AN EXPANDING WORLD
Volume 11

Spices in the Indian Ocean World

M.N. Pearson

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Spices in the Indian
Ocean World

AN EXPANDING WORLD

The European Impact on World History, 1450–1800

General Editor: A.J.R. Russell-Wood

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An Expanding World
The European Impact on World History 1450–1800

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Spices in the Indian
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General Editor's Preface

A.J.R. Russell-Wood

An Expanding World: The European Impact on World History, 1450–1800 is designed to meet two objectives: first, each volume covers a specific aspect of the European initiative and reaction across time and space; second, the series represents a superb overview and compendium of knowledge and is an invaluable reference source on the European presence beyond Europe in the early modern period, interaction with non-Europeans, and experiences of peoples of other continents, religions, and races in relation to Europe and Europeans. The series reflects revisionist interpretations and new approaches to what has been called 'the expansion of Europe' and whose historiography traditionally bore the hallmarks of a narrowly Eurocentric perspective, focus on the achievements of individual nations, and characterization of the European presence as one of dominance, conquest, and control. Fragmentation characterized much of this literature: fragmentation by national groups, by geography, and by chronology.

The volumes of *An Expanding World* seek to transcend nationalist histories and to examine on the global stage rather than in discrete regions important selected facets of the European presence overseas. One result has been to bring to the fore the multicontinental, multi-oceanic and multinational dimension of the European activities. A further outcome is compensatory in the emphasis placed on the cross-cultural context of European activities and on how collaboration and cooperation between peoples transcended real or perceived boundaries of religion, nationality, race, and language and were no less important aspects of the European experience in Africa, Asia, the Americas, and Australia than the highly publicized confrontational, bellicose, and exploitative dimensions. Recent scholarship has not only led to greater understanding of peoples, cultures, and institutions of Africa, Asia, the Americas, and Australasia with whom Europeans interacted and the complexity of such interactions and transactions, but also of relations between Europeans of different nationalities and religious persuasions.

The initial five volumes reflect the changing historiography and set the stage for volumes encompassing the broad themes of technology and science, trade and commerce, exploitation as reflected in agriculture and the extractive industries and through systems of forced and coerced labour, government of empire, and society and culture in European colonies and settlements overseas. Final volumes examine the image of Europe and Europeans as 'the other' and the impact of the wider world on European *mentalités* and mores.

An international team of editors was selected to reflect a diversity of educational backgrounds, nationalities, and scholars at different stages of their professional careers. Few would claim to be 'world historians', but each is a

recognized authority in his or her field and has the demonstrated capacity to ask the significant questions and provide a conceptual framework for the selection of articles which combine analysis with interpretation. Editors were exhorted to place their specific subjects within a global context and over the *longue durée*. I have been delighted by the enthusiasm with which they took up this intellectual challenge, their courage in venturing beyond their immediate research fields to look over the fences into the gardens of their academic neighbours, and the collegiality which has led to a generous informal exchange of information. Editors were posed the daunting task of surveying a rich historical literature and selecting those essays which they regarded as significant contributions to an understanding of the specific field or representative of the historiography. They were asked to give priority to articles in scholarly journals; essays from conference volumes and *Festschriften* were acceptable; excluded (with some few exceptions) were excerpts from recent monographs or paperback volumes. After much discussion and agonizing, the decision was taken to incorporate essays only in English, French, and Spanish. This has led to the exclusion of the extensive scholarly literature in Danish, Dutch, German and Portuguese. The ramifications of these decisions and how these have had an impact on the representative quality of selections of articles have varied, depending on the theme, and have been addressed by editors in their introductions.

The introduction to each volume enables readers to assess the importance of the topic *per se* and place this in the broader context of European activities overseas. It acquaints readers with broad trends in the historiography and alerts them to controversies and conflicting interpretations. Editors clarify the conceptual framework for each volume and explain the rationale for the selection of articles and how they relate to each other. Introductions permit volume editors to assess the impact on their treatments of discrete topics of constraints of language, format, and chronology, assess the completeness of the journal literature, and address *lacunae*. A further charge to editors was to describe and evaluate the importance of change over time, explain differences attributable to differing geographical, cultural, institutional, and economic circumstances and suggest the potential for cross-cultural, comparative, and interdisciplinary approaches. The addition of notes and bibliographies enhances the scholarly value of the introductions and suggests avenues for further enquiry.

I should like to express my thanks to the volume editors for their willing participation, enthusiasm, sage counsel, invaluable suggestions, and good judgment. Evidence of the timeliness and importance of the series was illustrated by the decision, based on extensive consultation with the scholarly community, to expand a series, which had originally been projected not to exceed eight volumes, to more than thirty volumes. It was John Smedley's initiative which gave rise to discussions as to the viability and need for such a series and he has overseen the publishing, publicity, and marketing of *An Expanding World*. As

General Editor, my task was greatly facilitated by the tireless assistance of Dr Mark Steele who was initially responsible for the 'operations' component of the series as it got under way, latterly this assistance has been provided by staff at Variorum.

*The Department of History,
The Johns Hopkins University*

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Introduction

M.N. Pearson

Spices today are a mundane accessory in any well equipped kitchen. I have just counted a total of 56 in my own modest pantry. Supermarkets have a vast array, to be supplemented by more specialised products in a range of different 'Asian' grocery shops. It is difficult then for a modern consumer of these necessities to appreciate their mystique, their aura, in earlier times. Yet, as we will see, the spice trade from the Indian Ocean to markets all over the world was, in our period, not only a major economic enterprise, but also the pre-eminent 'glamour' trade of the time.

The many uses of spices in the pre-modern period are well attested to in literature. Milton, for example, mentions them frequently. There are numerous references in the Bible, such as Proverbs 7: 17-18

I have perfumed my bed with myrrh, aloes and cinnamon.

Come let us take our fill of love until the morning; let us solace ourselves with loves.

or this humble doggerel from a 'Commonplace Book' of the early fifteenth century:

Snow is white and lieth in the dike,
And every man lets it lie;
Pepper is black and has a good smack,
And every man doth it buy.

The biblical passage reminds us that spices were not only of culinary use in medieval and early modern Europe. As Robertson noted, 'We find it difficult, nowadays, to imagine the importance of spices in the sixteenth century ... when neither refrigeration nor winter stock-feed was available to provide anything but spiced or salted meat in winter, when there were few vegetables to add vitamins and variety to the diet, and when spices or other Eastern drugs formed the main *materia medica*, they held a really important place in Europe's commerce'.¹ The biblical quote notwithstanding, spices were mostly used for two purposes: as medicine, and to flavour food. Every apothecary had a range of spices available, used for a vast range of illnesses. Different spices were considered to cure disorders of the stomach, the intestines, the head and the chest, and were also used to aid digestion. Arnald of Villanova recommended that ginger and cinnamon

¹ H.M. Robertson 'European Economic Developments in the Sixteenth Century', *South African Journal of Economics* XVIII, no. 1 (March 1950), p. 42, quoted in Immanuel Wallerstein, *The Modern World-System*, 3 vols., (New York, 1974-89), I, 333, f.n.

bark be put into wine, and then be distilled. The resulting distillate could cure paralysis, was good for cold complexions and ailments, and beautified women, giving them white, subtle and pleasant complexions. The extracts from Garcia da Orta's *Colloquies* which open this volume (See Chapter 1 below) show us a European savant in the sixteenth century in India evaluating carefully the use of various spices. Da Orta, perhaps because he was a healer, has much more to say about the medicinal use of spices than about their use in cooking.

The use of spices in cooking goes back far into antiquity, but their use expanded in an increasingly prosperous Europe in the fourteenth and fifteenth centuries. The elite used the 'fine' spices (nutmeg, cloves, cinnamon and mace especially) as we do today, to produce more flavoursome meals. A fifteenth-century cookbook said to cook rabbit with ground almonds, saffron, ginger, cypress root, cinnamon, sugar, cloves and nutmeg; and pork with cloves, mace, dried currants, almonds and sugar. In fifteenth-century Europe spices were used in everything: meat, fish, jam, soup and drinks. A 1393 recipe for black pudding said to take ginger, clove and a little pepper and crush them together. Spices were used to make mulled wine and saffron milk, a beverage made of saffron, cloves, cinnamon and mace mixed with sugar and cooked in milk.

This use of spices is clearly a optional and luxury one, designed for display as much as for necessity. Nor was this sort of ostentation found only in Europe, for it seems that the demand for these fine spices among the elite of the great Mughal empire in India in the sixteenth and seventeenth centuries knew no bounds: in other words, these grandees would pay more or less whatever was asked. Spices also had a more mundane, but necessary role in European cooking. This is the case especially for the only spice which had the status of being a bulk trade item, namely pepper. The 'Commonplace Book' claimed 'every man doth it buy', and certainly when the Tudor warship the 'Mary Rose', which sank in 1545 in the Solent, was recently raised it was found that nearly every sailor had a little bag of peppercorns with him. Yet even with pepper there was a mystique involved, for spices came from remote and, to Europeans, unknown parts of the world. They added a touch of the cosmopolitan to everyday life in medieval Europe. This being the case, it is perhaps fitting that the authors collected in this volume are as cosmopolitan as are the spices, for the aura of this trade has always attracted the attention of notable historians. Our authors hail from Australia, Poland, Sri Lanka, the United States, England, Portugal, Israel, Denmark and India.

Spices were needed because most cattle in Europe were slaughtered in the autumn, there being no feed available during the winter. Their meat was then salted or smoked to preserve it, but even so it deteriorated rapidly. Spices, and especially pepper, were widely used to disguise the semi-putrid smell and keep the meat palatable through the winter. As meat consumption increased in a more prosperous Europe so too did the demand for pepper. Analogous to this was the

use of spices in wine. At this time most European wine was not matured, but was drunk within a year. These wines could not last for long before they went sour. This meant that the poor drank old and rough wines, with which they mixed spices to make them palatable. The elite of course could use a variety of fine spices to produce, for example, mulled wine.

This said, it is a sad fact that few of the articles collected in this book adequately reflect the mystique of the spice trade, its glamour, its aura. Most of them are sober economic history in which spices are dealt with as a product like any other. Some of the works listed in the bibliography that follows this introduction do however provide accessible introductions to a vast variety of spices, usually with attractive illustrations. One of the best is that by Sheldon Greenberg and Elisabeth Lambert Ortiz, based on a thirteen-part television program from the UK's channel 4.² It boasts excellent colour photographs, and some history, botany and recipes. Delaveau's book³ is a very readable survey of all sorts of spices, their history, distribution, and so on. It includes a host of information, for example recipes for various liqueurs and, apart from real spices, it deals also with such products as mustard, sugar and salt. The hundred pages of history at the start are not to be taken too seriously.

More detailed and more scholarly are the books by Rosengarten and Westland.⁴ Among the best historical accounts, on which I have drawn extensively for this essay, are standard works on the role of Europeans in the early modern period in the Indian Ocean area, such as those by Lach, Glamman, Boxer, Das Gupta, Prakash and K.N. Chaudhuri.⁵ Disney is excellent for the Portuguese in the late sixteenth and early seventeenth century.⁶ Two agreeable, short, and copiously illustrated surveys of the Dutch in Asia are by Boxer and

² Sheldon Greenberg, and Elisabeth Lambert Ortiz, *The Spice of Life* (London, 1983).

³ Pierre Delaveau, *Les Épices: Histoire, description et usage des différents épices, aromates et condiments* (Paris, 1987).

⁴ F. Rosengarten, *The Book of Spices* (London, 1969); Pamela Westland, *The Encyclopedia of Spices* (London, 1979).

⁵ See, as examples, Donald F. Lach, *Asia in the Making of Europe*, vol. I, *The Century of Discovery* (Chicago, 1965); Kristof Glamman, *Dutch-Asiatic Trade. 1620-1740* (Copenhagen, 1958); C.R. Boxer, *The Dutch Seaborne Empire* (London, 1965); C.R. Boxer, *The Portuguese Seaborne Empire* (London, 1969); Ashin Das Gupta and M.N. Pearson, eds., *India and the Indian Ocean, 1500-1800* (Calcutta, 1987); Om Prakash, *The Dutch East India Company and the Economy of Bengal, 1630-1720* (Princeton, 1985); K.N. Chaudhuri, *Asia before Europe: Economy and Civilisation of the Indian Ocean from the Rise of Islam to 1750* (Cambridge, 1990); K.N. Chaudhuri, *Trade and Civilisation in the Indian Ocean: An Economic History from the Rise of Islam to 1750* (Cambridge, 1985); K.N. Chaudhuri, *The Trading World of Asia and the English East India Company 1660-1760* (Cambridge, 1978); Sanjay Subrahmanyam, *The Portuguese Empire in Asia, 1500-1700* (London, 1993).

⁶ A.R. Disney, *Twilight of the Pepper Empire: Portuguese Trade in Southwest India in the Early Seventeenth Century* (Cambridge, MA, 1978).

Jacobs.⁷ Perhaps still the best account of the spice trade in the fifteenth and sixteenth centuries is Godinho's *Economia*, unfortunately available only in Portuguese.⁸ For English-language readers an accessible survey is to be found in Donald Lach's large on-going work⁹ while Wake, in this volume, provides an excellent and in some respects revisionist overview (see Chapter 8 below). Braudel with his flourishes and graces is in a class by himself.¹⁰

The spice trade and the European impact on it can be a confusing and technical area of study, due to very scattered runs of statistics and also particularly to the very complex different weights and measures used, including currencies. Translating to a common coin and weight is very difficult, and indeed I have chosen to not even try to do this; the figures I quote are designed merely to show relative movements in prices and volumes. The authors I have selected for this compilation are well aware of these problems, and indeed sometimes become quite bogged down because of them. See, for example, the very elaborate tables in the articles by Ashtor, Lane and Wake (Chapters 3, 4, 6 and 8 below). To rise beyond this to look at the more general implications is not done by all of our authors, but some do. In this collection I have tried to mix the detailed with the more synoptic and interpretative.

It is the received wisdom in the historiography of the last few decades that Europeans had little effect on trade, society, religion or politics in the Indian Ocean area until later in the eighteenth century.¹¹ Spices are different however, for here there was an impact, especially once the more efficient Dutch arrived late in the sixteenth century. Many of the articles printed here investigate these changes. Nevertheless, there are gaps in the topics covered by my selection, many of them a result not of scholarly lack of interest as of lacunae in the sources. Two important examples are the extensive trade in spices within Asia, and the actual production, and financing of this production, even that controlled by Europeans, let alone the vast amount accomplished outside European control.

In my selection of articles for this collection I have not always followed all the long-running controversies and additions of minute new information, for some

⁷ C.R. Boxer, *Jan Compagnie in War and Peace, 1602–1799* (Hong Kong, 1979); Els M. Jacobs, *In Pursuit of Pepper and Tea: the Story of the Dutch East India Company* (Amsterdam, 1991).

⁸ Vitorino Magalhães Godinho, *Os descobrimentos e a economia mundial*, 2nd edn. (Lisbon, 1981–83), 4 vols, II, 145–220; III, 7–214.

⁹ Lach, *Asia in the Making of Europe*, vol. I. (Chicago, 1965), pp. 91–147.

¹⁰ Fernand Braudel, *Civilization and Capitalism, 15th to 18th Centuries* (London, 1981–84), 3 vols; Fernand Braudel, *The Mediterranean and the Mediterranean World in the Age of Philip II* (London, 1972), 2 vols.

¹¹ S. Arasaratnam, *Maritime India in the 17th Century* (Delhi, 1994); S. Arasaratnam, *Merchants, Companies and Commerce on the Coromandel Coast, 1650–1740* (Delhi, 1986); Holden Furber, *Rival Empires of Trade in the Orient, 1600–1800* (Minneapolis, 1976) and the various books cited in footnote 5.

of them are tedious in the extreme. For example, as regards the Karimi merchants in Egypt, a very detailed article by Wiet¹² in fact follows on from one by Fischel in German.¹³ I have not included either of them, as both are really superseded by Fischel's article which is included here (see Chapter 2 below), and which is a much more synoptic view. Similarly, some extremely detailed articles by Ashtor and Wake about the spice trade in the fifteenth century are very technical efforts and so have not been reprinted here.¹⁴ This important topic is however covered in a more accessible way in the articles by Ashtor, Lane and Wake included in this volume (Chapters 3, 4 and 8 below).

My aim, then, in this introduction is to provide a broad overview, a context, within which the detailed articles which follow can be located. And I will try to fill in some gaps to take account of important topics which for one reason or another are not covered in any available articles, although they may be adequately dealt with in monographs. This applies particularly to the role of the Dutch, their policies in the 'Spice Islands', and their failure in the eighteenth century. Equally important, I have been unable to find any article which covers the trade in malaguetta pepper from West Africa. I will provide some detail on this partly as this was for a time an important trade, and more important because a discussion of trade from this area demonstrates very clearly how international was the trade in spices. True, the major trade goes from Asian production areas to a host of markets, including Europe, but there was an African dimension, and indeed also an American one, for as we will see flows of silver from the New World affected the spice trade, and also the Portuguese attempted to transplant spices to the Americas. Their success, however, was very limited, and stands no comparison with a later and very successful similar attempt, that of the English transplantation of rubber to Malaya from Brazil in the nineteenth century.

We need first to define clearly what we mean by 'spices', describe the major types, and locate their production areas. It is in fact difficult to distinguish very clearly between spices, aromatics and condiments. The sources often refer to spices, drugs and herbs. There is an added confusion in the word pepper, for to an American audience at least peppers are chilis, that is plants of the genus *capsicum* which originated in the Americas, as compared with Asian pepper, that

¹² Gaston Wiet, 'Les marchands d'épices sous les sultans Mamelouks', *Cahiers d'Histoire Egyptienne* VIII (Cairo, 1955), pp. 81-147.

¹³ Walter Fischel, 'Über die Gruppe der Karimi-Kaufleute', *Studia Arabica* (Rome, 1937), pp. 67-82.

¹⁴ Eliyahu Ashtor, 'La découverte de la voie maritime aux Indes et les prix des épices', *Mélanges en l'honneur de Fernand Braudel* vol. I (Toulouse, 1973); Eliyahu Ashtor, 'The Volume of Levantine Trade in the Later Middle Ages (1370-1498)', *Journal of European Economic History* IV, no. 3 (winter 1975); C.H.H. Wake, 'The Volume of European Spice Imports at the Beginning and End of the Fifteenth Century', *Journal of European Economic History* XV, no 3 (1986).

is *piper nigrum* (black pepper) and also *piper longum*.¹⁵ The best distinction is that provided by C.H.H. Wake in his article in this collection where he notes *inter alia* 'pepper', as distinct from 'spices', the latter being subdivided into ginger, cinnamon, and the Malukun spices, that is clove, nutmeg and mace. In a separate category are drugs, dyes, aromatics and precious woods.¹⁶ For the purposes of this introduction, I will use the term 'spices' to refer to pepper, cloves, cinnamon, nutmeg and its derivative mace, and 'fine spices' to refer to all of these except pepper.

I have included at the start of this book extracts from sixteenth-century descriptions of all of these spices written by the great Portuguese savant Garcia da Orta, whose book *Colloquies* was one of the first books published in Goa. The very rare first edition is dated 1563, and only some 24 copies survive. The extracts are from an English translation, by Clements Markham, of the standard modern edition of 1891–95 by the Portuguese scholar the Conde de Ficalho. The illustrations are also contemporary, for they come not from da Orta's work but from his contemporary, and in some respects imitator, Cristóvão da Costa, whose *Tratado das drogas e medicinas das Indias Orientais* was published later in the sixteenth century.¹⁷

Pepper far outranked all other spices as a trade item, and a product in everyday use. As noted above, there are in fact two kinds of pepper. Long pepper is *piper longum*, but the main pepper then and now is *piper nigrum*, black pepper. White pepper comes from the same plant, but is processed differently. It will be noted that da Orta makes this distinction clearly. Kieniewicz's article (see Chapter 10 below) has good data on production in Malabar, and on actual production, landownership and marketing.¹⁸

Turning to the fine spices, the extract from da Orta provides a contemporary description by an informed observer of cinnamon. De Silva (see Chapter 11 below) gives us a useful account of the production of this spice in Sri Lanka, whence came the only true and valued cinnamon. There are various varieties, and it is related to and often confused with cassia. Sri Lanka cinnamon, true cinnamon, is called *cinnamomum verum* or *cinnamomum zeylancium*. De Silva also (see Chapter 12 below) provides a useful account of the clove tree and the

¹⁵ Jean Andrews, *Peppers: The Domesticated Capsicums* (Austin, TX, 1984). Chilis were introduced to Europe and Asia by the Iberians in the sixteenth century, so successfully that today we often think of chilis when we think of Indian food, yet in fact they arrived there comparatively recently.

¹⁶ Chapter 8, p. 364, f.n. 7; see also the distinctions in Godinho, *Economia* II (1981–83), p. 145.

¹⁷ The best recent edition of Costa is Jaime Walter, ed., *Tratado das drogas e medicinas das Indias Orientais, por Christóvão da Costa* (Lisbon, 1964).

¹⁸ For an excellent account of pepper, its cultivation and trade, in Malabar, where it is indigenous, see Disney, *Twilight of the Pepper Empire* (Cambridge, 1978), pp. 32–49.

clove trade. Cloves belong to the myrtle family, and botanically are variously called *syzygium aromaticum* or *eugenia caryophyllus*. The clove as we know it is the dried, unopened flower of the tropical evergreen tree. Cultivated trees grow 12–15 metres. Again da Orta gives a contemporary depiction, which may be supplemented by another brief sixteenth-century account by a Jesuit: 'The tree that supplies the clove is tall. They call it the clove tree. Its foliage has the same savour as its fruit. He who would like to see it should look at the laurel tree when it blossoms, gets colour, and ripens; when full grown it resembles it perfectly'.¹⁹

The nutmeg tree, as noted by da Orta, provides two products. The tree is called *Myristica fragrens* Houtt or just *Myristica fragrens*. Its fruit has an outer fleshy layer, then a bright red lace-like covering which is mace, then a hard shell, and inside this is the kernel, which is the nutmeg. The trees are usually 4–10 metres high. Our Jesuit contemporary noted briefly that 'The tree supplying nutmeg and mace is like a pear tree in both trunk and foliage. In these [Maluku] islands its fruit is sparse and wild; they eat it with the betel leaf and make no other use of it'.²⁰

The location of the production areas of these spices is a matter of particular importance, for the areas growing the fine spices were extremely localised and hence easier for Europeans to control, whereas pepper production was more widely dispersed and so more difficult to oversee. Around 1500 the main production area for pepper was Malabar, which produced perhaps some two-thirds of the Asian total, while other areas were in Siam (now Thailand), the great island of Sumatra and the Sunda Islands (for Malabar see Kieniewicz's articles, Chapters 9 and 10 in this collection). Cinnamon came only from Sri Lanka, growing in a strip 20–50 miles wide and 200 miles long from Chilaw to Walawe on the west coast of the island. In the sixteenth century cloves grew on several small islands along the west coast of the larger Maluku island of Halmahera, namely on Ternate, Tidore, Makian, Motir and Bacan. Nutmeg and its derivative mace came only from the six small Banda islands.

However, Asian growers reacted readily to changed circumstances, especially attempts at monopoly by Europeans, so that production areas changed noticeably in our period. For example, clove production extended to other islands, notably Ceram, Ambon (Amboina), and Halmahera. Portuguese control over Malabar resulted in the rise of pepper production in other areas, notably to the north in Kanara, and also in western Sumatra. Indeed, Godinho claims that pepper production in the Malabar and Kanara areas rose over four times during the

¹⁹ Hubert Jacobs, ed., *A Treatise on the Moluccas* (c. 1544), probably the preliminary version of António Galvão's lost *História das Molucas* (Rome, 1971), p. 41. For botanical matters I have relied mostly on Greenberg and Ortiz, *Spice of Life*.

²⁰ Jacobs, ed., *A Treatise on the Moluccas* (Rome, 1971), p. 43.

sixteenth century.²¹ There were also attempts, described by de Silva (see Chapter 11 below) to move cinnamon production out of Sri Lanka. Late in the seventeenth century, the Portuguese, having lost nearly all their share of the spice trade to the Dutch, tried to cultivate spices in Brazil instead; in 1678 the king told the viceroy in Goa to send plants such as pepper, clove, cinnamon, nutmeg and ginger from India to other Portuguese areas, especially Brazil. These efforts continued through the eighteenth century but met with little success.²²

Before the arrival of the Portuguese at Calicut in 1498 the trade in spices in the Indian Ocean area was extensive, profitable, well integrated and free from political control. We will investigate each of these matters in turn.

There were several major focal points for the spice trade before 1500. The production of the Maluku islands was taken by local traders to the great entrepot of Melaka. This was noted by the Portuguese governor Afonso de Albuquerque (1509–15): 'if there were another world, and another navigable route, yet all would resort to the city [of Melaka], for in her they would find every different sort of drugs and spices which can be mentioned in the world ...'²³

Merchants from all over the Indian Ocean area and even further afield came to Melaka to buy spices and other products. The extensive trade to China was handled by Chinese merchants, and that to the west by a host of traders, many of them Muslims from a wide range of homelands. The dominant group may well have been those from Gujarat, of whom it was noted that 'Melaka could not have existed without Cambay, because of the wealth of its traders and the demand for the goods they brought with them, nor could Cambay without Melaka'.²⁴ A famous contemporary description, by the apothecary Tomé Pires, pointed to the route the spices took after Melaka, for he noted that 'Cambay [sc. Gujarat] chiefly stretches out two arms, with her right arm she reaches out towards Aden and with the other toward Malacca, as the most important places to sail to ...'²⁵ The usual route was for the spices and other products to travel to Calicut, from where they were taken either north to Gujarat and the great markets of northern India, or across the Arabian Sea to the Persian Gulf and the Red Sea, from where they were distributed all over the Middle East. Some of these spices in turn went through Egypt to Alexandria, where Italian merchants, especially Venetians, bought them for sale in Europe. Fischel's article (see Chapter 2 below) provides a good account of the organization of this trade in Mamluk Egypt.

²¹ Godinho, *Economia* II (1981–83), pp. 187–8.

²² A.J.R. Russell-Wood, *A World on the Move: The Portuguese in Africa, Asia and America, 1415–1808* (New York, 1992), pp. 152–6.

²³ Quoted in B. Schrieke, *Indonesian Sociological Studies*, vol. I (The Hague, 1955), p. 18.

²⁴ Schrieke, *Indonesian Sociological Studies* I (1955), p. 12.

²⁵ Tomé Pires, *The Suma Oriental of Tomé Pires*, ed. A. Cortesão (London, 1944), 2 vols, I, p. 42.

In the fifteenth century, and later, most Asian spices were consumed by Asians. India consumed twice as many fine spices as Europe. Of total Asian spice production in 1500, Europe took at most one quarter. China was a huge consumer of pepper, taking around 75% of total southeast Asian production.

Asian trade in spices was a well integrated one. For example, the great trade centre of Melaka and the great production centres in the Malukus both lived on imported food. Many other products, notably cloths from India, were woven in to the woof and warp of this trade. The profits could be very high, despite taxes in some transshipment areas and frequent losses from storm and ship wreck. In the fifteenth century a kilo of pepper cost 1–2 grammes of silver at the production point, 10–14 in Alexandria, 14–18 in Venice, and 20–30 for the European consumer. But costs and taxes were high, so the Venetians, the main traders, made a profit of only about 40%. There were indeed huge margins: early in the sixteenth century, traders made 400% profit taking pepper from Melaka to China. In Calicut mace cost twelve or fifteen times the cost of production in the Banda Islands, and nutmeg thirty times.

This trade was free from political control. The controllers of the great entrepôts, Melaka, Calicut, Hormuz, Aden, encouraged the trade. They made large profits from taxes and other charges, but they made no attempt to control it. The arrival of the Europeans changed all this. A tolerant and open trading system was ruined in some areas by the Portuguese in the sixteenth century, and definitely by the Dutch in the seventeenth. Conditions before the arrival of the Europeans are clearly revealed in the responses of local rulers to European attempts at control and monopoly. Thus the Portuguese in 1502 tried to get the ruler of Calicut to expel his 'foreign' Muslim traders, but he responded that he could not do this, 'for it was unthinkable that he expel 4 000 households of them, who lived in Calicut as natives, not foreigners, and who had contributed great profits to his Kingdom'. Similarly, a century later the ruler of Surabaya, in eastern Java, was asked by the Dutch not to trade with the Portuguese as they were enemies, and he replied 'that he could not help it that we were in enmity with the Portuguese and that he did not wish to be in enmity with anyone; also that he could not forbid his people to trade, as they had to support themselves by it'. Later in this century the port of Macassar greatly increased its trade, and the Dutch noted that local merchants flocked there because the ruler 'treats those same foreigners very civilly' and allowed all to trade 'freely and openly, with good treatment, and small demands of tolls'. Unimpressed, the Dutch conquered the port city in 1669.²⁶

Yet it would be a mistake to present the spice trade before the Europeans as some halcyon trade, an Asian utopia where all could do well. There is evidence

²⁶ See respectively M.N. Pearson, *Coastal Western India* (New Delhi, 1981), p. 27; and Schrieke, *Indonesian Sociological Studies I* (1955), pp. 26, 70.

of merchant combines who tried to keep out competitors, including the Portuguese. Piracy was endemic in many areas, and some coastal rulers did use naval force at times to interfere unjustly in trade. Nevertheless, it was the Portuguese who introduced politics in a thorough and articulated way into Indian Ocean sea trade, and we must now turn to their activities.

When the Portuguese arrived in Asia at the end of the fifteenth century they already of course knew of spices, for these glamorous and costly luxuries had been widely available in Europe for some centuries, thanks to the trade in the eastern Mediterranean controlled by the various Italian city states, amongst whom Venice was dominant. Indeed, the Portuguese had already got a share of the spice trade, albeit in a non-Asian one, that is malaguetta pepper. Historians have paid little attention to this product. Those who deal with West Africa are more interested in slaves and gold, while historians of the spice trade concentrate on those found in the Indian Ocean area.

This product is also known as grains of paradise, or Guinea, red, Cayenne, pepper. It came from the area the Portuguese called 'the costa da Malagueta', the 'grain coast' of modern Liberia, so called from grains of paradise. Malaguetta was also found in upper Gambia, upper Niger, and Sierra Leone. In the fourteenth and fifteenth centuries this spice had reached Europe by way of the Sudan and the Maghreb, but late in the fifteenth century the Portuguese, who had been voyaging down the West African coast since early in the century, succeeded in taking over this trade and taking the pepper to Europe by sea.

Malaguetta pepper was different from the Asian black pepper we have already described, and so even though Asian pepper was readily enough available in Europe in the fifteenth century, malaguetta still found a niche market. It was a low cost but quite high volume trade. Godinho²⁷ notes that early in the sixteenth century the Portuguese sold more malaguetta than ginger or cinnamon, and ten times more than cloves or nutmeg. However, they sold ten times more Asian pepper than they did malaguetta. Malaguetta was also sometimes known as fool's pepper, and indeed it sold very cheaply, so that despite quite high volumes the Portuguese cannot have made vast profits from it. In 1506 a quintal of malaguetta cost 8 cruzados, but Asian pepper cost 22, cinnamon 32, and ginger 18. Later in the sixteenth century the Portuguese lost this trade to other Europeans, but in any case it became, once Asian pepper became very widely available, really only a rarity and of little economic importance.

The Portuguese take over of this trade in West Africa prefigures, and maybe provided a model for, their more famous attempt in the sixteenth century to monopolise all trade in Asian spices. It can be argued that the cornerstone of Portuguese efforts in the Indian Ocean in the sixteenth century was their attempt to achieve this control. From early on they unilaterally declared that all trade in

²⁷ His account in *Economia* II (1981-83), pp. 148-57 is the fullest we have.

spices was to be done only by themselves, or by people licensed by them. Offenders against this, that is the traders who had previously handled this trade, were to be severely punished, and their goods confiscated. To achieve this aim they captured a series of strategically located port cities, and patrolled the waters of the Indian Ocean searching for 'illicit' traders.

Spices were the main and most valuable product the Portuguese took back to Europe, and amongst them pepper was always overwhelmingly dominant. We have details of a cargo of 1518. The total weight of all products on board was 2 242 000 kgs: 2 129 000 kgs of pepper, 1 342 of cinnamon, 986 of mace, 5 584 of cloves.²⁸ On average over the sixteenth century Godinho finds that each year they sent back via the Cape to Europe between 2 000 and 4 000 quintals of fine spices, and 20 000–30 000 quintals of peppers (note however that Steensgaard, Chapter 7 below, questions this).

By monopolising Asian trade in spices the Portuguese hoped to achieve two, related goals (de Silva's two articles in this collection, Chapters 11 and 12, are basic for the Portuguese attempts to control the trade in cinnamon and cloves). When they arrived they found that most of the trade was done by Muslims. Anti-Muslim feeling was visceral, almost innate, amongst the Portuguese as a result of their own experience of being ruled by Muslims until the thirteenth century, and of their battles with Muslims in North Africa. Thus to dispossess these traders was to strike a blow for the True Faith, that being of course Christianity. Perhaps more important, a monopoly would mean that the Portuguese could buy cheap in Asia and sell dear in Europe, a happy conjunction indeed. In the first few decades of the sixteenth century the Portuguese got close to achieving this aim.

The profits could be enormous. Historians have produced many estimates. One finds that the Portuguese paid six cruzados for a quintal of pepper in Malabar, including the cost of freight. The minimum price in Lisbon was 22 cruzados, producing them a profit of 260%. Another costing adds in an estimate for wastage and still finds profits of 150%. Even if the cost of the forts in Malabar which made possible the Portuguese monopoly are deducted, we are still left with profits of 90%.²⁹ In 1505 prices were fixed in India and in Lisbon. Pepper cost 3 ducats per hundredweight in India, and sold for 22 in Lisbon. Other ratios are: for cinnamon, 0.75 to 19; cloves, 7.50 to 60–65; nutmeg, 4 to 300.³⁰ Later in the century the Portuguese bought cinnamon in Sri Lanka for as little as 15 cruzados per quintal, and sold it for at least 75, and sometimes 100. Godinho has tried to put the spice trade into a more comparative perspective.

²⁸ Sanjay Subrahmanyam, *The Portuguese Empire in Asia, 1500–1700* (London, 1993), p. 63, quoting the work of Geneviève Bouchon, 'L'inventaire de la cargaison rapportée en Inde en 1505', *Mare Luso-Indicum* III (1976) *Ibid.*, *Navires et Cargaisons retour de L'Inde en 1518* (Paris, 1977).

²⁹ M.N. Pearson, *The Portuguese in India* (Cambridge, 1987), p. 41.

³⁰ Lach, *Asia in the Making of Europe*, vol. I (Chicago, 1965), p. 110.

Around 1515 the spice trade made profits for Portugal of about 1 000 000 cruzados. This was equal to all ecclesiastical revenues, and was double the value of trade in gold and metals.³¹

Portuguese success marked, for a while, a reorientation of European access to spices. In short, Lisbon replaced Venice, at least temporarily. Godinho's article in this collection (see Chapter 5 below) provides detail on the effects on Venice and Egypt.³² These were clear to see early on. In 1502–3, 24% of Hungarian copper exported by the great Central European bankers the Fuggers went to Antwerp, but in 1508–9 this had increased to 49%, and this was used to pay Lisbon for spices. In 1501 the Portuguese captain Cabral came back to Lisbon with a good cargo of spices, and the king, Manuel, told a Venetian envoy he should tell Venice 'that from now on you should send your ships to carry spices from here'. Venetian authorities predicted gloomily that 'There is no doubt that the Hungarians, Germans, Flemish and French, and those beyond the mountains, who formerly came to Venice to buy spices with their money, will all turn towards Lisbon ...'³³

Many historians find a direct cause and effect here: Lisbon rose and Venice fell as a result. But it was not quite this simple. It is clear that there were a series of problems in the Mediterranean trade in the late fifteenth century, before the Portuguese entered the Indian Ocean, so that the trade via the Levant was in crisis already. This was exacerbated by a steep fall in spice prices. The details can be followed in the articles printed in this collection by Ashtor, Lane, Godinho and Wake (Chapter 3, 4, 5 and 8 below), and also in a very technical exchange between Wake and Ashtor.³⁴ The essential point is that the trade in spices via the Levant to the Mediterranean and so to Europe was in at least temporary decline. Once the Portuguese began to send large quantities of spices to Europe via the Cape of Good Hope, Venice entered a period of crisis.

The fortunes of this great entrepot port city, the Queen of the Adriatic, had been intricately tied in with spices. As a contemporary said in 1501, the loss of spice trade for Venice 'would be like the loss of milk to a new-born baby'. As Wake shows, in 1496–8 the Venetians got an annual average of between 1 060 and 1 200 tonnes of pepper and spices from Alexandria, but in 1501–6 only 335 tonnes. Between 1505 and 1515 over four times as much spices entered Lisbon

³¹ Vitorino Magalhães Godinho, *Mito e mercadoria, utopia e prática de navegar, séculos XIII–XVIII* (Lisbon, 1990), p. 331.

³² This study has been selected here because of its seminal influence in this field and its enduring value. It can also be consulted, in revised form, in the publication of Godinho's *thèse d'Etat* of 1958; *L'économie de l'empire portugais aux XVe et XVIe siècles* (Paris, 1969), part II, chapter 5; and his *Descobriementos e economia mundial* (Lisbon, 1965–71), vol. II, part II, chapter 6, where further discussion and additional material can be found.

³³ Lach, *Asia in the making of Europe*, vol. I (Chicago, 1965), p. 105.

³⁴ See articles cited in f.n. 14.

as Venice, and two-thirds of these were pepper. As the final humiliation, in 1515 Venice had to buy spices in Lisbon.

The somewhat sterile debate over prices in the later fifteenth century is an example of one of the major controversies in our topic area. A more important one is the revival of the Levant trade, and of Venice, in the second half of the sixteenth century. Several of our authors have contributed importantly to this debate, notably Lane, Steensgaard, Wake and Boxer (see Chapter 6, 7, 8 and 13 below). What they show is that the Levant trade did revive later in the century, only to be finally destroyed by the arrival of the much more efficient Dutch in the seventeenth century. Braudel notes that many used to claim that the Mediterranean trade was ended by the Portuguese in the early sixteenth century. One Dutch historian claimed that as a result of the Portuguese voyages 'the route of world trade had been shifted. From then on the earth's history was determined elsewhere: for Egypt, as for the Italian commercial towns ... it was the beginning of a dead age'.³⁵ To the contrary, Braudel, basing himself especially on Lane's article reprinted here (see Chapter 6 below), finds 'a hundred years after the date usually suggested as that of the death of the old queen of the world, the Mediterranean, dethroned by the new king, the Atlantic'.³⁶ Thus it was after 1600 that the overland trade was definitively replaced by the Cape route, whose dominance was then unchallenged until the opening of the Suez Canal in 1869.

What had gone wrong with the Portuguese effort, that the Levant was able to revive, in Braudel's words again that by the mid-sixteenth century 'The Mediterranean was recapturing the treasures of the Indian Ocean?'³⁷ The main broad reason is that the spice trade, itself so long distance, was in fact influenced by even more distant parts of a now global economy, in this case America. The revival in the Mediterranean was stimulated by the arrival, from the mid sixteenth century, of vast amounts of New World silver, and this was used to buy spices. The policies of the great Ottoman sultan Suleiman the Lawgiver (known to Europeans as the Magnificent) also helped. From 1520 to 1566 he ruled over a vast empire which included the whole of the Arab world, including Egypt. As one sign of the success of his efforts, in 1558 the Fuggers closed up shop in Lisbon and moved to Alexandria. In 1560 the Portuguese were told that 40 000 cwt of spices, mostly pepper, was coming to Alexandria each year, thus roughly equalling Lisbon's imports.

There is no doubt that the Portuguese suffered a slump in the middle of the sixteenth century. Lane's article reprinted here shows this clearly. Thus the

³⁵ Schrieke, *Indonesian Sociological Studies* 1 (1955), p. 10.

³⁶ Braudel, *Mediterranean* (London, 1972), p. 568; this is the theme of Niels Steensgaard's important book: *The Asian Trade Revolution of the Seventeenth Century: The East Indian Companies and the Decline of the Caravan Trade* (Chicago, 1974).

³⁷ Braudel, *Mediterranean* (London, 1972), p. 549.

Portuguese took only about one tenth of total clove production back to Europe, and even if we add in their clove trade in Asia they still controlled only one third of the total. Boxer has shown that the Portuguese in the earlier sixteenth century took some 20 000 to 30 000 quintals of pepper to Europe each year. By the end of the century this had fallen to about 10 000 quintals, while Aceh in 1585 was sending 40 000 to 50 000 quintals of spices a year, mostly pepper, to the Red Sea, and so to markets in the Middle East and the Mediterranean.³⁸ (See Boxer in this collection, Chapter 13 for Aceh and the Portuguese). We noted earlier how the vast bulk of the cargoes bound for Portugal in the early sixteenth century were spices. This dominance fell later in the century. Over the whole period 1580–1640, of the total value of the cargoes, spices and drugs made up 22%. More specifically, pepper was 10% of the total value of all cargoes; cloves nutmeg and mace together 2%; indigo 6%; and cinnamon 2%. Cotton cloths however made up no less than 62%.³⁹ In the very important west coast production area of India, from Onor to Travancore, it is estimated that total pepper production early in the seventeenth century was some 258 000 quintals. Of this total, the Portuguese got only between 20 000 and 30 000; the rest was traded outside their control all over Asia and also to the Middle East and so to Europe. Similarly, as Kieniewicz shows (see Chapter 9 below), in 1515 the Portuguese took 30% of Malabar production, but by the end of the century retained only 3 or 4%.

In all this, it is important to take account of changes in production and consumption. Briefly, in the sixteenth century, European consumption rose, and so did Asian production. Godinho claims that total production of pepper, ginger, cinnamon, nutmeg, mace, and cloves around 1500 was 9 500–10 500 metric tonnes. Two thirds of this was pepper. By 1600 total production was 18 000–19 000 tonnes;⁴⁰ production had almost doubled, so that we can claim that the spice trade, and especially that in pepper, was getting to be a mass trade, not merely one in a discretionary luxury. Europe took about one-quarter of this total production.

In the sixteenth century European consumption underwent a similar expansion, and prices also rose sharply. We need to keep this in mind as we evaluate the decline of the Portuguese. There is much debate over the sizes of their cargoes in the sixteenth century, as is shown in the articles by Lane, Steensgaard and Wake (see Chapter 6, 7 and 8 below). The most general point is simply that even if Portuguese cargoes did not decline very much, this still meant they were losing market share in Europe, and any control over Asian production, for they were taking proportionally less and less round the Cape.

³⁸ Boxer, *Portuguese Seaborne Empire* (London, 1969), p. 59.

³⁹ James C. Boyajian, *Portuguese Trade in Asia Under the Habsburgs, 1580–1640* (Baltimore, 1993), p. 44.

⁴⁰ Godinho, *Mito* (Lisbon, 1990), p. 325.

Wake's article (see Chapter 8 below) marks an important contribution to the debate, for he claims that Portuguese trade revived in the 1570s and 1580s. Lane (see Chapter 6 below), of course, wrote only of a revival for the Levant in the 1560s. Wake shows that the Portuguese were able to recover for a while, only to be totally eclipsed by the Dutch early in the seventeenth century. He is here in fact merely fleshing out observations made earlier by Braudel and Lach.⁴¹ Despite the recovery the Portuguese share of total trade declined relatively, and this is the important point

Why did the Portuguese fail to achieve their aims? The answer is complex. It must be remembered that while they had some success in controlling Europe's access to spices for a time, this made up only one quarter of total trade in spices, and over the three-quarters consumed in Asia they held very little sway. Thus the vast Chinese market was supplied by spices from great entrepôts in Aceh and Bantam over which the Portuguese had almost no control. Kieniewicz's articles (see Chapters 9 and 10 below) have excellent detail on the vast Asian demand for spices. Nor indeed did the Portuguese ever have much control over the trade in fine spices from the Malukus; their greatest, even if only partial, success was over pepper and cinnamon.

One reason for their failure was simply the skill and determination of Asian traders to continue their trade, such as Gujaratis trading all over the Bay of Bengal and from Aceh (as Boxer notes in his article, Chapter 13 below), or Malabaris defying the Portuguese and continuing to trade even on the west coast of India, the area where the Portuguese had most control. Changing production areas also sometimes caught the Portuguese napping. It took them a long time to realise how large production was in the Kanara area, despite this being located immediately south of their capital of Goa. Clove production spread to new areas in the Malukus during the century, and the Portuguese were stretched to keep up with this.

We need to distinguish three main routes by which spices got from the Indian Ocean to Europe. One was via the Cape of Good Hope, in Portuguese ships via the Atlantic. Second was the (to the Portuguese) illegal trade up the Red Sea to Egypt. Third was the trade through the Persian Gulf. With this in mind, we can identify various gaps in the Portuguese system. Some were military: they never controlled the mouth of the Red Sea and it was always possible then to elude Portuguese sea patrols and enter this gateway to the Middle East. Other gaps were political. The Portuguese often had to conciliate local rulers by allowing them some trade in pepper and other spices. This applied to the ruler of Hormuz and the Shah of Iran; to avoid alienating the Shah, whom the Portuguese saw as a bulwark against their most feared enemy, the Ottoman Turks,

⁴¹ Braudel, *Mediterranean* (London, 1972), pp. 554–6; Lach, *Asia in the Making of Europe*, vol. I (Chicago, 1965), pp. 130–1.

a considerable trade in spices was allowed into the Persian Gulf. West coast Indian rulers also perforce were allowed to send spices to the Red Sea. At times Portuguese officials and sailors were paid by being allowed to participate in the spice trade. Many Portuguese also flagrantly joined in the 'illegal' trade on their own account.

Finally, there were problems with finance. Portugal consumed small amounts of spices internally: its role was a conveyor belt to the major markets in northern and central Europe. An estimate for 1579–80 finds that Portugal consumed 1 500 cwt of spices a year, only one-fifteenth of the total it imported. Spain and Great Britain took 300 cwt each, Italy 6 000, France 2 500, and thus about 12 000 was left for the Low Countries, the German states, and central Europe including Poland.⁴² Portugal took little part in this distribution of spices in Europe: this profitable task was contracted out to mostly non-Portuguese European merchants, for much of the time based in Antwerp, and later Amsterdam.⁴³ At the Asian end, too often the Portuguese officials did not have the funds to buy at the best time, or simply lacked funds at all. It was for this reason that the Portuguese kings in the last quarter of the sixteenth century experimented with contracting out the spice trade, instead of doing it on their own account. But the contractors did badly, and late in the century the crown was forced to re-enter this trade.

However, nothing could save the Portuguese. The arrival of northern Europeans, the English and the Dutch, from the late sixteenth century spelt the end of the Portuguese effort to monopolise the spice trade. In this onslaught, it was the Dutch rather than the English who dominated. It is true that the English procured some spices from the area now called Indonesia for much of the seventeenth century (See Bastin, Chapter 14 below),⁴⁴ but it was the Dutch, organized in their Dutch East India Company [VOC] who possessed most of the capital, determination, ruthlessness and force. Their effective policies meant the end not only of the Portuguese trade via the Cape but also of the overland trade to the Levant. It was a sign of the times when as early as 1600 the Portuguese unloaded six carracks in Lisbon carrying a large pepper cargo. They found it hard to sell, for their traditional markets in northern Europe were already well supplied by large Dutch shipments.⁴⁵

⁴² Lach, *Asia in the Making of Europe*, vol. I (Chicago, 1965), p. 137.

⁴³ For detail on distribution in Europe see René Gascon, 'Un siècle du commerce des épices à Lyon. Fin XVe–XVIe siècles', *Annales* XV (1960), pp. 638–66; Hermann Kellenbenz, 'Autour de 1600: le commerce du poivre des Fugger et le marché international du poivre', *Annales* XI (1956), pp. 1–28.

⁴⁴ See also on this D.K. Bassett, 'The "Amboyna Massacre" of 1623', *Journal of Southeast Asian History* I, no. 2 (1960), pp. 1–19; D.K. Bassett, 'English Trade in the Celebes, 1613–1667', *Journal of the Malay Branch of the Royal Asiatic Society* XXXI, no. 1 (1958), pp. 1–39.

⁴⁵ Boyajian, *Portuguese Trade in Asia* (Baltimore, 1993), p. 88.

The articles by Prakash and Musgrave (See Chapters 15 and 16 below) explain clearly the superiority of the Dutch. They were able to reduce the element of uncertainty in the spice trade by controlling more production areas, taking larger volumes back to Europe, and being able, thanks to adequate capital resources, to hold back their spices when markets were low. In other words, the spice market became a little less opaque in the seventeenth century.

Like the Portuguese a century earlier, the Dutch concentrated on spices as soon as they reached the Indian ocean (Prakash, Chapter 15 below, is a basic source for the Dutch in the seventeenth century). Over the three years 1619–21, of the total value of their cargoes taken back to Europe, pepper made up 57%, and other spices 18%. By weight, pepper and spices constituted over 90% of Dutch cargoes at this time. Again like the Portuguese, pepper was by far the main import, from Sumatra at first and then once they had driven the Portuguese out in the 1660s, from Malabar also. The Dutch did very well here. In the first half of the seventeenth century European demand for pepper was about 7 million lbs. On average the Portuguese imported 1.4 million pounds, while the Dutch aimed to import at least 3 million, meaning that they had to keep the English down to 2.6 million. By 1650 the Dutch had in fact done much better than this: they were bringing in 4–4.5 million lbs a year, and the English only about 500 000 lbs. And once the Portuguese were driven out of Malabar the Dutch did even better. In the excellent year of 1670 they brought to Europe 9.2 million lbs [4.2 million kgs] of black pepper; and 134 000 lbs of white, the largest amount ever to reach Europe in any one year in the seventeenth century.⁴⁶ Over this century European prices for pepper, and also demand, appeared to be static, the latter being about seven million pounds right through. The Dutch sometimes supplied as much as six million pounds of this total. Over the century about half the value of cargoes of Dutch ships bound for home was pepper.⁴⁷ (See Bastin, Chapter 14 below). Apart from this trade to Europe, they also sold about 3 million pounds a year in Asia.

These data point to considerable success for the Dutch, but in fact their achievement in controlling the pepper trade was less than that for the fine spices, where they finally secured something close to a total monopoly. As we noted, the fine spices grew in very localised areas. In Sri Lanka the Dutch obtained their first cargo of cinnamon in 1638, and the sale price in Amsterdam was nearly double the purchase price. After the Portuguese had been driven out of this island, by 1658, the Dutch, now having a complete monopoly, thought they could charge what they liked. They raised the price from 15 stuivers to 36 in 1658, and later 50.⁴⁸

⁴⁶ Furber, *Rival Empires* (Minneapolis, 1976), p. 236.

⁴⁷ For detail see Glamman, *Dutch-Asiatic Trade* (Copenhagen, 1958), pp. 73–90.

⁴⁸ Arasaratnam, *Merchants, Companies and Commerce* (Delhi, 1986), p. 137.

For the Dutch cinnamon, cloves, nutmeg and mace made up their 'famous four' spices, and as a Frenchman wrote in 1697 'No lover is as jealous of his mistress as the Dutch are of their trade in Spices'. In the Maluku islands, home of the other three fine spices, the Dutch behaved with great ruthlessness (note, however, that Musgrave, Chapter 16 below, stresses economic reasons for the Dutch success rather than military and naval matters). Under their governor Jan Pieterszoon Coen (1619–23, 1627–29), pursuing his 'policy of frightfulness', they deported much of the population of the Bandas, and then moved in Dutch settlers supported by a vast slave population drawn from scattered areas such as East Africa, Persia, Bengal and Japan.⁴⁹ In 1636 on one of these islands, as a result of Dutch severity, there were only 560 natives left, together with 539 Dutch and 834 free foreigners. To overcome the labour shortage they had to import 2 000 slaves from Arakan and Bengal. On other Banda islands all nutmeg trees were cut down so as to avoid the possibility of smuggling. Their policy in the clove producing areas was equally bloody, indeed was too successful, for so well did they limit production that in 1665 there was a shortage of cloves. Production was closely controlled. In 1710 the directors of the VOC noted 'with grief' that the most recent harvest of cloves on Amboyna was likely to be 1.85 million pounds. They did massive extirpations in order to get production down to an 'acceptable' level of about 500 000 pounds.⁵⁰

Competition from other Europeans was slowly overcome. As Bastin shows (see Chapter 14 below), the English held on in Bantam until 1682, and after this in Benkulen in southwest Sumatra, thus retaining some access to pepper. The Spanish left Tidore only in 1663, while the end of the Portuguese was symbolised by their loss of Melaka in 1641. The end of any competition for cloves, nutmeg and mace was achieved in 1669 when Macassar was conquered, and from then on the Dutch made vast monopolistic profits from these spices: several hundred percent, and even up to 4 000%. Their control of the clove trade is shown by the way they were able to charge one fixed price for this product in Europe from 1677 to 1744. Better still, the Dutch were able to overcome the common problem faced by Europeans trading in Asia. Few European products found any market in the Indian Ocean area, but in a bullionist age the export of precious metals was seen as undesirable. But for the Dutch, sales of spices in Asia produced vast profits, which were used to buy goods to send back to Europe.

Yet this rosy picture, for the Dutch, contained its own problems. There were difficulties both in Asia and Europe, and these combined to reduce profits in the eighteenth century, as most dramatically shown by the bankruptcy of the VOC

⁴⁹ Willard A. Hanna, *Indonesian Banda: Colonialism and its Aftermath in the Nutmeg Islands* (Philadelphia, 1978), p. 63, and generally for the Dutch in the Bandas.

⁵⁰ Glamman, *Dutch-Asiatic Trade* (Copenhagen, 1958), p. 109.

in the 1790s. First, we need to remember that pepper was always the main product. In Europe demand for pepper in the seventeenth century was some 7 million lbs a year, while for the 'famous four' together it was only 1 000 000. But the Dutch never completely controlled pepper. The reason was that pepper was produced in several different areas, not all of them controlled by the Dutch. For example, in the very large producing area on India's southwest coast Dutch power was restricted to the seashore; much pepper escaped inland. As we noted, the English continued to get pepper from Benkulen. Even their control over the Maluku was achieved only at an ultimately too high price. One problem was that about one third of the production of these fine spices was sold in Asia, as also was pepper, and so the VOC had to make delicate calculations of prices in Asian markets: if their prices were too high then Asian purchases declined, but if they were too low then other Europeans would buy in India and ship to Europe. There was also the whole matter of the cost of enforcement, and of preventing new production areas. Smuggling was a particular problem and even some of the VOC's own servants indulged in this, just as had the Portuguese a century earlier. Slaves on the Banda islands and their Dutch masters, the *perkeniers* (concessionaires licensed by VOC who had local mothers), were adroit smugglers, so the cost of enforcing the monopoly was huge, especially as slightly inferior long nutmeg grew on other islands and could be substituted. More generally, Dutch success, at its height from about 1680 to 1720, meant that they did not get into ultimately more profitable trades in cotton piece goods and tea and opium. Piece goods especially had a much wider market than spices both in Asia and, after mid century, in Europe also.

There were also other problems in Europe. It seems that European consumption of spices was more or less static throughout the seventeenth century, or possibly even declined a little. The problem was that the huge increase, at least a doubling, in European consumption of spices in the sixteenth century meant that as they became cheaper and more available they were no longer a symbol of wealth and luxury. Their prestige declined and relatively they were less used. New luxuries and stimulants competed with or even replaced spices: coffee, chocolate, cocoa, alcohol and tobacco. New vegetables (asparagus, spinach, artichokes, tomatoes, pimentos, melons) varied the European diet, so spices were less needed to enliven the palate. Finally, it seems that meat consumption in Europe declined, and also simpler cooking styles were more in vogue. Thus, ironically, the VOC monopoly turned out to be a Trojan horse; they controlled products whose value was falling, and ignored humbler but ultimately more productive goods.

The Dutch failure, as we have seen, was caused in large part by a change in the European attitude to spices, and this attitude largely persists today. Easy and cheap availability has by and large ended their mystique, and they have become more routine and humble culinary accessories. Yet their story in the early

modern period has a drama all its own. Control of their trade, and even of their production, was the main goal of the Europeans in Asia over this period. A study of the spice trade in many ways encapsulates the early modern European presence in Asia. This trade, both before and after the Cape route was travelled, made up one of the longest routes in the world, with spices literally travelling from one end of the earth to the other. Their role was intricately tied in with silver from the Americas; thus in the sixteenth century the world economy became truly global. Spices played a crucial role in this fateful event.

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1

Colloquies on the Simples and Drugs of India: Cinnamon, Cloves, Mace and Nutmeg, Pepper

Garcia da Orta

FIFTEENTH COLLOQUY

CINNAMON

RUANO

WE cannot eat any spice with pleasure except cinnamon. It is true that the Germans and Flemings eat pepper, and here our negresses eat cloves, but Spaniards do not eat any of the spices except cinnamon. I bear it in memory that the food smelt strongly of it, and not of any other spice. I asked the cook whether he used it, and he said no, but that many dishes were seasoned with cinnamon water. In place of what we call *cassia lignea*,¹ the word *canela* is often used. It will be as well that we should discuss it now.

ORTA

CANELA, and what we call CASSIA LIGNEA, are one and the

¹ "Canella," or "Wild Cinnamon," is in modern Pharmacy the bark of *Canella alba*, Murray, a Bixad of the West Indies. Here it is "Cassia" or "Chinese Cinnamon," the bark of *Cinnamomum Cussia*, a Laurel of Cochin China and Southern China. True Cinnamon is obtained from *C. zeylanicum* of Ceylon. "Cassiae Pulpa" is, as stated in a footnote, p. 114, the pulp of the pod of *Cathartocarpus Fistula*.

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same thing ; but the ancient writers saw this spice after it had come from such a distance that they could not have had a correct notice of it, and as the price was very high there arose a thousand fables which Pliny and Herodotus repeat. They relate them as true, when in reality they are quite fabulous. I do not propose to speak of them here, because every one now knows the truth. The price being so high, and the avarice of men still higher, the drug was often falsified. As the false kind could never be exactly like the real spice in every respect, they made two kinds, one the true cinnamon and the other the falsified one, both being usually of the same species.

RUANO

Tell me what you know, and at the end I will mention any doubts which occur to me, for I do not wish to remain with them. I wish to hear from you the names in all languages, in the lands where cinnamon grows, and in Arabia and Persia, for by these names we shall be able to obtain a knowledge of *cassia lignea* and of cinnamon. For my present view, with others who have written on the subject, is that the true cassia is not the true cinnamon.

ORTA

I will satisfy you on all these points. Neither the Greeks nor the Arabs knew the cassia, and this was on account of the great distance and the little communication with the region where it grew. Those who brought it for sale to Ormuz and Arabia were Chinese, as I will explain to you presently. From Ormuz it was taken to Aleppo, a principal city of Syria. Those who brought it thence to the Greeks said that they had it in their country and in Ethiopia. It was taken with superstitious rights. The priest divided what remained into shares for the devil, for his worshippers, for the king, and for the priests.

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RUANO

How is this? Do you mean to say that neither the cassia nor the cinnamon are in Ethiopia or Arabia?

ORTA

Yes! and I am astonished that you did not know it; for Ethiopia has been reached by our ships and great part of it explored by our people, and in it there is neither *canela* nor *cinamomo* nor *cassia lignea*; and the Arabs themselves come to buy it and take it to their country, and at the time when they come the price is very high.

RUANO

Is this that you allude to the real *canela*? For they may not get the true cinnamon or cassia, but that other, and being a rude people they would not know the difference.

ORTA

The physicians of Arabia, Turkey, and Coraçon are very learned men, and all call this thick *canela*, which they use, *cassia lignea*.

RUANO

What proof can you give me that it does not grow in Ethiopia?

ORTA

I say that both the Ethiopias are very well known to the Portuguese; for the coast of Guinea, which is the Ethiopia below Egypt, is known to us, not only the sea-shore, but also the interior; and as I have told you, a priest explored from the island of San Tomé to Sofala¹ and Mozambique, and came thence to Goa, and I knew him very well. From the Cape of Good Hope to Mozambique and Melinde many persons have

¹ That this priest went from San Tomé overland to Sofala is doubtful.

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been along the coast, and these have come here, and none have ever seen the *canela*. So that we know that the *canela* does not grow in either of the Ethiopias, either above or below Egypt.

RUANO

Is this because they are few who have the curiosity to enquire?

ORTA

It is not so altogether. For the natives of the island of San Lourenço, who are very barbarous, showed some men who came to trade with a fruit of the size of a filbert without a head, and as it smelt like a clove¹ they wished to be shown the tree in case it should be cinnamon or *cassia lignea*. They were shown what appeared to be a medicine quite as odoriferous. The medicines were never better known than at present, especially by the Portuguese, so you must not suppose that such precious drugs are wanting with us, for the plants and fruits are now better known than ever. Of course the grafting makes diversity, as well as the transplanting them from one land to another.² For the love of me, do not suppose that we are deficient in cinnamon. We have as much as we require. I will now tell you the names.

RUANO

I say that I claim my right, as the lawyers have it.

ORTA

The *cassia lignea* is called by the Arabs SALIHACHA, and the Persians give it the same name. The Indians who do not know physic through the Arabian books, give it the same name as they give to cinnamon, because in all this country

¹ *Ravensara aromatica* or *Agathophyllum aromaticum*, Lauraceae, of Madagascar. *Ravensara* is its native name.

² Orta here recognises the variability of species.

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they make no difference between the names of cinnamon and *cassia lignea*. In truth, no person can see any difference between them, whether physician or druggist.

RUANO

I rejoice much to know this.

ORTA

The Chinese have navigated to this land from a very remote period, and as the people were barbarous and unlearned they adopted laws and customs from them. The Chinese went in such large vessels and in such a way that, if it will not bore you, I will tell you many things which do not directly belong to the subject of our colloquy, but which may interest you.

RUANO

I shall be very much obliged if you will, and we have time to devote to it.

ORTA

I know the number of Chinese ships that navigated, having counted those which went to Ormuz as recorded in their books, and there were 400 junks which entered the port of the island Jeru, now called Ormuz. They also say that 200 junks have been lost on the rocks of Chilâm. Junks are long vessels, which have their bows and sterns alike. In Calicut they had a fortified factory, which still exists, and is called *China Cota*, or the fort of the Chinese. In Cochin they left a stone as a mark, in memory of their having been there. When the King of Calicut (called Zamorin or Emperor) besieged Cochin because the Portuguese held it who were then engaged in the discovery of India, he destroyed the place and carried off this stone as a trophy, which cost him very dear. On this stone the King of Repelin was crowned, the Zamorin placing the crown on his head, who received homage from him ; and the

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stone was left at Repelin by order of the Zamorin. Repelin is four leagues from Cochin, and there the stone remained until 1536. Then Martin Affonso de Sousa, the not less invincible than fortunate captain, burnt, sacked, and destroyed Repelin. The king fled and many with him, and many of those were slain who did not escape, as I can testify, being an eye-witness. The stone was taken back to Cochin, and the king ordered great festivities to be made over it, and thanks to be given to those who brought it. He remained deeply obliged to the Captain, Martin Affonso de Sousa, who twice drove the King of Calicut out of his territory, and sent him the *sombreiro*, which he took with the *praus* in Beadalla (there were 57), where 15,000 men were killed, remaining with him no more than 300. He also took 600 pieces of artillery, and more than 1000 muskets. As the deeds of this great captain are many, I will not tell you more. These that I have mentioned are not told in praise, for he has acquired more praise than any one else of his time, but I tell you of them to make clear what I said about the Chinese.

RUANO

But I want to know about the cinnamon, for, in discussing the plants, you always give me some history of them.

ORTA

These merchants bring from their country gold and silk, porcelain, musk, copper, seed - pearls, alum, and many other things. They sell some in Malacca and bring thence sandal, nutmegs and mace, cloves, and aloes. Proceeding on their voyage they trade in Ceylon and Malabar. From Ceylon they bring a great deal of good cinnamon, which costs them very little money, while the sailors without any money collect wild and bad cinnamon in the woods. They also go to Java, and obtain pepper, cardamoms, and other drugs on this Malabar

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coast. They carry all to Ormuz or to the coast of Arabia, where merchants come to buy, and convey the merchandize to Alexandria, Aleppo, and Damascus. Asking these Chinese what sort of thing is this cinnamon which has such a smell and taste, they tell the fables which Herodotus and other ancient writers relate, to make a better sale for their goods. As the cinnamon from Ceylon was different from that of Malabar and Java they gave two names for the plant, but only one for the skin or bark. As a fruit is better in one country than in another, so the cinnamon of Ceylon is better than all others, all being cinnamon. They do not send any other cinnamon than that of Ceylon to Portugal. In Ormuz, because it is the bark brought for sale from China, they call it DARCHINI, which in Persian means Chinese skin. They send the same to Alexandria and the other places mentioned above, changing the name so as to get a better price from the Greeks, and calling it *cinamomo*, which means odoriferous skin, like *amomo* brought from China. To the bad kind from Malabar and Java they put another name, which is what it is known by in Java, CAISMANIS, which means sweet skin in Malay. Though it is one species they put two names, calling the good DARCHINI or Chinese skin, and CINAMOMO, which is *amomo* of China, and the other CAISMANIS or sweet skin.

RUANO

DARCHINI is not an Arabic word, then how is it that it is used by Avicenna and Rasis and all the Arabian writers ?

ORTA

No, it is Persian ; for many words in the *Kanun* of Avicenna are Persian. The name for cinnamon in Arabic is QUERFÁ. As it is said by Andreas Belunensis that it was the name for thick cinnamon, I communicated with the Arabs, who assured me that QUERFÁ or QUERFÉ was the name for any kind

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of cinnamon. The Greeks corrupted the word to CASSIA, and it was CAISMANIS that they called CASSIA. These are all the names that the Arabs have written to designate it, and those that are written differently are corrupt, such as DARSHAHAM and others. Well, this is the truth; and I call God to witness that the druggists cannot deny it, for *cassia lignea*, bad cinnamon, is mixed with very fine cinnamon, of which there is such abundance, and they excuse the doubling of the weight of the *cassia lignea* for cinnamon.

RUANO

This that you say about the weight of *cassia lignea* being doubled in place of cinnamon does not want for authority, for Dioscorides and all the others say the same.

ORTA

For me the testimony of an eye-witness is worth more than that of all the physicians, and all the fathers of medicine who wrote on false information. So that what the Greeks and Latins called cinnamon, the Arabs call QUERFÉ or QUERFÁ, the Persians DARCHINI, those of Ceylon CUURDO, the Malays CAISMAO, and the people of Malabar CAMEA. It is found that Serapio adopts DARCHINI, which is a tree of China, giving a derivation that for you is false, which was increased by the translator, and which to me is the truth.

RUANO

It may be remembered that you have said that the *cassia lignea* was first called *caismanis*, meaning sweet stick, and if this is so, cinnamon may be bitter stick, as Menardo explains the Greek verb, which signifies that at least it may be corrosive.

ORTA

This verb, interpreted by Menardo, means to furnish with

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a bite soft and fragrant; and he further says that bitterness is outside things that are fragrant, but that it gives them a sweet smell and sharp taste. I also say of this, replying to Menardo, that the people of this country have not more than three kinds of tastes—sweet, acid and bitter, and what is known well and is not bitter they call sweet. So that the things they know well they call sweet, and so give it the name of sweet stick.

RUANO

A modern writer says that our *cassia lignea* is not that of the ancients, for he says that it is black and without smell, and that there was some cassia which is called *pseudo cassia* by Dioscorides, or false cassia.

ORTA

It is likely enough that in ancient times the cinnamon was falsified. Its great abundance makes it unnecessary to do that now; but one of the drugs that deteriorates most in the land is the cinnamon, owing to its being brought after such long voyages. It may be that good cinnamon is mixed with some that is damaged and is without smell and is not vermillion, and it may be held that it is not cinnamon at all, just as a dead man is not a man.

RUANO

What did those learned Persian and Arabian physicians use instead of cassia to cure that king who was your friend?

ORTA

The thick cinnamon of Malabar. I argued with them that nothing except fine cinnamon should be used, but they were obstinate and would not listen to reason; though the king was convinced and was on my side. Returning to the *cassia*, it is impossible to understand these modern writers, for some say that there is no true *cassia lignea*, and Menardo says that there is, and that it is sold under the name of *canela* and *cassia*, and

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this same Menardo says that it is not the true *canela*. Valerio Cordo says that he would not go so far as to say that we have not got the true *canela*, and that we must have some species of it. Laguna, quoting Galen, says that *cassia lignea* is converted into cinnamon, or it would be better to say that cinnamon is converted into *cassia lignea*, for one species cannot be turned into another more perfect species by lapse of time, but into another less perfect. So much for these authors. I say that one species can never turn into another, but that the good cinnamon may at times deteriorate and be called *cassia lignea*, not because the *cassia lignea* and cinnamon are different species, but one species grown in different countries. Afterwards, Amato Lusitano held that he had all the species, and he is followed by Mateolo Senense and some others. After these Laguna says that he who goes from India to Lisbon will find all the species of cinnamon. But, speaking the truth with you, I could never see more than two kinds or three, all of one species, the *canela* of Java, of Ceylon, and of Malabar. When Laguna says that in going from India to Lisbon a man will find all the species of cinnamon, I say that what he means is that he will find good and damaged cinnamon, some better, some much better, but not five distinct species as he says.

RUANO

Well, I know that he says further that, in the time of the Roman Emperors, if a stick of true cinnamon was obtained it was considered a great treasure, so no wonder if it was so hard to get. It is said that in the time of Pope Paul a piece was found which had been kept since the time of the Emperor Arcadius, and after 1400 years there was great rejoicing over it.

ORTA

I will answer all this. I say that you can get more

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knowledge now from the Portuguese in one day than was known to the Romans after a hundred years. The stick which was given may have been brought from Lisbon, and would not have deteriorated. The piece belonging to the Emperor Arcadius may have been preserved by the will of God, or it may have been an imposture.

RUANO

Ruelio says that the cinnamon smells like the *origanum*.

ORTA

The stick does not smell otherwise than as the bark smells, but not so strongly or intensely, and there is no *origanum* in the whole island of Ceylon, nor in Malabar, nor in any other part of India unless it is brought from Ormuz.

RUANO

Some say that we have cinnamon, but not that which was highly praised, called *mosselitico*. They say that the better cinnamon is, the longer it lasts. Others say that it lasts thirty days, and that it lasts longer when it is powdered. What is your answer to this?

ORTA

The first I will answer when I tell you where the *canela* comes from. As to the last, the drug of which we are treating lasts for a very short time before it begins to deteriorate. As to what you say that it lasts longer if it is powder, this is wrong, for the proper stick lasts longest. In houses where they eat cinnamon powdered over their dishes, they do not keep it more than from one day to another, because it deteriorates here in India. The bark as well as the stick can be conserved better in some countries than in others, lasting longer where the humidity is least. In other lands the

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physicians reckon with the climate and are guided by experience; so that they know very well that it will not keep for thirty years. As for the other *canela* which had been kept since the time of the Emperor Arcadius, my answer is that I should like to see it before I believe it.

RUANO

Another statement of Antonio Musa, given on the authority of Theophrastus, is that the ancient cinnamon had many knots, while this of our time has not.

ORTA

Theophrastus is wrong, for he was not a man of this country to know what the tree is like. When the bark is taken off neatly, you will clearly see the truth.

RUANO

I say that I shall see at the end how my doubts have been solved.

ORTA

The trees are about the size of olives or rather smaller, the branches are numerous and not crooked, but somewhat straight. The flowers are white, the fruit black and round, larger than a myrtle, or between that and a nut.¹ The *canela* is the second bark² of the tree: for it has two barks like the cork tree, which has bark and shell. The *canela* is the same, except that the two layers are not so thick and distinct as in the cork tree. First, they take off the outer bark and clean the other. The outer bark, cut in squares, is then thrown

¹ It is a small evergreen tree richly clothed with beautiful shining leaves. The panicles of greenish-white flowers are not sweet.

² The Canella of modern pharmacy is the bark of *Canella alba*, Murray, "the Wild Cinnamon-tree."

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on the ground. When on the ground it rolls itself up in a round form, so as to look like the bark of a stick which it is not. For the poles or sticks are the size of a man's thigh. The thickest of the bark is the thickness of a finger. It takes a vermilion colour, or that which is given when burnt by the sun; or more like ashes mixed with red wine, very little of the cinder and a great deal of the wine. The trees are not so small as is stated by Dioscorides and Pliny,¹ and they are numerous, so that the price is very low in Ceylon. For more than thirty years it has not been possible to buy any, except from the agent of the king. This year's bark is taken, and leaving the tree for three years it renews its bark.² There are many trees, the leaves like a laurel. The trees that yield bad *canela* in Malabar and Goa are much smaller than those of Ceylon, and are all wild, growing of themselves. The root gives a water the colour of camphor, and is considered to be cold. The king forbids the roots to be pulled up, so as not to destroy the trees.

RUANO

Is this *canela* white or vermilion or black?

ORTA

That which has not been well dried remains white or grey, when very dry it is black. When well dried it is vermilion, as I said before. The root is almost without taste, and smells like camphor. The fruit is not pleasant to the taste. They also distil the flower, but it has not so good a smell as the water distilled from the bark. Laguna says that they only

¹ The drug name "Canella" does not occur in Pliny or Dioscorides. It is the French *cannelle*, diminutive of *canne*, a "cane," from the Latin *canna*, a reed.

² Ficalho characterises this as an unpardonable error, which is also adopted by Gaspar Correa; a result, he supposes, of some vague reminiscence of what occurs with the cork tree. But in the cinnamon tree to strip the bark causes the death of the branch.—LENDAS, i. 652.

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distil from the flowers, but it is true that they distil more from the bark before it is dried. It is a very mild medicine for the stomach, or to remove the pain of the colic, from its cooling quality. For it draws off the pain as I have often seen. It improves the complexion, removes a bad smell from the mouth; and for Portugal it is certainly a very good article of commerce. It is sent there in sufficient quantity, for besides being a good medicine, it is useful in seasoning dishes, as is the practice in India.

RUANO

Is Ceylon the only place for the best cinnamon?

ORTA

I have not heard of any other place.

RUANO

Well, Francisco de Tamara,¹ in his book on Customs, says that in the strait of the Red Sea cinnamons and laurels cover the water when the sea rises. Also our Castilians, who write about the West Indies, say that there is cinnamon in many parts of those Indies, especially in a land called Zumaco. They also say, speaking of China, that there is much cinnamon and spices there. Answer me all this.

ORTA

As for what Francisco de Tamara says you can reply that he repeats what others have falsely written, and that the Portuguese who navigate the Red Sea have never seen anything of the sort, sailing over it every year. The other chronicler who says that there is *canela* in the West Indies also does not tell the truth, for they say that the fruit is like

¹ A professor in Cadiz. He wrote *Juan Bohemo de las costumbres de todas las gentes* (Antwerp, 1556).

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acorns of the cork tree, whereas the fruit of the *canela* in Ceylon is like an olive, but smaller and more round. It would be well if some of this *canela* could be seen in Spain, when it would become known that it is another tree that yields this fruit and bark, and that the trees are different,¹ as the pear tree of *engoxa* differs from other pear trees. What is said about China is well known to be false, for this drug is brought there from Malacca, and it is known that they have it not in China.

RUANO

What use do they make of the fruit of the *canela*?

ORTA

They extract oil from it, as we do from the olive. It looks like French soap, and has no smell unless it is warmed, when it gives out an odour something like cinnamon. It is used to warm the stomach and nerves.

RUANO

Is all the cinnamon of Ceylon very fine?

ORTA

No! some is very bad, which has not rolled up well or was very thick from not being of that year, and being old is not good. I speak of Ceylon, for that of Malabar and other countries is all very bad. The quintal of Ceylon *canela* is worth ten *cruzados*, and that of Malabar one *bor*, which would make four quintals to the *cruzado*. The Malabar people take their *canela* to Cambaya, Chaul, and Dabul for sale, and thence it is taken to Balaguete.

¹ The South American Cinnamon tree, of which Gonzalo Pizarro went in search, is the *Nectandra cinnamomoides*, a Laurel bloom of British Guiana. In modern pharmacy the "Bark" [*Bibiru bark*] is referred to *N. Rodiaei*, Hooker.

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RUANO

Tell me the names of the kinds given by Pliny, to see if we can identify them in any parts of India.

ORTA

We must do what we can, for what I said is true, and the names give themselves to it. As for *zegir* it may be that all the land of the Cingalese is so called, that is the people of Ceylon. For the Persians and Arabs call the blacks *zangues*, and all the people of Malabar and Ceylon are of that colour. Also, those rocks which are between Ceylon and India are called *Chilam*, whence we may derive the name *zegir*.

RUANO

And the *cinamomo musilitico*, so highly praised, where is that?

ORTA

The island of Ceylon, a mountainous country, which is opposite Mount Cory, which is the Cape of Comorin, is where the seed is, on the scent of which Dioscorides puts his faith. And Pliny says that he traces that *canela* to the port of Genalabitas, as he calls Ceylon.¹ See how clearly he wants to speak of the port of Chingualas, which is Ceylon. For he says that by a direct road from the promontory of Cory one comes to a port of Genalabitas called Ocila. If you are not satisfied with these derivations I can give you no better.

RUANO

These derivations appear better, but those who say that the *canela* leaf is like *lyrio espadanal* say well.

¹ "Taprobane" and its productions are noticed by Pliny, vi. 22 (24), vii. 1 (2), ix. 35 (54), and xxxii. 11 (53).

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ORTA

No; because the leaf of the *canela* is like an orange or a laurel leaf, that is, the shape is that of the orange and the colour of the laurel.

RUANO

Is oil made from the *canela* also?

ORTA

I have told you that it is only made from the fruit of the tree, and that it is made, as we make the olive oil, and that is the truth.

RUANO

I found in the receipts of a doctor of credit "*take cinamomo allipitinio.*" Does that place happen to be anywhere in Ceylon, or where is it?

ORTA

It is Aleppo, a principal city of Syria, whither the *canela* comes by Ormuz and Gida, where they sell it. They take horses and many kinds of silks and brocades to Ormuz. As that *canela* was good and new they kept that name for it; and that is the reason.

RUANO

I am satisfied, and it seems to me well that we have the true cinnamon and the true *cassia lignea*,¹ and that it does not fail us. When *cassia lignea* is found in the receipts, or cinnamon, we shall always know that it is the best cinnamon, for all are one, and the things written by the doctors touching their qualities apply to one as well as to the other. If God spares me to return to Spain, I will explain this error to many physicians and apothecaries. I will also tell that famous

¹ "*Cassia lignea*," or Chinese Cinnamon, is the bark of *Cinnamomum Cassia*, Blume, and *Cinnamomum Loureirii*, Nees, of Cochin China, and both also yield the "*Cassia-buds*" of modern pharmacy.

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doctor Thomas Rodriguez¹ how the exhortation which Mateolo made to the physicians of the King of Portugal is all answered, and that you present it to him from your heart, complying with the request that he had made to you. Now tell me what you know of that celebrated island of Ceylon.

ORTA

The island of Ceylon is rather more than 80 leagues in circumference, and its length is 30 leagues by six to eight broad. It is the most fruit bearing and best island in the world. Some have said that it is Trapobana or Sumatra.² In front of its coast is the promontory they call Cape Comorin. It is very populous, though mountainous in many parts. The people are called Cingalese. It belongs to the King our Lord, and the native kings are subject to him. It is certain that this island is the most noble in the world. It belonged to one king who was killed by his grandsons, and they divided it amongst themselves. When the Portuguese came to this land they took counsel to cut and sterilize many trees, such as nutmegs, cloves, and pepper. In this island there are all kinds of precious stones, including diamonds; and many pearls, as we shall state farther on. They have gold and silver, and do not wish to bring it to the kings, but to keep it for treasure. They say that they combine sometimes to withdraw it secretly. The woods are full of all the birds in the world, many peacocks, fowls, and pigeons of many kinds, stags and deer, and pigs in great quantities. There are many fruits and orange groves in this land, which is all mountainous, and the

¹ Wrote Commentaries on Dioscorides (Venice, 1553 and 1557). Rodriguez was a famous Portuguese doctor of medicine. He seems to have been piqued by the exhortation of Matthioli to the Portuguese doctors and to have written to Orta on the subject; and Orta now redeems the obligation that was imposed upon him, to publish the results of his observations in India.

² No one ever said that Ceylon was Sumatra. It has been contended whether Taprobane was Ceylon or Sumatra.

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oranges are the best fruit in the world for taste and sweetness. The land also yields all our fruits, such as figs and grapes. Certainly very good profit might be made of the oranges, for they are the best fruit in the world. They have flax and iron. The natives say that it is the terrestrial paradise. They have a fable that Adam stopped on the top of a very high mountain which they call Adam's Peak. They have other fables much stronger. There are many palm groves, and the elephants are the best in the world and very intelligent, and they say that the others which they have are obedient.¹

¹ Orta visited Ceylon at least twice. He was with Martin Affonso de Sousa at the taking of Repelin, and when that captain landed at Colombo soon afterwards, Orta probably accompanied him. This was early in 1537. On the 15th of February 1538 the battle of Beadala was fought, and Orta seems to have been present. Beadala was in the Gulf of Manaar.

PLATE VI.—CANELA.

TWENTY-FIFTH COLLOQUY

CLOVES¹

RUANO

E will talk of GARIOFILO, for it comes from the same region as GALANGA.

ORTA

You make a mistake in not using the letter C, because in good Latin it is CARIOFILO, and in bad Latin GARIOFILO, as you may see in the modern authors who have written on it.

RUANO

I cannot agree, for so I have been taught all my life.

ORTA

If I show you in Pliny that it is called so, what will you say?

RUANO

I confess it to be better Latin, but usage excuses me.

ORTA

The Greeks did not speak of this GARIOFILO, only Paulo

¹ *Eugenia Caryophyllata*, Myrtaceae.

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Egineta, who says it is the leaf of a nut, because GARIOFILO is supposed to have that meaning, but this does not appear to be known. And so Serapio says that in the Greek definitions the name is not to be found. Afterwards he refers to Galen and Paolo, and says that he translated it literally. I do not find it in Dioscorides.

RUANO

Well, I can give you the place where Galen speaks of it.

ORTA

In books which are properly of Galen you will not find it.

RUANO

In the second book of Dinamedis mention is made of GARIOFILO, and also in the third, and many Arabian writers say that Galen said it. Perhaps they translated some books of Galen which are now wanting, having been lost through the lapse of time.

ORTA

These books you refer to, in which Galen speaks of CARIOFILO, are not coveted by Galen. It is enough for me that Ruelio, such a diligent and laborious writer, says that it is not to be found in Galen.

RUANO

Well, this that you say is supported by Paulo, and Aeçio, and Pliny. It is said that in India it is very like pepper, except that it is larger and longer, and this is called CARIOFILO.

ORTA

I do not deny that these men talk of it, but I deny that Galen does. I further tell you that this medicine was found quite recently, first as medicine and for the scent, and then for culinary purposes. It is used a thousand parts to one as

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medicine, and the rest for cooking. You will now like to know the name in Arabia and in this country.

RUANO

I wish you to tell me all, very clearly.

ORTA

The Latin name is *CARIOFILUM*, others calling it *GARIOFILUM* as you did just now. The Arabs, Persians, Turks and most of the people of India call it *CALAFUR*. In Maluco, where alone it is found, and in all that region, the name is *CHANQUE*. The names given in Pandetario, such as *ARMAFUL*, are wrong, and the name written in Arabic *CARRUMFEL* is an error of the Arabian writer, a corruption caused by the lapse of time. The tree of this *cravo* (clove) grows in Maluco on some islands subject to the king of Portugal, taken in a just war some time ago. The right to these islands was disputed between Spain and Portugal for a long time, and you, being devoted to your king, will acknowledge the justice of our tenure of the islands.

RUANO

I owe so little either to the king of Castille or to the king of Portugal that I am able to say that I have as many mills here as there. Speaking confidentially to you, I owe more to the king of Portugal, for it is him who has granted the great part of what my brother-in-law possesses; and these advantages I owe to the king of Portugal, while the king of Castille has never given me anything, nor have I any expectation from him.

ORTA

You must know that Maluco is within the line of Portuguese conquest, which extends 200 leagues further, as has been proved by observing eclipses. But the devil entered into a

TWENTY-FIFTH COLLOQUY

Portuguese,¹ who, because the king would not grant him an unjust favour for which he asked, went over to Castille, fitted out armed ships, and discovered a strait, before unknown, which led by another route to Maluco. He died with the greater part of the people who went with him; so that they were unable to return by the way they came. Another bachelor, Faleiro,² who went with him and against his king, went mad and also died in his work of discovery. Then Castillians came to Maluco on other occasions, but were obliged to go back, and most of those who attacked the Portuguese were killed. Those who surrendered were given the means of returning to Castille. Such is the clemency of the King our Lord to vanquished Christians. The king of one of the islands, called Ternate, when it was proposed to him that he should help the Spaniards, said that the clove was given by God to the Portuguese, because each clove contains the five *quinas* of the Kings of Portugal. It may be that he said this by the will of God, though he was an infidel. In the same way Balaam and his ass prophesied, not being a rational animal. I say this subject to correction from the Holy Mother Church. Afterwards this king became a Christian. He received his kingdom from the king of Portugal, and I knew him at Goa. Returning to the cloves, I say that they are only found in these islands of Maluco, which are five in number, and from there they are distributed over all parts of the world. If you ask whether there are trees of this spice in Ceylon, I reply that there are, but they do not give fruit there, nor in any other part except Maluco. The trees are of the height and shape of a laurel. They have many flowers which are made into cloves. The plant grows like a myrtle. The flower is first white, then green, and finally vermilion and hard, which is the clove. I have been told by those who have seen it, and are worthy of credit, that when the flower is green it gives

¹ Magellan.

² Ruy Faleiro did not sail with Magellan.

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out the most delicious scent in the world. Those who gather or dry this clove find it to take the colour that you see now. They grow from buds, like the myrtles, and some say that the clove comes from within; but that is not so, only the bunches do not come to perfection. They collect them because the branches that form a great cup give out cords with which to collect the cloves, and this is the reason why the trees are beaten and flogged, and they do not give so good a harvest for a year. The cloves are dried for three or four days, and thus they sell them, and keep them to send to Malacca and other parts. The clove which is left on the tree becomes larger, and they like it, in this way, in Java. We, with the others, call it the head. You must know further that nothing whatever grows under or round the clove tree, because the clove draws up all the juice out of the earth.

RUANO

Where is the plant which the Castillians call *fuste* and the Portuguese *bastom*?

ORTA

Without the twigs whence these cloves hang as the flowers hang from the small twigs, and the great clove, which I mentioned to you, is what we call "the mother of the clove," and not because it is so, nor is it male, as Avicenna and Serapiam say, for all is one, but because it is older than the others. For what we call "the mother of the cloves" is not of the same year, but the year before. This was told to me by persons who know. One was a factor from Maluco, who said that from the clove there is much ripe fruit which falls down.

RUANO

Do they make any profit from these trees of the clove, either by planting, or cleaning, or pruning?

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ORTA

No more than cleaning the ground where they collect the cloves; and the trees grow without seed being sown, only from cuttings. They do not grow very near the sea, but a cannon shot distant from it, though on islands surrounded by the sea. These islands where the cloves grow are five in number¹ as I have said, and the principal island is called Geloulo,² and for this reason they call the clove in Spain CRAVO GIROFF,³ because it is from Geloulo. It is also called CRAVO because it resembles a nail in form. Some say that when it is young there are more cloves than leaves, and that the leaves have not so strong a scent as the cloves. These trees grow from cloves which fall on the ground, like chestnuts in our country, though it is not necessary, for the earth always yields these cloves, and rain is never wanting for them to grow and produce fruit. The trees of the cloves come to maturity in eight years, according to information from the natives, and they last for a hundred years. The harvest is from the middle of September to January and February.

RUANO

Do the natives use the cloves in their food or for medicine?

ORTA

According to my information the people of Maluco do not use these trees themselves. The Chinese came in their ships to this land, and took the cloves to their country and to India, Persia, and Arabia. They relate this from memories preserved among themselves. The clove is easily preserved with salt water, and in another way by making it into powder.

¹ Ternate, Tidore, Motil, Makian, Bachem.

² Gilolo. Barros calls it Batechina.

³ The word GIROFF has nothing to do with Gilolo. The *Garyophyllon* of Pliny is certainly our "Cloves," the dried flower-buds of the Myrtle bloom *Eugenia Caryophyllata*.

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RUANO

You say that the natives of Maluco do not use the cloves ; do the other Indian races and the Portuguese use them much ?

ORTA

When the cloves are green the Portuguese who live in Maluco make a conserve of them with vinegar and salt, which they call *achar* ; and they also preserve them in sugar. I have eaten them and they are good. The people of Malacca use the vinegar conserve when they can get it, and the Portuguese women, living in Maluco, distil water with the green cloves, which is very fragrant and a good cordial. It would be a good thing to introduce it into Portugal. Many Indian physicians make a sudorific with cloves, nutmeg, mace, and long black pepper, and they say it draws out the Castillian itch. I have also seen Portuguese physicians use it, but I do not think it is a good medicine. Some people apply pounded cloves to the head, and say that they find it good for headaches. Women are much addicted to chewing cloves to make the mouth smell sweet, and not only Indian women but also Portuguese.

RUANO

Serapiam, quoting Galen, says that it is the leaf of the nutmeg. Is the tree of the clove and nutmeg all one ?

ORTA

They are from entirely different countries, one from Banda, the other from Maluco. The tree of the nutmeg has round leaves and is like those of a pear tree, and those of the clove tree are like a laurel.

RUANO

Avicenna and some others say that the tree is like *sambacus* but more black.

TWENTY-FIFTH COLLOQUY

ORTA

It is not like *sambacus*, a plant which we call jasmine, nor like *sambucus* which we call an elder tree. You will see the difference between the one and the other.

RUANO

It is said that it has been taken to some islands of India, and that the gum or resin from it is like *trementina* in virtue.

ORTA

The statement that it has been taken to some islands of India is true, but there is no such gum in Maluco. I have spoken to several people who have been in Maluco, and they all say there is no such gum. I do not deny that many trees yield gum, especially when they are cut, but up to the present time this has not been tried. Nor with your pardon can I allow the truth of what has been written in New Spain, that the gum of the clove is gum mastic. For trees are of different natures and do not yield gums contrary to their natures.

The leaves of the clove do not come to India, so I do not write about them. The scent of the clove is said to be the most fragrant in the world. I experienced this coming from Cochin to Goa, with the wind from the shore, and at night it was calm when we were a league from the land. The scent was so strong and so delicious that I thought there must be forests of flowers. On enquiry I found that we were near a ship coming from Maluco with cloves, and then I understood the truth. Afterwards, men from Maluco told me that when the clove is dry it gives out a strong scent extending far from where it is.

RUANO

In Serapio and Avicenna I find many names which must be corrupt, such as the names of authors. I should be much pleased if you would tell me what you know about this.

CLOVES

ORTA

I do not know except that some words are wrong. They call Rasis Benzacaria, and Mesue Menscus.

RUANO

Serapio seems not to read without an aspirate ; Hachim, it seems to me, should be Aly.

ORTA

No ; it is Hachim which means a philosopher, and, as among them, some are called philosophers specially, it may be that they use it as a name.

RUANO

Is the herb which we call *cravos* (pinks) in Maluco or in India ?

ORTA

It is not in Maluco. I have seen it in these parts coming from China ; but it has not the same scent as that of Portugal. The cause may be that it is very superficial, or that the heat of this country works out the scent. I will not say more, as you know more about these pinks than I do. I may tell you that in a certain part of the island of San Lourenço there is a very round fruit, larger than a filbert with the husk, which smells very like cloves, but is not a clove nor like one.¹

¹ *Ravensora aromatica*.

PLATE XI.—CLAVOS.

THIRTY-SECOND COLLOQUY

MACE AND NUTMEG¹

RUANO

WE know the names of mace and nutmeg, the country whence they come, namely Banda, and also the names in Arabic and Latin. According to the order, as we cannot first speak of the nut, which is fruit, we will talk of the appearance of the tree, of the leaves and flowers, and of any medicinal qualities connected with them.

ORTA

These names I can tell you. I asked for them in Malay, Malayalim, Persian, Arabic, Turkish; but for you is only necessary the Arabic and Latin, and that of the land where it grows, which is Malay. Well, I say that the tree of the nutmeg is the size of a pear tree, and the leaves are round like some pear leaves. Banda, the native place of the nutmeg, belongs to the King our Lord. Some writers on Peru say that it is in Maluco, but this is not so; for the tree there does not bear fruit, and it is the same in Ceylon. It is like a pear

¹ Mace, *jatri*, is the "aril," and nutmeg, *jaiphal*, the "albumen" or kernel of the fruit of the Myrtle-bloom, *Myristica officinalis*, Linn., the *M. fragrans* of Houtt.

MACE AND NUTMEG

tree, or, to be more exact, like a small peach tree. The rind is hard, the outer skin being harder than green pears. Removing the thick rind, there is a very fine rind like that which encircles our chesnuts. This goes round the nut. The nut is like a small gall nut. The delicate skin which encircles it is the mace. We need not refer further to the thick outside rind except that it is very good made into a conserve with sugar, and it has a pleasant scent. This conserve is very good for the brain and for nervous complaints. It comes from Banda in jars of vinegar, and some people eat it as a salad ; but all that comes to this land is in the form of conserve with sugar, a very beautiful fruit, leaving an agreeable scent in the mouth. You must know that when the nutmeg begins to swell, it breaks the first rind, as our chesnuts burst their prickly covering, and the mace becomes very red, appearing like fine *gram*. It is the most beautiful sight in the world when the trees are loaded.¹ Sometimes the mace splits, and that is why the nutmeg sometimes comes without the mace. When the nutmeg is dried it does without the mace, which changes in colour from red to a pale orange. The mace is worth three times as much as the nutmeg, and this is the truth, well known to those who come from Banda. This Banda is very unhealthy. Many go there and few come back ; yet people are always eager to go there because there is much profit.

RUANO

Galen knew this mace and nutmeg, and Dioscorides, and some other Greeks, and Pliny.

ORTA

Galen makes a chapter in Book VII. of the simples, and says it comes from India. As for the others, it appears to me that they did not know the mace for several reasons,

¹ " Few cultivated plants are more beautiful than nutmeg trees."—WALLACE.

THIRTY-SECOND COLLOQUY

though they have the word *MAÇIR*.¹ One is because the temperature is said to be between warm and cold, being warm and dry at the end of the second or between it and the third. And it is said that it is good for dysenteries and for those who have issues of blood, which is not a thing that Galen would have said or have known. Avenrois says that it is one of the medicines that Galen did not know. Many modern writers believe that the *MAÇIR* of the Greeks and the *MAÇA* of the Arabs are different medicines. This is why Avicenna makes two chapters, 456 for *MAÇA*² and 694 for *TALICIFAR*, and he did this imitating the Greeks whom he always held in much respect and veneration, thinking that they could not be wrong. Yet Dioscorides says it is the bark of a root, not the rind of fruit. Pliny says he does not know the *MAÇIR*. Much less could these Greeks have known the *MAÇA* when they are silent about the nut, because the one could not be without the other. They knew so little of *MAÇIR* that Galen would trace it to India, and Dioscorides to Barbary, where it seems no one knew the *MAÇA*. About this there ought not to be any doubt.

RUANO

Well, there are not wanting modern writers who say that the *CHRISOBALANUS*³ of which Galen writes is the nutmeg of the Arabs.

ORTA

They have not reason, and there are many things against them in the description both as regards colour and taste.

¹ μάκερ.

² Avicenna knew of the Mace and Nutmeg. He called the former *besbasah*, شجر البسباس. Its common Arabic name is *shajrati-jauzut-tib*, i.e. "tree of nut-fragrant." Avicenna's *besbasah* looks like some corruption of the Persian *burjaah*, "scented."

³ The *Chrysobalanos* of Galen was the "Black" or "Chebulic" [Cabul] *Myrobalan* of India, the fruit of *Terminalia Chebulica*, Retz.

MACE AND NUTMEG

RUANO

Did not the Arabs know something of the mace and nutmeg?

ORTA

Yes, sir! Avicenna especially spoke very distinctly.

RUANO

Well, Serapio says that the Greeks knew these medicines.

ORTA

That was because he was afraid to say anything against the Greeks. Do not be surprised at that because even I, when in Spain, did not dare to say anything against Galen or against the Greeks. Yet when seen in the proper light, it is not strange that medicines should be known in one age and not in another, new things being constantly found. Certainly if the Greeks knew the *Pao de China* they deserve much praise, and it would be much celebrated by them. Avenrrois boldly says that there were certain medicines which the Greeks did not know.

RUANO

Now will you finish with these ancients, and give the names of nutmeg and mace?

ORTA

I am content to do so. In the country where it grows, the nutmeg is called PALA and the mace BUNAPALA. In the Deccan the nutmeg is JAPATRI and the mace JAIFOL. In Arabia and by Avicenna the nutmeg is JAUZIBAM, which means the nut of Banda, and Avicenna calls the mace BEFBASE, the derivation of which name no one can tell. These are the Arabian names most used by all, but many Moors, Arabs, Turks and Khorasanis use corrupt names which have been altered in the course of time. Then the corrupt words appeared in books, and Avenrrois, being a very good

THIRTY-SECOND COLLOQUY

Moor, called it GEOZA. Serapio also has many corrupt names. If these, being Moors, are wrong, it is not to be wondered at that Matheus Silvatico should err. Maça is so called from the similarity of the word to MAÇIR, because the Greeks paint it vermillion.

RUANO

If the nut in Arabic is called GEAUZI, ought not the Arabs to mention the nut of India, which is called COQUO?

ORTA

The Arabs make mention of all the nuts. The COQUO you allude to is called GEAUZIALINDI, and the nutmeg GEAUZI, no more. This is the reason that the city which we call Badajoz should be called GUADAL-GEAUZI, or the river of nuts, from which Badajoz is corrupted.¹

RUANO

Who told you that, and how do you know it?

ORTA

A Jew who was in Portugal, born in Cairo. He brought to Portugal the news of Sultan Bahadur's death.² His name was Isaac of Cairo, a discreet man and learned in many languages. I asked him if Guadalupe meant "the river of wolves," as Lucio Siculo Marineo would have it. He answered me that it did not, but that the meaning was "the river of love." I said to him that a very learned man had written that

¹ Fray João de Sousa (*Vestigios da lingua arabica en Portugal*, 1789) has another derivation for Badajoz بال ل العيش, *belad el aisch*, "Land of Provisions." Count Ficalho thinks that both are wrong. Edrisi writes the name بحاليرش (*Batalios*).

² Isaac came from India, by way of Suez and Cairo in 1537, with news of the violent death of Sultan Bahadur (Correa, *Lendas*, 792-846).

MACE AND NUTMEG

this was the meaning. He replied that if it could all be in one language it would be better, rather than make one part in one language and the other in another. As Guadalupe is all in Arabic, the meaning is the "river of love."¹

RUANO

Though this is not physic, I also rejoice to know more about it than about other things, to relieve the boredom.

ORTA

Why do you not remain without it? I knew that an oil is made from the mace, which is a very good medicine for the nerves, and is much used for it in Banda.

¹ Sousa gives *وال الغي*, *uad el ub*, "River of the Bosom."

PLATE XIV.—NUEZ MOSCADA.

PLATE XV.—MACER.

FORTY-SIXTH COLLOQUY

PEPPER¹

RUANO

S it not unreasonable that, after such labour as the Portuguese have gone through to have all the pepper in their own hands, they should consume the smallest part while Germany and Flanders use the rest? I want you to tell me where the greatest quantity is grown, and the names of the countries where it is found, also what it is called in Arabia, how it is gathered, what the tree is like, and whether it is used in medicine.

ORTA

The greatest quantity of this pepper is in Malabar, or along the coast from Cape Comorin to Cananore. There is also a certain amount in the parts of Malacca, which, however, is not so good, being less fruitful. There is some in Sunda and Java, and in Queda and other places, and it is consumed in China, in its own country, and is also taken to Martaban and Pegu. In Malabar also it is largely consumed in the country itself, where much more is used than in any other land. Some is used by the people along the sea-coast, some taken to

¹ See footnote at end of this Colloquy.

FORTY-SIXTH COLLOQUY

Balaguete on oxen ; and a large quantity goes to the Red Sea, against the orders of the king, but nothing can be so well guarded but that much will be taken to the westward by the Moors. These are the places where the pepper is raised, and though there are some trees to the north of Cananor, they are so few that we do not take account of them, as the people of the country consume all that is gathered. For these trees do not grow in the interior nor in other parts, so that the trade is good, and I have seen much taken inland by oxen.

RUANO

Tell me the names in the countries where it grows.

ORTA

It is called in Malayalim, where there is the greatest quantity, MOLANGA, and in the parts of Malacca where, as I have said, it is also grown, LADA. In Arabic it is FILFIL, a word used both by the Arabian physicians and the people. Avicenna, according to the translation of the Belunense, calls it FULFUL, and the long pepper DARFULFUL and FALFEL, and Serapio, who was also Arabian.¹ It seems to me that FILFIL, not FULFUL or FEFEL, is the more correct form, it being so easy to corrupt a written word when taken from the mouth of the people. There is nothing more to detain us on this point, except that in Guzerat and the Deccan pepper is called MERICHE and in Bengal MOROIS and the long pepper PEPILINI.

RUANO

Tell me the appearance of the tree, how it grows and how all is grown on one tree, for in this Greeks, Latins, and Arabs all agree, as well as the writers who have treated of the subject recently.

¹ This sentence is very confused, but Ficalho says that the meaning is clear.

PEPPER

ORTA

All agree, with one accord, not to tell the truth, although Dioscorides may be pardoned because he wrote with false information and at a great distance, with intervening seas not navigated as they now are. He was copied by Pliny, Galen, Isidore, Avicenna, and all the Arabs. But those who write now, such as Antonio Musa and the Friars, have the greater fault, because they merely repeat in the same way without taking the trouble to ascertain things so well known as the appearance of the tree, pepper, the fruit, how it ripens and how it is gathered.

RUANO

Are all those you have mentioned in error ?

ORTA

Yes, if you call saying what is not true an error.

RUANO

This being so, tell me what you have seen or heard from persons worthy of belief, and afterwards I will come with my doubts.

ORTA

The tree of the pepper is planted at the foot of another tree, generally at the foot of a palm or cachou tree. It has a small root, and grows as its supporting tree grows, climbing round and embracing it. The leaves are not numerous, nor large, smaller than an orange leaf, green, and sharp pointed, burning a little almost like betel. It grows in bunches like grapes, and only differs in the pepper being smaller in the grains, and the bunches being smaller, and always green at the time that the pepper dries. The crop is in its perfection in the middle of January. In Malabar the plant is of two kinds, one being the black pepper and the other white; and besides these there is another in Bengal called the long pepper.

FORTY-SIXTH COLLOQUY

RUANO

It seems to me that you abolish all the writers, ancient and modern, by this that I have heard you say. For Dioscorides says that the tree of the pepper is low, and produces a long fruit like a sheath, which they call long pepper, and inside this sheath there are small grains like gram, and that this is the perfect pepper, for at the proper time these sheaths open and discover some close clusters and the grains which we know, and that they are gathered before they are quite ripe. He says that they are sour and these are the white pepper. They are ingredients of the medicines they make for sore eyes and against poison that has been drunk, and against the bites of venomous beasts. The long pepper is strongly biting and rather bitter, owing to having been gathered before it is ripe, and is therefore efficacious for the things I mentioned. The black pepper is more suave and sharper, and more agreeable to the taste, from having been gathered at the right time, and also more aromatic than the white kind, and so it is more profitable for tempering the food. The weakest of all is the white pepper, owing to having been gathered before it is ripe. The black pepper is heavier and better. The people of the country call it BARCAMANSI because some empty grains are found amongst it. This is what Dioscorides says on the subject, at present it being unnecessary to enter upon medicinal qualities. At the end of chapter x. he says that the root is like that of *costo*.¹ Pliny says that the trees are like junipers, and that they grow only on Mount Caucasus according to what some say, also that the seeds are like those of the juniper, and that one seed divides or goes apart from another in a small part of the pod, like figs. The prices of them was 25 *livras* for long pepper,

¹ Costus, the Sanskrit *kushta*, and the *kut*, pronounced *koot*, and *kustum* pronounced *koostum*, of the Indian bazaars, formerly attributed to the Ginger-wort *Costus speciosus*, is now known to be the root of *Saussurea Lappa*, C. B. Clarke [the *Aplotaxis auriculata* of De Candolle, and *Aucklandia Costus* of Falconer], Compositae, of Cashmere.

PEPPER

of black 16 to 18, white 17, a *livra* equal to 3 *cruzados*. He says that pepper in its own country is wild and not planted, and that in Italy he heard of a tree which was like a myrtle, also that there is pepper in the part of Arabia called Trogoldita, which is called in the language of that country BARCAMANSI. Everything else about its use is copied from Dioscorides, so it need not be referred to here. Avicenna has two chapters, one on FULFUL, the other on DARFULFUL, which is the long pepper, and both Avicenna and Galen do no more than copy from Dioscorides, and so with Serapiam, who only has what he found in Dioscorides and Galen. Something that Paulo Egineta wrote is not relevant. These are the remarks on the subject made by the ancients. Turning to St. Isidore, he must, as a saint, be considered a high authority. He says that when the people of the country find that the pepper is ripe for gathering, they set fire to the wood for fear of serpents and burn the serpents. The pepper turns black owing to the fire applied to the wood. But I, to tell you the real truth, look upon this as a fable; so I wrote it first and then spoke. St. Isidore cannot have said this because he believed it, but to relate what others said. So I do not care to make excuses about these things, for I do not believe them. But I must tell you that I do not know for what reason you discredit such ancient doctors, and of such high authority, whose statements are confirmed by modern writers such as Mateas Silvatico, Sepulveda, Antonio Musa, the Spanish Friar, the Italian Friar, and so many others who have written on pharmacy. On this account I require you, in the name of God, to tell me only what you have seen and heard from persons well worthy of credence, confirming what you say by reasons which you know so well how to give, and finally we will consider how it is used in medicine by the physicians of this land, then I will put any necessary questions to you, and I regret if I have spoken too freely.

FORTY-SIXTH COLLOQUY

ORTA

In the first place, your worship must understand that pepper does not grow either on the skirt or on the slope of Mount Caucasus, as Pliny says. For there the price of pepper is higher than in any other country. This you must know, for you know how far Mount Caucasus is from Malabar or Sumatra, places where there is the greatest quantity of pepper. Nor is it like the juniper, for it is a climbing plant, while the juniper stands by itself, nor are its leaves like those of the juniper. Their shape is as I have already described to you, and the bunches grow like those of grapes. When they are green, with the berries apart and unripe, they put them into vinegar and salt. This I know very well from the testimony of my eyes. In the same way I know that the tree of long pepper grows in a land very distant from Malabar, the nearest point being 500 leagues off, for it is in Bengal and in Java. This long pepper is worth at Cochin, where there is the greatest quantity of black pepper, 5 *cruzados* the *quintal*, and four years ago at that place, when there was a greater demand for long pepper at other places, the *quintal* was worth 15 to 20 *cruzados*. The usual price of black pepper at Cochin is 2½ *cruzados*, but in Bengal 12 *cruzados*; while the long pepper sells in Bengal at 1½ *cruzados*. This is enough to show that the long pepper does not come from the same tree as the ordinary kind, much less is it needful for a man who has seen a thing with his eyes to give further proof of it. The white pepper comes from a tree of its own, and, to tell you the truth, there are not many but very few in Malabar or in Malacca. They put this pepper on the tables of the lords as we put salt. It is esteemed in both parts of Malabar as good against poison and for the eyes. It would be well if all that Dioscorides said was as true as that this pepper is good against poison. You will now see that these three trees are different, namely those of long, black, and white pepper. The long pepper is called PIMPILIM in Bengal. The tree of the

PEPPER

long is no more like that of the black pepper than a bean is like an egg. The black and white pepper trees are very like each other, and only the people of the country can tell them apart, just as we cannot tell the black from the white vines unless they are bearing grapes. If you do not want to believe me, believe in these three seeds, that one is of long, the other of black, the other of white pepper. As for pepper being called BARCAMANSI no such name has ever been heard of in any of these countries, nor anything like it.

RUANO

Truly I find myself corrected, as I do not see it as the others do, it being made so clear.

ORTA

You see here the green pepper grown in clusters on this branch of a tree, and you see there another done with vinègar and salt, which you should taste before all.

RUANO

I see it all well, and now that I am corrected I see that the new writers never investigate satisfactorily. Laguna complains of the Portuguese because they do not describe these things and only care about skinning and robbing the Indians.

ORTA

It is true that the Portuguese are not very curious, nor are they good writers. They are greater friends of doing than of talking. They labour to acquire by their lawful trading, but they do not ill-treat the Indians; on the contrary peaceful Indians are much favoured by the Governors. The root of pepper is not like *costo*, nor is *costo* a root, but a branch. That you may not be surprised when the common people do not know these things well, I will tell you a story about what

FORTY-SIXTH COLLOQUY

happened to a druggist in the time of a Governor who was very curious about medicines, to whom I spoke of the three kinds of pepper, and told him their names. As to the long pepper being another tree, I confessed that to be the truth ; and when I said that the black and white pepper were separate trees, he told me I was mistaken. On this the Governor related to me that when he was wintering in Mozambique, he found that his ship was making much water and was unfit to go to sea. So he unloaded the ship and, to pass the time, he examined the pepper and found amongst it some white from having cast off the outer rind, a thing which often happens with old pepper when much rubbed. I replied that there might have been, in such a quantity of pepper, some that was white, and it might be found in Mozambique, but it would be found much better in the India House in Portugal, where the pepper is older and more rubbed. The Governor saw that the druggist did not believe me, so he wrote to the King of Cochin to send and tell him the truth about it. The King sent him a sack of white pepper, and wrote that he had many trees of the white kind in his territory. Then the druggist gave up his argument, so as not to go against the Governor.¹ With this we may end our discourse on pepper, for to say for what it is used is nothing new. The Indians calling it cold is a thing to laugh at rather than to treat seriously. I say, and often repeat, that I know not how to prove that fire is hot. The proof is that it burns.

RUANO

And the physicians of that King who is your friend, what do they say, for they are learned ?

ORTA

They, like the Portuguese, say that it is hot in the third degree. As you now know that there are three different trees,

¹ The druggist was right, and Orta was mistaken. The white is simply the black pepper without the external layer of the pericarp.

PEPPER

it is not necessary to place black in place of white pepper, for neither Galen nor Avicenna knew this, nor do you need to know more than that the white pepper burns more and is more aromatic ; and when you have to use it, always take the black rather than the long pepper which is a different plant. They do not take the long because it is their custom to use among themselves the black rather than the long. And because you have not any black pepper to see, you can see here these smooth seeds which in this country are called *pimenta canarim*, used for reducing swellings and for toothache. It is a very good medicine and is given to those who have cholera. I do not tell you the appearance of the tree, it not being necessary as you are going to Portugal. We drink it over some conserve, for it will not kill you, and it will be over conserve of peaches. They come, very good, from Ormuz.

RUANO

They are fresh and good, and it is not to be wondered at, for last week they gave them to you, so that they must be of this year. Tell me—they say that they are poison in Persia, and that when transplanted to Egypt they lose their poison.

ORTA

Those you are eating are from Persia, for all the fruit of Ormuz comes from there, and as regards these I never heard, nor is it within the memory of man, that they were poisonous. I have talked to Persian physicians about it, and they say it must be understood of the fruit which Dioscorides calls *persea*, of which they could not give me any account. But they consider this¹ to be very good. It is also in Balagate, where I saw it and partook of it without fear.

¹ The *περσα* of the Greeks was an unidentified Egyptian tree ; their *περσικός* or *περσικόν*, the "Malum Persicum" of the Latins, was our Peach ; and the *Persea gratissima* of modern botanists is the "Alligator" or "Avocado Pear" of tropical America.

FORTY-SIXTH COLLOQUY

RUANO

I know the conserve very well, though I now know better what you have told me about the pepper; and a modern author also writes what you said, that there are three distinct trees, but I feared he was a person to whom entire faith should not be given.¹

¹ The species of *Piper* known in India are :—(1) *Piper nigrum*, Linn., of Southern India and the Indian Archipelago, our “Black Pepper,” the undecorticated berries of which are the *kala maricha* or *mirich* of the people of India, and the *filfil aswad* of the Arabs—that is, “black pepper”; and the decorticated berries, their *safid maricha* or *mirich*, and *filfil abead* respectively, that is, “white pepper”; (2) *P. longum*, Linn., of the Circars, our “Long Pepper,” and the Sanskrit *pipala*, the Persian *pipal*, and Arabic *dar-filfil*; (3) *P. Bette*, Linn., or “Betel Vine” of Southern India, Ceylon, and Pegu, the *vetila* of the Malays, and *vetili* of Southern India, whence we derive our word “Betel,” and Linnaeus “Betle,” and the Sanskrit *tambala*, Arabic *tambal*, and Hindustani *pan*, which, with the Malayan *vetila*, means “leaf,” that is, *the Leaf par excellence* [compare *opium*, *the Juice*, and *Chinchona bark*, *the Bark*]. Its leaf, with some areca nut and slaked lime folded in it, is used universally in India as a masticatory and digestive. The leaf of *P. Chaba*, Hunter, of the Moluccas, is also used in India along with “Betel Leaf.” *P. Cubeba*, Linn., the source of “Cubebs,” the *kubaba* of the Arabs, is also a native of the Indian Archipelago. Pimenta or Pimento, “Allspice,” is the berry of the West Indian and South American Myrtle-bloom, *Eugenia Pimenta*, DC.

PLATE XX.—PIMIENTA.

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