AROMATVM
ET SIMPLICIVM
MEDICAMENTORVM
HISTORIÆ LIBER I.

De Ambaro. CAP. I.

AMBARVM *Latinis*, *Ambar Arabibus dicitur: quo nomine omnibus, quas sciam, nationibus notum est, aut variato duntaxat paululum vocabulo.* Ambar.

VARIA *autẽ circa huius generationem Scriptorũ est opinio. Siquidem alij Sperma Balenæ esse asserunt: alij beluæ cuiusdam marinæ excrementum, aut maris spumam (quæ sanè opiniones ratione carent, quòd nullum Ambarum inueniatur vbi frequentissimæ sunt Balenæ, & vbi fluctuum reciprocatione spuma plurima excitatur;) alij Bituminis modo ex maris alueo emanare, quæ opinio melior, & veritati magis consona plerisque visa est.* Ambarũ Balenarum sperma non esse. Ambarũ Bitumẽ videri.

AVICENNA *lib. 2. cap. 63. & Serapio lib. simp. cap. 196. scriptum reliquerunt, fungorum in rupibus & arboribus more Ambarum in mari generari, & tempestatibus vnà cum saxis interdum in littus eijci; quæ sentẽtia verisimilior est reliquis ab Auicenna productis. Nam multum flantibus Euris, magna eius copia Sofalam, & in insulas Comaro, Demgoxa, Mosambicam, totumq; eum tractum eijcitur è Maldiuis insulis, quæ ad Orientem spectant. Flantibus* Insulæ de Nalediua.

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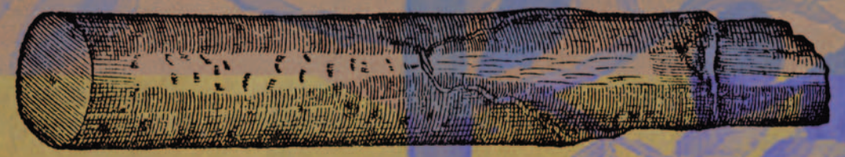
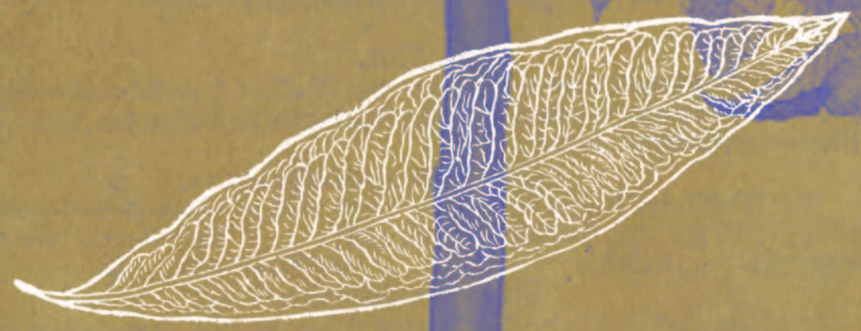


EUROPEAN TRAVELLERS AND THE ASIAN NATURAL WORLD - I



OS VIAJANTES EUROPEUS
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RC é uma revista de Cultura e, domínio do Espírito, é Livre. Avassalada ao encontro universal das culturas, servente da identidade cultural de Macau, agente de mais íntima relação entre o Oriente e o Ocidente, particularmente entre a China e Portugal. RC propõe-se publicar todos os textos interessantes aos objectivos confessados, pelo puro critério da qualidade. Assim, as opiniões e as doutrinas, expressas ou professas nos textos assinados, ou implícitas nas imagens de autoria, são da responsabilidade dos seus autores, e nem na parte, nem no todo, podem confundir-se com a orientação da RC. A Direcção da revista reserva-se o direito de não publicar, nem devolver, textos não solicitados.

RC é uma revista trimestral, simultaneamente publicada nas versões Chinesa e Internacional (em Português e Inglês). Buscando o diálogo e o encontro francos de Culturas, RC tem na limpidez a vocação e na transparência o seu processo.

RC is a cultural magazine published quarterly in two versions — Chinese and International (Portuguese/English)—whose purpose is to reflect the unique identity of Macao. The magazine also seeks to promote freedom of expression and through the articles published we hope to stimulate ideas and discussion of topics related to Western/Eastern cultural interchange, especially between China and Portugal.

RC publishes articles covering an extensive range of topics expressing a diversity of views. However, RC is not responsible for ideas and opinions voiced in these articles and thus they cannot be taken as editorial opinion. In addition, we reserve the right to withhold any unsolicited text from publication and the right not to return any unsolicited text.

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A globalização do conhecimento começou em Macau no século XVI quando os *saberes* do Oriente e do Ocidente se cruzaram nesta terra singular do Sul da China.

No século XXI, o intercâmbio cultural entre os *dois mundos* continua a ser a vocação de Macau.

A *Revista de Cultura* é o veículo dessa vocação.

Knowledge entered into an age of globalisation in Macao in the 16th century when the *wisdoms* of East and West met in this unique part of South China.

In the 21st century, Macao remains dedicated to cultural interchange between *both worlds* in a vocation maintained by *Review of Culture*.

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RC, no. 20, IIIrd Series, 4th Quarter 2006

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A NOSSA CAPA
O tema da presente edição (o primeiro de dois números temáticos) insere-se na senda editorial que *Revista de Cultura* tem vindo a percorrer: o Encontro de Culturas Oriente/Ocidente, sempre escovado de quaisquer perspectivas "cêntricas". "Os Viajantes Europeus e o Mundo Natural Asiático" – que incide sobre o período pós Vasco da Gama – aponta ou confere algumas conclusões essenciais. Em primeiro lugar, a suma importância e o pioneirismo do trabalho do português Garcia da Orta cuja obra iria servir de base a inúmeros relatos de viajantes, botânicos ou médicos, de várias proveniências e escolas europeias. Célebres botânicos, como Carolus Clusius, ou cronistas, como Linschoten, traduziram, editaram e complementaram as monumentais observações e compilações dos *Colóquios dos simples e drogas da Índia* e difundiram-nas, em idiomas diversos, pela comunidade científica europeia. Este conhecimento empírico vinha confrontar e pôr em cheque os relatos "fantásticos" de viajantes medievos, Marco Polo entre os demais, que até aí embeveciam uma Europa sedenta de exotismo. Por outro lado, mostra-nos a invulgar abertura para a diferença que caracterizava os homens que observavam o mundo natural, distinguindo-se, neste aspecto, da maioria dos seus contemporâneos que, por razões de fé, de conquista ou de fortuna, partiam à descoberta desse admirável "novo mundo".

OUR COVER
This is the first of two issues on East-West cultural encounter looking at "European Travellers and the Asian Natural World" from various perspectives in the period following Vasco da Gama's nautical feat, and highlighting some essential features. The pioneering significance of the work by Garcia da Orta emerges as the basis for a number of travel reports by various European botanists and doctors. Renowned botanists such as Carolus Clusius, and chroniclers such as Linschoten, translated, edited and added to the already monumental compilation entitled *Colóquios dos simples e drogas da Índia*, spreading its contents in several languages throughout Europe's scientific community. This empirical knowledge countered the fantastical tales recounted by medieval travellers, including Marco Polo, who had, until that point, enchanted a Europe thirsting for exoticism. Orta's work reflects the unusual openness to difference demonstrated by those naturalists, in comparison with most of their contemporaries who, motivated by faith, power or fortune, set off to discover this remarkable "new" world.

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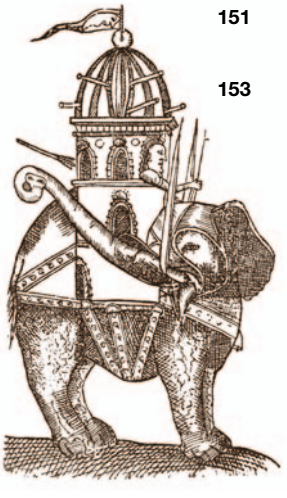
EUROPEAN TRAVELLERS AND THE ASIAN NATURAL WORLD - I



INTRODUÇÃO

Rui Manuel Loureiro*

Os contactos sistemáticos dos portugueses – e logo depois de outros europeus – com o mundo asiático, que se iniciaram nos últimos anos do século XV, tiveram repercussões vastíssimas para todas as partes envolvidas. A Europa, pela primeira vez, tinha acesso directo à Ásia, sem intermediações de qualquer espécie, exceptuando um primeiro momento de ajustamentos linguísticos, durante o qual foi necessário recorrer aos serviços de intérpretes locais. Os europeus podiam viajar mais ou menos livremente pelos vastos espaços orientais, observando em primeira mão as terras, os rios e os mares, a diversidade das gentes e das respectivas práticas culturais, as regularidades climáticas, o ordenamento urbano e a paisagem humanizada, as produções artesanais e o mundo natural. Ao longo dos séculos XVI e XVII, mundos novos vão-se abrindo perante o olhar espantado e indagador dos observadores europeus.

Em anos recentes, os múltiplos e profundos intercâmbios euro-asiáticos que tiveram lugar no dealbar da modernidade, e que estão na génese do processo de globalização ainda em curso, têm sido investigados de forma cada vez mais alargada e sistematizada. Temas como as navegações oceânicas dos europeus, os tráficos mercantis que se estendem à escala planetária, as visões recíprocas de povos que mutuamente se desconheciam, as estratégias de domínio político e militar, as representações artísticas e culturais, os projectos de difusão religiosa, têm merecido a atenção continuada de investigadores e de especialistas. Pelo que dispomos hoje de uma extensíssima bibliografia sobre os primeiros encontros / desencontros entre europeus e asiáticos. Contudo, neste universo temático, sempre existirão zonas de penumbra, a necessitar de estudo e de reflexão, às vezes de mera revisão.

Assim, *Revista de Cultura*, na busca de caminhos inovadores no domínio da investigação e da difusão do impacto dos europeus na Ásia e do impacto dos mundos asiáticos na Europa, lançou um desafio a um conjunto alargado de investigadores, sediados nos mais diversos pontos do globo e oriundos das mais variadas posições institucionais, para, de forma pessoal e na linha de pesquisas anteriormente desenvolvidas, estudarem uma temática específica. O campo escolhido, "Os viajantes europeus e o mundo natural asiático", convocava necessariamente áreas relacionados com a literatura de viagens, com a botânica e com a matéria médica. Com efeito, e desde 1500, muitas são as figuras europeias que reflectem demoradamente sobre as novidades do mundo natural que se estendia para leste do cabo da Boa Esperança e que produzem escritos mais ou menos inovadores, mais ou menos extensos, alguns conhecendo a fortuna da edição impressa, outros permanecendo inéditos nos gabinetes e arquivos especializados. Arrolam-se produtos, descrevem-se características, estudam-se analogias, experimentam-se utilizações, definem-se propriedades. O estudo do mundo natural asiático pelos europeus assume por vezes características revolucionárias, já que amiúde se torna necessário reavaliar as lições dos botânicos e

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médicos ocidentais clássicos, face às incríveis novidades colhidas no terreno. Se o conhecimento do mundo natural oriental se aprofunda vertiginosamente, com a redacção de relatos de viagem, de sumas geográficos ou de tratados especializados, as práticas europeias no domínio médico também se alteram significativamente no contacto com a Ásia, através de fenómenos de imitação e de simbiose.

As respostas recebidas por *Revista de Cultura* ao desafio lançado, na sua riqueza temática e na sua variedade metodológica, testemunham as inesgotáveis potencialidades do assunto proposto aos investigadores. Com efeito, ao longo de dois números sucessivos, vários tipos de estudos serão apresentados à consideração dos leitores.

Por um lado, alguns investigadores optaram por isolar um determinado autor ou um conjunto coerente de autores, analisando os reflexos do mundo natural asiático na(s) respectiva(s) obra(s). Marília dos Santos Lopes escolheu analisar as relações entre a obra de Garcia da Orta, que em 1563 publicou em Goa os celebérrimos *Colóquios dos simples e drogas das Índias*, e os escritos do seu divulgador flamengo Carolus Clusius, que nas décadas seguintes deu a conhecer ao público europeu, em língua latina, as novidades asiáticas recolhidas na Índia pelo médico português. Teresa Nobre de Carvalho, por seu lado, centrou-se na esquecida figura de Cristóvão da Costa, médico e naturalista luso-africano (que frequentemente passa por espanhol), que depois de um longo período de residência na Índia publicou em Burgos, em 1578, um *Tratado das drogas e medicinas das Índias Orientais*, que complementava e aprofundava as pesquisas anteriores de Garcia da Orta. O investigador Arie Pos, na sequência de importantes estudos que vem dedicando ao viajante e escritor neerlandês Jan Huygen van Linschoten, analisa a secção botânica do seu conhecidíssimo *Itinerário*, extenso compêndio de viagens que foi publicado em Amesterdão em 1596, revelando ao público culto das regiões meridionais da Europa muitos dos segredos asiáticos que até então se mantinham na posse exclusiva dos portugueses. Dejanirah Couto, por seu lado, retoma a personagem do médico-viajante Jean Mocquet, que no início do século XVII viajou até à Índia, analisando os escritos de viagem preparados pelo médico de Henrique IV, de França. Enfim, Ines G. Županov revisita um dos menos conhecidos orientalistas que passou ao Oriente, o missionário e naturalista Paulinus a S. Bartholomaeo, de origem croata, autor de uma vastíssima produção livresca dedicada às coisas asiáticas, que na segunda metade do século XVIII passou pela Índia.

Um segundo grupo de investigadores escolheu um caminho distinto, preferindo estudar um produto asiático específico e buscando nas antigas fontes europeias testemunhos significativos sobre a observação, a utilização e a divulgação desse produto natural. No fundo, trata-se também de uma aproximação "biográfica", agora de outro género. Assim, Peter Borschberg, na sequência de valiosos estudos que vem dedicando a outras drogas asiáticas de luxo, analisou os vestígios do comércio e dos usos médicos da célebre raiz-da-china, que a partir de cerca de 1530 começou a ser amplamente divulgada pelos portugueses, na sequência dos contactos que foram estabelecendo com o litoral da China.

Por fim, um terceiro grupo de investigadores adoptou abordagens mais sistémicas, analisando problemas mais latos e de mais largo alcance, no âmbito das interacções euro-asiáticas motivadas pelos contactos com o mundo natural. Michael Pearson, num longo e documentado estudo, trata das relações entre as práticas médicas europeias e indianas, abordando sucessivamente as formas de exercício de medicina na Eurásia antes de 1500, a situação na Índia em termos de saúde pública no período dos alvores da modernidade, e o caso específico das doenças prevalecentes em Goa e dos meios desenvolvidos para as combater. Noutro ensaio geral, Jurrien van Goor analisa as relações entre o comércio, a pesquisa científica e a ciência nos estabelecimentos neerlandeses na Ásia, a partir das primeiras décadas do século XVII.

Estamos, pois, perante um número de *Revista de Cultura* de inegável interesse, que convoca assuntos, personagens e contextos que têm sido algo descurados pela historiografia europeia nos últimos anos, graças aos contributos de um vasto leque de colaboradores especializados. Os diferentes estudos incluídos nesta edição – e também no próximo número que desenvolverá a mesma lógica temática – configuram uma abordagem alargada, diversificada e multidisciplinar ao tema de capa, "Os viajantes europeus e o mundo natural asiático". Mais um contributo que se pretende criativo, rigoroso e original, para um melhor conhecimento dos múltiplos aspectos do relacionamento entre a Ásia e a Europa no período que se seguiu à viagem histórica de Vasco da Gama. RC

INTRODUCTION

Rui Manuel Loureiro*

The systematic contacts with the Asian world by the Portuguese, beginning in the last years of the 15th century, and soon after followed by other Europeans, had major repercussions for all parties involved. For the first time, Europe had direct access to Asia, without intermediaries of any kind, except for the services of local interpreters during the initial period of linguistic adjustment. Europeans could travel more or less freely throughout the vast Orient, observing at first hand the lands, rivers and seas, the diversity of its peoples and their respective cultural practices, climate patterns, the urban and human landscapes, handmade products and the natural world. Throughout the 16th and 17th centuries, new worlds were being opening up to the astonished and inquiring gaze of European observers.

In recent years, the extensive far-reaching exchanges between Europe and Asia that took place at the dawn of the modern era, and which underpin the current process of globalisation, have been investigated in a progressively wider and more systematic fashion. Themes such as ocean navigation by the Europeans, the mercantile traffic that extended on a planetary scale, the reciprocal visions of peoples who knew nothing of each other, strategies for political and military dominion, artistic and cultural statements, projects for religious diffusion, have deserved the continued attention of researchers and specialists. For this reason we now have an extensive bibliography on the early convergences/divergences between Europeans and Asians. However, areas of relative obscurity have always existed in this thematic universe, and there will always be the need for further study and reflection or, sometimes, merely revision.

In search of innovative avenues in the domain of research and dissemination on the impact of Europeans on Asia and the Asian world on Europe, *Review of Culture* threw down the gauntlet to a broad group of researchers, based in the most diverse parts of the globe and coming from a variety of institutional stances, to examine a specific theme in a personal way and along research lines previously developed. The chosen field, "European travellers and the Asian natural world" necessarily suggests areas related to the literature of these pioneer voyages, coupled with botanical and medical questions. In effect, since 1500, many European figures have reflected in depth on the novelties found in the natural world extending east from the Cape of Good Hope. They produced more or less innovative writings, some enjoying the good fortune of being printed, whilst other editions remained unpublished in private studies and specialized archives. In them products were listed, characteristics described, analogies studied, uses experimented and properties defined. At times the study of the Asian natural world assumed revolutionary proportions for the Europeans, who had frequently to re-evaluate the lessons of classical western botanists and doctors when confronted with the incredible novelties gathered

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from these lands. If knowledge of the oriental natural world deepened radically with the publication of these travelogues, geographical abstracts and specialized treatises, European medical practice also changed significantly in contact with Asia, through processes of imitation and symbiosis.

The thematic wealth and methodological variety of the responses received by *Review of Culture* testifies to the inexhaustible potential of the subject proposed to the researchers. Indeed, various types of studies will be presented for the readers' appreciation along two consecutive issues.

Some researchers opted for isolating a certain author or a coherent group of authors, analysing their contemplation on the Asian natural world in the respective work(s). Marília dos Santos Lopes chose to analyse the relation between the work of Garcia da Orta, who published the famous *Colóquios dos simples e drogas das Índias* [Colloquies on the Simples and Drugs of India] in Goa, in 1563, and the writings of his Flemish publisher Carolus Clusius, who in the following decades reproduced in Latin the Asian novelties gathered in India by the Portuguese doctor and distributed them across Europe. Teresa Nobre de Carvalho focused on the forgotten figure of Cristóvão da Costa, doctor and Afro-Portuguese naturalist (frequently taken for Spanish), who after a long period of residence in India published *Tratado das drogas e medicinas das Índias Orientais* [Treatise on the Drugs and Medicines of the East Indies] in Burgos, in 1578, complementing and deepening the previous researches of Garcia da Orta. The researcher Arie Pos, in the sequence of important studies dedicated to the traveller and Dutch writer Jan Huygen van Linschoten, analyses the botanical section of his well-known *Itinerary*, an extensive summary of his journeys published in Amsterdam in 1596, revealing to the cultivated public of southern Europe many of the Asian secrets that until then had remained the exclusive prerogative of the Portuguese. Dejanirah Couto takes up the character of the travelling doctor Jean Mocquet, who in the early 17th century travelled to India, analysing the travel writings of the personal physician to the King of France, Henry IV. Finally, Inês G. Županov revisits one of the less well-known Orientalists, the missionary and naturalist Paulinus a S. Bartholomaeo, of Croatian origin, author of a wide range of books devoted to Asian matters, who visited India in the second half of the 18th century.

A second group of researchers chose a different path, preferring to study a specific Asian product and seeking significant witnesses in European sources to the observation, use and popularisation of that natural product. It is, after all, a "biographical" approach in another register. Peter Borschberg, who has already produced several valuable studies on other luxury Asian drugs, analyses the vestiges of the trade and medical uses of the celebrated China root (*smilax Chinae*), which, from about 1530, began to be made known by the Portuguese as a consequence of the contacts they established on the China coast.

Finally, a third group of researchers adopted a more systematic approach, analysing broader problems with wider implications, in the context of Euro-Asian interactions motivated by contacts with the natural world. Michael Pearson, in a long and well-documented study about the relation between the practices of European and Indian doctors, approaches the forms of medical practice in Eurasia before 1500, the situation in India in terms of public health in the period at the dawn of modernity, and the specific case of the diseases prevalent in Goa and the means developed for combating them. In another general essay, Jurrien van Goor analyses the relationship between trade, scientific research and science in Dutch establishments in Asia, in the first decades of the 17th century.

This issue of *Review of Culture* brings together contributions from a variety of specialized authors, raising subjects, characters and contexts that have been somewhat neglected by European historiography in recent years. The different studies included in this edition—which will continue along the same thematic lines in the next issue—constitute an extended, diversified and multidisciplinary approach to the cover theme, "European travellers and the Asian natural world." It is intended to be creative, thorough and original, contributing to a better understanding of the many aspects of the relationship between Asia and Europe in the period that followed the historic voyage of Vasco da Gama. RC

Translated by PHILOS - Comunicação Global, Lda.

"Os cravos com a sua folha e fruto", in Carolus Clusius, *Aromatum et simplicium aliquot medicamentorum apud indos nascentium historia*.

A Revelação das Plantas
Garcia da Orta, Carolus Clusius e as Espécies Asiáticas na Europa

Marília dos Santos Lopes*

"*The science of botany reacted much more positively than any of the other sciences to the 'new world' of plants and their products.*"

Donald F. Lach, *Asia in the Making of Europe*, vol. II, Chicago, Chicago University Press, 1977, p. 445.

Nos finais da Idade Média o homem começou olhar a natureza não apenas como obra miraculosa do Criador mas como objecto de observação e conhecimento. Assim, como Jacob Burckhardt delineou na sua célebre obra *A Civilização do Renascimento,* a descoberta da natureza irá ser uma marca fundamental de uma viragem mental e cultural que se irá espelhar por toda a Europa e inaugurar a modernidade.

Com base no caso português, Mário Martins identifica igualmente a presença deste tema na cultura medieval portuguesa da Baixa Idade Média. A seu ver, os historiadores teriam negligenciado certos laivos de mudança que já se revelavam e que, em breve, iriam determinar de forma mais categórica o pensamento e a cultura dos homens coevos. E estava a pensar exactamente na relação do homem medieval com a natureza, considerada pela historiografia como mal conhecida e assim mal amada pelos homens medievais[1]. Na sua opinião, urgia atender a outros autores e obras contemporâneos. Se os compêndios herdados seriam, e continuariam a ser por muito tempo expoentes do conhecimento, o certo é que já se poderiam encontrar entre a produção literária obras ditadas pela observação e experiência da mãe natureza. É o caso que este ilustre autor analisa: o Livro de Montaria de D. João I. Este escrito, apesar de ainda não ser um livro científico, seria, no entanto, como defende Mário Martins, uma obra escrita pelo saber de experiência feito, como mais tarde entoará Camões. Esta interpretação, retomada em leituras posteriores[2], visa enunciar uma atitude e um conhecimento corrente na modernidade que então se anuncia. Com efeito, e como afirma este autor: "Concluamos [...] o conhecimento da natureza, na Idade Média, não o devemos procurar somente nos contemplativos, de olhos mais postos no céu do que na terra. Nem exclusivamente nos filósofos, geralmente pouco preocupados com o concreto imediato e o individual. Temos de ir também ao empirismo dos homens que, levados embora pelo gosto lúdico da caça, se curvavam sobre a terra mãe, suas plantas e animais, aspirando o mundo pelos cinco sentidos. E neles talvez descubramos não uma filosofia mas, sim, uma atitude

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filosófica – neste caso, a valorização da experiência e a busca do pormenor como fonte necessária do saber concreto, em torno das coisas da natureza."[3] Na verdade, ao destacar esta "atitude de valorização da experiência e de busca de saber concreto sobre as coisas da natureza", este autores preanunciavam um novo modo de estar e de olhar o mundo.

Esta atitude que espreita quer na Itália quer em Portugal, como o ilustram os casos acima referenciados, é a marca da "viragem da maré" na Europa, pois outros exemplos poderão ser evocados à luz deste facto. Vejamos a pintura flamenga dos finais de Quatrocentos, tão exaltada na sua descritiva e realística expressão artística por Johan Huizinga na caracterização do Outono da Idade Média[4] como ainda a vasta e larga quantidade de relatos de viagens por terras e países da Europa ou em peregrinação à Terra Santa, onde já se denota um maior zelo e labor na descrição do mundo que vão palmilhando[5].

Nas últimas décadas, esta literatura de viagens tem sido alvo de muitos e diversos trabalhos historiográficos, em que se ressalva o seu valioso contributo para uma nova visão do mundo[6]. O olhar dos viajantes dirige-se cada vez mais atento para o mundo à sua volta, procurando mesmo desenhá-lo, descrevê-lo ou explicá-lo nos seus insondáveis e múltiplos mistérios.

É neste contexto que se insere o importante avanço da cartografia nos anos de Quatrocentos e Quinhentos. Novos contornos e limites, quer de regiões europeias, quer de mundos distantes, passam paulatinamente a registo. E os mapas expressam desde já grande atenção aos elementos da natureza representantes das regiões cartografadas. Assim, montanhas, rios, lagos, animais, árvores, arbustos, descrevem e ordenam o saber. Aliás, estes mapas explanam não só a concepção geográfica do autor mas também o saber coevo condensado de forma enciclopédica nas longas e extensas legendas que os povoam[7]. Neste esforço e empenho assemelham-se às descrições de viagens, onde se intenta dar uma imagem mais fidedigna da mãe natureza. Ambos os exercícios nascem do mesmo desejo de dar a conhecer o mundo.

Lançados estes primeiros alicerces para o saber geográfico, surgirão as primeiras obras compiladoras deste saber – muitas oriundas da pena de viajantes ou de amigos de quem gosta de viajar[8]. Em viagens comerciais, diplomáticas, peregrinas ou de formação abandona-se não só a terra natal como a ideia de um mundo fechado. Quantos não eram os homens das sete partidas que como o Infante D. Pedro se fizeram ao caminho?

Mas se, por um lado, o continente europeu ganhava novas dimensões, por outro tornava-se pequeno. A partir da Península Ibérica os europeus abeiram-se de regiões limítrofes, e de certo modo já familiares, para depois zarparem em busca de outras paragens, de outros mundos. Se a vontade de conhecer e descrever o real não nasce somente com estas viagens além mares desconhecidos, como anteriormente evocamos, o certo é este novos mundos recentemente descobertos revelavam novidades estonteantes.

No processo de reconhecimento deste novos mundos, a natureza em geral e a flora não europeia em particular irão gozar de uma atenção especial. Já nas primeiras expedições as espécies vegetais eram, muitas vezes, a prova da descoberta. O árduo empenho no reconhecimento dos oceanos desconhecidos seria abençoado com a comprovação de uma natureza aventurada. Segundo Gomes Eanes de Zurara, a almejada passagem do cabo Bojador será celebrada com a entrega ao Infante D. Henrique de umas ervas parecidas com umas do reino, a cujas flores se dava em Portugal o nome de rosas de Santa Maria[9]. Este gesto simbolizava a ansiada posse e domínio de uma terra virgem.

O regozijo do avanço no Atlântico sul expressar-se-ia igualmente perante a riqueza e variedade do mundo equatorial. Diogo Gomes, conhecedor de grande parte do mundo, como afirma, refere: "E aquela terra meridional está cheia de árvores de frutos, mas outra espécie de frutos, e as árvores são tão grossas e de tamanha altura que só vendo se pode crer."[10]

De facto, para muitos viajantes, a descrição de uma nova região ou local nunca estará completa sem um retrato do mundo natural. É por isso assídua a menção do aspecto e da qualidade das terras por onde passam, como no relato de Álvaro Velho da viagem inaugural do caminho marítimo para a Índia. Várias são as vezes em que refere terras de boas ervas, grandes arvoredos e, como acontece no rio dos Bons Sinais, alude ao facto de estes darem "muitas frutas, de muitas maneiras, e os homens desta terra comem delas"[11]. Trata-se de uma natureza servil e acolhedora que alberga os homens no seio maternal, e cujo proveito e utilidade entusiasmam o viajante. A natureza irá nortear o olhar de muitos viajantes. E se, por vezes, é um olhar ingénuo e fortuito,

desprovido de prévios conhecimentos, no que respeita ao Oriente os viajantes conhecem e acarinham fortes e ancestrais expectativas.

DAS *MIRABILIAS* ÀS MARAVILHOSAS SURPRESAS NO ORIENTE

Com os autores da Antiguidade Clássica e Medieval nascera uma imagem fantástica acerca das terras orientais. Plínio, célebre autor de uma *Historia natural,* salientara que a Índia era uma terra prodigiosa em *mirabilia*[12]. Sabendo-se que o rio Ganges era um dos rios do Paraíso, não seria, pois, de surpreender que esta terra fosse considerada fértil e rica[13].

Um acontecimento contribuiu para esta imagem: a expedição de Alexandre Magno (336-323 a. C.). Perto de 50 botânicos, médicos, geógrafos e filósofos acompanharam o Conquistador à Pérsia e Índia pelo que muito se iria escrever e saber sobre estas regiões tão almejadas – especialmente sobre as afamadas especiarias desde há muito requisitadas e utilizadas[14].

Mas se se trouxeram informações mais precisas sobre estas terras, o certo é que a sua divulgação seria ao mesmo tempo envolta em descrições tão fabulosas e fantásticas como as que podemos apreciar nas pretensas cartas escritas por Alexandre, entre outros, ao seu mestre Aristóteles. As diferentes versões irão ser a obra mais divulgada na Idade Média, a seguir à Sagrada Escritura. Na verdade, até ao século XV, várias são as versões alusivas ao romance de Alexandre. O Alexandre medieval fica assim indubitavelmente ligado à imagem da prodigiosa Índia. As maravilhas da Índia passam a constituir um capítulo habitual das enciclopédias, onde se guardam escrupulosamente os tesouros do Oriente. Estes textos eram ainda, muitas vezes, profusamente ilustrados. Também na iconografia os artistas debuxaram fantásticas paisagens povoadas de fabulosos seres, decerto um importante contributo para o êxito destas obras.

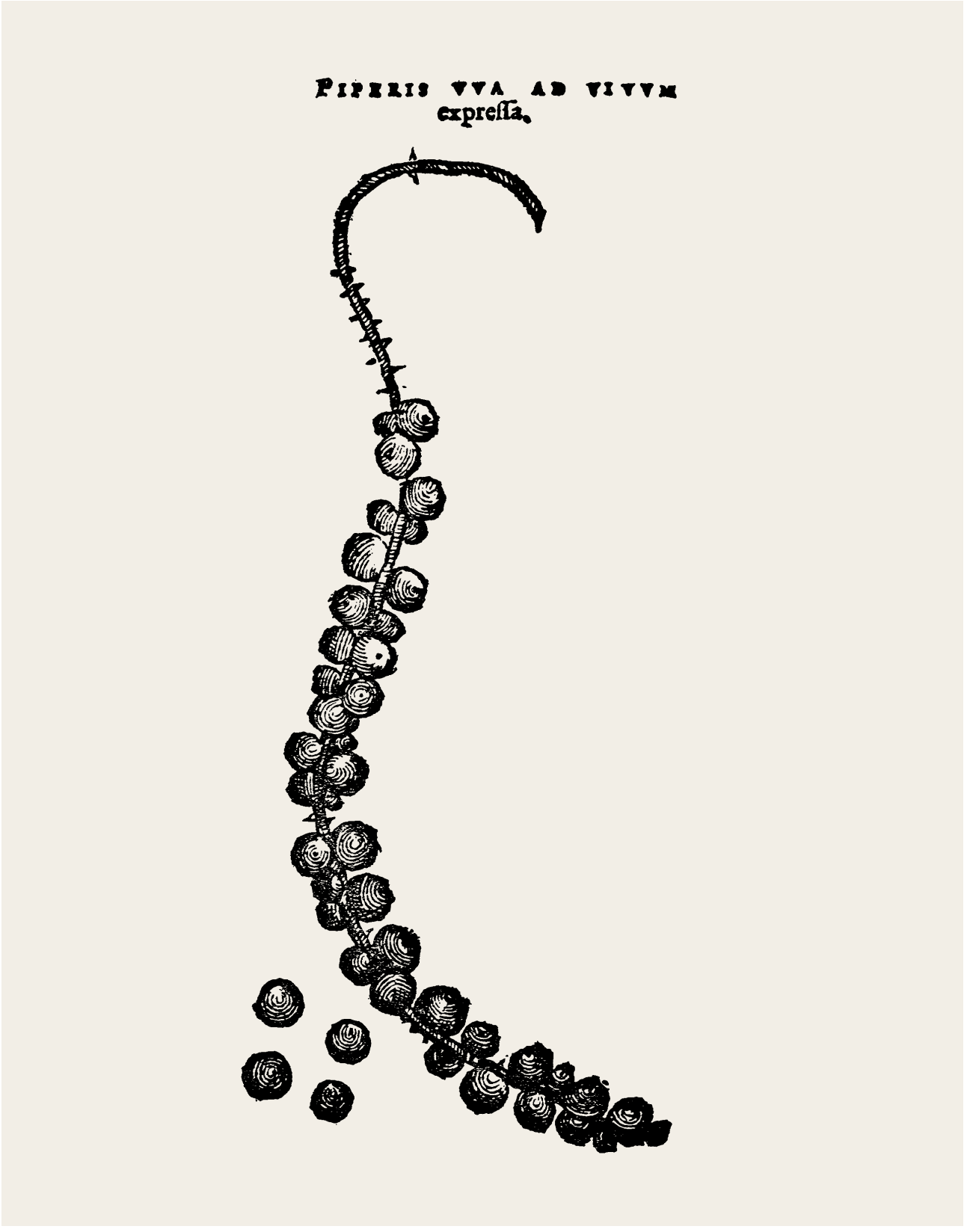
Na verdade, a Europa não vai esquecer a recordação da Índia fabulosa das conquistas de Alexandre que continuará a suscitar o interesse das cortes europeias, fascinadas pelos produtos raros e exóticos. A Idade Média irá, pois, herdar este gosto pelo Oriente e pelas espécies asiáticas[15]. Basta recordarmos o nome de Marco Polo para sabermos qual o impacto e o interesse que os relatos de viagens, como o do mercador veneziano e autor da *Descrição do Mundo*, mais conhecido pelo *Livro das Maravilhas*, tiveram na Idade Média, deslumbrando uma vez mais a Europa sequiosa de novas sobre os prodígios e a riqueza desse mundo a oriente.

Marco Polo é, contudo, dos viajantes que vai começar a olhar o mundo, iniciando o que viria ser um longo e intricado percurso de inventário e classificação das diferentes espécies asiáticas. Na sua obra dá, por conseguinte, informações sobre a singular proveniência, características e utilidade das famosas especiarias, como podemos testemunhar no extracto dedicado ao reino de Coulão: "Em esta terra […] Há hy pimenta em muy grande abastança que os montes e campos som cheos della. Empero as aruoresinhas em que pimenta nasce som domestiguas. E colhemna em mayo Junho e Julho."[16] Além da pimenta, a mais conhecida entre as especiarias asiáticas – teriam sido os soldados de Alexandre que a trouxeram para a Europa –, fala-nos do gengibre, do cravo, da noz-moscada, sem esquecer outras espécies como as nozes-da-índia. Marco Polo terá sido o primeiro europeu que viu a planta do gengibre na Índia e na China e que relata como as caravanas transportavam as raízes secas para a Ásia Menor de onde eram enviadas para Veneza. Na Europa, este rizoma, além do sabor, vai ser apreciado como medicina. O viajante deixa-se assim extasiar com a grande abundância de todas as espécies aromáticas e de muitas outras "cuja semelhança nunca vimos aquém do mar"[17]. Eis a revelação de uma terra de "promissão", como a definiam os coevos.

Apreciadas na Europa, as especiarias irão, pois, cruzar os continentes. Trilhando longas e intricadas rotas, estas espécies aportavam em cidades italianas, como Veneza, a terra natal de Marco Polo. Chegadas à Itália, eram distribuídas pelo Mediterrâneo e o Atlântico, que as levava até ao Norte da Europa, mormente à Inglaterra, ou até às cidades da Liga Hanseática. Era a chamada *galere de fiandra*. Mas, também por terra Veneza não deixava de fornecer ricas cidades comerciais como as do sul da Alemanha, igualmente muito empenhadas neste apimentado negócio.

A procura aumentava, pois, para além de associadas ao bem-estar, ao prazer e ao luxo, as especiarias[18] seriam cada vez mais introduzidas na dieta alimentar[19]. Sem esquecer ainda as suas qualidades farmacêuticas. Se a farmacologia oriental há muito fazia uso das características medicinais destas espécies, produzindo medicamentos, pomadas, bebidas ou

OS VIAJANTES EUROPEUS E O MUNDO NATURAL ASIÁTICO - I



cheiros, agora seriam os europeus a testar estes milagres. Assim, descobria-se que a canela[20] seria um bom remédio para a *angina pectoris*, problemas de fígado, dores de cabeça ou ainda no curativo de fístulas; o cravo seria excelente para dores de grangena, fígado, tonturas, enquanto a noz-moscada seria um antidepressivo que juntamente com a canela faria uma excepcional receita para a boa disposição.

Eis as expectativas com que se aguardava o regresso de Vasco da Gama. As naus da viagem inaugural do caminho marítimo para a Índia traziam não apenas as tão procuradas especiarias, como também notícias das regiões de que estas eram provenientes. Num dos anexos do relato desta primeira viagem, o seu presumível autor, Álvaro Velho, regista que as especiarias não seriam todas indígenas do Malabar. Se a pimenta seria originária de diferentes terras do Malabar, por exemplo, a canela já a sabe situar na ilha do Ceilão, onde existe, como refere, "a mais fina que há em esta Índia"[21]. Alude ainda ao comércio de cravo e de noz-moscada em Malaca, bem como a espécies asiáticas tais como o aloés, a madeira odorífera, cujo suco é um purgante, o pau-brasil e o benjoim, uma árvore indígena de Samatra, Java e do reino de Sião, cuja resina é também perfumada.

Estas novas, como sabemos, propagar-se-iam rapidamente pela Europa. Não propriamente através do escrito de Álvaro Velho, dado que este iria ficar manuscrito, mas através das epístolas de D. Manuel ou das missivas dos mercadores italianos, que atentamente acompanhavam os avanços da empresa marítima portuguesa. Relatos como os do mercador florentino Girolami Sernigi traçavam um retrato dos negócios do Oriente e, à semelhança de Álvaro Velho, informavam sobre o ambiente comercial de Calecute, onde se encontraria a canela, a pimenta, o cravo, o gengibre, o incenso, a laca e o pau-brasil – do qual, como menciona, estariam os bosques repletos[22]. Daí que não seja de admirar que se chegue a considerar que o rei de Portugal teria encontrado o maior tesouro do mundo, como expressa Tomaso Deti, um outro mercador italiano[23].

A partir deste momento iremos constatar não só o grande interesse e curiosidade pelo Oriente[24] como também uma crescente busca de dados mais concretos sobre a natureza oriental. Há, como iremos testemunhar, um maior cuidado em descrever e identificar as espécies asiáticas, pois importa conhecê-las num discurso mais rigoroso e científico. Assim, nota-se um intento claro por parte dos viajantes em se debruçarem cuidadosa e detalhadamente sobre a botânica oriental. Vejamos como o mercador veneziano Nicolau de Conti, célebre pelo seu relato de 25 anos de viagens pelo Oriente[25], descreve a pimenta numa primeira tentativa de reforçar a precisão do conhecimento sobre esta planta: "A aruvore em que a pimenta nasçe. He semelhante aa era. os seus graãos som verdes. de maneyra como som os grãos de zymbro, sobre os quaes lançam hua pouca de cinza e postos ao sol os secam"[26]. Estes registos, intercalados entre muitas outras informações sobre o mundo oriental, denotam o frémito desejo de mais saber e dar a conhecer sobre as espécies orientais. E a analogia às espécies conhecidas – a pimenta assemelhar-se-ia à hera – é o princípio adoptado por estes homens do Renascimento.

Um autor que irá ter um papel fundamental na difusão e valorização da botânica oriental é, sem dúvida, o bolonhês Ludovico de Varthema. Longas e precisas descrições, como a que faz para a pimenta, enriquecem o seu relato de informes preciosos sobre esta temática. Vejamos:

> "*Nel territorio di Calicut si trovano molti arbori di pepe, e dentro della città ne sono ancora, ma non in molta quantità. Il piede di questi arbori è a modo d'una vite sottile, cioè piantata una pianta apresso qualche altro arbore, perché da se stesso non potria star dritto, sí come la vite. Questo arbore è molto simile e fa come l' edera, che si abbraccia e va tanto in alto quanto è il legno o arbore dove si possi abbrancare. La detta pianta fa gran quantità di rami, li quali sono di duoi o di tre palmi lunghi; le foglie di questi rami sono come quelle di aranci, ma sono piú asciutte, e dal riverso sono piene di vene minute. E per ciascuno di questi rami sono cinque, sei e sette raspi lunghi un poço piú d'un dito di uomo, e sono come è l'uva passa picola, ma piú assettati, e sono verdi com'è l'agresta. E del mese d' ottobre lo raccolgono cosí verde, e raccogliesi ancora del mese di novembre, e poi lo mettono al sole sopra certe stuore e lo lasciano al sole per tre o quattro giorni, e diventa cosí negro come si vedde quivi da noi, senza farli altra cosa. E dovete sapere che costoro non potato mai e manco zappano questo arboro che produce il pepe*."[27]

"Cacho de pimenta", in Carolus Clusius, *Aromatum et simplicium aliquot medicamentorum apud indos nascentium historia.*

In Ludovico de Varthema, *Die ritterlich und lobwirdig rays des gestrengen und über all anderweyt erfarnen ritters und lantfarers herren Ludowico Vartomans von Bolonia sagent von den landen/ Egipto/ Syria/ von bayden Arabia, Persia, India und Ethiopia/ von den gestalten/ sytten und dero menschen leben und glauben/ Auch von mancherley/ thyere, vöglen und vil andern in den selben landen/ seltsamen wunderparlichen sachen/ das er selbs erfaren und in aygner person gesehen hat…*, Augsburg, 1515.

A esta descrição atenta e pormenorizada da pimenteira muitas outras se poderiam enunciar, fazendo do seu relato um reconhecido e rico inventário descritivo da flora oriental. Varthema será também um dos primeiros europeus a mencionar o consumo de bétele[28], fazendo uma descrição correcta do preparado, como destacou Rui Loureiro[29] .

É o mesmo zelo e atenção quando descreve os frutos, sejam eles a manga, a jaca[30], a banana – já mencionada no vale do Indo por Alexandre Magno –, ou ainda àquela que considera a mais frutífera árvore da Índia: a *cocos nucifera*. Vejamos:

> "*Un altro arvore vi voglio descrivere, il migliore che sia in tutto il mondo, il quale si chiama tenga ed è fatto a modo di un piede di dattalo. E di questo arboro se ne cavano molte utilità, cioè corde per navigare in maré, panni sottili, quali poi che sono tinti paiono di seta, noci per mangiare, vino, acqua, olio e zuccaro. E delle foglie che cascano, cioè quando casca alcun ramo, se ne coprono le case, e queste tengono l'acqua per messo l'anno. Se io non vi dechiarassi in che modo fa tanta cose, voi non lo credereste e manco potreste intenderlo.*"[31]

Descrita a árvore, onde se vislumbra o espanto e a admiração do observador, apresenta o fruto, que se pode comer, enquanto as cascas servem para queimar. Eis a descrição de uma árvore providencial, visto que fornece alimento, roupagem, materiais de construção quer para casas, quer para navios, num infindo rol de utilidades. As palmeiras irão ser, aliás, e no seguimento das palavras de Ludovico de Varthema, das espécies mais admiradas e mencionadas pelos autores pelo que se irão tornar um símbolo oriental adoptado no Ocidente, como teremos oportunidade de demonstrar mais adiante.

O carácter descritivo e informador da obra, um dos primeiros relatos impressos sobre o Oriente, foi uma das razões para a larga recepção que conheceu na Europa. A vontade de conhecer "pessoalmente" e de ver outras regiões "com os seus próprios olhos", como nos informa no prólogo, levou-o a partir para o Oriente. Para além do que irá anotar acerca das terras e gentes por onde andou, dedicará grande cuidado às espécies botânicas desconhecidas. E como sempre acreditou mais no que se vê do que naquilo que se ouve contar resolve publicar o seu itinerário, a fim de que a sua experiência possa ser útil aos que se interessando por estes temas não tivessem tido a sua oportunidade de andar pelo mundo. No ano de 1510 viria a lume, em Roma, a primeira edição do seu relato que se tornaria um êxito editorial. Até meados do século XVII o *Itinerário* de Varthema conheceria 30 edições e ainda reproduções em colecções de viagens. Além das publicações na Itália[32], este relato de viajem sairia em língua espanhola (1520) flamenga (1544) francesa, (1556) inglesa, (1576) e alemã. Na Alemanha, a primeira edição, em Augsburg, data já de 1515[33], seguindo-se a reedição na colectânea de viagens de Simon Grynaeus (1534), em 1548, na cidade de Frankfurt e, 100 anos depois da primeira edição, em Leipzig[34]. É a riqueza informativa do texto que leva Hieronimus Megiser, o autor da última edição, a publicá-lo ainda em 1610[35].

Se é igualmente o desejo de conhecer regiões longínquas e desconhecidas que leva o editor germânico da primeira edição a verter o *Itinerário* de Varthema cinco anos mais tarde para a língua alemã, – produzindo a primeira tradução deste relato –, constatamos ainda que e, no seguimento de muitas edições no norte da Europa, este escrito viria a lume enriquecido com 46 ilustrações de renomeados gravadores como Jörg Breu, o Velho[36]. E neste âmbito importa frisar que também na escolha das temáticas a ilustrar verificamos uma presença frequente de gravuras relacionadas com o mundo natural das regiões orientais[37]. Pensamos, aliás, que, aliado à sua detalhada descrição, foi também o profundo interesse por aspectos e temas da natureza que justificou a larga receptividade que esta obra teve nos meios editoriais europeus[38].

Alguns anos mais tarde será a vez de dois portugueses, ambos residentes na Ásia, contribuírem para a classificação e inventariação do mundo natural oriental. Estamos a falar do boticário Tomé Pires, autor de um dos primeiros tratados de geografia, escrito entre 1512 e 1515, e da obra do feitor e viajante Duarte Barbosa, datada de 1516. Com efeito, os produtos descritos por Tomé Pires na sua *Suma Oriental*[39] são ainda hoje do domínio da farmacopeia portuguesa, enquanto o *Livro das coisas que viu e viu no Oriente* é um valioso compêndio da variedade e importância do mundo natural.

Uma das espécies a que também Duarte Barbosa irá dar grande atenção é a palmeira. Vejamos.

> "Toda esta terra do Malabar, ao longo do mar, é coberta de palmeiras; são tão altas como altos ciprestes, as quais palmeiras têm os pés muito limpos e lisos, somente em cima, uma copa de ramos entre os quais ramos nasce uma fruta grande que chama coco; é fruta de que se eles muito aproveitam; cada ano carregam dela muitas naus do Malabar. A qual árvore dá, cada ano, esta fruta sem nunca faltar nem haver menos nem mais. A qual árvore mantém esta gente do Malabar que não pode cair de fome ainda que lhe falte outro mantimento, porque esta mesma árvore dá dez ou doze coisas, todas necessárias ao serviço do homem, das quais se eles muito ajudam, e aproveitam todas em todos os meses. Primeiramente ela dá estes cocos que, em verdes, são uma fruta muito doce e muito aprazível; deles se tira leite como o das amêndoas; e cada coco destes verdes tem dentro em si um grande quartilho de água muito fresca e saborosa e cordial que é melhor que água do poço; depois que são secos estes cocos, aquela mesma água se coalha dentro neles em uma poma branca, tamanha como uma maçã, que também é muito doce e saborosa; e o mesmo coco, depois de passado, o comem e fazem dele muito azeite em lagares, como nós; e da casca que estes cocos têm junto com o miolo fazem carvão para os ourives que não lavram com ouro; da outra casca que têm mais de fora, que lança uns fios, fazem cordoalha de que se servem, que é grande mercadoria para muitas partes; e da árvore mesmo tiram um mosto do gomo dela de que fazem vinho, propriamente como aguardente, em tanta quantidade que carregam muitas naus dele, e do mesmo mosto fazem muito bom vinagre e muito açúcar muito doce que, na Índia, é muito grande mercadoria; da folha da mesma árvore fazem umas empreitas do tamanho do ramo, com que cobrem todas suas

> casas, porquanto a lei é que não possam cobrir casas de telha, senão se forem casas de rei ou de oração; e daquela árvore fazem madeira para as casas e assim lenha; e de todas estas coisas é tanta abastança que se carregam para fora muitas naus.
>
> Há outras palmeiras de outra sorte, mais baixas, donde se colhe a folha em que os gentios escrevem suas contas e cartas e livros e há outras palmeiras delgadinhas, muito altas, limpas as hastes delas, em que nascem cachos de uma fruta, tamanha como nozes, que eles comem com o bétele, que chamam areca, que é entre eles, muito estimada e muito fera e desgostosa e há dela tanta quantidade que levam muitas naus carregadas para fora para o reino de Cambaia e Daquem e para outras muitas partes, a qual levam passada e seca."[40]

Verdadeira entrada de compêndio, esta descrição é um dos vários exemplos do saber condensado nas páginas desta obra e que deixa prever a sua relevada importância. Como homem de Quinhentos, vai procurando as semelhanças e as diferenças das coisas do mundo. Atentemos ao modo como descreve o cravo que vê nas Molucas:

> "O mato destas ilhas é tudo cravo que nasce em umas árvores como loureiros; tem a folha como de medronho.
>
> O mesmo cravo nasce em pinhas, como flor de laranja ou madressilva; nasce muito verde, depois se torna alvo; quando é maduro se torna vermelho muito fino. De maneira que então o anda colhendo à mão pelas árvores a gente mesmo da terra e o lança a secar ao sol onde se faz preto; se não há sol, em fumeiros o secam. Depois que é muito seco o rociam com uma pouca de água salgada para que não se desfaça e que se mantenha em sua virtude."[41]

É primeiro a semelhança que determina a descrição da nova espécime – um momento vital na ansiada leitura do mundo. A árvore é como a dos loureiros, as folhas como a do medronho, e as flores como a da laranja ou madressilva[42]. Numa permanente descoberta das espécies orientais, Duarte Barbosa delineia no seu *Livro* um verdadeiro inventário da flora recém-descoberta.

Nas palavras do ilustre historiador Luís de Albuquerque "Os dois escritos, o de Barbosa e o de Tomé Pires, são na verdade fontes de informação insubstituíveis, e bem o compreendeu Ramusio, que verteu ambos para italiano e os inseriu na sua famosa colectânea[43]. "O letrado Giovanni Ramusio sabia dos motivos que o levaram a inserir estes dois textos na sua colectânea. As *Navigazioni e Viaggi* pretendiam reconstruir uma imagem do mundo à escala planetária e isso só seria possível através de obras como estas, resultantes de uma vivência e experiência pessoal e de um vasto saber sobre as características e qualidades da "prosa do mundo".

ORTA E CLUSIUS

Entre a vasta produção tipográfica europeia, os *ateliers* e oficinas já há muito que vinham a editar um longo rol de escritos dedicados à botânica. Assim, encontramos obras como as de Pietro Crescenzi, autor de um dos tratados de agricultura mais difundidos e conhecidos no século XIV, ou Konrad von Megenberg (1309-1374), conhecido como o sucessor nortenho de Albertus Magnus. Este traduziu um manuscrito (datado do século XIII) de Thomas of Cantimpre intitulado *De natura rerum.* A nova versão, a que deu o nome *Das Buch der Natur* [O Livro da Natureza], viria a lume em 1475, na cidade de Augsburg. Esta obra tornar-se-ia uma referência, dado que contém as primeiras ilustrações impressas em história natural. Mas o que importa desde já frisar é que as gravuras não seriam entendidas como mera decoração, mas pelo contrário o seu intento era dar uma imagem visual do texto, parte do processo de reconhecimento e de abordagem científica. Neste sentido, esta obra viria a ser um modelo para os livros ilustrados e poder-se-á comprovar o seu sucesso nas seis edições vindas a lume até 1500.

Posteriormente, outros escritos virão a público como o *Herbarius Latinus*, o primeiro herbário editado em Mainz, no ano de 1484. Em primeira linha, trata-se de uma compilação de fontes árabes e clássicas com 150 gravuras de plantas por ordem alfabética. Um ano depois já se edita em latim e em alemão, desta vez com o título *Gart der Gesundheit*, e, apesar de muito próxima do *Herbarius Latinus*, esta obra introduz mais ilustrações num total de 400.

Já no século XVI irão surgir trabalhos de autores como Leonard Fuchs (1501-1566), considerado um dos fundadores da botânica alemã. A sua obra, na esteira de Otto Brunfels (1488-1534)[44] e de Hieronymus Bock (1498-1554)[45], descreve originalmente 400 plantas

oriundas da sua terra natal, a que acrescenta algumas plantas do Oriente e da América[46]. Com excelentes ilustrações produzidas por bons artistas e gravadores, esta obra tornar-se-á um compêndio de referência. Tal como se pode comprovar por uma das ilustrações da obra, os gravadores fazem os desenhos com as plantas à vista, demonstrando o espírito de rigor e veracidade com que o trabalho é feito. Esta, aliás, a novidade dos herbários realizados no norte da Europa que, ao usarem exemplares vivos ao contrário dos do Sul que usavam plantas secas, introduziam nestes manuais um cariz mais naturalista na busca do verdadeiro conhecimento. É um longo caminho a trilhar e os autores estão conscientes de que é necessário muito empenho e saber. Da dificuldade em conhecer e transmitir correctamente as informações é Leonhard Fuchs um bom exemplo. Assim, e embora já insira informações sobre plantas dos novos mundos, como acontece com os pimenteiros[47], originários da América, Fuchs denomina-os genericamente por pimenta indiana[48] ou pimenta de Calecute – esta a via por onde se teve acesso às novidades[49] –, enquanto o milho aparece como trigo turco ou asiático[50]. Este exemplo é bem significativo da importância de que se reveste o trabalho destes homens e da necessidade de mais e mais aprofundados conhecimentos.

In Leonhart Fuchs, *New Kreüterbuch*, Basel, 1543.

É neste âmbito que surge a primeira obra de botânica médica oriental da autoria do português Garcia da Orta (c. 1501-1568), que irá não só desfazer ideias erróneas e falsas em relação às espécies asiáticas, mas também trazer muitas e relevantes novidades à luz dos seus tão interessados contemporâneos.

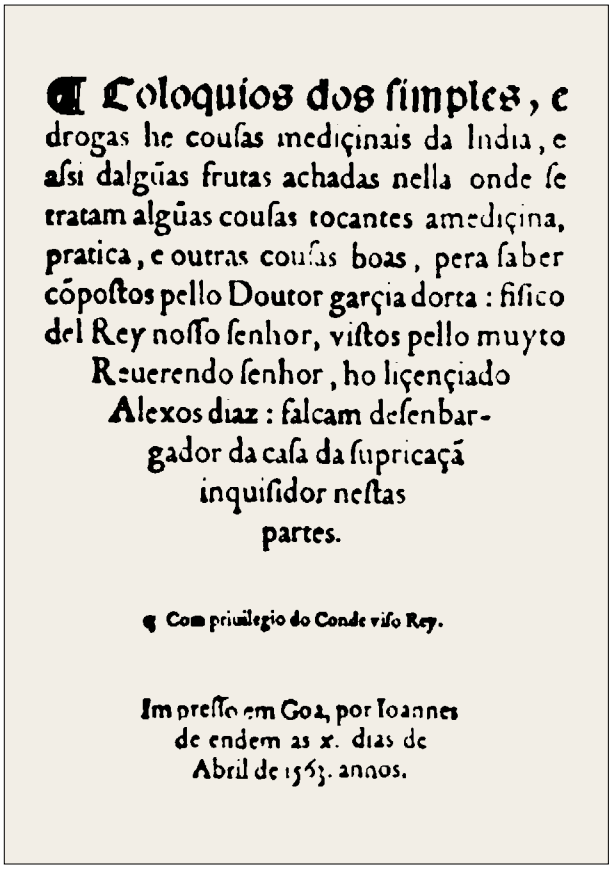
Consciente do momento presente, será Orta quem afirma "Diguo que se sabe mais em hum dia agora pellos Portuguezes, do que se sabia em 100 annos pellos Romanos"[51]. Esta é a expressão clara de um renascentista crente no valor da observação e nos alicerces do saber experimental. A sua obra constrói-se, por isso, num permanente questionar do saber herdado frente ao adquirido pela experiência e pela observação. Este facto que parece fácil e claro, não o foi para Garcia da Orta. Esta atitude, sinónimo de modernidade, exigia conhecimentos, paciência e, por certo, ousadia. Vejamos. Sobre a história natural da Índia já se conheciam referências, anotações, escritos. Ao contrário de outras regiões – ou continentes, como o americano sobre o qual nada se sabia – já existiam, embora difusas e vagas, informações vindas da pena de autores como Plínio, Heródoto, Teofrasto, entre outros. Com o alvorecer da modernidade e o avanço da arte da imprensa, tinha-se assistido, por um lado, à edição de textos até então inéditos e desconhecidos: latinos, versões de escritos gregos, árabes, enfim um grande número de testemunhos onde se encontravam as mais diversos dados sobre a natureza e o mundo[52], por outro lado foram surgindo textos de viajantes que procuravam de alguma forma emendar e corrigir o saber existente. Como anteriormente referenciámos, a Literatura de Viagens teve aqui também um enorme contributo, visto que entre as anotações dos seus autores se encontravam inestimáveis e singulares observações sobre a história natural ou simplesmente sobre determinadas espécies ou drogas.

Ora, foi neste ambiente de dois mundos informativos em confronto que Garcia da Orta partiu para o Oriente. Que o trabalho não foi fácil, dá-nos ele conta: "Grande meada temos pera desempeçar, e grande nós pera desatar, como os que Alexandre cortou por escusar o trabalho de os desempeçar"[53]. Isto é: entre as muitas e nebulosas informações, o diligente e insigne

autor tem de encontrar a o fio da meada que o levará ao conhecimento. Para isso deverá ter a paciência de tirar os nós, ou seja, os erros, as confusões; e essa é a arte do ofício, pois só assim poderá manter a continuidade na ordem das coisas. Não se deverá cortar, como fez Alexandre Magno, o fio à meada para a desembaraçar mais depressa, assim o refere Garcia da Orta. Poderá à primeira vista parecer uma solução mais eficaz e rápida, mas assim perdem-se as relações existentes e as conotações estruturais. Como é que o botânico e cientista irá proceder?

Sabemos que, ao partir para a Índia em 1534 como médico, Garcia da Orta leva na sua bagagem intelectual uma formação académica – Orta realizara os seus estudos em Alcalá e Salamanca. Ou seja, Orta não é um simples viajante; é um viajante erudito. Pode e vai recorrer aos seus conhecimentos, ao saber herdado. Mas no Oriente, Orta recorre à observação *in loco*. Esta a sua situação particular. Entre os viajantes era um erudito; entre os eruditos era um viajante. Assim dos que viram,

Garcia da Orta, *Colóquios dos simples e cousas medicinais da Índia*, Goa, 1563.



Coloquios dos ſimples, e drogas he couſas mediçinais da India, e aſsi dalgũas frutas achadas nella onde ſe tratam algũas couſas tocantes amediçina, pratica, e outras couſas boas, pera ſaber cõpoſtos pello Doutor garçia dorta : fiſico del Rey noſſo ſenhor, viſtos pello muyto Reuerendo ſenhor, ho liçençiado Alexos diaz : falcam deſenbargador da caſa da ſupricaçã inquiſidor neſtas partes.

Com priuilegio do Conde viſo Rey.

Impreſſo em Goa, por Ioannes de endem as x. dias de Abril de 1563. annos.

distinguiu-se pelo que tinha lido, dos que leram, pelo que tinha visto, como salientou o Conde de Ficalho na sua obra *Garcia da Orta e o Seu Tempo*[54].

Que o autor tinha uma longa lista de leituras feitas, podemo-lo comprovar pelas inúmeras citações e referências feitas. Só que Orta não se irá fundamentar apenas nas suas leituras. Nos meados do século XVI o seu discurso conhecedor de ambas as realidades irá dar lugar a uma "meada" única e clara. Deste modo, o autor vai afirmar que Plínio errou, que Teofrasto não diz bem quando refere que o cinamomo antigo teria muitos nós, porque ele não estivera no Oriente para saber como era a árvore[55], ou ainda "não me ponhais medo com Dyoscorides nem Galeno, porque ey de dizer a verdade, y o que sei"[56]. Donde lhe vem a coragem de emendar os seus antecessores? A confiança, a certeza das suas afirmações são expressão da experiência e da observação. Orta confia no que vê. Esse é o princípio do seu saber: "e isto sei eu muyto bem sabido como testemunha de vista"[57].

Foi a oportunidade de viajar e de ver *in loco* que lhe deu a coragem para contrariar os antigos e que, ao mesmo tempo, lhe deu autoridade para o poder afirmar. A sua leitura baseia-se agora, não no "lisível", mas no vísivel, como demonstrou Luís Filipe Barreto[58].

Garcia da Orta não pretende menosprezar os autores da Antiguidade, fala deles com o maior respeito, – não devemos olvidar que o título e a estrutura narrativa da obra de Garcia da Orta são *Colóquios,* ou seja, uma conversa entre duas personagens, o doutor Ruano, o ex-aluno de Salamanca, o erudito, que sabe de cor Dioscórides ou Plínio, e Orta, o experiente observador que, imperturbável, afirma "eu vi" – sem que, contudo, ponha em risco ou prescinda da sua liberdade de apreciação perante a nova "prosa do mundo".

À observação, alia-se a experiência. Quando fala das mangas, uma espécie que o entusiasma pela sua beleza e sabor, refere que um seu rendeiro de Bombaim lhe trouxe um cesto de mangas para que as ofereça ao governador: "Vem a melhor tempo do mundo: eu tenho huma mangeira naquella minha ilha [de Bombaim] que dá duas novidades, huma neste tempo, e outra no fim de Maio; e quanto a outra fruta excede a esta em bondade e cheiro e sabor, excede esta me vir fora do tempo; e porém provemos nós primeiro esta fruita que sua Senhoria". E, cortando-as com facas pouco agudas, afirma que "no outro tempo excederam todalas as frutas de Espanha."[59] Sempre atento, Orta investiga

a nova realidade que o rodeia, instigando até as suas próprias experiências, como num laboratório privado de observação.

Nos Colóquios encontram-se classificadas mais de 50 drogas orientais, principalmente de origem vegetal, como o aloés, o benjoim, a cânfora, a canafístula, o ópio, o ruibarbo, os tamarindos e muitas outras. É a primeira descrição rigorosa feita por um europeu das características botânicas, origem e propriedades terapêuticas de muitos fármacos orientais que, apesar de conhecidos anteriormente na Europa, o eram de maneira errada ou incompleta. Por vezes, anota também algumas observações clínicas, das quais é de destacar a primeira descrição da cólera asiática.

Com esta obra, Garcia da Orta lega um valioso e inestimável testemunho para uma imagem mais real e verdadeira da natureza oriental. O mítico e sonhado Oriente cedia lugar a uma representação mais próxima da realidade. Daí que o livro de Garcia da Orta, o primeiro estudo naturalista destas espécies, venha a ser uma marca no conhecimento das drogas orientais – e assim vai a ser reconhecido e admirado. A sua obra *Colóquios dos simples e drogas da Índia* não foi, por acaso, vertida para a língua latina pelo ilustre e célebre botânico Carolus Clusius (Charles de l'Écluse). Na verdade, Clusius era então o mais renomeado botânico na Europa. Nascido em 1526, Clusius estuda Direito em Lovaina e Marburg e seguidamente Medicina em Wittenberg. Mais tarde, já em Montpellier, irá descobrir o seu interesse e paixão pela botânica. Nesta cidade virá a realizar o seu primeiro estudo nesta especialidade, vertendo para o francês o livro de Rembertus Dodonaeus (1517-1585), autor de uma história das plantas[60]. No ano de 1564 parte como preceptor de Jakob Fugger, uma mais prestigiadas famílias de mercadores alemães, para a sua primeira viagem científica por terras de Espanha e Portugal, onde irá durante dois anos descobrir, descrever e coleccionar mais de 200 novas espécies de plantas. Assim, nos anos seguintes dedicar-se-á à escrita de uma *Historia stirpium per Hispanias* e à tradução de obras de botânica portuguesas e espanholas. Com efeito, na sua estada em Portugal, Clusius vai ter conhecimento dos *Colóquios* de Garcia da Orta e um ano mais tarde já detinha nas suas mãos o privilégio de impressão. Em 1567, vinha a lume uma versão reduzida e anotada dos *Colóquios* sob o título *Aromatum et simplicium aliquot medicamentorum apud indos nascentium historia*[61], na cidade de Antuérpia. A obra de Clusius voltaria aos prelos em 1574, 1579, 1593 e 1605. O botânico flamengo publica assim cinco edições e ainda algumas notas ao livro, no ano de 1582. Nunca deixou de trabalhar a sua versão, melhorando-a e completando-a com notas e estampas, o que, como já salientou o Conde de Ficalho[62], denota o quanto prezava o livro português. A obra de Orta era como a estrutura basilar a que ia juntando complementos e anexos.

Carolus Clusius.

A sua fama não conhece fronteiras em terras europeias. Primeiro será chamado para Viena, onde Clusius permanecerá ao serviço do imperador Maximiliano II durante 14 anos. Um dos seus trabalhos seria a criação de um *hortus medicus*, um jardim botânico[63], experiência que irá repetir em Praga. Nesta cidade virá também a recolher dados sobre a flora local, tornando-se deste modo um dos melhores conhecedores da flora europeia. Mas os novos mundos não serão esquecidos pelo que a quarta edição (1593) dos *Colóquios* seria uma edição conjunta do texto de Garcia da Orta com as obras de Cristóvão da Costa (1525-1593) e de Nicolau Monardes (1493-1508), uma obra sobre a flora americana.

Clusius foi ainda tradutor de relatos de viagem como os de Thomas Harriot[64], Jacob Le Moyne[65] e Walter Raleigh[66]. Por fim, com 66 anos, em 1592, será nomeado director do jardim da Universidade de Leiden, lugar que ocupará até à morte, no ano de 1609. Neste jardim, irá naturalmente plantar belas e curiosas novidades de outros mundos[67].

Marco Polo é, contudo, dos viajantes que vai começar a olhar o mundo, iniciando o que viria ser um longo e intricado percurso de inventário e classificação das diferentes espécies asiáticas.

Carolus Clusius, o maior botânico da Europa do seu tempo, sabia do valor dos *Colóquios* e sabia da necessidade de dar a conhecer o labor de Orta. Daí que o papel de botânico passasse pela tarefa de traduzir e comentar este inovador escrito. Neste seu trabalho não hesita, como vimos, em alterar a estrutura da obra, que deixa de ser um diálogo para apresentar alfabeticamente a matéria científica que se pretendia dar a conhecer. Assim, elabora uma versão reduzida em que apresenta condensadamente os conteúdos revelados por Orta. Não se trata então de uma tradução *ipsis verbis* do texto português, que ficou desconhecida na sua forma primitiva. Na verdade, ninguém leu os *Colóquios* no original português, como já salientou o Conde de Ficalho[68]. Embora este não seja o lugar para aprofundar esta questão, podemos, no entanto, salientar que este é um momento particular da história da recepção dos *Colóquios*. Aos homens de ciência europeus, o que importava era a mensagem científica e essa foi assegurada. Por outras palavras, o labor de Garcia da Orta não passou despercebido, como aconteceu a muitas outras obras portuguesas, e pôde assim ser conhecido e reconhecido como um fundamental contributo para o discurso científico coevo[69].

É nesta mesma atitude que devemos compreender a inserção de imagens, um contributo que, como vimos, é entendido como um esclarecimento visual da descrição e caracterização das espécies descritas. Este labor de rigor e cuidado pela informação natural é a expressão do estudioso à procura dos mistérios do universo.

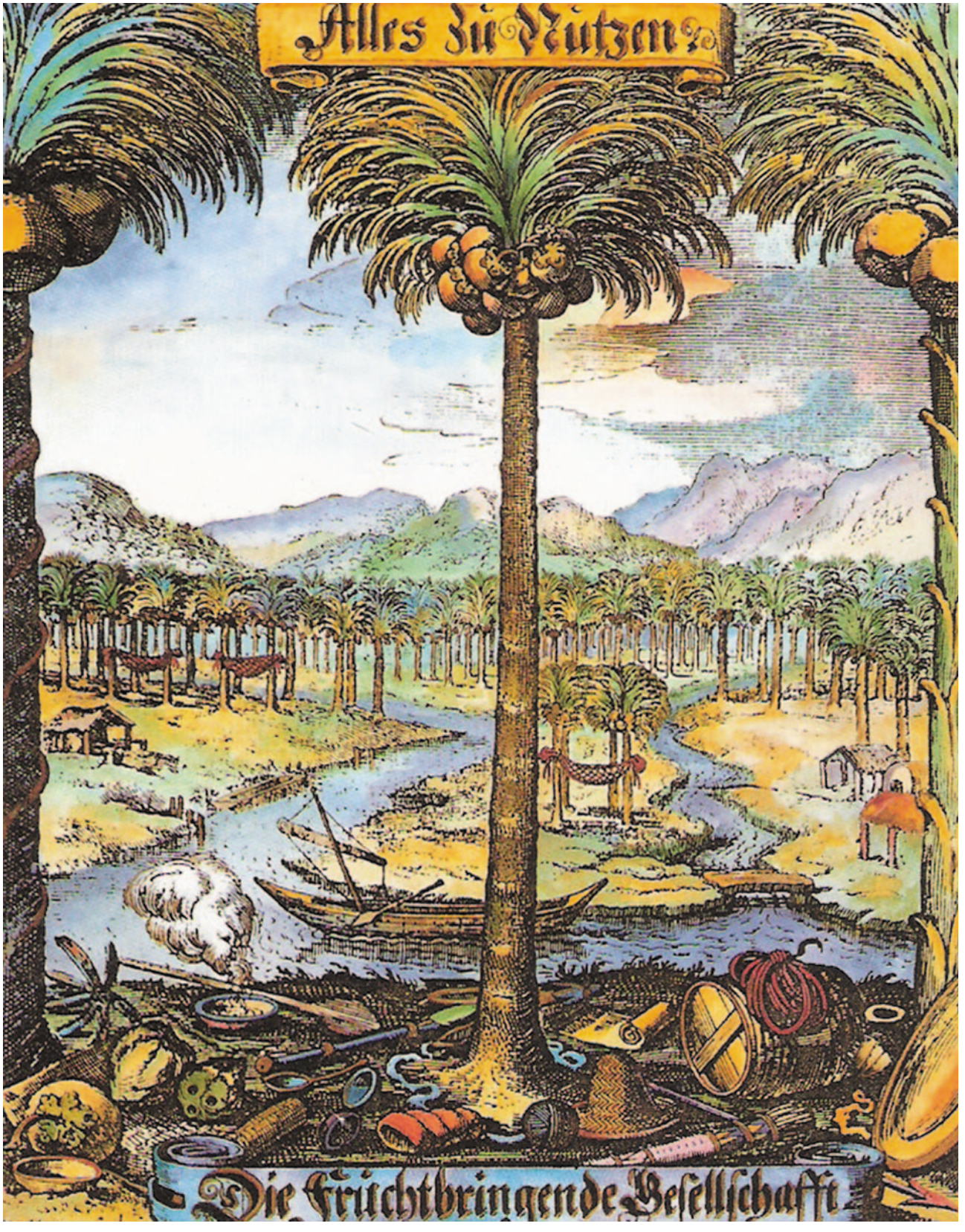
Estas alterações, assim como uma reformulação mais consequente da ordem alfabética das matérias apresentadas, são princípios metodológicos na consolidação de um discurso que se pretende cada vez mais científico. Não obstante edite todas as informações necessárias ao conhecimento da botânica oriental, Clusius vai por isso alterar a estrutura da obra. Clusius despreza, por assim dizer, o "diálogo metodológico e cultural" para destacar somente o aparelho factológico oriental. Os conteúdos, ou "succo científico" na expressão do Conde de Ficalho, era o que os letrados europeus pretendiam conhecer. Ainda na última edição, *Exoticorum libri decem: quibus animalium, pantarum, aromatum…*, uma obra das oficinas de Christopher Plantin, podemos constatar o respeito e o esmero com que esta obra era concebida por estes amantes e estudiosos da "prosa do mundo"[70].

Clusius não seria o único a editar a obra de Garcia da Orta; outros lhe seguirão as suas passadas, mas foi através dele que Orta chegou aos restantes leitores europeus. E, por certo, foram as suas edições de Garcia da Orta que incentivaram traduções[71] e estiveram na base do estudo sobre a flora asiática.

Entre os seguidores de Orta[72] podemos mencionar o caso do médico Cristóvão da Costa, um português nascido em África, que na Índia chegou a conhecer Garcia da Orta e que Clusius, como vimos, igualmente deu a conhecer. Estabelecido em Burgos, Cristóvão da Costa foi para a Índia na companhia do vice-rei D. Luís de Ataíde, tendo chegado a Goa no ano de 1568. Dez anos mais tarde publicava o *Tractado de las drogas y medicinas de las Indias Orientales*[73], uma obra em que, como refere o título, "se verifica muito do que escreveu o Doutor Garcia de Orta".

Bem perto das informações deixadas por Orta, Costa também se preocupa maioritariamente com as matérias apresentadas e com a imagem visual das espécies descritas. Tal como nos diz no prólogo, a sua obra surge no intuito de colmatar algumas falhas da obra de Orta, mormente o não ter imagens:

> "Faltou também outra perfeição substancial à obra, que são as pinturas, e debuxos das plantas, de que trata: do que ocupado o Doutor



In *Im Garten der Palme. Kleinodien aus dem Zeitalter des unbekannten Barock*, Ausstellungskatalog, Wolfenbüttel, 1992.

> Orta em outras coisas mais graves, e que mais deviam importar-lhe, deixou de inseri-las nela. Parecendo-me a mim, que nesta nossa nação seria aquele livro de grande proveito, se se desse notícias das coisas boas, que nele há, mostrando-se com os seus exemplos, e figuras, para melhor conhecê-las, e que isto só o podia fazer quem ocularmente com seus mimosos olhos os houvesse visto, e experimentado. Zeloso do bem desta terra, com a caridade que ao meu próximo devo, deliberei tomar este trabalho, e debuxar ao vivo cada planta, extraída com a raiz, além de outras cousas, que eu vi, e o Doutor Garcia de Orta não pôde pelas causas ditas."[74]

Após estas edições, o nome de Orta não vai deixar de se fazer ouvir. O imenso saber da sua obra está testemunhado nas inúmeras referências e utilizações feitas por outros textos e autores. E foi por considerarem que "a natureza mostrou mais o seu saber, do que na muita variedade de pedras, montes, ervas, flores, plantas, animais, e outra infinidade que coisas, com que adornou este tão formoso teatro a que chamamos mundo…"[75] que vamos encontrar muitos autores a deitarem mãos ao trabalho.

Viajantes como Jan Huyghen van Linschoten (1563-1611)[76], estudiosos como Nicolau Monardes (1493-1508)[77], Andrea Cesalpino (1519-1603)[78], Jacobus Bontius (1592-1631)[79], Basilus Besler (1561-1629)[80], Henricum van Rhede (1637-1691)[81], Johannes Commelino (1629-1692)[82], Guilielmus Piso (1611-1678)[83], Michael Bernard Valentini (1657-1720)[84], o droguista Peter Pomet (1658-1699)[85], ou letrados como Erasmus Francisci (1627-1694)[86], Eberhard Werner Happel (1618-1690)[87], ou o enciclopedista Johan Heinrich Zedler (1706-1763)[88], seguem o trabalho de Orta, que consideram um inestimável contributo para o conhecimento da botânica e da matéria médica orientais.

Sempre que é necessário recorrer a descrições precisas de espécies asiáticas, a obra de Garcia da Orta, na versão de Clusius, é um manual precioso. E os estudiosos destas matérias irão recorrer ao trabalho do botânico português como um dos maiores conhecedores das plantas orientais. Entre os muitos verbetes do grande *Universal Lexicon aller Wissenschaften und Künste,* o maior dicionário do século XVIII, encontramos várias vezes o nome de Garcia da Orta. Quando se trata, por exemplo, de fornecer os nomes, como *nux indica*, mangas, mangas bravas, *canella ignobilior*, surge a referência ao trabalho de Orta, mas também quando se descrevem algumas destas espécies alude-se ao botânico português. Algumas vezes, mas nem sempre, o nome surge em associação ao de Clusis como, por exemplo, quando na entrada do coco se refere que quem quiser mais informações deverá consultar "Garzia ab Horto". Também existe um verbete sobre o seu nome, onde se refere que foi o autor de *Aromatum*, obra que Clusius teria anotado e apenas se menciona a edição de 1574[89].

Talvez possamos mesmo afirmar que algumas descrições e apresentações de Orta são frequentes e modelares, como é o caso dos capítulos referentes às mangas ou palmeiras.

Embora essa seja já outra história, é curioso verificar que as palmeiras nas suas diferentes variedades e os respectivos frutos, os cocos, virão a ter um destacado significado na recepção do mundo oriental. Símbolos associados ao Oriente irão ser integrados na cultura europeia em diferentes contextos.

Já nos inícios do século XVI o célebre Albrecht Dürer anota no seu diário a sua grande surpresa face a um coco que Rodrigo, o feitor português, lhe ofereceu[90]. Homem das artes, estava atento ao mundo ao seu redor, procurando na *imitatio* um caminho para a sua expressão artística. Mais tarde sabemos dos belos trabalhos de arte feitos a partir do invólucro do coco como os que se encontram nos "Gabinetes de Curiosidades"[91], mormente os da *Kunstkammer* do imperador Rodolfo II[92]. Muitas, como vimos, são as descrições sobre a utilização de cocos na Índia e da palmeira como essa árvore providencial de que tudo se poderia aproveitar. Daí que também não seja de estranhar que esta árvore se torne o emblema de uma academia literária barroca como a *Fruchtbringende Gesellschaft,* que pretendia – segundo o moto "Alles zu Nutzen" (Tudo se aproveita) – contribuir de variadas maneiras para o desenvolvimento do saber e da cultura sob o símbolo de uma planta simultaneamente rara e de utilidade múltipla[93].

No longo percurso de apropriação e valorização da natureza oriental, vários foram os contributos como tivemos oportunidade de salientar. Contudo, o trabalho de Garcia da Orta e o de Carolus Clusius constituiu um momento particularmente significativo no conhecimento das espécies asiáticas na Europa. Ambos estavam imbuídos do mesmo espírito: conhecer e dar a conhecer a revelação das plantas. RC

NOTAS

1 Mário Martins salienta que é o facto de se limitarem apenas a determinados autores e obras que leva os historiadores da Idade Média a tomar esta posição. Dá o exemplo do historiador Etienne Gilson que, ao abordar S. Tomás de Aquino, Alberto Magno, entre outros, afirma: "*Si donc les hommes de ce temps ont mal connu la nature*". Veja-se Mário Martins, "Experiência e Conhecimento da Natureza no 'Livro da Montaria'", in *Estudos de Cultura Medieval*, Braga, 1969, p. 87.

2 Veja-se, por exemplo, João Gouveia Monteiro, "Orientações da Cultura da Corte na 1.ª metade do século XV (A Literatura dos Príncipes de Avis), in *Vértice* (1988), pp. 89-103.

3 Mário Martins, "Experiência e Conhecimento da Natureza no 'Livro da Montaria'", cit., p. 100.

4 Johan Huizinga, *O Declínio da Idade Média*, s.d., s.l.

5 Veja-se, por exemplo, António Alberto Banha de Andrade, *Mundos Novos do Mundo*, Lisboa, Junta de Investigações do Ultramar, 1972; Fernando Cristóvão (coord.), *Condicionantes Culturais da Literatura de Viagens. Estudos e Bibliografias*, Lisboa, Cosmos, 1999 e Folker Reichert, *Erfahrung der Welt, Reisen und Kulturbegegnung im späten Mittelalter*, Stuttgart, W. Kohlhammer Verlag, 2001.

6 Veja-se como exemplo a recente publicação de Paulo Lopes, *Viajar na Idade Média. A Visão Ibérica do Mundo no Livro do Conhecimento*, Lisboa, Círculo de Leitores, 2005.

7 Veja-se Inácio Guerreiro, "Reflexos da produção e do comércio das especiarias na cartografia antiga", in *A Epopeia das Especiarias*, Lisboa, INAPA, 1999, pp. 148-165.

8 Sobre a Geografia do Renascimento, dois relevantes exemplos: a *Weltchronik de* Hartmann Schedel (Nürnberg, 1493) e a *Cosmografia* de Sebastian Münster (Basel, 1544-1628).

9 "E porque, senhor, disse Gil Eanes, me pareceu que devia trazer algum sinal de terra, pois que em ela saía, apanhei estas ervas que apresento à Vossa Mercê, as quais nós, em este Reino, chamamos rosas de Santa Maria", Gomes Eanes de Zurara, *Crónica dos Feitos Notáveis que se Passaram na Conquista da Guiné por Mandado do Infante D. Henrique*, ed. Torquato de Sousa Soares, Lisboa, Academia Portuguesa de História, 1981, p. 73. O cronista João de Barros acrescenta "As quais trazidas ante o Infante, êle as cheirava e tanto se gloriava de as ver, como se fôra algum fruito e mostra da terra da Promissão, dando muitos louvores a Deus", *Ásia,* ed. Hernâni Cidade e Manuel Múrias, Lisboa, Agência Geral das Colónias, 1945, I livro, cap. IV, p. 25.

10 In José Manuel Garcia, *As Viagens dos Descobrimentos*, Lisboa, Presença, 1983, p. 35.

11 *Ibidem*, p. 168.

12 Sobre a imagem da Índia na Antiguidade, veja-se, Jacques André e Jean Filliozat, *L'Inde vue de Rome. Textes latins de l'Antiquité relatifs à l'Inde*, Paris, Les Belles Lettres,1986.

13 Isidoro de Sevilha fala ainda das montanhas de ouro, interditas por monstros e gigantes, na esteira das descrições de Plínio e Solino. José Oroz Reta (ed.), San Isidoro de Sevila, *Etímologias,* 2 vols., Madrid, BAC, 1982-1983.

14 Veja-se Paul Faure*, Magie der Düfte, Eine Kulturgeschichte der Wolhgerüche. Von den Pharaonen zu den Römern*, München, Artemis & Winkler Verlag, 1991 e Marcel Detienne, *Les Jardins d'Adonis. La mythologie des aromates en Grèce*, Paris, Gallimard, 1972.

15 O valor que lhes era atribuído na Idade Média está testemunhado no facto de as especiarias serem uma moeda tão apreciada como o ouro. Os pagamentos de dívidas e impostos, bem como ofertas, seriam em arrobas de especiarias. Veja-se, entre outros, Hansjörg Küste, *Kleine Kulturgeschichte der Gewürze. Ein Lexikon von Anis bis Zimt,* München, Beck C. H. Verlag, 1997.

16 *Marco Paulo*, ed. Valentim Fernandes, Lisboa, 1502, ed. Francisco Maria Esteves Pereira, Lisboa, 1922, fol. 69r.

17 *Ibidem*, fol. 62v.

18 Sobre a canela, veja-se Marília dos Santos Lopes, *Ao Cheiro Desta Canela. Notas para a História de Uma Especiaria Rara*, Lisboa, Público, 2003.

19 Entre as espécies conhecidas, as mais usadas são a pimenta e a canela. As especiarias acompanham uma refeição medieval desde as entradas até às sobremesas. Uma ementa datada do ano 1303, e elaborada em honra de um bispo, dá expressividade a esta diversidade culinária sempre adornada com especiarias: entre as muitas iguarias encontramos: sopa de ovos com pimenta, açafrão e mel, peixe com pimenta e ainda peras e maçãs temperadas com pimenta e anis. Por fim, ainda se ofereciam confeitos à base de açúcar, pimenta, noz-moscada e gengibre. Cf. Manuela Mahn, *Gewürze, Geschichte, Handel, Küche*, Stuttgart, Reclam Verlag, 2001.

20 Sabemos que, desde o século VIII, eram frequentes, na Europa, as referências à importação de canela. Por exemplo, já no século XII é atestado o comércio de especiarias, nomeadamente da canela em Portugal. No *Inventário e Contas da Casa de D. Dinis* (1278-1282) é referida a aquisição de especiarias e medicamentos, entre eles, a canela. A importância das especiarias em geral e da canela em particular na terapêutica medieval pode ser, aliás, comprovada por exemplo, no *Thesaurus Pauperum* atribuído a Pedro Hispano (1210/15-1277), que viria a falecer como Papa João XXI. Veja-se *A Epopeia das Especiarias*, coord. Inácio Guerreiro, cit.

21 In José Manuel Garcia, *As Viagens dos Descobrimentos*, cit., p. 217.

22 Publicado in Rui Manuel Loureiro, *Em Demanda do Oriente*. *Viagens e Notícias Quatrocentistas*, Lisboa, Grupo de Trabalho do Ministério da Educação para as Comemorações dos Descobrimentos Portugueses, 1998, p. 45.

23 *Ibidem*, p. 59

24 Veja-se Geneviève Bouchon, "L'image de l'Inde dans la Europe de la Renaissance," in *Inde découverte, Inde retrouvée, 1498-1630. Études d'histoire indo-portugaise*, Lisboa/Paris, Comissão Nacional para as Comemorações dos Descobrimentos Portugueses/Centre Culturel Calouste Gulbenkian, 1999, pp. 311-333.

25 Nicolau de Conti será editado em Portugal por Valentim Fernandes, em 1502, a fim de confirmar e actualizar as informações de Marco Polo. Conti deu preciosas informações sobre as especiarias, a sua origem e o respectivo comércio. *Marco Paulo*, ed. Valentim Fernandes, cit.

26 Fernandes, fol. 82r. Também Balthasar Springer, que viajou na armada de D. Francisco de Almeida, irá dizer que a pimenta se assemelha a cachos de uvas. Balthasar Springer, *Die Merfart vñ erfahrung nüwer Schiffung vnd Wege zü viln onerkanten Inseln vnd kunigreichen/ von dem großmechtigen Portugalichen Kunig Emanuel Erforscht*, o.O. (Oppenheim), 1509.

27 Giovanni Battista Ramusio, *Navigazioni et Viaggi*, Veneza, 1550--1559, ed. Marica Milanesi, 6 vols., Torino, Einaudi, 1978-1988, I vol., pp. 833-34.

28 *Ibidem*, p. 828.

29 Rui Manuel Loureiro, "A verde folha da erva ardente: consumo de bétele nas fontes europeias quinhentistas, in *Mirabilia Asiatica, Produtos Raros no Comércio Marítimo,* coord. Jorge M. Santos Alves, Claude Guillot, Roderich Ptak, Wiesbaden, Harrassowitz Verlag, 2005, pp. 1-20.

30 Segundo José E. Mendes Ferrão, a mais antiga referência a este fruto que os portugueses conheceram na Índia encontra-se no relato do piloto anónimo ao mencionar-se que o samorim de Calecute "mandou trazer huma fryta que he fecta como meloees saluo que de fora sam crespos, mas de dentro sam doces". Veja-se José E. Mendes Ferrão, *A Aventura das Plantas e os Descobrimentos Portugueses*, Lisboa, Instituto de Investigação Científica Tropical/Comissão Nacional para as Comemorações dos Descobrimentos Portugueses, 1992, p. 182.

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31 Giovanni Battista Ramusio, *Navigazioni et Viaggi*, ed. Marica Milanesi, cit., I vol., p. 836.

32 Roma 1510, 1517; Veneza, 1517, 1518, 1520, 1526, 1536, 1550, 1560; Milão, 1519, 1523; Veneza, 1535, 1536 e ainda na obra de Giovanni B. Ramúsio 1550, 1563, 1588 e 1606. São também de referir as edições latinas, Milão 1510, e na obra de Simon Grynaeus em 1532, 1537 e 1555.

33 Ludovico de Varthema, *Die ritterlich und lobwirdig rays des gestrengen und über all anderweyt erfarnen ritters und lantfarers herren Ludowico Vartomans von Bolonia sagent von den landen/ Egipto/ Syria/ von bayden Arabia, Persia, India und Ethiopia/ von den gestalten/ sytten und dero menschen leben und glauben/ Auch von mancherley/ thyere, vöglen und vil andern in den selben landen/ seltsamen wunderparlichen sachen/ das er selbs erfaren und in aygner person gesehen hat…*, Augsburg, 1515. p. Aij.

34 Varthema teve ainda edições inglesas de 1577 e 1625 e as holandesas de 1503 e 1664. Esta última também já passados mais de 100 anos após a primeira edição.

35 Tido em tão elevada consideração, como aferimos este relato constituiria um documento inestimável para os geógrafos e conhecedores do mundo pelo que não haveria obra de cosmografia que não o tivesse como "*ad descriptionem Asie*". "*[...] so ist diese seine Reyßbeschreibung jederzeit bey allen gelehrten Geographis vnnd Weltbeschreiben in so hoher acht gehalten worden/ daß seither vast nie kein Cosmographi außgangen/ da nicht ad descriptionem Asiae viel heraus genomenen*". Ludovico Barthema, *Hodeporicon Indiae Orientalis, Das ist: Warhafftige Beschreibung der auserlich lobwürdigen Reyß/ welche der Edel/ gestreng vnd weiterfahrne Ritter H. Ludwig di Barthema...*, Leipzig, 1610, prólogo sem pág.

36 A primeira edição de 1515 foi ilustrada por Jörg Breu, o Velho. Vejam-se as reproduções in Max Geisberg, *Die deutsche Buchillustration in der ersten Hälfte des 16. Jahrhunderts*, München, 1930, pp. 211-13.

37 Sobre a representação da natureza, veja-se Marília dos Santos Lopes, *Coisas Maravilhosas e Até Agora Nunca Vistas. Para Uma Iconografia dos Descobrimentos*, Lisboa, Quetzal,1998.

38 Como se pode, aliás, comprovar no assíduo uso do seu *Itinerário* por muitos estudiosos como Andrea Cesalpino ou Carolus Clusius que o irá citar frequentemente nas notas do *Aromatum*.

39 Tomé Pires, A *Suma Oriental de Tomé Pires e o Livro de Francisco Rodrigues,* ed. Armando Cortesão, Coimbra, Universidade de Coimbra, 1978.

40 Duarte Barbosa, *Livro do que viu e ouviu no Oriente*, ed. Luís de Albuquerque, Lisboa, Publicações Alfa, 1989, pp. 118-19.

41 *Ibidem*, p. 153.

42 É a lógica do visível, tal como a definiu Luís Filipe Barreto. Veja-se, "A matéria médica renascentista, A leitura dos Colóquios por Cristóvão da Costa", in Luís Filipe Barreto, *Caminhos do Saber no Renascimento Português. Estudos de História e Teoria da Cultura*, Lisboa, IN-CM, 1986, pp. 109-201, aqui 135-138.

43 Duarte Barbosa, *Livro do que viu e ouviu no Oriente*, ed. Luís de Albuquerque, cit., p. 175.

44 Otto Brunfels, *Herbarium vivum ícones*, 1530 ou ainda *Contrafayt Worterbuch,* 1532, com gravuras de Hans Weiditz.

45 Hieronymus Bock, *New Kreutterbuch von underscheidt, würckung und namen der Kreütter, so in Teutschen landen wachsen*, 1539.

46 Leonhart Fuchs, *New Kreüterbuch*, Basel, 1543.

47 Na Europa são rapidamente introduzidos na dieta alimentar, pois como refere Fuchs tem um sabor tão picante como a pimenta. Já em meados do século XVI se cultiva esta planta apreciada como planta ornamental. O famoso jardim dos bispos de Eichtätt no tempo de Johann Conrad von Gemmingen (1594-1612) tinha mais de 15 variedades com frutos de diferentes formatos e cores, amarelos, laranja ou vermelhos. Aí trabalharam Jochim Camerarius e o farmacêutico Basilus Besler (1561-1629), autor de *Hortus Eystettensis* (Nürnberg, 1613), um dos mais maiores livros ilustrados de botânica.

48 Também Hieronymus Bock já tinha introduzido um capítulo sobre a pimenteira, planta que vira na Alemanha. Embora mencione o que dela dizem Plínio e Teofrasto, alude também às viagens dos portugueses a Calecute.

49 Sobre Calecute como símbolo das novidades, veja-se, Marília dos Santos Lopes, "Tradition und Imagination: 'Kalikutische Leut' im Kontext alt-neuer Weltbeschreibungen des 16. Jahrhunderts". In *Asia Maritima. Images et réalité. Bilder und Wirklichkeit. 1200-1800,* ed. Denys Lombard / Roderich Ptak, Wiesbaden, 1994, pp. 13-26.

50 Refere que esta planta se adapta facilmente nos jardins europeus e que do grão de milho se poderia moer farinha para fazer pão.

51 Garcia da Orta, *Colóquios dos simples, e drogas he cousas medecinais da India, e assi dalgunas frutas achadas nella onde se tratam algunas cousas tocantes a medeçina, pratica, e outras cousas boas, pera saber compostos pello Doutor garçia dorta: fisico del Rey nosso senhor, vistos pello muyto Reuerendo senhor, ho liçençiado Alexos diaz: falcam desenbargador da casa da supricaçã inquisitor nestas partes*, Goa, 1563, ed. Conde de Ficalho, Lisboa, 1987, IN-CM, vol I, p. 210.

52 Neste contexto, podemos evocar a publicação da *Historia naturalis* de Plínio (Veneza, 1469), a *Historia plantarum* de Teofrasto (1483) e os comentários à obra de Dioscórides, como os editados em Veneza no ano de 1516. Aqui importa mencionar as edições de Pietro Andrea G. Mattioli (1501-1577), bem como a importante colaboração do português Amato Lusitano (1511-1568). O seu *Index Dioscoridis* data de 1536 e veio a lume na cidade de Antuérpia. Sobre o trabalho de Amato e a sua repercussão na Europa, veja-se A. J. Andrade de Gouveia, *Garcia d'Orta e Amato Lusitano na Ciência do Seu Tempo*, Lisboa, ICALP, 1985.

53 Garcia da Orta, *Colóquios,* ed. Conde de Ficalho, cit.,vol. I, p. 173.

54 Conde de Ficalho, *Garcia da Orta e o Seu Tempo,* IN-CM, Lisboa, 1983.

55 Garcia da Orta, *Colóquios*, ed. Conde de Ficalho, cit., vol. I, p. 211.

56 Garcia da Orta, *Colóquios,* ed. Conde de Ficalho, cit., vol. I, p. 105.

57 Garcia da Orta, *Colóquios,* ed. Conde de Ficalho, cit., vol II, p. 246.

58 Luís Filipe Barreto, "A matéria médica renascentista, A leitura dos Colóquios por Cristóvão da Costa" , in Luís Filipe Barreto, *Caminhos do Saber no Renascimento Português*, cit., pp. 109-201.

59 Garcia da Orta, *Colóquios,* ed. Conde de Ficalho, cit., vol. II, pp. 101-102.

60 *Cruyde Broeck*, Antuérpia, 1563, versão digital *online* em http://archiv.ub.uni-marburg.de/dodoens/ (consultado em 24/3/2006).

61 Carolus Clusius, *Aromatum et simplicium aliquot medicamentorum apud Indos nascentium historia,* Antuérpia, 1567. Sobre as obras de Carolus Clusius, veja-se *Feschrift anläßlich der 400jährigen Widerkehr der wissenschaftlichen Tätigkeit von Carolus Clusius*, Eisenstadt, 1973. Outras edições de *Aromatum*: 1567, 1574, 1579, 1593. Costa: 1582, 1593, 1605.

62 Conde de Ficalho, *Garcia da Orta e o Seu Tempo,* cit., p. 379.

63 Na Europa do Renascimento devotava-se, como se pode comprovar pela enorme variedade de livros publicados, grande interesse pela botânica. Com plantas trazidas directamente de outros continentes assistiu-se ainda a um crasso desenvolvimento da floricultura na Europa. Entre os mais antigos jardins podemos mencionar os de Pisa, Pádua, Florença, Bolonha, Leipzig e, em sexto lugar, o de Leiden, criado por Carolus Clusius como escola e jardim de aprendizagem. Veja-se, entre outros, José Luis Fresquet Febrer, "La fundación y desarrollo de los jardines botânicos", documento electrónico em http://www.historiadelamedicina.org/botanica.pdf (consultado em 24/3/2006).

64 Thomas Harriot, *Admiranda narratio...,* Frankfurt, 1590. Obra ilustrada pelo célebre Theodor de Bry.

65 Jacob Le Moyne, *Brevis narratio eorum quae in Florida Americae*, Frankfurt, 1590 (igualmente ilustrada por Bry).

66 Publicado juntamente com a de Thomas Harriot (igualmente ilustrada por Bry).

67 Terá sido ele quem introduziu a tulipa, originária da Turquia, nos Países Baixos, flor esta que, como sabemos, se virá a tornar um símbolo desta nação.

68 Conde de Ficalho, *Garcia da Orta e o Seu Tempo,* cit., p. 379.

69 Veja-se Marília dos Santos Lopes, *Da Descoberta ao Saber. Os Conhecimentos sobre África na Europa dos séculos XVI e XVII*, Viseu, Passagem, 2002.

70 Christopher Plantin, impressor de Antuérpia, irá contar com o trabalho de Pieter van der Borcht, que já havia desenhado e pintado para outros botânicos flamengos diversas plantas, sobretudo espécimes oriundos do Oriente e da América, a partir de modelos vivos, alguns dos quais plantados nos jardins de Leiden. Clusius foi, como vimos, o primeiro a cultivar plantas exóticas e a estudá-las sistematicamente.

71 A versão latina de Clusius foi traduzida para o italiano por Aníbal Briganti (Veneza, 1575) com reimpressões em 1580, 1582, 1589, 1605 e 1616. Há ainda uma tradução francesa da autoria de Antoine Collin de 1602 e uma segunda edição revista e aumentada em 1619.

72 É o caso do físico de Filipe II, Juan Fragoso, que também se baseou no livro de Garcia da Orta, para escrever os seus *Discursos de las cosas aromaticas, arboles y frutales, y de otras muchas medicinas simples que se trauen de la India Oriental, e sirven al uso de la medicina*, Madrid, 1572.

73 Cristóvão da Costa, *Tractado de las drogas y medicinas de las Indias Orientales,* Burgos, 1578. Sobre o contributo da sua obra para a temática médica renascentista, veja-se Luís Filipe Barreto, *Caminhos do Saber no Renascimento Português*, cit., pp. 111-201.

74 Cristóvão da Costa, *Tratado das drogas e medicinas das Indias Orientais no qual se verifica muito do que escreveu o Doutor Garcia da Orta,* ed. Jaime Walter, Lisboa, Junta Nacional do Ultramar, 1964, pp. XXVII-XXVIII.

75 *Ibidem*, p. XXXI.

76 Sobre Jan Huygen van Linschoten e o seu escrito, veja-se, *Itinerário, Viagem ou Navegação de Jan Huygen van Linschoten para as Índias Orientais ou Portuguesas*, ed. Aries Pos e Rui Manuel Loureiro, Lisboa, Comissão Nacional para as Comemorações dos Descobrimentos Portugueses, 1997.

77 Nicolau Monardes, *Simplicium medicamentorum ex novo orbe delatorum...*, Antúerpia, 1582. Editado por Carolus Clusius em 1593.

78 Andrea Cesalpino, *De plantis libri XVI*, Florença, 1583.

79 Jacobus Bontius, *De Medicina Indorvm,* Lib IV: 1. *Notæ In Garciam ab Orta...*, Lugduni Batavia, 1642. Outras edições: 1645, 1658, 1718, 1719.

80 Basilus Besler, *Hortus Eystettensis,* Nürnberg, 1613. O farmacêutico responsável pelo jardim de Eichstätt cita inúmeras vezes Orta na sua obra.

81 Henricum van Rhede e Theodor Janson, *Horti Malabari pars prima, de varii generis arboribus et frutacibus siliquosis Latinis, Malabaricis, Arabicis, Brachmanum Characteribus nominibusque expressis, adjecta Florum, Fructum, Seminiumque nativae magnitudinis vera delineatione, colorum viriumque accurata descriptione, adornata per Henticum van Rhede tot Draakestein et Theodorum Janson*, Amsterdam, 1678.

82 Johannes Commelino, *Horti Medeci*..., Amsterdam, 1701.

83 Guilielmus Piso (médico de Amesterdão), que na sua *De India utriusquere naturale medica* (Amesterdam, 1658) cita amiudamente Garcia da Orta, utilizando para muitos espécimes a nomenclatura portuguesa.

84 Michael Bernard Valentini, *Museum Museorum, oder vollständige Schau=bühne aller Materialen und Specereyen nebst deren natürlichen Beschreibung/ election, Nußen und Gebrauch*..., Frankfurt/M., 1704. O autor é um médico alemão e a obra, uma excelente compilação de plantas, de especiarias e de produtos orientais, que profusamente ilustrada se tornaria um valioso léxico de produtos de além-mar.

85 Peter Pomet, *Histoire générale des drogues, traitant des plantes des animaux et des minéraux,…*, Paris, 1694 ; 2.ª ed. 1709. Outras obras *Catalogues des drogues simples et composés*, Paris, 1695, 1709; *Le Marchand sincère ou Traité général des drogues*, Paris, 1695; Ainda edições em inglês e alemão: *Der aufrichtige Materialist und Specerey= Händler oder Haupt= und allgemeine Beschreibung derer Specereyen und Materialen* Leipzig, 1717.

86 Erasmus Francisci, *Die lustige Schau= Bühne von allerhand Curiositäten*, 3 Bde., Nürnberg 1663, 1671, 1673; Erasmus Francisci, *Neu-polirter Geschicht= und Sitten= Spiegel ausländischer Völcker…*, Nürnberg, 1670; Erasmus Francisci, *Ost-und west-Indischer wie auch Sinesischer Lust-und Stats-garten/ Mit einem Vorgespräch Von mancherley lustigen Discursen; in Drey Haupt=Theile unterschieden, Der Erste Theil Begreifft in sich die edelsten Blumen/ Kräuter/ Bäume/ Meel= Wasser= Artzney= und Gifft= gebende Wurzeln/ Früchte/ Gewürze/ und Specereyen/ in Ost-Indien/ Sina und America*..., Nürnberg, 1668.

87 E. G. Happel, *Gröste Denckwürdigkeiten der Welt oder so=genannte Relationes Curiosae...*, 5 vols., Hamburg 1683-1691; E. G. Happel, *Mundi Mirabilis Tripartiti, Oder wunderbaren Welt, in einer kurßen Cosmographia fürgestellt*, Ulm, 1708; E. G. Happel, *Thesaurus exoticorum oder eine mit Außländischen Raritäten und Geschichten wohlversehene Schatz=kammer, fürstellend die asiatische, africanische und americanische Nationes*, Hamburg, 1688.

88 Johan Heinrich Zedler, *Grosses vollständiges Universal Lexicon aller Wissenschaften und Künste*, 64 vols., Halle e Leipzig, 1732-1754.

89 No verbete sobre Clusius menciona-se que traduziu do português a obra *Aromatum* de Garcia da Orta e refere-se as edições de 1574 e a de 1593.

90 Albrecht Dürer, *Tagebuch der Reise in die Niederlande*, Leipzig, 1982, p. 67.

91 As plantas seriam também objecto para coleccionadores. Os jardins botânicos e os gabinetes de história natural são concretos testemunhos deste espírito de coleccionar. Veja-se Emile Callot, *La Renaissance des sciences de la vie au XVI^e Siècle*, Paris, PUF, 1951, pp. 43-55 e Monika Kopplin, "'Was frembd und seltsam ist', Exotica in Kunst und Wunderkammern, in *Exotische Welten, Europäische Phantasien*, Stuttgart, 1987, pp. 296-317.

92 Veja-se *Exotica, Os Descobrimentos Portugueses e as Câmaras de Maravilhas do Renascimento*, Lisboa, Fundação Calouste Gulbenkian, 2002; *Exotica, Portugals Entdeckungen im Spiegel fürstlicher Kunst- und Wunderkammern der Renaissance*, Mainz, von Zabern Verlag, 2001 e *Focus Behaim Globus*, 2 vols., Nürnberg, Germanisches Nationalmuseum, 1993, sobretudo vol. 2, pp. 860-862.

93 Cf. *Im Garten der Palme. Kleinodien aus dem Zeitalter des unbekannten Barock*, Ausstellungskatalog, Wolfenbüttel, 1992. Matthäus Merian, o genro de Theodor de Bry, ambos bem conhecedores de outros mundos, foi quem desenhou o ex-líbris da academia.

Cristóvão da Costa Africano

Imagens do Mundo Natural Asiático na Obra Botânica de Cristóvão da Costa

Teresa Nobre de Carvalho*

Africa te genuit, fertilis & Asia pavit,
Te nunc Europa, Doctor Acosta, tenet

Nos textos introdutórios do *Tractado de las drogas y medicinas de las Indias Orientales*

NOTAS BIOGRÁFICAS

Cristóvão da Costa (c. 1530-c. 1594)[1] foi médico, cirurgião, naturalista, pensador, artista. Assume-se que nasceu no continente africano[2]. Muito pouco se sabe sobre a sua juventude. Dos seus estudos, apenas se pode afirmar que cursou medicina e cirurgia. A sua fluência no idioma castelhano permite admitir que frequentou universidades espanholas. Partiu a 7 Abril de 1568 para o Oriente, integrando, como médico e cirurgião, a armada de D. Luís de Ataíde, 10.º vice-rei da Índia[3]. Chegou a Goa em Outubro do mesmo ano[4]. Dada a sua formação académica e as suas preocupações profissionais, pode admitir-se que uma das suas leituras a bordo fosse o volume dos *Colóquios dos simples, e drogas he cousas mediçinais da India* de Garcia da Orta[5], editado em Goa em 1563. Da mesma forma poder-se-á adivinhar a curiosidade do médico, ao acostar Goa, em procurar o autor da obra. Costa, na carta que dirige ao leitor[6], afirma "E encontrei nas Índias Orientais com o Doutor Garcia de Orta, médico português e varão grave, de raro e peregrino engenho...". Cristóvão da Costa permaneceu alguns anos na Índia, ao serviço do vice-rei. Participou, como lhe competia no cargo que ocupava, nas campanhas militares. Tal como o Dr. Juan Costa refere e o seu amigo D. Pedro Manrique confirma[7], Cristóvão da Costa conheceu cativeiros e prisões. No capítulo da pimenta[8], Costa testemunha que o "capturaram no Malabar". Ao longo do *Tractado de las drogas y medicinas de las Indias Orientales* o médico conta a sua passagem pelos "bosques de Cangranor, junto ao rio Mangate"[9], fala das viagens às ilhas da costa ocidental da Índia[10], refere a "residência na cidade de Santa Cruz de Cochim"[11] e testemunha a sua actividade clínica no Hospital Real de Cochim[12]. Em Novembro de 1571 encontrava-se em Tanor, onde viu o "sambarane"[13], admirou o espódio[14] e conheceu o escrivão de câmara do rei de Tanor (que comia diariamente cinco dracmas de ópio)[15].

Da permanência de Cristóvão da Costa por terras orientais pouco mais se sabe. Têm sido referidas peregrinações à longínqua China, à Pérsia, a Damasco, a Jerusalém ou ao Cairo. Das palavras do médico não se consegue estabelecer um percurso definitivo. A análise das gravuras que inclui no *Tractado de las drogas* pode ser uma ajuda preciosa para colmatar esta falta de dados. Plantas como as do cravinho ou a noz-moscada, oriundas respectivamente das Molucas ou de Banda, não parecem testemunhar o mesmo realismo pictural que o tamarindo, a canela ou a árvore-triste. Podemos admitir que Costa nunca as viu nas ilhas de origem. Também o pau-de-maluco, "originário

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Frontispício do *Tractado de las drogas y medicinas de las Indias Orientales*, de Cristóvão da Costa, Burgos, 1578.

daquelas partes de Maluco"[16], que o médico conta ter-lhe sido apresentado por D. Luís de Ataíde no ano de 1571, parece evidenciar que Costa nunca viajou até este arquipélago. Já o facto de ter desenhado "como testemunha de vista" os duriões[17], frutos perecíveis e incapazes de suportar grandes viagens, nos pode levar a assumir a sua deslocação mais para Oriente, talvez até Malaca, região onde estes frutos abundam.

Pode admitir-se que a proximidade de Cristóvão da Costa a D. Luís de Ataíde não se tenha limitado à passagem pela Índia. O 3.º conde da Atouguia[18] combateu em África, acompanhou D. Estevão da Gama na gloriosa expedição ao mar Roxo e integrou os contingentes militares que se bateram com os seguidores de Lutero. Em algum destes momentos, o médico e o fidalgo podem ter-se cruzado. Supõe-se que Cristóvão da Costa regressou de Goa em Janeiro de 1572, acompanhando "D. Luís de Ataíde, homem muito prudente e animoso"[19]. Costa deve assim ter participado nos festejos que acolheram o vice-rei à sua chegada ao Tejo, seguindo o cortejo que conduziu e aclamou o seu "valerosíssimo capitão"[20] até à igreja de S. Domingos.

Ao certo sabe-se que em meados da década de 1570 Cristóvão da Costa vivia na Península Ibérica. Em Abril de 1576 assinou um contrato por três anos com a cidade de Burgos, que o acolheu como médico municipal[21]. Nesta altura parece claro que Costa já dera provas de competência técnica naquela cidade. Pode, assim, admitir-se que a decisão da instalação em Burgos terá decorrido rapidamente entre Julho de 1572 e finais de 1575. As razões da translação geográfica de Lisboa para Castela estão ainda por esclarecer, mas o jovem Dr. Juan Costa[22] pode ter tido alguma influência. O catedrático de Retórica da Universidade de Salamanca parece ter sido o principal responsável pela publicação do *Tractado de las drogas* (Burgos, 1578), dado que na carta que dirige ao leitor deixa bem claro o esforço que teve que desenvolver para convencer o nosso médico a publicar a sua obra. Tal empenho depreende-se das palavras que lhe dedica: "... o Doutor Cristóvão da Costa, médico doutíssimo [...] temia o dar à luz esta obra [...]. Pareceu-me tão mal este encolhimento, que o importunei, fatiguei, movi e forcei, a que vencendo o temor o seu bom zelo, quebrasse este gelo, e depositasse nas tuas mãos a limpidez da sua intenção..."[23]. A hesitação de Costa em publicar as suas observações e reflexões é comum a todas as obras que edita. Em cada uma delas, Costa revela-se reticente em divulgar a sua leitura do mundo. Em 1581 o médico viu o seu orçamento reforçado. O Senado de Burgos propôs-lhe um novo cargo, devidamente remunerado, o de médico dos pobres[24].

Nesta altura já Costa teria família formada[25] e eram-lhe reconhecidas qualidades profissionais adequadas ao desempenho do lugar proposto. Cristóvão da Costa manteve as suas funções até que a viuvez, por volta de 1587, o levou a afastar-se de Burgos[26]. Optou então por uma vida de reflexão e de isolamento. Apesar da austeridade da sua nova existência, Costa não se alheou do mundo. Manteve a sua actividade clínica,

Frontispício de *Tratado en contra, y pro de la vida solitaria*, de Cristóvão da Costa, Veneza, 1592.


TRATADO
EN CONTRA, Y PRO
DELA VIDA SOLITARIA.
CON OTROS DOS TRATADOS,
Vno dela Religion, y Religioso.
Otro contra los hombres que mal viuen.
Llenos de mucha Doctrina, y exemplo.
Dirigidos al REY DON PHELIPPE
NVESTRO SEÑOR.
POR CHRISTOVAL
ACOSTA AFFRICANO.
CON PRIVILEGIO.
IN VENETIA. M D XCII.
Presso Giacomo Cornetti.
Franco
f.

multiplicou os cuidados com o seu jardim botânico e prolongou a relação epistolar com os seus amigos, que afirmava "visitar com as suas cartas"[27]. Apenas se afastou da vida em sociedade. O médico procurou assim aquilo que designou num dos seus tratados venezianos "uma santa e sossegada vida".

Ao longo da sua vida, Cristóvão da Costa publicou três tratados. Em 1592 editou em Veneza duas pequenos obras: *Tratado en contra y pro de la vida solitaria. Con otros dos tratados, uno de le Religion y Religioso, Otro contra los hombres que mal vivem* e o *Tratado en loor de las mugeres, y de la castidad, onestidad, constancia, silencio, y justicia: con otras particularidades, y varias historias.* O primeiro é dedicado a Filipe II, enquanto que o segundo é dirigido à infanta D. Catarina de Áustria.

Cristóvão da Costa, através do seu testemunho e das muitas histórias verídicas ou verosímeis que conta, procura, nestes tratados venezianos, emendar os erros da sociedade que decidiu abandonar e apontar modelos de vida que ajudem os seus leitores a tornar-se "gentes louváveis". Em muitos dos exemplos apresentados ressoa o espírito pós-Conciliar. A argumentação defendida por Costa, fruto da sua experiência ou oriunda de fontes clássicas, é sinal da sua enorme erudição.

De todas as obras que publicou, aquela que lhe deu projecção no mundo erudito de então foi o *Tractado de las drogas,* um volume *in octavo*. Ao longo das suas quase 450 páginas encontram-se distribuídas cerca de meia centena de figuras. O seu formato agradável e os diversos índices remissivos tornam este *Tractado* atractivo e de fácil consulta, não apenas para a comunidade erudita, mas também para mercadores, navegantes ou simples curiosos.

OPORTUNIDADE DO *TRACTADO DE LAS DROGAS*

Numa Europa que ao longo dos séculos XV e XVI embateu com uma natureza exuberante ressaltou uma enorme curiosidade pelo mundo natural exótico. A descrição das riquezas orientais foi sendo encomendada a par do avanço territorial. O *Livro do que viu e ouviu no Oriente* de Duarte Barbosa (1516), a *Suma Oriental* de Tomé Pires (1515) e a *Enformação* de Simão Álvares (1546-1548) registaram o Oriente. Seguindo um percurso oeste-este, descreveram cidades e portos, populações e culturas, mercados e mercadorias, luxos e opulências, plantas e especiarias. Apesar destas obras não serem integralmente publicadas no século XVI, o conhecimento por elas veiculado chegou às cortes ocidentais.

Oviedo y Valdez publicou em Toledo, em 1526, a *Natural historia de las Indias*, uma das primeiras impressões sobre as Índias Ocidentais. Nela descreveu plantas, animais e minerais das *Indias y islas y terra firme y mar oceano*. A obra deste governador de Santo Domingo, tal como alguns dos manuscritos portugueses, foi mais tarde parcialmente traduzida por Giovanni Battista Ramusio e integrada, em 1550, num dos volumes de *Delle Navigazioni et Viaggi*, texto extensamente vulgarizado entre pilotos, mercadores, banqueiros, nobres e sábios da época.

Pierre Gilles foi enviado por Francisco I ao Próximo Oriente à procura de informações novas e de manuscritos antigos. Da sua atribulada passagem pelo Mediterrâneo Oriental apenas se salvaram algumas notas que, após a sua morte, foram compiladas numa pequena obra publicada em 1561, em Lyon, *Descriptio nova elephantii* (reed. 1565). Um opúsculo sobre o elefante foi publicado separadamente em 1614. Também Pierre Belon du Mans viajou para leste acompanhando as deslocações dos embaixadores de Francisco I junto da Sublime Porta. Durante a sua estadia no Próximo Oriente, Belon du Mans teve a oportunidade de visitar numerosas cidades. As suas notas sobre a geografia, a etnografia e o mundo natural daquele extremo do Mediterrâneo foram publicadas em Paris, em 1553: *Observations de plusieurs singularitez & choses mémorables trouvées en Grèce, Asie, Iudée, Egypte, Arabie & autres pays estranges*. Considerada uma verdadeira enciclopédia sobre o Império Otomano, atraiu o interesse da comunidade erudita europeia, tendo conhecido numerosas reedições durante o século XVI. Carolus Clusius, no *Exoticorum libri decem* (Leiden, 1605), incluiu a versão latina desta obra de Pierre Belon.

Filipe II incumbiu Francisco Hernandez do estudo do mundo natural do Novo Mundo. Naquela que foi considerada a mais importante expedição "científica" organizada pelo *Rei Prudente*[28], o protomédico real foi o primeiro europeu a descrever a flora mexicana e filipina, assim como alguns endemismos da China. Desta polémica e prolongada expedição (1570-1577) que Hernandez conduziu pelas Índias Ocidentais, além da descrição detalhada de riquezas de flora e fauna totalmente novas, destacou-se a regularidade das trocas comerciais entre Manila e Acapulco, bem

como o consequente acesso à China e às mercadorias orientais[29]. A chegada às Filipinas e a instalação de um mercado castelhano no Extremo Oriente possibilitaria, entre outras coisas, a abertura a Castela de novos canais de distribuição das mercadorias, até então nas mãos dos portugueses[30].

Se o interesse pelas Índias é inquestionável também parece inequívoca a curiosidade e admiração que toda a Europa nutre pelo Celeste Império. Tal como Garcia da Orta, Cristóvão da Costa revela um enorme fascínio pela China e pelos "chins", que qualifica de "polidos"[31] e "gentes discretas, sabidas e curiosas"[32]. Costa refere-se aos "chinas" como excelentes navegantes e hábeis mercadores. Grandes consumidores de âmbar, costo, cubebas, folio-índio, cate, galanga, marfim, pimenta, pedra-bezoar, raiz-da-china ou ruibarbo, entre outros aromas e especiarias, os "chins" aparentam ter uma enorme facilidade de contacto com mercadores árabes, persas, indianos, javaneses ou malaios. No capítulo que reserva à cânfora, Costa não esconde a sua admiração pela China, que, segundo afirma, "em grandeza de reino, em número de gentes, em excelência de polícia e de possessões, e riquezas e em governo, excede a qualquer outro reino do mundo"[33].

Das riquezas que vêm da China, Cristóvão da Costa adianta:

> "entre as muitas e diferentes mercadorias, e coisas que vêm da China, são muitas diferenças de vasos de prata mui ricamente lavrados, todo o serviço de casa, e de leitos, e catres para dormir: todos feitos de prata de relevo, e ao buril delicadissimamente lavrada : tanta qualidade de seda solta e tecida, que por não pôr em dúvida os leitores calarei neste lugar. Vem também muito ouro, à mistura, aljôfar, azougue, cobre, vermelhão, muita porcelana, e dela tal que vale duas vezes mais do que a prata : e outras muitas coisas assim como de mercadorias como de curiosidades."[34]

Cristóvão da Costa escusa-se a acrescentar mais detalhes sobre a China. No seu *Tractado de las drogas* aconselha "quem quiser ver parte do muito que na China há, leia o livro que fez o Reverendo padre Frei Gaspar da Cruz, da Ordem de S. Domingos"[35]. A obra em causa, *Tratado em que se contam muito por extenso as coisas da China* (Évora, 1569-1570), parece ter inspirado também o *Discurso de la Navigación* que Bernardino de Escalante editou em Sevilha em 1577[36].

O incremento do número de obras sobre o mundo natural das Índias publicadas em castelhano demonstra o interesse crescente de Filipe II pelas riquezas naturais ocidentais e orientais, cada vez mais acessíveis aos mercadores de Castela. Foi assim, neste contexto, que Cristóvão da Costa editou, nas oficinas de Martin Vitoria, o *Tractado de las drogas* que dedicou ao Senado de Burgos. Apesar de se basear na obra de Garcia da Orta, Dr. Juan Costa afirma:

> "E embora se deva nesta matéria muita diligência do Doutor Garcia de Orta, que a trabalhou com muita curiosidade, mas eu conferi a sua obra com esta e a achei tão outra que podemos dizer, que Orta só esboçou as primeiras linhas, e que Costa pôs as cores vivas: pois põe em perfeição o que ele havia começado."[37]

Na verdade, o *Tractado de las drogas* denota importantes diferenças relativamente aos *Colóquios dos simples* de Garcia da Orta[38]. Costa reorganiza as ideias expostas por Orta; apresenta capítulos estanques, cada um referindo uma planta ou uma especiaria distinta. O texto segue uma ordem precisa. Cristóvão da Costa tenta objectivar o discurso, retirando-lhe as referências a acontecimentos políticos relacionados com a presença portuguesa na Índia. Acima de tudo, exclui alusões menos convenientes sobre a política externa castelhana. O médico procura ilustrar o mundo asiático no seu texto. Acrescenta-lhe alguns exemplos concretos reveladores da sua própria experiência e também novas plantas, algumas de origem asiática, outras de origem americana aclimatadas pelos portugueses ao Oriente. Do mesmo modo amplia os conhecimentos referentes à medicina local; suprime referências a minerais e pedras preciosas; enriquece a obra com gravuras; mostra-se particularmente cauteloso nas referências aos hábitos e vivências locais. O volume de Costa aparece assim como um texto muito mais próximo das obras de História Natural redigidas na Europa que o de Orta.

No entanto, um discurso ainda rígido testemunha a desarticulação entre palavra e objecto. A descrição de plantas, recorrendo a comparações com espécies comuns na Europa, revela esta carência de terminologia "botânica" que só mais tarde será colmatada. Se bem que o *Tractado* testemunhe um maior cuidado na escolha do vocabulário utilizado do que os *Colóquios*, o que é certo é que à data da sua publicação a comunidade erudita europeia ainda procurava criar um léxico

próprio para designar e descrever a multiplicidade do mundo natural. O estilo literário poderia ser, segundo Costa, "mais elegante", mas na sua frontalidade o médico afirma "aprecio dizer mais as verdades certas, que palavras limadas"[39]. No entanto, a palavra não chega para descrever aquilo que observa. Cristóvão da Costa parece necessitar do esboço para complementar a dissertação. A grande inovação de Costa relativamente a Orta é a inclusão de 47 desenhos. Figuras distintas daquelas que as oficinas do Norte da Europa divulgam. Gravuras com um estilo próprio, reveladoras de uma preocupação de uniformidade gráfica da obra ou de uma forma diferente de interpretar a Natureza.

REPRESENTAÇÕES DE PLANTAS

Na Europa do Norte, desde Dürer (1471-1528) que o mundo natural era olhado e lido com detalhe. As plantas, em Brunffels[40], Fuchs[41] ou Bock[42], eram analisadas em pormenor. De cada folha desenhavam-se as nervuras e os recortes. De cada flor, representavam-se as particularidades das pétalas, das sépalas, dos estames ou dos carpelos. Os autores dos *naturalia* não queriam deixar escapar nenhum elemento, eventualmente crucial, para uma possível ordenação do mundo natural. Para os botânicos do Norte da Europa, tudo devia ser registado. O realismo das imagens visava o registo de um exemplar particular[43]. Tal não parecia ser a visão de Veneza. A *Sereníssima*, conhecida pelas suas escolas picturais mais preocupadas com o volume e a cor do que com o rigor milimétrico da figura, parecia ter outra forma de ler o mundo natural. As obras de Mattioli[44], profundamente ilustradas, apresentavam um mundo vegetal volumoso e corpulento com dificuldade em fixar-se à superfície plana. A folhagem das árvores não cabia no espaço que lhes era destinado na página. As folhas apareciam dobradas, querendo ultrapassar os limites impostos pelo editores. Os frutos eram tridimensionais. As raízes ancoravam as plantas ao meio. As imagens dinâmicas deviam o seu movimento ao contraste luz-sombra dado por conjuntos de linhas paralelas[45].

Costa, com as representações estilizadas e quase que alegóricas das plantas, revela estar mais próximo desta sensibilidade artística do que da visão analítica do Norte da Europa. O seu traço nítido define com clareza o objecto. O contraste claro-escuro evidencia o volume da representação. A disposição das figuras revela o equilíbrio da composição. No seu *Tractado de las drogas* não reserva um canto da folha para colocar a ilustração. Cada planta representada ocupa a totalidade da superfície disponível.

Cristóvão da Costa é inequívoco quanto ao seu objectivo em publicar a obra quando afirma:

> "a minha única intenção [neste Tratado] é, como testemunha de vista, satisfazer com a pintura o verdadeiro retrato destas plantas."[46]

Com estas palavras, o médico deixa bem clara a sua principal motivação: a reprodução esquemática da Natureza observada. Sempre que pode, desenha as plantas com raiz, folhas e flores. Como nos revela, as figuras permitem um fácil reconhecimento das plantas mas desenhá-las "só o poderá fazer quem ocularmente com os seus mesmos olhos os houvesse visto, e experimentado"[47]. Na sua atribulada passagem pelo Oriente, Cristóvão da Costa não só registou as práticas médicas locais, que confrontou com aquelas que aprendera na Europa, como gravou o que viu. As plantas foram desenhadas "ao vivo". Cristóvão da Costa parece ter reencontrado, no exotismo da Índia e naquilo que ele representa, a sua própria juventude passada em terras africanas[48].

Por vezes, quase como se de um herbário de folhas secas se tratasse, Costa evidencia uma folha[49] que, segundo ele, permite identificar claramente a planta correspondente. O mesmo tipo de representação já se tinha verificado no *Delle Navigazione et Viaggi* de Giovanni Battista Ramusio (1550), nomeadamente no *Sommario di tutti li regni citta, & popoli orientali*.... O italiano ilustra as duas páginas de *la foglia del Betelle*. Ao mostrar esquemas de folhas, Costa, tal como Ramusio, parece querer mostrar aos viajantes e mercadores o aspecto da planta que devem procurar no longínquo Oriente.

Um dos elementos curiosos das ilustrações de Costa, apesar de não constituir facto inédito, é a coexistência de flores e frutos na mesma figura. Costa insiste na presença da flor. A flor é um elemento omnipresente no quotidiano da Índia. A representação das flores parece ser essencial para a identificação da planta. O carácter decorativo das peças florais é fundamental para colmatar a ausência de cor do seu desenho. Costa apenas consegue colorir as ilustrações recorrendo à palavra. Na descrição das plantas distingue os amarelos: claro, "verdoso" ou açafrão; diferencia as tonalidades de verdes: claros, escuros ou vivos;

nota as gradações de rosas, vermelhos, púrpuras ou roxos; discrimina o matiz dos azuis. Frequentemente recorre à figura para complementar o discurso. As suas ilustrações, além de ornamentais, parecem revelar uma preocupação didáctica. A representação tem por isso uma função plástica, mas também pedagógica. Se o jambo[50] é desenhado por ser "tão aprazível à vista, e tão suave no aroma e tão grato no sabor que é digno se pinte e se faça memória dele", outras plantas são ilustradas para facilitar a sua identificação ou emendar ideias erradas. Deste modo, Costa corrige a informação que corre sobre o gengibre[51], que "não é assim mas como está figurado"; ou a respeito dos âmbares[52], "que não são daquela figura mas sim como está pintada". A gravura serve igualmente para realçar a exactidão da informação dada: a folha da canela[53] "tem três nervos como na figura se mostra"; enquanto que a da pimenta[54] "é do tamanho que acima se pinta". Já o pau-de-cobra[55] "tem só três folhas que aqui estão pintadas" e o caule do bangue[56] "é da grossura deste que está pintado".

Costa tem a preocupação de desenhar as raízes das árvores. Se bem que tal se possa dever aos facto de muitas raízes poderem elas próprias ser usadas na produção de fármacos, o artista parece querer olhar a planta como um todo. Não se pense, no entanto, que a representação da totalidade da planta é uma novidade de Costa. Brunffels[57] e Fuchs[58] já o tinham feito anos antes.

No entanto, Costa parece opor-se ao modelo de representação proposto pela casa Plantin, de Antuérpia. Senhores, pela mão de Clusius[59], da divulgação europeia do mundo natural exótico, os desenhadores das oficinas de Christophe Plantin[60] apenas ilustram a parte da planta com valor comercial. A versão latina que Clusius fez da obra de Garcia da Orta[61] possui algumas ilustrações. O desenhador e o gravador da casa Plantin esboçam as folhas e frutos "à vista". Não plantas inteiras, mas apenas as partes comercializadas nos mercados europeus[62]. Costa parece não partilhar desta visão utilitarista do mundo natural asiático. No meio de uma natureza luxuriante não se encontram ramos de cravinho ou cachos de pimenta como o *Aromatum et simplicium* parece propor. As 47 gravuras de Costa procuram mostrar elementos vivos de um mundo rico e diverso.

INTÉRPRETES DO *TRACTADO DE LAS DROGAS*

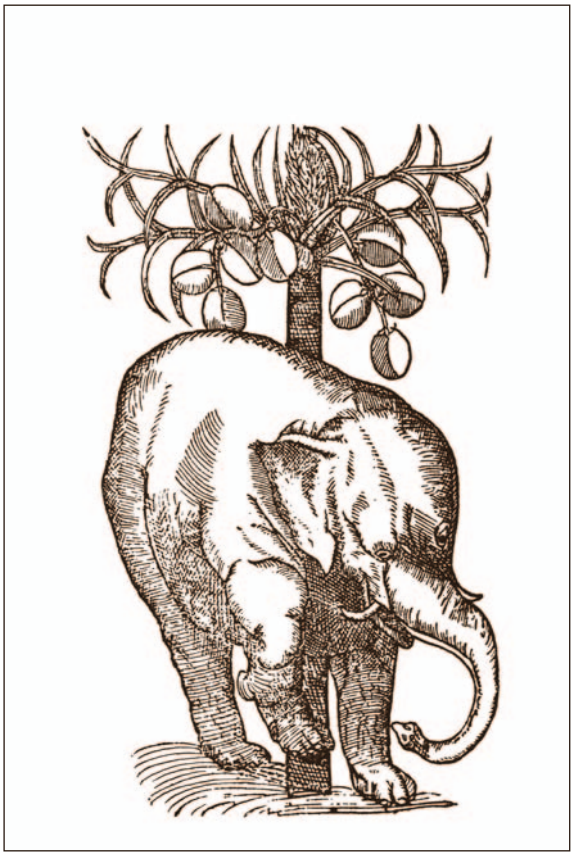
Clusius conheceu a obra de Cristovão da Costa em 1581 durante uma deslocação a Londres. Nesta viagem teve a oportunidade de contactar com Sir Francis Drake que, além de informações fidedignas sobre o mundo natural oriental, lhe cedeu plantas exóticas para o seu jardim botânico. Na sequência dos seus contactos londrinos, o médico de Arras publicou em Antuérpia, em 1582, duas pequenas obras. A primeira, um resumo do *Tractado de las drogas*, *Christophori Acosta, medici et cheirurgi: Aromatum & medicamentorum in orientali india nascentium liber*. Nela adapta a ilustração da árvore do cravinho desenhada pelo médico de Burgos. A segunda, *Aliquot notae in Garciae Aromatum Historia*, é uma compilação de informações complementares aos *Colóquios dos simples*. A obra apresenta uma ilustração do "betre" que mais do

"Castania", in Leonard Fuchs, *De historia stirpium commentarii insignes*, Basileia, 1542.

que seguir o realismo habitual da casa Plantin parece seguir o testemunho gráfico de Costa.

A referida proximidade gráfica de Veneza relativamente a Cristóvão da Costa também pode constatar-se pela fidelidade com que Francesco Ziletti traduz, quase palavra a palavra, o *Tractado de las drogas*[63] e pelo cuidado que investe em copiar cada traço das suas figuras.

As figuras de Costa foram adaptadas por outros autores que se debruçaram sobre o mundo natural oriental, constituindo o *Traicté des drogues*[64] (Lyon, 1602) de Antoine Colin (a versão francesa do *Aromatum* de Clusius) apenas uma das obras que adoptaram o grafismo criado pelo nosso médico.



"Elefante arrimado à palmeira", in Cristóvão da Costa, "Tratado do Elefante".

UMA NATUREZA A DESCODIFICAR

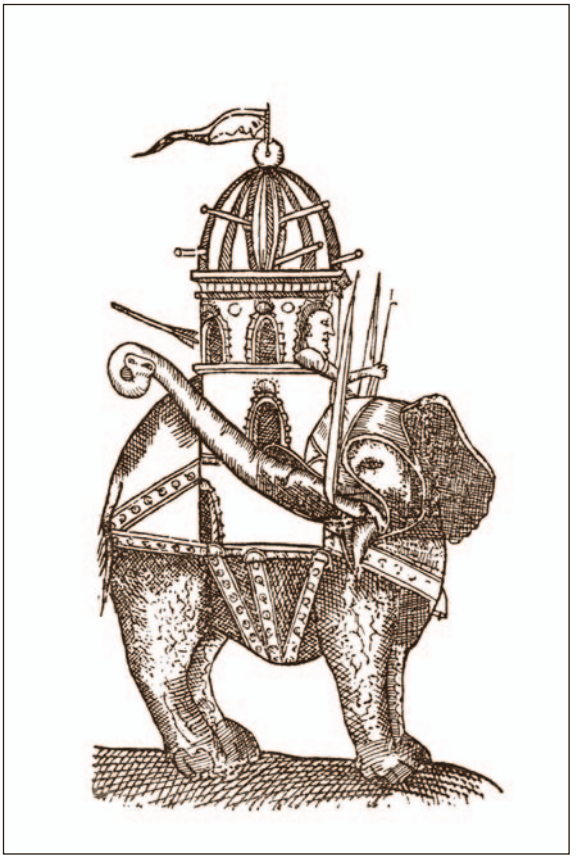
Para Cristóvão da Costa, a leitura do mundo natural exótico exige um olhar inteligente. A Natureza é fonte de alegorias e símbolos. No curto capítulo que dedica à erva-viva[65], o médico descreve uma pequena planta que parece murchar quando se lhe toca com a mão e reverdeja quando a mão dela se afasta. Com algum orgulho Costa afirma: "a erva vi eu, e colhi-a com toda a sua terra sem a tocar, e plantei-a num jardim onde se conservou". A experiência permite-lhe assim ultrapassar um limite. A erva-mimosa, outra destas plantas que intriga o médico, "tem esta outra propriedade muito diferente da árvore-triste, que é, em todas as noites, em se pondo o Sol, envelhecer, e secar, de maneira que parece morta, e em saindo o Sol volta a reverdecer: e quanto mais forte está o Sol, ela mais fresca. E em todo o dia anda voltando as folhas contra o sol"[66]. Esta erva concilia a delicadeza da erva-viva com a susceptibilidade à luz. A fotossensibilidade caracteriza também a desconcertante árvore-triste. A planta e a lenda da filha de Parizataco parecem fascinar o médico, assim como os europeus mais diligentes. Costa testemunha que "Muitos Vice-Reis da Índia e capitães e outras pessoas particulares pretenderam trazer esta planta a Portugal, e não saíram com ela" e complementa esta informação afirmando, com alguma ironia: "No Malabar, e em Goa, e no seu arredor, se cria de tal modo, que qualquer ramo desta árvore que metam na terra, prende"[67].

Ao longo de todo o século XVII muitos botânicos europeus retomarão a lenda da árvore-triste[68], mantendo viva esta imagem da Índia e revelando o misto entre real e imaginário, objecto e símbolo, que continua a coexistir na construção do saber. Mas a singularidade da Índia nunca deixa de surpreender Costa, que não esconde a sua surpresa ao falar do sargaço, planta marinha que teve a oportunidade de observar uma vez em que se achou "numa paragem com calmaria"[69]. Apesar do esforço dos grumetes em afastar "estas matas" junto à nau, o naturalista não lhe encontrou raízes nem solo a que elas se pudessem ancorar. A obra do médico apresenta assim plantas admiráveis e novas, ricas de simbolismos e dignas de um gabinete de curiosidades de qualquer erudito europeu. É de assinalar a ausência no *Tractado de las drogas* de todas as pedras preciosas que Orta tanto valoriza. Costa poderá ter optado pela exclusão deste mundo inerte por o considerar oposto do reino vegetal vivo e dinâmico[70].

As figuras mais dinâmicas da obra de Cristóvão da Costa são as que insere no "Tratado do Elefante", um capítulo que o médico quis manter fora do *Tractado de las drogas* sem no entanto o separar dele, dado que são editados em conjunto. Baseando-se

no Colóquio XXI de Garcia da Orta, "Do ebur ou marfim, e do ellefante", um colóquio que "não faz para fisica se não para pasatempo"[71], Costa reconstrói a ideia de Orta. Para tal, apoia-se nos textos de Plínio[72], Eliano e Pierre Gilles, procurando nos textos antigos e modernos enquadramento para as suas observações.

Tal como nos bestiários medievais, o animal não existe por si mesmo mas enquanto portador de uma multiplicidade de sentidos[73]. As referências a histórias sobre estes paquidermes e os registos cuidadosos sobre os comportamentos sociais dos elefantes revelam não apenas a admiração do médico por estes animais, que lhes atribui características e qualidades humanas, mas também o reconhecimento do seu valor cultural. Os pequenos episódios que vai contando validam ou corrigem as ideias que circulam sobre estes animais. A verdade sobre os elefantes deixa de ser patenteada por Plínio ou Eliano para passar a pertencer ao quotidiano asiático. Muitas das histórias que Garcia da Orta conta sobre os elefantes são retomadas por Cristóvão da Costa. As anedotas, presenciadas pelos autores ou contadas por "gentes dignas de fé", tornam-se nas versões modernas das alegorias de Plínio. Os acontecimentos com estes animais, testemunhados pelos portugueses da Índia, passam a constituir a verdade sobre estes paquidermes.



"Elefante armado", in Cristóvão da Costa, "Tratado do Elefante".

O elefante é o Deus dos deuses da Índia, mas é também, desde a Antiguidade, a encarnação de todo o tipo de virtudes[74]. Costa descreve-o como um animal enorme, com grandes orelhas e olhar vivo, dócil, sensível, casto, envergonhado, obediente, inteligente, respeitador, altruísta, capaz de reconhecer quem lhe faz bem, defensor dos fracos, que apesar de ser um animal pacífico é usado na guerra. Encostado à palmeira, talvez um pouco desequilibrado, ou armado de torres, o paquiderme é manso. O elefante ilustrado tem mais personalidade do que o soldado que surge representado de perfil, o mesmo que aparece no estandarte.

Cristóvão da Costa analisa a conduta destes paquidermes, parecendo centrar a sua preocupação no estudo etológico dos elefantes. Interpreta as suas atitudes atribuindo-lhes motivações humanas. Talvez não sejam os elefantes, enquanto animais soberbos, que estejam a ocupar um lugar de evidência no texto do médico, mas a leitura metafórica do que estes representam. O sentimento que encontramos no "Tratado do Elefante" relativamente a estas delicadas bisarmas parece encontrar eco naquela rectidão de carácter que Costa vem mais tarde a defender nos seus tratados venezianos. As qualidades que o médico louva nos elefantes são características que pretende encontrar nas pessoas louváveis. Costa procura fazer passar a sua mensagem recorrendo a uma leitura alegórica do *Livro da Natureza*[75].

O "Tratado do Elefante", tal como o "Colóquio do betre" de Garcia da Orta, surge como uma imagem da Índia. Prendas de valor ou sinais de poder, a presença do popular Ganesh na profunda e espiritual Índia só encontram paralelo no ubíquo betre. Com o seu *Tractado de las drogas*, Cristóvão da Costa revela à Europa um mundo oriental fervilhando religiosidade e riqueza interior, vivendo em profunda e serena harmonia com a cor, a forma, o aroma e a textura da Natureza que o envolve. RC

NOTAS

1 Para a construção da presente biografia foram analisados os testemunhos autobiográficos que Cristóvão da Costa distribui ao longo das suas obras. O *Tractado de las drogas* (Burgos, 1578) é a publicação mais rica em detalhes passíveis de elucidar os seus passos, pelo que é o mais frequentemente referido. As citações são extraídas da versão portuguesa de Jaime Walter (Costa, 1964). Ver igualmente: Olmedilla Y Puig (1899); Barbosa de Machado (1965); Rodriguez Nodal & Gonzalez Bueno (2000).

2 A origem africana de Cristóvão da Costa parece indiscutível. Para além do curto epigrama registado numa das suas obras, Costa assina sempre as suas obras como *Cristobal Acosta el africano*. Não se conhecem dados que permitam localizar com exactidão o seu local de nascimento. As opiniões dos seus biógrafos dividem-se entre Tânger, Cabo Verde e Ceuta. A origem portuguesa parece ser evidenciada por Alonso Gonzalez de la Torre, que no *Dialogo entre Fortuna y Fama al Autor Christoval Acosta* o designa de "*valeroso Lusitano*" (Costa, 1964, fl. XXXVIIII).

3 Pinto Pereira, 1987, p. 148.

4 Pinto Pereira, 1987, pp. 149 e 154.

5 Garcia da Orta (Castelo de Vide c.1500-Goa 1568).

6 Costa, 1964, fl. XXVII.

7 Costa, 1964, fls. XXXII e XXXVII.

8 Costa, 1964, p. 14.

9 Costa, 1964, p. 12.

10 Costa, 1964, p. 72.

11 Costa, 1964, p. 215.

12 Costa, 1964, p. 125.

13 Costa, 1964, p. 109.

14 Costa, 1964, p. 195.

15 Costa, 1964, p. 280.

16 Costa, 1964. p. 221

17 Costa, 1964, p. 139.

18 Título concedido por D. Sebastião a D. Luís de Ataíde em Setembro de 1577.

19 Costa, 1964, p. 221

20 Costa, 1964, p. 304

21 "Em regimento de Abril de 1576. Tratado e praticado sobre tomar cirurgião, e vistas as diligências que se fizeram em Valladolid, Salamanca, Alcalá, Segóvia, Madrid e outras partes, e as relações que vieram dos cirurgiões que se podiam tratar, acordaram que o corregedor e Melchior Astudillo e Francisco Salamanca tratem com o doutor Costa de Boaventura, médico e cirurgião que presentemente está nesta cidade, que assista e resida nela pelo tempo e pelo salário que melhor lhes parecer, atendendo que se tem dele muito boa relação e experiência, e que ao tempo em que está nesta cidade tem feito muito boas curas, especialmente do mal de urina e carnosidade e outras enfermidades extraordinárias…" (Costa, 1964, fl. XII).

22 Juan Costa y Beltrán (c.1549-c.1597), natural de Saragoça, doutor em Leis, regente de Retórica na Universidade de Salamanca (1576--1583) e de Retórica e Código na Universidade de Saragoça (após 1583). Autor de importantes obras, das quais se destaca *El ciudadano,* Pamplona, 1575. Em 1592 foi nomeado cronista de Espanha.

23 Costa, 1964, fl. XXXI.

24 Rodriguez Nozal & González Bueno, 2000, p.20.

25 Em Costa, 1592a, o nosso autor refere deixar "*hijos y nietos*" o que leva a supor a data do seu casamento para as vésperas da sua partida para a Índia ou mesmo para a sua estadia asiática.

26 "…*y es que aviendo sido casado, por falecimiento de mi consorte me recogi (para mejor de mi alma) en un despoblado, à do composio un libro*…" (Costa, 1592b, *Dedicatoria a Infanta D. Catarina de Austria*).

27 Costa, 1592b, p. 66.

28 Goodman, 1990, p. 265.

29 Lopéz Piñero, 2002, pp. 564-566.

30 Loureiro, 1997, p. 93.

31 Costa, 1964, p. 98.

32 Costa, 1964, p. 269.

33 Costa, 1964, pp. 155-156.

34 Costa, 1964, p. 156.

35 Costa, 1964, p. 156.

36 Loureiro, 1997, pp. 13-14.

37 Costa, 1964, fl. XXXII.

38 O confronto dos conteúdos das obras de Garcia da Orta e Cristóvão da Costa foi alvo da atenção de autores como Jaime Walter (Costa, 1964), Luís Filipe Barreto (Barreto, 1985), Rodriguez Nozal e Gonzalez Bueno (Rodriguez Nozal & González Bueno, 2000).

39 Recorda as "puras verdades com puro estilo" da carta de Dimas Bosque a Garcia da Orta (Orta, 1963).

40 Otto Brunffels. *Herbarum Vivae Eicones*, Estrasburgo, 1530. Esta obra marca uma viragem, ainda que não definitiva, na leitura estética do mundo natural. O trabalho do desenhador Hans Weiditz, discípulo de Dürer, caracteriza-se por um enorme realismo, apresentando as plantas tal como elas se encontram na natureza.

41 Leonard Fuchs, *De Historia Stirpium*, Basileia, 1542.

42 Hieronymus Bock, *Kreuterbuck,* Estrasburgo, 1546. Esta edição retoma o texto não ilustrado editado na mesma cidade em 1539, mas inclui figuras retiradas de Fuchs (1542) e de Brunffels (1530).

43 Magnin-Gonze, 2004, pp. 60-61.

44 Pietro Andrea Mattioli, *Comentarii in libros sex Pedacii Dioscoridis Anazarbei de Medica materia*, Veneza, 1554.

45 Arber, 1999, pp. 223-225.

46 Costa, 1964, p. 16

47 Costa, 1964, fl. XXVIII. Jaime Walter utiliza a expressão "mimosos olhos". Dado que o texto original refere "*mismos ojos*" optou-se por reajustar a tradução.

48 Costa, ao descrever a palmeira compara-a com os palmitos do Algarve ou de África, que lhe parecem ser bastante familiares (Costa, 1964, p. 68).

49 Costa representa em tamanho real as folhas de canela, pimenta, pau--da-china e pau-de- cobra.

50 Costa, 1964, p. 173.

51 Costa, 1964, p. 166.

52 Costa, 1964, p. 193.

53 Costa, 1964, p. 1.

54 Costa, 1964, p. 13.

55 Costa, 1964, p. 227.

56 Costa, 1964, p. 245.

57 Cf. nota 42.

58 Cf. nota 43.

59 Carolus Clusius ou Charles de l'Écluse (Arras, 1526-Leiden, 1609) foi autor de várias versões de obras sobre matéria médica exótica. Garcia da Orta, Nicolás Monardes, Cristóvão da Costa e Pierre Belon foram alguns dos autores que Clusius deu a conhecer à Europa do Norte através das versões latinas das suas obras.

60 Christophe Plantin o "Arquitipógrafo Real" de Filipe II, a par de veículo de propagação da fé cristã, concentrava o poder de divulgar o saber botânico, médico, matemático e cartográfico.

61 Carolus Clusius, *Aromatum et simplicium aliquot medicamentorum apud indos nascentium historia,* Antuerpia, 1567.

62 A canela, a laca, o bedélio, o fólio, o cravo, a pimenta, a fagara de Avicena, o faufel, o anacárdio das boticas ou o caju, entre outras.

63 *Della Historia, natura, et virtu delle droghe medicinali…*,Veneza, 1585.

64 *Traicté des drogues & medicaments qui naissent aux Indes*, Lyon, 1602.

65 Costa, 1964, p. 147.

66 Costa, 1964, p. 151.

67 Costa, 1964, p. 135.
68 Arber, 1999, pp. 102-103.
69 Costa, 1964, p. 239.
70 Costa, no capítulo da pedra-bezoar, deixa no ar a ideia que tem entre mãos uma outra obra sobre as medicinas, plantas, aves e animais da Índia. O manuscrito, possivelmente redigido, porque dele fala um seu amigo no prefácio do *Tractado en pro y contra de la vida solitaria*, nunca veio a ser editado. Do mesmo modo, ao falar das maçãs-da-índia, Costa afirma claramente que este é o seu primeiro livro, o que faz admitir o projecto de publicação de obras posteriores (Costa, 1964, p. 73).
71 Orta, 1963, fl. 83.
72 Plínio, o Antigo (23-79 a. C.) criou muitos dos mitos que, desde a Antiguidade, circularam sobre a flora e a fauna exóticas. O naturalista associou aos pacatos elefantes virtudes de honestidade, sabedoria, justiça, modéstia ou gentileza. O sentido religioso destes paquidermes, manifestado pela veneração da lua e o respeito pelas estrelas a que Costa se refere, têm igualmente a sua origem nos extensos livros da *Historia Naturalis* de Plínio.
73 Tesnière, 2005, pp. 71-72.
74 Tesnière, 2005, p. 101.
75 Eisenstein, 1991, pp. 226-328.

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ITINERARIO,

Voyage ofte Schipvaert / van Jan Huygen van Linschoten naer Oost ofte Portugaels Indien

inhoudende een corte beschrijvinghe der selver Landen ende Zee-custen / met aenwysinge van alle de voornaemde principale Havens / Revieren / hoecken ende plaetsen / tot noch toe vande Portugesen ontdeckt ende bekent: Waer by ghevoecht zijn / met alleen die Conterfeytsels vande habyten / dragten ende wesen / so vande Portugesen aldaer residerende / als vande ingeboornen Indianen / ende huere Tempels / Afgoden / Huysinge / met die voornaemste Boomen / Vruchten / Kruyden / Specerijen / ende diergelijcke materialen / als ooc die manieren des selfden Volckes / so in hunnen Godts-dienſten / als in Politie eñ Huysl-houdinghe: maer ooc een corte verhalinge van de Coophandelingen hoe eñ waer die ghedreven eñ ghevonden worden / met die ghedenckweerdichſte geſchiedenissen / voorgheballen den tijt zijnder residentie aldaer.

Alles beſchreven ende by een vergadert, door den ſelfden, ſeer nut, oorbaer, ende oock vermakelijcken voor alle curieuſe ende Liefhebbers van vreemdigheden.

t'AMSTELREDAM.

By Cornelis Claeſz. op't VVater, in't Schrijf-boeck, by de oude Brugghe.

Anno CIↃ. IↃ. XCVI.

Jan Huygen van Linschoten, *Itinerario, Voyage ofte Schipvaert van Jan Huygen van Linschoten naer Oost ofte Portugaels Indien.*

Sources and Organisation of the Botanical Section of the *Itinerario* (1596) by Jan Huygen van Linschoten

Arie Pos*

INTRODUCTION

While studying Linschoten's *Itinerario* (1596), one may wonder how and where he obtained all his information.[1] Although various literature exists as a result of him using different written sources, there is still a lot to be done in this field. This article presents some notes on the use of sources in the botanical section of the book and their importance in relation to the intentions of the author and his learned friend Bernardus Paludanus, who wrote annotations for most chapters. Calling the section "botanical" is somewhat problematic, for although chapters 49 to 87 deal mainly with fruits, trees, plants and herbs, they also include medicinal stuffs of other origins and minerals. But within the structure of the book, they form a distinct part, more or less systematically divided into sections and subsections, as shall be seen later.

That Linschoten included this material in the *Itinerario* is very understandable. It was one of the standard parts in the descriptions of foreign lands, it appealed to the reader's exotic taste and disclosed information from less well-known chapters from God's Book of Nature. Apart from that, the information could be useful and instructive and last but not least, commercially interesting. Linschoten seems to have been well aware of all the factors when he wrote his work. His purpose was to give adequate and above all, practical and useful information about a world largely unknown to his readers. The way he organised his information reveals his intention to serve both readers who stayed at home and readers about to travel to Asia. It also reveals his awareness of the commercial

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AROMATVM
ET SIMPLICIVM
MEDICAMENTORVM
HISTORIÆ LIBER I.

De Ambaro. CAP. I.

AMBARVM *Latinis, Ambar Arabibus dicitur: quo nomine omnibus, quas ſciam, nationibus notum eſt, aut variato duntaxat paululum vocabulo.* Ambar.

VARIA *autẽ circa huius generationem Scriptorũ eſt opinio. Siquidem alij Sperma Balenæ eſſe aſſerunt: alij beluæ cuiuſdam marinæ excrementum, aut maris ſpumam (quæ ſanè opiniones ratione carent, quòd nullum Ambarum inueniatur vbi frequentiſſimæ ſunt Balenæ, & vbi fluctuum reciprocatione ſpuma plurima excitatur;) alij Bituminis modo ex maris alueo emanare, quæ opinio melior, & veritati magis conſona pleriſque viſa eſt.* Ambarũ Balenarum ſperma non eſſe. Ambarũ Bitumẽ videri.

AVICENNA *lib. 2. cap. 63. & Serapio lib. ſimp. cap. 196. ſcriptum reliquerunt, fungorum in rupibus & arboribus more Ambarum in mari generari, & tempeſtatibus vnà cum ſaxis interdum in littus eĳci; quæ ſententia veriſimilior eſt reliquis ab Auicenna productis. Nam multum flantibus Euris, magna eius copia Sofalam, & in inſulas Comaro, Demgoxa, Moſambicam, totumq; eum tractum eĳcitur è Maldiuis inſulis, quæ ad Orientem ſpectant. Flantibus* Inſulæ de Nalediua.

importance of various goods. His public ranges from common or more scientifically interested readers, curious to know about foreign lands and cultures, to merchants, shippers, ship-owners, sea captains and crew.

Both the author's and the publisher's intentions are greatly responsible for the eclectic format of the subject matter. Linschoten's eclecticism can be demonstrated by focusing on the written source he used for the botanical section, Garcia da Orta's *Colóquios dos simples e drogas da Índia* (Goa, 1563).

Linschoten did not mention his source, but there is no doubt that he translated from and rearranged large parts of Orta's book, which until now is the only identified source in his part of the botanical section. We know virtually nothing about his level of education, but judging from the *Itinerario,* it is extremely doubtful that Linschoten read Latin or Greek.[2] He was certainly no academic scientist and in this respect, the difference between him and the academic doctor Paludanus is quite clear. But Linschoten had a good command of Spanish and Portuguese and gathered information from various sources in both languages. The only written source he mentions directly in his *Itinerario* (by giving the name of the author) is the *Historia de las cosas más notables, ritos e costumbres del gran Reyno de la China* (Rome, 1585) by Juan González de Mendoza, which he used for chapters 23 and 24 about China and from which he took a Bengali legend about the river Ganges (at the beginning of chapter 16). Apart from González de Mendoza, only Camões (*Os Lusíadas*, Lisbon, 1572), Garcia da Orta and Cristóvão da Costa have more or less been clearly identified. The influence of the latter in Linschoten's text seems restricted to chapter 46 about the elephant, which is largely inspired by Costa's "Tratado do elefante e das suas qualidades" [Treatise on the elephant and its qualities], published as an appendix to his *Tractado de las drogas y medicinas de las Indias Orientales* (Burgos, 1578).[3]

ORTA'S *COLÓQUIOS*

The most frequently used source by far, was Orta's *Colóquios*, where Linschoten found material for chapters 50 to 87 of the botanical section of the *Itinerario*. We know that Linschoten (between c. 1585 and 1590) owned a copy of Orta's book, that nowadays is kept in the Library of the University of Leiden.[4] He must have acquired the book in Goa, where he lived and worked as a secretary to Archbishop Vicente da Fonseca from September 1583 to November 1588. The fact that he seems to have sold it before he came back to Holland, suggests that he compiled his excerpts sometime between 1585 and 1590. He omitted the dialogue format of the original and copied what he thought was interesting in a sometimes unsystematic way. Although Linschoten does not mention his source at all, there is no doubt that he worked with the Portuguese original. Because he did not read Latin, he had no access to the Latin version of the work, *Aromatum et simplicium*, prepared by Carolus Clusius and published in Antwerp in 1567. It is therefore important to note that this Latin version of the text was available at the time and that it was reprinted in 1593 (shortly after Linschoten's arrival in Holland in September 1592) in one volume with Clusius' Latin versions of the treatise on medicinal plants of the New World by Nicolau Monardes and the treatise of Cristóvão da Costa, *Aromatum et medicamentorum*, which was first published in Antwerp in 1582. Another curious fact, is that Clusius was the director of the garden of medicinal herbs at Leiden University from 1593 until his death in 1609 and that he was appointed as such after Paludanus had refused to accept the post.[5] One could say, that scientific information was very close to hand, but still Linschoten's Dutch renderings of the original Portuguese source were published in the *Itinerario,* in what seems like another clear example of the eclectic and popularising intentions of the edition, aimed at average readers who had no knowledge of Latin.

The same intentions are confirmed in the way he organised and presented his extensive borrowings from Orta. Linschoten did not follow the alphabetical order of the original, nor the modified order of Clusius. He neither translated the entire book, nor did he include all of the described materials. He made a selection and arranged everything into four themed sections, revealing a subdivision inspired by utility and commercial and practical importance. In order to convey an idea of Linschoten's reorganisation of the subject matter, in the following listings, the order of the four sections is compared to Orta and Clusius.

First page of Carolus Clusius' *Aromatum et simplicium aliquot medicamentorum apud indos nascentium historia.*

Table 1

Chapter in *Itinerario*	*Colóquio* Orta	Book/Cap. Clusius
49. ananás/pineapple	–	note II/IX
50. jaca/jackfruit	28	II/IIIII
51. manga/mango	34	II/IX
52. caju/cashew	–	note I/XXX
53. jambo/jamboo	28	II/XIII
54. jangoma/flacourtia	28	II/V
carambola/star fruit	12	II/XV
brindões/kokum	10	II/XIX
jambolões/jambolan	12	II/XVIII
papaia/pawpaw	–	–
pateca/watermelon	36	II/XX
55. figos-da-índia/bananas	22	II/X
56. cocos/coconut	16	I/XXVI
57. durião/durian	20	II/XI
58. árvore-de-raízes/banyan tree	–	–
cana-de-açúcar/sugar-cane	–	–
bambu/bamboo	(51)	(I/XII)
tabaxir/tabashir	51	I/XII
59. árvore-triste/Arabian jasmine	6	II/I
60. bétele/betel	22, 59	I/XVIII
areca/betel nut	22, 31	I/XXV
61. datura/thorn apple	20	II/XXIIII
erva-sentida/"feeling herb"	(27)	(II/XXVII)

FIRST SECTION

The first section covers chapters 49 to 61 (see Table 1). The title of the 49th chapter clearly states the theme: "Of all fruits, trees, plants and common herbs in India".

Chapters 49 to 57 deal with fruits and chapters 58 to 61 with trees, plants and herbs. The first section is dominated by the products of importance to visitors to India and also their interest to the curious reader. Although fruits, since they were perishable, had little or no commercial export value for the European ships (although Linschoten mentioned preserved fruits), they were however very important and useful to visitors to India.

Linschoten states that the jackfruit, the pineapple, the mango, the cashew and the jamboo "are the fyve principallest & most esteemed fruites in all India" (Hakluyt II, 36-37), which explains their prominent position in the listing. The fact that the pineapple comes in first and the cashew in fourth place is of particular interest in the comparison with Orta. The Portuguese botanist only mentions the *ananas* briefly in *Colóquio* 58, remitting the reader to Oviedo's *Historia General y Natural de las Indias*. Clusius later described the fruit, in his version of Costa's *Tractado*. The pineapple existed in the West-Indies and the Portuguese took the fruit from Brazil to India. Linschoten says that the pineapple was an expensive novelty at first, but that in his time "there are so many growen in the Countrey, that they are very

good cheape" (Hakluyt II, 19) and that "*ananas* is one of the best fruites, and of best taste in all India" (*ib.*).

Orta does not describe the cashew, another fruit brought from Brazil to India by the Portuguese. Clusius describes the fruit in a note at the end of the chapter dedicated to the *anacardo* (I/XXX) and says that it is "a kind of nut that sometimes is brought from the land of the Brazilians to Lisbon" (Clusius, 141). Cristóvão da Costa however found cashew trees in many gardens of Cochin (*Tractado*, 324), whereas later on Linschoten states, "they are [...] in great numbers all over India" (Hakluyt II, 29).

Another fruit not mentioned by Orta and recently brought from the West Indies is the papaya (chapter 54). Linschoten seems to have been the first to refer to its existence in India. He tells that the fruit "came out of the Spanish Indies, brought from ye Philippinas or Lusons to Malacca, & from thence to India' (Hakluyt II, 35) and that it "at the first for the strangenes thereof was much esteemed, but now they account not of it." (*ib.*).

The trees, plants and herbs mentioned afterwards can be catalogued under oriental curiosities, with *tabaxir* as an exception because of its readily stated high commercial value in the Arab world. An interesting detail in the description of the *cana-da-índia* (cane of India), is the fact that Linschoten uses the name *bambus*, still unknown to Orta, Clusius and Costa. Something similar occurs in the description of the "feeling herb", where Linschoten uses one of the Portuguese names of the plant (*herba sentida*), whereas Orta only gives a very short description (*Colóquio* 27), elaborated by Clusius

Jamboo, mango, cashew and jackfruit trees, in Linschoten's *Itinerario*.

Table 2

Chapter in *Itinerario*	*Colóquio* Orta	Book/Cap. Clusius
62. pimenta/pepper	46	I/XXII
63. canela/cinnamon	15	I/XV
64. gengibre/ginger	26	I/XLI
65. cravo/cloves	25	I/XXI
66. maça/noz-moscada	32	I/XX
mace/nutmeg		
67. cardamomo/cardamom	13	I/XXIIII
68. laca/lacquer	29	I/VIII
69. anil/indigo	7	II/XXVI
70. âmbar/ambergris	3	I/I
almíscar/musk	–	–
algália/civet	–	–
71. benjoim/benzoin	9	I/V
72. incenso/incense	55	I/VI
mirra/myrrh	55	I/VII
73. maná/manna	33	I/IX
ruibarbo/rhubarb	48	I/XXXVII
74. sândalo/sandalwood	49	I/XVII
75. pau-de-cobra/snake root	42	I/XLIIII
76. calamba/linaloe	30	I/XVI
77. raiz-da-china/china root	47	I/XXXVIII
78. anfião/opium	41	I/IIII
79. bangue/bang	8	II/XXV
80. cânfora/camphor	12	I/IX
81. tamarindo/tamarind	53	I/XXVIII
canafístula/cassia fistula	14	I/XXIX
82. mirabólanos/myrobalans	37	I/XXVII

in chapter 27 of the second book under the title "De Anonymo". Costa gives a more detailed description, calling the plant *yerba Biva* and by its vulgar name *yerva Mimosa* (*Tractado*, 241).

The curiosities in this section, end in an apotheosis at the end of chapter 61 where Linschoten tells the most incredible fact in the whole book: in Goa, at a place called Mata-Vacas, where animals are slaughtered for meat, horns of killed animals lie scattered and thrown about on the ground and as Linschoten states, have grown roots "as if it were a tree, as I my selfe have seene and pulled forth many of them, that had rootes of two or three spannes in length, which was never seene in any part of the world." (Hakluyt II, 71). Significantly enough, Paludanus does not comment on the phenomenon nor on Linschoten's personal observation, whereas Clusius seems to have omitted the horns completely from his Latin version

– at least I was not able to find them. Linschoten tells that the horns with roots inspired a joke, saying that the men of Goa were the greatest hornbearers (*cornudos*) in the world, because in other places the horns could be definitively cut, whereas in Goa they started to grow again because they had roots. The joke is indeed very applicable to the stories about adultery in Goa Linschoten tells, but it remains very unlikely that the rooted horns really existed. But Linschoten is not the only one who mentions them. Garcia de Orta himself mentions them in his *Colóquio* 58, after having severely criticised Andreas de Laguna about the supposed existence of mineral ivory. I cite the clause of the lively debate between Ruano and Orta:

"Ruano: It seems to me that we can excuse Laguna for you yourself showed me here some days ago horns that grew roots in the ground and I myself have seen them with very big roots.

Orta: It is true that I showed them to you and there are lots of them in this region because it is humid; but ivory does not grow roots, that's completely impossible." (*Colóquio* 2, 380)

So ivory does not grow roots but horns do, at least in the humidity of Goa, as not only Linschoten but also Ruano and Orta can guarantee from personal observation. Although I have heard three possible explanations —a horn shaped *Lithops* variety, fossilised or petrified horn shaped (tree)roots or plants, weeds grown into the porous horn mass— there does not seem to be any definitive solution to the enigma. Nowadays, we would call it an urban legend.

SECOND SECTION

The title of chapter 62 formulates the theme of the second section and promises to deal with "spices, drugs, plants and the most commonly sold medicinal stuffs in India".

In this second section (see Table 2), the commercial interest is obvious and the products are subdivided into spices (62 to 67), useful drugs (68-69), aromatic drugs (70-72), purgatives (73), aromatic and medicinal woods (74-77), drugs in the modern sense of the word (78-79), an aromatic ingredient for medicaments (80) and more purgatives (81-82).

Due to their commercial value in the European market, the spices appear first and in an order which seems to follow their real value at the time, when compared to the statistics of the main products from Asia arriving in Lisbon during the years 1587-88:

1. pepper (68%)
2. cinnamon (6.3%)
3. ginger (3.7%)
4. others, including cloves, mace and nutmeg (1.6%)[6]

Cardamom had little commercial importance in Europe, but as Linschoten refers, was very much used and sold in the Indian market. The same is true for most of the other products and also here Linschoten emphasises their importance in the local market and as barter goods. Remarkably, lacquer and indigo are positioned immediately after the valuable spices, which seems to correspond with their importance at the time – lacquer above all in the Asian market (brought from Pegu to Sumatra where it was bartered for pepper!) and indigo in Portugal, where the King in 1588 leased contracts for the commercialisation of the product which amounted to 8.4 % of incoming Asian goods in Lisbon in 1587-88.[7]

THIRD SECTION

The third section (see Table 3) deals with "other Indian spices and herbs" as the title of chapter 83 states.

This chapter covers briefly, products for medicinal or culinary use which are commonly sold on the Asian market and shipped to Europe in small quantities.

FOURTH SECTION

The fourth and last section (see Table 4) deals with "all sorts of pearls and precious stones" as indicated in the title of chapter 84.

It is unnecessary to say that in these chapters the commercial value is most important, as is emphasised in the later chapters (88-91), in which Linschoten's authorship can be seriously doubted.[8] They deal specifically with the recognition and evaluation of diamonds, rubies, emeralds and pearls. The chapters seem to be the work of a specialist and must have been added later.

We can conclude that in the chapters 49 to 87, Linschoten used Orta extensively, borrowing the facts he considered most useful, curious and above all most

Table 3

Chapter in *Itinerario*	*Colóquio* Orta	Book/Cap. Clusius
83. espiquenardo/spikenard	50	I/XXXIII
aloés/aloe	2	I/II
anacardo/cashew	5	I/XXX
cálamo-aromático/sweet flag	11	I/XXXII
costus/costus root	17	I/XXXV
cubebas/cubeb	19	I/XXIII
fólio índio/malabathrum	23	I/XIX
galanga/galingale	24	I/XL

Table 4

Chapter in *Itinerario*	*Colóquio* Orta	Book/Cap. Clusius
84. pérolas/pearls	35	I/LVII
85. diamantes/diamonds	43	I/XLVII
86. rubis/rubies	44	I/XLIX
balax/balais	44	I/XLIX
espinela/spinels	44	I/XLIX
safiras/sapphires	44	I/L
jacintos/jacinth	44	I/LI
granadas/garnet	44	I/LI
robazes/rubies	–	–
esmeraldas/emeralds	44	I/XLVIII
turquesas/turquoises	44	I/XLVIII
jaspe/jasper	44	I/LII
crisólito/chrysolite	44	–
ametistas/amethysts	44	–
alaqueca/pedra-de-sangue/bloodstone	44	I/LIII
pedra-de-leite/milkstone	–	–
alambre/amber	–	–
olhos-de-gato/agates	44	I/LIIII
pedra-de-cevar/lodestone	43	I/LVI
87. pedra-bezar/bezar stone	45	I/XLV
pedra-de-porco/hogg's stone	58	I/XLVI
pedra arménia/Armenia stone	43	I/LV

interesting from a commercial point of view. Instead of an overall translation, he presented summaries and dealing with oriental trade goods, he restricted himself generally to: where they were found, how they were called, what they were, which use they had and where they were sold.

Orta's influence is restricted to a well defined part of the book. In the rest of the book there are only very few borrowings from Orta to be found. The largest in chapter 27, which is an adaptation of *Colóquio* 10 about the history of Goa before the arrival of the Portuguese. The others are very small and have to do with religious matters in India.

PALUDANUS' ANNOTATIONS

Dr. Bernardus Paludanus, born as Berent ten Broecke (1550-1633), travelled widely through Europe and the Near East and graduated in Philosophy and Medicine at Padua University in 1580. At the time of Linschoten's return to Holland he was town physician of Enkhuizen, where he must have met the adventurer shortly after his arrival. Paludanus was a keen collector of exotic rarities which he studied, described and kept in a cabinet of naturalistic curiosities that gained him international fame. He exchanged letters and items with other collectors and scientists and received rare samples from all over the world. He must have been eager to know what new things Linschoten could show and tell him. It seems that the two rapidly became acquainted and subsequently became good friends. Linschoten even offered various items he had brought with him to Paludanus, such as two birds of paradise from the Moluccas, penis bells from Pegu, Chinese paper with written characters, Chinese chopsticks and seeds of the *arbor tristis* (Arabian jasmine).

As an experienced herbalist and botanist, a respected scholar and medical doctor and a *connoisseur* of exotic natural products, Paludanus contributed 57 learned notes to the botanical section of the *Itinerario*, where they appear in a different letter type under the heading "Annotatio D. Palud." He did not add any annotations to the fourth section on pearls and precious stones. Unlike Garcia da Orta, Paludanus had not been to India to study the species *in loco*. He tried to cultivate exotic plants in his garden from seeds and samples he received, but sometimes in vain, as was the case with pineapples (ch. 49) and the seeds of the *arbor tristis* (ch. 59). Quite often, he was unable to describe the plants and trees and their characteristics from personal observation, so he compiled most of his information from written sources, now and then adding personal notes, mostly based upon his observations during his travels in the Near East. In keeping with common practice amongst scholars in his days, he refers for further reading to the works of respected naturalists and physicians. A closer look at his references to classical and contemporary sources reveals however, that most of them were taken straight from Clusius' rendering of Orta's *Colóquios*.

Many of the "Annotationes" give information of a more scientific nature which Linschoten excluded while adapting parts of Orta's original, but Paludanus' complementary notes were based on the same source, be it adapted from Clusius' Latin version. Clusius had carefully completed Orta's short references to earlier authors, which made his version extremely helpful to Paludanus. He simply copied the references, without having to consult the works of the authorities he mentions, such as Avicenna, Dioscorides, Galenus, Pliny the Elder, Rasis and Serapion. In fact the only references he did not take from Clusius are to "the learned Doctor Simon de Tovar", who from Seville sent him a sample of a variety of snake wood (ch. 75), "the learned Doctor Camerarius", who cultivated indigo in his garden (ch. 69), and the Italian physician F. A. Mattioli (ch. 81 and 82).

Bernardus Paludanus.

OS VIAJANTES EUROPEUS E O MUNDO NATURAL ASIÁTICO - I

The fact that Paludanus relied so strongly on Clusius' writings makes it difficult to form an idea about his own knowledge of fruits, trees and plants from India. He certainly was no specialist on the subject and he gratefully acknowledged Clusius' authority by quoting from and referring to the "excellent commentaries of the experienced and very learned Dr. Clusius", his "singular master and friend".

It is interesting to see that Paludanus provided extensive annotations about what Linschoten considered to be the five most important Indian fruits (pineapple (ch. 49), jackfruit (50), mango (51), cashew (52) and jamboo (53)), which were placed before Linschoten's shorter texts. As we have seen the pineapple was only briefly mentioned by Orta, whereas Linschoten's description is mainly based on his personal experience in India. Paludanus offers more botanical information and tells that he had some plants in his garden, brought to him from Brazil, but that they did not survive because of the cold. For further reading he refers to "Costa in the proper Chapter of Ananas, and Oviedius in the eighth booke, and eighteenth Chapter: and Thevetius in his observations of America, in the six and fortieth Chapter" (Hakluyt II, 18-19). Until now these references seem to have led astray various editors of the *Itinerario*, including myself for the Portuguese version. With the English and Dutch editors, I believed that Paludanus was on his own account recommending sources for further

Coconut, banana and areca trees, in Linschoten's *Itinerario*.

reference and in notes I identified them as Clusius' Latin version of Costa, Oviedo's *Historia General y Natural de las Indias* (Vol I, Seville, 1535) and F. A. Thevet's *Les Singularitéz de la France Antarctique* (Paris, 1557-1558). Because both Linschoten and Paludanus were acquainted with the third volume of Ramusio's *Delle Navigatione et Viaggi* (Venice, 1556), which includes an Italian version of Oviedo's book, I supposed that Paludanus knew Oviedo from Ramusio's collection. But in fact the case is much more simple. Apart from two personal remarks, Paludanus compiled his annotation about the pineapple entirely from Clusius' versions of Costa and Orta. In the latter, at the end of the chapter about the mango (Book II, ch. 9), Clusius dedicates an extensive note to Oviedo's description of the *jaiama* (pineapple) from which Paludanus copied a large part. He also copied the references to the chapters in Oviedo and Thevet from Clusius.

The same thing happens in most of the other longer annotations Paludanus prepared. There can be no doubt that he used what was closest to hand and happened to be a relatively recent and carefully updated version by Clusius of two of the most important sources at the time: the treatises of Garcia da Orta and Cristóvão da Costa. Like Linschoten's descriptions, Paludanus' annotations served above all a practical purpose, which was to make solid and useful information about fruits, plants, trees, spices and medicinal stuffs from the East Indies accessible in Dutch to a general public that was unable to read Latin. The merit of his annotations does not lie in their contribution towards the progress of botany or medicine in his days (in fact they contributed very little in that field), but in the popularisation of scientific knowledge for the common reader, not only in Dutch, but through translations, also in English, German and French.

In general Paludanus added more specific botanical facts to Linschoten's summarized renderings of Orta's original text. Using the same source in Clusius' version, he sometimes repeats or even contradicts what Linschoten mentions, giving the impression that he prepared his notes in a hurry without paying much attention to what his friend wrote. But the fact is also that Linschoten didn't always present his descriptions in a systematic way, forcing Paludanus to give complementary information about

Bamboo, banyan and durian trees with fruits, in Linschoten's *Itinerario*.

the origin, localization, naming, shape, growth, uses and/or medicinal virtues of a plant. Actually it seems that the annotations by Paludanus were intended to update and fill gaps in Linschoten's information, raising it to more scientific standards and adding Paludanus' authority of a respected scholar. For that purpose, Clusius' Latin versions of Orta and Costa came in very handy indeed because they were close to the Portuguese source Linschoten used. The fact that Linschoten no longer owned Orta's *Colóquios* may have been an important reason to use the Latin version.

As has been said, apart from Orta, Paludanus used Clusius' adaptation of Costa's work. A listing of Paludanus' sources can give an impression of the importance of Clusius' Latin versions for the annotations (Table 5):

From the listing, it is quite easy to see that Clusius' version of Orta was his main source used for the description of 25 items. Costa provided information for 10 annotations. Paludanus got most of his information about exotic fruits and trees from Orta and Costa, subjects he was obviously less familiar with, but which he found interesting enough for extensive notes – especially the first five fruits (ch. 49-53) (the banana (ch. 55), the coconut (ch. 56), the durian (ch. 57), the banyan tree (ch. 58) and Arabian jasmine (ch. 59). Remarkably, he added a little about pepper and cinnamon (products Linschoten had dealt with quite extensively), because of their commercial importance.

Table 5

Chapter in *Itinerario*	Sources of annotation
49. ananás/pineapple	Clusius: added note in Orta, Costa
50. jaca/jackfruit	Clusius: Orta, Costa
51. manga/mango	Clusius: Orta, Costa
52. caju/cashew	Clusius: added note in Orta
53. jambo/jamboo	Clusius: Costa
54. jangoma/flacourtia	Clusius: Orta
carambola/star fruit	Clusius: Orta, Costa
brindões/kokum	Clusius: Orta
jambolões/jambolan	Clusius: Orta, Costa
papaia/pawpaw	no annotation
pateca/watermelon	no annotation
55. figos-da-índia/bananas	Clusius: Orta
inhame/yam	Paludanus
56. cocos/coconut	Clusius: Orta, Costa
57. durião/durian	Clusius: Orta, Costa
58. árvore-de-raízes/banyan tree	Clusius: separate publication
cana-de-açúcar/sugar-cane	no annotation
bambu/bamboo	Clusius: Costa
tabaxir/tabashir	Clusius: Orta
59. árvore-triste/Arabian jasmine	Clusius: Orta, Costa
60. bétele/betel	Clusius: Orta
areca/betel nut	no annotation
61. datura/ thorn apple	Clusius: Orta
erva-sentida/feeling herb	no annotation
62. pimenta/pepper	Paludanus
63. canela/cinnamon	Paludanus
64. gengibre/ginger	Clusius: Orta
65. cravo/cloves	Clusius: Orta
66. maça/noz-moscada	Clusius: Orta + Paludanus
mace/nutmeg	Clusius: Orta + Paludanus
67. cardamomo/cardamom	Clusius: Orta + Paludanus
68. laca/lacquer	Paludanus
69. anil/indigo	Paludanus

CHAPTER IN *ITINERARIO*	SOURCES OF ANNOTATION
70. âmbar/ambergris	Paludanus
almíscar/musk	Paludanus
algália/civet	Paludanus
71. benjoim/benzoin	Paludanus
72. incenso/incense	Paludanus
mirra/myrrh	Paludanus
73. maná/manna	Paludanus
ruibarbo/rhubarb	no annotation
74. sândalo/sandalwood	Paludanus
75. pau-de-cobra/snake root	Paludanus
76. calamba/linaloe	Clusius: Orta + Paludanus
77. raiz-da-china/china root	Paludanus
78. anfião/opium	Paludanus
79. bangue/bang	Paludanus
80. cânfora/camphor	no annotation
81. tamarindo/tamarind	Paludanus
canafístula/cassia fistula	Paludanus/Mattioli
82. mirabólanos/myrobalans	Clusius: Orta + Paludanus/Mattioli
83. espiquenardo/spikenard	Paludanus
aloés/aloe	Paludanus
anacardo/cashew	Paludanus
cálamo-aromático/sweet flag	Clusius: Orta + Paludanus
costus/ costus root	Clusius: Orta + Paludanus
cubebas/cubeb	Paludanus
fólio-índio/malabathrum	Clusius: Orta + Paludanus
galanga/galingale	Paludanus

Paludanus' own annotations address mainly medicinal stuffs he already knew quite well and they are short when compared with the ones inspired by Orta and Costa. Mostly they consist of just a few lines, with remarks about medicinal virtues and/or a description of specimens that Paludanus had in his collection. His experiences and observations on his travels through the Near East, especially in Egypt and Turkey, are frequently used to complement the information centred on India. Thus, the reader learns for example that China-root, enthusiastically described by Orta as a relatively recent and miraculous medicine used in India against syphilis, is commonly used in Egypt for the same purpose and against many other diseases (ch. 77) and that tamarind also grows in Egypt and is widely used against fevers by Egyptians and Turks, and cured Paludanus of a "pestilent fever" when he was in Syria (ch. 81).

THE ILLUSTRATIONS

Linschoten and Paludanus seem to have agreed fairly well about which items were the most exotic and most important. Their choice is also reflected in the four illustrations related to the botanical section that were published in the *Itinerario*. The engravings were made after drawings Linschoten himself had made in India. The fact that he had actually seen the trees, plants and fruits in their natural state and drawn them "according to life" justified their inclusion in the book, for this kind of first hand material was still extremely rare at the time. Compared to a botanist's herbal drawing, the drawings may be lacking in detail but in order to get a general impression, seem quite accurate.

The first shows four trees: jamboo, mango, cashew and jackfruit with their fruits and also indicate the way pineapples and ginger grow. In the main text, Linschoten writes about the illustration:

> "By these pictures you may see the forme and fashions of the fruites called Iaacka, Ananas, Mangas, Caius, & Iambos, which are the fyve principallest & most esteemed fruites in all India, for others are but of small account: of Ginger also as it groweth, whereof in an other place I will say more [...]: all which are set down according to the life, although the leaves are not altogether so proportionable with their strings and veynes, as they should be, or as the Physitions and Doctors in their Herbals have described them, having onely shewed the forme and growth of the fruites, as I have seene and used them." (Hakluyt II, pp. 36-37)

The second engraving has three coconut trees, two banana trees and an areca tree with a climbing pepper plant and also shows the various fruits. They are placed in a setting full of human activity and with an elaborate natural background, giving a vivid impression of the exotic reality. Linschoten described the coconut tree and fruit with their many uses extensively, stressing their importance for the local economy. In the picture two men can be seen distilling palm wine over a fire while a third climbs a tree to collect fruit. In the second tree from the left, two round vessels collect palm liquid.

The third engraving shows bamboo, the banyan tree and a durian tree with fruits and the fourth picture is dedicated to the Arabian jasmine by day (left), with a man and a woman collecting its fallen blossoms, and by night (middle) when the blossoms open and spread a perfumed scent. On the right, a seated woman holds a tray with the ingredients for chewing betel.

Arabian jasmine by day (left) and by night (right), in Linschoten's *Itinerario*.

CONCLUSION

From the special attention both Linschoten and Paludanus dedicated to the plants and trees and their fruits that we also see depicted in the engravings, we can conclude that these were the items considered to be the most exotic and interesting for the reader. Text and illustrations show that the botanical section of the *Itinerario* was not meant to be a scientific herbal, but a popularizing publication about Indian flora appealing to the curiosity of common readers who stayed at home and supplying useful and practical information for those about to travel to Asia. The circumstances at the time, with the first Dutch naval expedition to India being prepared to set sail on 1 April 1595, seem largely responsible for the eclectic formula defined by the urgent need for information and the possibilities of the available material. Linschoten organized his rearranged versions of Garcia da Orta's *Colóquios* according to commercial importance and practical use and Paludanus supplied complementary information based on Clusius' Latin renderings of Orta and Costa and his own experience in the Near East. Thus, the first book published in Dutch written by a Dutchman who had lived in India, made a wide variety of botanical information about India accessible to the common reader. RC

NOTES

1 For the identification of sources, see especially the *Itinerario* editions in Dutch (Kern-Terpstra, Linschoten-Vereeniging 1955-1957), English (Burnell/Tiele, Hakluyt Society 1885 and Van den Boogaart 1999) and Portuguese (Pos/Loureiro 1997) and the extensive articles by H. Houwens Post ("A terminologia portuguesa", 1960, and "De lusitanismen in de Itinerario", 1962-1963).

2 McKew Parr (pp. 12-13) advances the possibility that he may have attended the "Enkhuizen Latin School" and borrowed books from the municipal library. But there is no evidence that the school or the library existed before Jan Huygen left Enkhuizen in 1579 (see also Van den Boogaart 1999, p. 3). In the entire *Itinerario* text by Linschoten I only found seven references to Latin: five words, three of which were copied from Orta ('*cinnamomum*', '*opio* or *opium*' and '*margarita*'), the other two being '*paradiseas*' (birds of paradise) and '*rhinocerontes*', the reference that the book of González de Mendoza was translated from Spanish into Latin and an interesting remark in the last chapter (99), where it is stated that on Terceira Linschoten and a friend visited a captured English captain but were unable to speak to him because he only spoke English and Latin (Hakluyt II, 312). Furthermore, the only reference to Greek or to any classical author in Linschoten's text is found in a description of Saint Elmo's fire, where it is said that "in Antiquity the Greeks used to call it, as Ovid mentions, Helle and Phryxus" (cf. Hakluyt II, p. 238).

3 The only other possible trace of Costa found in Linschoten's text is a remark in chapter 56 about the vessel (Port. "calão") used for the production of *sura* (palm-wine).

4 See "Introdução" in *Itinerário, Viagem ou Navegação de Jan Huygen van Linschoten para as Índias Orientais ou Portuguesas,* pp. 32-33.

5 See Florike Egmond, "Een mislukte benoeming. Paludanus en de Leidse universiteit", in *Souffrir pour parvenir*, pp. 51-64.

6 Subrahmanyam, *The Portuguese Empire in Asia 1500-1700,* p. 166.

7 *Ibidem*.

8 See "Introdução" in *Itinerário, Viagem ou Navegação de Jan Huygen van Linschoten para as Índias Orientais ou Portuguesas,* pp. 33-34.

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A Viagem a Goa do Médico de Henrique IV

DEJANIRAH COUTO*

"Voilà les faits admirables de Nature, et comme elle se plaît à faire choses grandes, diverses et le plus souvent incompréhensibles et admirables aux hommes"

André Thévet, *Les singularités de la France Antarctique (1557)*, ed. Franck Lestringant, Paris: Ed. Chandeigne, 1997, p. 201.

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Numa passagem de *Os Três Mosqueteiros*, de Alexandre Dumas, Bonacieux, em conversa com D'Artagnan, explica-lhe as origens da sua riqueza, proveniente, diz ele, das duas ou três mil moedas de renda que o comércio da mercearia lhe proporciona e do investimento de alguns fundos na última viagem do "célebre navegador Jean Mocquet". A menção, devida aparentemente à imaginação de Dumas, remete, no entanto, para a verdade histórica: as viagens efectuadas entre 1601 e 1614, a África, ao Brasil, ao Levante e às Índias, por Jean Mocquet, boticário da corte e chefe do "Gabinete de Singularidades" do rei de França, nas Tulherias.

VIDA E CARREIRA

Do homem, boticário, naturalista, coleccionador, não sabemos muito. São raros os documentos sobre a sua vida e as poucas breves notas biográficas que lhe são consagradas baseiam-se em dados incertos, porventura falsos. As suas origens eram modestas. Nasceu em 1575 na vila de Cuissy, próximo da abadia de Juilly, em Seine-et-Marne[1]. Era, pois, um "parisiense" no sentido mais amplo do termo, daí as suas numerosas referências a Paris e às aglomerações situadas nos limites da capital, como Corbeil ou Saint Denis. Aliás, o próprio refere sobre si mesmo: "Jean Mocquet é o meu nome, Paris a minha pátria, natural de Cuissy, perto da abadia de Juilly, onde o rei se desloca frequentemente para se entregar aos seus prazeres, local da sua educação, satisfazer os seus desejos"[2]. Em 1576, quando ainda era "criança de peito", o seu pai foi preso por dívidas, em Meaux. Enquanto as dívidas não foram regularizadas, a mãe e o bebé ficaram presos e os móveis foram arrestados.

Estaria este encarceramento relacionado com as ideias políticas da sua família? Não se sabe ao certo, mas o compromisso desta ao lado de Henrique IV, referido pelos seus biógrafos, também não ficou provado. Tão-pouco conhecemos as circunstâncias que levaram Mocquet a ser boticário e a ser admitido no séquito do rei. A sua nomeação como "boticário oficial" de Henrique IV parece remontar a 1605, data da sua partida para Marrocos; é o que se pode deduzir da leitura do texto do "privilégio" que acompanha a primeira edição do seu relato, datada de 12 de Agosto de 1616. O acesso à corte seria devido a conhecimentos familiares? Ou à sua inserção no "meio" dos boticários? As suas origens serão, assim, modestas e não sabemos mais do que isso. Do mesmo modo, pouco conhecemos sobre as suas tendências religiosas. Mocquet não era muito dado a confidências e era discreto nas suas intenções. Além do mais, demonstra um patriotismo pouco convencional: "E de todas as regiões da Europa, a França é de longe a que merece o prémio, mesmo no entender das nações suas inimigas, quer pela bondade, fertilidade e beleza da sua terra [...] quer quando se observa os costumes das suas gentes, a sua piedade, valor, erudição, justiça, disciplina, liberalidade, franqueza, cortesia, liberdade e muitas outras qualidades civis e militares"[3].

O seu relato contém, todavia, comentários "anti-apostólicos", que não contradizem uma profissão de fé católica, aliás, mencionada uma única vez e certamente demasiado sublinhada para ser verdadeira. O tom é também francamente anti-hispânico: a Contra-Reforma não estava longe. Seria ele um huguenote arrependido, como muitos outros do séquito de Henrique IV?

Torna-se mais fácil precisar as suas relações com o rei. Eram relações calorosas; enquanto boticário real,

Mocquet partilhava a intimidade do soberano e assistia mesmo às suas purgas. Foi Henrique IV, pelo que se depreende do seu relato, que lhe encomendou uma parte das suas viagens: ele tinha "prazer nas narrativas que lhe fazia no meu regresso"[4].

Mocquet era chamado à sua cabeceira para que o divertisse com as suas histórias de viagens. O anúncio da sua morte perturbou profundamente o boticário, que testemunhará o seu afecto a Henrique IV na dedicatória da sua *Voyage*; se bem que dirigida a Luís XIII, o elogio do "bom rei", designado como o "melhor rei" e o "melhor pai de todos os tempos" ocupa grande parte da dedicatória.Coleccionador inveterado, enfrentando os perigos para enriquecer as suas colecções e saciar a sua paixão, Mocquet trazia de cada uma das suas viagens os objectos estranhos que considerava dignos de interesse: pedras, um anel peniano índio, uma pele de iguana, papagaios e várias espécies de macacos. Chega mesmo a comprar a pele de uma das espécies, desconhecida na Europa, e conserva durante algum tempo uma preguiça no tombadilho do navio em que embarcou. Nutria uma especial atracção pelas plantas: colocadas em caixas, as espécies raras que resistiam à viagem eram então plantadas diante do quarto do rei, enriquecendo deste modo os jardins do Louvre. Entre as prendas oferecidas ao soberano conta-se o mel africano conservado nos potes originais.

De espírito pragmático, Mocquet negociava também por sua conta, uma forma inequívoca de assegurar os seus rendimentos e garantir a compra das suas colecções. Por exemplo, a madeira de aloés que trouxe da sua viagem ao Maranhão, em 1604, abasteceu os boticários de Tours, Poitiers, Angers, Fontenay e La Rochelle, entre outros. E, embora este aloés, ainda verde, não tivesse a qualidade do aloés proveniente do Oriente, os boticários pagavam-no a bom preço, entre 10 e 20 soldos a onça.

Foi no regresso da sua quinta viagem (à Terra Santa) que lhe foi concedida autorização para colocar os objectos que trouxe no Palácio das Tulherias e aí instalar um "Gabinete de Singularidades" do rei[5]. Alguns biógrafos e o erudito Ferdinand Denis sustentaram que Mocquet era o sucessor de André Thévet, cosmógrafo de Henrique IV, nas suas funções de chefe do gabinete. Ora, uma tal instituição não existia antes de Mocquet: a documentação relativa a Thévet não dá conta da existência de qualquer gabinete. Em contrapartida, uma das versões do testamento deste cosmógrafo refere que ele possuía um móvel dourado onde se encontravam coisas "monstruosas", consideradas de grande valor comercial, tendo algumas destas provavelmente sido oferecidas ao rei. Mocquet continuou as colecções do cosmógrafo real, recuperou possivelmente alguns objectos e organizou a sua exposição. Destas colecções não existem quaisquer vestígios, mas a clava ritual utilizada para a execução dos prisioneiros dos índios Tupinambá, conhecida por "clava de Thévet" (Musée de l'Homme, Paris), fazia provavelmente parte das mesmas.

Mocquet afirmava ter participado nas experiências de Fontainebleau, durante as quais a técnica índia de fazer fogo, por fricção de dois pedaços de pau, teria sido mostrada ao soberano. Embora a sua participação não esteja confirmada, tornou-se uma autoridade em matéria de exotismo. Uma dúzia de expressões indianas no seu relato prova que possuía algumas noções de caribe, carijó e tupi, adquiridas provavelmente por intermédio dos índios que serviram de intérpretes à expedição de 1604. Com efeito, as poucas expressões que constam do seu relato não têm a sua origem no capítulo XX da *Histoire d'un voyage faict en la terre du Brésil* de Jean de Léry (1578) – *Colloque d'entrée ou arrivée en la terre du Brésil entre les gens du pays nommez Tououpinambaoults et Toupinenkins en langage sauvage et François –,* que era na época o mais completo léxico das línguas indígenas do Brasil. De qualquer forma, a conversa que manteve nos primeiros dias de Abril de 1613 com os seis índios trazidos por Razilly a Luís XIII testemunha a favor dos seus conhecimentos linguísticos[6].

Mocquet alojou o jovem Yapoco, um dos membros da delegação, e apresentou-o ao rei, que quis ouvir os dois a conversar na língua do índio. Não sabemos se a audiência real teve lugar no dia da apresentação geral dos índios Tupinambá à corte, no Louvre, em 15 de Abril de 1613. As testemunhas do acontecimento notaram, no entanto, que nesse dia Yapoco pronunciou um discurso na sua língua, no qual agradecia ao jovem Luís XIII e lhe solicitava que enviasse franceses ao Maranhão.

A PESSOA E O MÉDICO

Não é possível compreender a obra *Voyage en Afrique, Asie, Indes Orientales & Occidentales* sem compreender primeiro a pessoa, o seu carácter, os seus conhecimentos e os seus interesses. Era um pragmático,

dotado de sangue-frio, um pouco cínico (tudo se pode comprar com dinheiro, dizia), prudente, oportunista, obstinado e muito convencido. Não era um homem de grande cultura ou de grande sabedoria, apesar da sua pretensão, a qual ostenta com constância ao longo de todo o relato. Os seus conhecimentos práticos suplantavam os teóricos, que eram limitados. Tinha algumas luzes de cosmografia (cuja exactidão e extensão podem ser apreciadas na introdução da obra *Voyage en Afrique, Asie, Indes Orientales & Occidentales*)[7] e sabia um pouco de latim, mas certamente não ao ponto de poder discorrer nesta língua, como aquele outro médico espanhol que encontrou em Jerez de la Frontera. Aliás, desconfiava do conhecimento livresco e nunca perdia a oportunidade de ridicularizar os médicos que, conhecendo o latim, não curavam os doentes: não possuíam o "conhecimento dos medicamentos e da experiência". O seu conhecimento foi, aliás, posto à prova aquando do embalsamamento do conde da Feira e de André Furtado de Mendonça[8]. Como o foi em relação ao célebre boticário e botânico Antoine Colin, autor da obra *Histoires des drogues, épiceries et certains médicaments simples qui naissent aux Indes et en l'Amérique* (1619), tradução de grandes tratados ibéricos do século XVI sobre estas questões dos portugueses Garcia da Orta (1563) e Cristóvão da Costa (1578) e do sevilhano Nicolau Monardes (1568)[9]. Antoine Colin estava ligado ao meio dos boticários de Sevilha, à época muito fechado e importante, que frequentara antes de continuar o estudo das plantas e das drogas em Bruges, Bruxelas, Antuérpia e Londres[10]. Sabemos que Mocquet o visitou em Lyon, em Agosto de 1611. Foi provavelmente graças a este que o nosso médico foi hospedado por um rico boticário português de Sevilha, Afonso Rodrigues, e por um dos seus antigos empregados, Juan Sánchez, aquando da sua passagem por Sevilha, em 1614.

Mocquet foi, no entanto, um espírito prático, curioso, com uma sólida experiência de cirurgião e de boticário, um especialista em purgas, sangrias, unguentos, autópsias e embalsamamentos. O seu conhecimento empírico e o seu gosto pela observação, aliados a uma certa percepção das coisas úteis, colmatavam as suas lacunas e aproximaram-no dos médicos e naturalistas do Renascimento, dos quais Garcia da Orta e os franceses Antoine Colin e Charles de l'Écluse[11] foram eminentes representantes. Mocquet também teve o mérito de suscitar o interesse pela botânica exótica, informando os franceses sobre o conhecimento português e espanhol sobre esta ciência destinada a tantas aplicações terapêuticas.

Não poderemos, bem entendido, classificá-lo na categoria dos aventureiros que emigraram para os quatro cantos do globo nos finais do século XVI: Mocquet faz prevalecer o seu estatuto de médico ao

André Furtado de Mendonça. In Francisco Xavier V. de Sá, *Vice-Reis e Governadores da Índia Portuguesa*, Macau, CTMCDP, 1999.

longo de todo o seu relato. Mas as suas dificuldades materiais, nomeadamente em Goa (onde ficou reduzido à mendicidade), os expedientes a que certamente teve que recorrer para sobreviver, a "vadiagem" incessante, uma actividade ao serviço da informação secreta, classificam-no numa categoria particular, a dos "médicos aventureiros".

AS VIAGENS

Ainda mais aventureiro que o índio Yapoco, Mocquet declarou ter efectuado, entre 1601 e 1614, seis viagens, cinco para fora da Europa e uma última ao sul do continente europeu. As três primeiras levaram-no, respectivamente, às costas do Magrebe atlântico ("Barbaria")[12], ao Maranhão (e à Guiana) e a Marrocos (mais precisamente a Marraquexe). A quarta viagem, a *Voyage en Éthiopie, Mozambique, Goa et autres lieux d'Afrique & des Indes Orientales (1607-1610)*, é, sem dúvida, a mais interessante e a mais conseguida do ponto de vista literário[13]. As duas últimas, que não serão objecto do presente estudo, levaram-no à Terra Santa e a Espanha, mas a segunda viagem desta série deve ser considerada como uma viagem perdida, uma espécie de "falsa partida", na medida em que foi apenas a primeira escala da volta ao mundo que Mocquet projectou e que não conseguiu concretizar[14]. Por motivos que têm a ver com aspectos que gostaríamos de realçar – a sua actividade de médico e de naturalista no contexto asiático –, apenas evocaremos aqui as duas grandes viagens ao Magrebe e ao Brasil (Maranhão – Guiana). A viagem a Marraquexe, onde as competências médicas de Mocquet foram solicitadas, será igualmente evocada em algumas linhas, sendo o tratamento mais detalhado reservado, claro, à viagem a Goa[15].

Dividida em dois pequenos itinerários, a primeira viagem transportou-o à região do cabo Branco e à feitoria portuguesa de Arguim, na costa da actual Mauritânia (Outubro de 1601 a Fevereiro de 1602) seguida, em Abril do mesmo ano, de uma viagem a Mazagão e Azamor (Abril de 1602 a Agosto de 1602)[16].

A primeira região visitada foi, portanto, a "Barbaria", a região do cabo Branco e da feitoria portuguesa de Arguim, na costa da actual Mauritânia. O nosso boticário embarcou a 9 de Outubro de 1601, em St. Malo, a bordo do *Sirène*, navio de baixa tonelagem com apenas 25 homens a bordo. A nau, carregada de sal, rumava à costa africana. As primeiras semanas de navegação foram difíceis: a nau sofreu vários ataques de corsários que infestavam as águas do Mediterrâneo exterior mas conseguiu, mesmo assim, chegar a cabo Branco, em 8 de Novembro de 1601. O local era um refúgio de piratas e o navio de Mocquet sofreu novos ataques. A tripulação conseguiu, apesar de tudo, pescar nessas águas e regressar a mar alto com a sua carga[17]. No entanto, os espanhóis atacaram com cinco naus e tomaram de assalto o *Sirène*. Os ventos fortes desviaram da rota a embarcação (com os espanhóis a bordo), que foi forçada a atracar na ilha da Madeira, em 25 de Janeiro de 1602. Mal recebida, a tripulação francesa apenas pôde largar e continuar para norte a 9 de Fevereiro, após uma tentativa falhada de partida a 25 de Janeiro. Uma escala em Sanlúcar de Barrameda não teve melhor sorte. O navio foi inspeccionado. Conseguiu, todavia, chegar a Lisboa, onde o esperava outra má surpresa. Declarada imprópria para consumo pelas autoridades portuárias, a carga de peixe teve que ser atirada borda fora.

Apesar de todas estas desventuras, Mocquet não renunciou à sua viagem africana: não tardou a regressar ao mar. Em 25 de Abril, encontramo-lo a bordo da mesma nau, desta vez fretada para reabastecer com bolachas os portugueses prisioneiros nas masmorras marroquinas. Visita Mazagão e Azamor sem grandes dificuldades e dedica o seu tempo livre a recolher informações sobre as suas defesas. Depois de mais algumas peripécias, está de volta a Espanha a 26 de Maio e desembarca finalmente em St. Malo a 1 de Agosto de 1602.

Em 1604, empurrado, segundo o próprio, pelo demónio das viagens, junta-se à expedição de Daniel de la Touche, senhor de La Ravardière, à embocadura do Amazonas, ao Maranhão e à Guiana[18]. Partindo de Cancale, a 24 de Janeiro de 1604 (e não a 12 como se pretende), o seu navio, seguido de um patacho, fez escala na costa africana na latitude do rio do Ouro, numa ilha baptizada De la Touche, em homenagem ao capitão da expedição. Aí ficou atracado de 11 de Fevereiro a 10 de Março; a etapa seguinte foi a ilha Brava, no arquipélago de Cabo Verde, onde a tripulação fez aguada e repousou até 22 de Março.

A foz do Amazonas foi alcançada no dia de Páscoa, a 8 de Abril de 1604. Após a sua exploração bem como da costa da ilha de Maranhão (região de Belém – São Luís) até 15 de Abril de 1604, o navio

subiu em direcção ao rio Caiena. O reconhecimento da costa e as trocas praticadas com os índios Tupinambá e Caribe ficaram concluídos apenas a 18 de Maio. Carregado com *petun* (tabaco), madeira de aloés, garças brancas, papagaios e macacos, o navio navega rumo à ilha de Santa Lúcia, que nunca chegou a alcançar, já que as correntes o desviaram até ao litoral da Venezuela. Passa o estreito entre Tobago e Trinidad e dá à costa de uma ilha do pequeno arquipélago de Los Testigos. A custo, a expedição chegou à ilha Margarida a 1 de Junho, rumando de seguida a Porto Rico e às Bermudas, evitando cuidadosamente serem avistados pelos navios espanhóis. É nesta altura da viagem que Mocquet situa o episódio da tentação da antropofagia entre os passageiros, não sem fazer notar que os três índios amontoados no porão, entre os quais o jovem Yapoco, que viria a ter mais tarde um destino pouco banal, seriam os primeiros a serem sacrificados. Apesar disso, o navio conseguiu alcançar os Açores e de lá partiu de novo para Cancale, onde ancorou a 15 de Agosto de 1604[19]. Foi no regresso desta viagem, num dado ponto não muito longe das Bermudas, que Mocquet situou o famoso episódio da "tentação" da antropofagia[20].

Mocquet não permaneceu muito tempo em França. Atormentado desta vez pelo "desejo de conhecer o Oriente", embarcou em Saint-Nazaire, a 12 de Abril de 1605, num navio de Pouliguen. O seu objectivo era embarcar em Lisboa num dos navios da "Carreira da Índia". Mas, na cidade, corriam rumores de um ataque holandês e os portugueses controlavam cuidadosamente a entrada de estrangeiros no seu império. Esta contrariedade não o demoveu; fazendo prova de uma grande teimosia, decidiu regressar à "Barbaria" e embarcou em Cascais, a 3 de Agosto de 1605, no navio de um tal Poulet de la Rochelle.

O nosso boticário chega a Safi a 8 de Agosto e é imediatamente convocado pelo secretário do rei de Marraquexe, o sariano Mulay Abou Farès, que tinha sido informado da presença de um médico a bordo do navio francês. Graças aos seus cuidados e às suas drogas, o secretário, livre das lombrigas que o afligiam, propõe ao boticário seguir viagem com a caravana que conduzia e que se preparava para partir para Marraquexe. Mocquet junta-se à caravana a 28 de Agosto, atravessa o rio Tensift e chega a Marraquexe a 2 de Setembro de 1605. Permanece na cidade até 22 de Outubro[21]; volta em seguida para Safi com a intenção de regressar a França o mais rapidamente possível. Mas as mudanças políticas locais impediram-no de concretizar o seu plano. Foi obrigado a esperar dois meses antes de poder embarcar a bordo de um navio holandês e larga finalmente a 24 de Janeiro de 1607. O navio sofre uma forte tempestade, ameaça naufragar várias vezes, dá à costa em Poulle (?) e apenas fundeia no Havre a 17 de Março. A 25, Mocquet está em Paris. Parte de seguida para Fontainebleau; podemos supor que evocou a sua intenção de partir rumo às Índias Orientais aquando da audiência que lhe foi concedida pelo rei.

A VIAGEM A GOA

Os motivos que conduziram Mocquet ao "Estado da Índia" não são muito claros. Como escrevemos na introdução da *Voyage à Goa,* é provável que o nosso médico tenha sido encarregado de uma pequena missão de espionagem. O fosso entre protestantes e católicos não cessava de aumentar e os dois vastos impérios ibéricos, objectos de cobiça, tinham uma grande falta de boticários, artilheiros, bombardeiros e simples soldados. Deste modo, os mercenários não tinham grande dificuldade em serem recrutados e os espiões abundavam. Tratava-se, com efeito, de uma forma das outras nações europeias se informarem sobre a organização e os meios efectivos destes imensos impérios, aos quais, sob o aparente poder, se adivinhavam as fraquezas[22]. Os portugueses, por seu turno, não ignoravam esta cobiça. Os estrangeiros, fossem franceses, holandeses ou ingleses, eram *à priori* suspeitos de heresia ou de espionagem, se não mesmo das duas. Um édito do rei de Espanha, mencionado por Pyrard de Laval, especificava aliás que os estrangeiros "vinham apenas para espiar e reconhecer a terra das Índia"[23]. Alguns anos antes, em 13 de Fevereiro de 1587, Filipe II escrevia, a propósito dos dois ingleses, John Newberry e Ralph Fitch, presos em Ormuz em 1583, postos a ferros e conduzidos, em seguida, para Goa, que era necessário puni-los severamente já que "era proibido aos estrangeiros entrarem na Ásia portuguesa" ("e pois esta defeso que não vão a essas partes estrangeiros")[24].

Provavelmente, foi confiada uma missão a Mocquet, cujas instruções lhe teriam sido comunicadas verbalmente aquando da visita que fez ao rei e à regente na véspera da sua partida. Ele já tinha recolhido

informações aquando da sua viagem anterior a Marraquexe, fornecendo as dimensões das defesas da praça portuguesa de Mazagão e testemunhando a penúria das guarnições portuguesas da prisão marroquina. A forma como foi recebido em Lisboa, os obstáculos que teve que ultrapassar para poder embarcar e as humilhações que teve que enfrentar depois ao longo de toda a sua viagem mostram até que ponto as autoridades portuguesas desconfiavam das suas intenções.

O CONTEXTO DA VIAGEM

Quando, em Dezembro de 1607, Mocquet desembarcou no cais de Belém, Portugal era governado provisoriamente pelo bispo de Leiria, D. Pedro de Castilho (Maio de 1605 a Fevereiro de 1608), em nome do novo soberano, Filipe III (1598-1621). D. Pedro substituía D. Afonso de Castelo Branco, bispo de Coimbra (Agosto de 1603 a Dezembro de 1604), o qual, por sua vez, tinha substituído o vice-rei D. Cristóvão de Moura (mais tarde marquês de Castelo Rodrigo), que se tinha demitido em Julho de 1603 no seguimento de um desentendimento com Madrid, mas que era considerado em Portugal, como aliás Mocquet refere, como "vice-rei"[25].

As dificuldades da situação militar, política e comercial no Império português não eram ainda completamente visíveis na altura em que Mocquet chegou a Lisboa, mas os sinais percursores de uma nova época estavam já inscritos na trama dos acontecimentos[26].

Na primeira década do século XVII, os holandeses, os ingleses e os franceses atacaram incessantemente as possessões portuguesas. Embora os franceses, instalados na baía de Guanabara, em 1555, não renunciassem aos seus esforços para estabelecer uma colónia francesa na ilha do Maranhão e os corsários ingleses atacassem aqui e ali os navios ibéricos, os inimigos mais irredutíveis de Portugal eram, contudo, os holandeses, que mostravam, pelo vigor dos seus ataques, o que seria a guerra entre as duas nações[27].

A coroa ibérica fez uma manobra de diversão perante a violência do impacto. Numa iniciativa estratégica, que muitos consideraram ineficaz e outros realista, os portos foram novamente abertos aos holandeses em 1609, enquanto que a negociação simultânea de uma "trégua de 12 anos" com as Províncias Unidas (1609-1621) era suposta fazer ganhar tempo aos ibéricos, deslocando o problema do terreno militar para o terreno político[28].

Apesar das dificuldades do governo local para equilibrar as despesas militares e as receitas do "Estado da Índia", a situação em Goa no início deste séculoainda não era alarmante. Existia, evidentemente, o problema das incursões dos holandeses e o problema (que se previa) da incidência destes ataques no tráfego comercial[29].

Mocquet foi, no entanto, um espírito prático, curioso, com uma sólida experiência de cirurgião e de boticário, um especialista em purgas, sangrias, unguentos, autópsias e embalsamamentos.

D. Cristóvão de Moura tinha afirmado, na sua carta endereçada ao rei, em Valladolid, que a defesa do "Estado da Índia" reclamava "dinheiro, homens e navios"[30]. Apesar da dificuldade em reunir os fundos e os homens necessários (o problema demográfico era um obstáculo real), o governo de Lisboa fez um esforço considerável para enviar para a Índia um determinado número de navios. Em 1604, o novo vice-rei, D. Martim Afonso de Castro, tinha deixado Lisboa com cinco carracas e alguns galeões. Em 1605, dez outras grandes embarcações, sob o comando de Brás Teles de Menezes e Álvaro de Carvalho, foram enviadas para Goa. Em 1606, a armada aparelhada não conseguiu partir devido ao bloqueio holandês. O esforço foi renovado em 1607: sete naus deixaram então o porto de Lisboa em direcção às Índias. A iniciativa mais marcante foi realizada em 1608, no momento em que Mocquet chegava a Lisboa. A armada que se preparava para levantar âncora, e na qual este embarcou, era uma das mais imponentes jamais reunidas: 13 navios, dos quais cinco carracas e cinco galeões, um carracão e duas urcas. Mocquet menciona 14 naus, mas pode ter acrescentado à sua

lista uma outra embarcação, provavelmente a que abastecia a esquadra[31].

O comando da armada foi confiado ao novo vice-rei, D. João Forjaz Pereira, 5.º conde da Feira, que sucedeu ao arcebispo de Goa, D. Frei Aleixo de Menezes. Felizmente para Mocquet, Pedro César, um dos dois fidalgos portugueses que encontrou em Marrocos durante a sua terceira viagem e que tinha sido resgatado pelo senhor Arnoult de Lisle, agente de Henrique IV junto do rei de Marraquexe, era irmão de Baptista Fernão César, o provedor da Casa da Índia, por sua vez cunhado do novo vice-rei. Foi graças a este fidalgo que Mocquet conseguiu vencer a desconfiança e a má vontade dos funcionários e obter (não sem esforço, todavia) a autorização de embarque tão desejada. Fez melhor: conversou com o vice-rei sobre botânica, conseguiu impressioná-lo e acabou por ser contratado como boticário para o seu serviço.

Subiu, então, a bordo do navio-almirante, o *Nossa Senhora do Monte Carmel* (*Nossa Senhora do Monte do Carmo* nas listas da "Carreira da Índia"), uma carraca de dois mil toneladas, uma das jóias dos estaleiros navais portugueses da época. O número de passageiros embarcados (900) e o peso destes enormes navios, difíceis de manobrar, não auguravam nada de bom para a viagem. Entre 1600 e 1609, a análise por década da "Carreira da Índia" registava ainda, entre 68 a 85 partidas de navios, número honroso se pensarmos nas 34 partidas entre 1651 e 1655 (18, de acordo com outras fontes). As 85 partidas registadas entre 1600 e 1609 saldaram-se por 25 regressos forçados e 12 naufrágios: apenas 48 navios chegaram a Goa[32]. Mocquet menciona, aliás, no seu relato, e uma vez mais com exactidão, o fim dos navios da armada em 1608.

A armada do conde da Feira deixou o rio de Lisboa a 29 de Março de 1608, na véspera da Páscoa, mesmo no limite do período favorável para aproveitar a grande monção do oceano Índico. O registo ("assento") dos pilotos, datado de 28 de Março de 1608, chegou até aos nossos dias: o mesmo aconteceu em relação ao Livro dos regulamentos ("regimento") de D. João Forjaz Pereira e outras disposições de carácter político ou militar[33]. Um documento de 26 de Março, dirigido ao vice-rei, recomendava-lhe que protegesse as três jovens órfãs de boas famílias, Custódia da Costa, D. Margarida da Fonseca e Jerónima de Torres, que, de acordo com uma prática que remontava ao século XVI, partiam para casarem no Oriente[34].

A VIAGEM

Mocquet conta que, durante algumas semanas, a viagem foi feita numa desordem e confusão indescritíveis até à ilha da Madeira – "as gentes vomitavam aqui e ali e faziam as suas imundícies uns sobre os outros" –, mas os piores momentos da viagem ainda não tinham chegado. Com efeito, a verdadeira descida aos infernos começou um pouco mais a sul, no momento em que a armada entrou na zona das calmarias e bonanças equatoriais, os *doldrums*.

Para os passageiros e tripulações presos nas calmarias equatoriais, a água tornava-se o bem mais precioso. A luta pela sobrevivência fazia com que se voltassem uns contra os outros: os recantos sombrios do navio eram o cenário de estranhos *ballets*, lutava-se na obscuridade, sem reconhecer parentes ou amigos, por uma única e irrisória medida de água. Os doentes que tinham sido sangrados eram as primeiras vítimas. Ao mexer os braços, reabriam as veias, o sangue escorria e eram atacados por "delírios e febres altas". O seu quartilho de água desaparecia então, levado pelos ladrões.

Flagelos bíblicos, chuvas que traziam a podridão e, sobretudo, o escorbuto ("mal de Luanda")[35] e o beribéri, dizimavam os passageiros e as tripulações sem distinguir riqueza ou classe social. O próprio Mocquet adoeceu, mas conseguiu sobreviver, tratando-se a si próprio. As suas gengivas deitavam um sangue negro e pútrido e os seus joelhos, coxas e pernas encolhidas e enegrecidas impediam-no de se deslocar. Cortava-se todos os dias para fazer "sair esse mau sangue negro e putrefacto"[36]; apoiado na amurada, cortava diariamente os pedaços de carne lívida e gangrenada das suas gengivas com a ajuda de um pequeno espelho e lavava a boca e os dentes com a sua urina. Apenas um medicamento à base de vinho tinto e xarope de violetas[37] parecia fazer algum efeito. Mas muitos morriam atrás das suas arcas, "os olhos e as plantas dos pés comidos pelos ratos"[38]. O vice-rei morreu após seis dias de sofrimento; apesar de não ser o único médico a bordo (existia também um cirurgião, "judeu convertido", de quem dirá o pior possível)[39], Mocquet foi o responsável pelo embalsamamento do ilustre personagem, tarefa que executou o melhor possível, sem todavia nos fornecer pormenores sobre a sua técnica ou as substâncias utilizadas. "O calor fazia-nos derreter como manteiga ao sol", escreve com uma ponta de ironia insólita, e "o vice-rei estava bem

gorduroso" algures nas entranhas do navio, com um calor que o fedor devia tornar ainda mais sufocante.

O desaparecimento do vice-rei (cujo corpo foi reenviado para Lisboa numa urca com cerca de 50 doentes e ainda uma passageira clandestina que tinha dado à luz no navio)[40] exacerbou as diferenças entre os pilotos da armada. A bem dizer, esta acabou por se dispersar, quer devido à ausência de comando e aos conflitos pessoais, quer devido ao violento temporal que se abateu à chegada ao cabo da Boa Esperança (na realidade, na proximidade do cabo das Agulhas, a 34º 50' de latitude sul, o verdadeiro limite austral de África). Não chegando a consenso, cada um seguiu sozinho a sua rota com a sua carga de moribundos e doentes.

A proximidade do cabo foi anunciada por bandos de alcatrazes e de mangas-de-veludo, pequenos pássaros parecidos com estorninhos. O alívio sentido pelos passageiros foi, no entanto, de curta duração. Os ventos começaram a soprar com uma violência crescente, as vagas varriam o convés e passavam por cima da popa; foi necessário navegar apenas com uma das duas velas baixas (papa-figo da mezena). Apesar do esgotamento, os passageiros, e entre estes Mocquet, aguentaram bracear. Como sempre nestas circunstâncias, entregaram-se a Deus fazendo uma procissão a bordo, na esperança de acalmar os elementos em fúria.

As forças da Natureza não eram as únicas a poder engolir as frágeis embarcações. Verdadeiros monstros míticos, os grandes mamíferos marinhos assombravam o imaginário dos viajantes e alimentavam o terror diário. É nas paragens do cabo, para sempre votado ao maravilhoso depois dos versos do Canto V dos *Lusíadas* de Camões, que o navio vice-almirante da armada, afastado do navio de Mocquet pela fúria da tempestade, tem o estranho encontro com uma baleia, a qual, passando ao longo do navio, emite um som horrível, gelando de medo toda a tripulação e os passageiros.[41]

A frota conseguiu, apesar de tudo, livrar-se da tempestade e ruma a norte, subindo ao longo da costa de Moçambique "por dentro", isto é, entrando no canal de Moçambique em vez de seguir a rota "por fora", a leste das ilhas de São Lourenço (hoje Madagáscar) e Mascarenhas (hoje Reunião e Maurícia), descobertas por Pero de Mascarenhas em 1512[42]. A armada consegue, todavia, evitar os recifes e vem arribar a Angoche, algumas centenas de quilómetros a sul da ilha de Moçambique. Estávamos a meio de Setembro de 1608, no momento em que as feridas do ataque holandês continuavam ainda abertas[43].

É fácil imaginar o local, tal como este se apresentou a Mocquet: um local sujo, quente e poeirento, devastado pela guerra, cerca de 200 casebres com tectos de palmeira, anichados à volta da fortaleza. A fome matava: os passageiros doentes e moribundos foram desembarcados e morriam ao ritmo de 10 a 15 por dia, uns na fortaleza, outros sob os beirais das palhotas indígenas, de acordo com a sua classe social. Durante este tempo, Mocquet, bastante enfraquecido pelo "mal de Luanda" mas vivo, tratava-se com as suas drogas e percorria as ruelas poeirentas da povoação em busca de um pouco de alimento.

A armada do conde da Feira estava atrasada: devido ao regime das monções, os navios que chegavam a Moçambique a meio de Setembro não podiam atravessar o oceano Índico e chegar às Índias. Era preciso então hibernar durante seis longos meses antes de poder aparelhar, finalmente, no mês de Março. Durante este longo período, as tripulações erravam ociosas, os passageiros tentavam acalmar as saudades e os funcionários negociavam com toda a gente. A inactividade (ou a actividade) de uns e de outros acabou por provocar problemas a Mocquet. Sabendo que este já não gozava de protecção após a morte do conde da Feira, as autoridades portuguesas prendem-no juntamente com outro estrangeiro, o secretário genovês do falecido vice-rei. Foram acusados de espionagem, crime grave que se traduzia geralmente por uma sentença de morte em Portugal (Pyrard de Laval também foi ameaçado, mas conseguiu escapar). O genovês foi acusado de ter na s ua posse "papéis e memorandos contra o Estado das Índias" e Mocquet de ter desenhado uma rota marítima, mas não foi possível reter qualquer acusação contra si. A sua mala foi revistada (sabemos que continha roupas, livros, dinheiro e drogas e mesmo "singularidades", como o pacote de plumas de avestruz que tinha trazido de Marrocos e que foi obrigado a vender em Goa para sobreviver) e, sobretudo, interrogaram-no sobre os seus conhecimentos médicos, na esperança de, visivelmente, desmascarar o espião na pele de médico[44].

Apesar da sua violenta exasperação contra os portugueses, que tratava pejorativamente por "judeus", Mocquet foi libertado após 22 dias de prisão e nem sequer foi privado do seu soldo. O tempo que lhe restava

Jan Huygen van Linschoten, "Representação de Goa, a principal cidade mercantil e metrópole do reino, onde residem o arcebispo, o vice-rei e o conselho supremo da Índia Portuguesa", in Arie Pos e Rui Manuel Loureiro (eds,), *Itinerário, Viagem ou Navegação de Jan Huygen van Linschoten para as Índias Orientais ou Portuguesas*, Lisboa: CNCDP, 1977.

antes da partida foi dedicado à sua actividade favorita, herborizar, a qual praticou com a ajuda dos negros da povoação. Oferece-nos, deste modo, informações sobre o *pau-d'antac*[45], utilizado no tratamento de doenças venéreas, sobre a pedra *benzoar*[46] e sobre a rectite epidémica gangrenosa, para a qual receitava um tratamento – lavagens e sumo de limão – tratamento este retomado com mais detalhes nas *Voyages* de Dellon[47]. Registou, igualmente, as suas observações sobre o modo de vida destas populações pobres, mas mais tarde sentiu-se na obrigação de animar o texto com algumas histórias sobre os negros antropófagos, perversos e bebedores de sangue quente.

Tal como tinha feito no Brasil, estas excursões constituíram também a oportunidade de aprender algumas palavras na língua local, da qual transcreveu algumas expressões no seu relato, de acordo com o modelo de pequeno léxico apresentado na sua viagem ao Maranhão. Mantém-se afastado da comunidade portuguesa (mas fica hospedado durante algum tempo na corte de um rico funcionário, Francisco Mendes, o "juis dos orfãos" da fortaleza) e evita cuidadosamente conviver com a soldadesca, à qual critica violentamente a grosseria e os hábitos sexuais.

A frota estava pronta a aparelhar a meio de Março de 1609. Os porões tinham sido carregados com bretangis (telas de algodão de cor azul-escura), missangas, ouro, dentes de elefante e âmbar-cinzento[48]. Os navios que se agitavam lentamente ao abandonar as águas do porto da ilha de Moçambique, a 20 de Março de 1609, deixavam para trás algumas centenas de mortos no pequeno cemitério da fortaleza. A armada tinha ficado reduzida a quatro embarcações: o navio-almirante, a carraca *Nossa Senhora do Monte do Carmo* e três galeões, *São Jerónimo*, *Santo António* e *São Bartolomeu*. O *Bom Jesus* tinha-se perdido no início da viagem e veio fundear em

Moçambique, onde foi abordado pelos holandeses de De Verhoeven. O *Santo Espírito,* provavelmente mal calafetado ou demasiado carregado, metia água e teve que arribar a Pernambuco, na costa norte do Brasil (hoje Recife). Acabou por naufragar nas paragens do cabo da Boa Esperança, em circunstâncias dignas da *História Trágico-Marítima*, que Mocquet, no seu estilo habitual, relata com muita justeza e sobriedade.

Das cinco carracas mencionadas por Mocquet, três naufragaram posteriormente: a *Nossa Senhora da Ajuda* naufragou perto da costa ocidental africana, junto da feitoria da Mina (Gana), a *Palma* encalhou num recife ao largo de Moçambique e a *Salvação* perdeu-se perto de Mombaça. As duas outras não tiverem um destino melhor. A *Nossa Senhora da Oliveira* foi incendiada perto de Goa, a fim de evitar que fosse tomada pelos holandeses; a *Nossa Senhora do Monte do Carmo* foi rebocada para terra e posta fora de serviço depois de uma batalha no Atlântico Sul, perto da ilha de Santa Helena[49].

A travessia do oceano Índico decorreu sem incidentes e apenas foi animada pelo encontro com um navio mercante muçulmano que vinha de Diu, no Guzerate, e que transportava peregrinos para Meca. Apesar do seu laconismo habitual, Mocquet fornece informações interessantes sobre a organização e a vida a bordo neste tipo de embarcação, que conhecemos mal, apesar da frequência de tais encontros – na verdade, acabavam, por vezes, de forma trágica[50].

GOA

Se ficou aliviado por pisar finalmente a terra vermelha de Goa, em 27 de Maio de 1609, Mocquet depressa se desencantou. O seu sonho tinha acabado de se concretizar, mas, disperso no meio dos sobreviventes da terrível viagem, perdido entre os carregadores e os escravos que descarregavam os fardos das mercadorias, encontrava-se sozinho, enfraquecido e sem meios de subsistência depois dos seus dissabores em Moçambique. Não tinha mais nenhuma relação entre os "fidalgos" e não conhecia pessoas influentes em Goa.

O seu primeiro alojamento foi o alpendre da casa de um hindu, um humilde canarim. O desprezo que revela diante dos homens de armas (esta "canalha", como diz[51]) não deve fazer esquecer que a sua salvação acabou por vir dos soldados, seus antigos companheiros de viagem, alguns tratados por ele[52].

Mocquet chegou a Goa pouco antes da monção, no final do Verão. Durante o longo período de Inverno – três ou quatro meses – as chuvas impediam qualquer navegação, e os soldados, bem como as tripulações, deambulavam ociosos em todos os portos da Índia. As brigas surgiam. Era perigoso passear nas ruas de Goa depois do anoitecer e dar de caras com esta soldadesca. O retrato sombrio pintado por Mocquet era infelizmente autêntico: os soldados eram pagos pela coroa apenas até à chegada a Goa. Uma vez na Índia, podiam escolher por se alistar numa campanha militar ou permanecer em terra. A sobrevivência era então difícil. Os "fidalgos" e as autoridades eclesiásticas ou civis "davam mesa" e alimentavam alguns destes soldados, enquanto os outros deambulavam pelas ruas de Goa, roubando e, por vezes, matando os seus habitantes[53].

Apesar da sua má reputação, estes mesmos soldados emprestaram a Mocquet as moedas necessárias à sua sobrevivência, e um "anel de ouro e uma qualquer outra pequena coisa de prata" deixados como penhor proporcionaram-lhe os meios necessários para melhorar o seu dia-a-dia, alojando-se em casa de um casal, de nível social pouco elevado, mas representativo da população de Goa: a mulher era chinesa e o marido, António Fernandes, era um cirurgião indiano cristão, provavelmente um mestiço "casado". Como em Marraquexe, Mocquet servia-se visivelmente, nas suas viagens, das suas relações no meio fechado, mas cosmopolita, dos cirurgiões e boticários. Este casal habitava na Rua do Crucifixo, uma pequena rua que se encontrava efectivamente a dois passos da rua principal da cidade, a Rua Direita, não longe da Misericórdia e da igreja de São Francisco[54] (encontrando-se uma vez à porta deste alojamento, Mocquet afirma ter assistido a uma rixa entre dois grupos de soldados, "uns vindo do lado da Misericórdia e outros do lado dos Franciscanos"). Ora esta pequena rua era perpendicular à Rua dos Namorados, onde parece que viveu, de 1541 até à sua morte, em 1568, o grande médico e naturalista cristão-novo Garcia da Orta[55].

Enquanto habitou na Rua do Crucifixo, a venda das plumas de avestruz que tinha comprado em Marrocos assegurou a sua subsistência durante dois meses; pôde, assim, observar tranquilamente a vida da cidade, conhecer os seus habitantes e ser testemunha de importantes mudanças.

De acordo com a tradição, em caso de morte do vice-rei no mar alto devia proceder-se à quebra

do lacre do documento com as instruções secretas da coroa e o nome do seu sucessor revelado. Esta operação, mencionada por Mocquet, realizou-se, com efeito, em 27 de Maio de 1609. A escolha real tinha caído sobre André Furtado de Mendonça, um dos mais notáveis capitães e homens de armas de que Portugal se podia orgulhar na época. Filipe III depositou nele uma grande confiança. Entre as instruções que tinham sido confiadas ao conde da Feira figurava igualmente a sua nomeação como capitão-mor dos mares do Sul, com um salário de 6000 cruzados a pagar através dos rendimentos da alfândega de Malaca. André Furtado de Mendonça tinha vencido o célebre pirata Mappillah do Malabar, Muhammad Kunjali Marakkar, da poderosa dinastia dos corsários Maratas, que, tendo renunciado à tradicional pirataria costeira, tinha alargado o seu domínio marítimo desde o cabo da Boa Esperança até ao mar da China. O grande capitão tinha conseguido vencer este corsário com a ajuda do samorim de Calecute, que receava a vizinhança do seu refúgio, à entrade de Kotte, a jusante do rio Pudepatão. Cercado durante quatro meses pelos portugueses no mar e pelos naires em terra, o Kunjali, a quem tinham prometido salvar a vida, acabou por se render em Julho de 1599, com os seus ajudantes de campo, os seus servidores e as suas mulheres. A sua cidadela foi saqueada e Kunjali foi levado para Goa, em Março de 1600, tendo sido decapitado na praça principal de Goa, os seus membros exibidos nas praias de Bardez e de Pangim e a sua cabeça exposta pelos portugueses no forte de Cananor[56].

André Furtado de Mendonça contava com outros grandes feitos no seu currículo. De 1601 a 1603, a "Armada do Sul", que comandava, obteve êxito em várias campanhas, dificultando seriamente a actividade dos holandeses nos mares da Insulíndia. O forte holandês de Ambom, "que tinha à entrada as armas do príncipe Maurice de Nassau" foi arrasado. Depois de ter pirateado as águas ao sul da ilha de Ceram, atacou Haruku e Saparua e, por fim, Ternate. As derrotas alternavam com as vitórias. Furtado de Mendonça conseguiu mesmo assim aguentar o cerco holandês, liderando durante quatro meses a r esistência ao cerco de Malaca com 200 soldados, portugueses e japoneses, contra os 11 navios e as forças de Cornelius Matelief de Jong (1400 homens) e as do seu aliado, o sultão de Johore, *raj* Bongoen (50 navios e 3000 homens – os números de Mocquet são ligeiramente diferentes). A população indígena pagou caro os quatro meses de cerco: 6000 pessoas morreram no interior da fortaleza e apenas a grande batalha de Malaca, em 18 de Agosto de 1606, entre a esquadra holandesa e as forças do vice-rei das Índias, D. Martim Afonso de Castro (16 navios e pouco mais de 2000 homens) permitiu romper o cerco e afastar por algum tempo a ameaça holandesa[57].

Confiante na sua boa estrela junto dos vice--reis, Mocquet apressou-se a ir cumprimentar André Furtado de Mendonça. A visita que faz à igreja dos Três Reis Magos, na margem do Mandovi, não dá grandes resultados. A situação do novo vice-rei, já doente, vítima de invejas e desanimado devido aos vários conflitos com a administração real (tentava em vão obter de Lisboa o reembolso das dívidas contraídas entre 1601 e 1606, período em que exerceu as suas funções em Malaca)[58], não lhe deixavam muito tempo para se interessar pelos infortúnios de um estrangeiro desconhecido, mesmo que este tenha estado ao serviço do falecido vice-rei. Foi evasivo e Mocquet regressa às ruas de Goa.

Felizmente, a situação resolveu-se alguns meses mais tarde e mais rápido do que Mocquet poderia esperar. Em 1 de Setembro de 1609 aportou à barra de Goa um navio de grande porte que se receava que fosse holandês. Tratava-se, na realidade, do novo vice-rei, Rui Lourenço de Távora, que, nomeado no emaranhado e na confusão das decisões de Madrid, acabava de chegar às Índias[59].

André Furtado, cuja saúde piorava (o rumor público sustentava que tinha sido envenenado), começou a preparar o seu regresso a Portugal. Lembrou-se então do boticário francês que tinha vindo para as Índias com o conde da Feira. Convocado à sua presença, Mocquet não teve dificuldades em ingressar ao seu serviço: além das suas qualidades militares e da sua integridade moral, o vice-rei era unanimemente louvado pela sua generosidade e grande liberalidade.

Mocquet parte de novo a herborizar no final de Novembro de 1609, desta vez em terra indiana e com um bom pretexto, o de procurar plantas raras para o tratamento do vice-rei[60]. Alcança as terras de Adil-Khan, acompanhado de alguns marinheiros e de um naire, e volta da sua excursão em Dezembro de 1609.

Goa, que compara a Tours num dos seus exercícios de imaginação (Damasco, por seu lado, é comparada a Orleães), ocupa as semanas antes da sua partida. Era ainda uma grande cidade (75 000 habitantes, dos quais um milhar de portugueses), dinâmica e opulenta, cuja prosperidade repousava em grande parte no comércio interasiático, animado pelos comerciantes "casados" e hindus de diferentes origens, os brâmanes *saraswat*

de Goa ou os *vania* guzerates. Mantinha relações continuadas com os mongóis (Jahangir, o sucessor de Akbar, enviou uma embaixada a Goa em 1607-1608), ainda não tinha sofrido o bloqueio dos holandeses (entre 1637 e 1664, uma esquadra holandesa veio todos os invernos navegar em frente à barra do rio Mandovi) e tinha sobrevivido às várias epidemias, as quais iriam precipitar o seu declínio nos finais do século XVII.

Mocquet reencontrou provavelmente em Goa o capitão Pedro Fernandes de Queirós, que o fez visualizar a imagem de um fabuloso continente ainda virgem: "... navegou algumas costas, e disse maravilhas deste país, em beleza e bondade; de forma que mais parece qualquer coisa do Paraíso terrestre: mas é necessário esperar uma descoberta mais ampla e exacta: os geógrafos e os pilotos portugueses dizem que todas estas terras austrais são maiores do que toda a Europa e parte da Ásia. Este capitão, Pedro Fernandes, encontrou as baías de S. Filipe e de S. João e o porto de Vera Cruz, que diz ser muito bom e capaz de conter mais de mil embarcações, a 155 graus e meio de latitude."[61]

Avesso a conquistas femininas, que eram, contudo, excessivamente fáceis em Goa, visita um gentil-homem português e um religioso francês que tinha conhecido, um jesuíta chamado Etienne de la Croix (que não era de Tours, mas sim de Rouen). Muito lacónico sobre Pyrard de Laval, que todavia destaca do grupo dos três franceses que encontrou, é visivelmente mais prolixo sobre os infortúnios de um francês que se dizia chamar Monfart e que tinha estado de passagem por Goa alguns meses antes dele; este gentil-homem tinha sido, na verdade, posto a ferros em Goa "por medo de que ele espiasse as fortalezas do país" e enviado, em seguida, para Portugal onde "apodreceu" longo tempo na prisão; a sua história não podia deixar de trazer más recordações a Mocquet, levando-o a ser prudente[62].

Quanto ao resto, declara estar sobretudo contente por deixar "estas gentes más e viciosas, onde apenas passei e passaria pobreza e miséria". A Goa apostólica portuguesa não o havia impressionado por aí além, a não ser negativamente. A ostentação, o requinte e a indolência da vida pública chocaram-no profundamente.

Os "bons selvagens" hindus, como os "bons selvagens" ameríndios da sua viagem ao Maranhão, pareciam-lhe mais dignos de respeito do que os arrogantes fidalgos portugueses. Atitude ideológica, claro, que deve ser interpretada à luz da propaganda reformista contra Portugal e Espanha, países profundamente católicos. É por este motivo que opõe permanentemente esses "pobres idólatras explorados", gentis, meigos e honestos, aos portugueses ímpios, salteadores e cruéis. A descrição harmoniosa (e muito idealizada) da sua estada com os hindus contrasta violentamente com o quadro, que não podia ser mais sombrio, dos costumes e do comportamento dos Lusitanos[63].

Esta descrição exagerada assenta, em parte, como já foi visto, em informações fornecidas por outros textos e por pessoas de passagem. A história do flamengo que, tendo emprestado um chapéu a um castelhano e querendo-o recuperar, ouviu como resposta que teria que seguir o espanhol até à guerra da Flandres, constitui um dos exemplos dessas histórias que circulavam entre a soldadesca. No entanto, as raízes da sua aversão são tanto políticas como religiosas e culturais. Existe, antes de mais, uma forte rivalidade misturada com inveja, que se constata igualmente nos viajantes estrangeiros que o precederam: declara sem pestanejar que "a fertilidade da França é tal que ela fornece abundantemente Espanha, Portugal, Itália e Barbaria, não só com trigo, mas com muitas outras mercadorias; [...] e crê que os espanhóis e os portugueses não poderiam abastecer um número tão grande de viagens para as Índias se não tivessem a ajuda dos cereais que trazem de França para fazer os seus biscoitos, além das velas, dos cordames, das carnes salgadas e outras coisas necessárias para abastecer as suas embarcações."[64] Esta rivalidade leva-o por vezes a conclusões curiosas: o fim trágico dos missionários franciscanos em Nagasáqui, crucificados e expulsos em Fevereiro de 1597 pelo *kanpaku* Toyotomi Hideyoshi (1536-1598) e a posterior perseguição dos convertidos e dos religiosos pelos xóguns Tokugawa, identificados com o processo de centralização do poder político no Japão, são atribuídos por Mocquet ao laxismo dos portugueses que cobiçavam, na sua opinião, as mulheres japonesas...

Finalmente, não se deve esquecer que Mocquet é originário de um país (e de uma Europa) onde, estando todos ocupados com as suas divergências internas, ignoravam ainda esta outra dimensão do horror, da escravidão em massa e, sobretudo, a cruel realidade de uma sociedade assente em tais valores. Mocquet não gosta (ou não tem o hábito) da escravidão e ignora ainda o seu poder de corrupção. Ao denunciar a crueldade dos portugueses para com os seus escravos, a sua preguiça ou a sua petulância, guarda as suas distâncias em relação a uma realidade colonial que ainda lhe é "estranha", mas que o seu país abraçará algumas décadas mais tarde.

A carraca de André Furtado de Mendonça larga da barra de Goa num sábado, a 2 de Janeiro de 1610, de madrugada, impelida por um pequeno vento de norte (de acordo com Pyrard, teria sido a 26 de Dezembro, mas está errado), cercada por manchuas, essas pequenas embarcações de recreio onde os goeses iam refrescar-se nos rios, rodeados de escravos e de músicos: quiseram, deste modo, homenagear um homem que deixava atrás de si uma aura quase lendária de justiça e integridade.

Jan Huygen van Linschoten, "Representação fiel da feira de Goa, com as suas lojas, mercadorias e comerciantes quotidianos", in Arie Pos e Rui Manuel Loureiro (eds,), *Itinerário, Viagem ou Navegação de Jan Huygen van Linschoten para as Índias Orientais ou Portuguesas*, Lisboa: CNCDP, 1977.

Acompanhando o governador doente, Mocquet embarca a bordo da *Nossa Senhora da Penha de França*, uma das duas únicas embarcações que largaram de Goa em 1610. Com eles, viajavam 200 pessoas da casa do antigo capitão de Malaca (entre os quais o seu secretário chinês, Álvaro Pais, que conversou durante a viagem com Mocquet sobre os costumes asiáticos e lhe conta uma boa parte das histórias que este refere no seu relato), capitães e funcionários que regressavam a Portugal para reclamar a recompensa pelos seus serviços, e quatro ingleses, entre os quais um piloto, que não tiveram a sorte do boticário, uma vez que os puseram a ferros mal subiram à ponte. O grupo dos franceses (de que fazia parte Pyrard de Laval) também tentou embarcar, mas como estava inscrito nos seus passaportes o nome de outro navio, foram obrigados a ficar em terra até ao final do mês de Janeiro.

Apesar de transportar uma carga de canela "até ao meio do mastro", o navio não encontrou dificuldades de maior durante a grande travessia do oceano Índico; podemos considerar que tiveram sorte, dado que já tinha sido ultrapassado o período mais favorável para a partida (a primeira metade de Dezembro).

O diário de bordo mantido pelo sota-piloto Sebastião Prestes, de que dispomos, informa-nos sobre o desenrolar da viagem e fornece-nos elementos de comparação com o relato de Mocquet.

Sabemos, deste modo, que a situação se alterou próximo da costa da Somália. André Furtado de Mendonça tinha escolhido a rota "por dentro", contra o parecer dos seus oficiais, e o navio não tardou a ter que enfrentar a sua primeira tempestade. Fustigados pelas vagas, os escovéns abriram e a água inundou a ponte. Foi então necessário aliviar o peso do navio, deitando à água uma parte da preciosa carga: 300 quintais de canela e incontáveis caixas e fardos de mercadorias que se amontoavam no convés, até às mesas de guarnição e o castelo da popa. Pior ainda, tombaram colunas de água na pimenta que restava e sobre as 200 pipas de água doce (cerca de mil litros): a água potável ficou completamente salgada e apimentada.

O trabalho extenuante de 300 escravos negros e de alguns marinheiros, que trabalhavam afincadamente nas bombas desconjuntadas, conseguiu colocar o navio de novo a flutuar depois de três dias e três noites de angústia. As operações foram dirigidas por André Furtado de Mendonça, que, apesar da sua extrema fraqueza, se manteve na ponte.

Em 12 de Fevereiro, o astrolábio foi confiado ao piloto inglês, que, segundo o diário de bordo, não soube medir tão bem o Sol como todos os outros da nau: "demos a hu piloto engres hu astrolabio pera tomar o sol por mandado do governador e tomou menos sol que todos os da nao"[65]; em 15 de Fevereiro, os gajeiros da *Nossa Senhora da Penha de França* avistaram por entre o nevoeiro a ilha de São Lourenço (Madagáscar). O cabo da Boa Esperança, do qual Mocquet tinha tão más recordações, foi transposto sem grandes problemas e com bom tempo a 16 de Março.

Ao denunciar a crueldade dos portugueses para com os seus escravos, a sua preguiça ou a sua petulância, guarda as suas distâncias em relação a uma realidade colonial que ainda lhe é "estranha", mas que o seu país abraçará algumas décadas mais tarde.

Infelizmente, o estado de saúde de André Furtado de Mendonça continuava a agravar-se. A 27 de Março, o sota-piloto Sebastião Prestes regista: "Pelo g[overnad]or que vai mal primita D[eu]s darlhe saude… e levarnos cedo a Lixboa. Boa viage[m] nos dê D[eu]s"[66].

Estávamos então na latitude da ilha de Santa Helena e, na melhor das hipóteses, seria necessário aguentar ainda quatro longos meses no mar antes de chegar a bom porto. O esgotamento era ainda maior pelo facto de o regresso estar a ser realizado nas condições mais difíceis: a viagem era classificada de "rota-batida", ou seja, sem escala em Moçambique, prática que se tornou habitual no século XVII devido aos ataques dos holandeses[67].

Num ambiente explosivo, devido às vicissitudes da viagem surgiram então conflitos entre os passageiros exasperados, o primeiro piloto Manuel Leitão e o contramestre: era necessário arribar à ilha para fazer aguada e desembarcar os doentes. À hora da morte, o

governador ainda teve forças para os enfrentar: recusou fundear em Santa Helena, com medo dos holandeses, mandou fazer o inventário da água potável disponível e deu ordem para continuar viagem. Trataram-se, na verdade, das últimas ordens que pôde dar após uma vida plena de tumultos e marcada por tantos actos de coragem, sendo que, a 30 de Março, já agonizava, como o refere o diário de bordo do piloto.

Morreu a 1 de Abril, quinta-feira, às nove horas e trinta minutos da manhã, após uma purga que lhe foi administrada[68]. O seu confessor, o padre Manuel do Monte Olivete, ministrou-lhe os últimos sacramentos e testemunhou o seu apego, nos últimos momentos, a uma imagem pintada de Nossa Senhora, que venerava particularmente, persuadido que a intervenção da Mãe de Deus lhe tinha dado a vitória durante o cerco de Malaca[69].

Mocquet não entra em detalhes sobre a doença do governador, mas o piloto ficou suficientemente impressionado pela autópsia que este efectuou para registar informações sobre este assunto numa das páginas do seu diário de bordo: André Furtado de Mendonça morreu de disenteria; o coração negro, os intestinos inchados e o fígado endurecido reforçaram na mente da tripulação e dos passageiros a suspeita de envenenamento[70].

Designado de novo para o embalsamamento, Mocquet pôs-se ao trabalho, ajudado desta vez por um barbeiro, que, como era costume nos navios da "Carreira da Índia" e um pouco por todo o lado no Império, desempenhavam frequentemente a bordo o papel de verdadeiros médicos.

Com uma grande quantidade de cânfora e de benjoim e com a ajuda de drogas e de ligaduras que se encontravam a bordo, o corpo do governador foi finalmente preparado, colocado num caixão hermeticamente fechado e guardado num armário com uma lâmpada acesa[71].

A embarcação arribou finalmente a Cascais, a 2 de Julho de 1610. Mocquet salta para terra, mas a *Nossa Senhora da Penha de França* seguiu a sua viagem ainda durante algumas léguas marinhas até Lisboa. Os restos mortais de André Furtado de Mendonça foram aí desembarcados ao pôr-do-sol e levados com grande pompa para a igreja da Misericórdia. As cerimónias oficiais prolongaram-se até 16 de Outubro[72].

Durante todo este tempo, Mocquet tinha recuperado os seus poucos haveres e, embora a sua saúde fosse frágil, conseguiu uma vez mais curar as suas doenças e embarcar rumo a França. Embarcou a bordo do navio de um tal Pierre Simon de la Rochelle, em 17 de Agosto de 1610. A tempestade que fez voltar e afundar sob os seus olhos o navio que os acompanhava, o *Dauphin,* deve ter-lhe parecido coisa de pouca monta após a sua terrível viagem às Índias.

Ao descer para o cais da sua querida cidade de La Rochelle, a 13 de Setembro de 1610, imagina-se um Mocquet feliz por ter concretizado o seu sonho. A travessia foi rica em ensinamentos, é verdade, mas a tristeza vai acompanhá-lo para sempre: tinha tido conhecimento, por uma caravela chegada ao porto de Lisboa, da terrível notícia do assassinato do rei Henrique.

A REDACÇÃO E AS EDIÇÕES DAS *VIAGENS*

Pelo que sabemos, Mocquet não voltou a embarcar depois deste fracasso. O "Gabinete de Singularidades do Rei" e a redacção do seu relato das viagens parecem ter ocupado todo o seu tempo a partir de então. Terá trabalhado no projecto que acarinhava e que pensava publicar após o relato, um tratado naturalista, "que tratasse das plantas, árvores, flores, frutos, animais e outras coisas raras" dos países onde tinha permanecido? Seria esta obra o "algo mais" que menciona na sua dedicatória e que esperava poder oferecer um dia ao rei? Não sabemos. O livro não chegou a ser publicado, o mesmo acontecendo com um segundo projecto relativo às Índias e que não era a *Voyage en Ethiopie, Mozambique, Goa et autres lieux d'Afrique, & des Indes Orientales.*

O rasto de Mocquet perde-se quando regressa de Espanha. Um derradeiro documento, datado de 8 de Outubro de 1616, refere que o rei ordena ao tesoureiro do Real Erário que pague a soma de 450 libras a "Jean Mocquet, um dos nossos boticários e chefe do nosso Gabinete das Singularidades no nosso palácio das Tulherias [...] a qual lhe fazemos dom pelos presentes assinados pela nossa mão em consideração dos seus serviços."[73] A ausência de qualquer menção a seu respeito a partir de 1617 (data de publicação do seu relato) leva a crer que não terá sobrevivido muito tempo após a publicação da sua obra[74].

O conjunto impresso das suas seis viagens, intitulado *Voyage en Afrique, Asie, Indes Orientales & Occidentales faits par Jean Mocquet, Divisez en six livres & enrichiz de Figures dediez au Roy,* foi publicado em Paris, em 1617, por Jean de Heuqueville e teve um êxito

imediato, confirmado por duas edições no século XVII (Rouen, 1645 e 1665) e por uma tradução holandesa (Dordrecht, 1656). Entretanto, foi publicada, em 1668, uma tradução alemã, com muito má qualidade, seguida de uma tradução inglesa (*Travels and Voyages into Africa, Asia, and America, the East and West Indies, Syria, Jerusalem and the Holy-Land [1617]*, Nathaniel Pullen, Londres, 1696). O texto da sua viagem a Marraquexe foi resumido por Dapper.

Este sucesso é tanto mais meritório quanto os relatos de viagem apareciam na época a um ritmo constante e o texto era confrontado com outros, de carácter mais literário ou mais ricos em observações etnológicas. Foi apenas no século XVIII que caiu no esquecimento. Foi escolhido em 1830 para ser republicado e proporcionar trabalho aos tipógrafos.

O INTERESSE DAS VIAGENS

Mocquet ocupa um lugar único na literatura de viagens. O seu relato é importante por vários motivos. Apresenta um certo interesse para o nosso conhecimento da mentalidade e da "visão" de um médico da época: trata-se, antes de mais, de um documento de uma grande sabedoria, de extraordinária vivacidade e, quando aborda a experiência pessoal, de uma verdade impressionante.

Existe uma dimensão de diário íntimo no seu relato. A precariedade do estatuto de viajante está aí excelentemente retratada, sem floreados, manifestando-se por pequenas notas austeras, umas mais impressionantes do que outras: a prisão em Moçambique, os sofrimentos suportados, a trivialidade fastidiosa e penosa da viagem, as suas perplexidades e as suas andanças (encontros desagradáveis e perigosos, diligências burocráticas extravagantes ou absurdas, humilhações, luta pela sobrevivência). O próprio viajante deixa-se adivinhar nessas notas mais do que habitualmente: as dúvidas e os medos que o assaltam, a sua profunda solidão que o torna, por vezes, "masoquista" e o coloca frequentemente na posição de vítima, a diversidade das suas reacções às situações e aos acontecimentos imprevistos.

Mesmo não acrescentando nada de verdadeiramente novo à informação etnográfica sobre o Brasil depois de Thévet e Léry[75], abundam as observações interessantes de carácter antropológico sobre a vida nos países muçulmanos ou nas Índias. A vida religiosa, assim como as relações sociais intercomunitárias e interculturais, não escapam à sua observação.

Tendo como referência os seus próprios valores, Mocquet, homem do seu tempo, está também aberto às novidades do mundo. Alguns juízos de opinião mordazes (e, por vezes, curiosos, como essa condenação das mulheres gordas) e uma xenofobia evidente não impedem que tente descrever os acontecimentos da forma mais justa. Sabe como nos interessar e nos emocionar. Relativiza com frequência: notas de compaixão humana surgem aqui e ali nas *Voyages*. É a visão do médico, distante e experiente, mas capaz de se emocionar perante o sofrimento dos outros. A curiosidade sobrepõe-se aos seus preconceitos: dorme no meio dos índios, partilha as refeições humildes dos hindus; mesmo sendo os muçulmanos os inimigos da Cristandade, atenta cuidadosamente naqueles que o alojaram ao longo das suas viagens ou o ajudaram nos momentos difíceis e não desdenha a sua companhia.

A abordagem de Mocquet, típica da literatura das viagens do seu tempo, em que a moda exigia que se desse uma dimensão maravilhosa e enciclopédica aos relatos escritos, mistura ficção e realidade num emaranhado por vezes inextricável. Não se trata, pois, de fazer qualquer separação: "a aventura e o imaginário", para retomar uma bela fórmula de Frank Lestringant, entrelaçam-se e complementam-se com êxito. As histórias pitorescas, que alimentam o descritivo do texto, são uma convenção do género. Sem nunca pôr em causa a sua seriedade como médico, o autor recorre ao imaginário exótico e monstruoso para tornar o seu relato mais atractivo e espectacular. As lendas mais divertidas (como aquela das amazonas, aflitas com os pêlos púbicos que lhes chegam até aos joelhos) concorrem com os fantasmas recorrentes da antropofagia (tão na moda neste final do século XVI, assombrado pelo Canibal) e acabam por se perder numa miscelânea de histórias extravagantes (a indiana abandonada pelo piloto inglês, o qual corta em dois o filho de ambos e atira uma metade à infiel no momento em que o navio parte, o comércio sexual dos negros com as otárias, etc.), histórias verosimilmente rebuscadas, contadas ao anoitecer nos conveses, ao sabor dos encontros nos portos e na obscuridade das tendas.

OBSERVAÇÕES SOBRE AS FONTES

Reconhece-se facilmente as fontes das duas viagens de Mocquet à "Barbaria". Os mercadores e os marinheiros que frequentavam estas paragens trouxeram-lhe provavelmente informações sobre

detalhes bem precisos. Algumas reminiscências no texto da sua primeira viagem, aquela que realiza em 1601 ao cabo Branco, indicam que pode ter tido igualmente conhecimento das narrativas portuguesas, o que é verosímil, se pensarmos nas suas várias estadias em Portugal e nos contactos que estabelecia. A região estava assinalada desde o século XV na *Crónica da Guiné* de Gomes Eanes de Zurara (1453), que Valentim Fernandes, João de Barros e Bartolomé de Las Casas utilizaram no século XVI. Do lado francês, os testemunhos sobre estas regiões eram raros na época. Entre Eustache Delafosse (1479-1481) e os relatos de Alexis de Saint-Lô (1635) e de Claude Jannequin (1639) existe praticamente apenas um testemunho sobre a região, aliás sucinto, atribuído ao piloto de La Rochelle, de origem portuguesa, Jean de Fontenau, conhecido por Alphonse de Saintonge (1529).

É interessante observar que a sua terceira viagem, a Marraquexe, reflecte os testemunhos directos de antigos prisioneiros em "Barbaria". A identidade de dois destes seus informadores é, aliás, revelada: António Saldanha e Pedro César, gentis-homens portugueses feitos prisioneiros em Tânger, que tinham vivido cerca de 15 em cativeiro antes de serem resgatados pelo senhor de Lisle, agente de Henrique IV junto do rei de Marraquexe. Mocquet esteve alojado em casa deste durante a sua estada na cidade, em Setembro de 1605. O relato da batalha de Alcácer-Quibir (1578), na qual o jovem rei português D. Sebastião desapareceu, arrastando consigo as elites militares e a perda da independência de Portugal, colocado por Mocquet na boca de um alcaide muçulmano que se dizia testemunha do combate, foi provavelmente feito por estes prisioneiros. Teriam eles participado na derrota portuguesa? É uma hipótese que não deve ser descartada. Alcácer-Quibir encontra-se a uma centena de quilómetros ao sul de Tânger e Mocquet situa a batalha nesse local. Na verdade, neste caso, o cativeiro teria sido de 27 anos e não de 13 ou 14, mas Mocquet confunde muitas vezes as datas dos acontecimentos que narra. Não se engana ele, aliás, quando afirma que a batalha tinha sucedido 35 anos antes e apenas tinham decorrido 27 anos entre estes acontecimentos e a sua estada em Marraquexe?

Pedro César manterá o contacto com Mocquet e prestar-lhe-á mesmo alguns serviços, dado que será graças à sua família que este último obterá em Lisboa a autorização para embarcar rumo às Índias, em 1610.

A quarta viagem, a Moçambique e a Goa, tem a ver com o *Itinerario, voyage ofte schipvaert van Jan Huygen van Linschoten naer Oost ofte Portugaels Indien* (1596, primeira edição, 1595) do holandês Jan Huygen van Linschoten, e, sobretudo, com o *Discours du Voyage des François aux Indies Orientales* (1615) do francês Pyrard de Laval, que conhece em Goa. De 1601 a 1608, Pyrard permaneceu nas Maldivas e visitou Bengala, Ormuz e Ceilão. Contrariamente a Mocquet, que permaneceu em Goa pouco tempo, Pyrard viveu vários meses na Índia Portuguesa (Cochim, Cananor e Goa) e testemunhou a guerra de Malabar e as primeiras tentativas de desestabilização dos holandeses, tendo sabido retirar daí as consequências. Embora o nosso boticário tenha utilizado ocasionalmente material reunido por outros autores (os longos desenvolvimentos sobre a vida social de Goa e sobre os costumes amorosos da sua população feminina circulavam entre todos os viajantes), o caso de Pyrard era diferente. O relato de Pyrard tinha sido publicado em 1611 e reeditado em 1615, 1619 e 1679. Mocquet tinha consciência do perigo que representava para a sua obra a publicação, com apenas alguns anos de diferença, de um testemunho muito mais completo sobre as Índias do que o seu. Assim, afirma "que seria coisa supérflua de recontar o que tantos outros contaram tão amplamente e tão bem escrito."[76]

Algumas vezes, ficava dependente de outras fontes. Reconhece-se sem grande dificuldade, na *Voyage à Mozambique & Goa,* a narrativa da trágica aventura de Manuel de Sousa na *História Trágico-Marítima* (primeira edição 1735-1736). Esta compilação bem conhecida de narrativas de naufrágios ocorridos com navios da "Carreira da Índia", publicadas antes sob a forma de folhetos, foi posteriormente divulgada por toda a Europa sob diferentes formas (ver, por exemplo *Les Portugaiz Infortunez, tragédie inspirée du naufrage de Manuel de Sousa Sepúlveda, par Nicolas-Chrétien Des Croix, à Rouen, chez Théodore Reinsart, 1608*). O episódio ter-lhe-á sido contado por viajantes – "não posso esquecer de registar o que me foi contado" ou terá recorrido à sua versão escrita? De qualquer modo, declara que "desta triste aventura, os portugueses fizeram um romance", o que deixa supor que teria conhecimento de uma versão escrita. **RC**

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OS VIAJANTES EUROPEUS E O MUNDO NATURAL ASIÁTICO - I

NOTAS

1 E não em Viena, como foi sugerido. Sobre a sua biografia, cf. Ludovic Lalanne, *Dictionnaire historique de la France…,* II, Paris: Hachette, 1877, p.1280; *Biographie universelle ancienne et moderne…*, XXIX, A Paris, chez Michaud Libraire, éd. Rue de Clery, 1821, pp.193--196; Catálogo do Fundo Ferdinand Denis elaborado por Cícero Dias (1907-2003) (autor suposto), Biblioteca de Santa Genoveva, em Paris: C. Dias, 1972 (ver as observações manuscritas de Ferdinand Denis, Ms. 3884). Ver igualmente Eugène Haag, *La France protestante ou vie des protestants français qui se sont fait un nom dans l'histoire* …, VII, Genebra: Slaktine Reprints, 1966; Henry de Castries, *Agents et voyageurs français au Maroc, 1530-1660,* Paris: E. Leroux, 1911, pp. 47-48.

2 "*Jean Mocquet est mon nom, Paris est ma patrie natif de Cuissy près Juilly l'abbaye, où le roy va souvent pour prendre les plaisirs, lieu de sa nourriture, contenter ses désirs.*"

3 "*Et des provinces de l'Europe, la France seule emporte le prix, au iugement mesme des nations les plus ennemies d'icelle, soit que l'on considere la bonté, fertilité & beauté de sa terre ... soit qu'on regarde les moeurs de ses peuples, leur pieté, valeur, erudition, iustice, discipline, liberalité, franchise, courtoisie, liberté, & toutes autres qualitez civiles & militaires.*" Cf. Jean Mocquet, *Voyages en Afrique, Asie, Indes orientales et occidentales faits par Jean Mocquet, Garde du Cabinet des Singularités du Roi, aux Tuileries*, A Paris: chez Jean de Heuqueville, rue Saint-Jacques, à la Paix, 1617, pp. 23-24.

4 "*plaisir aux discours que je luy en ay faits à mon retour*". Cf. a introdução de *Voyages...,* s. p.

5 Recebeu por isso 600 francos de honorários. Para as edições cf. *infra*.

6 *Le portraict au naturel des barbares amenez en France du pais de Topinambous par le Sr. de Razilly pour estre baptisez et converti à la foy de Jesus Christ et presentez à sa Majesté en l'année presente 1613* [o retrato ao natural dos bárbaros trazidos do país dos índios Tupinambá para França pelo Sr. de Razilly para serem baptizados e convertidos à fé de Jesus Cristo e apresentados a sua Majestade no ano de 1613], uma gravura a talho-doce de Pierre Firens feita a partir de um desenho de Joachim du Viert (1613, Biblioteca Nacional, Paris) mostra os seis índios tupinambá vestidos à francesa, com plumas, calções e uma corrente com uma cruz à volta do pescoço. Três deles morreriam de bronquite e os restantes foram baptizados a 24 de Junho de 1613, na igreja do Convento dos Capuchinhos. Foi na companhia destes que Mocquet reencontrou, em Paris, o jovem Yapoco, sobrinho do chefe índio Anacaioury, que tinha conhecido 11 anos antes durante a sua viagem de 1604 ao Maranhão e à Guiana. Para saber mais sobre os infortúnios de Yapoco, cf. as notas da nossa introdução a *Voyage à Mozambique & Goa, La relation de Jean Mocquet (1607--1610),* Paris Ed. Chandeigne, 1996, pp. 189-190, nota 1.

7 Note-se que faz referência, no seu prefácio às *Voyages*... (p. 34), à "terra austral" e às informações fornecidas por Pedro Fernandes de Queiroz e Pedro Fernandes sobre as terras austrais "maiores do que toda a Europa e parte da Ásia".

8 Ver *infra*, no texto deste artigo.

9 Cf. *Histoire des drogues, espiceries, et de certains medicamens simples: qui naissent és Indes & en l'Amerique, divisé en deux parties. La première comprise en quatre livres / les deux premiers de Me Garcie du jardin, le troisiesme de Me. Cristophle de la Coste, & le quatriesme de l'Histoire du baulme adjoustee de nouveau en ceste 2 (…) La seconde composee de deux livres de Maistre Nicolas Monard, traictant de ce qui nous est apporté de l'Amerique. Le tout fidellement translaté en françois, par Antoine Colin (…),* Lyon: Jean Pillehotte, 1619. Sobre o autor dos *Colóquios dos simples e drogas e coisas medicinais da Índia* (1563), a sua família e a sua genealogia, cf. I. S. Revah, "Garcia de Orta", Revista da Universidade de Coimbra, 12 (1934).

10 Sobre o meio dos boticários, onde oficiava Monardes, ver a biografia deste último e o comentário à sua obra no estudo de C. R. Boxer, "Two Pionneers of Tropical Medicine: Garcia d'Orta and Nicolás Monardes", Londres: Wellcome Historical Medical Library, Lecture Series, 1963, pp. 18-29.

11 Cf. de Charles de l'Écluse [Caroli Clusii], *Rariorum plantarum historia…*: Antverpiae: Ex officina plantiniana, apud Ioannem Moretum, 1601.

12 Mocquet considera as suas duas primeiras pequenas expedições a Marrocos como uma única viagem: c. *infra*.

13 Sob a direcção de Frank Lestringant, os aspectos literários do relato de Mocquet foram objecto de uma dissertação de pós-graduação em Lettres Modernes: Grégoire Holz, *L'intertextualité entre histoire tragique et récit de voyage dans la relation de Jean Mocquet aux Indes orientales (1617*), Paris: Université de Paris IV, 2000, pp. 2-84.

14 Ver a nossa introdução a *Voyage*..., pp. 14-17. A viagem à Terra Santa não apresenta o mesmo interesse do ponto de vista da sua actividade como médico.

15 Para a descrição detalhada das suas outras viagens, ver a nossa introdução a *Voyage*..., pp. 11-12 e pp. 191-192 (notas à introdução).

16 Introdução a *Voyage...,* pp. 11-12.

17 Sobre estas águas abundantes em peixe, ver *Voyage d'Eustache Delafosse sur la côte de Guinée, au Portugal et en Espagne* (1479-1481), introd. Denis Escudier, Paris: Ed. Chandeigne, 1992, p. 20.

18 Para o contexto geral da presença francesa no Brasil, cf. Jorge Couto, *A Construção do Brasil*, Lisboa: Cosmos, 1995, pp. 244-257; sobre De la Ravardière, cf. Bartolomé Bennassar e Richard Marin, *Histoire du Brésil*, Paris: Fayard, 2000, pp. 82-83.

19 Introdução a *Voyage...,* p. 12.

20 Sobre a questão da antropofagia, cf. Frank Lestringant, *Le Cannibale, grandeur et décadence,* Paris: Perrin, p. 1994, pp. 124-148; do mesmo autor, a introdução a Jean de Léry, *Histoire d'un voyage fait en la terre du Brésil*, Paris: Le Livre de Poche (ed. anotada), 1994, pp. 14-39; do mesmo autor, *Le Brésil d'André Thévet. Les singularités de la France Antarctique (1557*), Paris: Ed. Chandeigne, 1997, pp. 33-38.

21 Sobre as informações que lhe foram comunicadas por dois prisioneiros antigos, António Saldanha e Pedro César, *Voyage*..., p. 192, nota 1.

22 Ver a *Voyage de Pyrard de Laval aux Indes Orientales (1601-1611),* I, Xavier de Castro e Geneviève Bouchon, ed. e introd., Paris: Ed. Chandeigne, 1998, pp. 31-33 e p. 21 do prefácio.

23 *"venaient seulement pour épier et reconnaître la terre des Indes"*, *Voyage...,* pp. 20-21. Encontramos um eco destas proibições nos decretos do primeiro concílio provincial de Goa, apresentados em petição a D. Sebastião (no sentido de proibir no Império a circulação de estrangeiros cristãos não vestidos de forma "cristã" e de muçulmanos vestidos como tal): cf. Roberto Gulbenkian, "Relações históricas entre a Arménia e Portugal na Idade Média até o fim do século XVI, *Anais,* Academia Portuguesa de História, II série, 26/II (1980), pp. 370-371, nota 125 e António da Silva Rego, *Documentação para a Historia das Missões do Padroado Português do Oriente, Índia (1566-1568),* X, Lisboa: Agência Geral do Ultramar, 1953, pp. 363-364.

24 Cf. igualmente o édito de Filipe II em 1596 a D. Francisco da Gama, in Roberto Gulbenkian, "L'habit arménien. Laissez-passer oriental pour les missionnaires, marchands et voyageurs européens aux XVI^{e} et XVII^{e} siècles", *Fraternidade e Abnegação. A Joaquim Verissimo Serrão os Amigos,* II, Lisboa: Academia Portuguesa de História, pp. 1239--1240.

25 A primeira nomeação de D. Cristóvão aconteceu em 1600. Governou até 1603, tendo-se demitido no seguimento de um desentendimento com o primeiro-ministro Francisco de Sandoval, duque de Lerma.

Substituído sucessivamente pelas duas personalidades mencionadas, regressou uma segunda vez ao poder (Fevereiro de 1608 a Fevereiro de 1612).

26 Sobre as medidas de Filipe III, cf. Jean-François Labourdette, *Histoire du Portugal,* Paris: Fayard, 2000, pp .289-293 e, para aspectos mais detalhados, a dissertação de pós-graduação de Guida Marques, *Pratiques institutionnelles au temps de Philippe III – L'Influence du gouvernement des Habsbourg au Portugal et au Brésil, 1598-1621*, Paris: EHESS, 1997, pp. 4-22.

27 O fecho dos portos portugueses aos navios holandeses serviu de pretexto para a fundação, em 1602, da famosa *Vereenigde Oost Indische Compagnie* (Companhia Holandesa das Índias Orientais) que os seus 17 directores, os famosos Heeren XVII, iriam governar com mão de ferro. Cf. nossa introdução a *Voyage...,* pp. 22-23; Femme S. Gaastra, *The Dutch East India Company. Expansion and decline*, Zutphen: De Walburg Pres, 2003, pp. 13-36; Femme Gaastra e J. R. Brujn, "The Dutch East India Company's Shipping, 1602-1795, in a Comparative Perspective", *Ships, Sailors and Spices: East India companies and their shipping in the 16th, 17th and 18th centuries*, Amsterdão: NEHA, 1993, pp. 177-208; Niels Steensgaard, "The Dutch East India Company as an Institutional Innovation", *The Organisation of Interoceanic Trade in European Expansion,* Pieter Emmer e Femme Gaastra (eds.), *An Expanding World,* Vol. 13, Aldershot: Variorum, 1996, pp. 133-257.

28 Sobre os acontecimentos, nomeadamente os ataques a São Tomé e Príncipe, entre 1598 e 1599, contra Malaca em 1605 e 1606 (por Cornelius Matelief de Jong) e contra a fortaleza de Moçambique em 1607 (por Paul Van Caerden) e 1608 (por Willemsz Verhoeven): cf. nossa introdução a *Voyage...*, pp. 20-23 (Texto dos ataques holandeses, anexo II, pp.161-168, tradução francesa de Ilda dos Santos).

29 Apesar das dificuldades, na primeira década do século XVII, as rotas comerciais ainda não estavam desorganizadas. Para um quadro geral da situação, cf. Anthony Disney, *A Decadência do Império da Pimenta, Comércio Português na Índia no Início do Século XVII*, Lisboa: Ed.70, 1981, pp. 67-74.

30 Citado por Anthony Disney, *A Decadência...*, p. 81.

31 Disney, *A Decadência...*, p. 82, menciona igualmente 14 carracas e galeões.

32 Os números divergem. Seguimos o quadro de análise por década elaborado por António Lopes, Eduardo Frutuoso e Paulo Guinote, "O movimento da Carreira da Índia nos séculos XVI-XVIII. Revisão e propostas", *Mare Liberum,* 4 (1992), p. 234. Cf. igualmente, pp. 208, 213, 215 (listas de V. M. Godinho e C. R. Boxer), pp. 228 e 232; Introdução a *Voyage...*, pp. 27-28.

33 *Documentos Remetidos da Índia ou Livros das Monções,* Raymundo António de Bulhão Pato (ed.), I, Lisboa: Tipografia da Academia Real das Ciências, 1880, documentos 81 (pp. 244-245), 82 (pp. 245--248) e 84 (pp. 249-251). O documento 83 (pp. 248-249) refere-se à nomeação de André Furtado de Mendonça.

34 *Documentos Remetidos...,* doc. 80, de 26.III.1608, p. 243.

35 Cf. a nota de Xavier de Castro in *Voyage...* (notas sobre o texto), pp. 48-49.

36 "*sortir ce mauvais sang noir et pourri*", *Voyage...*, p. 48.

37 Dito xarope com essência de violeta: *Voyage...*, p. 48. Mocquet não distinguia o escorbuto do beribéri: cf. igualmente, p. 198, nota 2.

38 "*les yeux et les plantes des pieds mangés par les rats*", *Voyage*,... p. 48.

39 Os portugueses são identificados como judeus: "*la plupart race de Juifs, d'un naturel malin et méconaissant*" [a maior parte raça de judeus, naturalmente astutos e desconfiados]. Sobre o cirurgião da armada, cf. *Voyage...*, pp. 66-67. A observação de Mocquet deve ser comparada com a de Pyrard de Laval, que não distingue os judeus dos cristãos-novos: cf. Pyrard de Laval, *Voyage de Pyrard...*, II, p. 613.

40 *Voyage...*, p. 49.

41 *Voyage...*, p. 54. De notar a semelhança entre a descrição de Mocquet e a de um anónimo de Viena. Um século antes, este anónimo que acompanhava Vasco da Gama durante a sua segunda viagem às Índias (1502-1503) e nos deixou um relato da viagem (Ms. 6948 da *Nationalbibliothek*, Wien, Hist. prof. 856), viu também nestas paragens "peixes extraordinários e gaivotas grandes como cisnes, com o corpo branco, as asas cinzentas e a cabeça branca. [...] Nesse mesmo dia, levantou-se a mais forte tempestade de toda a viagem; e durante esta tempestade vimos dois enormes peixes: um era um "gungeral", maior que dois almudes, que se projectava fora da água, a sua cabeça alcançava o nosso mastro e, em seguida, voltava a mergulhar, enchendo-nos de medo; o outro peixe tinha o aspecto de uma baleia, mas não tinha barbatanas no dorso, excepto em algumas zonas em que tinha uma barbatana tão grande com o nosso mastro; mexia-se tanto na água e fazia tamanho ruído que tremíamos de medo." *Voyages de Vasco de Gama. Relations des expéditions de 1497-1499 & 1502-1503*, (textos traduzidos e anotados por Paul Teyssier e Paul Valentin, apresentados por Jean Aubin), Paris: Ed. Chandeigne, pp. 310.

42 A rota "por dentro" era a mais rápida, mas também era a mais perigosa. Os "baixos da Judia" (hoje "Bassas da Índia", uma das "ilhas esparsas" administradas pela prefeitura de Reunião), perigoso conjunto de recifes de coral, cuja reputação sinistra foi assinalada por Mocquet, estavam assinalados por destroços abandonados no meio do canal de Moçambique.

43 A fortaleza portuguesa, situada na ilha, tinha estado sob o fogo dos holandeses de Março a Junho de 1607 e tinha acabado de repelir o assalto de Willemsz Verhoeven, cuja esquadra de 13 navios a tinha sitiado de 28 de Julho até 29 de Agosto de 1608: cf. *Voyage...,* Anexo II, pp. 163-188.

44 Foi obrigado a reconhecer uma raiz verde, que identificou como turbito: *Voyage...*, pp. 66-67. Sobre esta e a sua utilização como laxante, cf. Garcia da Orta, *Colóquios dos Simples e Drogas da Índia*, II (fac-símile da edição de 1891), Lisboa: IN-CM, 1987, pp. 327--346 (Colóquio LIV, com a nota erudita do conde de Ficalho).

45 Contrariamente ao que pretendia Yvonne David-Peyre, "La peste et le mal vénérien dans la littérature portugaise du XVIe et du XVIIe siècle (III)", *Arquivos do Centro Cultural Português*, III (1971), p. 362, a "herva babosa" mencionada por Garcia da Orta não tratava as doenças venéreas. A designação de "antac" poderia ter origem na palavra antacanto, da família das acantáceas, planta tropical que cresce em África, Ásia e América: cf. António de Morais Silva, *Grande Dicionário da Língua Portuguesa*, I, Lisboa: Confluência (10.ª ed.), 1949, p. 906.

46 *Voyage...,* pp. 84-85 e 209, nota 2. A digressão de Mocquet é tanto mais curiosa quanto a reputação da pedra: suposta atacar, entre outras, a melancolia e as febres pestilentas, as lombrigas, etc. era conhecida desde a Antiguidade. Cf. entre outras obras, *Colóquios dos Simples...,* II, pp. 231-239 (Colóquio XLV).

47 Os portugueses conheciam esta doença pelo nome de "bicho": cf. *Voyage...*, p. 205 (nota 2, que inclui uma passagem de um texto de Dellon (1709).

48 Mocquet, que tinha seguido os preparativos, presta informações interessantes sobre as modalidades de troca com os negros: cf. *Voyage...*, pp. 75-76.

49 Ver a lista compilada por Anthony Disney, *A Decadência...*, pp. 206--207.

50 Um exemplo conhecido é o do navio fretado pelo sultão do Cairo, o *Mîrî,* que cruzou a rota de Vasco da Gama em 28 de Setembro de 1502, perto do monte Eli, nas proximidades de Cananor; sobre o *Mîrî,* ver Geneviève Bouchon, *Vasco de Gama,* Paris: Fayard, 1997, pp. 246-251.

51 *Voyage...*, p. 94.

52 *Voyage...*, p. 93.

53 *Voyage...*, p. 108. O comportamento dos soldados é referido quer por Linschoten quer por Pyrard: cf. Victor Luís Gaspar Rodrigues, "A organização militar a bordo dos navios da Carreira da Índia no século XVI, princípios do século XVII", Lisboa: Academia de Marinha, XIV, 2000, p. 15, e de uma forma geral, "Da Goa de Albuquerque à Goa

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Seiscentista. Aspectos da organização militar da capital do 'Estado da Índia'", Lisboa: Centro de Estudos de História e Cartografia Antiga, MCT, IICT, 2001. Detalhes interessantes em Pyrard de Laval, *Voyage de Pyrard...,* II, pp. 637-641

54 Ver o mapa de Goa no *Itinerario. Voyage ofte schipvaert van Jan Huygen van Linschoten naer Oost ofte Portugaels Indien*, Amsterdão, 1595 (reed. 1596, 1604, 1623, 1644, etc.).

55 I. Revah, "Garcia de Orta", *Revista da Universidade de Coimbra*, 12 (1934), p. 89. De notar que Jean Mocquet não vem referido na bibliografia, no entanto, muito completa, de José Pedro Sousa Dias, "Bibliografia sobre a farmácia em matéria médica na história da expansão e da colonização portuguesa (séculos XVI a XVIII)", *Mare Liberum,* 11-12 (1996), pp. 165-207.

56 C. R. Boxer e Frazão de Vasconcelos, *André Furtado de Mendonça,* s/l.: Fundação Oriente, Centro de Estudos Marítimos de Macau, 1989, pp. 21-35.

57 *Ibidem*, pp. 62-72. Cf. igualmente Niels Steensgaard, "The Dutch East India Company", p. 143.

58 C. R. Boxer e Frazão de Vasconcelos, *André Furtado...*, pp. 77-78.

59 *Ibidem*, pp. 84-85.

60 De acordo com Mocquet, André Furtado sofria de uma "opilação do baço", isto é, de uma oclusão (?) Não conhecemos a relação entre a sua doença e a causa imediata do seu falecimento, *Voyage...*, p. 97.

61 *"... y a navigé quelques costes, & dit des merveilles de ce pays là, en beauté & bonté; de sorte que cela ressent quelque chose du Paradis terrestre: mais il en faut attendre une plus certaine & ample descouverte: Les Geographes & Pilotes Portugais, disent que toutes ces terres Australes sont plus grandes que toute l'Europe & partie d'Asie. Ce Capitaine Pedro Fernandes, y a trouvé les bayes de S.Philippes & S.Iacques, & le Port de Vera-Crux, qu'il dit estre tresbon, & capable de plus de mille vaisseaux à 155 degrez & demy de hauteur."*

62 Este misterioso Monfart foi o inspirador de uma obra em Inglês: *An exact and curious survey of all the East Indies, by Monsieur de Montfart,* Londres, 1515. A obra foi redigida por um francês anónimo que recolheu as suas memórias. A segunda edição tem o título *Voyage faict par terre depuyis Paris jusques à la Chine, par le sieur de Feynes, gentilhomme de la maison du Roy Et ayde du maréchal de camp de ses armées. Avec son retour par mer*, Paris, 1630. Faria parte do pessoal doméstico do cardeal de Joyeux e de Luís XIII. *Voyage...*, nota 2, pp. 221-222.

63 Ver nomeadamente *Voyage...,* capítulos XXII-XXIV, pp. 104-114.

64 *"la fertilité de la France est telle qu'elle fournit abondamment l'Espagne, Portugal, Italie & Barbarie, mesme non seulement de bleds, mais de plusieurs autres commoditez; (...) Et croy que les Espagnols & Portugais ne pourroient fournir à si grand nombre de voyages pour les Indes s'ils n'estoient aidez des bleds qu'on leur porte de France pour faire leurs biscuits, outre les voiles cordages, chairs salees, & autres choses necessaires à fournir leurs vaisseaux."*

65 C. R. Boxer e Frazão de Vasconcelos, *André Furtado...,* p. 89.

66 *Ibidem*, p. 89.

67 Ver, por exemplo, *Documentos Remetidos da Índia...*, documentos 81 (pp. 244-245-248), 82 (pp. 245-248) e 84 (pp. 249-251). O documento 83 refere-se à nomeação de André Furtado de Mendonça.

68 Podemos perguntar-nos se a purga lhe foi administrada por Mocquet ou pelo cirurgião de bordo, dado que Mocquet não parece defender sistematicamente este tratamento: cf. *Voyage...,* p. 48, a propósito dos mortos por sangria.

69 C. R. Boxer e Frazão de Vasconcelos, *André Furtado...*, p. 91.

70 Extracto do diário de bordo do sota-piloto Sebastião Prestes, *ibidem,* p. 88.

71 Segundo testemunhas contemporâneas, Mocquet teve êxito na sua operação, dado que não se libertou qualquer cheiro dos restos mortais até à sua chegada a Lisboa, *Voyage...*, p. 91.

72 Descrição da procissão e das cerimónias em C. R. Boxer e Frazão de Vasconcelos, *André Furtado...*, pp. 91-92.

73 "*Jehan Mocquet l'un de noz appothicaires et garde de nostre Cabinet des singularitez en nostre pallais des Thuilleries (...) de laquelle nous lui avons faict et faisons don par ces presentes signees de nostre main en consideration de ses services.*"

74 Cf. nossa introdução à *Voyage...,* pp. 18-19.

75 A *Voyage* ao Maranhão inscreve-se na linha de *Les singularitez de la France Antarctique autrement nommee Amerique: et de plusieurs Terres et Isles decouvertes de nostre temps* (1557) do franciscano e cosmógrafo real André Thévet (autor também da obra *Cosmographie universelle*, 1575), e, sobretudo, da *Histoire d'un voyage faict en la terre du Brésil,* 1578, segunda edição em 1580, do artesão franciscano e pastor calvinista em Genebra, Jean de Léry, em relação a quem Mocquet tem uma dívida considerável. O relato de Mocquet é anterior aos relatos de dois missionários no Maranhão, nos anos de 1612 a 1613, os capuchinhos Claude d'Abeville, *Histoire de la mission des Pères Capucins en l'Isle de Maragnan et terres circonvoysines,* 1614, e Yves d'Evreux, *Suitte de l'Histoire des choses plus memorables advenues en Maragnan es années 1613 & 1614, 1615*. O leitor reconhecerá no relato da viagem ao Maranhão a referência ao relato de Léry. Existem, na verdade, peripécias comuns aos dois textos. Dois exemplos: o primeiro é aquele onde Mocquet, acompanhado do seu ajudante cirurgião, é convidado a passar a noite numa aldeia de índios do Caribe; enquanto que este último tem calafrios a noite toda com medo de ser comido, Mocquet, por seu lado, toma consciência do perigo e, conhecedor da "*malice & la cruauté des ces antropophages & mangeurs de chair humaine*" [malícia e crueldade destes antropófagos e comedores de carne humana] não consegue cair num sono profundo. Léry chega à aldeia índia no meio de uma "comezaina" após o massacre de um prisioneiro, cai num torpor perturbado por pesadelos, até que um índio o convida a participar no repasto, brandindo por cima da sua cama de rede um pé humano. Mocquet não assiste aos ágapes dos canibais, mas a ameaça paira sobre si. Atormentado pelo medo, levanta-se duas ou três vezes durante a noite – "*ie trouuay cette nuict fort longue*" [pareceu-me bem longa esta noite] –, escreve no seu relato) e vai apanhar ar no exterior da cubata onde estava alojado. O desenlace, no fim, é o mesmo: Léry, interpelado alegremente pelos índios na manhã do dia seguinte, compreende que foi vítima de um mal-entendido; Mocquet chega à mesma conclusão ao amanhecer.
O segundo episódio refere-se, durante a mesma viagem, à última etapa do regresso a França. Na latitude das Bermudas, o navio entra numa zona de calmaria e foi necessário racionar os mantimentos. Mocquet recebe oito ou dez libras de pão, mas tinha embarcado consigo vários papagaios que precisava de alimentar. Foi então obrigado a sacrificar o mais guloso, cozinhá-lo e comê-lo, numa espécie de simbolismo premonitório da sorte dos passageiros. Com efeito, nestes entretantos, a tripulação reúne-se pronta para a antropofagia, tirando à sorte o nome da primeira vítima. Na verdade, no porão encontrava-se o grupo de índios que deveria ser sacrificado em primeiro lugar (dos quais o jovem Yapoco já mencionado): mas o vento levantou-se e o navio foi levado até às ilhas dos Açores, varrendo de vez o espectro da iniciação antropofágica.
O esquema é idêntico em Jean de Léry. Também ele, no seu navio extraviado, teve que fazer face ao esgotar dos mantimentos e comer os seus papagaios. Também refere a atitude da tripulação e dos passageiros, que se lançavam mutuamente olhares assassinos pensando nesse "acto bárbaro". O navio acabou por reencontrar a sua rota, mas, uma vez a costa bretã abordada, o capitão revelou aos passageiros que se não tivessem conseguido alcançar terra, um deles teria sido sacrificado no dia seguinte.

76 Ver, sobre as circunstâncias da redacção do testemunho de Laval, a introdução de Geneviève Bouchon, *Voyage de Pyrard de Laval,* pp. 23-25.

Amateur Naturalist and "Professional" Orientalist
Paulinus a S. Bartholomaeo in Kerala and Rome (18th-19th c.)

Ines G. Županov*

FROM EXPERTS TO PROFESSIONALS

Early modern travellers who ventured into exotic and bewildering places on the edge of the world faced two overarching problems. One was a problem of meaning and understanding, as well as reporting on, foreign countries, peoples and objects. The other problem, shared by all the actors in overseas colonial enterprise, was possessing, appropriating, exploiting and mastering nature and the "natives".[1] The bulk of colonial writing and literature, from the early 16th century onwards, is nothing more than a way of dealing with these two epistemic and material difficulties through language and narrative.[2]

An urgent need for a certain kind of practical expertise and of a certain kind of experts regarding the non-European world was thus rapidly created. Serge Gruzinski studied a whole range of such *praticos das coisas* or *passeurs*, required by the Catholic (Iberian) monarchy, all of whom belonged to a globalized and extremely mobile elite that circulated around and through the "four corners" of the early modern world and who wrote treatises, letters, opinions (*pareceres*), histories and accounts.[3] They were mostly ambitious and freewheeling commoners practicing useful *métiers* such as trade, medicine, pharmacy, law and other "mechanical" crafts.[4]

Soldiers and missionaries belonged to another subcategory of experts bound more closely, in different ways and in different times, to governing institutions and specialized political, mercantile and "spiritual" corporations such as colonial administration, trade companies and the Catholic Church. These mobile experts of the 16th and 17th centuries, especially those profiting from the Iberian Catholic (Portuguese and Spanish) overseas networks, operated in the frontier regions as veritable pioneers, at the forefront of new conquests and discoveries. They were partly clients of the colonial and metropolitan administration, and partly on their own, risking their lives, their money and their reputation in order to gain personal or corporate treasures beyond imagination. What they acquired and brought back to display, sell or give away were objects and stories with unmistakably local flavour. It was specific and locally "rooted" phenomena that stuck to their feet and made it into their portfolio of expertise. Their practical, expert knowledge of the world, which gave them a sense of personal pride, and which they used as currency for the acquisition of privileges and benefits distributed by the Catholic monarchies, was thus based on empirical, positivist, secular, discrete sense data. If one really wanted to define their role in the advancement and theory of knowledge, it more closely resembled "filling gaps" and "bricolage" than radical innovation.[5]

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In a word, early modern experts, travelling through a wilderness of foreign lands, were obsessed with visible, possibly tactile information. They collected natural objects or man-made artefacts, or reproduced them, such as paintings, sculptures, stuffed animals, and *horti sicchi*.[6] Like other collectors in Europe, in the 16th and the 17th centuries, their eyes were set on curiosities, on the one hand, and useful and commercial valuables on the other. In this respect they were opposed to the savants and scholars in Europe for whom curiosity amounted to vulgarity. For Michel de Montaigne curiosity was "vicious"; for Blaise Pascal it was "vanity". Even later on, in the world of collectors and collections, in the 18th century a dichotomy was established and remained between *vrais connoisseur*s and *simples curieux*.[7]

After a few centuries of accumulating "curious" and "useful" objects from the colonies and distant places—some of which, for example, became staple foods on the tables of European consumers, while others found their way into museums, laboratories and libraries—by the end of the 18th century, it was classification and synthesis, rather than accumulation, that became the order of the day, at least in the scientific community dealing with natural history.[8] Visible things (natural objects, artefacts, bodies, even languages and sociability) came to be considered parts of some "invisible" but universal rationality, detectable through morphological resemblances and common origins (stems, roots).[9] This rationality also generated means, within its own explanatory system, to order and classify the irrational and the random.

On the threshold of the modern period, traveller-experts, who collected, interpreted and disseminated information, came increasingly to occupy the roles of "amateurs", "research technicians", interpreters, political advisors and spies. Some of these also belonged to a new type of humanist gentlemen-travellers, who often sold their services to rich patrons and entertained connections to learned societies rather than universities.[10] In the long run, however, empirical and practical competence became insufficient for establishing one's scientific credentials and professional authority. Those who joined the modern scientific sect were specialists with ever-narrowing professional expertise validated by "centres of calculation" (laboratories, museums, libraries, etc.), buttressed by learned societies and journals, and located, mostly, in the metropolitan or colonial capitals.[11] The question of patronage (by the king, by the state or through private endowments) and the question of location (in a stable and rich part of the world, preferably) made all the difference in the further development of any line of scientific research. In the late 18th and early 19th centuries, categories such as amateur/professional, competence/authority, local/universal, and mobile/immobile, emerged as lines of demarcation in a gigantic effort to write a universal history of the world, believed to be grounded in universal scientific principles. What these principles were was about to be decided.

The central question addressed in this paper is how the lines between expert traveller-cum-missionary, professional scholar, and curator of a museum near Rome were uneasily negotiated in the life and work of a Discalced Carmelite, Paulinus a Sancto Bartholomaeo, who was sent to India by the Congregation of the Propagation of Faith (*Propaganda Fide*) in the latter part of the 18th century.[12] As many missionaries before him, he was a polyglot with eclectic and erudite antiquarian interests, from philology to ethnobotany. However, upon returning from his mission in Kerala, he made a career of his linguistic and ethnographic research and became one of the most famous Orientalist (Indianist) writers of his time in Italy and southern European Catholic circles. His choice to become a "professional" Orientalist implied a sacrifice of the other fields of knowledge he had cultivated during his stay in India, such as his passion for natural history, botany, pharmacology and medicine. The qualification "professional" needs to be nuanced, since technically Paulinus continued to work for the *Propaganda Fide* and even his learned books on the Sanskrit language and Brahmanical culture were connected to the project of teaching future missionaries.[13] The incentive and funding provided by this important Roman institution for learning foreign, non-European languages and for printing language manuals was crucial. Equally important was the fact that he became Curator of the Indological Section of the Museum in Velletri, owned by Stefano Borgia, a rich aristocrat, the Cardinal, and the Prefect of the *Propaganda Fide*.[14]

Paulinus was first and foremost a professional missionary. Nevertheless, there is no doubt that he aspired to dialogue with other Orientalist scholars of his time and tried to earn their admiration and

respect. Moreover, Paulinus very proudly displayed his membership in learned academies and the various honours he acquired as a scholar.[15] It is surprising then, at first sight, that he did not employ his knowledge of the "natural" history of India with more fanfare to enhance his scholarly prestige. In this article I will show that for Paulinus, the natural world of India was inextricably linked with culture and language. Understanding the "system" of the natural world in India was simply a smaller element in his ambitious project of grasping the "Brahmanical system", the origin of human history and possibly the logic of the Creation.[16] Paulinus shared the conviction, with most of the British and French Orientalists of the late 18th and the early 19th century, that it was Sanskrit that pointed a way back into the cradle of human civilization.[17] The tension between antiquarian research into the "ancient" wisdom of the Brahmans and direct observation and experimentation was often resolved in favour of the former, in spite of Paulinus' professed empirical touch.

Another, equally crucial reason for leaving aside his naturalist collections and writings was the lack of an institutional framework and the absence of encouragement upon his return to Rome, while at the same time he was given every opportunity to publish his Orientalist works. That is not to say that there were no naturalists working in Rome; it was rather that the *Propaganda Fide* required Paulinus' linguistic and missionary expertise. He was appointed to oversee the publication of multilingual books and to teach oriental languages. On the other hand, among the Discalced Carmelites there were quite a few amateur naturalists, especially botanists and pharmacologists. The most famous *speziera* (pharmacy) in Rome in the late 18th century was a secular annex to the Church of Santa Maria della Scala that belonged to the Discalced Carmelites. Fra Basilio della Concezione was a famous pharmacist as well as teacher and writer. In his only book in Italian, *Viaggio alle Indie Orientali*, Paulinus in fact paid his respects to Fra Basilio by quoting his work on the healing effects of canary eggs.[18] Alchemy, phantasm and faith worked in tandem in the secular temples that were the pharmacies of the religious orders.

As for fundamental research on the natural history of India, as Paulinus probably realized himself, it required the presence on the ground of scientists and technicians backed by powerful and interested patrons. Clearly, what was needed was an empire. Paulinus, however, left India too early to see the ramifications of the British colonial momentum. "The English in the second volume of the Asiatic Researches promised to give Europe Indian Botany, but I expect little or nothing [of that], because you need subjects (*Soggetti*) who know the language, time and a lot of money to make engravings of so many types of plants and simples (*vegetabili semplici*)".[19] Paulinus was, of course, wrong in underestimating the British, but was certainly right about the high costs of producing illustrated botanical books. He tried to compensate his own inability to raise money for the enterprise in his naturalist chapters in the *Viaggio*. With mixed success.

MISSIONARY TASKS: ACTING AND COLLECTING

During Paulinus' stay in Malabar (a northern region of today's Kerala), where he was sent by the *Propaganda Fide* to minister to the community of the St. Thomas Christians from 1776 to 1789, he assembled a huge archive of documents in various languages. Some of them were collected by his predecessors in the field, Discalced Carmelite friars who were assigned the task of reviving the mission among St. Thomas Christians after almost a century of Jesuit monopoly under Portuguese royal patronage, the *Padroado*.[20] Efforts at reforming, along the lines of Tridentine Catholicism, these "ancient" Christians in India, who prided themselves on having been converted by St. Thomas the Apostle and who survived and thrived among non-Christians in Kerala for more than a thousand years before the arrival of the Portuguese and the missionaries, were continuously unsettled and thwarted.[21] As a result of the Synod of Diamper [Udayamperur] in 1599, which enforced the Romanization of the St. Thomas Christian Chaldean liturgy and rites, the community started to splinter into smaller Christian sects, some of which continued as Catholic factions, while others sought religious leadership among West Syrian non-uniate patriarchs, and later among the Protestants.[22] The Discalced Carmelites were sent in by the Papacy and the *Propaganda Fide* when the Portuguese *Estado da Índia* lost Kochi (Cochin) to the Dutch in 1663 and were unable to exercise their *Padroado* rights and duties in the region. Moreover, the Dutch banned from the territories under their control all Portuguese

missionaries, while they tolerated those sent by the Papacy, preferably from non-Iberian countries.

When the Discalced Carmelites officially took over the mission in 1678, they inherited all the problems regarding the jurisdiction of the *Padroado* vs. the *Propaganda Fide*, the uneasily applied principle of religious accommodation, the simmering dissent by native clergy, and the dependence on favours and patronage of the local political structures, from the small local rulers to the Dutch East India Company and the king of Travancore.

To be able to navigate successfully in this kind of ever-changing and complicated social and political landscape, the Discalced Carmelites had to develop a particular kind of missionary expertise that encompassed a wide range of knowledge and skills. They were, of course, all ordained priests qualified to perform sacraments and to hear confessions, but they also had to be accomplished linguists, talented ethno-psychologists, perceptive ethnologists and insightful, though vigilant, theologians. Obviously, these were difficult tasks and not all missionaries were equally competent.

Paulinus was first and foremost a professional missionary. Nevertheless, there is no doubt that he aspired to dialogue with other Orientalist scholars of his time and tried to earn their admiration and respect.

Just like the Jesuit missionaries before them, the Discalced Carmelites understood the importance of medical and pharmacological expertise. Missionaries were required to familiarize themselves with the local medical lore and healing practices for missionary purposes, but also to be able to cure themselves and survive in the much-dreaded tropical environment. Conversion and healing were inextricably entwined in missionary literature, in both the metaphorical and literal senses. Hence, while one had to know a great deal about the local society in order to proselytize successfully, knowledge of nature was equally important.

The Indian natural world, in general, had been a source of awe and wonder early on for European travellers, colonial officials and missionaries. Exuberant, fast-growing vegetation and an excess of fertility were ambiguously interpreted as so many signs of special divine blessing or of diabolical curse. The beauty and plenty turned rapidly into rot, excrement and famine. Women were seen as rapidly aging after marriage in spite of their voluptuous desirability when young and virginal. According to classical humoral theory, in the torrid (tropical) zone, human bodies were adapted to and composed of certain kinds of humoral qualities. This is why Garcia da Orta, a physician in 16th-century Goa, considered it imperative for the Portuguese to adopt the native diet and pharmacy in order to thrive in the difficult climatic circumstances.

The comparison between Greco-Roman classical medical texts and Indian Muslim (*unani*) and Ayurvedic medical systems (the authoritative texts of which the Portuguese tried to procure with great difficulty) showed both similarities between these systems and the superior effects of local Indian remedies. Therefore, humoral theory initially facilitated the encounter between European and Indian medical systems. Until the demise of humoral medicine in Europe from around 1800, physicians and missionaries in India relied to a great extent on local medical knowledge and therapeutics.

It is no wonder that upon returning to Europe, missionaries usually brought with them manuscripts and notes on natural history with the intention of giving them to the institutions interested in collecting them—such the royal libraries and museums—or to transcribe, translate and publish them themselves. At times, these publications were intended to counter exaggerations and falsifications by merchant-travellers and colonial officials who often plagiarized missionary documents and research.[23]

When Paulinus a S. Bartholomaeo returned to Rome, he brought with him chests full of personal notes, diaries, letters and manuscripts in various European and Oriental languages. In fact, not many missionaries returned, but when they did, they brought back to Europe manuscripts and archives to be sifted through and used for teaching and preparing a new batch of missionaries. This is exactly what Paulinus did

after almost 14 years of missionary travel and work in India: he brought with him a pile of documents, some of which he rearranged and prepared for publication during the next 17 years of his life.

The only published work in which he included reflections on and descriptions of the Indian natural world is his *Viaggio alle Indie Orientali.* Written as a travelogue in Italian and aimed at a larger public, *Viaggio* is a compendium of materials that Paulinus also used in his numerous Indological and museological books in scholarly Latin. However, as glimpsed from the documents used for his "natural history", most of which are preserved today in the department of rare manuscripts in the Biblioteca Nazionale Vittorio Emanuele III Library in Rome, Paulinus invested a great deal of energy in collecting various data on the subject. Most of the documents are nothing but a chaos of sedimented voices in various European and Indian languages and scripts. On the pages of the *Viaggio*, however, they appear tamed into classification and order and become, at times, useful information. Let us start from the beginning, which is also the beginning of the *Viaggio*.

BUILDING EXPERTISE IN NATURAL HISTORY AND MEDICINE

When Paulinus arrived in 1776 in Pondicherry, a French outpost on the Coromandel coast in India, he was hardly a pioneer on the frontier of heathenism and an unexplored world. Missionaries and other "Franks", as Indians continued to call what they saw as generic Europeans or western Christians, were well settled in certain regions, especially along the east and the west coasts.[24] Uneasily embedded in the narrative of the *Viaggio*—as landscapes and objects move before the eyes of the reader—is Paulinus' continuous dialogue with his various interlocutors, European and Indian, contemporary and ancient. In fact, from the boxes in the Roman archives filled with notes of all sorts, it is evident that Paulinus kept a diary and obsessively wrote about everything that happened in the mission.[25] This he did in at least five European languages: Italian, Latin, Portuguese, German and French. In addition, his archives are replete with texts in Tamil and Malayalam, some in his own hand, and various other scribbles he made in ancient Greek, Chaldean (old Syrian), Arabic and Sanskrit (in Grantha script).

Paulinus also collected manuscripts written or collected by his predecessors in the Verapoly mission where the Discalced Carmelites resided for almost a century before Paulinus arrived. Of course, documents kept in mission residences in India proved to be volatile and fragile, subject to climate, fires, floods, shipwrecks and other destructive forces.[26] At least once during his lifetime, Paulinus saw the archives in the Verapoly mission disappear, thanks to one calamity or another.

Some "archives" were relatively permanent, although not entirely reliable. These were accounts printed in Rome by other missionaries that he most probably consulted before arriving in India in 1776 and upon returning in 1789 while he prepared his own texts for publication. In fact, even the title of his *Viaggio* pays homage to a genre of travel literature in which the Discalced Carmelites, who were sent before him, excelled. The first was Philippe de la Très Sainte-Trinité's *Itinerarium Orientale*, printed in Latin in 1649.[27] He was a General of the Order who personally sent a second reconnaissance mission to Malabar in 1656, consisting of Giuseppe di Santa Maria Sebastiani and Vincenzo Maria di Santa Caterina da Siena.[28] The Discalced Carmelites were commissioned by the *Propaganda Fide* and the Pope to remedy the explosive situation in the mission among the St. Thomas or Syrian Christians in Malabar.[29] Sebastiani went to India two times and wrote two separate travelogues, but it was Vincenzo Maria di Santa Caterina da Siena's *Viaggio alle Indie Orientali*, first published in Rome in 1672, that in many ways became a model for Paulinus' travelogue. Besides describing customs, religion and history, he also reported on natural history, including south Indian plants and animals and local remedies.[30]

Matteo di San Giuseppe, another Italian Discalced Carmelite who actually joined the two fathers in India, and who was proficient in Arabic and skilled in medicine, became notable more for his collaboration with the famous Dutch "amateur" botanist Hendrik Adriaan van Rheede tot Drakenstein than for his own work, *Viridarium Orientale*.[31] Pietro Foglia, alias Matteo di San Giuseppe, studied medicine in Naples and entered the Carmelite Order in 1639. He travelled extensively through the Middle East before being sent to the Malabar mission where he died in 1691, the same year in which van Rheede died at sea near Bombay before reaching the port of Surat. It seems

that this Neapolitan friar who kept his own collection of drawings of plants from the Mediterranean region, Mozambique and India gave van Rheede the idea of inaugurating his own botanical work, which was ultimately published as *Hortus Indicus Malabaricus*.[32] In the course of the collection of plants, and the identification, description, sketching and painting (in ink-and-wash) of the specimens, van Rheede gathered a whole team of local experts, including Ayurvedic physicians, learned Brahmans, Dutch draftsmen, and a translator into Latin. As is clear from the preface to the first volume published in Holland in 1678, Matteo di San Giuseppe withdrew willingly from the enterprise in order to consecrate himself more to his missionary duties. In fact, his sketches were judged unprofessional by van Rheede's rival, Paul Herman, a botanist who resided in Sri Lanka and who published his own botanical book, *Flora Zeylanica*, in 1747.[33]

Amateur botanizing was one of the affinities that bound together a Discalced Carmelite and a Dutch official in Kochi, an important pepper and spice market in Kerala seized by the Dutch from the Portuguese in 1663. Another affinity was larger than any personal relationship and was a direct result of the simmering hostility between the Portuguese *Padroado* institutions and the Roman *Propaganda Fide*. Since enemies of the Portuguese were considered "friends", and since the Portuguese tried in vain to expel Roman missionaries from the territory, the Dutch judged it convenient to extend their support to the Romans. Personal and political rapprochement with the Dutch authorities in Cochin enabled the Discalced Carmelites to strengthen their place in the local political theatre in which they found themselves opposed at times both to the Portuguese priests and prelates sent from Goa and to the St. Thomas Christians who continued to resist both Portuguese and Roman religious and temporal overlordship. For his help in preparing the *Hortus Indicus Malabaricus*, Matteo di San Giuseppe earned protection from the Dutch and even acquired land to build a church in Chethiah (today in Ernakualam), near Cochin. As for the Dutch, who made it a rule not to allow Catholic priests of Portuguese origin, over the next century they accepted the *Propaganda Fide* missionaries, recruited from Italy, Belgium and the Austro-Hungarian regions. Paulinus himself was born in Hof am Leithagebirge (Cimov) in Austria, to a diasporic Croat family.

The principal residence of the Discalced Carmelites from the time of Matteo di San Giuseppe was in Verapoly, established in 1673, a few months after he had built a church in Chethiah. Verapoly was a much more convenient place, located north of Kochi, closer to the St. Thomas Christian settlements, protected from possible Portuguese harassment and at a safe distance from Dutch control.[34] It rapidly expanded into a seminary for the religious instruction of young boys, following the precepts of the *Propaganda Fide* that favoured the instruction and formation of indigenous clergy. The missionaries were, therefore, before anything else, "religious" experts and specialists with exhausting working hours. In addition to that, they imposed on themselves, some more enthusiastically than others, a regime of daily bookkeeping, recording all that went on in the residence and the seminary. From Paulinus' daily diary entries in Portuguese, preserved in manuscript form for certain periods of time, we can glimpse the busy life of the mission in which every decision, big or small, had to be calculated and negotiated. For example, each and every person who entered the seminary or visited the fathers was mentioned by name, and the purpose of his visit was briefly noted. At times, even the number of chickens bought at the market to be cooked for food was listed, with prices included, in the diary. In addition to this, the missionaries kept corresponding with Rome, with other religious men elsewhere, and with many people in India—everyone from a Portuguese archbishop to the king of Travancore.[35]

The missionaries, obviously, lived in the thick of social relations. They nurtured friendships and provoked enmities. Local missionary culture (and this is also true of Jesuits and other missionaries in India) was built on efforts at creating ever-expanding networks of friendly bonds and alliances. This is why studying languages, crucial in establishing communication, was a priority. In the second place, but a matter of great importance, was the exchange of services, especially those that were perceived as beneficial to the wider local community. Since, unlike other European experts and colonial actors, they were neither able nor allowed to rely on monetary exchange, the missionaries' medical practice and free-of-charge consultations were an important asset. They presented themselves as "doctors of the soul" right from the beginning, but they also continued to improve their medical knowledge and techniques.[36]

CIRCULATION OF MEDICINAL PLANTS AND REMEDIES

Health, medicine and cures were, on the whole, one of the obsessions of all Europeans in Asia, and anywhere in foreign lands, for that matter. Especially in tropical climates where European mortality visibly escalated due to various endemic diseases such as malaria and yellow fever, medical practitioners were valued and recruited from local medical communities. Just like interpreters were needed to teach languages, Indian ayurvedic, *unani* and *siddha* specialists were required to help Europeans become fully acclimatized to the exhausting environment. From the 16th to the 19th centuries, European and Indian medical traditions closely resembled, and were both based on, humoral theories. Humors had to be kept in equilibrium inside the body and between the body and its physical surroundings. Local physicians and herbalists by definition had a better grasp of the most efficient substances and could read better the symptoms of particular ailments.

For the Discalced Carmelites, as for all other Europeans, knowledge of local *materia medica* was seen as crucial for survival in India. From a collection of documents found in Paulinus' archives in Rome, we get a sense of the importance of sharing infor mation with friends, acquaintances, patrons and clients. Not only was the exchange of recipes a confirmation of a bond of trust and alliance, it was also a way of cross-validating personal experience or a new experiment, and of confirming the efficacy of certain remedies while rejecting others.

A great deal was already known by the time Paulinus came to Malabar. From the middle of the 16th century, books such as Garcia da Orta's *Colóquios dos simples* and Cristóvão da Costa's *Tractado* had been published providing some general pharmaceutical instructions. The exact quantities and measures were rarely provided. These were, of course, partly the well-guarded secrets of the trade of various doctors and apothecaries. Among Paulinus' documents, across a half a page of a torn notebook somebody wrote, in Portuguese, *Varios segredos de Medicina*. What follows is a text in French entitled *Recueil de curiosités* and written by an anonymous hand with fanciful recipes closer to black magic than medicine. "To cure a fistula, a marvellous thing. Take a live frog and put it in an earthen vessel placed over a fire and cover it so that it cannot escape and reduce it to ash. Put this powder on the fistula, which you already have washed in hot wine or in the urine of a male child".[37] To what extent these kinds of remedies were practiced by the missionaries may not be ascertained, since generic fistulas or ulcers were, according to other preserved documents, cured in innumerable ways. Many cures, however, were equally extravagant, either because of the content of the remedies or because of the illness itself.

Ailments produced by demonic forces were taken seriously. Against witches and demons, a mixture of *pepino-de-S. Gregorio* with the *fava de S. Ignacio* was recommended in *Botanica Malabar*, an anonymous manuscript manual of simples and remedies, written in Portuguese and found among Paulinus' papers.[38] Another medicine against witches was *Manungal* oil which had to be smeared on the skin. The Portuguese author was unable to identify this remedy and presumed that it was made of the root of the wild Drumstick tree. On the other hand, the root of the Cheese tree (*raiz de queijo)* was excellent for those who were haunted or possessed by demons. The technique was to cut and dissolve it in lemon juice or *canja* (a light lentil soup) or some other liquid, and then throw it into the patient's eyes. "And the Demon will not wait for you to throw it a fourth time". For less demonic, but equally vicious attacks, such as erotic dreams (*sonhos venereos*), the author recommends *Nymphea* or white lotus. The choice of remedies was, therefore, copious, because the humoral theory of health supposed that what worked for one patient may not work for another. Each person was unique in his humoral constitutions, and each moment in his life brought invisible changes often difficult to notice. If we add to that the changing climatic constitutions outside the body, one can understand the difficulties and polyvalence of diagnoses and cures within the humoral medical system. Balancing the humors in a body was therefore based on the joint action of ingestion and expurgation. The basic effects of all herbal medication prescribed in *Botanica Malabar* were to retain or to expel substances in human body. Some plants were good for cleaning the uterus, others to prevent miscarriages; some were diuretic, while others retained water in the body.

Of course, one could also be poisoned, either from malice or accidentally, and—very importantly in tropical environment—one could be bitten by

venomous snakes and other animals. Garcia da Orta, Cristóvão da Costa and numerous travellers and missionaries in the 16th and 17th centuries in India never failed to provide their own often miraculous stories of poisonings and snake bites. Paulinus' first encounter with the dangers of animal world in India is told with a touch of comedy at the very beginning of his *Viaggio*. The scene is set in the evening at the house of the procurator of the Missions Étrangères in Pondicherry, Signor Jallabert, during a friendly discussion about methods for converting the gentiles. One of the servants sleeping on the porch stood up screaming and showing his ear. It was immediately decided that an earwig had entered his ear and was trying to bite its way inside. Without a moment to lose, Mr. Jallabert applied to the servant's ear a spoonful of *droga amara* which killed the *bestia* and caused it to slide out of the ear. Paulinus profited immediately from the opportunity to provide a recipe for this medicinal liquid: "For 24 French bottles it is necessary to take 24 ounces of *resina*, or *calafonia*, 12 ounces of incense, 4 ounces of *mastico*, 4 ounces of *aloe*, 4 ounces of *mirra*, and 4 ounces of *calumba*." The mixture is then dissolved in *aquavite* and exposed to the sun for a month during the dry season. He also gives three sure addresses where this potion can be bought: in Pondicherry at the Speziaria of the Jesuits, in Verapoli from the Discalced Carmelites, and in Surat from the Capuchins.[39]

This remedy was obviously a missionary concoction, rather then a purely local formula. What is interesting is that in the manuscript in Rome, there is a slightly different recipe written in Portuguese in Paulinus' hand. The spirit used is the "country wine with 20 degrees of alcohol (*vinte puntos*)"; some simples, like *resina*, are followed by two local Malayalam names; and there is an additional ingredient, *açafrão de Europa*.[40] We can only speculate about the reasons for the modification of this recipe that was printed in the *Viaggio*: was it due to the results of more testing and experiments, was it a simplified version, or was it a cunning way to avoid disclosing all the ingredients to the European audience?

The politics behind identifying, collecting and transporting medicinal plants and spices were often not "clean", and colonial authorities (Portuguese, Dutch, French and British) often censured accounts that gave away strategic information. This is what Everardus Rumphius, a German, discovered when the Dutch East-India Company praised his *Herbarium Amboinense* (*Amboinische Kruid-boek*), promoted his son to the rank of merchant, but refused to print it as a book lest their competitors be able to profit from it.[41] The Dutch had every reason to be paranoid, since just about everybody interested in the spice trade was trying to snatch away and acclimate some of the most lucrative spice trees that were under their control. French travellers of the period such as Pierre Poivre, Sonnerat and Le Gentil were all keen on procuring and smuggling out of Asia both plants and curious manuscripts.[42] At times, pressure was also brought to bear on missionaries to act as spies and smugglers. Such was the case with the Brahman Catholic priests of the Oratorio de Santa Cruz dos Milagres in Sri Lanka at the end of the 17th century. Among other things, they were asked to steal a cinnamon tree (a seed or a small live plant) and send it to Goa. Nothing came of it, partly because the Dutch efficiently controlled all the ports connecting the island with the Indian subcontinent—and perhaps the Oratorians did not try hard enough.[43]

There were cinnamon trees on the Malabar Coast as well, but they were not considered to be as good as Sri Lankan trees. For botanists, this was no surprise since they knew very well that certain kinds of plants grew better in certain climates and territories. Of course, acclimatization worked as well, and this has been proven by the spread of plants and trees from Brazil and the New World in Asia. Some, such as tomatoes and chilli peppers, entered Indian cuisine and became such staple items that their "foreign" origin disappeared into oblivion. Within a generation the same happened with tobacco, to which many became addicted.[44] Thus Oratorian missionaries in Sri Lanka complained that the stipend given to them by the Portuguese king was not enough to enjoy their daily ration of tobacco.[45]

The circulation of commodities, including medicinal plants, was therefore dependent on networks established for their distribution. The more commercial value they had, the more pressure there was from the colonial authorities or trading companies to control and monopolize them. More difficult, although possible to a certain extent, as the case of Rumphius shows, was to stop information "leaks". One of the reasons was that information networks were not easily controlled. For example, Catholic missionaries always managed to send and receive correspondence in the most hostile social environments.

However, the "facts" themselves were often not easily decipherable and needed additional interpretations and interpreters. For Garcia da Orta, one of the major tasks was to fit classical pharmaceutical names to the plants and substances that he managed to get hold of or, at least, acquire detailed descriptions of. To his dismay and elation, he discovered myriads of linguistic misappropriations by which one name meant different things to different people, at different times. At the same time, botanical linguistic relativism allowed him to launch an attack on the Ancients, Greek and Roman naturalists and physicians—Dioscorides, Galen and Hippocrates among the most famous—and to rebel against textual authorities in general, from medieval Arabic and Jewish scholars such as Avicenna, Razi, Averroës, to his contemporaries Pietro Andrea Mattioli, Andrés de Laguna, Leonardus Fuchius and others.[46]

For Paulinus, the task may not have been easier. He clearly tried to fit Malayalam and Sanskrit phytonyms onto plants "identified" by his predecessors (Portuguese, Dutch, German and French) who did not by any means agree on classifications. Besides the anonymous *Botanica Malabar*, there are, among the manuscripts in the Biblioteca Nazionale Vittorio Emanuele III, at least two more separate lists of phytonyms (*Termini botanici*) as well as individual sheets of paper with names scribbled on them.

FROM MANUSCRIPT SECRETS TO PRINTED DISPLAYS

Some of these recipes, botanical and pharmaceutical names and descriptions of Indian illnesses and remedies occupy Chapter XI (Volume 2) of the *Viaggio*. "With incredible trouble and pain I gathered all these Indian Malabar names, and united them with the Latin and Portuguese names of so many Indian simples in order to give the keys of Malabar Botany to the *amatori* of this science."[47] Three orders of names—Indian Malabar, Latin, and Portuguese—had to be cross-linked to create an intelligible whole for the European enthusiasts and experts in the science of botany. In fact, Paulinus would add a fourth, Sanskrit, which was in many ways the most crucial order, in his opinion, not just for botany and medicine, but in order to grasp the whole of Indian civilization. For Paulinus, it was names rather than things that needed to be analyzed first if one were looking for (and believed in) originary and universal meanings and taxonomies. It takes few pages in any of Paulinus' books to understand that he was obsessed with foreign, exotic names, even more than the exotic commodities themselves. In his work, one cannot but sense a certain detachment of names from things, an advanced symptom of a broken relation between the sign and the world that created, in the long run, an open-ended network of significations based on probability and playing with uncertainty.[48] However, for a man of religion such as Paulinus, this potentially tragic situation in which the language of God ceased to speak through natural forms had to be sublimated at all costs. If the divine ceased to inhabit nature by way of visible marks, hints, miracles and prodigies, it was reintroduced into history as a rational "sacred" history. In the same move, the demonic was expelled from natural history in order to become irrational and ridiculous, and by the late 18th century it was driven out of the locations of knowledge and truth.

For the Discalced Carmelites, as for all other Europeans, knowledge of local materia medica was seen as crucial for survival in India.

When discussing the convulsions and hysterical ills to which Malabar women were especially prone, Paulinus rejected all supernatural influence. "I saw many times in the church at the time of the Mass some women springing up as the church bell rang and they ran and jumped as if they were crazy (*come tante disperate od energumene*), so that some thought that they were possessed by the devil (*indiavolate*)".[49] These were all superstitious beliefs, concluded the missionary. Such behaviour was simply a humoral disequilibrium that occurred in women who "do not work" and lead a sedentary life. The best way to cure these "tremors and leaping which is called *tullel*" was to make women husk rice, wash in cold water, take some China (tamarind), and "avoid all passions that arouse imagination, nerves and senses". Thus, Paulinus reinterpreted a particular

south Indian cultural phenomenon, spirit or divine possession, as the consequence of climate and bodily constitution. With this move he obliterated two hundred years of speculation about south Indian demonology, of which the missionaries and European travellers in the region produced ample "evidence".[50]

In the divine silence, the names of plants, illnesses and remedies become random choices and without any particular order inherent in them. Garcia da Orta may have experienced the same problem in finding "keys" in order to create a taxonomy for his simples and remedies. He finally chose to organize them in alphabetical order, which, combined with an imaginary dialogue, created a sense of spontaneous direction for his "scientific" sub-narrative. Moreover, as a physician and a merchant in pharmaceuticals and precious stones, Orta celebrated material things. He also owned and enjoyed his possessions, such as fresh mangoes from his Bombaim island estate. Paulinus, on the other hand, was not allowed to possess anything. Even the books, manuscripts and curious objects he brought back to Europe were not his personal belongings. They were the common property of his order and most of them were destined for the collections of the *Propaganda Fide* or the Museo Borgiano in Velletri.

Although Paulinus played the game of gifting and exchanges in order to secure and consolidate the status of the Discalced Carmelites in the local social hierarchies, ownership did not mean possessing material objects. For example, he was given a white hat by the British resident in Anjengo, for which he wrote a letter of thanks in broken English.[51] A king of Travancore gave him a gold stylus for writing on palm leaves in exchange for Paulinus' manuscript on the basic grammar of English language with explanations in Portuguese (and Malayalam). He also organized gifts of paintings and portraits exchanged between the Pope and the king Martanda Varma.

It is only by taking a look at his "printed" archives, that is his *Viaggio* and other books, that we understand what it was that Paulinus passionately collected. He collected both words/names and languages. In his chapter on Indian Medicine and Botany, he claimed that he "[took] many names from Father Hanxleden's Dictionary, from Biscoping, from Monsignor Pimentel, from the Herbal by Father Feraz, and from manuscripts by Father Giovanni Alvarez, Father Antonio Gomes, Mr. Queiros, Mr. Ambrosio Lopes and Vapu; all these are native Malabar botanists and doctors".[52] Except for the Jesuits, Johann Ernest Hanxleden, Bernhard Bischopinck and Dom Antonio Pimentel, the Archbishop of Cranganore in the first half of the 18th century, little is known about the other medical and botanical authorities Paulinus mentions here.[53] Giovanni Alvarez, a native priest, according to Paulinus, was also a translator of a Sanskrit text on Brahmanical Medicine (*Medicina Brahmanica*), which was later expanded by Hanxleden.[54] A few pages later he also boasted of actually owning various palm leaf manuscripts (*olai*) and drawings of plants made by a Malabar physician and annotated by a certain Countess of Salms.[55] Those that he did not possess, he consulted in the libraries in Paris, where he stayed in 1789 on his return to Europe from Malabar, and in Rome. The biggest collections of palm leaf manuscripts with Ayurvedic texts, or "those that teach the conservation of individual lives" were, according to *Viaggio*, in the library of the King of France, of the *Propaganda Fide*, of the Museo Borgiano in Velletri and in the collection of Samuel Guise.[56]

So evident was his passion for words that one of the Orientalists who certainly shared Paulinus' linguistic enthusiasm felt compelled to denounce it. This was Anquetil-Duperron. He was asked, and agreed, to annotate the French translation of the *Viaggio*, which he did very conscientiously. However, he died before the work was completed and was replaced by Antoine-Isaac Silvestre de Sacy (1758-1838). Curiously, in the printed French version the comments by J. R. Forster, who translated the *Viaggio* into German, were also included. The result of this international collaboration of Orientalists is that the three-volume *Voyage aux Indes orientales* resembles a libretto for four voices, each pulling in different direction and quarrelling over the smallest disagreements in form or meaning.[57] There is no doubt that Anquetil-Duperron was as possessive and vain about his own knowledge of India as was Paulinus.[58] Hence, his major complaint about Paulinus' chapter on botany and medicine was that it was all taken from the dictionaries: "The names of all illnesses, as well as recipes given by the missionary in this chapter, appear to be taken from the dictionary and other writings by the Jesuit Hanxleden, and from the works of different missionaries, Carmelites, Capucins, that the author had in front of his eyes: little did he observe, practice himself (*lui-même a peu observé, pratiqué*)."[59]

It is certain that Paulinus had not cross-tested all the drugs, cures and antidotes he described in detail. There are some elaborate recipes among his unpublished documents that were not included in the *Viaggio,* such as the one for curing syphilis and gonorrhea, which were probably deliberately left out so as not to display what could be considered an exaggerated interest on the part of the missionaries in curing venereal diseases.[60] On the other hand, the accusations ranging from excessive reliance on written accounts by other travellers and missionaries to downright plagiarism were most common among ambitious Orientalists and experts on India. Paulinus' *Viaggio* is filled with tirades against and castigations of all disciplines and their practitioners who dared to write about India or disagreed with him, starting from geographers and ending with the philologists.

In fact, a jumbled travelogue such as the *Viaggio* was a perfect literary genre for showing off the author's erudition without the obligation to construct rigorous taxonomies, and for enticing readers with curiosities that did not require immediate proof or validation. Needless to say, Paulinus did not shy away from providing ample—at times excessive—evidence when he wanted to press his point. The lists of plants and illness in the *Viaggio* may have been taken from dictionaries, but they do not follow any visible alphabetical order, neither Latin nor Sanskrit. The names of some thirty illnesses are strung along one after another, separated by commas, with their non-European names in italics. "The diseases that afflict the inhabitants of the southern part of India, that is, of Malabar, Kanara, Mysore, Madurai, Tanjore, Marava and the Parava are the following: *shralanòva* wind colic*, sanivali* convulsions and nervous cramps, *adisàram* diarrhea or a simple dissolution of stomach, *calladapa* the stone, *grahanni* dysentery with spasms, *iluca* disclocation of members, *mujali* a kind of gout, *kaszalapani* St. Anthony's fire with fever, *pani* in Malabar language [Malayalam], *giurti* and *gioram* in Sanskrit, called fever, *tridoshagioram*, that is a fever with three bad properties, which we call malignant fever, *malapani* a one-day fever caused by a certain wind from the Ghats, called in Portuguese fever of the Mountain."[61] Although the names in Malayalam and occasionally in Sanskrit may appear opaque in their graphical and phonetic representation, the cultural authority vested in them, or so Paulinus wants us to believe, gives them an aura of trustworthiness. On the other hand, the translation he provides attached to each term is disconcertingly vague. A wind from the Ghat Mountains could refer to anything and was subject to individual interpretation. Moreover, it is not clear whether these names in Italian translation represented symptoms or illnesses, or both mixed together.

Some diseases, identified as endemic in India and often referred to by other writers, acquired names that became notorious in Europe. One of them was *mort-de-chien*, a name based on a French misunderstanding of the Portuguese word *mordexim* taken from Konkani, a language spoken by the majority of Goans, which meant a deadly intestinal colic similar to cholera.[62] Paulinus provides it with Sanskrit appellation—*Viszùciga*—and defines its etiology in the particular topology of the south Indian region.[63] The causes of cholera were the cold winds of the western Ghats that blew in Malabar during October, November and December, which were "loaded with nitrate particles of the mountains". This particular affliction was known and identified in the early 16th century because the Portuguese felt its deadly effects early on.[64]

After this first list of illnesses, Paulinus focused on a chosen few, writing in more detail about their etiologies and therapeutics as well as including a veritable jungle of translations of words from Malayalam and Portuguese.

He excused himself for not adding Sanskrit names and proposed that his learned readers check them through their Malayalam names in the *Vocabulario Amarasinha Brahmanico*, the most famous Sanskrit dictionary, "which [the Indians] read in school by way of the Malabar language, just as we interpret a Greek author by way of Latin language."[65] Under the heading *Auszadhivargga* or "classes of medicinal simples", there were the names of three hundred or more medicinal plants.[66] In the years following the *Viaggio*, Paulinus also printed the first part of this Sanskrit dictionary, which he called by the name of its author (*Amarasinha*) instead of by its title, *amarakosa*.[67] The crown of his botanical possessions was, however, the palm leaf manuscripts inscribed with Sanskrit "*Sloga* [*sloka*]" or verses. These were, according to Paulinus, very ancient Brahman texts written by the "*Samanei*", Indian philosophers who "philosophized in short sentences according to Diogenes Laertius".[68] He then went on and included three Sanskrit *sloka*, transliterated and translated into Italian.

Ancient and contemporary are inextricably mixed in the *Viaggio*'s narrative present. It is only through Paulinus' intervention, either in footnotes or right in the middle of the text, usually cutting through a long list of enumeration, that we are sporadically given some notion of the chronological layers. One of the reasons for this, insisted Paulinus, was because medicine and botany had been cultivated in India for the past three thousand years, more than any other science. Moreover, no other country possessed so many books on medicine.

However, although he witnessed successful cures by Indian doctors, since they often managed to heal patients abandoned as hopeless by European physicians, he doubted that Indian medicine would "make any progress". The prohibitions imposed by the Indian legal and religious system on killing animals prevented the study of anatomy.[69] The Brahmanical system that ruled Indian social and religious life was also more than three thousand years old and, implied Paulinus, completely unchanged. In that respect, it was a living history of the European past and, therefore, ancient Egypt and Greece were comparable in every way to contemporary India.

Plate 1

In this kind of ancient, immutable system, plants were botanical specimens, remedies and religious objects. "The *Villapatti*, or *Kùvalam* in the Malabar language, *Marmoleira* in Portuguese, is a kind of quince (*Cotogno*) dedicated to the God *Lingam* or *Priapo*…On Greek vases published by *Hamilton* you can often see some people, or a husband presenting his wife with a quince in an act of consecrating it in her hands. This rite is considered to signify a type of sacrifice to the *Lingam* or the *Fallus* (*Fallo*) of the Greeks."[70] Paulinus provided a few samples of the religious use of certain plants such as the lotus, tulsi basil, the banana and some others, but refused to "develop" further "the symbols and the follies of the Gentiles".[71] In fact, he did develop these in minute detail in other parts of the *Viaggio* and in his *Systema Brahmanicum*.

Paulinus' effort at translation endlessly reshuffles names, things and practices. It is as if one name beckons another, as if each name is in search of another name and when no exact translation is possible, Paulinus comes up with analogies and metonymies that lead to other analogies. The translation usually proceeds from an Indian name or phenomenon towards a name in any of the European languages.

However, sometimes certain concepts are discussed the other way around: "Indian Trinity is called *Trimùrti* in Sanskrit. *Tri* three, *murti* body, *punya mùrti* holy body *Vishu mùrti* idol, body of *Vishu.* This is the significance of the word *mùrti* in Father Hanxleden's Sanskrit Dictionary (*Dizionario Granthamico*), in Monsigneur *Pimentel's* and in the *Mahàbharada* book. Therefore *Trimurti* does not mean three gods, or three potencies, but three visible bodies, created by the goddess [of Nature] *Bhavani*, in one body."[72] As if words failed him, Paulinus invites the reader to look at the picture on the same page of the Trimurti as it "figures" (*essa è figurata*) in the very ancient (*antichissimo*) temple on the island of Elefanta (near Mumbai). [Plate 1].[73] As Paulinus' Trimurti moves from one erudite statement to another with dozens of references and other types of learned quotations, the reader is lost in the details. In spite of the chaos of information, we can discern a specific point that Paulinus is trying to make. In fact, we cannot miss this point, because it is repeated throughout his work whenever he writes about Indian theogony or religion. He is trying to persuade the reader by way of various proofs (material, linguistic or literary) that Indian civilization is as old as Egyptian, if not older. "The temple in Elefanta is ancient (*antichissimo*) and it should be seen whether the monument in Caylus and the Egyptian pyramids surpass the antiquity of this underground temple".[74] If, for Athanasius Kircher, Egypt was the home of the Trinity, Paulinus was pressing for a radical revision of sacred geography.[75]

His ultimate argument about the antiquity and cultural supremacy of the Brahmans compared to the Egyptians and the other classical peoples was based on Sanskrit.

FROM ZOOLOGY TO DIVINE PROVIDENCE

Paulinus' trust in Sanskrit did not blind him to the direct observation of nature. It is just that nature appeared to the missionary as infinitely easier to describe and understand than culture, especially an ancient pagan culture. If for a natural scientist it was crucial to cut things open and see what was inside, and how various parts worked and produced the harmonious whole, an equivalent procedure for an Orientalist was to break through the grammatical forms in order to get to the smallest elements of language. Early in the 19th century, Friedrich Schlegel, a German Orientalist, likened comparative grammar to comparative anatomy.[76] Other Orientalists defined their philological studies as very similar to "botanizing". In fact, many British Orientalists were amateur botanists in their own leisure time, and the botanical metaphor only confirms that the methods applied to one field were also helpful in the other. Paulinus seemed to have "botanized" too, mostly in his Sanskrit dictionaries, and that is why he was unable to keep his subject within one particular order, the order of natural history, but kept slipping back into philology or comparative mythology.

In the two chapters that deal primarily with the description and enumeration of Indian animals, Paulinus gets as close to the ground and the material world as he possibly can on the pages of the *Viaggio*. As if filling up a storehouse, the author piles up names one after another, in a procedure similar to that applied to plants and illnesses. The principle of semantic identity and phonological difference helped the accumulation of names *ad infinitum*. The movement of signification can move either from a known European name to various Indian names, or vice versa, in case of a "new" or unusual animal. "The elephant in the Malabar language is called *aana,* in Sanskrit *dandi, dandavala, hasti, gagia, naga, cugnara, cari, duiba, madamghegia,* these are all words that express some of its qualities."[77] There is no explanation provided as to exactly what those qualities were, as if the reader could easily check those words in a Sanskrit dictionary. Paulinus, of course, recommended just that in the botanico-medical section of his work, and earned an instant sneer in Anquetil-Duperron's footnote.[78] The reason Paulinus did not restrain his erudition even when it meant providing catalogues of foreign words without proper translations was the fact that storing knowledge in this manner was a common antiquarian practice, and that the editorial authorities in Rome were not interested in censuring "secular" details. The *Viaggio* obviously targeted a wide readership, but also provided condensed "scientific" information for experts and professionals. The thick folds of specialized facts and knowledge are responsible for the *Viaggio*'s heavy and, at times, indigestible narrative.

The politics behind identifying, collecting and transporting medicinal plants and spices were often not "clean", and colonial authorities (Portuguese, Dutch, French and British) often censured accounts that gave away strategic information.

It gets more complicated for an average reader when Paulinus comes up with his own zoological observations. "In *Vaypur*, in *Puttenpalli*, in *Mohatushe* I saw a flying cat, which is the *Lemur caudatus*, or *Vespertilio admirabili* of the naturalists, or *Chat Volant* of the French. In Malabar language it is called *parraciatten*, and is surely a species of *squirrel*, as big as a cat with a thick, long tail, which serves as a rudder when it flies, and with two cartilage wings like a bat. Its skin is of silver colour with delicate fur. It lives on the *mava* tree or *mangueira* (mango tree), the fruit of which it eats. This animal is different from the Malabar *Marpatti* or *Serval* of the naturalists…which is a species of stone marten".[79] In this labyrinthine description, the animal in question is just as its name suggests – "flying". It is high up over our heads and flying from one tree of signification to

another. Its morphological characteristics are defined in terms of analogies with otherwise very different animals—a bat, a cat and a squirrel—and in terms of difference from "a species of stone marten". This is a typical method by which Paulinus creates his own "new" objects, which he endows with mixed, fluid and confusing identities.

A way to add another layer of legitimation to his discoveries was to conjure up textual authorities. For the flying cat he summons German zoologist Eberhard August Wilhelm von Zimmermann's *Specimen Zoologiae geographicae...* (1777), as well as Buffon and Johann Gottlob Theaenus Schneider, another German classicist and naturalist.[80] In the course of the *Viaggio*, naturalist writers such as Ulisse Aldrovandi, Walter Carleton, Carl Linnaeus, and many others are invited to play a background part for his own musings on natural history. Sometimes, they confirm the facts he presents, but mostly they appear at points where he disagrees with them. His blanket accusation is that "they all write without monuments [material documents] and experience".[81] The flying cat and the "species of stone marten" provoked Paulinus to castigate Zimmermann, Buffon and Schneider for many errors by which they "attribute an animal to a neighbouring country… and confound their species".[82]

These citations are in fact revealing of how Paulinus advanced in constructing his animal classificatory passages. Since at the very beginning of the chapter, the missionary divided all animals according to the Linnaean method into six classes, the reader may expect that he would stick to this framework. He manages to do that for the quadrupeds (*quadrupedi*), birds (*volatili*) and amphibians (*amfibi*). For the next three classes, of fish, insects and vermin, Paulinus breaks out of the purely zoological bounds and the chapter discusses many other topics such as rivers and ships, and a whole treatise on serpents and their various cultural uses in India. It is in the details that we get a sense of Paulinus' difficult choices in putting together and naming the elements in his collection. We can almost picture Paulinus with his fieldwork notes in front of him, his various dictionaries and grammars of Indian languages on one side and the learned naturalist works of the Europeans on the other. Fitting the three of them together seamlessly and unambiguously required concentration, skill and motivation. A suspicion lingers, however, that his fieldwork notes on animals were meagre compared with his thick dictionaries and natural histories. Unfortunately, unlike for botany, Paulinus' archives in Rome contain very few traces of his zoological documents, if there ever were any.

Another, more indirect indication that Paulinus' animal world was mostly constructed from zoological books is the author's overemphasis on his first-hand observation. For example, he disagrees with Pliny, Zimmermann and Linnaeus about the Malabar leopard, and immediately includes a witness story that seals off any possible further discussion. "In 1776 I was in Vaipur in the church and examined the accounts with the managers (*economi)*. In the middle of the day 15, just steps from the church, into the town came a *puli* or leopard, and carried away a dog that was playing there in front of 200 people".[83] His bone of contention with the European authorities was the leopard's "form", since according to them it was white with black spots, while the Malabar variety seen by Paulinus was yellow with black spots. Paulinus made the point on a few occasions that what he saw was closer to truth than what others wrote about it; but as if that were not enough, he also wrote about other acts of witnessing. One of them was that he had hunted some of these animals himself. With two Englishmen, Messrs. Hutchinson and Crozier, he killed a few civet cats, which enabled him to prove that the musk was in their testicles, contrary to the opinions of some other naturalists in Europe.[84] In addition to seeing and shooting them, Paulinus also tasted the flesh of certain animals such as bats: "They had a flavour of roasted hares".[85]And finally, he admitted his desire to collect certain objects and bring them back to Rome, and his inability to do so because of the space they took in his luggage. What he collected were nests of the weaver bird, called *olamari* in Malabar, *baya* in Indostani and *berbera* in Sanskrit. This bird was famous for its elaborate hanging nests woven out of grass and strips of leaves. Obviously, Paulinus had held those nests in his hands, but it did not prevent from him weaving curiously anthropomorphic elements into the story of the building of the nest. The nest that resembles a family house with rooms for each member is also decorated with a dead firefly in order to serve as a "light in the night".[86] This penchant for anthropomorphizing animal behaviour was not yet sociobiology, of course, but rather a sense of awe and admiration at divine creation. Thus when a small, non-venomous snake (*tevi*) is killed, "many other of

the same [snake] race come to see it" and stay for two to three days in the area. Although it sounds incredible, Paulinus assures his readers that this had happened in Ambalacati (in a Catholic college) in front of thirty students and professors. He ascribed this zoological curiosity to some instinct or smell of the dead snake that attracts the others to its burial place. Paulinus was even more impressed with sea urchins and the way they protect themselves from predators. Moreover, it is in different "small things (*minime cose*)", such as insects and starfish, all of which live in "a sort of society" which is "regulated, pacifist and political", that the missionary saw the true "Wisdom of God" and the "Providence of the Supreme Being".[87] These were the "invincible arguments of nature… against our insane philosophical spirits".[88] A well-organized society was closer to the insect world for this staunch opponent of revolutionary ideas. He had the chance to experience first-hand what he saw as their devastating effects while passing through France in 1789 on his way back to Rome from the Malabar coast.

More than culture, therefore, nature for Paulinus clearly worked within a divinely ordained system. Environment and climate were, for the missionary, a direct result of divine intervention. It was God, the Creator of the World, who made the water around the equator more salty and made the winds, storms and movement of air stronger and more frequent in order to preserve the Torrid Zone from putrefaction and corruption. This is why the coasts of India were inhabitable and salubrious.[89] It was also Divine Providence that brought the annual rain that made the rivers flowing down the Ghat mountains wash away and "purge" the Malabar region of poisonous snakes.[90]

Paulinus did not hide his admiration and marvel at the natural world and the phenomena that he had experienced in India. Everywhere around him he saw fertility. The abundance of rice made the population grow. The poorest among the inhabitants, on the other hand, ate fish. There were so many good fish in the sea that they fed them to their pigs or used them as compost for coconut trees.[91] At the same time, scores of dangerous creatures, such as snakes, were everywhere and he was even ready to believe in the existence of dragons.[92] He betrays a spectacular credulity when he admits that, although he did not see the dragon himself, he knew the nephew of the person who actually killed it for the king of Travancore. This nephew "was still living when I left Malabar".[93] All kinds of marvellous stories, employed by Paulinus as an opening into the opacity of Brahmanical culture—which he admired as philosophical, and despised as heathen—grew ultimately over his recklessly disordered naturalist taxonomies.

Perhaps aware of the errancy of language, Paulinus takes Sanskrit names—denoting animals or plants or medicines—as signs, marks and entry points for something else: a chance to glimpse the social and cultural system ordained by Divine Providence. He called it a "Brahmanical system".

SANSKRIT: BEYOND ZOOLATRY

European naturalists who failed to understand this point were discredited with one powerful stroke: "they write without [knowledge of Indian] languages and without Indian books".[94] Paulinus therefore situated himself in the company of a distinguished few, even though he never lost an opportunity to criticize them for ignorance and misinterpretation. These were the British Orientalists, his contemporaries connected with William Jones and the Asiatic Society in Calcutta (established in 1784) and its journal *Asiatic Researches* (published from 1789-1839). Within a decade, the most talented linguists among the Calcutta Orientalists inaugurated an era of rapid professionalization that emphasized a new type of exclusive authority based on exceptional philological competence. Bound to the Christian Orientalist paradigm, their methods and their immediate research goals corresponded to that of Paulinus and his French Jesuit predecessors: to confirm the Mosaic account of human history and the chronology of Christian revelation, and to determine the antiquity of the ancient nations (Greek, Egyptian, Sumerian, etc.) and their "sciences".[95]

Being an eye-witness traveller ceased to be a measure for truthful representation, while profound knowledge of Indian classical and vernacular languages, Sanskrit above all, became the key to understanding all that was considered worthwhile in Indian civilization. The close association between language and ethnology was partly a result of the Orientalists' early fixation on "the science of (Sanskrit) grammar or Vyakarana".[96] Indian linguistic tradition led them to believe in the "unity of all languages as corruptions of the eternal and incorruptible Sanskrit language."[97]

Plate 2

This obsession with Sanskrit grammar was something Paulinus shared with British Sanskritists, although they thought at the time that his knowledge of Sanskrit was insufficient and mistaken. Alexander Hamilton, the first Sanskrit professor in Britain who taught Friedrich Schlegel in Paris as well as a whole new generation of French metropolitan Orientalists, snubbed Paulinus, writing that "[Paulinus] betrays a complete ignorance of that language, and quotes books for facts that are not to be found in them. His Sanskrit dictionary (which we have in vain endeavoured to procure) is, we will venture to assert, a dictionary of the Malabar idiom, which bears the same relation to the Sanskrit that Italian does to Latin".[98]

This judgment, from an otherwise excellent Sanskritist, betrays a typical misunderstanding among Orientalist scholars. Principally, it concerns geographical location. Paulinus transcribed Sanskrit sounds from their southern transcription into Grantha script and was taught by Brahman teachers whose native tongue was Malayalam and Tamil, while British Orientalists in Calcutta had access to Sanskrit texts in the Devanagari script and followed the pronunciation of their Bengali pundits. In addition, in transcribing Sanskrit into Latin script, Paulinus adjusted it to Italian phonetics, while the British obviously adjusted it to English sounds.[99] The second problem was that Paulinus' various books on Sanskrit, printed in Latin in Rome (*Sidharubam seu Grammatica Samscrdamica* (1791), *Amarasinha, Sectio prima, de Coelo* (1789), and *Vyàcarana seu locupletissima samscrdamicae linguae institutio* (1804), never reached the British Orientalists, as can be sensed from Hamilton's remark. Taken as fanatical and cunning instruments for conversion to the Popish religion, Catholic missionaries who often spoke vernacular languages fluently were called on by the British only when they needed them as "native" informants and, consequently, they were equally mistrusted.[100]

One of the paradoxes of Orientalist scholarship is its double bind to Indian sources that have to be authenticated by Indian scholars, and its simultaneous emphatic distrust of Indian scholarship and epistemic cognition. Thus Paulinus was able to underline, in his chapter on Malabar Zoology, that "Europe will never understand the bases of religion and natural philosophy of the Brahmans until the Brahmanical [dictionary] *Amarasinha* is published together with a clear and perfect translation".[101] He had translated a small part of it into Latin, mostly those entries dealing with theological questions. In spite of all this "indigenous" knowledge that he so avidly excavated from the authentic manuscripts,[102] Paulinus was convinced that both Indian classical texts and the contemporary Indian physicians had a very imperfect understanding of natural phenomena and their origins. He shared this opinion with his predecessor, a Discalced Carmelite traveller to Malabar, Vincenzo de Santa Caterina da Siena.[103] Similar ideas were expressed by William Jones and other British Orientalists who also thought that "on the whole, we cannot expect to acquire many valuable truths from an examination of eastern books on the science of medicine; but examine them we must, if we wish to complete the history of universal philosophy and to supply the scholars of Europe with authentic materials for an account of the opinions anciently formed on this head by the philosophers of Asia."[104]

Studying natural history was, therefore, only a way to get at the philosophy and theology of the Brahmans. The reason they considered this a worthwhile project was their common conviction that the Brahmans had preserved the oldest language as well as the oldest culture (in terms of liturgy, rites, customs, and literature) that existed anywhere in the world. This also brought them to suspect that India was the cradle of the world, rather than Egypt, as was commonly believed by their contemporaries in Europe at the end of the 18th century. However, even if only learned Brahmans were able to teach and explain the fine points of the Sanskrit language, all the Orientalists agreed that it did not mean that they were able to understand the deeper meanings of the words. The Brahman penchant for exaggeration, fables and fantasy, moreover, led them to transform events and facts into allegories.

A professional Sanskritist was, therefore, called on not only to decipher the language and its grammar, but also to erect a solid scaffolding of sacred history in order to trim down these Brahmanical delusions, such as the exaggerated chronologies that surpassed the Mosaic chronology by millions of years. At stake was the oldest history of the world, according to Paulinus, buried in fables, allegories and symbols. By translating these Indian fables into a secular register, the truth of the Mosaic sacred history could be proven beyond doubt. More importantly, Indians had not only preserved their ancient books just like the Jews, but also their ancient way of life, customs, and thinking.[105]

Therefore, India as a whole was an ancient book that could help Europeans and Christians understand and authenticate their own history.

Parallel to his study of empirical nature, therefore, Paulinus passionately observed nature in Sanskrit texts and dictionaries, where he thought that the truth of Creation may be discernable at the end of the line. For example, he clearly identified the "sacred animals" and "plants" that were connected with gods and sacrifice.[106] The tortoise, the elephant, the cow, and the serpent all had names that denoted the empirical beings as well as elements in Brahmanical theogony. To understand that, one had to go back to Sanskrit, "a mother language, sacred and literal" in which one animal may have had dozens of different names.[107] At least one of these names would immediately refer to a fable or a divine being. Zoolatry and phytolatry, so prominent in the cosmogony of the Brahmans, was nothing else but the use of "symbols, emblems and enigmas" to teach divine and moral precepts.[108] Point by point and with numerous repetitions throughout the *Viaggio*, and in other printed works, Paulinus stripped these various allegories of all the fabulous veneers added by the Brahmans. "The *sarparagia*, also called *vasughi*, is a serpent which, in the opinion of the Brahmans, encompasses the whole world and is a symbol of life and death, of generation and corruption, because everything is born and dies and comes back to be reborn again. This is a Platonic idea which Pythagoras learnt from the Indian Magi."[109]

Studying Indian mythology was obviously a way to deepen Judeo-Christian sacred history, and to rechannel it away from the reigning Egyptophilia in Europe. When moving further backwards in time from the Indian Magi or the gymnosophists, as they were also known in history, an antiquarian such as Paulinus necessarily arrived at the period of fables. In his *Dissertation on the Sanskrit Language*, he defended fables because, as he wrote, they are "generally more ancient than real history".[110] He was certainly not the first, nor the only one, to ponder over comparative mythology. Moreover, from Lorenzo Pignoria to Athanasius Kircher, a tradition of reflecting on history and society in terms of cultural diffusionism was a major line of research for Catholic scholars, especially in the Jesuit and other religious circles in Rome. The Kircherian scientific method of connecting all different kinds of knowledge and then displaying them in one printed book after another later gave way to, as Paula Findlen has shown, "increasingly specialized and jealously guarded expertise".[111] Paulinus was heir to the Kircherian obsession with "assemblages" of facts and with finding connections at all costs. The *Viaggio*, especially, fell victim to the excess of erudition of its author and his overenthusiastic religious convictions, and to the lack of editorial advice or professional censure.

Just like Kircher, Paulinus wanted to explain everything about India; and the cadence of his published texts from the day of his return to Rome is impressive in spite of the fact that he had to take refuge in Vienna and Padua during the revolutionary upheavals.[112] The Printing Press of the *Propaganda Fide* and Paulinus' powerful mentor, the Cardinal Stefano Borgia, provided the best possible logistical support for the publication and dissemination of his books and ideas. In fact, after the suppression of the Society of Jesus, oriental manuscripts and objects were dispersed through various Roman ecclesiastical institutions. Some may have found their way into Stefano Borgia's collections and from there into Paulinus' books. A painting of the second incarnation of Visnu in the form of a tortoise, printed in the *Viaggio* and annotated as belonging to Borgia's Museum in Velletri, may have been in Kircher's possession at one point [Plate 2].[113] It was Heinrich Roth, a Jesuit missionary at the Mughal court in Agra, who brought to Rome the ten paintings of Visnu's incarnations and the Sanskrit grammar in the Devanagari script, all of which were reproduced in Kircher's *China Illustrata*.[114]

The advantageous printing conditions provided to Kircher by his publisher Joannes Jansson van Waesberghe in Amsterdam, in addition to the generous funding given by the Habsburgs, were no longer possible in Paulinus' time. One of the biggest attractions of Kircher's books was that the incredibly vivid illustrations made the imaginary look so real, it was claimed, that they tricked the eye into feeling the movement of objects. The illustrations in Paulinus' books were, on the other hand, no more than static, benumbed and poorly executed engravings. The fact that his pages on natural history are densely descriptive, but without a single botanical or zoological drawing, reveals, after all, that natural history was not Paulinus' primary discipline. In fact, when he chose to represent, for example, a tortoise or a lotus tree, he borrowed pictures and monuments found in the Museo Borgiano in Veletri [Plate 3]. These were neither "realist" nor


Boudha
d'après l'original en airain
du Musée Borgia
Boudha
d'après l'original en airain
du Musée Borgia

Plate 3

"naturalist" illustrations of the objects in question, and the viewer was instantly transported to the religious and mythological level of signification.

Paulinus was obviously following the "missionary" directives that guided the output of the *Propaganda Fide* press. Foreign and arcane languages and alphabets of both Christian and non-Christian peoples were privileged topics. These books were supposed to prepare and accompany the "native" clergy when they returned to their countries after studying in Rome. They are thus very unlike Kircher's published works, which were intended for the consumption of learned and curious native Europeans who desired to travel in space and time, but not necessarily in body. Kircher's books combined expertise and charlatanism to create an admirable degree of poetic sublimation, and his work inspired the real professionals of his time to start their own serious scientific research.[115]

The decisive Orientalist-cum-museological turn in Paulinus' Roman career came when Cardinal Stefano Borgia employed him as the "professional" curator of his Asian collection of objects and manuscripts, most of which were on display in his Museum in Velletri. Paulinus' choice of this particular secular profession was therefore also partly a response to an institutional demand. Under his curatorship, Rome became, at least for two decades, a centre of Indological knowledge in Europe. Although Stefano Borgia's museum is known for its antiquarian materials, there may have been a project of collecting natural specimens, perhaps even employing scientists or curators to organize it. Paulinus did mention various natural objects, such as shells, that were also stored in the museum. However, political upheaval and the death of Borgia in 1804 put a stop to such projects, if they ever existed. What remained were hints and marks that the learned Cardinal had been interested. A letter from Burma written by Giuseppe d'Amato and containing an exquisitely executed watercolour painting of a lotus flower, accompanied by a minutely detailed description, can be found today in the Borgia Latin collection in the Vatican Apostolic Library, along with other short descriptions of animals.[116] Among the scattered notes in the same manuscript folder, there is a description of an antelope's antlers, written in Paulinus' hand, with a commentary that noted that the actual object was brought from India by Paulinus and deposited in the Velletri Museum.[117]

For Paulinus, just as for the British Orientalists in Calcutta who published naturalist and Orientalist pieces side by side in their *Asiatic Researches*, there was no firm border line between studying nature and studying culture. Indian nature and Brahmanical ancient culture were a constant source of awe and wonder at the mysterious ways of Divine Creation. Studying either one led towards the same goal—insufflating a whiff of sacred history into the secular, scientific fields that were about to break out of the clasp of Christian religion. By the end of the 1830s, the tension between scientific approaches (such as geology and botany) and the religion/culture-based Orientalist idiom came to an apogee, and contributed to the demise of *Asiatic Researches*.

By that time, Paulinus' name had sunk into oblivion, and most of his archives, after his death, remained untouched in a forgotten chest in the Biblioteca Nazionale Vittorio Emanuele III. Angelo de Gubernatis, according to his own words, discovered these texts and manuscripts in the middle of the 19th century.[118] From his point of view, it went without saying that Paulinus was no naturalist; but even his Orientalist claims were weak. "In everything Paulinus writes we can, on the contrary, admire his erudition and sometimes even his talent, and always a certain independence of judgment; but rarely did he provide a clear, exact and complete notion of the question he posed."[119] With these words de Gubernatis condemned Paulinus to further anonymity in the newly established "scientific" and professional Orientalist studies. As just another "antiquarian" with a penchant for embedding misplaced philosophical and missionary opinions in his work, Paulinus' manuscripts remained in their boxes, and his books on library shelves, for another two centuries without attracting much interest from Indologists or Indian studies scholars. However, during the two decades in Rome, he published around twenty books and wrote hundreds of articles on various topics, from Indology and Sanskrit to comparative linguistics and museology. What he lacked was neither knowledge nor method, but a community of Orientalists, a scientific laboratory, and a learned society to belong to. In a touching passage in his *Dissertation on the Sanskrit Language*, Paulinus invited his European colleagues to come to Rome and check his Sanskrit manuscripts and sources.[120] Instead, they all went to London and Paris, which according

to Trautmann "became a hub of new Orientalism" in the first decades of the 19th century. Paulinus was, therefore, left behind in the "older", missionary Orientalism, in which philology and natural sciences supplemented each other seamlessly and, according to its critics, confusingly.[121] In late-Enlightenment Europe, professional scientists and professional philologists parted ways. Paulinus belonged to the last generation of Catholic missionary Orientalists still willing to believe in the Kircherian dream of the intrinsic connectivity of all knowledge. RC

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NOTES

1 On different types of ownership, possession and mobility in the early modern world, see the inspiring statement by Stephen Greenblatt, *Marvellous Possessions, The Wonder of the New World,* Chicago: University of Chicago Press, 1991.

2 Joan-Pau Rubiés, *Travel and Ethnology in the Renaissance; South India through European Eyes, 1250-1625*, Cambridge: Cambridge University Press, 2000.

3 Serge Gurzinski, *Les quatre parties du monde: histoire d'une mondialisation*, Paris: Editions de La Martinière, 2004.

4 See, for example, Tomé Pires, *The Suma Oriental of Tomé Pires, an account of the East… written in 1512-1515. And the book of Francisco Rodrigues, rutter of a voyage*, ed. and trans. by A. Cortesão, London: Hakluyt Society, 2nd series, 2 vols., 1944 ; Jean-Baptiste Tavernier, *Les Six voyages de Jean-Baptiste Tavernier, Escuyer Baron d'Aubonne, Qu'il A Fait en Turqui, en Perse, Et Aux Indes, Pendant l'espace de quarante ans, & par toutes les routes que l'on peut tenir […],* 2 vols. (Paris: Chez Gervais Clouzier & Claude Barbin, & au Palais, 1676); Francesco Carletti, *Ragionamento del mio viaggio intorno al mondo,* ed. G. Silvestro, Turin, 1958; and Jean Mocquet, *Voyage à Mozambique & Goa: la relation de Jean Mocquet (1607-1610),* texte établi et annoté par Xavier de Castro, Paris: Editions Chandeigne, Paris, 1996.

5 On "filling gaps," see Richard Rorty, *Philosophy and the Mirror of Nature*, Princeton, NJ: Princeton University Press, 1979.

6 *Hortus siccus* literally means "dry garden", and refers to albums of pressed-and-dried plants: a herbarium.

7 On collecting and collectors, see works by Krzysztof Pomian, *Collectionneurs, amateur et curieux: Paris, Venise, XVIe - XVIIIe siècle*, Paris: Gallimard, 1987.

8 The scientific culture that emerged in the early modern period, especially in the domain of the natural sciences, was connected in important ways with the culture of collecting. According to Paula Findlen's admirable study of the late Renaissance naturalists, *sciencia* flourished in "civil" spaces, private and public, studies and museums, well-provided with specimens from all over the world. Through friendship networks, these early scientist-collectors exchanged both objects and samples, and reflections on their meanings and position in the order of Nature. The sites of knowledge and the scholars themselves were usually immobile, while objects and information moved in and out of their laboratories. See Paula Findlen, *Possessing Nature: Museums, Collecting and Scientific Culture in Early Modern Italy,* Berkeley: University of California Press, 1994. Of course, some scholars travelled or at least dreamt of travelling, while some "experts" dreamt of laboratories. Garcia da Orta, a famous New Christian physician (botanist and pharmacist) in 16th-century Goa, desired both to travel as a "*prático*" and to be allowed to pursue his studies in *otium* and in peaceful freedom. Unfortunately for him, he was allowed neither. His fascinating book *Colóquios dos simples e drogas*, printed in Goa in 1563 and burnt during the *auto-de-fé* in 1680, remained a hybrid between expert and scholarly intentions. Cristóvão da Costa, another physician of New Christian origin from Castille, whose *Tractado* was inspired by Orta's book, may have had a chance to become a studious naturalist upon his return to Europe. At that point he chose, however, another type of *otium*, a "spiritual retreat". See Garcia de Orta, *Colóquios dos simples e drogas he cousas medicinais da India* [Goa, 1563], edited by Conde de Ficalho, facsimile of the 1891 edition, Lisboa: Imprensa Nacional-Casa da Moeda, 1987; Cristóvão da Costa, *Tractado delas drogas, y medicinas de las Indias Orientales, con sus Plantas debuxadas ai biuo por Christoual Acosta medico y cirujano que las vio ocularmente*, Burgos, 1578.

9 On connections between botany and linguistics in the early 19th century, see Paul B. Salmon, "The Beginnings of Morphology: Linguistic Botanizing in the 18th century", *Historiographia Linguistica*, 1974, 1:3, pp. 313-339.

10 Arnaldo Momigliano, "Ancient History and the Antiquarian", *Journal of the Warburg and Courtauld Institute*, vol. 13, No. 3/4, 1950, p. 285.

11 Bruno Latour has convincingly showed that "scientific" authority is established and uneasily dependent on a myriad of socio-political considerations and inside controversies. Bruno Latour, *Science in Action: How to Follow Scientists and Engineers through Society*, Cambridge: Harvard University Press, 1987.

12 The Sacred Congregation for the Propagation of the Faith (*Sacra Congregatio de Propaganda Fide*) was established in 1622. Through this institution, the Papacy tried to recapture the global missionary movement, which was in hands of religious orders and the Iberian Catholic monarchies (Spanish and Portuguese). The "patronage" rights conferred to the kings of Spain and Portugal in the late 15th and early 16th century were increasingly seen as obsolete and detrimental to world evangelization. See the articles in *Sacrae Congregationis de Propaganda Fide Memoria Rerum,* Rome, Freiburg, Wien: Herder, vol. 1/1, 1972.

13 On the *Propaganda Fide*'s missionary and linguistic strategies, see two excellent articles by Giovanni Pizzorusso, "Agli antipode di Babele: Propaganda Fide tra imagine cosmopolita e orizzonti romani (XVII-XIX secolo)", *Storia d'Italia, Annali 16, Roma, la città del papa*, eds. Luigi Fiorani and Adriano Prosperi, Torino: Giulio Einaudi editore, 2000, pp. 481-518 ; and "I satellite di Propaganda Fide: Il Collegio Urbano e la tipografia poliglotta; note di ricerca su due institutzioni culturali Romane nel XVII secolo", *Mélanges de l'École française de Rome, Italie et Méditerranée,* tome 116, 2, 2004, pp. 471-498.

14 See my article "Rescuing Indian Arts and Sciences, Saving Indian Souls: Paulinus a S. Bartholomaeo, The Last Missionary Orientalist (18th c.)", in *Religion, Power, Community,* Ishita Banerjee-Dube and Saurabh Dube, eds., New Delhi: Oxford University Press, 2007 (in press). Paulinus catalogued all manuscripts and objects in the Museum. See his *Musei Borgiani Velitris codices avenses, peguani, siamici, malabarici, indostani, animadvesionibus historico-criticis castigati et illustrati. Accedunt monumenta inedita et Cosmogonia indico-tibetana*, auctore P. P. XVII+266, 3 figures, Romae, 1793, in -4°. See also Paulinus' notes in the Biblioteca Apostolica Vaticana, Rome, Borg. Lat. 895, f. 65-76.

15 He was a member of the Academies in Naples and Velletri *(Socio Academico di Velletri e di Napoli).*

16 The most systematic book on the topic is Paulinus' *Systema Brahmanicum Liturgicum, Mythologicum, Civile, ex Monumentis Indicis Musei Borgiani Velitris, Dissertationibus historico-criticis illustravit Fr. Paulinus a S. Batholomaeo, Carmelita discalceatus,* Romae, 1791, XII + 326, 32 figures.

17 Raymond Schwab, *La renaissance orientale*, Paris: Payot, 1950.

18 *Viaggio alle Indie Orientali, umiliato alla Santita di N. S. Papa Pio Sesto Pontefice Massimo,* da Fra Paolino da S. Bartolomeo, Carmelito scalzo, Roma 1796, XX, 404 pp., in -4°, with 12 copper plates, p. 153 (henceforth referred to as *Viaggio*; all translations are mine).

19 *Viaggio*, p. 365. "The English have promised … that they would give us Indian Botany, but I do not have much confidence in these promises, because to do it, one needs men who know local languages, time and money". [Paulinus quoted from *Asiatic Research*, vol. II]. Anquetil-Duperron added his own gloss to this statement in the French edition of the *Viaggio*. "Father Paulinus' remark is easily refuted. The English have the *time* and the *money* necessary for such an enterprise: and when they will want to choose their subjects, they will have no lack of their own to learn the languages of India". Anquetil-Duperron, *Voyage aux Indes orientales par le P. Paulin de S. Bathélemy, Missionnaire; traduit de l'Italiane par M***[Marchesan]; Avec les observations de MM. Anquetil du Perron, J. R. Forster et Silvestre de Sacy; et une dissertation de M. Anquetil sur la propriété individuelle et foncière dans l'Inde et en Égypte,* tome troisième, A Paris, Chez Tourneisen fils, Libraire, Rue de Seine, No. 12, 1808, [henceforth, *Paulin*], vol. 3, p. 486 [commenting on p. 462, line 23]. William Carey posthumously edited and published Dr. William Roxburgh's *Flora Indica; or Descriptions of Indian Plants*, through Serampore Press in 1820 (vol. 1) and 1824 (vol. 2).

20 Until the 17th century, all Catholic missions in India were part of the Portuguese royal patronage network (*Padroado*) of ecclesiastical institutions overseas. With the establishment of the Congregation for the Propagation of Faith (*Propaganda Fide*) in 1622, the Papacy took under its own wing all the territories *in paritibus infidelium* not covered by the Portuguese *Padroado*. Since the missionaries sent by the *Propaganda Fide* were recruited in Rome, from missionary orders that had no allegiance to the Portuguese king, the Estado da Índia and the Portuguese authorities in Goa often treated them as enemies. See Francisco Bethencourt, "A Igreja", in *História da Expansão Portuguesa*, F. Bethencourt and K. Chaudhuri (eds), Lisboa: Circulo de Leitores, 1998, vol. 1, pp. 369-386.

21 See my article "One Civility, but Multiple Religions": Jesuit Missions among St. Thomas Christians in India (16th-17th centuries)", in *Journal of Early Modern History*, 9.3-4, 2005, pp. 284-325.

22 See Leslie Brown, *The Indian Christians of St. Thomas,* (first ed. 1956) Cambridge: Cambridge University Press, 1982; and Susan Visvanathan, *The Christians of Kerala: History, Belief and Ritual among the Yakuba*, New Delhi: Oxford University Press, 1999.

23 Plagiarism or omitting to disclose one's sources were more the rule than the exception among early modern European travellers in Asia. Learned missionaries in the region, who themselves often exchanged texts and opinions without keeping track of individual authorship, were often targets of such intellectual pillaging. Thus among the famous cases is Jacopo Fenicio's text on Indian cosmology and mythology, which was appropriated by many authors who never acknowledged their debt to his text. See, for example, Philip Baldaeus, *A True and Exact Description of the Most Celebrated East-India Coasts of Malabar and Coromandel and also of the Isle of Ceylon*, translated from the Dutch and printed at Amsterdam, 1672 (reprint: New Delhi: Asian Educational Services, 1996); and Manuel Faria y Sousa, *Asia Portuguesa*, vol. 3 (Lisboa, 1666-1675). Fenicio's descriptions are also taken almost verbatim by Paulinus, especially in the passage on the creation of the world according to the Brahmans. See his *Sidharubam seu Grammatica Samscrdamica, cui accedit Dissertatio historio-critica in linguam samscrdamicam, vulgo Sanscret dictam, in qua hujus linguae existentia, origo, praestantia, antiquitas, extensio, maternitas ostenditur, libri aliqui ea exarati recensentur, et simul aliquae antiquissimae gentilium orationes liturgicae paucis attinguntur et explicantur,* 188 pp., typis S. C. de Prop. Fide, 1790 [1791], p. 25-27.

24 Sanjay Subrahmanyam, "Taking stock of the Franks: South Asian Views of Europeans and Europe, 1500-1800", *Indian Economic and Social History Review*, vol. XLII, no. 1, Jan.-March 2005, pp. 49-100.

25 In fact, Paulinus kept a diary in various languages (Portuguese, Latin and German) at various points during his travels and work in India. Zdravka Matisic, Professor of Sanskrit at the University of Zagreb, is preparing a study of his German diary, and Nikica Talan, professor of Portuguese literature at the University of Zagreb is working on Paulinus' Portuguese diary. It seems that from the time of Ildephonsus a Praesentatione, a Discalced Carmelite, missionaries maintained a collective diary of the important events between 1653 and 1740. Ambrosius a Santa Teresia, *Bio-bibliographia Missionaria ordinis Carmelitarum Discalceatorum (1584-1940)*, Rome, 1940, p. 197. This text remained in a manuscript, entitled "*Relazione Carmelitana delle vastissime Missioni dell'Imperio di Coccino, dall'Imperio di Samorino, e de'Regni di Gran Travancore, Poracata, Vaypura, Granganora, Magnapara, Mangata, Rapolino etc. che tutti sogetò nell'anno 1761 quel famoso Re grande Travanco: quivi aggiuntasi una revissima notizia del modo, con cui sieno diventute quelle missioni sotto la giurisdizione de'Padri Carmelitani Scalzi in che tempo, anno, ed occasione*".

26 In the *Viaggio*, Paulinus recalls a moment when he discovered, in Pondicherry, before he arrived at his mission in Kerala, that the books he kept in the chest were half-eaten by white ants. *Viaggio*, p. 7.

27 Philippe de Très Sainte-Trinité (1603-71) published his *Itinerarium Orientale* in Lyon in 1649, and the French translation, *Voyage d'Orient*, was published in 1652. There were five editiions in Italian translation in the 17th century (1666, 1667, 1676, 1682 and 1672).

28 Giuseppe di Santa Maria Sebastiani (1623-89), *Prima speditione alle Indie Orientali* (Rome, 1666), *Segunda speditione alle Indie Orientali* (1672). See Donald F. Lach and Edwin J. Van Kley, *Asia in the Making of Europe, Volume III: A Century of Advance,* [henceforth referred to as Lach], Book 1, Chicago and London: University of Chicago Press, 1998, pp. 383-385.

29 See my article, "One Civility, but Multiple Religions": Jesuit Missions among St. Thomas Christians in India (16th -17th centuries)", *Journal of Early Modern History*, 9.3-4, 2005, pp. 284-325; and Sanjay Subrahmanyam, "Dom Frei Aleixo de Meneses (1559-1617) et l'échec des tentatives d'indigénisation du christianisme en Inde", *Archives de sciences socials des religions*, 103 (1998), pp. 21-42.

30 Vicenzo Maria di Santa Caterina da Siena (alias Vincenzo Maria Murchio), *Il viaggio all'Indie Orientali del padre F. Vincenzo Maria di S. Caterina da Siena Procurator Gener. de' Carm. Scalzi, con le osseruationi, e successi nel medesimo, i costumi, e riti di varie nationi, et reconditissimi arcani de' gentili, cauati con somma diligenza da' loro scritti, con la descrittione degli Animali Quadrupedi, Serpenti, Uccelli, Piante di quel Mondo Nuovo, con le loro virtu singolary, Diuiso in*

cinque libri. Opera non meno Utile, che curiosa, in Venetia: appresso Giacomo Zattoni, 1678. See Lach, vol. III, book 2, pp. 891-909.

31 One copy of the *Viridarium Orientale* is preserved in the Muséum de l'Histoire Naturelle in Paris. I have consulted the copy in the Biblioteca Nazionale Vittorio Emanuele III [henceforth, BNVE], Ms. Rari, Fondi Minori, Santa Maria della Scala, Varia, 178.

32 Ray Desmond, *Great Natural History Books and their Creators*, London: The British Library and Oak Knoll Press, 2003, p. 39 [henceforth Desmond]. See also H. A. van Reede tot Drakestein, *Hortus Indicus Malabaricus*, Amsterdam, 1678-1693, 12 vols.

33 This was the first book on tropical plants based on Linnaeus' system of classification. Desmond, p. 50.

34 See the articles in K. J. John, *Christian Heritage in Kerala*, Cochin, 1981.

35 The letters Paulinus left behind in his archives are in Latin, Italian, Portuguese, German, English and Malayalam. BNVE, Rari, Fondi Minori, Santa Maria della Scala, 22, 30, 33, 37, 38.

36 In the 16th century, the most prominent missionary order in India, the Society of Jesus, developed a number of "health care" institutions for both Christian and non-Christian populations in all Asian missions. These were supplements to Portuguese confraternities and to the *Misericórdia*, all of which catered exclusively to Christians. The Jesuits were, in fact, so efficient at organizing institutions based on and enforcing social discipline that they were invited to administer the most famous Portuguese hospital in Asia, the *Hospital del-Rey* in Goa. If the Jesuits were excellent at running institutions that contributed to hygiene and orderly behaviour—which were sometimes crucial for the recovery of patients—they were less interested in curing bodies. The goal was to cure souls and convert their patients to Catholicism. They often referred to themselves as *medicos da alma*, the "physicans of the soul". Some of the temporal coadjutors among the Jesuits were professional physicians. However, when ordained, they were not allowed to practice medicine, especially not surgery, without a special dispensation by the Pope. See Ines G. Županov, *Missionary Tropics: The Catholic Frontier in India (16th-17th century)*, Ann Arbor: University of Michigan Press, 2005.

37 BNVE, Rari, Fondi Minori, Santa Maria della Scala 36/G, *Botanica Malabar* (no pagination) [CD-Rom, folder 01, p. 0120].

38 In English, the *pepino-de-S. Gregório* is called a squirting (exploding) cucumber or touch-me-not. In French, it is a *concombre sauvage*, or *concombre d'ane*; in Italian, a *schizzetto, cocomero asinine,* or *elaterio*. The bean of St. Ignatius or *Loganiaceæ ignatia amara* is a species of *strychos* native to the Philippine Islands. The tree bears a pear-shaped fruit, containing an intensely bitter seed, from which an alcoholic tincture is obtained.

39 *Viaggio*, p. 7-8.

40 BNVE, Rari, Fondi Minori, Santa Maria della Scala 36/G, *Botanica Malabar* (no pagination) [CD-rom, folder 01, p. 0144].

41 Georg Everhard Rumf (1627-1702). Desmond, pp. 44-47.

42 Pierre Sonnerat, Pierre Poivre and J.-B. Le Gentil were all in search of plants and manuscripts. Poivre succeeded in smuggling out of Asia certain precious spice plants, and he even sent Sonnerat to Manila and New Guinea in search of more botanical species. Le Gentil collected manuscripts and ideas, mostly from the Jesuits in Pondicherry. See Pierre Sonnerat's *Voyage aux Indes orientales et à la Chine,... depuis 1774 jusqu'en 1781: dans lequel on traite de moeurs, de la religion, des sciences & des arts des Indiens, ... les Philippines & les Moluques, & de recherches sur l'histoire naturelle de ces pays.* À Paris: Chez l'auteur, M.DCC.LXXXII. 2 vols. Plates. 4°, 1782. See also Pierre Poivre, *Les mémoires d'un voyageur*, L. Malleret ed., Paris: École Française d'Extrême-Orient, 1968 ; and J.-B. Le Gentil, *Voyage dans les mers de l'Inde, fait par ordre du Roi de 1761 à 1769*, Suisse, 1780.

43 See my article, "Goan Brahmans in the Land of Promise: Missionaries, Spies and Gentiles in 17th-18th century Sri Lanka" presented at the conference *Portugal – Sri Lanka: 500 Years,* Centre Culturel Calouste Gulbenkian, Paris, December 15-17, 2005.

44 Rudi Mathee, "Exotic substances: The Introduction and Global Spread of Tobacco, Coffee, Cocoa, Tea, and Distilled Liquor, Sixteenth to Eighteenth Centuries", Roy Porter, and Mikuláš Teich, eds., *Drugs and Narcotics in History,* Cambridge: Cambridge University Press, 1998, pp. 24-51.

45 See my article, "Goan Brahmans".

46 The listing of all the authors cited in the *Colóquios* is provided in Conde de Ficalho, *Garcia da Orta e o Seu Tempo*, (reprodução fac-similada da 1.ª edição, Lisboa, 1886), Lisboa, 1983, pp. 284-297. On medieval Arabic medicine see, J. Christoph Bürgel, "Secular and Religious Features of Medieval Arabic Medicine", in Charles Leslie, *Asian Medical Systems: A Comparative Study* (1st ed. 1976), New Delhi, 1998.

47 *Viaggio*, p. 366.

48 Michel Foucault has identified and elaborated upon this point of rupture in his various books. See *Les mots et les choses*, Paris: Gallimard, 1966.

49 *Viaggio*, p. 351.

50 The persistence of these social and cultural phenomena continues to fascinate and perplex anthropologists. See J. Assayag, and Gilles Tarabout, *La Possession en Asie du Sud: Parole, Corps, Territoroire*, Paris: Collection Purusartha, 1999.

51 BNVE, Rari, Fondi Minori, Santa Maria della Scala 37, busta 47, letter no. 6.

52 *Viaggio*, p. 367.

53 Johann Ernest Hanxladen (b. 1681 in Germany, d. 1732 in Kerala) was the first European to write a Sanskrit Grammar, among other Christian liturgical texts he wrote in Malayalam and Sanskrit. He composed the "Dictionarium samscredamico-lusitanum" with the assistance of the two Jesuits Antonio Pimentel and Bernhard Bischopinck. Antonio Pimentel was the Archbishop of Cranganore from 1721-1752 and, being a Jesuit, was in fact hostile to the *Propaganda Fide* missionaries (the Discalced Carmelites). According to Paulinus, he was a very learned man, also known as *Budhimetran*. See *India Orientalis Christiana, continens fundationes ecclesiarum, seriem episcoporum, missiones, schismata, persecutiones, reges, viros illustres*. Auctore P. Paulino a S. Bartholomaeo, Romae, 1794, XXIII, 280 pp., in -4°, p. 67. It is not clear who Feraz, the author of *Herbolario*, was. It may have been François Ferraz, mentioned in Besse, *La mission du Maduré,* Trichinopoly, 1914, vol. 1, p. 206. According to Nair (who does not cite his sources!), Fares (1715-1789) was a Jesuit who wrote a small Malayalam grammar in Chatiath. See M. Purushothaman Nair, "Contribution of Christian Missionaries to the Grammatical Theories in Malayalam", in K. J. John, *Christian Heritage of Kerala,* Cochin, 1981, p. 136. Bernhard Bischopinck was born on January 31, 1690/92 at Borken/Westfalen and died ca. 1746 in Mangalore.

54 *Viaggio*, p. 355.

55 He adds that a certain Contessa Salms annotated this illustrated botanical manuscript with names from Carl Linnaeus (1707-1778), the Swedish botanist, physician and zoologist and the father of botanical classification. See Lisbet Koerner, "Linnaeus' Floral Transplants", *Representations*, Summer 1994, Vol. 49, pp. 144-169. *Viaggio*, p. 355.

56 *Viaggio*, p. 354-355. *A Catalogue of Oriental Manuscripts, collected in Indoostan*. By Mr. Samuel Guise, Surgeon to the General Hospital at Surat, from the Year 1777 till 1792 (printed) pp. 1-32. Borg. Lat 529, pp. 1-18.

57 For no apparent reason, in the last volume, the publisher also printed Anquetil-Duperron's treatise on "*la propriété individuelle et foncière dans l'Inde et en Égypte*".

58 Paulinus was a difficult character. This is why he was not sent back to Kerala, as he apparently hoped; this much is clear in the letter: "A

Monsignor Luigi Mari di Gesù Vescovo Usuliense Vicario Apostolico del Malabar: Verapoli, 6 Ottobre 1790", in "Lettere della Sacra Congregazione dell'Anno 1790" (vol. 258, ff. 697b-699a), Historical Archives of the Congregation for the Evangelization of Peoples or "De Propaganda Fide", Rome. I owe this information to David Lorenzen Sbrega, who found this letter in the *Propaganda* archives. He presumed that the letter was written by Stefano Borgia. It seems unlikely, since Borgia must have been on good terms with Paulinus, while the letter shows quite a bit of personal animosity on the part of the writer.

59 *Paulin*, vol. III, p. 476.

60 BNVE, Rari, Fondi Minori, Santa Maria della Scala, 36, G. The text is written in Paulinus' hand.

61 *Viaggio*, p. 350. The original reads: "*Shralanòva* la colica ventosa, *Sanivali* convulsioni e spasmi de'nervi, *Adisàram* diarea o semplice sciolgimento di ventre, *Calladapa* il male di pietra, *Grahanni* dissenteria con tenesmo, *Iluca* dislocazione dei membri, *Mujali* una specie di podagra, *Kaszalapani* erisipola con febbre, *Pani* in lingua Malabarica, *giurti* e gioram in Samscrit, febbre callida, *Tridoshagoram*, cioè, febbre di tre cattive qualità, che tra noi chiamasi febre maligna, *Malapani* febbre d'unsolo giorno, procedente da qualche vento, che spira dale montagne di Ghattes, in Portoghese febre da Serrra."

62 According to Hobson-Jobson, *mort de chien* is a name for cholera that was used in India up to the end of the 18th century. The word in this form is a corruption of the Portuguese *mordexim*, shaped by a fanciful French etymology. The Portuguese word again represents the Konkani and Mahratti *modachi, modshi*, or *modwashi*, 'cholera,' from a Mahr. verb *modnen*, 'to break up, to sink' (due to infirmity, in fact 'to collapse'). H. Yule, and A. C. Burnell, *Hobson-Jobson: A Glossary of Colloquial Anglo-Indian Words…*reprinted New Delhi, 1979, pp. 586-589.

63 On cholera, see David Arnold, "The Indian Ocean as Disease Zone, 1500-1950", *South Asia,* 14 (1991), pp. 1-22.

64 On *mordexim*, see Garcia de Orta, *Colóquios dos simples e drogas he cousas medicinais da India…,* Goa, 1563 (facsimile edition by Academia das Ciências de Lisboa), Lisboa, 1963, annotated edition by Conde de Ficalho, published in 1891 and reprinted in 1987, vol. 1, pp. 261-267.

65 *Viaggio*, p. 367.

66 *Viaggio*, p. 355. *Amarasinha. Sectio prima, de Coelo. Ex tribus ineditis codicibus indicis manuscriptis,* XII+60, figures, Roma, 1789. According to M. Monier-Williams, *A Sanskrit-English Dictionary* (1st ed. 1872), New Delhi: Motilal Banarsidas Publishers, 1999, *aushadha* or *oshadhi* means medications, drugs, or herbs used in medicine. *Aushadhavali* is a medical work composed by Pranakrishna (p. 240). The same is said in William Jones, "The Design of a Treatise on the Plants of India", *Asiatic Researches, or, Transactions of the Society Instituted in Bengal, for Inquiring into the History and Antiquities, the Arts, Sciences, and Literature of Asia*, volume the Second, Printed verbatim from the Calcutta Edition, in Quarto. London: Printed for Vernor and Hood, in the Poultry, 1799." The Amarcosh, an excellent vocabulary of the Sanskrit language, contains in one chapter the names of about three hundred medicinal vegetables", ch. XXII, p. 345.

67 Amarasinha's *Namalinganusasana,* better known as the Amarakosa, is the most famous and the oldest extant lexicon of the Sanskrit language, written in the 6th century AD. *Amarakosa: With the Commentary of Mahesvara/Ramakrishna Gopal Bhandarkar*. Revised enlarged edition. New Delhi, Cosmo, 2004, p. 469.

68 *Viaggio*, p. 355. Diogenes Laertius was a biographer of the ancient Greek philosophers. His major work, *The Lives of the Philosophers* (in ten volumes), is an important source of information on the development of Greek philosophy.

69 *Viaggio*, p. 355.

70 *Viaggio*, p. 359. See Partha Mitter on the discovery of erotic gods in India in the 18th century. Partha Mitter, *Much Maligned Monsters: A History of European Reactions to Indian Art,* Chicago and London: University of Chicago Press, 1992.

71 *Viaggio*, p. 359.

72 *Viaggio*, p. 281.

73 *Viaggio*, p. 280 and 281.

74 *Viaggio*, p. 281. Caylus, Anne Clause Philippe de Tubieres de Grimoard de Pestels de Levis, Compte de, Marquis d'Esternay, baron de Bransac (1692-1765), was a French archaeologist and man of letters. He was an active member of the Academy of Painting and Sculpture and of the Academy of Inscriptions. Among his antiquarian works are *Recueil d'antiquités égyptiennes, étrusques, grecques, romaines, et gauloises* (6 vols.), Paris, 1752-1755.

75 Paula Findlen, ed., *Athanasius Kircher: The Last Man Who Knew Everything*, New York and London: Routledge, 2004, p. 33.

76 Paul B. Salmon, "The Beginnings of Morphology: Linguistic Botanizing in the 18th century", *Historiographia Linguistica*, 1:3, 1974, pp. 313-339. Maurice Olender, *Les langues du Paradis, Aryens et Sémites: un couple providentiel*, Paris: Gallimard/Le Seuil, 1989, p. 20.

77 *Viaggio*, p. 150.

78 "I had not given names because all those who know Malabar (Malayalam) can find Sanskrit words in the Amarisingha dictionary". To this laconic statement from the *Viaggio*, Anquetil-Duperron added a commentary: "I think the that the missionary, who writes in Europe and for Europe, should have included a Sanskrit name with the Malabar names; because we do not have here Malabar schools where they read Amarasingha by way of modern languages." *Paulin*, p. 487.

79 *Viaggio*, p. 152-153.

80 Georges-Louis Leclerc, Comte de Buffon (1707-1788), is author of the *Historie Naturelle (Natural History)*, 1749. Eberhard August Wilhelm von Zimmermann (August 17, 1743 – July 4, 1815) was a geographer and zoologist, professor of Natural Science at Brunswick. He wrote *Specimen Zoologiae Geographicae Quadrupedum* (1777), one of the first works on the geographical distribution of mammals. J. G. Schneider, ed., *Opiani Poetae Cilicis de veneratione et piscatione libri*, Argent, 1776. Walter Charleton (1617-1707) was a titular physician of Charles I and a writer on theology, natural history and antiquities. See also *Visions of Empire: Voyages, Botany, and Representations of Nature*, ed. David Philip Miller and Peter Hanns Reill, Cambridge: Cambridge University Press, 1996. For a remarkable work on Ulisse Aldrovandi, see Findlen, *Possessing Nature*.

81 *Viaggio*, p. 162.

82 *Viaggio*, p. 153.

83 *Viaggio*, p. 152.

84 *Viaggio*, p. 155.

85 *Viaggio*, p. 158.

86 *Viaggio*, p. 159.

87 *Viaggio*, p. 173.

88 *Viaggio*, p. 173.

89 *Viaggio*, p. 164.

90 *Viaggio*, p. 183.

91 *Viaggio*, p. 168.

92 *Viaggio*, p. 181.

93 *Viaggio*, p. 181.

94 *Viaggio*, p. 167.

95 Thomas Trautmann, *Aryans and British India*, Berkeley: University of California Press, 1997, and New Delhi: Vistaar Publications, 1997, p. 37 [henceforth Trautmann]; see also Sylvia Murr, *L'Inde philosophique entre Bossuet et Voltaire, l'indologie du Père Coeurdoux: stratégies, apologétique et scientificité,* 2 vols., Paris: EFEO, 1987.

96 Trautmann, p. 136.

97 Trautmann, p. 136.
98 Trautmann, p. 36.
99 Taking up William Jones' opinion that "[our] English alphabet and orthography are disgracefully, and almost ridiculously, imperfect", Paulinus adds his own more devastating appraisal. "The English alphabet is not only imperfect, but plainly ridiculous when it comes to expressing Indian nouns; they horribly corrupt them when writing them in that alphabet." But, of course, the way history unfolded, these linguistic decisions were not left to the Italians. See William Jones, "A dissertation on the Orthography of Asiatick Words in Roman Letters by the President", *Asiatic Researches*; or, *Transactions of the Society Instituted in Bengal, for Inquiring into the History and Antiquities, the Arts, Sciences, and Literature of Asia,* volume the First, Calcutta, Printed in 1788, (reprinted in London for Vernor and Hood), No. 1, "Poultry," 1798, p. 13. See Paulinus' *Examen Historico-criticum Codicum Indicorum Bibliothecae Sacrae Congregationis de Propaganda Fide,* Romae, 1792, in -4°, p. 6. See also Paulinus a S. Bartholomaeo, *Dissertation on the Sanskrit Language*, translation and introduction by Ludo Rocher, Amsterdam: John Benjamins B.V, 1977 p. 95. [henceforth, *Dissertation*].
100 Jean-Antoine Abbe Dubois, *Mœurs, institutions et cérémonies des peuples de l'Inde*, Paris, Imprimerie Royale, 1825 (2 vols.). David Lorenzen Sbrega, "Marco della Tomba and the Brahmin from Banaras: Missionaries, Orientalists and Indian Scholars", *Journal of Asian Studies,* Feb. 2006 (in press).
101 *Viaggio*, p. 162. He estimates that this Sanskrit dictionary was three thousand years old.
102 *Viaggio*, p. 165.
103 Lach, III, 2, 899.
104 William Jones, "Botanical Observations on Select Indian Plant", *Asiatick Researches*, no. 4, 1793-4, 239-140. Quoted in Mark Harris, "Medicine and Orientalism", in Biswamoy Pati and Mark Harris, eds., *Health, Medicine and Empire, Perspectives on Colonial India*, Hyderabad: Orient Longman, 2001, p. 59.
105 *Viaggio*, p. 156.
106 *Viaggio*, p. 149.
107 *Viaggio*, p. 162.
108 *Viaggio*, p. 161.
109 *Viaggio*, p. 183.
110 *Dissertation*, p. 111, *Viaggio*, p. 71.
111 Findlen, *Athanasius Kircher*, p. 7.
112 During the troubled revolutionary years of 1798-1800 in Rome, Paulinus went into voluntary exile in Vienna, Venice and Padua.
113 *Viaggio*, between pp. 160-161.
114 For a complicated lineage of these iconographic representations see Mitter, *Much Maligned Monsters*, p. 57n and p. 298.
115 See Findlein, *Athanasius Kircher*, p. 9.
116 Biblioteca Apostolica Vaticana, Rome, *Borg. Lat*. 295, f. 277, 288.
117 Biblioteca Apostolica Vaticana, Rome, *Borg. Lat*, f. 288.
118 Angelo De Gubernatis, *Matériaux pour servir à l'histoire des études orientales en Italie*, Paris, 1876, p. 333.
119 De Gubernatis, *Matériaux,* p. 333.
120 *Dissertation,* p. 165.
121 For a French Jesuit, Father Pons, Sanskrit grammar was one of the most important "sciences". See, "Lettre du P. Pons, missionnaire de la Compagnie de Jésus, au P. du Halde de la même Compagnie. A Careical, sur la côte de Tajaour, aux Indes Orientales, ce 23 Novembre 1740", *Lettres édifiantes et curieuses, écrites des missions étrangères, par les missionnaires de la Compagnie de Jesus.* XXVI. Recueil. A Paris, rue S. Jacques. Chez P. G. Le Mercier, Imprimeur-Libraire, au Livre d'Or, près S. Yves. Et Chez Marc Bordelte, vis-à-vis le Collège de Louis le Grand. MDCCXLIII. Avec Approbation & Privilège du Roy [vol. XXVI, pp. 218-256, Paris, 1743]. Bibliothèque Mazarine, Paris, 23023W.

China root. In Cristóvão da Costa's *Tractado de las drogas y medicinas de las Indias Orientales*, Burgos, 1578.

The Euro-Asian Trade and Medicinal Usage of *Radix Chinae*

in the Early Modern Period (ca. 1535-1800)

PETER BORSCHBERG*

In Western medicine, hardly anyone today has heard of *radix Chinae, Chinae ponderosae, smilax Chinae, cortex Chinae, rhizome smilacis Chinae* or in English, simply "China root". Texts dating from the 16th and 17th centuries sometimes refer to it by the name *chub-chini* or "China wood" used in Persia and Mogul India, or far less frequently, by the Arabic *labana*.[1] In Chinese, it is known today as *tu fu ling* 土茯苓. But to traders of early modern Europe and Asia, this medicinal substance found a steady demand and often returned reliable profits. What is *radix Chinae*? Why was it so desired and what was it used for? The present article sets out to explore these important questions.

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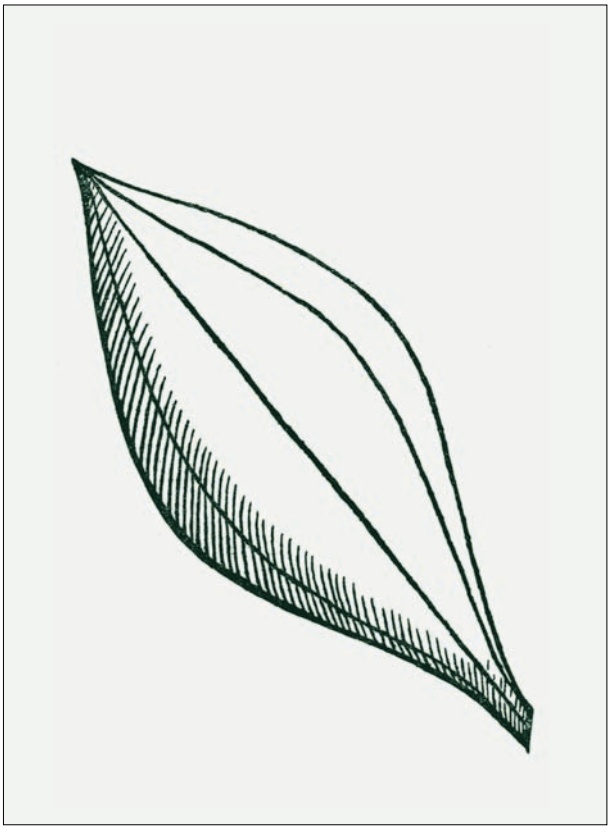
Since it was first introduced into Western medicine in the first half of the 16th century, *radix Chinae* has been traded and described under a variety of different names. In English circles, such as in Yule and Burnell's widely cited glossary *Hobson-Jobson,* we find an entry for "China root".[2] Medical texts of the early modern period employ the Portuguese *raiz, páo da China,* the Spanish *palo de la China,* the Italian *radice China* or the French *bois de Chine, bois d'echine* or *squine*.[3] In the German lands, as well as in the Low Countries, the tuber runs under an astonishingly broad variety of names. The most common is the *Chinawurzel* or *china wortel* or one of its close variants, but other far less familiar names include *Bocken-Wurtz, Pockenwurzel, Chinaknollen, Schina* and *Aschina*.[4] The expression *Pockenwurzel,* is an entry in Johann Heinrich Zedler's *Universal-Lexicon,* published in Leipzig in 1732. This German term may very well leave readers with the impression that the tuber found deployment in the symptomatic treatment of smallpox. The possibility should not be entirely dismissed, as many of the early

modern medicinal recipes involving *radix Chinae,* aim at the symptomatic treatment of skin problems such as abscesses, boils, open wounds, infections, pain, aches, itch, or swelling. Many medical texts of the 16th and 17th centuries also recommend the internal consumption of *radix Chinae* as a sudorific, in the treatment of spleen and liver disorders (including hepatitis), against body aches, joint pains, arthritis, gout, dropsy, headaches, ulcers, and (in-)famously in the treatment of symptoms associated with syphilis.[5]

Imports into Europe (and that would of course include England) appear to have dwindled to negligible amounts by the beginning of the 19th century. In his *Oriental Commerce,* William Milburne observes that hardly any *radix Chinae* was imported into the British Isles after 1804.[6] By 1876, Friedrich Flückiger confidently reported that the root was completely forgotten in Western pharmacology.[7]

Radix Chinae is essentially a tuber that belongs to the *smilax* family.[8] Today as in previous centuries, it is often confused with other roots that are believed to possess certain medicinal properties, especially galangal, ginseng and ginger. This confusion is far more widespread and enduring than many historians of trade and medicine generally believe. All three were, and still are, widely used in the context of Asian medicine. According to some authorities, it also finds application in herbal cuisine and the preparation of culinary delights.

When dried, the fist-sized,[9] tubular rhizomes appear knotty and feature a brown and sometimes blackish exterior. It is only when one cuts the root open to inspect the flesh inside, that clearer differences appear. Contrary to ginseng and ginger, the flesh of the *radix China* is a pale red that runs into a rust or brown color.[10] In his *Kreuterbuch* (Herbarium) first published in 1581, the German physician Adam Lonitzer describes the inside of the tuber as being of a pinkish hue, not unlike human flesh.[11] The inside, other authorities hold, is coarsely granular. When freshly harvested, *radix Chinae* is inodorous and its taste astringent.[12] The root hosts a woody, spiny vine[13] that is found in China and Japan and as far west as the Himalayas. It grows, according to most accounts, in very moist soil. Lonitzer explains that the plant is found near swampy areas near the sea, a view that is partially endorsed by the anatomist and physician Andreas Vesalius and 17th century German medic Johannes Schröder who describe the plant growing like reeds at the water's edge.[14] Where the plant cannot find support, it generally does not grow tall, about one meter off the ground at most. Where support is found on nearby bushes or trees however, the vine is known to grow far longer.[15] This growing pattern may very well be the source of the not uncommon belief among early modern luminaries, that the tuber sprouts and grows into a "tree" that reaches "high above the ground" and bears "few leaves".[16] The widely celebrated Portuguese herbalist and medic, Garcia da Orta, however parts company with the intellectual company of Lonitzer, by identifying the home of *radix Chinae* not along the coastal plains of China, but rather deep in the interior of the continent, near or at least "on the confines of Muscovy".[17] That description would place the root's origin in Central Asia or even Siberia.



China root's leaf. In Cristóvão da Costa's *Tractado de las drogas y medicinas de las Indias Orientales*, Burgos, 1578.

A closely related species of the *radix* or *smilax Chinae,* is found in the Americas and is known as the

radix pseudo-Chinae or "bastard China".[18] European medical books of the early modern period, and especially from the 16th and 17th centuries, clearly distinguish the two species. Schröder differentiates *radix Chinae orientalis* and *occidentalis* (i.e. Eastern and Western "China root"*),* explaining that the new-world tuber featured a flesh that was darker red than the species from Asia.[19] But the consensus brought forth in early modern medicals, attributes to the New World tuber inferior medicinal qualities than its counterpart from Asia.[20] This view was invariably reflected in both desirability and also price. In the following exposé, attention shall be paid only to the Asian variety.

THE INTRODUCTION OF *RADIX CHINAE* INTO WESTERN MEDICINE

At this juncture, it is important and also of considerable historical interest, to pose the very pertinent question: When was *radix Chinae* introduced into Western medicine? Few medicinal substances were introduced into the Western *pharmacopoeia* with so much excitement. This may very well have to do with the fact that, among the first patients in Europe to benefit from the soothing powers of this tuber, was a person no less illustrious than the Holy Roman Emperor Charles V, who also ruled as King Carlos I of Spain. The reportedly successful treatment of his gout by *radix Chinae* offered not only the best possible publicity and endorsement, but equally served to spur further research into the medical efficacy of the tuber.[21] The first comprehensive study to be published in Latin was penned by the hand of the renowned anatomist and court physician Vesalius.[22]

Consensus among historians of trade and medicine has it that *radix Chinae* was introduced to Europe sometime in the early 16th century. Lonitzer identifies the provenance specifically as China, but otherwise has nothing to say about how the medicinal root found its way into European pharmacology.[23] Vesalius explains that the tuber was sold by those traders who "also have pepper, cloves, ginger and cinnamon", including the Portuguese,[24] confirming thus the inherent link between *radix Chinae* and the spice trade. A very similar observation is made by Cristóvão da Costa in his Spanish commentary to Orta published in 1578.[25] In his work printed in Strassburg in 1601, the Spanish medic Juan Fragosus claims that *radix Chinae* was already known and used in Castile around 1525, but one suspects greatly that this may have been a reference to the New World and not the Asian variety. Other authors claim that the root was first brought to Goa either by Chinese or Portuguese traders in around 1535.[26] The Royal French cosmographer André Thevet, writing in the 1570s, boldly asserts that the root was first brought to Africa by two merchants from China whom he names "Nakmach" and "Makal". The names admittedly do not sound very Chinese and if even accurate, could also be the names of Muslim merchants based in China, or perhaps even refer to merchants of mixed descent. Subsequently, Portuguese traders presented a sample of *radix Chinae* to the Portuguese Viceroy, Dom Martin Afonso de Sousa, who was said to be suffering from an incurable disease.[27] No other author from the early modern period has been found to corroborate this specific account. Yet, another doubtlessly self-serving but admittedly more amusing variant, stems from the pen of Orta who in *Colóquio* 47 writes:[28]

> "At this time [referring to his own arrival in India], a very honourable and rich man was cured, who being in Diu, told my master Martim Affonso de Sousa, … how he had been cured of the root of China, which restored him to complete health … not requiring any special diet,[29] except that he was not allowed to eat beef, pork, fish or green fruit. … In China, fish is conceded because they [i.e. the Chinese] are great eaters of it. As this became well known, people had a strong desire to have this root. For all men are inclined to eat and drink, and much more in this land owing to their laziness."

According to Orta, *radix Chinae* was at that time very little known, and few studies on its medicinal efficacy were available – at least in the West. It also had a hard time competing against other more established

Untreated *radix Chinae* is a knotty root with a pinkish to salmon colour. Most pharmacies in China today sell the flesh dried and bleached. Copyright Peter Borschberg.

§. 5.

Was die **Kräffte** dieser Wurtzel anbelanget / so ist sie durchdringender und subtiler Art / und komt derowegen *D. Simon Paulli* nicht ohne Ursach ungereimt vor / daß *Hernandez* derselben eine kalte Natur zuschreibet. Sie treibt nicht allein den Schweiß / sondern purgiret auch dabey / welches ausser dem *Fallopio* fast bey keinem Scribenten zulesen / doch aber auch von mir in der That selbsten observiret worden ; Weßwegen dann diese Wurtzel ein vortrefflich remedium gegen die gar zu feiste Wänste oder corpulentiam nimiam zu halten ist. Absonderlich aber heilet sie alle gefährliche und alte Schäden / ja den anfangenden und verborgenen Krebs selbsten und wird deßwegen von einigen die Heilwurtz genennet. In den Frantzosen oder Lue Venereâ ist sie viel gewisser / als das Frantzosen Holtz / welches *Fallopius* in seinem Buch *de Morbo Gallico pag. 723.* auffrichtig bekennet / auch einige Exempel anführet / daß / da nach gehaltener Holtzcur noch einige Geschwär / Schrunden im Affter / Lahmbeulen und dergl. zurück geblieben / solche durch diese Wurtzel vollends vertrieben worden. So kenne ich auch einen gewissen und sehr versuchten Chirurgum, so zugleich bey einen Hohen Fürstl. Hauß Cammerdiener ist / welcher eine gewisse Cur die Frantzosen / welche von andern nicht können gezwungen werden / zu heilen hat / die er vor sehr geheim hielte und vor kein Geld wolte mittheilen. Als ich aber mit ihm eine gewisse Adeliche Person in der Cur gehabt / hab ich in acht genommen / daß es die blosse Sarsaparilla sey / und bestunde sein Geheimnuß in der coction, welche ihm doch auch abgesehen / auch zum Theil in obangezogenem Ort des *Fallopii* und noch deutlicher in des *Cardani Tr. de rad. China. p. mihi 1619.* zufinden ist. Unterdessen ist wohl in acht zu nehmen / daß zu dieser Cur immer die beste Sarsaparilla zunehmen seye / sonsten man wenig wird außrichten können.

Das XIII. Capitel

Von der Pocken oder CHINA-Wurtzel.

Radix Chinæ Pluken

Rad. Chinæ Hernand

Radix Chinæ Pom

substances.[30] "Be not surprised", Orta continues in his schoolmasterish dialogue with the (in-)famously gullible Dr. Ruano, "I have not heard any one else praise it [i.e. *radix Chinae*], so many writers praising [guachawood] every day. Among them, there is a German writer who composed a book on his labours in a very copious style and very pure Latin, which might have been all written on one sheet of paper. Of this other root of China, Vesali[us] and Laguna say many evil things, that it is rotten, and without virtue and very dear." Quite evidently, the opulent verbosity of his unnamed German colleague (with all likelihood Leonard Schmaus), even if written in the purest and most elegant of Latin, was insufficiently impressive to the cantankerous Orta, who cast his indicting judgment from the safe distance of Goa.

Whatever the precise historical background may be, the link to Europe via China and Goa is almost certainly beyond dispute. The inherent connection to the Middle Kingdom and also to Chinese pharmacology, is quite apparent and also repeatedly attested,[31] not least due to the fact that the earliest uses of *radix Chinae* among western doctors, overlap almost entirely with Chinese medicine. This includes its chief application in the treatment of syphilis, variously called the "disease of Naples" or the "disease of the French" in the European vernacular. According to Orta:[32]

> "As all these lands, China and Japan also have this *morbo Napolitano* [syphilis], it pleased a merciful God to provide this root as a remedy with which good doctors can cure it…"

By 1581 Lonitzer was in a position to report that *radix Chinae* was a medical substance that was highly praised and also frequently used.[33] But the German medic's testimony was not exactly a "consensus" view among members of his profession. To the contrary, medical authors are deeply divided precisely over the question of the tuber's pharmacological efficacy. When Andreas Vesalius published in or around 1546 his exposé on *radix Chinae*,[34] physicians in Italy and on the Iberian Peninsula had already gathered some experience in the treatment of various illnesses, including syphilis. But Vesalius, like other luminaries of the medical profession, such as the Parisian medic Julian Lepaulmier de Grentemesnil (alias Palmarius) and the Italian anatomist Gabriele Fallopio (Fallopius), one of the supposed "fathers" of the modern condom,[35] were far from impressed with the performance of *radix Chinae.* This basic outlook held well into the following century, for the German chemist Daniel Sennert writing around 1650, prefers *sarsaparilla* and guachawood over *radix Chinae* in the treatment of syphilis "by a long shot".[36] The former, brought from the Americas already during the earliest period of the Spanish voyages of exploration, was deemed by Nicolaus Poll (1517), Leonard Schmauss (1518), and Ulrich von Hutten (1519), the most effective medication in the treatment of this "new" disease in Europe, variously known as *morbo Gallico* ("disease of the French", "Franzosenkrankheit"), *morbo Napolitano* (the disease of Naples) and in Asia as the "disease of the Portuguese".[37]

What was it that changed this still rather obscure substance into a veritable miracle root, bordering on a panacea, within little more than a decade? Vesalius and his high-profile patient, Emperor Charles, may very well have contributed meaningfully to this development, for what was good for the Emperor was good for any prince, aristocrat, pope or bishop, not to speak of Europe's growing class of wealthy merchants! The publicity surrounding Charles V and the Latin treatise of Vesalius, spurred the publication of similar investigations into the medicinal value of the new miracle root, such as notably by Cardano and perhaps even influencing the brief account of Orta found in his *Colóquio* 47.

THE REPORT OF VESALIUS ON THE TREATMENT OF HOLY ROMAN EMPEROR CHARLES V WITH *RADIX CHINAE* (1546) AND OTHER RECIPES

As already stated, one of the most comprehensive and detailed studies on the application and medicinal potency of *radix Chinae* in Western medicine, stems from the hand of Andreas Vesalius, the famed anatomist from Brussels and one of Holy Roman Emperor Charles V's personal physicians. In his treatise first published in Basel in 1556, Vesalius explains that he first became familiar with the tuber while in Venice where it was introduced and employed with great praise and high levels of expectation.[38] The Emperor was administered the tuber at his own insistence for the symptomatic

Depiction of the *radix Chinae* root, vine and leaves from Michael Bernhard Valentini, *Museum Museorum...*, Frankfurt/M. 1704. Bayerische Staatsbibliothek, Munich, Germany.

treatment of body pains (almost certainly gout) and a stiff shoulder, and not at the counsel of his personal physicians. Indeed, one is reminded that Charles V was known to have a mind of his own and long held a record of ignoring the advice of his doctors.[39] Reports have it, that the Emperor's health improved, and the resounding endorsement only raised further the expectation amongst aristocrats and the wealthy about the treatment.[40] Not unlike the great Emperor Charles, they placed pressure on their personal physicians to administer the root to them in the treatment of a variety of illnesses, including syphilis.[41] But Vesalius clearly has his doubts about the medicinal properties of *radix Chinae* and on more than one occasion insists that it is not nearly as efficacious as guachawood.[42] Among the reasons cited is taste: What is one to hold, he wonders rhetorically, of a substance that has no taste of its own?[43]

Vesalius describes in considerable detail, the preparation for a decoction which he admits derives substantially from the writings of Italian doctors. But in order to prepare this decoction, it is important first to select the right quality of *radix Chinae,* which Vesalius attests, is reddish in colour, similar to galangal, and when dried, appears similar to a rotten calamus root. In order to give his readers a sense of the starkly varying quality of the specimens available on the market, Vesalius describes that the tubers appear as if they have been haphazardly pulled out of the soil, and broken into chunks of differing size and weight. They appear as if they had been tossed about for a long time until washed onto a sandy beach.[44] Many of the specimens are completely dried out, burst open, mouldy, rotten, or worm infested.[45] For this reason it is important that one selects only specimens that are not rotten, not worm infested, but still a bit juicy inside.[46] *Radix Chinae* has no taste and no odour of its own; even if one gnashes a piece between the teeth, there should be no flavour whatsoever. If it does feature odour or taste, this would have been absorbed from other medicines that were stored on board a vessel or in the pharmacy.[47]

To prepare the decoction, one takes a sharp knife and cuts the carefully inspected tubers into coin-shaped slices. One then takes two ounces of this sliced *radix Chinae,* places the pieces into a glazed clay vat that is capable of holding about sixteen pounds of water or about eight liters. This vat should feature a lid or a cover that can be closed. Next, pour twelve pounds of fresh spring water into the vat with the sliced *radix Chinae*. Then place the vat over a warm fire (not a roaring fire), and not over glowing ashes.[48] The fire should be smoke free. Cook the water down to about two thirds of its original volume. This, Vesalius explains is best done overnight, or at least through the evening before one intends to consume the decoction. The resulting liquid is ready to be consumed (straight from the vat), or if one prefers, after it has been sifted through a piece of cloth and poured into another container. The medallion-shaped slices of *radix Chinae* should then be removed from the vat, dried off with a piece of cloth and kept for the preparation of a second batch. If the stomach is not able to take the first or even the second batch, it may be necessary to dilute the decoction for administering to the patient.

The decoction, which is red in colour, should be administered warm. For this reason it can be placed over a very low fire, or better still, kept in a container wrapped with cloth or a blanket and placed next to the fire. The liquid should be kept there for as long as it is needed, and it is good for one day. If taken for long-term treatment, the decoction should be prepared daily in this manner.

In the morning, one should consume eight ounces of the liquid as hot as possible, and drink the same amount in four-hour intervals. It can also be served as a beverage at breakfast.

When the liquid is administered in the morning and in the evening, the patient should be in bed, and well covered so that he can develop a sweat. The patient should not be naked, but wear a dry garment. In order to avoid the need to change the sheets or to place the body in a place that is not warm, the patient should be wrapped in blankets. Some physicians recommend the evening session after dinner, but Vesalius is evidently against the idea that a patient has to "sweat" through the whole night. An important point is that the administration of *radix Chinae* be accompanied by a rigorous diet. This appears to have its origin in Chinese medicine.

Most of the medical books of the early modern period, including for example Sennert, prescribe this or a very similar concoction, but on the basis of extant

Another page from Michael Bernhard Valentini, *Museum Museorum...*, Frankfurt/M. 1704. Bayerische Staatsbibliothek, Munich, Germany.

§. 1.

Die ſo genandte **Pocken-Wurtzel** oder Radix CHINÆ iſt eine dicke/ gnodichte/ glatte und holtzichte Wurtzel / auſſwendig gelb-braun / inwendig röthlich-weiß / ohne Geruch und Geſchmack / obwohlen ſie friſch einen glebrichten und ſcharffen Geſchmack von ſich gibt. Sie komt auß Oſt-Indien und abſonderlich auß China, worvon ſie auch den Nahmen hat / und wird theils rohe / wie ſie auß der Erden komt / theils von der euſſerlichen Schale geſäubert herauß gebracht.

§. 2.

In Anſehen des Gewächſes / woher ſie entſpringet/gehöret ſie mit der Sarſaparilla unter ein Geſchlecht / dahero ſie beyde auch einerley Kräffte haben / dann es ingleichen eine Art der ſtechenden Winde iſt / welche von dem Seel. Hr. *D. Hermanno* und andern berümbten Botanicis Smilax aſpera Chinenſis, LAMPATAM dicta, genennet wird / beſihe davon *Sam. Dale Pharmacol. p.* 239. abſonderlich aber das 3. **Oſt-Indianiſch Sendſchreiben im Anhang dieſes Buchs** / wo das Gewächſe und deſſen Gebrauch gar ſchön beſchrieben werden; wie dann auch die Mexicaniſche China-Wurtzel / welche auß Weſt-Indien gebracht wird / ſo wohl von dem *Hernandez* als auch *Plukenet* vor eine Art der ſtechenden Winden gehalten und von jenem *Lib. 6. cap. 55. p. 212. Theſ. Rerum Med. Nov. Hiſp.* von dieſem aber *Tab. CX. n.* 4. beſchrieben und abgemahlet worden: obwohln auch die Alte Indianiſche Scribenten / als *Garcias ab Horto, Acoſta, Monardes* und andere deren ſchon gedacht haben. Dieſes Gewächs ſoll theils in Gärten erzogen / theils wild wachſen / und ſollen der letzten Wurtzel nur in Europam kominen / indem die zahme / als die beſte / von den Sinenſern behalten werden.

§. 3.

Ohne dieſen Unterſcheid der Oſt- und Weſt-Indiſchen Pocken-Wurtz pflegen die Materialiſten dieſelbe noch zuweilen in die Feine / Mittel-Gattung und die Gemeine zu ſortiren/davon die **Gemeine** gemeiniglich als alt verlegen und wurmſtichicht gar nichts / die **mittel-Gattung** wenig nutz / die **Feine** aber die rechte iſt. Dieſe/ als die beſte/ wird daran erkennet / wann ſie ſchwer und reſinos iſt / nicht leicht zerſchnitten werden kan und inwendig nicht zu roth / wie die Mexicaniſche und wilde / ſondern röthlich im weiß anzuſehen iſt. Man muß auch wohl in acht nehmen/daß ſie nicht wurmſtichicht und die Löchlein nicht wieder verſtopffet und vergleiſtert ſeyen / welche ſchöne Kunſt der Buchhalter *Georg Nicolaus* **Schurtz** in ſeiner **Neu-eingerichteten** *Material*-**Kammer** / als ein ſonderliches Kunſtſtücklein offentlich in Druck zugeben ſich nicht geſcheuet hat / wann er *pag.* 73. alſo ſchreibet: Wann ſolche wurmſtichicht worden / ſo „ muß man die China klein nehmen und ſtoſſen. „ Alsdann mit Gummi Tragant angemacht / in „ der Dicke wie ein Kitt: darnach muß die „ wurmſtichichte China ins Waſſer getaucht und „ der Kitt in die Löcher eingeſchlagen / hernach- „ mahls die China wieder gleich geſchnitten / „ ein wenig mit Umbra angeſtrichen und mit Ve- „ nediſcher Seiffe geſchmieret und gerieben „ werden. Allein mein lieber Menſch / wer hat dich ſolches gelehret? Iſt dieſes auch raiſonabel und gewiſſenhafft gehandelt? O nein! ein gewiſſenhaffter und auffrichtiger Materialiſt wird ſich dergl. und andern Künſten / welche *D. Ludvvig* von *Hornick* in unſern *Pandectis Medico-Legalibus Part. I. Sect. VI. Caſ. 6.* guten theils entdecket hat / niemahlen unterfangen und ſich deßwegen auch mehr Glücks zugetröſten haben.

§. 4.

Den **Gebrauch** der China-Wurtzel betreffend / ſoll derſelbe zu erſt Anno 1533. *Carolo* V. bekandt worden und nachmahlen von vielen Gelährten Medicis in beſonderen darvon geſchriebenen Tractaten gezeiget ſeyn/ worunter *Cardanus de Rad. China* und *Veſalius* in einem **Brieff** davon am meiſten bekandt ſind. Sie truckenet ſehr und treibet den Schweiß / heilet die Waſſerſucht / böſe Schwären / Grind und die Frantzoſen/worinnen ſie denen Sarſaparillen nahe komt / doch temperirter iſt. Sie curiret auch die außgedörrete und ſchwindſüchtige Leute / wann die Kranckheit von ſcharffen böſen Feuchtigkeiten herrühret/da ſie alsdann nutzlich mit den kleinen Roſinen gekocht wird / wie bey *D. Ettmüllern in Com. Schrad. de Rad. China* zuſehen. Ingleichen dienet ſie gegen alles Gliederweh / Podagram und dergl. Es wird ein Decoctum davon gemacht / wie man mit der Sarſaparilla verfähret/ und nimt man nach Unterſcheid ℥j. ad ℥ij. zu xv. ℔. Waſſer / wird 24. Stund eingeweicht / und in einem verdeckten Hafen ſolang gekochet / biß der dritte Theil eingeſotten/ wie *Cardanus l. c.* es zubereitet. *Schræderus* ſpricht / daß 2. Loth der Wurtzel zu 9. ℔. Waſſer ſchon gnug ſeyen: beſihe deſſen *Pharm. Med. Chym. lib. IV. p.* 44.

literature it is possible to recognize a far broader use of the tuber in the context of Asian, and specifically Arabic and Chinese medicine. The French royal cosmographer, Thevet, admits that use of *radix Chinae* is far more widespread in China than in subcontinental India or even in the Arab world. He describes that in China it is preserved in vats or jars "like rhubarb".[49] This may very well help explain why it is often cited in Dutch ledgers together with other preserved items such as ginger. Costa mentions a preserve prepared with *radix Chinae* and crushed pepper.[50] In China and notably India, it was and still is deployed in the treatment of rheumatic pains and syphilis.[51] It further serves as an aphrodisiac and is consumed in cooked form by the Mongol and the Turkoman tribes of Central Asia.[52] Costa describes a dish prepared with honey and sugar, a beverage with wine and also alludes to meat and fish recipes prepared with China root.[53] The following testimony from Jan Huygen van Linschoten, which is repeated by the German physician Michael Bernhard Valentini on the eve of the 18th century, testifies to the use of the tuber, to lend a rosy complexion to the face:[54]

> "The root of China is commonlie used among the Egyptians… specially for a consumption for which they seeth the root China in broth of a henne or cocke, whereby they become whole or fair of face."

PRICES AND MARKETING

The extensive use of *radix Chinae* in the context of Western medicine, spans from its introduction by the Portuguese to Goa and subsequently Europe around 1535, until its almost complete disappearance from cargo manifests at the opening of the 19th century. As has already been mentioned, Milburne sets that date at or around the year 1804.

During the peak of the *radix Chinae* trade between the second half of the 16th and the middle of the 18th century, there was hardly a vessel registered by Europe's early colonial powers that did not carry on board a specified or even unspecified amount of this medicinal tuber. Orta quotes several prices for the mid-16th century, in one instance 10 *cruzados* per *ganta* (of 24 ounces) and in another instance, 30 *reis* per *ganta.*[55] Francesco Carletti, the famed Tuscan merchant who traveled around the world on the eve of the 17th century, quotes a price at source in Canton of "four or five scudos the hundred pounds of twenty ounces each, which comes to a little more than twelve quattrini the pound of twelve ounces."[56] Quite evidently, he deems this inexpensive. By contrast, Andreas Vesalius confirms that China root is available "everywhere in Antwerp" and while he is unwilling to quote a specific price, he confirms that one pound of *radix Chinae* costs "several crowns" at the retail level in Europe.[57]

In the *Generale Missiven* (the annual reports of the Netherlands East India Company sent from Batavia to Amsterdam), *radix Chinae* is often mentioned or listed together with other stimulants and drugs, including tea and preserved ginger.[58] It was purchased on both the Chinese mainland and the island of Taiwan, brought to Batavia for export to Europe, or redistributed to destinations in Western Asia. Export destinations of the Dutch East India Company (VOC), include notably Persia, subcontinental India (especially Surat), as well as ports held by other early European colonial powers, such as Danish Tranquebar.[59] Of course, the Portuguese are large purveyors of *radix Chinae,* as well exporting it chiefly out of Macao to ports in India and insular Southeast Asia, such as Malacca and Macassar.[60] One Dutch official seethingly reports on Portuguese sales of *radix Chinae* to the English at the famed Bugis port, during the first half of the 17th century.[61] Lusitanian merchants also resell their cargos of *radix Chinae* in Japan. According to the report of Zeygert van Rechteren, the Portuguese sold 70,528 *kati* of "China root" (*wortel China*), for about 4231 *tael* of silver in Japan in 1637 (amounting to about 6 *tael* of silver per *picul*, approx. 60 kg).[62] Last but not least, the tuber is regularly featured as part of the Chinese bulk trade with Manila,[63] goods in other words, that were generally earmarked for re-exportation across the Pacific to Mexico and beyond.

Extant documentation, therefore shows a lively, truly global trade in *radix Chinae* that had its key Asian nodal points in Macao, the Fujian coastal ports, Malacca, Goa, Manila, and of course colonial Batavia. The volumes amassed at these entrepôts, could vary considerably from anything between a few hundred pounds to a few thousand *picul*.[64] Correspondingly, merchants and the East India Company had to cast a watchful eye on both quality and prices. Most unfortunately, it is not easy to glean much information about the development of procurement prices, profit margins or even proceeds. In any case, a comprehensive

study of these would reach far beyond the scope of the present article. Still, it is possible to gain a broader picture of prices and profits for the period under review.

First, to the supply side of the picture. How much did the European colonial traders pay when they purchased their *radix Chinae* at the trade fair in Canton or from Chinese traders calling at their ports? Purchase prices of course represented sensitive information that was rarely disclosed and always closely guarded. Reliable references are therefore few. During the early 17th century (we are informed by Martin Castaños), the Portuguese purchased their *radix Chinae* in Macao or Canton for 1 *tael* of silver or 12 *maçes* per *picul*.[65] In another location in the same text, the author quotes a procurement price in China of eight *maçes* per *picul*. This medicinal substance could then be re-exported to Japan and sold for four or perhaps even five *tael*. This rendered the short trip from China to Japan a highly lucrative enterprise. A similar picture is painted for the Portuguese trade with subcontinental India. Again, it was not unusual to generate gross profit margins of one hundred percent or even higher.[66]

The picture that emerges, based on documentation of the VOC, is complex and not always transparent. This is because in cargo manifests and bills of lading, *radix Chinae* is often found lumped together with other commodities and stimulants, including tea, sugar, benzoin, preserved ginger and even some metals and textiles. Additionally, the absence of even approximate quantities or a breakdown of the individual cargos and their value fails to enlighten.[67] Still, occasionally it is possible to calculate an approximate purchase price of a given consignment of *radix Chinae* at source. According to a VOC report dated 23 December 1687, prices paid in China for the medicinal tuber amounted to 2.8 *tael* of silver or 11.4 florins per *picul*.[68] To put this price into perspective, that amounted to about half the amount paid for the same quantity of pepper which is quoted at 6 *tael* or 24 florins per *picul*. Additional purchase prices are extant for the following century. According to a report on 30 November 1730, the VOC operations in Batavia purchased a total of 6107 Amsterdam *pond* of *radix Chinae* for 586.25 *rijksdaalder*.[69]That amounts to about 4.8 *stuiver* per *pond*. In another transaction mentioned in a report of 6 April 1736, the Dutch company had purchased 4424.31 *pond* for 233.13 florins, or about 1.05 *stuiver* per *pond*.[70]

As is known, subcontinental India represented one of the export destinations for *radix Chinae* by the VOC. In 1683, a consignment was sold at Surat for the equivalent of about 4.15 *stuiver* per *pond*.[71] Those sales reaped reasonable rates of return, but these admittedly amounted to only about half of the nominal proceeds per *pond* in Europe at the time.

At the demand side or European end of the operations, the ready availability of wholesale prices from the Dutch company and sometimes also retail prices in pharmacies across Europe, provide meaningful help in reconstructing profit margins and to an extent also risk profiles. As the use of *radix Chinae* was just gaining hold in the late 16th century (mainly in the treatment of advanced stages of syphilis and of smallpox), prices of this potentially life-saving or at least life-extending substance were correspondingly high, because demand quickly outstripped supply. Fragosus does not mention a price, simply that the substance was only to be had at a *magnum precium* – a substantial price. Orta purchased *radix Chinae* in Portugal and imported this to Goa, paying 5 *cruzados* per *arrátel*. At a retail level in the Holy Roman Empire (in the town of Annaberg in Saxony to be precise!), one finds a 1563 price quotation of 2.5 per pound of dried *radix Chinae*.[72] That was a price only the affluent could afford. But supplies to Europe quickly picked up into a veritable industry of *radix China* imports, that ran into thousands of pounds per consignment. For example, one is informed that on Monday, November 4 1743, the Amsterdam Chamber of the VOC offered for sale a total of 13,720 *pond* of the dried root for sale at its regular auction.[73] The sheer volumes procured and sold in Europe by the late 17th and 18th centuries, can be taken as an indication of just how popular this substance had become with physicians, druggists and their clients in the treatment of certain symptoms and diseases. And the volumes can also be taken as a broad gage of affordability. One of the early price lists of the Amsterdam chamber of the VOC, dating from 1603, pegs the wholesale price of one pound of *radix Chinae* at 7 *stuiver*. That was roughly equivalent by weight to the price of cardamom and about one half the price paid for benzoin or Japanese laurel camphor.[74] The nominal price of China root appears to have remained more or less constant in Holland during the 17th century. A *prijscourant* or price list of the VOC quotes offer prices in Amsterdam for April 28 1698,

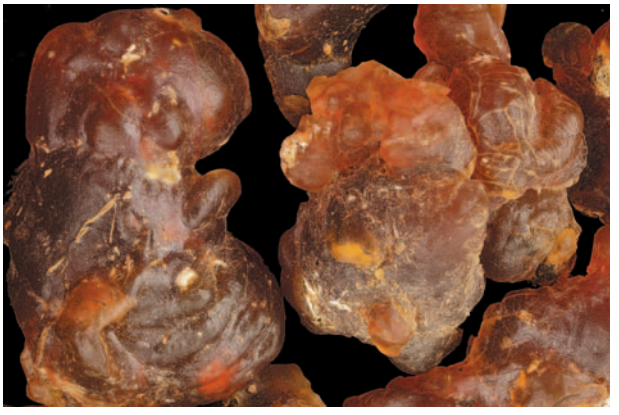
at 7-7.75 *stuiver* and for the VOC chamber in Hoorn at the auctions of May 22 and 26 1698, at about 8-8.25 *stuiver*.[75] But the price relation to cardamom and camphor had changed dramatically. Camphor now cost more than three times the price of *radix Chinae* and five times cardamom!

Castaños spoke of profits amounting to several hundred percent on the original investment and at a first glance at least, his observations would appear to hold true for the VOC as well. The reality is, that these margins were very hypothetical and did not take into consideration the cost of transportation or the risks associated with the long voyage back to Europe. Cargos of *radix Chinae* were easily affected by salt water, rot and the presence of parasites, including worms. In some instances, the Dutch company found itself not making a profit, but indeed swallowing a loss in its trade with the medicinal tuber. In his report of 13 December 1686, Dutch Governor-General Camphuys reported a loss of forty-five percent on *radix Chinae*. He points his blaming finger at the low quality of the tubers purchased.[76]

In comparison to other mainly outrageously priced commodities of medicinal or pharmacological value, including musk, ambergris or aloes wood, *radix Chinae* was far more affordable, but certainly not inexpensive. While the market scams may not have been as elaborate as those for the highly priced and greatly prized substances, company servants nevertheless had to remain on their toes and keep a watchful eye on quality and potential fraud. So, what was it exactly that one had to keep an eye open for when buying *radix Chinae*? Milburne's *Oriental Commerce* gives some useful hints to this effect. The tubers, he explains, should be selected "large, sound and heavy" and feature a pale red color inside. When fresh, he continues, the root "will snap short and look glittering within. If old, the dust flies from it when it is broken, and it is lite and kecky."[77] If, on inspecting the inside, it (ie the tuber) is discovered to be wormy, then it is utterly worthless.

FORGING THE QUALITY OF *RADIX CHINAE*

It is precisely at this juncture, that the con-artist steps in. The individual roots of the *radix Chinae* are often found to be wormy and knowing that this will certainly render a piece financially worthless, tricksters



The resin tragacanth was commonly used in the early modern period for falsifying the quality of *radix Chinae*. Copyright Peter Borschberg.

would colour the blackish worm marks with red soil or clay.[78] A very elaborate scam, is described by Georg Nicolaus Schurtz[79] and repeated by Valentini in posing the rhetorical question: "Just this, my dear fellow human being, who taught you such a thing?"[80]

> "If the tubers should be wormy, some China root should be cut into small pieces and pounded. The mass is then prepared with tragacanth, to a consistency of putty. The wormy China root is then immersed in water and the putty filled into the wormholes. The China root is then sliced into pieces, daubed with umbra pigment, and coated with and rubbed with Venetian soap."

Both scams would be difficult to detect by an untrained eye and when the tuber is dry and shriveled, it is not immediately evident whether or not it has been tampered with. One greatly suspects, that such scams were not pulled off by the wholesalers, but by the druggists, for disposing of spoilt or worthless specimens. Their unsuspecting clients often discovered, that dark worm holes began to appear when they soaked their tuber slices in fresh water! A similar scam is reported by Vesalius with reference to Antwerp. He claims, that in order to conceal the worm holes and enhance the surface appearance of the tuber, it is smeared with a substance he calls *bolus armenicus,* a soil containing iron oxide and lending a rust-brown external appearance to the tuber. Red ginger, he explains, is also sold in this form, a fact that greatly facilitated the confusion of the two roots when and if they were judged only by their external appearance. For this reason also, it seems that most doctors recommend that prospective buyers subject

the tubers to a range of tests, including an inspection of the interior and taste.

EPILOGUE

Radix Chinae or "China root" is a medicinal substance now sparsely used outside Asia. Historically however, it featured prominently in Western pharmacology between the 16th and the 18th centuries. "China root" was procured by European merchants in Asia and traded through established trading networks via Macao, Malacca, Goa, Manila and Batavia. It was resold in Europe, the Americas, subcontinental India and the Arabian world for reliable profits

One of the unique facets of *radix Chinae,* is that its introduction into Western pharmacology is well attested and its links to the Chinese *materia medica* is almost certainly beyond dispute. For much of the early modern period, clear parallels exist between Eastern and Western medicine in the preparation of decoctions and culinary delights using *radix Chinae*. Demand for this root increased significantly after the middle of the 16th century, when it was successfully administered to Holy Roman Emperor Charles V to treat his gout. The ringing endorsement stemming from this high profile patient however, was viewed critically by leading members of the medical profession on the Iberian Peninsula, Italy, France, Germany and beyond.

Given the relatively high price of *radix Chinae* across Europe, the exotic tuber can hardly be seen as a remedy affordable to the masses. Its lapse into obscurity by the beginning of the 19th century may very well be linked to the steady improvement in personal hygiene and competition from other attested medicinal substances. Most significantly of all, China root was used for the treatment of what was then Europe's new epidemic variously known as *morbo Gallico, morbo Napolitano,* or syphilis. Even so, consensus among the medical scholars of the early modern period, has it that guachawood and sarsaparilla were far more effective ("by a long shot") in rendering symptomatic relief. RC

NOTES

1 Thevet 1575 vol. 1, fol. 417 recto. Thevet also claims that the Chinese term for this tuber is *lampata,* a term that is evidently etymologically related to its Arabic counterpart.
2 Hobson-Jobson 1994: 199A-B. The description found here is almost certainly loosely paraphrased from Flückiger and Hanbury, 1874.
3 Orta, vol. 2 1913/1979: 259 et seq.; Costa 1578: 80, employs the term "*palo de la China*", *Documentação* 1962: 115, the undated report incip "Riquesas que produs o Estado da Índia …" calls it "*pao… da China*"; Pomet 1717/1986: 88; Flückiger and Hanbury 1874: 648.
4 Schröder 1685/1963: 877; Valentini 1704: 169. Vesalius 1922: 16, surmises that the name *Aschina* is probably derived from some "island" in the Indies.
5 Vesalius 1915: 19; Vielheuer 1576: 93; Thevet, 1575 fol. 417 recto; Acosta 1578: 81; Lonitzer 1679/1934: 149, where syphilis is called "*unkeusche Blattern*"; Schröder 1685/1963: 877; Valentini 1704: 170.
6 Milburne vol. 2, 1813/1999: 502.
7 Flückige and Hanbury, 1874: 649.
8 Matthioli 1557/1984: 118; Costa 1558: 80, "*smilax aspera*"; Valentini 1704: 170.
9 Costa 1578: 80.
10 Matthioli 1557/1984 118; Valentini 1704: 170 describes the exterior as yellow-brown.
11 Lonitzer 1679/1934: 148. Valentini 1704: 170, describes the interior as reddish-white.
12 Valentini 1704: 170, where the taste of freshly harvested *radix Chinae* is described as "earthy" (*glebricht*) and astringent (*scharf*).
13 Costa 1578: 80.
14 Vesalius 1915: 16; Lonitzer 1679/1934: 149; Schröder 1685/1963: 878.
15 Flückiger and Hanbury, 1874: 648.
16 Schröder 1685/1963: 877.
17 Orta, vol. 2, 1913/1979: 259.
18 Gerarde, 1636: 1617-1619, illustrates it under the names *pseudo-China* – "bastard China"; Valentini 1701: 170 calls it the "*Mexicanische China-Wurtzel*" or Mexican China-root. Other names used in early modern medical text include *cortex Peruvianus*.
19 Schröder 1685/1963: 877; Valentini 1704: 170.
20 Valentini 1704: 170.
21 Vesalius 1915; Costa 1578: 84; Sennert 1650: 587.
22 Vesalius 1546.
23 Lonitzer 1679/1934: 149.
24 Vesalius 1915: 16.
25 Costa 1578: 82.
26 The origin of this claim probably is Orta, vol. 2 1913/1979: 260. It is repeated amongst others by Vielheuer 1576 93; Sennert, vol. 3, 1650: 587; Schröder 1685/1963: 877; Valentini 1704: 170; Flückiger and Hanbury, 1874: 648.
27 Thevet, vol. 1, 1575 fols. 416 verso - 417 recto.
28 Orta, vol. 2 1913/1979: 380. Although Orta was evidently "politically motivated" to publish his *Colóquios* in Portuguese in Goa (1563), the

Latin translation by Clusius (1567) made this book the most widely quoted source on the medicinal plants of India.

29 This contrasts to some other prescriptions, including Vesalius 1915: 124 et seq. who recommended the administration of *radix Chinae* with a rigorous diet.

30 Ryff 1541.

31 Sennert, vol. 3 1650: 587.

32 Orta, vol. 2, 1913/1979: 379; for the original Portuguese text, see: Orta, vol. 2, 1563: 259.

33 Lonitzer 1679/1934: 148.

34 Vesalius 1546.

35 The prolific and famed Italian anatomist Andreas Fallopius discusses the treatment of syphilis with *radix Chinae* in his influential work "De morbo Gallico" (On Syphilis, 1564), chapter 60.

36 Sennert, vol. 3, 1650: 587.

37 Poll, 1517; Schmaus, 1518; Hutten, 1519.

38 Vesalius 1915: 10.

39 *Ibid*. 10, 12, 13.

40 *Ibid*. 14.

41 *Ibid*. 15.

42 *Ibid*. 12, 15.

43 *Ibid*. 17.

44 *Ibid*. 16.

45 *Ibid*. 20.

46 *Ibid*. 17.

47 *Ibid*. 18.

48 A similar recipe is described by Costa 1578: 81.

49 Thevet, vol. 1, 1575 fol. 417 recto.

50 Costa 1578: 83.

51 Orta, vol. 2, 1913/1979: 272.

52 Orta, vol. 2, 1913/1979: 272; Thevet, vol. 1, 1575: 417 recto; Flückiger and Hanbury, 1874: 649.

53 Costa 1578: 81.

54 Linschoten, vol. 2, 1956: 112; Valentini 1704: 170.

55 Orta, 1913/1979: 377.

56 Carletti, 1964: 149.

57 Vesalius, 1915: 24.

58 *Generale Missiven*, vol. 1, report of 4 January, 1636: 520; 720; *ibid.*, vol. 2, report of 22 Dec. 1643: 206; *ibid.*, report of 20 Jan. 1645: 256; *ibid.*, report of 18 Jan. 1649: 335; *ibid.*, vol. 9, report of 30 Nov. 1729: 65; Dagh-Register Batavia, 1674: 34, 38, 39.

59 *Generale Missiven*, vol. 2, report of 22 Dec. 1643: 206; *ibid.*, report of 23 Dec. 1644: 238; *ibid.*, vol. 4, report of 19 Dec., 1668, p. 662; *ibid.*, report of 19 March 1683, p. 810.

60 *Documentação* 1962: 115. Also: *Generale Missiven*, vol. 1, report of 15 Dec. 1529: 264; vol. 2, report of 20 Jan. 1651: 460; report of 19 Dec. 1651: 519.

61 *Generale Missiven*, vol. 1, report of 15 Dec. 1629: 264.

62 Rechteren, vol. 4, 1646/1969: 87.

63 *Generale Missiven*, vol. 9, report of 1733: 521.

64 See for example *Generale Missiven*, vol. 2: 37: cargo of 30 *picul*; *ibid.*: 46: cargo 3,000 *picul*; *ibid.*: 172: 2,000 *kati; ibid.*: 391, cargo of 10 *picul*; *ibid.*, vol. 3: 29, cargo of 5 *bahar*.

65 *Philippine Islands*, vol. 19: 311, 315.

66 *Ibid*. 309, 311.

67 *Generale Missiven*, vol. 3, report of 31 Jan. 1672: 810, where mention is simply made of a "*goede parthije*" (good quantity); *ibid.*, vol. 9, report of 30 Nov. 1729: 65, where the *radix Chinae* is lumped together with other goods, such as tea, spelter and silk.

68 *Generale Missiven*, vol. 5: 157.

69 *Ibid.*, vol. 9: 201.

70 *Ibid.*, vol. 9: 718.

71 *Generale Missiven*, vol. 4, report of 19 March, 1683: 579. Calculation based on a price of 5 *ropia* per man of 36.25 *pond*.

72 According to Flückiger cited in Vesalius, 1915, note 1, p. 24.

73 Ms. VOC 6986.

74 Ms. VOC 7525, fol. 91 recto.

75 Ms. VOC 6985.

76 *Generale Missiven*, vol. 5, report of 13 Dec. 1686: 62.

77 Milburne, vol. 2, 1813/1999: 502.

78 Valentini 1704: 170.

79 Schurtz 1672: 73.

80 Valentini 1704: 170.

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Portuguese and Indian Medical Systems
Commonality and Superiority in the Early Modern Period

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An analysis of relations between Indian and Portuguese medical knowledge and practice in the early modern period reveals an interesting dichotomy. In some areas we find commonality and mutual exchange, in others it is clear that European knowledge and practice shows at least the beginnings of superiority. These limited areas of European advantage slowly increased in the 19th century, leading to the triumph of western medicine over indigenous Asian practice and knowledge. I will first sketch medical practice in Eurasia before the 16th century, then turn to a more focussed study of the health situation in India at this time, and then narrow the focus even more, to Goa and the diseases and healing practiced there. The second section of this essay looks at the first signs of European advantage as compared with Indian systems.

Neither Europe nor the Muslim world nor India had any particular medical advantage at this time. There was a considerable degree of interaction between the traditional systems of these three areas. Yet there was also a recognition that some illnesses were geographically specific; some Indian illnesses, for example, were seen by foreigners as "different."

What were the main threats to health? The plague, smallpox and syphilis were three of the most threatening diseases in Europe. Cholera was much less of a problem, for the European version was much milder than the Asiatic *cholera morbus*. We can distinguish with some confidence pulmonary plague, which was first seen in Europe in the great pandemic of 1348, the Black Death. Pulmonary plague retreated in Europe in the early 18th century, the last major occurrence ravaging Marseilles in 1720. Bubonic plague, with the characteristic symptom of buboes, was older. It was recognized that the plague was infectious. Counter measures included quarantine and isolation. As early as the 14th century, Italian cities had introduced quarantine to keep out shipborne bubonic plague from the Middle East. Once the disease appeared, affected areas were cordoned off; in the 16th century national policies evolved to achieve this. The rich, of course, could afford to flee, and did so at the first sign of an outbreak. The poor stayed behind and died.[1]

As spectacular in its own way as the Black Death was the very rapid spread of what was apparently a new form of venereal disease, that is syphilis, from America, which even in the late 1490s was epidemic in areas that had contact with men returning from America. It spread all over Europe with remarkable rapidity, and possibly also to Asia, for as early as 1505 the Italian Varthema in Calicut claimed that the ruler had "the French disease [*Frangi*] and had it in the throat."[2] Less dramatic maladies were endemic. Various fevers, smallpox, intestinal disorders, and skin diseases were very widespread indeed, and were more effective because of poor diet, often deficient in some vitamins.

Turning to Portugal in the period of the discoveries, that is, in the 15th and 16th centuries,

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all of these diseases were found there in abundance. There were several major plague epidemics in the 16th century. In the major one, in 1569-1570, mortality in Lisbon in June 1569 was 50 to 60 a day, in July 300 to 400, and later up to 700. In this city of about 100,000 souls some 50,000 died in this epidemic.

Medical knowledge in Portugal, as in the rest of Europe, was incapable of dealing with these diseases. As a result of the Muslim period of dominance in Portugal, which ended only in the late 13th century, Muslim authorities were widely used. Of the five books that in theory a druggist had to know before he could practice, four were of Muslim origin.[3] More generally, in Portugal and indeed all of Europe medicine was a blend of Latin, Arabic, Greek and Hebrew knowledge. In Portugal the most widely quoted authors were Galen, Hippocrates, Isaac and Ibn Sina (Avicenna). But these relatively scientific authorities blended easily into folk medicine and belief in witches, astrology and sorcery. One cure for diarrhea was to rub the abdomen with egg whites, or with well-sifted goat dung, or a mixture of the two. In the 13th century Pedro Hispano, a very famous doctor and later to be Pope John XXI, said that a good cure-all was a little bag containing the eyes of a magpie, crab or wolf, worn around the neck. Badger powders were a very popular remedy.

> "One began by inebriating a badger on a wine filtered through camphor and blended with a compound of gold, seed pearls, and coral. The animal then was decapitated, all of his blood drained, and his heart and liver removed. The mixture of the blood with the powders should be effected under a 'slow sun' or in the 'heat of a fire' ... Two ounces of paté resulting from pulverizing the heart, liver and even the skin and teeth of the badger completed the mixture. This compound, dissolved in wine or in water seasoned with vinegar, was given to the patient."[4]

Underlying European medical practice was the notion of the four humours or bodily fluids, which indeed remained influential in western medicine until the mid-19th century. The basis of medical education at the time was humoral pathology. Disease was a result of an imbalance or impurity of one of the four cardinal humours: blood, phlegm, choler (red or yellow bile) and melancholy (black bile)—these in turn being analogous to the four elementary substances of earth, water, air and fire. In a healthy person the four humours were in equilibrium. The relative balance of the four was tested by means of urine samples, which were very widely used in diagnosis. Any perceived imbalance was cured by enemas, purging, the use of stimulants, tonics and drugs compounded from medicinal herbs and plants, and especially by bleeding, which was something of a universal specific and was done not only to cure illness but also as a preventative, being done routinely perhaps every two months or so. Renaissance doctors thought that the body contained twenty-four litres of blood, and that twenty of these could be bled away without harm. The time to bleed was often determined by astrology. As we shall see, although the notion of humours was basic in Asian medical systems also, bleeding was done much more rarely in Islamic systems, and never in Hindu ones.

European medicine drew heavily on Islamic knowledge, and this points to the well-known phenomenon of a considerable exchange of medical information between Europe and Asia in pre-modern times. Europe's main contact was of course with Muslim medicine, but this in turn had been influenced by Hindu achievements as well as by Greek. India's earliest texts, the *Vedas* (c. 1500 BCE), show a very primitive medical knowledge, but by 600 BCE at least the *ayurvedic* system was established. This Hindu system thus pre-dated the classical Greek system associated with Hippocrates, who was born around 460 BCE, and Galen, who lived from 129 to 199 CE. In India, by the early centuries of the Christian era we find a fully evolved system. The basic texts are by Caraka (first and second centuries CE, or possibly much earlier) and Susruta (around the 4th century CE), both of which in fact merely codified existing knowledge dating back some centuries. Caraka's work consisted of a massive eight books. Not that this was a system as static as was the European one. For example, at first Indian doctors used only drugs, mostly vegetable products, but from around the seventh century metals were used too, especially mercury but also compounds of iron and other minerals. By the 13th century the pulse was being examined, and in the 16th century an important *ayurvedic* doctor in Varanasi, Bhavamisra, identified the new form of syphilis that had been introduced by the Portuguese. Significantly, he called it "the Frank [European] disease," and said it was usually caused by intercourse with Frank women.[5]

As in medieval Europe, the basic notion was of humours. Five elements were recognized in *ayurvedic* medicine: earth, water, fire, air and ether. Health was maintained through keeping an even balance between the three vital bodily fluids, wind, gall and mucus, to which some added a fourth, blood. Bodily functions were maintained by five winds. Food digested by one of these, the stomach, became *chyle*, which proceeded to the heart and thence to the liver, and so to blood, which in turn was converted to flesh. There was no clear idea of the brain because, like Homer, these Hindu doctors believed that the centre of consciousness, thought and feeling was the heart. Nevertheless, the importance of the spinal cord was recognized, and cleanliness was acknowledged to be medically valuable. There was copious use of drugs. A major problem was the Hindu taboo against contact with dead bodies. There was thus very little dissection, and obviously anatomy suffered as a result. The 16th-century Portuguese botanist and doctor Garcia da Orta, whose work we will consider in detail later, noted this, claiming that the Indians did not even know where the liver or spleen were. Yet despite this some writers claim that Hindu India did have good empirical surgery in certain specific areas. Caesarian sections were performed, and bone-setting, and even plastic surgery.

It is important to stress the way medical ideas circulated freely in the pre-modern world. In the case of India, some Hindu medical texts were influenced by Galen and Hippocrates. These Indian texts in turn effected such great Muslim writers as Ibn Sina, and of course his works, in Latin translation, were standard authorities for centuries in medieval and early modern Europe. In the period of the Abbasid khalifat in Baghdad (750 CE onwards) Muslim scholars travelled to India to study medicine and also recruited Hindu doctors to come back with them to Baghdad, where some of them became very influential physicians at court, and translated Sanskrit works on medicine, pharmacology and toxicology into Arabic. In effect some parts of the knowledge of the Greek masters were preserved in India, and copiously added to. Then the new synthesis was taken to the Muslim world and so returned to Europe.

But the Arabs also found Greek medicine closer to home. As they conquered Persia in the seventh century they acquired Greek treatises, especially those of Galen and Hippocrates. Arab doctors built on them, thus producing the *yunani* or *unani* (Greek) school of medicine that later spread to India and was the system used by Indian Muslims. Rhazes (Al Rhazi, b. 865) in the ninth and tenth centuries wrote on smallpox, measles and other diseases and challenged the authority of Galen long before this was done in Europe. His main work was a vast compilation of Greek, Arabic and Indian knowledge. A century later Avicenna (Ibn Sina, b. 980) wrote his huge *Canon of Medicine* (*Al-Qanun*), the most influential text ever written in either Asia and Europe. The mixture in Persia was briefly noted by a traveller in 1637, who said: "In Physick, or Medicine, they follow the Maxims of Avicenna and their Physicians are all Galenists."[6]

As in the other two systems, notions of humours and elements were important. The Arab version was the same as the European one: the four humours of blood, phlegm and yellow and black bile were considered to correspond with the four elements of earth, water, air and fire. Illness was a sign that the balance of these four was disturbed. In 1637 in Persia a European visitor saw a man who had become gravely ill from drinking too much brandy and as he "lay a Dying, I saw a Moor-Physician, who had the sick party in hand, order a great piece of Ice to be laid on his Stomack, maintaining his procedure by this general Maxim, that a Disease is to be Cur'd by what is contrary thereto."[7] But the Arabs were not skilled in gynaecology, because of the basic social notion of female modesty. From the *Memoirs* of the adventurer Niccolao Manucci it seems that diagnosis of Muslim women in India had to be done by touch rather than sight, or that only the affected part of the female body, say the arm, would be exposed for observation. As a variant, Sarkar says that a wife of Prince Muhammad Azam Shah died in 1705 of an abscess on the breast. It had been suggested to her that she be examined by a skilled Indo-Portuguese woman, but the Begam refused to be examined by a woman who drank wine, for her touch would be defiling.[8] Nor were they good surgeons, as dissection was abhorred, as indeed it was in Europe until about the 14th century and in Hindu society till much later.

Working out precise flows of knowledge is thus a difficult task. *Ayurvedic* medicine in India today is very little different from Susruta except for the use of some new drugs like mercury, opium and sarsaparilla, which came to India perhaps a millenium ago with the Arabs. These newcomers to India introduced

what became the still-influential Perso-Islamic *yunani* school of Indian medicine. Heuristically it and the Hindu *ayurvedic* system are considered to be distinct, even though there is a very substantial degree of interaction between the two. The earliest Indian book on the *yunani* tradition was written in the early 14th century and drew on Muslim authorities such as Ibn Sina and also on Hindu practitioners. Hindu knowledge continued to contribute importantly to the *yunani* system, and vice versa. But one notable divergence was over the use of bleeding, which was used occasionally in the *yunani* system, but not in the *ayurvedic*.[9] And generally the *yunani* doctors, like the Europeans later, thought that at least some "Indian" diseases were best treated by "Indian" methods. As one practitioner wrote around 1500, "By experience I found that Unani medicine did not suit the temperament of the people living in the changed climatic conditions of India."[10] To sum up, at around 1500 neither western Europe, nor the Muslim world, nor India had any particular advantage in medical knowledge or practice. In many respects it would be accurate to write of a commonality of knowledge and a free flow of remedies and practices within all three of these regions. We can now focus on disease and medicine in early modern India.

In the 16th and 17th centuries, and indeed both before and after this, the plague was the great killer in northern India,[11] but in the south cholera seems to have been the greater threat. The second decade of the 17th century saw several calamitous outbreaks of the plague. As in Europe, it is clear that Indians knew the plague was infectious, and even that rodents had something to do with its spread. Several accounts mention the buboes which appeared, as the emperor Jahangir noted, "under the armpits, or in the groin, or below the throat." He also described how a girl touched an infected mouse, and soon after the buboes of the plague appeared in her. She had a high fever, her colour changed to "yellow inclining to black," and on her last day she vomited, had a motion, and died. The emperor, in a fuller account from Kashmir, noted of the plague that "The symptoms were that the first day there was headache and fever and much bleeding at the nose. On the second day the patient died. In the house where one person died all the inmates were carried off. Whoever went near the sick person or a dead body was affected in the same way. In one instance the dead body was thrown on the grass, and it chanced that a cow came and ate some of the grass. It died, and some dogs that had eaten its flesh also all died."[12] In another outbreak most of those affected died within twelve hours. The symptoms were a very high temperature, and as the patient was dying "broad spots of a black and blue colour appeared on their breasts."

Several early modern Muslim rulers in India left valuable descriptions of disease. They reveal an often impressive empirical interest in disease and even death, profound powers of observation, and at times an unsettling reliance on fate and magic. In the 14th century Muhammad ibn Tughluq was considered to be skilled in medicine. He used to attend patients with unusual diseases in order to see their symptoms. A century later Sikandar Lodi patronized the collection of medical knowledge from India and Khorasan; the result was a book called *Tibbi-Sikandari*. The *Memoirs* of the Emperor Babur, founder of the Mughal dynasty, cover the first two decades or so of the 16th century and are full of curious medical information. Most of the memoirs relate to his time in what is now Afghanistan, which is a predominantly Muslim area. Dried Bukhara plums were said to be an excellent laxative. In 1505 his mother had a fever. Very significantly, for a Hindu doctor would not have done this, blood was let. This had no effect, so they tried Khurasan practice, and gave her watermelon; she died anyway. Later Babur himself had a fever, and was bled. After ten or twelve days his doctor gave him "narcissus mixed with wine; I drank it once or twice; even that did no good." A good purgative was rose water, in English julep. As for antidotes for poison, the water in which the fibre of a lime had been boiled was considered to be efficacious, as was milk in which had been dissolved stamped clay [*terra sigillata*?] and the best theriac, this being a well-known antidote to poison. On one occasion he "elected to take opium because of ear-ache; another reason was the shining of the moon [which was considered to be harmful and cold]." In India he got painful boils. An Ottoman Turk, in an incident which points clearly to the transmission of medical knowledge, used a remedy which had been recently discovered in Turkey. He boiled pepper, and Babur held the sores in the steam, and then washed them with the hot water. It took two hours to do this treatment, but when he did it again a week later the water must have been too hot, for it blistered his body and hurt him.

In certain specific areas it seems that surgery was relatively advanced at the Mughal court, though their general anatomical knowledge was inferior to Europe's. Head wounds were routinely trepanned. On one occasion a skilled surgeon was presented to Babur:

> "If a man's brains had come out, he would cure it, and any sort of wound in an artery he easily healed. For some wounds his remedy was in form of a plaister, for some medicines had to be taken. He ordered a bandage tied on the wound in my leg and put no seton in; once he made me eat something like a fibrous root. He told me himself, 'A certain man had his leg broken in the slender part and the bone was shattered for the breadth of the hand. I cut the flesh open and took the bits of bone out. Where they had been, I put a remedy in powder-form. That remedy simply became bone where there had been bone before.'"[13]

Equally valuable are the other great Mughal *Memoirs*, those of the Emperor Jahangir, who reigned from 1605 to 1627. Again a curious mixture is seen, ranging from acute empirical observation to reliance on fate. During a plague outbreak, some learned men said it had come because there had been two years of drought, others because the air had been corrupted by drought and scarcity, and this despite the fact that the concept of infection seems to have been well understood, and even perhaps the role of rodents. Jahangir commented on this debate that "Wisdom is of Allah, and we must submit to Allah's decrees." His *Memoirs* are full of his trying new foods, and considering the effects of fever. There are many references to his doctors, some of whom rose to very high positions at court, and his taking or ignoring their advice. On one occasion he tells of a rabid dog that bit two elephants. Over a month after they were bitten, they died, one after having had water run out of its mouth for seven days. Once, Jahangir had a severe headache that went into a fever.

> "At night I did not drink my usual number of cups [of alcohol, or a mixture of alcohol and opium], and after midnight crop-sickness [that is increased crapulousness] was added to my fever, and till morning I rolled about on my couch. On Wednesday, the 16th, at the end of the day, the fever diminished, and, after asking the advice of my doctors, I took my usual number of cups on the third night. Although they urged me to take some broth of pulse and rice, I could not make up my mind to do so... When they brought food for me this day, I had no inclination for it. In short, for three days and two nights I remained fasting."[14]

Perhaps most interesting of all is his dispassionate account of the death of the noble Inayat Khan, an account which in the way it looks coldly at the human body, and at the actual effects of illness, can be compared to Leonardo da Vinci's similar observations. Inayat Khan was addicted to opium and, when he could get it, to alcohol. As he got sicker he became a compulsive eater, and later became dropsical. Even his bones had dissolved, we are told, and he was so extraordinary a sight that Jahangir had his portrait painted on the day before he died.[15]

We can also get useful information on Indian diseases and medicine from the accounts of early European travellers in the area. Christopher Farewell wrote a vivid account of his bout with "a burning fever" near Surat in 1614:

> "I here suddenly fell sicke of a burning fever and (thankes be to God) as sodainly recovered. For, fearing the extremity of that raving and uncomfortable sicknesse, against his will I prevayled with our chyrurgion to let me bleed till I fainted againe, as foreseeing it to be my remedy; applyed all comfortable things to my head; tooke my bed; and, full of perplexity to dye sencelesse, I commended myselfe to God. After some idle talke to my friends about me, I fell into a slumber; but quickely wakened by a desire to ease my stomacke, and had at least a dozen vomits naturally, which gave mee a most comfortable night."[16]

An English chaplain in the second decade of the 17th century noted that "The common diseases of the countrey are bloudie fluxes, hot fevers and calendtures [calentures, that is tropical delirium]; in all which they prescribe fasting as a principall remedie. That filthy disease, the consequence of incontinencie, is common among them. The people in generall live about our ages; but they have more old men."[17] Another visitor who lived in western India in the 1670s, Dr. John Fryer, noted that Indians drank very little: "Notwithstanding this Mortality to the English, the Country People and naturalised Portugals live to a good Old Age, supposed to be the Reward of their Temperance; indulging themselves neither in Strong

Drinks, nor devouring Flesh as we do."[18] The same doctor who, as we will see, represented the new in that he was generally contemptuous of Asian surgery, this being a new attitude from Europeans, showed himself an exemplar of the old in his paean of praise to the mangoes of Goa (not that they are not delicious). They even had medicinal properties: "they make them break out, and cleanse the Blood, and Salivate to the height of Mercurial Arcanaes; and afterwards fatten as much as Antimony, or Acorns do Hogs."[19]

The comments of François Bernier, a French doctor who was in India from 1659 to 1667, are very detailed. On the general matters of disease and medicine he apparently saw little qualitative difference between what he knew and what he saw done in India. Like Fryer later, he noted that Indians drink very little:

> "I have no doubt that the happy ignorance which prevails of many distempers is fairly ascribable to the general habits of sobriety among the people, and to the profuse perspiration to which they are perpetually subject. The gout, the stone, complaints in the kidneys, catarrhs and quartan agues [recurrent malaria] are nearly unknown; and persons who arrive in the country afflicted with any of these disorders, as was the case with me, soon experience a complete cure. Even the venereal disease, common as it is in Hindoustan, is not of so virulent a character, or attended with such injurious consequences, as in other parts of the world. But although there is a greater enjoyment of health, yet there is less vigour among the people than in our colder climates; and the feebleness and languor both of body and mind, consequent upon excessive heat, may be considered a species of unremitting malady, which attacks all persons indiscriminately, and among the rest Europeans not yet inured to the heat."[20]

Later he wrote more generally on Indian healing techniques:

> "On physic they have a great number of small books, which are rather collections of recipes than regular treatises. The most ancient and most esteemed is written in verse. I shall observe, by the way, that their practice differs essentially from ours, and that it is grounded on the following acknowledged principles: a patient with a fever requires no great nourishment; the sovereign remedy for sickness is abstinence; nothing is worse for a sick body than meat broth, for it soon corrupts in the stomach of one afflicted with fever; a patient should be bled only on extraordinary occasions, and where the necessity is most obvious—as when there is reason to apprehend a brain fever, or when an inflammation of the chest, liver, or kidneys, has taken place.
>
> Whether these modes of treatment be judicious, I leave to our learned physicians to decide; I shall only remark that they are successful in Hindoustan, and that the Mogul and Mahometan physicians, who follow the rules of Avicenna and Averroes, adopt them no less than do those of the Gentiles, especially in regard to abstinence from meat broth. The Moguls, it is true, are rather more given to the practice of bleeding than the Gentiles; for where they apprehend the inflammations just mentioned, they generally bleed once or twice, not in the trifling manner of the modern practitioners of Goa and Paris, but copiously, like the ancients, taking eighteen or twenty ounces of blood, sometimes even to fainting; thus frequently subduing the disease at the commencement, according to the advice of Galen, and as I have witnessed in several cases."[21]

Bernier was writing as an expert commenting on his peers, in other words in his case the *yunani* practitioners, often Persians, who ministered at court, where he lived. But as in Europe, folk remedies and supernatural notions coexisted more or less easily in India with this relatively academic medical knowledge. Several European visitors reflected the state of folk medical knowledge in Europe when they commented on popular practice in India. Cholera was probably the most feared disease, especially on the west coast and in the south. The British in India thought it was caused by eating fish and meat together. They treated it by applying a hot iron to the ball of the patient's foot. If the patient winced, he would soon recover, but if no pain was felt the patient would soon die. Ovington, an educated man and a clergyman, noted that cholera [mordechine] is "violent Vomiting and Looseness, and which is caus'd most frequently by an Excess of Eating particularly of Fish and Flesh together. It has been Cur'd by a Red-hot Iron clapt to the Heal of him that is sick, so close that it renders him uneasie by its

nearness, whereby it leaves a Scar behind it."[22] For fevers in general the remedy was to

> "Take an iron ring about an inch and a half in diameter and thick in proportion. Then heating it red hot in the fire, extend the patient on his back, and apply the ring to his navel, in such a manner that the navel may be as a centre to the ring. As soon as the patient feels the heat take away the ring as quick as possible when a sudden revolution will be wrought in his intestines."[23]

A 17th-century Venetian quack, Niccolao Manucci, showed in some of his stories how little difference there was between his knowledge and folk medicine. In Bassein, he tells us, there was a woman of good station who produced a girl after a pregnancy of three years. The girl married at twelve years and also had a pregnancy of three years. As to rabies, a newly married man on his wedding night cut his bride to pieces, gnawing her breasts, plucking out her eyes, and biting her face and body. The reason was that he had been bitten by a mad dog three months before. The remedy for rabies was to cauterize the wound at once. Alternatively, if the bitten person went on a sea voyage he would recover immediately.[24]

Similarly, accounts of Muslim Indian popular medical practice from the 18th and 19th centuries point to some very primitive ideas. There was still little notion of anatomy, and treatment, basically using herbal cures, was guided by the day and hour when the fever had started. An account of how to cure a fever says

> "How to write a charm to cure fevers: Take some olive leaves and on a Saturday, being yourself in a state of purity, write on one of the leaves, 'Hell is hungry,' on another, 'Hell is refreshed,' and on the third, 'Hell is thirsty.' Put these in a rag and bind them on the left arm of the patient. Make two intersecting triangles on a sheet of paper with one continuous motion of the hand, sew this up in a sheet of cloth and tie it round the patient's neck. When the fever has left, throw the cloth into a well or river."[25]

At least two European travellers in the 17th century noted a pronounced shortage of local doctors in India, the reason presumably being that most villagers relied on non-professional healers, or merely dosed themselves with local drugs and simples. Tavernier, commenting in a very valuable passage on health care in a very extensive area of India, said:

> "It should be remarked that in all the countries we have just passed through, both in the Kingdom of Carnatic and the Kingdoms of Golkonda and Bijapur, there are hardly any physicians except those in the service of the Kings and Princes. As for the commonalty, when the rains have fallen and it is the season for collecting plants, mothers of families may be seen going in the mornings from the towns and villages to collect the simples which they know to be specifics for domestic diseases. It is true that in good towns there are generally one or two men who have some knowledge of medicine, who seat themselves each morning in the market-place or at a corner of the street and administer remedies, either potions or plasters, to those who come to ask for them. They first feel the pulse, and when giving the medicine, for which they take only the value of two farthings, they mumble some words between their teeth."[26]

A little later the Abbé Carré was sick, but a Persian noble told him, "As to providing someone who can give you remedies and treat your illness, you are aware that there is no doctor or surgeon amongst us; we hardly know what such a man is, and Europeans are only consulted when one of them happens to be passing in this country."[27]

This discussion of disease and curing in early modern India shows no particular advantage in knowledge or skill on the part of the newly-arrived Europeans. Rather it seems that, despite specific differences with regard to particular diseases, overall the situation was one of equality. We can now turn to the situation in the first large European settlement in India, the port city of Goa, which was conquered by Afonso de Albuquerque for the Portuguese king in 1510, and was their main town and capital during the 16th century and later. I will first sketch what we know of indigenous medical practice in Goa in the 16th century, and then deal with the interaction between the Portuguese and local systems.

We know very little about health care in Goa before the Portuguese conquest. Figueiredo claims that long before the Portuguese all branches of knowledge, including medicine, were taught in institutions of higher learning, and in settlements of brahmins. These attracted students from far and wide.[28] His information is so fragmentary as to be of little use, for we cannot

distinguish between medicine and other scholarly disciplines. We can assume that healers in Goa were often brahmins, and their more book-based practice was supplemented by locally proven recipes and nostrums dispensed by village women healers. We have almost no evidence of hospitals, or of state involvement in health care, before the coming of the Portuguese. All we have is one reference (from the 11th century) to a house of mercy, which provided relief for the poor, sick, and pilgrims, established by a chief minister of a local king in Goa Velha.[29]

This being the case, we must rely on Portuguese sources to sketch the indigenous situation in 16th-century Goa. This is not to say that Portuguese sources can be used as "objective" and "neutral" accounts. There is first the obvious and generally acknowledged difficulty of using the records of a colonial power to describe the society which it dominated. In particular, Norman Owen has reminded us of the difficulties of historical accounts of illness. All of these are of course transmitted through culture, in our case Portuguese. Also, diseases themselves are mutable, so that the sources might be describing a syndrome which no longer exists, such as the mysterious English sweating sickness which came and went in the 16th century.[30] Further, each account is based on assumptions about what illness meant, something very different in 16th-century Goa as compared with today. Finally, some diseases are more dramatic (cholera especially) than others. Owen distinguishes between crisis mortality and background mortality. The former, the dramatic and much-described causes of mortality, include cholera, smallpox, influenza and various "fevers," such as malaria and typhoid. However, maybe three-quarters of deaths were in fact caused by the less glamorous background category of ailments, such as tuberculosis, dysentery and infantile diarrhoea.[31]

There is another whole category of mine-fields in the area of medical history in general. It is too easy to be overly influenced by what we think are modern medical methods, and to test the past in accordance with what we, social historians with only a spotty expertise in medicine anyway, think is "correct" and "scientific" practice today. Andrew Wear claims that in his recent edited collection of studies "the 19th- and 20th-century values of the medical profession which in past history of medicine had been applied to earlier periods to condemn empirics, quacks, magical and religious practitioners have been discarded. In the process a much richer medical world has been uncovered."[32]

All this said, it is still my contention that several Portuguese accounts of Hindu medicine in western India in the 16th century have considerable value. However, the use of the word "Hindu" is not quite appropriate, for in fact we are dealing with sources which implicitly are describing not a unity but rather health care which varied in two ways. First, our sources often differentiate between different regions, so that we have Hindu healers in Malabar dealing quite differently with disease as compared with Canarins from the area around Goa, as compared again with Gujarati practice. Second, we are sometimes informed of "brahmin" practice, and this presumably refers to more book-based healing methods, the "Great Tradition" of Hindu medicine if one likes, as compared with a host of locally-derived techniques and drugs which could be considered to be regionally-specific folk traditions.

The prevalent diseases in Goa make up a quite familiar list. Late in the 16th century a Dutch resident, Linschoten, said the main ones were *mordexijn*, in other words cholera, the bloody flux, or dysentery, and fevers, especially malarial ones. Syphilis (meaning not the American-derived virulent strain, but rather the local version), which was treated with China root, was very common. Some people had it three or four times, apparently without being much concerned.[33] Pyrard de Laval, a visitor in the early 17th century, said burning fevers, presumably enteric fevers (typhoid), and dysentery were common, and venereal disease. The pox was widely suffered; it was found, he claimed, only "where the Portuguese are."[34] But it seems that in fact a milder venereal disease was widespread in India; we can assume that he is referring to the new more virulent strain that, as we noted above, was probably introduced from America. Dr. John Fryer found this in Persia in the 1670s. He claimed only one in ten did not have this mild Asian venereal disease, but contrasted this with the horrors of the European version, known, significantly, in Persia as Frank (European) disease. In a confused passage he wrote "when it breaks out into Sores and Ulcers, after it has seized the whole Mass of Blood, and eats them up alive; while they wear theirs dormant almost to extreme Old Age, which makes them not much solicitous for Remedy, nor are there any who profess its Cure."[35]

Cholera was a major killer in Goa. There were outbreaks in the town in 1543, 1563, 1570, 1580, 1588, 1610, 1635, 1639, 1670 and 1680. The first one was the worst; we are told that of those struck by it, only one in ten survived.[36] The Italian merchant Sassetti described it in Cochin in the 1580s: "There is current here a certain disease which kills a person in just 24 hours and which is called *mordaxi*, which is a revulsion of the stomach and of the entire body which rejects itself; all the humours quit the body and the blood too, so that one dies; and it comes from eating much sweet fruit, much pork, many preserves, and from drinking much water; whence the poor stomachs, when they have suffered much, throw themselves on the ground. It is the accident which makes it known, that suddenly the patients lose the sense of touch in their external parts, so that they feel nothing if they are struck blows or pierced with a needle."[37]

Our two main sources for Hindu medical practice are works by Garcia da Orta and Cristóvão da Costa. These books consist of lists of simples and drugs and medicinal plants found in western India, but they both also include data much more relevant to our concerns, for they also describe how these *materia medica* were used in treatment, both by themselves, that is by the Portuguese, and also by *yunani* and *ayurvedic* practitioners.

Some background on Orta and Costa will help us to evaluate the usefulness of their information. The New Christian (that is, converted Jew) Garcia da Orta (1501-1568) is generally considered to be the greatest scholar of 16th-century Portuguese Goa. Orta was the first major naturalist to study the main medicinal plants and other therapeutic substances used in coastal Asia, and also was a doctor and historian of medicine, a pharmacist and a wide-ranging savant interested also in history and anthropology. His famous work *Colloquies on the simples and drugs of India* was the second book, and one of the very few secular books, to be printed in Goa in the 16th and 17th centuries. The rare (only twenty-four copies are known) first edition is dated 1563.[38]

It is divided into fifty-seven chapters, each of them in the form of a dialogue or colloquy. This literary conceit means that the usual pattern is that in each colloquy Orta's interlocutor, Dr. Ruano, asked him a question, such as, "Do Hindu doctors use Portuguese methods?" Orta then provided the answer. Other characters also appear from time to time, such as a servant girl, and a Hindu doctor, who is introduced for the sole purpose of singing the praises of Orta. Each colloquy dealt with one drug or simple. In each case he described the drug, said where it grew, and commented on its therapeutic use. Most of them were vegetable, but he also dealt with ivory and diamonds. It is an excellent, comprehensive and accurate empirical study of Indian *materia medica* and botany in general, not just medicine, although he was a famous doctor in 16th-century Goa, serving as the physician of the Royal Hospital at the time of St. Francis Xavier's stay in Goa in the early 1540s and ministering to the Portuguese elite of the town.

Even in terms of European practice of the time, Orta's medical knowledge was not advanced. This can be seen in his description of cholera. Goa was hit by a major cholera epidemic in 1543; all classes and ages were struck by it in the winter, the monsoon period, of this year. The Portuguese doctors could do nothing, and of every 100 who were affected, only ten survived. Twelve, fifteen, even twenty victims were buried each day. The governor, Martim Afonso de Sousa, even ordered an autopsy in a fruitless attempt to find the cause of the affliction.[39] Orta was the first European to describe cholera in India; in the *Colloquies* he mentions the Hindu and Arabic names for it, and compares what he saw in Goa with what he knew of Europe. He considered there was a toxic humour that had to be expelled. It was caused by overeating or by too much sexual intercourse. He noted that the local *vaidyas* (Hindu doctors) used rice with pepper and cardamom, cauterised the feet of the patient, tied up the patient's limbs and applied long pepper to the eyes.[40] As to fevers, Orta followed European practice and treated fevers with bleeding and purging and rich foods. Of opium he noted that its long-term use produced impotence, despite its popular use as an aphrodisiac. But he also claimed that the use of opium could help conception. This was because its use delayed ejaculation by the male by "slowing down his imagination." As women are slower in "the act of Venus," this meant "they both complete the act at one time." "The opium also opens the channels by which the genital seed comes from the brain, by reason of its coldness, so that they complete the act simultaneously."[41]

Clearly we must not make too much of Orta's medical expertise. He seems to have been thoroughly

grounded in early modern European practice of the first half of the 16th century. The main influences on his medical thinking were the thoroughly predictable ones: Galen, Aristotle, Hippocrates and Ibn Sina. The basis was humoural pathology. His book goes into very elaborate detail to work out whether various simples and drugs were warm or cold or hot, moist or dry or wet. Concerning the plant *anacardo* (*Semecarpus anacardium*), he was asked, "In what degree do you place it—warm and dry?" to which he responded that some "place it in the fourth, warm and dry; others in the second part of the third; but neither of these satisfy me, for when green it is clearly not so warm and dry. It therefore does not appear reasonable to make it as warm and dry as some other spices, such as pepper, which is placed in the third degree."[42] Orta never went beyond the standard authorities of his time. He did correct and criticise these authorities on occasion, once for example writing "Let not any text of any author deny what my own eyes have observed ... Frighten me not with Dioscorides or Galen, for I do not say but the truth and what I know." A similar empirical rigour is seen when his interlocutor, Dr. Ruano, quoted to him the opinion of some Italian friars. Orta replied: "I do not want Friars as reprehenders except in the pulpit."[43] However, he never questioned the fundamental paradigms governing pre-modern European medical practice.

A possible reason for this conservatism was the constraining fact that Orta was a New Christian, and indeed apparently a far from convinced convert. Born in 1501, he studied at the Spanish universities of Salamanca and Alcalá de Henares, where his medical training consisted of memorising Hippocrates, Galen and Ibn Sina. Subsequently, to escape the Spanish Inquisition, Orta taught at Lisbon from 1526 until he left for India. It seems very likely that his departure for Goa in 1534, as the personal physician of the later governor Martim Afonso de Sousa, was a result of increasing intolerance in Portugal. Two years after he left, the Inquisition was set up in Lisbon, and was in full swing four years later. As a New Christian he was forced to step carefully as this new age of intolerance began in Portugal. As a result, the massive compilation that was the *Colloquies* was generally ignored in Portugal, though it was widely used in other parts of Europe in the later 16th century and afterward, thanks to a pirated Latin partial translation that went through five editions, the first one being published in 1567 in Antwerp.[44] Orta himself suffered posthumously from this intolerance. He died in 1568, but in 1580 he was condemned as a Jew by the Inquisition, and his remains were dug up and burnt at an *auto-de-fé*. A sister had actually been burnt by the Inquisition in Goa in the year after his death.

For us Orta's main value is his accounts of indigenous medical practice. He knew of *yunani* medicine from its local practitioners, or *hakims*, and had a cordial relationship with these people at the court of the Nizam Shahs in Ahmadnagar. Orta in fact claims that his cures were often more efficacious than those of the Muslims. The general point is that he was much more attuned to *yunani* methods than to *ayurvedic*, and this for the obvious reason that many of the authorities he quotes, such as Galen, Ibn Sina and al-Rhazi, are also prime texts for *yunani* medicine; indeed the second and third of these were of course Muslim healers. There was then a large degree of commonality between his European knowledge and that of the *yunani* practitioners. He had much more to learn from Hindu healers, for their system, while not totally discrete from his own, was more different than the *yunani* one. He usually appreciated the abilities of the local *vaidyas* with whom he had contact, considering their cures as often superior to those he knew. However, he had no inkling of the vast and ancient body of *ayurvedic* theory. Great names like Susruta and Caraka were unknown to him. All he knew of Hindu medicine was the actual practice of possibly not very well informed healers in Goa. He knew no Sanskrit; indeed Sassetti, for whom see below, was the only European in the 16th century to attempt to learn this language. He claimed that the Hindu doctors "are men who cure according to experience and custom,"[45] but in fact this merely shows that he was unaware of the very great *ayurvedic* scholarly tradition that was passed on through the generations by its followers.

Orta had a quite objective attitude to other medical systems. In a general passage that describes well his attitude to diverse medical knowledge, he noted how his patient, the king of Ahmadnagar, "Taught me the names of illnesses and medicines in Arabic, and I taught him the same in Latin, which pleased him very much." The Hindu doctors often used Portuguese methods too, "But most of them not correctly. For they say there is bleeding, and they never bled before we were in the land; but they used cupping-glasses,

sawing and leeches ... they were never accustomed to look at waters [i.e. do urinalysis]. I can tell you that they cure dysentery very well, can tell you whether there is fever or not from the pulse, and whether it is weak or strong, and what is the humour that offends, whether it is blood or heat or phlegm, or melancholy; and they give a good remedy for obstruction." Sometimes they classify things incorrectly, he says, such as getting the heat or dryness of particular drugs wrong. It must be remembered here that Hindu medicine also depended on the notion of humours, albeit slightly different ones from those of the European and Muslim traditions, which are remarkably similar.[46] He considered that their knowledge of anatomy was very weak. However, Orta himself took many things from both *ayurvedic* and *yunani* healers. In general he would try European methods first, but if these failed he would then use "brahmin" ones.[47] Indeed he modestly claimed that he was the best informed healer in Goa, for in the *Colloquies* he has a Hindu doctor say, "Dr. Orta knows better than all of us; for we only know the Gentios [Hindus], but he knows Christians, Moors [Muslims], and Gentios better than us all."[48]

We know much less about our other authority, Cristóvão da Costa. He arrived in Goa in the year of Orta's death, and in 1569 was a doctor in the Royal Hospital in Cochin. His 1578 book is called in English *Treatises on Drugs and Medicines of the East Indies*.[49] In some ways his work is more useful for us than is Orta's. Costa has more on Hindu medicine, though less on Muslim, where Orta profited from his long association with the court of the Nizam Shahs. Costa, on the other hand, notes in a typical passage that he asked a brahmin doctor in Cochin about some local cures. This brahmin was a friend of Costa's, and very popular among both the local inhabitants of Cochin, and also the many Portuguese who lived there.[50] He says more about the healing properties of the drugs he describes, while Orta is more botanical. He also, unlike Orta most of the time, differentiates between different Hindu systems in different areas. Brahmin, Canarin and Malabar treatments are specified.[51] However, Costa's general background was similar to Orta's. He also essentially relied on humoral pathology and the classical authorities. Thus canafistula (*Cassia fistula*) "in temperature is between hot and cold, and humid in the first degree" while tamarinds "are cold and dry in the second degree."[52]

Earlier scholars dismissed his work by claiming that he basically summarised Orta, though his book did have numerous illustrations. However, Donald Lach has shown that while he knew of and used Orta, the two books do differ widely. For example, Costa describes forty-seven plants, and of these fourteen are not mentioned by Orta, while nine of Orta's are not in Costa.[53] His modern editor, Jaime Walter, provides a good discussion of this matter. As noted above, he does include material based on his own experience, which differs from Orta's, especially as he travelled much more widely than did Orta. He supplements him in other ways, yet much of his work is indeed merely a copy, with additions or deletions, of Orta. For example, the discussion of opium we quoted above is reproduced by Costa, but the notion of opium delaying ejaculation and so fostering conception is left out.[54] Not that Costa tries to hide his sources. In his discussion on *turbito* (*Ipomoea turpethum*) he specifically says that he had not seen this plant, so he is relying on Orta, who had.[55] Of all the authors he quotes, Orta leads with 97 citations, followed by Ibn Sina with 55, Dioscorides with 45, Serapião with 41, and Galen with 38.

When we turn to their specific information about Hindu practice, we find most useful material on fevers, dysentery, and especially cholera. There is, however, much other curious and obscure information, which we may note briefly. One general matter that Costa noted was that Hindus—brahmins, vanias, all of them—never started the day without bathing the whole body. Muslims did this at least every three days, while Europeans notoriously would have been much more parsimonious in their ablutions. In 1569 the king of Cochin was ill, but he told Costa that even if it cost him his life, he still had to take his bath every morning.[56]

The two authors generally find some differences and some similarities between European and Hindu practice. Thus for "fevers" (a very general category indeed, which could include malaria, typhoid, and even it seems cholera), Orta liked to feed people up, and combine this with bleeding and purging, but Indians starved their patients for ten or even fifteen days, and then fed them mango juice, and later whole mangoes. On the other hand, Gujarati healers "did not cure in any other way than to give nothing to eat."[57] However, Albuquerque early in the century described quite different treatment in Malabar: "They have doctors,

and they cure people like this. For those who are ill of a fever, they give them meat to eat, and fish, and they purge them," and give them liquids.[58] Pires writing at almost the same time as Albuquerque said, "If they have fever they eat fish and keep washing themselves…. Our people when they have fevers eat fat chickens and drink wine and are cured."[59]

Costa noted the use of nutmeg by both Portuguese and Indians. He said that both "Indian" and "brahmin" doctors used it for all cold illnesses of the brain, and paralysis, and other nervous problems, and also for infirmities of the womb (*enfermidades da madre*).[60] We may here be getting towards folk medicine as compared with *ayurvedic*, though to say this assumes the superiority of the latter, and relegates the former to the margins, now abandoned, of medical practice. If, however, such a differentiation has any value, then the famous bezoar stone must belong on the folk end. This stone, widely described in the popular lore of many cultures, was considered to be formed by encrustations built up around a foreign body in the stomach of ruminant animals. Wild goats from Persia were especially fecund in producing these invaluable stones. They were believed to be an excellent antidote to poison, a purgative, a means of preserving one's youth and virility, and also a cure for the plague, bladder complaints, and so on. The Jesuits jealously guarded the recipe for their cordial stone, a bezoar stone with an amazing list of other ingredients added. It was used for heart problems and was a good example of a mixture of Indian and European practice. Taken back to Portugal, these bezoar stones were widely used by the elite for their medicinal and amulet qualities.[61]

Aloes provide another example. Hindu healers used aloe as a purgative, and also for kidney diseases, colics, and for healing wounds. When mixed with myrrh it was called *mocebar*, and was used to cure horses and to kill maggots in human wounds.[62] To cure wounds in general one Malabar method was to wash the wound in warm coconut oil twice a day for an hour or so.[63] Tabashir, or the bark milk from within the stems of bamboos, was used by Hindus to deal with over-heating, either external or internal, and also for fevers and dysentery.[64] Turpethin, the gummy part of a creeping plant, was used to reduce inflammation, and as a mixture along with other things to produce a purgative.[65] Another useful plant was *anacardo*, (*Semecarpus anacardium*). The juice of this "dry" fruit was widely used in all of Malabar in place of caustic. It was applied to external ulcers and to rotten teeth, and was also used as a fixative when dying cloth.[66]

Dysentery was a great killer, as Figueiredo says, "the dark shadow over Goa for two centuries."[67] We have noted several nostrums to produce purging, and it seems that this was routinely done when dysentery was diagnosed. Apparently not all healers did the purging first, but regardless of this there were then several methods to cure patients and build them up. Some used a type of dog-bane, others a more complicated mixture. Neither Indians nor Portuguese gave any wine. Rather *kanji* (rice broth) was provided with chicken pieces soaked in it.[68] Costa said all doctors, brahmin, Canarin, and Malabari, used the skin or husk of nutmeg mixed with buttermilk (*leite azedo*) for all kinds of dysentery. This was given twice a day, in the morning and at night, and then the patient was given to eat some boiled rice without salt or butter (that is, *kanji*) and again chicken mixed in. If the attack was severe, opium was also given, though this was done more by Muslims than by Hindus.[69]

Orta, however, differentiates between various Hindu practices on this matter. Portuguese method was different from Malabari, and it again from Malayalam. (I am not sure what this distinction is based on as Malayalam is, of course, the language of the Malabar region, now Kerala.) The Malabar treatment was much more rigorous than the Portuguese one, while the Malayalis mixed in opium with the nutmeg. On this matter Orta thought that the native methods had much to commend them as compared with Portuguese treatments.[70] Here again, however, there seem to be major differences in our sources, for two early 16th-century accounts both say that in Malabar dysentery was treated with fresh young coconut milk, which points to a much milder treatment.[71] We can now leave our discussion of the general health situation in Goa and concentrate on the Portuguese.[72]

Goa was generally considered to have a very high mortality rate. One estimate finds that no less than 25,000 Portuguese soldiers died in the Royal Hospital between 1604 and 1634; by repute 500 a year died from syphilis and "the effects of profligacy." As a proverb had it, "Of the hundred who go to India [from Portugal], not even one returns." Many in fact never even made it to India, such was the mortality on the voyage out from Lisbon. When the great ships from

Portugal arrived each year in Goa, they brought on them many newcomers with bad ulcers, the result of scurvy.[73] Accounts of the state of health on board the great carracks arriving in Goa from Lisbon are harrowing in the extreme.[74] A contemporary list shows that in 1629-1634, a total of 5,228 people left Portugal for India, but only 2,495 completed the voyage—though to be sure some would have deserted, and two ships of the seventeen that left Portugal in this period were lost at sea. As one other indication of mortality, which reflects the mortality of the royal family at home, of fifty governors of Portuguese India up to 1656, twenty-two died during their term of office or on their way home.

Several travellers speculated on the reasons for Goa's unhealthiness. Manucci and others repeated the notion that India was healthy for men over the age of forty, but not for younger men. As Dr. John Fryer put it, "For to the Lustier and Fresher, and oftentimes the Temperatest, the Clime more unkind; but to Old Men and Women it seems to be more suitable."[75] Medical practice at the time also contributed to high mortality, a point we will return to shortly. One problem was Goa's porous soil, so that drainage sank into drinking wells, and thus fecal-borne disease spread. There seems also to have been an increase in the incidence of malaria due to stagnant waters lying around. Manucci left a vivid picture of illness and mortality in Goa. Unwholesome air in Goa was a problem. Also there was an island nearby which was a real graveyard.

> "The reason is that it is full of courtesans, Mahomedan and heathen, who bear on them the unhappy poison by which they take the life of so many wretched men, after they have like leeches sucked from them every penny in their purse. It is, above all, the soldiers newly arrived from Portugal who succumb to this sad fate. Having exhausted both their bodily strength and their scantily-stored purses in the infamous dens allowed to exist there, misery and feebleness overtake them so completely that they are forced to enter the hospital. That is a place from which they hardly ever come forth alive, the number of men dying there being astonishing, every day five to twenty-five dead bodies being carried out, sometimes more, sometimes less, a fact that I have myself observed several times. By this means that island becomes the cemetery of all those newly arrived from Europe, and I honestly believe that at the end of the year not an eighth part survives of those who landed."[76]

Whatever the reason, the health situation in Goa was so poor, and declined so greatly during the 17th century, that in the 18th century the town was abandoned and the capital moved down river to the healthier city of Panaji.

While cholera was known to the Portuguese from European experience, and the virulent form of syphilis found in Goa was probably a Portuguese import, being the strain which had devastated large parts of Europe after its probable introduction from America in the 1490s, some other diseases, such as the various enteric fevers (typhoid), were unfamiliar to Portuguese doctors. The Italian merchant Sassetti noted in Malabar malaria, several sorts of apoplexy, and elephantiasis, or filaria. He also commented on different cures. Bleeding was very seldom used, nor were such standards of European pharmacopoeia as rhubarb and aloe.[77] Many other commentators also thought that Indian diseases were different, and should be treated by Indian methods. In the late 17th century an English doctor stressed the differences, and said gloomily, "We are here, as Exotick Plants brought home to us, not agreeable to the Soil."[78] However, most European visitors were more sanguine, and this in turn led to a very interesting eclectic mixture of Portuguese and Hindu medical systems.

That some Indian diseases were different and peculiar to the subcontinent was widely acknowledged, and not just by Europeans. We noted Muslim medical practice being modified in India; indeed one Muslim author considered that there were major problems in applying the Perso-Islamic *yunani* (Greek) system to Indians.[79] The eccentric alchemist and important early medical innovator Paracelsus stressed in a book published in 1537-1538 that Asian and African prescriptions did not work in Europe, and he also was not certain that his prescriptions would work outside Europe.[80] In the late 17th century a French visitor said that for local diseases European medicines were no use:

> "For this reason the Physitians that go out of Portugal into these parts must at first keep company with the Indian Surgeons to be fit to Practice; otherwise, if they go about to cure these Distempers, so far different from ours after the

European manner, they may chance to Kill more than they Cure."[81]

The acceptance of this notion meant that for most of our period Indian medical practice was described, but usually without comment. Even though some of the "cures" prevalent in India at this time seem today to be bizarre in the extreme, Europeans apparently found them different but not qualitatively better or worse than what they knew. An accomplished apothecary, Tomé Pires, in his very valuable account of seaborne Asia in the early 16th century, noted the following about Malabar:

> "When they are ill the patients do not eat meat; and have a diet of fish alone. The chief remedy is to play the kettle-drum and other instruments to the patients for two or three days—and they say this does good. If they have fever they eat fish and keep washing themselves; if they vomit they wash their heads with cold water and it is good, and it stops; and if they have catarrh they drink *lanha* water—*lanha* is the young coconut—and it stops at once; if they want to purge themselves they take the crushed leaves, or the juice or the seeds of the *figueira do inferno* [a plant similar to the castor-oil plant], and they are well purged, and they wash themselves; if they are badly wounded, they let warm coconut oil run over the wound twice a day for an hour or two, and they are cured. Our people, when they have fevers, eat fat chickens and drink wine and are cured. This happens to many, but those who go on a diet are used up."[82]

The related notions of a lack of qualitative difference and that Indian diseases were "different" meant that even governors and clerics used Hindu doctors because of their supposed better local knowledge. In 1548 an Indian brahmin doctor was practicing in the Jesuit College of St. Paul, and another *vaidya* was doctor to Governor Barreto in 1574.[83] Linschoten in the 1580s noted,

> "There are in Goa many Heathen phisitions which observe their gravities with hats carried over them for the sunne, like the Portingales, which no other heathens doe, but [onely] Ambassadors, or some rich Marchants. These Heathen phisitions doe not onely cure there owne nations [and countriemen] but the Portingales also, for the Viceroy himselfe, the Archbishop, and all the Monkes and Friers doe put more trust in them than in their own countrimen, whereby they get great [store of] money, and are much honoured and esteemed."[84]

As we will see later, Portuguese racism sometimes tried to limit the prestige of these Hindu doctors; in 1572 the governor decreed that Hindu teachers and doctors were not to go about on horseback or in palanquins, but the doctor who served the governor's own household was exempt from this. The reverse of this sensible arrangement was that most governors brought their own doctors out with them from Lisbon as part of their vast retinues of relatives and hangers-on, all of them hoping to make a fortune in India during the three-year term of their patron. These newly arrived Portuguese doctors were nearly always rewarded by being made the chief doctor of the important Royal Hospital, but several contemporaries noted that this was a prime cause of mortality, for they knew nothing of Indian diseases, and just as they began to acculturate they returned to Portugal with their gubernatorial patron.[85] In 1610 the king ordered that this practice cease and that the doctors and surgeons who went out with the viceroys not be allowed to practice in the Royal Hospital, "because they have no experience of the region and its medical methods." This order seems to have provoked a storm of complaints from Goa, and three years later it was lifted.[86]

Despite this, what we find overwhelmingly in Goa is a mixture of European and Hindu practice. Goans seem to have had a quite *ad hoc* and experimental attitude to health, and tried different systems quite freely. An Augustinian friar with a very painful swelling in the testicles was cured by a poultice of stewed leaves applied by an old woman. A Hindu doctor was considered to know a perfect cure for scrofula, a swelling of the glands which was probably a form of tuberculosis. In the Portuguese settlement of Daman in the 1690s a French visitor found a young Portuguese girl with fever, whose "Indian physician, instead of letting her blood, had covered her head with pepper." The European insisted on bleeding her with leeches, and perhaps surprisingly she recovered quickly.[87]

The incident points to the major divergence between European and Hindu medicine, which was the routine use of bleeding by Europeans. As Pyrard noted, Indians, that is Hindus, did not use bleeding at all.[88] In the 1670s the Abbé Carré fell ill with a fever, and

insisted on being bled. Great quantities were hacked out of him by enthusiastic but amateur bleeders, and "This made me so feeble that I cannot bear to speak of it. Yet, though I felt very weak, I was not surprised that the fever grew less, as it no longer had the cause [that is, excess of blood] which had kept it up; and I further reduced it by refusing for eight days to eat many little delicacies that I would have liked—sometimes one thing, sometimes another, though I must confess I refrained with very great difficulty. For eight or ten days I still had my sight, my memory, and my senses, but so feebly that I did not remember anything that happened to me."[89] There were clearly problems with this method of dealing with fevers, especially when it was used so often; patients in the Royal Hospital could be bled thirty or even forty times.

Yet more often we find acculturation and intermingling. Ovington late in the 17th century in Surat noted a treatment for fever which is still used in India today, and did not comment adversely on it:

> "Cooling Herbs and Congy [Hindi, *kanji*, rice gruel], that is, Water with Rice boil'd in it, and Abstinence, are the best Receipts they prescribe for mitigating Intestinal Fervors of the Spirits, and allaying the Heat of the Blood, which they think is better preserv'd and cool'd within the Veins than let out, if it boils too fast."[90]

In the 1750s in Malabar, Grose noted what seems to be a variant on this method, or at least the rice was apparently boiled drier than was the case in the instance just quoted.

> "For bloody fluxes, the Bramins suggest a very simple, and as they pretend a most infalliable remedy, consisting in a strict abstinence from everything but rice stewed dry; to which they allow no sauce of any kind whatever, and attribute to it an absorbent quality, that is excellent against that acrimony which preys on the entrails and breeds the disorder. For drink they give nothing but water, corrected by a very moderate amount of cinnamon."[91]

Earlier European practice had combined bleeding with feeding up the patient. In the following extended description of medical practice in the Goa Royal Hospital from the 1640s we find that the Europeans had now decided that a much scantier diet was more appropriate, as in fact we just noted in the case of the Abbé Carré's self-cure. And we can also note that they were at least worried enough about the effects of bleeding to try and build up the patient, using a Hindu specific, after the bleeding was finished.

> "The hospital at Goa was formerly renowned throughout India; and, as it possessed a considerable income, sick persons were very well attended to. This was still the case when I first went to Goa; but since this hospital has changed its managers, patients are badly treated, and many Europeans who enter it do not leave it save to be carried to the tomb. It is but a short time since the secret of treatment by frequent bleedings was discovered [he presumably means in Goa, for bleeding was universally practiced in Europe]; and it is repeated, according to need, up to thirty or forty times, as long as bad blood comes, as was done to myself on one occasion when at Surat; and as soon as the bad blood is removed, which is like an apostume, the sick person is out of danger. Butter and meat are to him as poison, for if he eats them he puts his life in danger. Formerly some small ragouts were made for the convalescent, but they must nowadays content themselves with beef-tea and a basin of rice. Generally all the poor people who begin to recover their health cry out from thirst, and beg for a little water to drink; but those who wait upon them, who are at present blacks and Mestifs [*mestiços*]—avaricious persons, and without mercy, do not give a drop without receiving something, that is to say, unless some money is placed in their hands, and to give colour to this wickedness they give it only in secret, saying that the physician forbids it. Sweets and confectionery are not wanting, but they do not contribute much to the establishment of health, which in a hot country rather requires nourishing food.
>
> I forgot to make a remark upon the frequent bleedings in reference to Europeans—namely, that in order to recover their colour and get themselves in perfect health, it is prescribed for them to drink for twelve days three glasses of *pissat de vache* [cow's urine], one in the morning, one at midday, and one in the evening; but, as this drink cannot but be very disagreeable, the convalescent swallows as little of it as possible, however much he may desire to recover his health. This remedy

> has been learnt from the idolators of the country, and whether the convalescent makes use of it or not, he is not allowed to leave the hospital till the twelve days have expired during which he is supposed to partake of this drink."[92]

So much for acculturation and mingling. We now turn to our second theme, which is to find the beginnings of perceived European superiority. We will note two examples: one to do with state provision of health care, the other with medical knowledge, especially anatomy. The former requires a study of the famous Royal Hospital in Goa; the latter concentrates on the observations of François Bernier at the Mughal court.

The Portuguese state, often stigmatised as being ramshackle, ineffective and essentially pre-modern, did try to intervene rather decisively in several medical areas. Several hospitals were financed and regulated by the state, but most of them served only Europeans, and all excluded non-Christians. The dispensation of charity to Europeans was organised by a body, the *Misericórdia*, which while private had strong connections with the state. The notion of an enclave is most appropriate to describe Portuguese medical practice in Goa. The Portuguese brought with them quite new notions about the role of the state in health care, but applied these, by and large, only to the European population of Goa, and to a lesser extent to local converts to Christianity. In this as in other areas the majority Hindu population was left alone.

State concern with helping ill people and secular involvement in financing hospitals seem to have been quite new ideas in both Europe and Asia at the beginning of the early modern period. In earlier times it was religious authorities who sponsored most health care, sometimes prompted by pious rulers.[93] We do have accounts of what seem to be very advanced Muslim hospitals in Baghdad, Damascus and other cities during the Abbasid period (750 to c. 1000) and later in the Ottoman empire. These were financed by endowments, had large staffs (including physiologists, oculists, surgeons and bonesetters), and seem to have provided, at least for the élite, an excellent service.[94] In India in the 17th century it is claimed that the state set up hospitals, and these had a staff of doctors using both *ayurvedic* and *yunani* systems, their salaries and the cost of drugs being paid by the state.[95] These claims seem to be very problematic, for no contemporary source describes hospitals in actual operation in our period or earlier.

What is interesting is that state-run or supported hospitals were new in Portugal and Europe generally when the Portuguese arrived in India. It has been claimed that the move from the "traditional religious role of the hospital" was prompted by ideas from Renaissance humanism, as seen in works by, for example, Erasmus and Sir Thomas More.[96] By the end of the 16th century, monarchs and municipalities, that is secular authorities, became more prominent as compared with religious authorities. Stroppiana has pointed to a "hospital crisis" of the 16th century, to do with attempts to centralise and amalgamate smaller less efficient hospitals and with the battle for control between secular and religious authorities.[97] A standard text claims that it was only in the 18th century that "the emphasis [in hospitals in Europe] shifted from care toward treatment and cure."[98] More generally, it was only after the French Revolution that hospitals assumed the central place in medicine that we are familiar with today. To this time, hospitals were created either for religious or for charitable motives, and had on them a stigma of charity. They were not, therefore, places where the well-to-do went to be treated, nor would they be until the 20th century.[99]

Before the middle of the 15th century in Portugal there were some hospitals maintained by religious orders, and two set up by Prince Henry in the early 15th century to cure "African" diseases, but apart from this only asylums and places of seclusion existed, especially for lepers. But under João II and Manuel in the late 15th century the state in Portugal began to interest itself in health care. Hospitals and a House of Mercy were established, notably the splendid Hospital of All Saints, founded in Lisbon in 1492, and completed ten years later.[100]

We also find in Europe increasing differences in the matter of professionalism. The College of Physicians of London was founded by charter in England in 1518, and used the title "Royal" from 1682. From 1540 physicians in England were allowed to practice surgery. In this same year the Company of Barber-Surgeons was given corporate status by the English crown, but they were not allowed to prescribe medicines. Surgeons in England and France were separated from barber's guilds only in the 1740s. What is interesting here is that the College of Physicians was organised on a completely

different basis from earlier medico-craft groups. Clark tells us that the College was not a craft guild, and did not have apprentices. "It was not, like the Barber-Surgeons' Company, bound by the Acts of Parliament which made the ordinances of the London crafts, guilds, mysteries, and fraternities subject to the approval of the lord chancellor, the lord treasurer, and the two lords chief justice or any two of them."[101] In other words, it was "modern" rather than "medieval."

Over the 15th and 16th centuries in Portugal pharmacists became quite closely regulated and had to be certified to be able to practice as druggists. They had to have five books on drugs available, and three particular measures.[102] Physicians and surgeons had in theory been licensed since 1338, though until a reform in 1448 this was poorly observed. From this year certificates of proficiency were issued, and matters were further tightened up in 1515 by King Manuel.[103] In other countries also professional bodies, usually backed by the state, appeared to regulate and give solidarity to particular occupational groups. The consequences of this growing exclusiveness were two-fold: on the one hand, harmful quacks were gradually weeded out, but on the other so were non-members of the exclusive group, such as midwives once obstetrics became professionalised.

While this was happening in Europe, the situation in India as regards regulation and state concern with medicine remained unchanged. Indeed some Europeans, reflecting this increasing state concern in Europe, were by the late 17th century surprised at the lack of regulation in India. Dr. John Fryer especially noted how things were still different in Surat in 1675, for medicine there was a craft, not a profession:

> "Physick here is now as in former days, open to all Pretenders; here being no Bars of Authority, or formal Graduation, Examination or Proof of their Proficiency; but every one ventures, and every one suffers; and those that are most skilled, have it by Tradition, or former Experience descending in their Families; not considering either alterations of Tempers or Seasons, but what succeeded well to one, they apply to all."[104]

Similarly, a little later Ovington noted how medicine was really still a craft, and governed by caste rules. Brahmins were meant to do theology, but they also did arithmetic, astrology, and physic. "But such as addict themselves to the Practice of Physick, are bound to pay an Annual Fine to the rest of their Sect, because Physick is both Advantagious and Foreign to their Profession."[105] And Fryer in Persia commented, "Here is no precedent License of Practising, but it is lawful for any one to exercise this Function who has the impudence to pretend it."[106]

We can now return to the situation in the first large European settlement in India, the port city of Goa, for here we seem to find a reflection of the changes we noted occurring in Europe. The Portuguese may not have been better curers than their Indian interlocutors, but they did set up official hospitals, and they did make some attempts to regulate and control healers.

In an Indian context the famous Royal Hospital of the Holy Spirit was very innovative. It had been founded by the conqueror of Goa, Afonso de Albuquerque, to cater for Portuguese soldiers. He set up a rather primitive adobe one in 1510, when the city was first taken by the Portuguese. Late in 1512, in a major campaign, he recaptured the town of Benastarim from hostile Bijapuri forces, and then marched in triumph back to Goa, and "he immediately established a hospital of very large size, with beds and everything that was necessary for the care and cure of the wounded, who were very numerous."[107]

This illustrates well the prime motivation of the state towards health care. It was always recognised that it was essential that the state provide health care for its soldiers, for otherwise the existing difficulties in raising troops would have been greatly exacerbated. This need was of course more pressing than the equivalent situation at home, for soldiers in India had no families to fall back on. Rather they were single men isolated in a precarious frontier society. To maintain their loyalty (for many deserted and sought greener pastures in neighbouring Indian states) it was important for the state to reassure them that they would be cared for if they were sick, and also could die well.

At mid century a large staff, consisting of a *mordomo* or chief administrator, a physician, a surgeon, a barber (who also did bleedings), a pharmacist, an orderly, chaplain, secretary, buyer, cooks, washermen and slaves, looked after some forty patients at any one time, though the number rose greatly each year when the ships from Portugal came in with their cargoes of Portuguese ravaged by the long unhealthy voyage.[108] It was run from 1579 by the Society of Jesus, though they later gave it up and had to be persuaded to resume

their mission in 1591.[109] The way the state insisted that the Jesuits again take over the hospital showed how concerned the state was with the hospital. This is also shown in the very large sums which the state provided to keep the hospital viable. Why such a lavish establishment, apparently in advance of European equivalents at the same time? It seems that the context is important here. This grandeur had a symbolically reassuring function.

However, the state was not the only benefactor of the hospital. In modern times charity has become primarily a matter for the state, but earlier it was seen mostly as an obligation on wealthy and distinguished people. Goa in the 16th century was perhaps in a transitional state, for while we have seen state involvement, private citizens still played a large role. The viceroy would visit from time to time, along the lines of royal family visits today. Pyrard noted how "Sometimes [the patients] are visited by the archbishop, the viceroy and many lords, who make gifts to them of large sums of money."[110] Indeed this seems to have been a genuine community effort, as Linschoten noted, albeit sourly as usual. He found not only Jesuits but also gentlemen (officials of the *Misericórdia*) involved,

> "whereof every month one of the best is chosen and appointed, who personally is there by them [the patients], and giveth the sick persons whatsoever they will desire, and sometimes spend more by foure or five hundred Duckats of their owne purses, than the Kings allowance reached unto, which they doe more of pride and vaine glorie, than for compassion, onely to have the praise and commendation of liberalitie."[111]

Admission to the Royal Hospital was restricted to Portuguese soldiers and a few other Portuguese. Pyrard said that no women, no householders, and no servants were admitted; nor were new Christians (converted Jews) allowed, though some managed to sneak in anyway.[112] Linschoten noted that the patients "are only Portingals, for no other sick person may lodge therein, I mean such as are called white men, for the other Indians have an Hospitall by themselves."[113] It could hold a very impressive 1,500 patients, and descriptions of it after it was expanded and rebuilt make it sound a most grand structure indeed. Pyrard noted that "Viewing it from the outside, we could hardly believe it was a hospital; it seemed to us a grand palace."[114] Hospitals anywhere in the world at this time had deservedly low reputations, for they seem to have been most effective in transmitting communicable disease, or at best providing care but not cure. There was also a snobbish notion that hospitals were charitable, a resort only for those who could not afford care at home. But the Royal Hospital in Goa had a very high reputation, and this meant that, unusually for the time, even rich people were happy to use it. An account from the 1580s noted that "It is no shame there to lie in the Hospitall, for many men go thether willingly, although they have wherewith to keepe themselves in their houses, and have both wife and children."[115] Pyrard noted similarly, "However rich a man may be, there is none but will gladly have himself taken to this hospital, to get better treatment than at his own house, as indeed he will."[116]

Pyrard, who was a patient in 1608, has left an extended and glowing account of it. Even the beds were splendid, with mattresses and covers of silk or cotton. The meals were luxurious and ample, the plates, bowls and dishes of China porcelain or even silver. On admission the patient got a haircut and wash, and was provided with bed clothes. There was even an out-patient facility: "He that wil not lie there, and hath any woundes or privie diseases, may come thether twice every day and be drest, and goe his way againe, without any question or deniall."[117]

Regulation was close; thus the Indian Christian servants were very closely supervised by their Portuguese superiors. Similarly, each ward had its own officer in charge of food. This officer "keeps the key, and puts into writing the account of the contents, whereof he gives a memorandum to the principal writer, who keeps an inventory of everything, even of the sick, their names, and the days of their arrival and departure."[118]

Indeed, attempts to regulate the hospital, and many other aspects of Goan life, sometimes reached ridiculous levels. The general point, however, is that this shows the Portuguese state trying to impact, to govern, much more fully than had been done before. In 1595 the viceroy issued an extraordinary decree, designed to regulate many aspects of life in the hospital.[119] The viceroy believed that too many relatives and friends were visiting the hospital and bringing in food not approved by the physician or surgeon. Sometimes visitors came in to settle old scores with the patients, carrying hidden weapons. From now on the flow of visitors was to be controlled. No weapons were to be brought in, and even relatives were to be regulated, for

it was unsuitable that the staff be hindered in tending their patients by having trouble with visitors. At silent times the door was to be kept firmly closed. Nor were visitors to bring in food unless they had permission, for while it often was fine food it was different from the diet approved by the hospital authorities. Hospital servants were also forbidden to buy food outside for patients. Similarly, letters were to be brought in only with permission, and no woman was to send in letters to a patient, except for the mother, wife or sister of the inmate, and even these letters were to be censored. This was because patients were not to be disturbed or alarmed by the contents of the letters they received, for this could make them even sicker. Finally, the porter was to check the various servants and hangers-on who came in with the officials of the hospital to make sure no unofficial people gained entry.

Yet it is crucial to note that while the organisation and financing of the hospital was innovative, and its clientele restricted along racial grounds, this was not the case with clinical matters. Instead we find the sort of mingling and cross-fertilisation which we described in detail earlier.

Mortality in the Royal Hospital reflected all too faithfully the problems of contemporary medical knowledge in both India and Europe, yet in both an Indian and a European context it was quite innovative in its organisation. It was paralleled by another state-supported institution involved in social work—the *Santa Casa da Misericórdia*, or Holy House of Mercy. Like the Royal Hospital, the *Misericórdia* reflected a transfer to Goa of a new sort of institution from Portugal, for the Goa one was closely modelled on the mother house in Lisbon, which had been founded under royal patronage in 1498, the very year of da Gama's voyage. The Goan version was established by Albuquerque, probably in 1510. This charitable brotherhood grew rapidly. The number of brothers rose from an initial 100 to a maximum of 600 in 1609. These brothers administered the work of the *Misericórdia* and raised its funds, which came mostly from private charity and legacies.

In both Lisbon and Goa this organisation did excellent work. Indeed, they played an important role in the whole colonial empire. Laurinda Abreu's excellent empire-wide study details their work in providing charity, in trying to uphold or enforce morality, as important foci of power in colonial society, and as bodies that to an extent ensured a certain commonality all over the far-flung empire.[120] There were seven secular tasks, which read very much like the obligations of such modern bodies as the Red Cross. They were to give food to the hungry, drink to the thirsty, clothing to the naked, shelter to the homeless, and burial to the dead. Brothers were also asked to visit the sick and prisoners and ransom captives. However, it was only Christians, indeed nearly always only Portuguese, who were served by this body.[121] The President, or *Provedor*, of the Board of Governors was usually a very eminent person, such as even a governor or viceroy, or archbishop. Even ordinary membership of the Board of Governors was a very high honour; only those who could demonstrate "purity of blood" (that is, no Moorish or Jewish "taint") were eligible. The Goan élite often rotated between service on this body and on the Municipal Council.[122] Many of them also participated informally in the other arena of social work in Goa, that is, the hospitals, as was noted above. Yet this close tie with the apparatus of the state had one negative consequence. In times of crisis the state would raid the ample coffers of the *Misericórdia* and take forced loans to provide ships and other military necessities.

The state also played a role, even if indirectly, in one other area of health care, for some pharmacies in Goa were, in effect, controlled by the state. In the early years of the 17th century the dowries for one or two nuns entering the convent of Santa Monica were pharmacies, and indeed in 1618 the convent, only recently founded, already owned eight pharmacies, three on Chorão Island, four on Divar Island, and one on Juá. The right to own these properties was ratified by a royal decree of 22 March 1617.[123] We can assume that the nuns leased out these rights; the ownership of Goa's other pharmacies cannot at present be determined.

The matter of acculturation which we noted earlier meant that many Portuguese considered Hindu healers to be better for some diseases than were Europeans. The related notions of a lack of qualitative difference, and that Indian diseases were "different," meant that even governors and clerics used Hindu healers because of their supposed better local knowledge. Nevertheless, the Portuguese did try to limit the prestige of Indian doctors. In 1563 all Hindu doctors were ordered to be expelled, but this order was never enforced. In 1574 the governor decreed that Hindu teachers and doctors were not to go about on horseback or in palanquins.

A first offence attracted a fine of ten *cruzados*, a second twenty *cruzados* and the loss of the offending horse or palanquin, and a third meant being sent to the galleys. However, the doctor who served the governor's own household was exempt from this, and in fact this prohibition also soon lapsed.

What we have here are unsuccessful attempts first to expel, and then to limit the prestige and patronage of Hindu doctors using Hindu, that is *ayurvedic*, methods.

Foiled in this attempt, mostly because its own élite were inconvenienced by this, the colonial state then moved to at least control and limit the numbers of its subjects who were allowed to practice European-style medicine. This licensing system then was a transference of the new European notion we noted earlier—a state concern to regulate and professionalise medical practice and practitioners, with a racist colonial dimension added. We have eight published certificates (there are over a hundred in manuscript) given by the Portuguese chief physician to allow local doctors (*vaidyas*), from their names apparently all brahmins, to practice. This was a result of a decree of the Goa Senate in 1618 that no one might practice medicine unless he had passed an examination. The decree stated that

> "no person of any religion, category, or nationality can exercise the medical or the surgical profession without passing a qualifying examination given by the *fisico-mor* or the *cirurgião-mor*, and they will be obliged to take out a certificate of examination, so that those found practicing without this certificate will be fined twenty *pardaus*."

The number of Hindu healers was to be limited to thirty, and this restriction was to be enforced by the requirement that the certificate from the chief physician or surgeon was to be endorsed by the Municipal Council, in order to check the numbers. We do not know what areas of medicine were covered, or what the exam consisted of, but as these certificates gave the holders license to practice anywhere in the Portuguese empire, they must have, as one would expect, tested European medicine, not *ayurvedic*.[124] This is also shown by the fact that the examiner is described as the *fisico-mor*, normally a man from Europe. It is interesting, however, that the doctors so tested trained in traditional *ayurvedic* methods outside of Portuguese Goa before coming to the town to sit the examination which allowed them to practice this other form of medicine, that is European.[125]

We have more detail from this same year concerning the attempt of the Municipal Council to regulate closely medicine in Goa. Physicians, surgeons, bleeders and pharmacists were fined twenty *pardaus* if they practiced without a city certificate. Bleeders were required to display at their door a painting of a man being bled, the object presumably being to make sure only these publicly known people engaged in bleeding. Hindu physicians were forbidden to leave Goa and travel to the mainland without a license, for fear they would engage in improper activities there. Municipal officers were to visit every pharmacy every six months and were to burn useless or adulterated medicines. The decree also controlled the prices of medicines and banned the sale of some considered to be harmful.[126] As usual, one would expect that this sort of ambitious attempt at social engineering was observed more in the breach than otherwise; the rural majority of the population of Goa would certainly not be affected by this and would continue to use their traditional healers.

These measures could be interpreted in several ways. On the one hand, they could be merely a benign attempt to ensure the quality of health care provided by Indians in Goa, but the relevant point here is that so far as I know European doctors were not subjected to this sort of regulation. More likely, these measures were a covertly racist effort designed to limit competition to these same European healers. It is in fact remarkable that pandits trained outside Goa in traditional *ayurvedic* methods could pass the examination at all, though it is true that we know of many cross-influences between *ayurvedic* medicine and the Greek-based European system. Certainly these measures mark a major intervention by the state into this area of medicine, albeit yet again an intervention which affected only the Christian population, for we can assume that only they, and indeed probably only European Christians, would use doctors, whether Indian or European, who followed European medicine. Taken together, the hospital, the *Misericórdia*, and the attempt to regulate Indian healers show the Portuguese state trying, and sometimes succeeding, to innovate, reflecting then a more modern approach to the organisation of health care.

Our second case study moves away from the role of a state in medicine to show that there is good

evidence by the middle of the 17th century that at least potentially European medicine, as represented in India by François Bernier, had moved beyond contemporary Indian practice, whether *yunani* or *ayurvedic*. We quoted him earlier taking a quite agnostic view of *yunani* medical practice, but in some areas he was aware of major changes that had occurred in European medicine in the last 150 years.

The beginnings of scientific medicine in Europe have been much studied. Beginning in the Renaissance, European medicine made fundamental advances and began to transcend methods based on the Greek authorities and to escape the influence of the church. Paracelsus (1493-1541) was a key figure. He was an eccentric and controversial figure in the development of new medical knowledge in Europe. He made major advances in the field of chemical medicine and generally contributed substantially to the rise of modern medicine. It is fascinating to remember that in 1527 he burnt in public (shades of Luther!) the books of Ibn Sina and Galen, yet in fact his own work was solidly based on his profound knowledge of the ancients.[127]

At first greater strides were made in anatomy and so surgery. In the 16th century the authority of Galen and Ibn Sina began to be questioned. The publication in 1543 of the first complete anatomy textbook, *De Humani Corporis Fabrica* by Andreas Vesalius (1514-1564), marks a paradigmatic advance. While his work actually made few important changes in knowledge of human anatomy, his method was new for it was based on dissection and actual observation, and both he and Paré (1510-1590) found Galen to be wrong in several important areas. The Greeks had thought that blood ebbed and flowed in the human body. In 1616 Harvey, basing his anatomy on Vesalius, gave his pioneering lectures on the circulation of the blood, and in the middle of this century the microscope was invented. A short way to see the change in medical theory in the 17th century is to note a change "from a humoral to a chemical and/or mechanical view of the body."[128]

The list could go on and on. Two points are important. First, these and other advances at the time and later mark the beginnings of scientific medicine, based essentially on empirical, testable and replicable observation. Second, it is important not to see these changes as introducing modern medicine overnight. Quite the reverse; a major disease was mastered for the first time in human history only in the 1790s, when Edward Jenner produced his vaccination (much more effective than the widely practiced inoculation) against small pox. Harvey's ideas met with far from universal acceptance, and Galen remained a prescribed text at the Cambridge medical school until the middle of the 19th century, and the notion of the four humours remained influential into the 19th century. Blood letting also continued. The great surgeon Paré was a ferocious bleeder. As late as the 1830s there was a bleeding craze in France, and some 20,000,000 leeches a year were required to keep up with the demand. A connection between bodily cleanliness and good health began to be accepted only in the 19th century. In many areas there were fits and starts, and blind alleys. The first uses of anaesthetics in the middle of the 19th century actually increased mortality for a time.

We can now turn to the comments of the French doctor François Bernier. He was born in September 1620 to a family of peasant-leaseholders in Anjou, received medical degrees from the University of Montpellier in 1652, and died in Paris in 1688. Bernier's remarks on the Mughal empire, where he worked at court and also travelled widely between 1659 and 1667, are generally regarded as being thoroughly ethnocentric and biased. In particular, he was very critical of the system of land tenure and payment of the nobility that he found in the empire, and compared these unsympathetically with the prevailing practice in his native France. His version of "Asiatic Despotism," total penetration by an all-encompassing state into the lives of all its hapless subjects, unfortunately has been remarkably influential, but where he is most interesting is in the fact that he seems to be the first European doctor to represent in India the dramatic changes which were occurring in western European medicine in the 16th and 17th centuries. Unlike several other European doctors in India both before and after him, such as Manucci, who was merely a quack and knew little of the changes occurring in Europe, Bernier was well up with them.

It is my contention that Bernier in particular represents the first manifestation of an overt claim to European advancement. Several of Bernier's comments make clear how well read he was on the latest techniques in Europe. He often talked to his patron at the Mughal court of the recent discoveries of Harvey and Pecquet in anatomy, and we may note that Harvey died only

in 1657, while Pecquet lived until 1674 and was more or less a contemporary of Bernier's. The former, as noted, had lectured on the circulation of the blood in 1616, while Pecquet contributed to the discovery of the lymphatic system. As I noted above, Bernier's attitude to Indian medicine was rather neutral,[129] but the following passage shows clearly how much more advanced he considered himself to be in anatomy and so surgery.

> "It is not surprising that the Gentiles understand nothing of anatomy. They never open the body either of man or beast, and those in our household always ran away, with amazement and horror, whenever I opened a living goat or sheep for the purpose of explaining to my *Agah* [patron] the circulation of the blood, and showing him the vessels, discovered by Pecquet, through which the *chyle* is conveyed to the right ventricle of the heart. Yet notwithstanding their profound ignorance of the subject, they affirm that the number of veins in the human body is five thousand, neither more nor less, just as if they had carefully reckoned them."[130]

Similarly, Bernier represented advanced European medicine in that he considered copious bleeding to be old-fashioned, done as a result of the influence of Galen but not now considered to be very advisable. He noted that the *yunani* doctors at court "generally bleed once or twice, not in the trifling manner of the modern practitioners of Goa and Paris, but copiously, like the ancients, taking eighteen or twenty ounces of blood, sometimes even to fainting; thus frequently subduing the disease at the commencement, according to the advice of Galen, and as I have witnessed in several cases."[131] What Bernier is saying is that while he was convinced Europeans were much better with anatomy, this was not necessarily the case for medicine, where he took a pronounced agnostic attitude, making no claim as to whether or not "these [Indian] modes of treatment be judicious."

Bernier was not the only one to show that in the area of surgery a perception of a pronounced gap had appeared between India and Europe. Garcia da Orta in Goa in the mid-16th century was the first, but by no means the last, European doctor to be critical of Indians' anatomical knowledge. We noted above his comment, "As for anatomy, they do not know where the liver is, nor the spleen, nor anything else."[132] Dr. John Fryer, who was roughly on a par with his Indian peers in medical knowledge,[133] did in a modern way think too much bleeding was detrimental, and he noted how they knew nothing of veins:

> "They are unskill'd in Anatomy, even those of the Moors who follow the Arabian, thinking it unlawful to dissect Human Bodies; whereupon Phlebotomy is not understood, they being ignorant how the Veins lye; but they will worry themselves Martyrs to death by Leeches, clapping on an hundred at once, which they know not how to pull off, till they have filled themselves, and drop of their own accord. Chirugery is in as bad a plight, Amputation being an horrid thing."[134]

Fryer in fact was conscious, in his ethnocentric way, that European practice was innovative, for he noted of Persian medicine that although "it be here in good Repute, yet its Sectators are too much wedded to Antiquity, not being at all addicted to find out its Improvement by new Enquiries; wherefore they stick to the Arabian Method as devoutly as to the Sacred Tripod."[135] Even the self-taught quack Manucci could claim that all the doctors at the Mughal court were Persians, but "Few of them know anything about, or can cure, the stone, paralysis, apoplexy, dropsy, anaemia, malignant fevers, or other difficult complaints. They follow the ancient books of medicine, which say a great deal but tell very little."[136]

As a consequence, by the mid-17th century European doctors were often in demand for surgery. One French doctor

> "grew so famous in Persia, that the King himself profer'd him very considerable allowances, to engage him to continue in that Court. Nay, he grew into such repute, after he had recover'd persons who had been given over by others, that the people began to look upon him as an extraordinary man, insomuch that they brought to him some that were lame and blind from the Birth, to recover their limbs and sight who never had had them."[137]

Fryer in Persia after describing local medicine pointed out that if a particular cure failed,

> "another Physician is consulted; for among such store they think it hard to miss of a Cure; and in that are so opinionated, that if their own Nation cannot give them Remedy, they think none other can. (Though as to Chyrurgery they are of

another mind, thinking the Europeans better at Manual Operation than themselves.)"[138]

In India the Abbé Carré in the 1670s several times commented on a local preference for European surgeons. When he himself was to be bled, one of his Indian servants was eager to do it, for "He himself (he said) had lived with a French surgeon, both at Surat and Rajapur, had witnessed many fine operations by him, and remembered what he had seen done." This servant even apparently thought he would be qualified to do an amputation because he had seen a French surgeon do one.[139] Later a Muslim officer approached him in Madras and "begged me first of all to send them a good French surgeon to look after one of their camp-marshals, who had been badly wounded by two musket-balls."[140] Soon after, he noted how two "badly wounded Moor officers had withdrawn to the suburbs of Madras, hoping to find English surgeons."[140] In the early 18th century we even hear of an Indo-Portuguese woman who was considered to be a skilled surgeon.[142] This prestige seems to mark a pronounced difference as compared with the situation in the previous century.

The conclusion then is that a study of medical interaction between Europe, especially Portugal, and India in the early modern period shows an interesting mixture. On the one hand there was mingling and interaction, this based on the common importance of humoral pathology in all of Eurasia. Yet we have shown how in two important areas, health care and anatomy, during our period Europe was advancing, slowly to be sure, towards what we today would recognise as scientific medicine. RC

Author's note: The present article draws especially on several of my studies: "The Thin End of the Wedge: Medical Relativities as a Paradigm of Early Modern Indian-European Relations," *Modern Asian Studies*, XXIX, l, 1995, pp. 141-170.* "Hindu Medical Practice in Sixteenth-Century Western India: Evidence from the Portuguese Records," *Portuguese Studies*, XVII, 2001, pp. 100-13.* "Social Work in the Portuguese Empire," *Campus Social: Revista Lusófona de Ciências Sociais*, [Lisbon], #2, 2005, 108-113. "First Contacts between Indian and European Medical Systems: Goa in the Sixteenth Century," in David Arnold, ed., *Warm Climates and Western Medicine: The Emergence of Tropical Medicine, 1500-1900*, Amsterdam, Editions Rodopi (The Wellcome Institute Series in the History of Medicine), 1996, pp. 20-41.* "The Portuguese State and Medicine in Sixteenth Century Goa," in K. S. Mathew, Teotonio R. de Souza and Pius Malekandathil, eds. *The Portuguese and Socio-Cultural Changes in India, 1500-1800*, Lisboa, Fundação Oriente, 2001, pp. 401-19.* Those marked with an * were reprinted in my collection: *The World of the Indian Ocean, 1500-1800: Studies in Economic, Social and Cultural History*, Variorum Collected Studies Series, Aldershot, Ashgate Publishers, 2005.

NOTES

1 Fernand Braudel, *Civilization and Capitalism, 15th-18th Century*, vol. I, *The Structures of Everyday Life: The Limits of the Possible*, New York, Harper & Row, 1979, pp. 78-88; E. L. Jones, *The European Miracle*, Cambridge, C.U.P., 1981, pp. 140-141.

2 Ludovico di Varthema, *The Itinerary of Ludovico di Varthema of Bologna from 1502 to 1508*, ed. R. C. Temple, London, 1928, p. 63.

3 A. H. de Oliveira Marques, *Daily Life in Portugal in the Late Middle Ages*, Madison, University of Wisconsin Press, 1971, p. 151.

4 *Ibid.*, pp. 143-144.

5 P. D. Gaitonde, *Portuguese Pioneers in India: Spotlight on Medicine*, Bombay, 1983, pp. 82-88; Julius Jolly, *Indian Medicine,* 2nd ed., New Delhi, 1977 [1st pub. 1901], p. 3.

6 Adam Olearius [d. 1671], *The Voyages & travels of the ambassadors sent by Frederick Duke of Holstein to the great Duke of Muscovy, and the King of Persia. Begun in the year MDCXXXIII and finish'd in MDCXXXIX ...,* trans. John Davies, London, 1662, p. 338.

7 *Ibid.*, p. 338.

8 Jadunath Sarkar, *Studies in Aurangzib's Reign*, 3rd ed., London, Sangam, 1989, p. 56.

9 Generally on all this see A. L. Basham, *The Wonder that was India*, London, 1963, pp. 500-502 for an excellent summary, and also A. L. Basham, ed., *A Cultural History of India*, Oxford, O.U.P., 1975, pp. 48, 147-150, 438. Three older, classic, accounts of *ayurvedic* medicine by western orientalists still have detail of great value: Jean Filliozat, *The Classical Doctrine of Indian Medicine: Its Origins and its Greek Parallels*, Delhi, 1964; Julius Jolly, *Indian Medicine*, New Delhi, 2001; Heinrich Robert Zimmer, *Hindu Medicine*, Baltimore, Johns Hopkins Press, 1948. See also a good survey in Edwin H. Ackerknecht, *A Short History of Medicine*, Baltimore, Johns Hopkins University Press, 1982, pp. 35-43, and for a 16th-century Muslim version, Abul Fazl, *Ain-i Akbari*, trans. H. S. Jarrett and J. N. Sarkar, Delhi, 1977-1978, 3 vols., III, p. 234. For Indian Muslim medicine see S. M. Ikram, *Muslim Rule in India and Pakistan*, Lahore, 1966, 2nd ed., pp. 181-183. For a good quick survey of *yunani* literature see D. V. Subba Reddy, "The Origins and Growth of Indigenous Unani Medical Literature in Medieval India," *Indian Journal of History of Medicine*, XIV, 1, June 1969, pp. 20-25, and continued as "The Outline of the History of the Unani Medical Literature," in *ibid.*, XV, 1, June 1970, pp. 14-19. For an account of drugs used in India in the 17th century see Francisco Pelsaert, *Jahangir's India*, trans. W. H. Moreland and P. Geyl, Delhi, 1972, pp. 44-46.

10 Quoted in Gaitonde, *Portuguese Pioneers in India,* p. 101.

11 According to H. G. Rawlinson, the first recorded instance of bubonic plague in India was in 1616, but, given Jahangir's familiarity with it, this seems to be far too late a date. Later in the century it was a great

killer, raging, for example, in Surat for six years in the 1680s. It caused great mortality among Indians, but Europeans were miraculously exempt. See John Ovington, *A Voyage to Surat in the Year 1689*, ed. H. G. Rawlinson, London, 1929, pp. 203-204 and f.n. 13.

12 Jahangir, *The Tuzuk-i Jahangiri*, trans. A. Rogers, ed. H. Beveridge, Delhi, 1968, 2 vols. in 1, I, 442; II, 65, 66-67.

13 Babur, *Babur-Nama*, trans. A. S. Beveridge, New Delhi, 1970, pp. 82, 106-109, 169-170, 246, 399, 400, 511, 543, 608, 657, 660.

14 Jahangir, *The Tuzuk-i Jahangiri*, I, 330, 243; II, 12-13.

15 *Ibid.*, II, pp. 43-44.

16 *The Voyage of Nicholas Downton*, London, Hakluyt, 1938, p. 135. See pp. 135-136 for a morbid account of a death from the "bloudy fluxe."

17 Edward Terry in W. Foster, ed., *Early Travels in India, 1583-1619*, Delhi, 1968, p. 310.

18 Dr. John Fryer, *A New Account of East India and Persia,* I, p. 180, and see also *ibid.*, II, pp. 83-84.

19 *Ibid.*, II, 84.

20 François Bernier, *Travels in the Mogul Empire, 1656-1668*, trans. and ed. A. Constable and V. Smith, London, 1914, pp. 253-254.

21 *Ibid.*, pp. 338-339.

22 Ovington, *A Voyage to Surat,* pp. 204-205.

24 Dennis Kincaid, *British Social Life in India, 1608-1937*, London, Routledge & Kegan Paul,1973, p. 37.

25 Niccolao Manucci, *Storia do Mogor, or Mogul India*, Calcutta, 1966-1967, 4 vols., III, pp. 114, 117. He notes on II, 90 that he simply took up doctoring because the demand was there: "little by little I began to turn myself into a physician."

26 Jafar Sharif, *Islam in India, or the Qanun-i-Islam*, ed. and trans. G. A. Herklots and W. Crooke, London, 1972, p. 243, and see also Mrs. Meer Hassan Ali, *Observations on the Mussulmans of India*, ed. W. Crooke, Karachi, 1973, pp. 235, 307 et seq.

27 Jean-Baptiste Tavernier, *Travels in India of Jean-Baptiste Tavernier*, trans. V. Ball and W. Crooke, New Delhi, 1977, 2 vols, I, 240.

28 Abbé Carré, *The Travels of the Abbé Carré in India and the Near East, 1672-1674*, London, Hakluyt, 1947-1948, 3 vols., p. 271.

29 John M. de Figueiredo, "Ayurvedic Medicine in Goa according to European Sources in the Sixteenth and Seventeenth Centuries," *Bulletin of the History of Medicine* [Baltimore], vol. 58, 1984, p. 226.

30 João Manuel Pacheco Figueiredo, "Goa Pré-Portuguesa," *Studia* [Lisbon], XII, 1963, pp. 139-259; 13/14, 1965, pp. 105-225, especially p. 160.

31 Braudel, *Civilization and Capitalism,* vol. I, 78-88; E. L. Jones, *The European Miracle*, pp. 140-141.

32 Norman G. Owen, ed., *Death and Disease in Southeast Asia: Explorations in Social, Medical and Demographic History*, Singapore, O.U.P., 1987, introduction, pp. 4, 12.

33 Andrew Wear, ed., *Medicine in Society: Historical Essays*, Cambridge, C.U.P., 1992, introduction, p. 2. A. L. Basham wrote disparagingly of "untrained quacks and charlatans" (*op. cit.*, p. 25) in ancient India, but today we would be reluctant to use such judgemental terms. For a general account of village practice in Goa during the whole period of Portuguese rule see Fátima da Silva Gracias, *Health and Hygiene in Colonial Goa: 1510-1961*, New Delhi, 1994, pp. 157-172.

34 J. H. van Linschoten, *The Voyage of John Huyghen van Linschoten to the East Indies*, London, 1885, 2 vols., I, pp. 235-239.

35 François Pyrard de Laval, *The Voyage of François Pyrard of Laval to the East Indies*, vol. II, London, 1888, p. 11.

36 Fryer, III, *A New Account,* p. 98.

37 Alberto C. Germano da Silva Correia, *La Vieille-Goa*, Bastorá, 1931, pp. 268-307, and see also his many other publications of 1914 to 1928 listed in the bibliography of this book. For the calamitous outbreak of 1570 see João Manuel Pacheco de Figueiredo, "Goa dourada nos séculos XVI e XVII: O hospital dos pobres do padre Paulo Camerte, esboço de sua reconstituição histórica," *Studia* [Lisbon], XXV, 1968, pp. 136-140.

38 See John Correia-Afonso, "On the Fourth Centenary of Filippo Sassetti (1540-1588): Scientific Observations from Cochin," a paper presented at the Fifth International Seminar on Indo-Portuguese History, Cochin, Jan. 1989, and now published in *Indica*, XXVI, 1989, pp. 15-24. The quotation is from p. 19.

39 For Orta see *inter al.* Garcia da Orta, *Colóquios dos simples, e drogas he cousas mediçinais de India*, Goa, 1563; Garcia da Orta, *Colóquios dos simples, e drogas he cousas mediçinais da India*, ed. Conde de Ficalho, 2 vols., Lisbon, 1891-1895; Clements Markham, *Colloquies on the Simples and Drugs of India by Garcia da Orta*, [a translation of Conde de Ficalho, Lisbon, 1891-1895], London, 1913. Especially important is C. R. Boxer, *Two Pioneers of Tropical Medicine: Garcia d'Orta and Nicolas Monardes*, London, Wellcome Historical Medical Library, 1963.

40 For a dramatic description, see Gaspar Correia, *Lendas da India*, Coimbra, 1921-1931, Lisbon, 1969, 4 vols., IV, pp. 288-289.

41 See Orta, *Colloquies*, no. 17 for a description of "*mordexim*" in 1543. I will refer to Orta by colloquy number so that readers can use various editions of his work.

42 *Colloquies*, no. 41

43 *Colloquies*, no. 5, and cf. no. 12 for a similar learned and somewhat circular [to modern eyes] discussion.

44 *Colloquies*, no. 9, 30. See especially Boxer, *Two Pioneers*, pp. 7-13, Georg Schurhammer, *Francis Xavier: His Life, His Times,* vol. II, *India*, Rome, Jesuit Historical Institute, 1977, p. 203; and M. B. Barbosa and J. Caria Mendes, "Garcia d'Orta, pioneer of tropical medicine and his descriptions of cholera in his Colóquios (1563)," in *Proceedings of the XXIII International Congress of the History of Medicine*, 2 vols., London, Wellcome Institute, 1974, II, pp. 1258-1259.

45 On the spread of Orta's book see Donald F. Lach, *Asia in the Making of Europe*, Chicago, Chicago University Press, 1965-, I, pp. 192-195, and III, p. 457 [with Edwin J. Van Kley], where it is noted that the first Dutch book on tropical medicine, by Bontius, published posthumously in 1642, is closely modelled on Orta.

46 *Colloquies*, no. 36. On Sassetti see Lach, *Asia*, I, p. 477, and II, book 3, p. 541.

47 See, for example, "Breve relação das escrituras dos gentios da India Oriental a dos seus costumes," pp. 52-53, quoted in John M. de Figueiredo, "Ayurvedic Medicine," p. 231.

48 *Colloquies*, no. 36. It is not really my purpose to pronounce on the "objective" truth of Orta's work, but I could note here that while bleeding, the great staple of European practice, was indeed not done in the ayurvedic tradition, there is evidence of Hindu doctors using urinalysis for diagnostic purposes.

49 *Colloquies*, no. 54.

50 *Tratado das drogas e medicinas das India Orientais*, por Cristóvão da Costa, ed. Jaime Walter, Lisbon, Junta Nacional do Ultramat, 1964, p. 125.

51 Costa, *Tratado das drogas,* p. 28.

52 Costa, *Tratado das drogas,* pp. 23, 28.

53 Costa, *Tratado das drogas,* pp. 44, 86, 127.

54 See Lach, *Asia*, vol. II, book 3, pp. 436-437.

55 Costa, *Tratado das drogas,* p. 279.

56 Costa, *Tratado das drogas,* p. 199.

57 Costa, *Tratado das drogas,* pp. 125-126.

58 *Colloquies*, no. 36.

59 Afonso de Albuquerque, quoted in Figueiredo, "Goa Pré-Portuguesa," pp. 161-162.

60 Tomé Pires, *The Suma Oriental of Tomé Pires and the Book of Francisco Rodrigues*, ed. Armando Cortesão, London, Hakluyt, 1944, p. 69.

61 Costa, *Tratado das drogas,* p. 23.

62 *Colloquies*, no. 45; Costa, p. 103; Ana Maria Amaro, "Goa's Famous Cordial Stone," *Revista de Cultura* [Macao], no. 7/8, Oct. 1988-March 1989, pp. 82-103. Many thanks to Fr. Charles Borges, now of Loyola University, for this reference. For their use in Europe see Lach, *Asia*, vol. II, book 1, p. 12.
63 *Colloquies*, no. 2; and see ibid for a detailed account of Muslim purging practice following Ibn Sina's advice (also described in Costa, p. 125).
64 Pires, *The Suma Oriental,* p. 69; Afonso de Albuquerque, quoted in Figueiredo, "Goa Pré-Portuguesa," p. 162.
65 *Colloquies*, no. 51.
66 *Colloquies*, no. 54.
67 Costa, *Tratado das drogas,* p. 143.
68 Figueiredo, "Goa Pré-Portuguesa," p. 176.
69 *Colloquies*, no. 27.
70 Costa, *Tratado das drogas,* p. 28.
71 *Colloquies*, no. 27.
72 Pires, *The Suma Oriental,* p. 69; Afonso de Albuquerque, quoted in Figueiredo, "Goa Pré-Portuguesa," p. 162.
73 Timothy Walker has written a series of excellent studies of medicine in Goa and Portugal mostly dealing with a later period than mine. On interaction see "Echoes of Indian Indigenous Medical Techniques in the Portuguese Hospitals, Infirmaries and Pharmacies of Goa, 1650-1830." In his own words, 'This paper seeks to provide an overview of the hybrid medical culture found in the Portuguese colonial enclaves in India between approximately 1680 and 1830. My intent is to draw attention to the Indo-Portuguese functionaries who practiced medicine in state and religious medical institutions at this time, consider the cultural influences that shaped their diverse remedies, and look at some of the indigenous drugs they applied to patients in those institutions.' A version of this same paper was published in *Ayurveda at the Crossroads of Care and Cure*, ed. Ana Salema, Lisbon, Centro de História de Além-Mar, 2002.
74 Pyrard de Laval, *The Voyage of François Pyrard of Laval,* II, pp. 11-14.
75 See Correia-Afonso, *op. cit*. For conditions on board Indian ships in the later 17th century, see A. Jan Qaisar, "From Port to Port: Life on Indian Ships in the Sixteenth and Seventeenth Centuries," in Ashin Das Gupta and M. N. Pearson (eds), *India and the Indian Ocean, 1500-1800*, Calcutta, 1987, pp. 331-349.
76 Fryer, *A New Account,* I, p. 180; Manucci, *Storia do Mogor,* II, p. 157.
77 Manucci, *Storia do Mogor,* III, p. 265.
78 Correia-Afonso, *op. cit.*, p. 19.
79 Fryer, *A New Account,* I, p. 180.
80 Ikram, *Muslim Rule,* p. 183.
81 Lach, *Asia*, vol. II, book 3, p. 424.
82 Careri in S. N. Sen, ed., *Indian Travels of Thevenot and Careri*, New Delhi, 1949, p. 162.
83 Pires, *The Suma Oriental,* p. 69. See also his list of Indian simples and drugs on pp. 512-518.
84 J. M. Pacheco de Figueiredo, "The Practice of Indian Medicine in Goa during the Portuguese Rule, 1510-1699," *Luso-Brazilian Review* [Rio de Janeiro], IV, 1, 1967, pp. 52-53.
85 Linschoten, *The Voyage of John Huyghen van Linschoten,* I, p. 230.
86 See Silva Correia, p. 275, and Pyrard, *The Voyage of François Pyrard of Laval,* intro. p. xii, and II, 14. For the career of one such *fisico-mor*, Dimas Bosque, who was attached to the viceroy D. Constantino de Bragança, 1558-1561, see Jaime Walter, "Dimas Bosque, fisico-mor da India a as sereias," *Studia* [Lisbon], XII, 1963, pp. 261-271.
87 King to viceroy, Jan. 23, 1610, in *Documentos remetidos da India, ou Livro das Monções*, ed. R. A. de Bulhão Pato, Academia Real das Ciências, Lisbon, 1880-1935, 5 vols., I, p. 304, and king to viceroy, Jan. 30, 1613 in *ibid.*, II, p. 300.
88 A. K. Priolkar, *The Goa Inquisition*, Bombay, 1961, p. 14 of Dr. Dellon's account.
89 Pyrard, *The Voyage of François Pyrard of Laval,* II, p. 13.
90 Abbé Carré, *The Travels of the Abbé Carré,* pp. 284-285.
91 Ovington, *A Voyage to Surat,* p. 206.
92 J. H. Grose, *A Voyage to the East Indies*, 2nd ed., 2 vols., London, 1772, I, p. 250.
93 Tavernier, *Travels in India*, I, pp. 160-161.
94 See generally a succinct survey in Roderick E. McGrew, *Encyclopedia of Medical History*, London, Macmillan, 1985, s.v. "hospitals."
95 *Encyclopedia of Islam*, 2nd ed., s.v. "bimaristan;" Guenter B. Risse, *Mending Bodies, Saving Souls: A History of Hospitals,* New York, O.U.P., 1999, pp. 125-128.
96 Ikram, *Muslim Rule,* pp. 501-502. See also R. L. Verma, "The Growth of Greco-Arabian Medicine in Medieval India," *Indian Journal of History of Science*, V, 2, 1970, pp. 347-363 and M. Z. Siddiqui, "The Unani Tibb (Greek Medicine) in India," *Islamic Culture*, XLII, 3, 1968, pp. 161-172 for two enthusiastic and uncritical accounts of medicine in India. They stress, respectively, Hindu-Muslim coexistence and lots of hospitals in India.
97 Guenter B. Risse, "The Encounter between Spanish and Aztec Medical Cultures: Hospitals in New Spain," in D. Arnold, ed., *Warm Climates and Western Medicine*, Amsterdam, Rodopi, 1996.
98 L. Stroppiana, "The Hospital Crisis of the sixteenth century and its hygenic and social aspects," in *Proceedings of the XXIII International Congress of the History of Medicine*, I, pp. 82-87. For a sketch of pre-modern English health care see John Woodward, *To Do the Sick No Harm: A study of the British voluntary hospital system to 1875*, London, Routledge and Kegan Paul, 1974, pp. 1-5; and for France, in a work which also emphasizes volunteerism, Colin Jones, *The Charitable Imperative: Hospitals and Nursing in Ancien Regime and Revolutionary France*, London, Routledge, 1989.
99 McGrew, *Encyclopedia*, p. 138.
100 See especially Lindsay Granshaw, "The rise of the modern hospital in Britain," in Andrew Wear, ed., *Medicine in Society: Historical Essays*, pp. 197-218, and generally on hospitals see Lindsay Granshaw and Roy Porter, eds., *The Hospital in History*, London, Routledge, 1989, and Guenter B. Risse, *Mending Bodies, Saving Souls*.
101 C. R. Boxer, "Some remarks on the social and professional status of physicians and surgeons in the Iberian World, 16th-18th centuries," *Revista de História* [São Paulo], vol. L, no. 100, 1974, p. 200. On this hospital, see a book which reprints the "Regimento" which established it and which contains copious information on medical knowledge and regulation at this time: Abílio José Salgado and Anastásia Mestrinho Salgado, eds. *Regimento do Hospital de Todos-os-Santos* [facsimile edition], Lisbon, 1992.
102 Sir George Clark, *A History of the Royal College of Physicians of London*, Oxford, Clarendon Press, 1964-1966, 2 vols., I, pp. 61, 337.
103 Oliveira Marques, *Daily Life in Portugal,* p. 151.
104 C. R. Boxer, "Some remarks,"pp. 197-198.
105 Fryer, *A New Account,* I, p. 286.
106 Ovington, *A Voyage to Surat,* p. 205.
107 Fryer, *A New Account,* III, p. 95.
108 Afonso de Albuquerque, *Commentaries of the great Afonso Albuquerque*, London, Hakluyt, 1875-1884, 4 vols., III, p. 241, and see generally Schurhammer, *Xavier*, pp. 201-204.
109 For an extended description of the hospital in 1542 see Schurhammer, *Xavier*, pp. 201-208.
110 Fátima Gracias, *Health*, pp. 122-123. Linschoten described their work in the hospital in the 1580s: Linschoten, *The Voyage of John Huyghen van Linschoten,* I, p. 237. For the king's attempt to get them to take over again, see king to viceroy, 21 Jan. 1588, in *Archivo Português Oriental*, ed. J. H. da Cunha Rivara, III, Nova Goa, Imprensa Nacional, 1862, p. 115, and king to viceroy 6 Feb. 1589, in *ibid.*, p. 196.

111 Pyrard, *The Voyage of François Pyrard of Laval,* II, p. 12.
112 Linschoten, *The Voyage of John Huyghen van Linschoten,* I, pp. 237-238.
113 Pyrard, *The Voyage of François Pyrard of Laval,* II, p. 12.
114 Linschoten, *The Voyage of John Huyghen van Linschoten,* I, p. 237.
115 Pyrard, *The Voyage of François Pyrard of Laval,* pp. 3, 7. It obviously had been considerably enlarged since 1593, when it held only 400-500.
116 Linschoten, *The Voyage of John Huyghen van Linschoten,* I, pp. 237-238.
117 Pyrard, *The Voyage of François Pyrard of Laval,* p. 11.
118 Linschoten, *The Voyage of John Huyghen van Linschoten,* I, p. 238.
119 Pyrard, *The Voyage of François Pyrard of Laval,* II, p. 10. Pyrard, II, pp. 2-17, provides the classic contemporary account of the Royal Hospital.
120 This provisão of 25 May 1595 is printed in *Archivo Português Oriental*, III, pp. 547-550.
121 Laurinda Abreu, "O papel das Misericórdias dos 'lugares de além-mar' na formação do Império português," *História, Ciências, Saúde-Manguinhos* [Rio de Janeiro], VIII, 2001, pp. 591-611.
122 See C. R. Boxer, *Portuguese Society in the Tropics*, Madison, Wisconsin University Press, 1965, pp. 24-25; C. R. Boxer, *The Portuguese Seaborne Empire*, Hutchinson, London, 1969, pp. 286-288; Schurhammer, pp. 168-172 for the *Misericórdia* in the time of Xavier; and for an extended, though now dated, coverage, see José Frederico Ferreira Martins, *História da Misericórdia de Goa, 1520-1910*, 3 vols., Nova Goa, 1910-1914. Another older account is F. Ayalla, "A Misericórdia de Goa," *O Oriente Portuguez*, I, 1905, pp. 192-201. The best modern account is Fátima da Silva Gracias, *Beyond the Self: Santa Casa de Misericórdia de Goa*, Panjim, Surya Publications, 2000.
123 Boxer, *Portuguese Society in the Tropics*, p. 25.
124 "Titulo dos bens que tem o convento das religiosas de Santa Monica da Cidade de Goa feito no mez de Janeiro de 1618 ...," in *Documentos remetidos da India*, vol. VIII, p. 85. Many thanks to Timothy Coates for this reference. Also see Timothy Walker, "The Dissemination of Drugs and Healing Techniques from India through the Portuguese Maritime Empire, 1560-1830," conference paper, for an excellent study of the dissemination of Indian remedies all around the Portuguese empire and the metropole, and especially for pharmacies in Portugal. His period is the 17th and 18th centuries.
125 J. M. Pacheco de Figueiredo, "The Practice of Indian Medicine," pp. 53-60; C. R. Boxer, "Some Remarks," p. 207; John M. de Figueiredo, "Ayurvedic Medicine," p. 230.
126 *Breve relação das escrituras dos gentios da India Oriental e dos seus costumes*, pp. 52-53, quoted in João Manuel Pacheco Figueiredo, "Goa Pré-Portuguesa," pp. 179-180, and also quoted [in English] in John M. de Figueiredo, "Ayurvedic Medicine," p. 231.
127 "Livro de Posturas," *Historical Archives of Goa*, 1618, quoted in R. R. S. Chauhan, "Life in 17th Century Goa vis-a-vis Senate bye-laws," in P. P. Shirodkar, ed., *Goa: Cultural Trends*, Panaji, 1988, pp. 211-212.
128 For a good discussion see Walter Pagel, "Paracelsus: Traditionalism and Medieval Sources," in Lloyd G. Stevenson and Robert P. Multhauf, eds., *Medicine, Science and Culture*, Baltimore, Johns Hopkins Press, 1968, pp. 51-75.
129 Andrew Wear, "Introduction," in Andrew Wear, ed., *Medicine in Society: Historical Essays*, p. 5. See also on these general changes other articles in this excellent collection, and two other compilations: Andrew Wear, Roger French and I. M. Lonie, eds., *The Medical Renaissance of the Sixteenth Century*, Cambridge, C.U.P., 1985, and Roger French and Andrew Wear, eds., *The Medical Revolution of the Seventeenth Century,* Cambridge, C.U.P., 1989. For the 15th century see a short useful study by Roger French: "Medicine in Western Europe during the fifteenth century," in Mário Gomes Marques and John Cule, eds., *The Great Maritime Discoveries and World Health*, Lisbon, ENSP, 1991, pp. 39-54.
130 Bernier, *Travels in the Mogul Empire*, pp. 253-254, 338-339.
131 *Ibid.*, p. 339.
132 *Ibid.*, pp. 338-339.
133 *Colloquies*, no. 36.
134 See for example Fryer, *A New Account,* I, 285-286, where he begins a long description of disease in Surat by saying, "The Diseases reign according to the Seasons, the North blowing, Bodies are rendered firm, solid and active by exhausting the Serous Humours."
135 Fryer, *A New Account,* I, p. 287.
136 Fryer, *A New Account,* III, p. 94.
137 Manucci, *Storia do Mogor*, II, p. 333.
138 Olearius, *The Voyages & travels of the ambassadors*, p. 338.
139 Fryer, *A New Account,* III, p. 96.
140 Abbé Carré, *The Travels of the Abbé Carré,* pp. 284-285.
141 *Ibid.*, p. 598.
142 Abbé Carré, *The Travels of the Abbé Carré,* p. 624. Not, however, that all Europeans were particularly expert. See *ibid.*, pp. 369-370, for the story of a French quack who did at least examine an ill Portuguese "by all the laws of Hippocrates and Galen."
143 Jadunath Sarkar, *Studies in Aurangzib's Reign*, p. 56.

Trade, Research and Science Under the Dutch in Asia

Jurrien van Goor*

On July 15, 1779, a group of Dutchmen in the service of the East India Company visited the longhouse of a Dayak group in West Borneo with the intention of carrying out scientific observations. In the event, they did not stay long because the many human skulls, some of which were no more than a few days old and "from which the fluid was still continuously running", stank so badly that "we quickly went back again".[1] They were, moreover, unnerved by the inquisitive inhabitants who gazed at them from all sides. Two days later, the group had more time to devote to their science, spending the best part of a day chasing around and trying to capture a live orang-utan. When that proved unsuccessful—not least because the orang pelted the expedition with branches—they shot the beast dead and stuffed it in a barrel of arak to preserve it and take it back to Batavia. The leader of this minor expedition was Adriaan Palm, a junior merchant in service with the East India Company (the *Verenigde Oostindische Compagnie,* or VOC), who was visiting Borneo in pursuit of trade. In fact, economic and political activities take a much more prominent place in the report of his journey than these rather superficial 'scientific' forays.[2]

The trip to the Dayak village and the attempt to catch the ape were in fact direct responses to a circular that had been sent around six months previously by the *Bataviaasch Genootschap van Kunsten en Wetenschappen* [the Batavian Society of Arts and Sciences],[3] which asked the personnel of all the VOC offices in Asia to collect anything of an interesting nature, be it related to humans, animals or plants.[4] The Society had been founded in Batavia in 1778 on the model of the learned societies in the Netherlands,[5] but differed from the latter in one important respect: the members of the Batavian Society were all in service with the VOC, the Dutch trading organization that had held a monopoly on trade between the Netherlands and Asia since 1602. Up until then, the directors of the VOC, as far they were able, had kept their knowledge about Asia a secret. The founding of the Batavian Society was thus a break with the dominant practise of secrecy. In the first publication issued by the committee of the new Society, the chairman, the Zeelander J. C. M. Radermacher, incorporated the report of the journey to West Borneo into an account of that island, while the ape was sent back to the Netherlands and offered to the Stadholder Willem V for his Natural History and Art Collection. The animal, the first such adult specimen ever to reach Europe, was to play an important role in research on great apes.[6]

In this tale, trade and science worked together harmoniously to extend knowledge of both the natural sciences and of Asian ethnology: economic activities went hand in hand with the collection of data about the area. Should one conclude from this unproblematic collaboration that this was normal practise, or are we dealing with an exception? It has been alleged repeatedly that the Company was exclusively a trading organization that was wholly indifferent to the arts and sciences. Only if the managers saw some potential advantage were they prepared to proactively do anything; and therefore any interest they had would

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have been mainly in the applied sciences. Historian H. A. M. Snelders further points to the secretive stance adopted by the Company's management as a factor that may have been an obstacle to the advancement of knowledge about Asia.[7] Further, he draws a connection between the paucity of interest in the arts and sciences and the decline of the VOC during the 18th century, as a result of which cuts were introduced curtailing all aspects of company activities that did not contribute directly to profits. The *Bataviaasch Genootschap* would have been more concerned with the practical than the 'pure' sciences.[8]

I believe, however, that this view should be questioned more closely. Firstly, the myth that the Company was on a constant trajectory of decline during the 18th century is no longer accepted. The beginning of the end came with the Fourth Anglo-Dutch War (1780-1784), as a consequence of the heavy financial losses suffered by the Company.[9] But even so, the Company subsequently remained a considerable power in Asia, one which the indigenous rulers certainly took into account.[10]

Another reservation concerns the question of secrecy. The directors of the VOC indeed had no desire for competitors to be able to discover easily what the company was up to; naturally they preferred to keep the most important information concerning trade and cartography to themselves. A good example of knowledge gathered exclusively for a restricted group is the famous *Beschrijvinge van de Oostindische Compagnie* [Account of the East India Company] by the director, Pieter van Dam. This lengthy manuscript describes all the Company's offices and possessions, and summarizes everything that was known around 1700. This knowledge was restricted to a small circle; only in the 20th century has a printed edition of this work been published.[11] But the fact that this secrecy was guarded should not be taken to mean that there were no scientific activities. Science and research begin with the phase of collecting, describing and investigating the phenomena one encounters, against which one can test already existing theories or assumptions. In the 18th century, gathering data was thus of major significance in the scientific enterprise. The emphasis on the assemblage of data also offered many amateurs the opportunity to participate. Moreover, Asia offered the European a range of new opportunities to extend his knowledge in virgin territory: social institutions, religion, flora and fauna were all different from their counterparts at home. The languages often had their own script and a different structure from those of Europe. The encounter with this, in various regards, different world also led to a reflection on one's own values. In Europe, reports of this other world led to the idea of the Noble Savage and to the use of the learned Persian, Chinese or other Oriental as a mirror for European society.[12]

A third reservation concerns the strong bias toward Batavia in all matters of judgement of the Company's cultural activities. The Académie de Marine and the Latin School, both founded in Batavia in the 18th century, did not in fact last long;[13] but the failure of these schools stands in stark contrast to the highly successful seminaries in Ceylon, where the Company maintained educational institutions for native clergy and the sons of the local elite for over a hundred years. The need for education was so great that after the English conquest of the island these schools were re-opened at the request of the local population. In Ceylon, a number of Singhalese, Tamil and European youths were educated to a sufficient level for them to be sent to the Republic for further studies. Several present-day prominent families in Ceylon, among them the Bandaraike family, can count the pupils of the seminary among their ancestors. Indeed, it would seem that the success of this secondary education was to a considerable extent due to the ready supply of pupils.

Batavia in the 18th century was an unhealthy city with a high mortality rate among the European population. During the same period, in contrast, there were European families in Ceylon who had been established for five generations. Estimates of the expenses incurred by the Company for the Church and for education vary from two and a half to four percent of the total annual expenditure for the island, which in absolute terms meant almost fifty thousand guilders for the salaries of ecclesiastical staff and the maintenance of buildings.[14]

When one considers the relationship between trade and science, one has to ask first of all what purpose was served by science within the Company. The VOC in fact was the framework within which all the activities of the Dutch in Asia took place, and in this perspective it is difficult to distinguish science from the social life of which it was a part.

The knowledge the Company needed was mainly of a practical nature, for specific situations. For the

functioning of the enterprise, the practise of science as such was at best a diversion, the sole exception being for the spread of the Christian religion. This did not mean, however, that science and culture fell outside the field of vision of individual personnel, or that the Company was not prepared to cooperate in research investigation. Among the higher-ranking personnel there were many who were interested in science and culture. Besides, a great deal of scientific information was recorded in letters and reports for the Company bureaucracy. The VOC archives are a gold mine for discovering what was known of Asia in the 17th and 18th centuries; yet with a few notable exceptions, such as the splendid work of the religious minister François Valentijn (1666-1727), this material has hardly ever been exploited for publications.[15] In the seven sturdy volumes of *Oud- en Nieuw Oost Indiën* this minister gave a descriptive account of the history of the different offices of the VOC, from the Moluccas to Japan and Mauritius, from Persia to Timor. After Valentijn, there was little more published on the VOC during the 18th century. The founding of the Batavian Society for Arts and Sciences was in fact a conscious departure from this pattern.

There are several striking aspects about the organization of this Society.[16] The first is the typically utilitarian thinking of the 18th century. The idea was that a better, preferably more Christian, society would arise through the advance of agriculture, trade and welfare by means of scientific research. The second aspect is the strong bias toward solving practical problems in the East Indies and especially in Batavia. The third, very important element was the personal interweaving of executive functions in the Society with high positions in the Company. The first chairman, J. C. M. Radermacher (1741-1783), was an extraordinary member of the *Raad van Indië* [the Council of the Dutch East Indies] and furthermore a son-in-law of Governor-General Reinier de Klerk (r. 1777-1780).[17] These relations ensured that one could take advantage of Company facilities, but at the same time they imposed restrictions on the possibilities for research. Although they were nowhere defined, it was understood that the Company's affairs must not be affected. In actuality, there was a close link, both before and after the founding of the Society, between the practise of science and the Company's existence. Even after the Company was discontinued in 1799, the connection with the employer or government was not wholly dissolved: in 1816, permission had to be asked from the Dutch-East Indian government before any research was conducted. Travelling in the archipelago was also subject to the approval of the government well into the 19th century.[18] It was the Company, and subsequently the Dutch-East Indian government, that determined the boundaries of research.

The directors of the VOC indeed had no desire for competitors to be able to discover easily what the company was up to; naturally they preferred to keep the most important information concerning trade and cartography to themselves.

The question of how the Dutch in the 17th century responded to the Asian environment, and whether they took the trouble to understand it through systematic research and to bend it to their own purposes, has no simple, unambiguous answer. A great deal depended on the position taken by the particular Dutch in question, and that differed from place to place. This was partly due to local circumstances, but also partly depended on Company politics. In some ports, as in India, Persia, Siam and China, Company representatives were no more than traders among traders. What was needed there was knowledge of tolls, of the possibilities for trade and the quality of goods on offer, and the skills for dealing with Asian traders and administrators. In such cases, the emphasis lay on knowledge of the necessary codes of behaviour a foreigner should observe in trading and social interactions.[19]

Over the course of time, however, the Company did not limit itself in Asia to trade alone. From the very beginning, certainly in the Indonesian archipelago, it was involved in governing indigenous subjects. There were conquests that had given the Company

sovereignty over Asian territories and Asian subjects. In Ambon, the oldest possession, the VOC governed some fifty thousand Asian subjects,[20] while in 18th-century Ceylon the number ran to some three hundred and fifty thousand.[21] The non-European population of Batavia around 1730 consisted of several thousand Chinese, slaves and larger or smaller groups originating from various parts of the archipelago.[22] In the course of time, political and economic alliances were formed with local rulers. The administration of parts of Asia and the conduct of relations with Asian rulers made demands on the knowledge of the people concerned that differed from other places where one could simply limit oneself to trading. Knowledge of and research into other societies, however limited, did not stand apart from, but rather had its function within, the global context of management and administration. But neither should one draw this connection too tightly. There was often room to follow one's own interests and to pursue research based purely on interest. An additional factor was that both individual Company servants and the organization as such were in contact with the scientific establishment in the Republic of the United Netherlands, whence issued questions and directions concerning botany or zoology, languages or natural phenomena that were needed to guide the collection of material and data. In Ceylon, for example, herbs, fruits and plants were collected each year for the herbaria and botanical gardens in Leiden and Amsterdam. In Asia there were neither the people nor the resources to process the collected data, whereas the universities in the Republic had the requisite infrastructure for further research and systematisation of the material sent back home.[23]

Research can result from inquisitiveness, aroused by the new world in which one finds oneself, but it can also follow from the desire to find solutions to problems that one confronts. Sometimes research was necessary in order to be able to administer a recently conquered territory; sometimes it was a consequence of a scientific training or an academic education. It is no accident that most (and often the best) accounts of lands and peoples date from the early phase of the VOC's presence in a given region, when the Company was still establishing itself: this was the period when the VOC had the greatest need for knowledge of the customs, laws, rights and obligations of their new subjects. Later, when administrators had more experience to rely on, there was less need for such extensive accounts; but that does not gainsay the fact that in all offices a so-called memorandum of transfer was drawn up on the assumption of authority: a knowledgeable survey of the territory that allowed the successor to settle in.[24] The influence of the environment is also evident when one compares the Transactions of the Batavian Society with those of similar institutions in the Republic: the Batavian Transactions contain a far higher percentage of geographical articles.[25]

Assuming the reasons already cited for conducting research, one can group those individuals who manifested a scientific interest during their time with the Company into several different categories. In the first place, there were the enthusiasts and the generally interested; then those who needed practical knowledge for the contacts made during their work; and thirdly, the chroniclers of the conquest. The one profession for which only persons with a university background were accepted by the Company were the ministers of religion. Academically trained doctors hardly ever entered into service with the VOC, most of the medical work being done by surgeons. As a result of this situation, ministers of religion formed a large and specific group within the Company's personnel as a whole. Their main job was the spiritual care of the European employees and administrations in Asia, with missionary work being a secondary activity. Insofar as they were scientifically active, their work can be compared with that of individuals in the other three categories, some examples of which—if one can speak at all of scientific activity in a pure sense—follow below.

The amateur with an interest in his surrounding environment existed in all ranks of the Company. Many of the authors of travel journals had come out as soldiers, among them Germans, young men from good families who saw no chance of being accepted into the higher ranks of their own society.[26] It is not always easy to draw a line between pure curiosity and a certain scientific interest in these works. In many cases, the author goes no further than the description of people, landscape, flora and fauna; there is no purposeful research unless one calls it research when a deliberate detour is made in order to see particular statues or to catch an animal.[27] Excursions to visit temples were very popular. In this way, for example, a junior merchant and several soldiers brought back, from a visit to the temple complex of Prambanan in the interior of Java,

several statues of the Candi Kalasan, while in 1690 a Christian minister in Ceylon measured all the statues on the Adamsberg. But it is hardly surprising that most enthusiasts were to be found among the higher ranks, since they had the education, the position, the means, and the time necessary for such pursuits. Lower-ranking personnel with particular skills were occasionally appointed to carry out specific tasks, such as making drawings or collecting plants and animals. The Asian environment offered plenty of opportunities for building up collections of curiosities. Governor-General Johannes Camphuys (who governed from 1681 to 1684) was so devoted to his collections of Japanese curios and Indonesian animals that he had no further desire at the end of his period of office, in 1684, to return to his fatherland.[28] He spent his old age between the city of Batavia and his country houses nearby. The increased security after the1680s in the territory around Batavia enabled the local elite, very much like the patrician class in the Dutch Republic, to keep up a country residence. Batavia itself offered few opportunities for excursions otherwise. The country houses were undoubtedly a good investment,[29] but they were also prized for the status associated with them.[30] They also offered their owners the chance to carry out tests on animals, plants and seeds introduced from elsewhere. At the beginning of the 18th century, another Governor-General, Johan van Hoorn (r. 1704-1709), raised in his garden the first cultivated coffee shrubs from beans that the VOC had sent from Mokka. His horticultural test gave the first proof that coffee could be cultivated beyond Arabia, and marked the beginning of the highly successful coffee culture in West Java.[31]

The VOC's major sphere of activity between the Cape of Good Hope and Japan brought extensive opportunities for gathering information and acquiring many species of plants and animals. Just as in the case of the coffee bean, the line between individual curiosity and the interests of the Company are not easily drawn. Another, albeit less successful, example of an attempt to introduce a new form of agriculture was that of Governor-General Mattheus de Haan (who governed from 1725 to 1729), who tried to transplant the cultivation of silk from Bengal to Batavia. In both his official and private capacities, De Haan urged his acquaintances and the staff and subjects of the VOC to plant mulberry trees. Various members of Company staff actually purchased land for the purpose. The authorities further decided that Chinese residents had to surround their cemeteries with mulberry bushes.[32] Unfortunately, all these efforts came to nothing; yet the cultivation of silk continued to exercise many minds: fifty years later, one finds the Batavian Society offering prizes for a good method of cultivating Batavian silk.

When one studies the first programmes of the Society, questions about agriculture strike one most forcibly. Thus, for example, the Rev. J. Hooijman, one of the active members from the very outset, wrote on the cultivation of sugar, an interest pursued by many Society members on their estates. Another learned enthusiast of the natural sciences was the Rev. J. M. Mohr, who carried out astronomical observations from a tower built at his own expense.[33]

Interest in the flora of Asia was in the first instance prompted by the need of doctors and surgeons to have knowledge of medicinal herbs. Indeed, the Company repeatedly encouraged their collection. The work of the great collectors Hendrik Adriaan van Reede tot Drakenstein (1636-1692) and G. E. Rumphius (1627-1702), however, went far beyond these practical objectives, making major contributions to the botanical knowledge of both the west coast of India and the Indonesian archipelago. Rumphius took the opportunity, as a merchant and the chief of Hitu in Ambon, to write extensive descriptions, illustrated with drawings, of approximately a thousand plants. With the cooperation of the authorities in Batavia, he was further able to supplement his work with descriptions of plants from elsewhere.[34] He also collected and described many of the shellfish found in the Moluccas. Holding a variety of high-ranking positions, the nobleman van Reede had plants collected and described by Asian, Dutch and other European graphic illustrators and experts,[35] and had these descriptions published in a sound and reliably scientific edition in the *Hortus Malabaricus*. Even in its incomplete form, this (both literally and figuratively) magnificent work is a monument to his scientific interest and patronage. Van Reede was also the founder of the highly successful seminaries for Tamils and Singhalese in Ceylon.

The transition from enthusiastic amateur to researcher who needed knowledge for practical applications was a gradual one. This was also true of the clergymen who, while in service with the Company, concerned themselves with Asian languages and religions. There was often a fine line between inquiry

and application, as is nicely illustrated by the example of the minister Philippus Synjeu in Ceylon.[36] In the Netherlands, Synjeu had been strongly influenced by the ideas of French philosopher René Descartes and Amsterdam clergyman Balthazar Bekker, who fought the belief in witchcraft. In his work, Synjeu comes across as a rationally driven opponent of non-Christian thought. On his first meeting with Buddhists and Hindus in 1704, he tried to understand their "innate" conception of God and to test it by reason. He attempted something of the same sort when training Singhalese youths in confirmation classes: in order to strengthen them against other faiths he developed a series of propositions, in which, with the help of Cartesian ideas, he tried to show that the migration of souls, polytheism and astrology were superstitions. Synjeu undertook a study of the elements of Christianity that could also be found in Hinduism, and in this respect his basic principle was not dissimilar to that of the Amsterdam regent, amateur scholar and patron Nicolaes Witsen (1641-1717). One of Synjeu's propositions that strikes one as remarkable—and that was contested by his colleagues—was that a minister of religion had no need to know other languages in order to convert other peoples to Christianity, since reason alone was sufficient.[37]

The first Dutch ministers of religion in India always went to great lengths to become familiar with Hinduism, following the earlier outlook of the Portuguese Jesuits and other Catholic clergy in Asia who had considered this knowledge essential to their efforts to convert the heathen.[38] The most important studies of Hinduism in India conducted by Dutch clergymen were those by Abraham Rogerius and Philippus Baldaeus; the central parts of these works are considered to this day to give a good account of this religion in certain parts of India in the 17th century.[39] The work of Baldaeus, however, is based hardly at all on his own observations, most of it being taken from his Portuguese predecessors, a common practice at the time. In the early years of their expansion, the Dutch borrowed heavily from their Portuguese forerunners.[40] Apart from Valentijn, no further Dutch works of this quality were published after the 17th century. Although Jacob Haafner's stories from the end of the 18th century about his wanderings through India and Ceylon display great sympathy and knowledge of the country, they were scarcely intended as a scientific account.[41]

Over the course of the 18th century, the main advance to be made was in translating the Bible. In Ceylon, large parts of the Old and the New Testaments were translated into Singhalese and Tamil, a project carried out by a large group of ministers who were set to this purpose at the Company's expense, together with a number of Tamils and Singhalese educated at the seminary in Colombo.[42] In the Indonesian archipelago, a Malay translation of the Bible was completed after much wrangling.[43] The translated works were printed and published by the Company.

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Knowledge of Asian scripts and languages was of course needed by the VOC for its contacts with traders and rulers. Personnel of higher rank were selected for positions in field offices, ensuring that attention was paid to the linguistic and other skills needed for dealing with indigenous peoples.[44] In various different offices there were interpreters and translators of *mestizo* or European origin in the Company's service, although, especially in the beginning, their own knowledge of languages was rudimentary and they were dependent on indigenous helpers for translation. Given the extent of the correspondence conducted with Asian rulers, one finds surprisingly few complaints about mistranslation. It was a very different matter with Biblical translation, where on several occasions conflicts arose over the correct use of words. Whether in Singhalese, Tamil or Malay, it was difficult to determine what was the purest, most accurate form, the problem arising from the question

of which regional variant of the language should be chosen.[45] Along the coasts and in the ports, there was evidently considerable intermixture and bastardization of languages. Until far into the 19th century, for example, it was not realized that Tamil and Singhalese belonged to different language families.[46]

An interest that was in some sense comparable also developed in the legal field. In places where the VOC had become sovereign over great numbers of Asian subjects, they needed to familiarize themselves with the prevailing legal systems. In Ceylon, at the beginning of the 18th century, the *tessawellamai*, the customary law of the Tamil population of Jaffna, was codified. For another group, a start was made to codifying the laws of the Islamic "Ceylon Moors" around 1780. This was unnecessary in the Singhalese area, because there the Roman-Dutch law could be introduced.[47] Elsewhere, the Company spoke directly with the indigenous chiefs and/or religious leaders who interpreted the local law.

Another relationship between the acquisition of knowledge and professional practise was to be found in many accounts of countries and peoples. Various Company servants wrote descriptions of the regions they had to deal with. For example, Cornelis Speelman, Governor-General from 1681 to 1684, during whose regime there was huge territorial expansion, had several extensive studies carried out.[48] As head of the expedition against Gowa in South Celebes in 1666, he compiled a thorough and extensive description of that area. In a later, comparable action, he wrote an account of Mid-Java. In both cases, Speelman embarked on the conquest against the wishes of Batavia.[49] During the campaign, the information he gathered about the land and population, the tax system, the history and natural circumstances, was summarized in a memorandum or note, with indigenous informants providing the material. The physical taking of possession went hand in hand with a conquest of the mind: the information was necessary for the administration that was subsequently introduced. But Speelman's descriptive activities went much further than was necessary for his official reports, and in this he may be compared with his contemporaries Rijklof van Goens sr. (1619-1682) and Van Reede tot Drakenstein. Van Goens kept a certain amount of material for himself and worked it into his subsequent writings.[50] Both Van Goens and Van Reede tot Drakenstein belonged to that long line of generals-administrators who extended the Company's power in Ceylon and India, often against the wishes of Batavia. Almost a century later we see a slightly different, yet comparable attitude in such a man as Gustaaf Willem Baron van Imhoff, who, first as Governor of Ceylon (1736-1740) and later as Governor-General (1743-1750), undertook extensive overland journeys to inspect the territory under his administration.[51] He visited Buddhist temples, spoke with priests, and had inquiries made into all kinds of things. In the case of van Imhoff, one is also struck by another aspect of his reports on autochthonous society. His interest did not lead him to an unbiased judgement of this society; his journeys of inspection merely strengthened him in his conviction of the superiority of European government over Asian rule,[52] a prejudice that may have played tricks on him in his dealings with Asian rulers. The great Javanese war of succession, which erupted in the middle of the 18th century and led to the partition of Kartasura, can well be attributed to his clumsy and authoritarian behaviour toward a member of the ruling family.[53]

The combination of conquest and description, followed by the deduction from that description that further conquest was desirable, was a fallacious line of reasoning that was not unique to van Imhoff. It had to do with the way science was practised in the colonial situation. It has recently been argued that François Valentijn wrote his major work on the Dutch possessions in Asia as a deliberate glorification of Dutch power in the East. Anthropological descriptions were mainly intended to enhance a view of Dutch magnanimity.[54] The European standard was the point of reference in judging all moral and religious questions: the ethnography was not unbiased, but was linked to social conceptions drawn from their own environment. There are also various later and more egregious examples in which colonial officials combined their research into other societies with an active role in the process of expansion.[55] In this regard, it is certainly a case of "imperialists" *avant la lettre*.

Trade, science and European expansion cannot be studied independently of each another. Trade provided the stimulus for a considerable expansion of knowledge in Asia. The processing of this new knowledge occurred mainly in the Dutch Republic and elsewhere in Europe. RC

NOTES

1 Nationaal Archief (NA), VOC 3534, fol. 1494-1497. Relaas van de tocht naar Landak, 29 juli 1779.

2 See J. van Goor, "Seapower, Trade and State Formation: Pontianak and the Dutch," in J. van Goor, ed., *Trading Companies in Asia, 1600-1830* (Utrecht,1986), pp. 83-107; J. van Goor, "A Madman in the City of Ghosts: Nicolaas Kloek in Pontianak", in *Itinerario* 2 (1985), pp. 196-212.

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RESUMOS

A Revelação das Plantas. Garcia da Orta, Carolus Clusius e as Espécies Asiáticas na Europa

Sabendo que a descoberta da Natureza é uma característica do mundo moderno, pretendemos aflorar o processo pelo qual a Europa do século XVI chegou ao conhecimento do mundo natural asiático. Que a viagem inaugural do caminho marítimo para a Índia significou uma viragem na apreensão e conhecimentos sobre o mundo é um dado adquirido. Mas o que se sabia concretamente sobre a flora e a matéria médica destas regiões? Que dados existiam, que viajantes contribuíram com o seu saber e as suas descrições para uma nova imagem do mundo natural do Oriente? Em 1563, o médico e botânico Garcia da Orta publica os *Colóquios dos simples e drogas da Índia* em Goa. Um ano depois Carolus Clusius, um famoso botânico flamengo, adquire esta obra em Lisboa e, em 1567, edita uma versão latina, a que outras se seguirão. Após estas publicações, o nome de Orta não vai deixar de se fazer ouvir. O prestimoso valor da sua obra está testemunhado em inúmeras referências e menções. Viajantes, médicos, droguistas e letrados seguem a *Aromatvm et simplicivm aliqvod medicamentorvm apvd indos nascentivm historia*, reconhecendo-a como um inestimável contributo para o conhecimento da botânica e da matéria médica orientais. O trabalho de Orta e de Clusius constituiu, com efeito, um momento singular no conhecimento das espécies asiáticas. Ambos estavam imbuídos do mesmo espírito: conhecer e dar a conhecer a revelação das plantas.
[Autor: Marília dos Santos Lopes, pp. 10-27]

Imagens do Mundo Natural Asiático na Obra Botânica de Cristóvão da Costa

Ao longo do século XVI os europeus manifestam um crescente interesse pelo mundo natural exótico. Cristóvão da Costa (c.1530-c.1594), médico e cirurgião, publica em Burgos, em 1578, o *Tractado de las drogas y medicinas de las Indias Orientales*. Baseando-se nos *Colóquios dos simples* de Garcia da Orta (Goa, 1563), Costa descreve e ilustra o mundo natural asiático. Ao longo do seu livro, Cristóvão da Costa mostra novas plantas e refere as suas aplicações terapêuticas. O médico fala da experiência clínica adquirida nos hospitais do Oriente. Ao longo do *Tractado de las drogas*, Costa refere principalmente plantas de interesse medicinal. Reserva para as últimas páginas do volume um pequeno capítulo que designa "Tratado do Elefante". Este texto, mais do que saber zoológico, parece reflectir a leitura que Costa faz da Índia. O *Tractado de las drogas* apresenta ilustrações desenhadas pelo médico como "testemunha de vista". A pureza das linhas e o carácter esquemático das gravuras demonstram a despretensão com que Cristóvão da Costa olha o mundo natural da Ásia. Autor de outros textos nunca editados sobre a botânica e a riqueza mineral do Oriente, Costa publica em Veneza dois livros – *Tratado em loor de las mugeres* e *Tratado en contra y pro de la vida solitaria* – que reflectem o seu próprio percurso interior.
[Autor: Teresa Nobre de Carvalho, pp. 28-39]

Fontes e Organização da Secção Botânica do *Itinerário* (1596) de Jan Huygen van Linschoten

O *Itinerário*, escrito por Jan Huygen van Linschoten, contém uma extensa secção botânica, dedicada a frutos, árvores e plantas medicinais da Índia. A principal fonte escrita de todas estas informações foi a obra de Garcia da Orta, *Colóquios dos simples e drogas da Índia* (Goa, 1563). Sem mencionar a fonte, Linschoten traduziu e reorganizou partes extensas do livro e apresentou uma selecção de artigos divididos em quatro secções temáticas, organizando-os de acordo com a importância comercial e a utilização prática. O autor não tinha formação científica e não lia Latim, mas o seu letrado amigo Bernardus Paludanus forneceu informações botânicas e médicas complementares em anotações baseadas nas versões latinas da mesma obra de Garcia da Orta e da obra de Cristóvão da Costa, *Tractado de las drogas y medicinas de las Indias Orientales* (Burgos, 1578), ambas preparadas pelo famoso botânico Carolus Clusius. Escrita em holandês, a secção botânica do *Itinerário* popularizou a informação científica e proporcionou factos interessantes acerca da flora exótica indiana, apelando à curiosidade do leitor comum e fornecendo informações úteis e práticas para aqueles que se aprestavam a viajar para a Ásia no início da época da expansão holandesa.
[Autor: Arie Pos, pp. 40-55]

A Viagem a Goa do Médico de Henrique IV

O artigo tem por objecto a biografia e a apresentação de *Voyage en Éthiopie, Mozambique, Goa et autres lieux d'Afrique & des Indes Orientales (1607-1610)*, que Jean Mocquet, boticário e naturalista do rei Henrique IV de França, realizou a bordo de um navio da "Carreira da Índia". Esta, a quarta de uma série de viagens realizadas entre 1601 e 1614, que o levaram respectivamente às costas do Magrebe Atlântico, ao Maranhão e à Guiana, a Marrocos e à Terra Santa. Além de uma descrição surpreendente das condições de vida a bordo dos navios da "Carreira" no início do século XVII, o texto contém informações precisas sobre as doenças exóticas e as práticas médicas e sobre o embalsamamento de que Mocquet foi encarregado, à ida e à vinda do seu périplo, nas pessoas de dois vice-reis, o conde da Feira e André Furtado de Mendonça.
[Autor: Dejanirah Couto, pp. 56-76]

Naturalista Amador e Orientalista "Profissional". Paulinus a S. Bartholomaeo em Kerala e Roma (Séculos XVIII e XIX)

Este ensaio tem por objectivo explorar a forma como a linha que separa um missionário estudioso e um erudito profissional de um conservador de um museu perto de Roma foi difícil de estabelecer na vida e obra de um Carmelita Descalço, Paulinus a Sancto Bartholomaeo (conhecido como Filip Vezdin), que foi enviado para a Índia pela Congregação da Propagação da Fé (*Propaganda Fide*) nos finais do século XVIII. Era um poliglota e um historiador

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eclético e erudito, com interesses que iam da filologia à etnobotânica. No entanto, logo após o seu regresso da missão a Kerala, dedicou-se à pesquisa etnográfica e linguística, tornando-se num dos mais famosos escritores orientalistas do seu tempo em Itália e nos círculos católicos do sul da Europa. A opção de se tornar um orientalista "profissional" significou sacrificar os outros campos de conhecimento que tinha cultivado durante a sua estadia na Índia, como a sua paixão pela história natural, botânica, farmacologia e medicina. No entanto, é preciso ter em mente que, para Paulinus, o mundo natural estava inextricavelmente ligado à cultura e à linguagem. A compreensão do "sistema" do mundo natural na Índia era apenas um pequeno elemento no seu ambicioso projecto de apreender o "sistema bramânico", a origem da história da Humanidade e, possivelmente, a lógica da Criação. Ele pertenceu à última geração de missionários católicos e orientalistas que ainda acreditavam na ligação intrínseca entre todo o conhecimento.
[Autor: Ines G. Županov, pp. 77-101]

O Comércio entre a Europa e a Ásia e a Utilização Medicinal da *Radix Chinae* no Início da Época Moderna (c. 1535-1800)

A radix Chinae ou raiz-da-China é uma substância medicinal actualmente pouco usada fora da Ásia. Reza a História que teve, no entanto, uma grande importância na farmacologia ocidental entre os séculos XVI e XVIII.
A raiz-da-China era adquirida pelos mercadores europeus na Ásia e comercializada através das redes mercantis estabelecidas, que incluíam Macau, Malaca, Goa, Manila e Batávia. Uma das particularidades especiais da *radix Chinae* é que a sua introdução na farmacologia ocidental está bem documentada e as suas ligações à *materia medica* chinesa são incontestáveis. Existem paralelos evidentes entre a medicina oriental e ocidental na preparação de decocções e de delícias culinárias utilizando a *radix Chinae* durante o início da época moderna. A procura desta raiz aumentou significativamente a partir de meados do século XVI, após ter sido administrada com sucesso ao Sacro Imperador Romano Carlos V no tratamento da gota. No entanto, os ecos de adesão provenientes de tão importante paciente foram criticados por personalidades influentes na área médica na Península Ibérica, Itália, França, Alemanha, entre outros países.
A raiz-da-China" é, sobretudo, lembrada pelo papel que teve no alívio dos sintomas de vários problemas de pele e, em especial, no tratamento da sífilis.
[Autor: Peter Borschberg, pp. 102-115]

Sistemas Médicos Português e Indiano. Aspectos Comuns e Superioridade no Início da Época Moderna

Uma análise das relações entre as práticas e os conhecimentos médicos portugueses e indianos, nos primeiros anos da época moderna, revela uma interessante dicotomia. Em algumas áreas deparamos com alguns aspectos comuns e intercâmbios, em outras é evidente que as práticas e os conhecimentos europeus começam a demonstrar a sua superioridade. Essas pequenas áreas de superioridade europeia aumentaram gradualmente durante o século XIX, levando ao triunfo da medicina ocidental em detrimento das práticas e conhecimentos tradicionais asiáticos. Em primeiro lugar, procurarei fazer uma pequena introdução da prática médica na Eurásia antes do século XVI, para, em seguida, apresentar um estudo mais centrado no estado da saúde na Índia da altura para, finalmente, me centrar sobretudo em Goa, nas doenças e respectivas curas praticadas.
A segunda secção deste ensaio debruça-se sobre os primeiros sinais da superioridade europeia em relação aos sistemas indianos.
[Autor: Michael Pearson, pp. 116-141]

Comércio, Pesquisa e Ciência sob o Domínio dos Holandeses na Ásia

Em 1778, foi fundada a Sociedade Batávica de Belas-Artes e Ciências na Batávia; como tal, foi a sociedade intelectual europeia mais antiga na Ásia. Até então, os directores da VOC, a Companhia Holandesa das Índias Orientais, tinham mantido em segredo os seus conhecimentos sobre a Ásia. Os conhecimentos de que a Companhia necessitava eram, sobretudo, de natureza prática. Havia muito pessoal da Companhia interessado na ciência e cultura e o ambiente asiático oferecia um vasto de leque de oportunidades para a recolha de colecções de curiosidades. A obra dos grandes coleccionadores Hendrik Adriaan van Reede tot Drakenstein (1636-1692) e G. E. Rumphius (1627-1702) vai muito além dos objectivos práticos. Os religiosos publicaram descrições do Hinduísmo e fizeram traduções da Bíblia. Os sistemas jurídicos eram estudados para se poder dominar os assuntos asiáticos. O comércio, a ciência e a expansão europeia não podem ser analisados independentemente uns dos outros. O comércio proporcionou o estímulo para a importante expansão do conhecimento na Ásia. O padrão europeu funcionava como o ponto de referência na avaliação de todas as questões morais e religiosas. Este é, certamente, o caso dos "imperialistas" *avant la lettre*. A assimilação deste novo conhecimento ocorreu, sobretudo, na República Holandesa e no resto da Europa.
[Autor: Jurrien van Goor, pp. 142-150]

ABSTRACTS

The Revelation of Plants. Garcia da Orta, Carolus Clusius and Asian Species in Europe

Given that the discovery of Nature is a feature of the modern world, this article elucidates the process by which 16th century Europe gained knowledge of the Asian natural world. It is a well-known fact that the first voyage opening the maritime route to India was a turning point in the knowledge and understanding of the world. But what exactly was known about the flora and the medical substances of these areas? What data existed, which travellers contributed with their knowledge and descriptions to a new image of the natural world in the East?
In 1563, the doctor and botanist, Garcia da Orta, published the *Colóquios dos simples e das drogas da Índia* [Colloquies on the Simples and Drugs of India] in Goa. One year later Carolus Clusius, a famous Flemish botanist, acquired this work in Lisbon and, in 1567, published a Latin version, from which other editions would follow. After these publications, the name of Orta became a household word throughout Europe. The elevated value of his work is testified by countless references by travellers, doctors, druggists and scholars to the *Aromatvm et simplicivm aliqvod medicamentorvm apvd indos nascentivm historia*, recognizing it as an invaluable contribution to the knowledge of oriental botany and medical matters. In effect, the work of Orta and Clusius constituted a singular moment in the knowledge of Asian species. Both were steeped in the same spirit: to learn about and divulge knowledge relating to plants.
[Author: Marília dos Santos Lopes, pp. 10-27]

Images of the Asian Natural World in the Botanical Work of Cristóvão da Costa

Throughout the 16th century, Europeans manifested a growing interest in the exotic natural world. Cristóvão da Costa (c.1530-c.1594), doctor and surgeon, published the *Tratado de las drogas* [Treatise on Drugs] in Burgos, in 1578. Based on the *Colloquies* of Garcia da Orta (Goa, 1563), Costa describes and illustrates the Asian natural world. Throughout his book, the doctor shows new plants and mentions their therapeutic applications, relating the clinical experience he acquired in the hospitals of the East. In *Tractado de las drogas y medicinas de las Indias Orientales*, Costa mainly refers to plants of medicinal interest. However he reserved the last pages of the volume to a small chapter entitled *Tratado do elefante* [Treatise on the elephant]. This text, more than revealing zoological knowledge, seems to reflect Costa's interpretation of India itself. The *Tractado de las Drogas* presents engravings of first hand illustrations drawn by the doctor, whose purity of line and schematic character demonstrate the unpretentiousness with which Cristóvão da Costa viewed the natural world of Asia. Author of other texts on the botany and the mineral wealth of the East that were never published, Costa published two books in Venice – *Tratado em loor de las mugeres* [Treatise in praise of women] and *Tratado en contra y pro de la vida solitaria* [Treatise on the pros and cons of a solitary life] – reflecting his own interior odyssey.
[Author: Teresa Nobre de Carvalho, pp. 28-39]

Sources and Organisation of the Botanical Section of the *Itinerario* (1596) by Jan Huygen van Linschoten

The *Itinerario* (1596) written by Jan Huygen van Linschoten contains a large botanical section, dedicated to Indian fruits, trees and medicinal plants. The main written source for all this information was Garcia da Orta's *Colóquios dos simples e drogas da Índia* (Goa, 1563). Without naming the source, Linschoten translated and rearranged extensive parts of the book and presented a selection of items divided into four thematical sections, organizing them according to commercial importance and practical use. The author was no scholarly scientist and did not read Latin, but his learned friend Bernardus Paludanus supplied complementary botanical and medicinal information in annotations based on the Latin versions of Orta's same work and Cristóvão da Costa's *Tractado de las drogas y medicinas de las Indias Orientales* (Burgos, 1578), both prepared by the famous botanist Carolus Clusius. Written in Dutch, the botanical section of the *Itinerario* popularized scientific information and offered interesting facts about the exotic Indian flora, appealing to the curiosity of common readers who stayed at home and supplying useful and practical information for those about to travel to Asia at the beginning of the era of Dutch expansion.
[Author: Arie Pos, pp. 40-55]

The Journey by Henry IV's Doctor to Goa

The object of this article is the biography of Jean Mocquet, apothecary and naturalist to King Henry IV of France, and the presentation of his *Voyage en Éthiopie, Mozambique, Goa et autres lieux d'Afrique & des Indes Orientales (1607-1610)*, written while on board a ship of the *Carreira da Índia* (the round trip between Lisbon and Goa). This journey of Mocquet's was the fourth in a series made between 1601 and 1614, which took him, respectively, to the Atlantic Magreb coast, Guiana, Morocco and the Holy Land. Besides a surprising description of the living conditions aboard ships of the *Carreira* at the beginning of the 17th century, the text contains precise information on exotic diseases and medical practices, and on the embalming Mocquet was charged with performing, on the outward and return stages of his travels, on two viceroys, the Count of Feira and André Furtado de Mendonça.
[Author: Dejanirah Couto, pp. 56-76]

Amateur Naturalist and "Professional" Orientalist. Paulinus a S. Bartholomaeo in Kerala and Rome (18th-19th c.)

This essay explores how the line between an expert missionary and a professional

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scholar and a curator of a museum near Rome was uneasily negotiated in the life and work of a Discalced Carmelite, Paulinus a Sancto Bartholomaeo (alias Filip Vezdin), sent to India by the Congregation of the Propagation of Faith (*Propaganda Fide*) in the latter part of the 18th century. He was a polyglot with eclectic and erudite antiquarian interests, from philology to ethno-botany. However, upon the return from his mission in Kerala, he made a career of his linguistic and ethnographic research and became one of the most famous Orientalist writers of his time in Italy and in southern European Catholic circles. His choice of becoming a "professional" Orientalist, implied a sacrifice of other fields of knowledge he cultivated during his stay in India, such as his passion for natural history, botany, pharmacology and medicine. However, the argument is made here that for Paulinus, the natural world was inextricably linked with culture and language. Understanding the "system" of the natural world in India was simply a smaller element in his ambitious project of grasping the "Brahmanical system", the origin of human history and possibly the logic of the Creation. He belonged, therefore to the last generation of Catholic missionary Orientalists who were still willing to believe in the intrinsic connectivity of all knowledge.
[Author: Ines G. Županov, pp. 77-101]

The Euro-Asian Trade and Medicinal Usage of *Radix Chinae* in the Early Modern Period (ca. 1535-1800)

Radix Chinae or "China root" is a medicinal substance now sparsely used outside Asia. Historically, however, it featured prominently in Western pharmacology between the 16th and the 18th centuries. "China root" was procured by European merchants in Asia and traded through established trading networks via Macao, Malacca, Goa, Manila and Batavia.
One of the unique facets of *radix Chinae* is that its introduction into Western pharmacology is well attested and its links to the Chinese *materia medica* is almost certainly beyond dispute. For much of the early modern period, clear parallels exist between Eastern and Western medicine in the preparation of decoctions and culinary delights using *radix Chinae*. Demand for this root increased significantly after the middle of the 16th century when it was successfully administered to Holy Roman Emperor Charles V to treat his gout. The ringing endorsement stemming from this high profile patient, however, was viewed critically by leading members of the medical profession on the Iberian Peninsula, Italy, France, Germany and beyond. "China root" is best remembered for its role in providing symptomatic relief for various skin disorders and specifically also in the treatment of syphilis.
[Author: Peter Borschberg, pp. 102-115]

Portuguese and Indian Medical Systems. Commonality and Superiority in the Early Modern Period

An analysis of relations between Indian and Portuguese medical knowledge and practice in the early modern period reveals an interesting dichotomy. In some areas we find commonality and mutual exchange, in others it is clear that European knowledge and practice shows at least the beginnings of superiority. These limited areas of European advantage slowly increased in the 19th century, leading to the triumph of western medicine over indigenous Asian practice and knowledge. I will first sketch medical practice in Eurasia before the 16th century, then turn to a more focussed study of the health situation in India at this time, and then narrow the focus even more, to Goa and the diseases and healing practiced there. The second section of this essay looks at the first signs of European advantage as compared with Indian systems
[Author: Michael Pearson, pp. 116-141]

Trade, Research and Science Under the Dutch in Asia

In 1778 the Batavian Society of Arts and Sciences was founded in Batavia; as such it was the oldest European learned society in Asia. Up till then, the directors of the VOC, the Dutch East India Company, had kept their knowledge of Asia a secret. The knowledge the Company needed was mainly of a practical nature. Among the personnel there were many who were interested in science and culture. The Asian environment offered plenty of opportunity for building up collections of curiosities. The work of the great collectors Hendrik Adriaan van Reede tot Drakenstein (1636-1692) and G. E. Rumphius (1627-1702) goes way beyond practical objectives. Ministers of the church published descriptions of Hinduism and made translations of the Bible. Legal systems were studied to govern Asian subjects. Trade, science and European expansion cannot be seen independently of one another. Trade provided the stimulus for a considerable expansion of knowledge in Asia. The European standard was the point of reference in judging all moral and religious questions. In this regard, it is certainly a case of "imperialists" *avant la lettre*. The processing of this new knowledge occurred mainly in the Dutch Republic and elsewhere in Europe.
[Author: Jurrien van Goor, pp. 142-150]