocus*, preferred by Rumphius, was in no way better, since it might mislead some to connect the Portuguese *coco* and *coquo* with the Latin *cocus* and *coquus* meaning "a cook." In face of such difficulties Linnaeus eliminated the equivocation both by rejecting *cocus* and *coccus*, although he had employed the latter in his several books issued between 1736 and 1752, and by adopting *Cocos*, the Greco-Latin form of the Portuguese *coco*, to denote not the fruit but the tree and so feminine in gender, with *Cocos nucifera* as the type-species. Thus the gender, the meaning and the spelling, all stress the fact that *cocos* has no etymological relationship with any classical word in Greek or Latin as its earlier synonyms might have suggested.

It is evident therefore that De Candolle (1855) did not consider the problem adequately and so he erred in upholding the classical derivation for *Cocos* L. (1753), when that derivation could not be sustained even for *coccus* as employed previously to denote the coconut.

Bartlett (1927), after a visit to the Indonesian islands, propounded a new hypothesis based partly on unsupported assumptions and partly on anachronistic arguments. The Dutch had found that the word *kokur* (spelled in Dutch as *kokoer*) denoted coconut in Sumba, an island south of Flores and west of Timor, in both of which places there are communities that speak Portuguese in the patois form. Though the Dutch scholar Heyligers (1889) marveled at the unique and widespread influence of the Portuguese on the main Indonesian languages so as to reveal numerous vestiges even in his days, Bartlett did not hesitate to discount that *kokur* is an adaption of any "europeanized" word. However, he assumed readily that it might be either a pure Arabic word established there by the Arab traders, or an Arabic word transformed by the peculiar phonetic system of the Indonesians to become *kokur* or *coco*. In other words, he believed that it was not a native but "naturalized" word. It is to be noted that this word *kokur* is found only in Sumba and Bartlett did not mention any other place in the vast Indo-

nesian archipelagos where this word or its variant occurred to denote the coconut. From this assumption he argued so skillfully that the flaws are not easily detected unless one sees in these arguments two distinct but alternative hypotheses. It is worth re-stating Bartlett's arguments in a simpler form to judge their invalidity:

1). If *kokur* or *coco* is a pure Arabic word, then the Arab traders must have carried the word along their trade routes also to India and Africa; and so "Vasco da Gama must have had the word from the Arabs, whose trade routes he followed." But Bartlett failed to show that any word like *coco* was in fact being used by Arab traders in Africa and India, or even in Indonesia. And this is a serious flaw in the theory, since many investigators previous to Bartlett, including Rumphius quoted by him, had failed to find any such word used by the Arab traders in Asia and in their own native Arabia.

2). The other argument is that the Arabic word like *jauz* or another might have been transformed by the Indonesians to become *coco*. When the Portuguese visited these islands (i.e. Timor, Flores and Sumba) in 1511, "this (word) the Portuguese might have seized upon, from among many names for *coco* they certainly heard, because of its coincidence with their name for monkey face." Yet he quoted evidence to show that *coco* was already recorded in the *Roteiro*, the Logbook of Vasco da Gama's first voyage to India for the year 1498-1499!

In the first alternative the factual evidence is against the theory, and the second is vitiated by an anachronism. In the second alternative there was no need to assume that the word was of Arabic origin evolved by the Indonesian phonetic system, for had it not been for the anachronistic disparity, the theory could have been validly advanced even if the word were purely indigenous.

The Portuguese could have coined the word in India from the Latin or Greek root though Beeler himself had not brought anything in support of his view. However, such assumption seems contrary to the practice generally followed by the Portuguese discoverers of the Fifteenth and Sixteenth Centuries. Usually they adopted names with some variations to suit the Portuguese phonetic system. Thus we have *ananas, papaya* and *caju* from America and *manga, jaca, areca* and *jambo* from the East. In some other cases they adopted the Portuguese names to designate what appeared to them a special form of fruits or condiments already known in Europe; and so they have *figo da India* (Indian fig) for banana, *pera da India* (Indian pear) for *guyaba* or *guava* of Mexico, *assafraom da India* (Indian saffron) for turmeric. It is difficult to find a word created by the Portuguese discoverers by resorting to the classical language. Further, as Conde de Ficalho (1891) remarks, it seems very unlikely that the rough companions of Vasco da Gama would have resorted to the classical language in order to produce a new name for a palm which had already widely current local names. And would they reject a widely current name in the locality for an Arabic or Arabo-Indonesian one unless there were special reasons for doing so? In the case of *tamarinho* or *tamarindo* (tamarind from tamara-ind) even the Portuguese must have been deceived into thinking that it was a date (*tamara* in Portuguese, Arabic and Persian) only to be disappointed by its sour taste; besides the word was already current in Europe even before Vasco da Gama's first voyage to India, since tamarind was administered by the apothecaries

and shippers in Europe as a laxative or purgative.

The exception in using *coco* in place of the local names was obviously involuntary. The peculiar resemblance of the husked coconut to a face of an animal must have astonished Da Cama's sailors and induced them to bring to the ships the husked nuts to be introduced to their companions jokingly as something to be scared of — *coco*. Through repeated jests the word would become current among them and so it would be easier to use it everyday, and more expressive too, to indicate the coconuts than the Malabar *tenga* which was also new to them.

In short there are strong reasons to support the widely current derivation given to the word *coco* by the early Portuguese and Spanish writers who were contemporaries of Vasco da Gama. This means that the word *coco* as applied to coconut has to be accepted as of Portuguese origin meaning an ape or bugbear, that it was applied first by the sailors of Vasco da Gama to the coconut (fruit) and that, in deference to this etymology, Linnaeus rejected his own misleading *coccus* and adopted *cocos* as the generic name for the palm, making it differ widely in spelling and gender and meaning from the former.

## Literature Cited


Barros, J. Decadas Asiaticas III, lib. 3, cap. 7: 309-310. 1553.

Bartlett, H. H. Papers of the Michigan Academy of Science 6: 15-17. 1927 [1926].

Bauhin, J. Historia Plantarum Universalis 1: 375: 1650, quoted by Linnaeus.

Beeler, B. H. Principes 4:67. 1960.

Camerarius, J. De Plantis EpitomeUtilissima Petri Andreae Matthioli 744 1586.

Clusius, C. Aromatum et Simplicium . . . D. Garcia ab Horto 107-111. 1574.

Clusius, C. Christophori A. Costa . . . Aromatum et Medicamentum . . . Liber 191. 1583.

Conde de Ficalho. Coloquios por Garcia da Orta 1: 235-250. 1891.

Cook, O. F. Contributions from the U. S. National Herbarium 6: 256-293. 1901; 14: 271-342. 1910.

Covarruvias, S. de. Tesoro de la Lengua Castellana o Espanola, eds. 1611 & 1674.

Da Costa, C. Tractado de las Drogas 99, 1578.

Da Gama, Vasco. Roteiro da Viagem de Vasco da Gama 24, 94, 1497-1499 (ed. 1838).

Da Orta, Garcia. Coloquios dos Simplices e Drogas . . . da India, Col. 16. eds. 1563, 1873, 1891-1892.

De Candolle, A. Geographie Botanique Raisonée 2: 927, 1855.

Heyligers, J. C. Th. Traces de Portugais dans les Principales Langes des Indes Orientales Neerlandaises 1-11. 1889.

Linnaeus, C. Species Plantarum 2: 995, 1188. 1753.

Rheede, H. Hortus Indicus Malabaricus 1: 1-8, *pls. 1-4*. 1679.

Richter, H. Codex Botanicus Linnaeanus x footnote. 1840.

Rumphius, G. E. Herbarium Amboinense 1: 1-25, *pls. 1-3*. 1741; 6: 210-220, *pls. 81-82*. 1750.

Yule, H. & A. C. Burnell, Hobson-Jobson (Anglo-Indian Glossary) ed. 1, 1886; ed 2, 1903.