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## Geographical expansion and the reconfiguration of medical authority: Garcia de Orta's *Colloquies on the Simples and Drugs of India* (1563)

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### ABSTRACT

The *Colloquies on the simples and drugs of India* (1563) were conceived and published at a sensitive moment, both in terms of the history of print culture and of European geographical expansion. They represented the culmination of a life-time project for their author Garcia de Orta who had lived for almost thirty years in Portuguese Goa. Although the importance of the work in sixteenth-century natural history and medicine has been generally acknowledged in Portuguese and international historiography, there are very few recent, detailed studies of the book informed by new approaches. This paper presents an integrated analysis of Orta's *Colloquies* as a literary, medical and cultural text. It aims to reveal not only the rich and subtle dynamics of the work but also to contribute to a better understanding of Orta's legitimization strategies as an author in a sixteenth-century world reconfigured by the new opportunities of the printing press, geographical expansion and increased material and cultural mobility.

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### 1. Introduction

It was as a very aged man that, in 1563, Garcia de Orta published his *Colóquios dos simples e drogas e coisas medicinais da Índia* [*Colloquies on the simples and drugs of India*] in Goa (Orta, 1563).<sup>1</sup> It seems not to have been a book primarily written for professional or social advancement. Indeed, the author claims to already have a successful professional career as well as good, friendly relations with persons of very high social status in the almost thirty years he lived in the capital of the Portuguese Empire in the East. Orta's plans were far more ambitious. He was concerned with the future and with his position, but in the ranks of the history of medicine. He wanted to claim for himself the status of a new medical authority.

Historians have tended to celebrate the revolutionary nature of the *Colloquies* and to present the work in clear opposition to medical tradition and established influence. Instead, I argue here that

Orta was deeply concerned with both. If, as I dispute, he wanted to be an *auctoritas*, a noun whose etymological root is *augere*, to augment and increase on the basis of the vitality of the spirit of foundation, he needed to address skilfully both change and permanence.

A fascination with inheritance is suggested from the very beginning of the work when, in the dedicatory epistle, the author compares his publication with the cultivation of a plant. Orta's programme is one that aims to re-establish the foundation of a specific type of medical knowledge. He not only intends to provide information concerning medicinal drugs, their names in different languages, prices, the way in which they are prepared and administered and how the native physicians use them but also to review thoughtfully all the opinions and judgments of ancient and modern authors concerning their use and place of origin (Orta, [1563] 1987, pp. 1–2). The work presents fifty nine colloquies concerning more

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<sup>1</sup> It bears the full title *Coloquios dos simples he cousas medicinais da India, e assi dalgũas frutas achadas nella onde se tratam algũas cousas tocantes a medicina, pratica, e outras cousas boas pera saber* [*Colloquies on the simples, drugs and materia medica of India and also on some fruits found there, in which some matters relevant to medicine, practice, and other matters good to know are discussed*] (Orta, 1563). The standard Portuguese edition is still Count de Ficalho's two volume annotated version first published in 1895 (Orta, [1563] 1987). The only English edition is first published in 1913 (Orta, [1563] 1987). The English translation does not capture the flavour and nuances of the original text but for the process of cross-referencing, quotations from the *Colloquies* are taken from this edition. Where no previous English translations of the primary sources used in this paper exist, quotations have been translated for the paper specifically.

than eighty different drugs, fruits, spices, minerals and medical preparations, all of them either native to India or observed in use there during the author's perambulations in the territory.<sup>2</sup> 'India' is broadly defined, since the geographical area of the 'Indies' comprised most of Asia at the period.

The Portuguese geographical expansion of the sixteenth century had prompted increased global mobility and exchange in people, goods, and natural products such as medicinal plants, drugs and spices. Not only did larger quantities of them reach Europe and other parts of the world but also in an increased variety. Goa had been conquered in 1510 and, by the middle of the sixteenth century, it was the main town and capital of the Portuguese empire in the East, an empire delicately secured through trading stations, fortresses, commercial and friendship agreements, as well as the occupation of a few urban centres.<sup>3</sup> The port city had a prominent role in the circuit of trade and exchange of these new drugs and this was exactly the place where the Portuguese physician lived for a long period. This location, together with Orta's experience of travel, gave him a crucial vantage point in assessing the foundations of knowledge on materia medica from the East.

Nevertheless, as a learned doctor, Orta would certainly be aware of the extreme difficulty of becoming a new authority in the populated and conventional domain of the history of medical knowledge. The usual protection that he invoked in the dedicatory epistle from his patron Martin Afonso de Sousa would certainly be insufficient. Would not the assignment be even more difficult for a Portuguese physician living in a remote town of an expanding but fragile empire? Would the modest technical abilities of the printing press that had just been introduced in Goa contribute to limit his aspirations? To what extent would Orta's Jewish ancestry limit even more his ambitions?

On the one hand, Portuguese historiography has been mainly concerned with Orta's biography and with the content of the *Colloquies* in terms of new botanical and medical information.<sup>4</sup> On the other, international studies have tended to mention Orta and his work only briefly and in the context of studies concerning Carolus Clusius, the author who promptly epitomised the work into Latin in 1567.<sup>5</sup> Indeed, it has been mainly through the lenses and the mediation of the Flemish naturalist that Orta's contribution to sixteenth century medical knowledge has been presented and discussed.<sup>6</sup> In opposition, this paper intends to present an integrated analysis of Orta's *Colloquies* as a sixteenth-century literary, medical and cultural text. By focusing more closely on the work and on its context of production, I aim to reveal not only the rich and subtle dynamics of the text but also to contribute to a better understanding of Orta's legitimation as an author in a sixteenth-century world reconfigured by geographical expansion and increased material and cultural mobility.

## 2. The self-fashioning of a Portuguese physician

As the very title indicates, the *Colloquies* are presented in a dialogic format, one of the privileged literary genres of the Renaissance.<sup>7</sup> The conversations are constructed around two main characters Orta himself and the invented Spanish character Ruano. The two figures had both been medical students at the universities of Salamanca and of Alcalá but had enjoyed different experiential backgrounds. The first had lived in India for a long time and the latter had just arrived in Goa in search of new medical and botanical knowledge. It has often been suggested that Ruano is Orta's alter ego, representing the Portuguese physician at the time he arrived in India.<sup>8</sup> I argue that this explanation only works in part. Since Orta's arrival in the East, a great number of years had passed and medical knowledge, especially that knowledge affected by global expansion, had also changed. It is clear from the text that Ruano is up to date concerning these developments. Rather than representing a younger version of Orta, I suggest that Ruano stands in for the European humanist scholar who would be particularly interested in what the Portuguese physician had to say. In this respect, it is significant that reference is made on more than one occasion to the knowledge and natural specimens that Ruano will bring back to Iberia (Orta, [1563] 1987, p. 259).

The dialogical format chosen by Orta has implications at several levels. In opposition to a manual or a treatise, it serves better his own strategy of self-legitimation. It also enables him to draw the reader more effectively into the act of communication and persuasion that the book represents. In addition, it is a genre better suited to handle tensions between expansion and locality, between learned knowledge and sensory experience as well as between tradition and innovation. It contributes to the open nature of the book and makes visible the performative nature of the acquisition and validation of knowledge.

The dialogical style also has important implications for the self-fashioning of Orta and the work tells us as much about its author as about the subject. There is not much information concerning the life of the Portuguese physician previous to his arrival in India. We know that he was born in Castelo de Vide, Portugal, around 1500 and that he was the son of Jews who had declared themselves newly converted to Catholicism.<sup>9</sup> This new social and religious status did not, however, save them from persecution and new Christians carried with them throughout their lives the burden of suspicion. We also know that the Portuguese author studied medicine at the universities of Salamanca and Alcalá between 1515 to 1525 and that in around 1530 he was awarded a provisional lectureship in natural philosophy at the University of Lisbon (Pina, 1963). At about the same time he was also appointed a royal doctor to King João III. Nevertheless, both these events did not prevent his departure for India in 1534. The increasing pressure that was being

<sup>2</sup> The presentation is alphabetical and comprises: Aloes, Amber, Amono, Arbore triste, Anacardo, Altiht, Bange, Benjuy, Ber, Calamo, Camphor, Cardamon, Cassia fistula, Canela, Cocos, Costo, Crisocolo, Cubebras, Datura, Marfim, Faufel, Folio Indo, Galanga, Cravo, Gengivre, Herbas contra camaras, Jaca, Lacre, Linaloes, Cate, Nutmeg, Manna Purgativa, Mangas, Aljofar, Mungo and Melen de India, Mirabolanos, Mangostaes, Negundo, Nimbo, Opium, Pao de Cobra, Diamao, Precious stones, Bezoar stone, Pepper, Chinese root, Ruiabardo, Sandalo, Espiquenardo, Espodio, Esquinanto, Tamarindos, Turbit, Thure and Myrrhn, Tutia, Zedoaria, Betre.

<sup>3</sup> On the Portuguese empire in Asia, see Pearson (1987) and Subrahmanyam (1993).

<sup>4</sup> The major biographical study is still Ficalho (1983) first published in 1886. Other contributions include Carvalho (1934) and Révah (1960). It is during the first half of the twentieth century that the beginnings of an interest in the history of Portuguese colonial medicine and natural history can be seen. The authors of works produced during this period shared a scientific background and a fascination with the pioneering role of Portuguese authors such as Garcia de Orta in accurate descriptions of plants, animals and diseases hitherto unknown to the Europeans. Later studies by Charles Boxer brought a new degree of detail and sophistication to the historiography of Portuguese imperial science but Orta was still mainly presented as a pioneer of tropical medicine (Boxer, 1963). A similar view is offered in Mathew (1997). For a recent historiographical appraisal of science and the Portuguese empire, see Fontes da Costa & Leitão (2008).

<sup>5</sup> On Clusius' network and exchanges, see Egmond (2007).

<sup>6</sup> An exception is Grove (1996). For a stimulating comparative reading of the *Colloquies* and *Desengano de perdidos* (1573), a religious work by Dom Gaspar de Leão Pereira, the first Archbishop of Goa, see Zupanov (2010).

<sup>7</sup> On the dialogical format as a Renaissance genre, see Cox (2008) and Baranda Leturio (2011).

<sup>8</sup> The view was first presented in Ficalho (1886, p. 300).

<sup>9</sup> Orta's parents had fled to Portugal in 1492, when Jews were expelled from Spain. Forced in 1497 to choose between exile and conversion, the family nominally converted to Christianity (Carvalho, 1934, pp. 61–81).

brought to bear on New Christians was probably the main reason. In the next four years, Orta accompanied his young patron and friend Martin Afonso de Sousa on several campaigns on the west coast of India.<sup>10</sup> He then settled in Goa for the rest of his life.

We obtain more information about the Portuguese physician from his own words and suggestions in the *Colloquies*. In one of the poetic paratexts of the work, Orta is presented by none other than the poet Luís de Camões as someone 'loaded with years, letters and long experience'.<sup>11</sup> Erudition and experience are stated in the *Colloquies* to be the two defining attributes of the Portuguese physician. It should be stressed that he is a man of letters not only because he had an academic education and taught at the university of Lisbon but also because he continued to be interested in reading medical and other scholarly books while he was living in India. Indeed, some of the works by modern authors he mentions in the *Colloquies* had only recently been published. Experience is presented as the other complementary and defining attribute of Orta. It is an experience made up of travel and long years during which he treated many patients and exchanged information with numerous people from various educational, cultural and social backgrounds in Portugal, Goa and other parts of the Indies.

In the *Colloquies*, Orta presents himself as a very successful physician, as a physician that not only treats governors, bishops, kings and princes when others fail but also one who answers the calls of the less fortunate.<sup>12</sup> He claims to be the author of new methods of treatment quickly taken up by others (Orta, [1563] 1987, p. 383). Moreover, in the exercise of his profession he avers that, unlike others, he is not to be corrupted by money and that he can be trusted not only as a physician but also as a friend.<sup>13</sup> At every opportunity, he mentions his friendship with persons of various social backgrounds and occupations.<sup>14</sup> He presents himself also as a merchant of precious stones and does not run shy of mentioning his financial good fortune and material possessions. These include not only a magnificent house and garden but also the lease to the Island of Bombay.<sup>15</sup>

Throughout his work, Orta adds other virtues to his persona. He is not only honest and hospitable but also trustworthy and inquisitive, as well as entertaining and amusing. He is courageous and resolute, but also modest and open-minded in admitting doubts and being able to change his opinion when new knowledge is provided.<sup>16</sup> Moreover, by deliberately abstaining from taking drugs that provoke relaxation and delusions such as Bangué [cannabis], he also exhibits self-command, a particularly relevant attribute for a New Christian (Orta, [1563] 1987, p. 56). In matters of religion, Orta's statements are understandably prudent (Orta, [1563] 1987, p. 216).<sup>17</sup> The significant number of times that he invokes God in the work and, in particular, the two times he specifically alludes to the

'Holy Mother Church' can be seen in the context of the recent introduction of the Inquisition in Goa in 1560.<sup>18</sup> Orta was certainly aware of the increasing religious suspicion and intolerance in the territory that came in its wake.

Orta displays an ambivalent attitude towards the Portuguese. Although he often describes himself as such and praises their feats by rhetorically boasting that we 'can get more knowledge now from the Portuguese in one day than was known to the Romans after a hundred years', he also adopts a critical attitude towards them (Orta, [1563] 1987, pp. 127–128). He is particularly disapproving of the Portuguese apothecaries for showing 'little diligence in obtaining medicines and much in making money' (Orta, [1563] 1987, pp. 193, 269, 398). He censures the Portuguese for not being 'very curious', or 'good writers'.<sup>19</sup>

In brief, Orta presents himself as a successful physician and honourable citizen whose character is solid and impeachable. He shows himself to be courageous, but this does not prevent him from being prudent when necessary.

### 3. At the table with Dr. Garcia de Orta

It is significant that the main setting of the *Colloquies* is Orta's house in *Rua dos Namorados* in the middle of the city of Goa (Carvalho, 1934, p. 89). This sphere of domesticity enables the Portuguese physician to display his hospitable gifts to his guest Ruano. At the same time, by focusing the action in his house, he can show that he has various servants and informants responding to his command. In addition, by locating the great majority of the dialogues in his home, Orta is forging a central position for himself, a core point from which change and mobility associated with transformations in medical knowledge at the period can be discussed more securely.

A significant number of the dialogues of the *Colloquies* proceed during endless meals at Orta's house. The pleasure and appetite for knowledge is combined with delight and pleasure in plants, herbs, spices, fruits and new palatables. The inextricability of dietary regimens and processes of healing in European, Arabic and local medicine transform the table into an appropriate setting for conversations between the two physicians. The inquisitive but always acquiescent Ruano is not only introduced to new knowledge but also to the pleasures of fresh exotic fruits such as Jangomas and Mangos or spicy dishes such as curry (Orta, [1563] 1987, pp. 238, 287, 142). He listens appreciatively to Orta's scrutinizing of ancient and modern views on the plants and fruits that, at every opportunity, are brought in by servants.<sup>20</sup> Throughout the work, Orta offers him a practical and vivid lesson on materia medica. Yet digressions, which are also part of the art of conversation, are frequent. The

<sup>10</sup> On the various parts of India visited by Orta during these campaigns, see Loureiro (2008, pp. 138–139).

<sup>11</sup> On the relationship between Orta and the poet Luís de Camões, see Cidade (1972). Besides Camões' poem, the paratexts of the *Colloquies* include Orta's dedication of the work to Martim Afonso de Sousa, a poem titled 'The author speaking with his book', a notice to the reader by the physician Dimas Bosque, a letter in Latin by Dimas Bosque to Professor Tomás Rodrigues de Veiga, an epigram by the Latinist Tomás Dias Caiado and, at the end, the errata followed by an appraisal of the content of the work. Unfortunately, the English edition of the *Colloquies* does not include these documents.

<sup>12</sup> A few examples are Orta [1563] (1987, pp. 306, 311–312, 387–388, 414, 452, 466).

<sup>13</sup> Examples are Orta [1563] (1987, pp. 73, 90, 306, 311).

<sup>14</sup> In particular, Orta notes that he is the personal physician as well as a friend of the Sultan Bahadur (Cambaia) and of the local sovereign Nizan Shah (Nizamoxa in the text) (Orta, [1563] 1987, pp. 7, 10, 210, 311).

<sup>15</sup> References to his island of Bombay and personal garden in Goa include (Orta, [1563] 1987, pp. 238, 286, 323, 387, 383).

<sup>16</sup> See, for example, Orta [1563] (1987, p. 247).

<sup>17</sup> Orta refers also to his intention to attend a religious service at the Franciscan convent Madre de Deus (Orta, [1563] 1987, p. 450).

<sup>18</sup> Pearson (1987, pp. 116–130). On Iberian physicians of Jewish ancestry, see Arrizabalaga (2007, pp. 307–322).

<sup>19</sup> See also Orta [1563] (1987, pp. 86–87). The earliest extensive account of the East written by a Portuguese is *The Suma Oriental* of Tome Pires, a royal apothecary sent to India in 1511 in search of new drugs. The work seems to have been commissioned by King D. Manuel I and to have been written between 1512 and 1515. Besides geographical, ethnographical, and commercial information, it includes knowledge with medical relevance and natural historical descriptions. However, during the first half of the sixteenth century Pires' account as well as other Portuguese travel literature in which natural historical information was also included circulated only in manuscript form (Lach, 1965, pp. 148–229). It should also be stressed that during the sixteenth century Orta's *Colloquies* remained the only printed book in Portugal and in the Portuguese empire specifically dedicated to medical and natural historical matters. On sixteenth-century Portuguese travel literature, see Barradas de Carvalho (1983), Cristóvão (1999) and Carvalho (2003).

<sup>20</sup> Expressions of praise and gratitude from Ruano are constant. An illustrative example is 'for a thousand years I should rejoice to listen to you' (Orta, [1563] 1987, p. 386).

Portuguese physician provides information on Indian kings, for instance, on ways of life in Goa, on the game of chess or Chinese merchants (Orta, [1563] 1987, pp. 68–76, 153–154, 209). Colloquy Ten, in particular, is said to have ‘nothing to do with medicine but it is here inserted at the request of Dr. Ruano as pastime for those who may read it in Spain’ (Orta, [1563] 1987, p. 66).

The succession of meals in the text acts as a virtual recreation of sensory experience. Senses are at the core of identifying and understanding *materia medica*. However, appearances, taste and smell can be misleading. In addition, simples and drugs are easily prone to decay and adulteration. Only experience such as that possessed by Orta will enable one to discern subtle but crucial differences in their therapeutic use. Their success depends on being brought from the right place, collected at the right moment and used in the right amount and for the exact type of disease and patient.

Weather, too, is crucial and is part of the encompassing frame of variability. In the *Colloquies*, the human body in the tropics is presented as a porous and open entity susceptible to humoral changes from without. Heat and humidity in particular accelerate the growth of all natural things and, as the *Colloquies* show, bodies are more prone to sexual appetite, contagion, decay and corruption. Hence, it is crucial to know the specific ways of healing of the region and, in particular, the forms of treatment of the local physicians about which Orta provides ample information in his text. Indeed, the *Colloquies* can also be seen as a kind of survival guide for Europeans living in or visiting the tropics.

Orta's household is the centre of the work but in a dynamic and lively way. From the large balcony, Orta and his guest can enjoy the view of Jambos and other trees in his garden as well as ships arriving in the harbour of Santa Catarina (Orta, [1563] 1987, pp. 237, 286). The activity at Orta's house is also marked by a constant transit of persons and goods. It is a kind of microcosm of bustling everyday life in sixteenth-century Goa. Especially noteworthy are the visits of a local and a Portuguese physician.<sup>21</sup> Also significant is Orta's prompt response to the appeals of two patients, a man suffering from *colerica passio* (cholera) and a woman who has been drugged by *Datura* (Orta, [1563] 1987, pp. 154–160, 174–176).<sup>22</sup> This is a unique opportunity to observe the Portuguese physician in action, taking their pulse, describing their symptoms, applying treatments and providing prescriptions for the apothecary. Briefly but significantly, the patients themselves are given a voice in the exchanges as they explain their symptoms.

Nonetheless, of all the bodies mentioned in the *Colloquies*, it is Orta's own that assumes central position. His own corporeal entity is used in speaking to his interlocutors in the text and also in testing medicinal drugs and other natural products. Self experimentation is mentioned more than once.<sup>23</sup> Moreover, expressions such as ‘I saw’, ‘I heard’, ‘I smelled’, ‘I tasted’ are omnipresent in the book. Together with the many testimonies and statements by persons ‘worthy of credit’ that Orta invokes, they provide the text with a stamp of truth and authenticity.<sup>24</sup> They also enable the creation of a virtual tribunal in which Orta is the main judge of reputed ancient and modern authors.

#### 4. Orta's critique of ancient and modern authors

The *Colloquies* is not only a work on the simples and drugs of India. It is also a work about books and their authors. The work testifies to the rich literary traditions of medicine, the new opportunities offered by the printing press to medical authors as well as to Orta's great erudition and concern with the assessment of medical knowledge. The list of ancient and modern authors commented on in the work is extremely vast. In tandem with personal experience and the handling of testimony, it plays a crucial role in the legitimation of Orta as a new medical authority. Reference is made to ancient and medieval authors such as Theophrastus, Dioscorides, Galen, Pliny, Rhazes, Avicenna, Averroes, Mesue and Serapion the Younger. Among the moderns, repeated allusions are made to Andrés de Laguna, Antonio Musa, Juan Ruelio, Niccolò Leonicensi, Matheolo Senense, Nicolás Monardes and Pietro Andrea Matthioli. Many others are mentioned briefly.<sup>25</sup>

By the mid sixteenth century, manuscripts still had an important role in the circulation of medical knowledge but the printing press had enabled new forms of access to literary culture and an increasing volume of information on the natural world (Ogilvie, 2003). In this period, humanist scholars restored and provided Greek and Latin translations of treatises by Theophrastus, Pliny, Galen and Dioscorides on botany and *materia medica*. They entered general circulation especially after 1525 (Nutton, 1993) and were increasingly introduced in Renaissance universities (Reeds, 1976).<sup>26</sup> New commentaries on ancient authorities were also printed, such as those on Dioscorides' *De materia medica* by Matthioli (1554), Lusitano (1556), or Laguna (1555). These new appraisals of the subject paid tribute to the author and presented also references to new plants and drugs from America and the Indies (Palmer, 1985; Gouveia, 1985; Huguet-Hermes, 2001).

As a humanist, Orta is keen to provide philological considerations in the *Colloquies* and points out that books, like bodies, simples and drugs are also prone to corruption and decay.<sup>27</sup> He argues that some of the original texts are contaminated by translators and commentators and that the errors of the scribes and time have corrupted various names of plants and drugs (Orta, [1563] 1987, pp. 41, 102, 110, 220, 315, 457). Ironically, his own book also suffered corruption but at the hands of the printer. The printing press had only recently been introduced in Goa and the *Colloquies* twenty pages of errata testify to the vulnerability and instability of the medium at this early stage.<sup>28</sup>

However, Orta shows himself to be a humanist not just attentive to style and philology but also concerned with arguing from evidence. Thus, the *Colloquies* display his intent to present the construction of medical knowledge as a dynamic and open process. More than once, he emphasises how the accuracy of information is dependent on time and distance so that what was once recognized as truth is now often a gross fault and ‘long distances make long lies’ (Orta, [1563] 1987, p. 84). The colloquy on pepper is particularly illustrative of this. He excuses Dioscorides' inaccuracy on the subject because ‘he wrote with false information and at a great

<sup>21</sup> The two doctors appear in the colloquies fifty four and fifty eight (Orta, [1563] 1987, pp. 435–436, 459–472).

<sup>22</sup> In the treatment of cholera, Orta believed that there was a toxic humour which had to be expelled. It was caused by over-eating, or by too much sexual intercourse. He observed the local physicians used rice with pepper and cardamon, cauterized the feet of the patient, tied up the patient's limbs and applied pepper to the eyes. On Orta's method for treating Asian cholera, see Boxer (1963, pp. 17–18). *Datura* is an hallucinogenic drug and is described in Orta's text as provoking extreme relaxation, compulsive laughter and nonsensical behaviour.

<sup>23</sup> Examples are Orta [1563] (1987, pp. 352, 381, 460).

<sup>24</sup> A few examples are Orta [1563] (1987, pp. 2, 89, 34, 170, 216, 271).

<sup>25</sup> Orta refers directly to at least sixty different authors.

<sup>26</sup> See also Ogilvie (2006, pp. 87–138).

<sup>27</sup> On the identity of a sixteenth-century medical humanist, see Blair & Grafton (1992) and Nutton (1997). On humanism and the Portuguese Discoveries, see Hooykaas (1983).

<sup>28</sup> The *Colloquies* were just the third book printed in the territory. The first was *Catecismo* [Catechism] (1557) by St. Francisco Xavier (1557) and the second *Compendio espiritual* [Spiritual Compendia] (1561) by Dom Gaspar de Leão Pereira, the first Archbishop of Goa (1561). Only Orta's well-placed friends in Goa seem to have enabled his access to the printing press as an author. On the introduction of the printing press in Goa, see Saldanha (1976). On the lack of fixity of the printing press, see Johns (1998).

distance, with intervening seas not navigated as they now are'. In opposition, he denounces severely 'those who write now, such as Antonio Musa and the Friars (...) because they merely repeat in the same way without taking the trouble to ascertain things so well known as the appearance of the tree, pepper, the fruit, how it ripens and how it is gathered' (Orta, [1563] 1987, p. 369). The Portuguese physician is particularly critical of some of his European contemporaries who have new access to knowledge provided by geographical expansion.<sup>29</sup> He denounces the speculations of Monardes, Leonicensio and others and even describes some of the modern authors as mere 'imitators of the Greeks' who 'never investigate satisfactorily' (Orta, [1563] 1987, pp. 82, 117, 173).<sup>30</sup> In contrast, he presents himself as being well informed not only on materia medica from the territory but also from Brazil and the West Indies (Orta, [1563] 1987, pp. 200, 248, 292).

Occasionally, Orta is careful to point to some of the positive qualities of the authors he criticises. Antonio Musa, for example, is described as 'curious and intelligent man' and Ruelio as a 'learned man' (Orta, [1563] 1987, pp. 261, 210). Interestingly, Orta's fiercest critique is of Leonhard Fuchs, not so much because of his apparent misconceptions about ivory but on account of his religious views: 'he knew little of physic, and still less of things to save his soul, being a heretic condemned for Lutheranism. His books were put in the condemned catalogue' (Orta, [1563] 1987, p. 467). He further emphasises that 'though medicine is not the science of the Christian religion, still I abhor the author' (Orta, [1563] 1987, p. 467). These declarations are revealing of how the perils of book censorship in Catholic countries such as Portugal conditioned the public observations of the author of the *Colloquies*.<sup>31</sup>

As a scholar, the character Ruano does not fail to be amazed that, through his severe criticism, Orta seems to 'abolish all the writers, ancient and modern' (Orta, [1563] 1987, p. 370). In his view, 'to discredit such ancient doctors, and of such high authority' requires good reasons (Orta, [1563] 1987, p. 371). At various times, good witnesses are presented by Orta as being superior to established authorities: 'the testimony of an eye-witness is worth more than that of all the physicians, and all the fathers of medicine who wrote on false information' (Orta, [1563] 1987, p. 125). With rhetorical flourish, Orta also boasts to Ruano that he is not frightened to challenge authorities such as Dioscorides or Galen because he merely speaks the truth and says what he knows (Orta, [1563] 1987, p. 60). As has already been mentioned, for the Portuguese physician, personal experience has a decisive role in the acquisition and assessment of knowledge concerning materia medica. The handling of testimony is also presented as being significant and, throughout his long stay in the East, Orta had many opportunities to meet a variety of knowledgeable people on the subject

from different backgrounds, places and experiences. His network of informants was vast and eclectic. It included not only physicians and apothecaries but also traders, shopkeepers, soldiers, missionaries, travellers and interpreters.<sup>32</sup>

Orta presents himself as courageous and fearless with regard to medical authority. At the same time, he acknowledges that he would not be so independent and brave if he was still living in Europe: '(...) even I. when in Spain did not dare to say anything against Galen or against the Greeks. Yet when seen in the proper light, it is not strange that medicines should be known in one age and not in another, new things being constantly found' (Orta, [1563] 1987, p. 275). However, as I have already suggested, long distance was certainly not sufficient in itself to protect Orta's assault on medical tradition.

Orta is also critical of passages by Arabic authors but, unlike the majority of contemporary humanists, his view of their contribution to knowledge on materia medica is basically positive and supportive (Orta, [1563] 1987, pp. 81, 86, 243). The examination of writers on Turbit, for example, begins 'with the Arabs, for with them we are on more certain ground as you have said, the Greeks having learning and the invention of good letters' (Orta, [1563] 1987, p. 436). The Portuguese physician specifically criticises the 'lovers of the Greeks' who 'are unreasonable in abusing Avicenna, Abenzoar, Rasis, Isaque, and others who cannot be denied to be learned' (Orta, [1563] 1987, p. 160). For him, and contrary to 'Leonicensio, Monardes and other modern authors (...) the Arabs are deserving of praise, not of vituperation' (Orta, [1563] 1987, p. 113). Arrizabalaga (2007, p. 17) has pointed out that, in general, early modern Iberian physicians of Jewish ancestry had a positive attitude towards Arabic authorities and he has wondered to what extent this trend is related to a tacit vindication of their particular cultural identity. This could help to explain Orta's supportive attitude. More important, however, is the fact that, as Orta states, regarding India, 'the Arabs are better authorities and err less than the Greeks' (Orta, [1563] 1987, p. 436). This was especially true in relation to the drugs and plants of South Asia and the Portuguese author reveals his knowledge of the Arabic texts from their Latin translations. It is also suggested that he had taken the opportunity while in Goa to learn some Arabic, since his transcriptions of many words show his contact with native speakers (Cook, 2007, p. 98).

## 5. Locality and expansion

In his understanding of the body, Orta remained Galenic. However, his interpretation of health and illness come to incorporate other medical traditions. As Richard Grove has shown (1996), he attributed special relevance to the practice of indigenous healers.<sup>33</sup>

<sup>29</sup> In the fifteen and sixteenth centuries, royal instructions for Portuguese voyages of exploration and discovery sometimes included specific directions about medicinal plants and spices to look for, and categories of commercial information about drugs, spices and plants to record for future use by Portuguese merchants and adventurers (Waker, 2008). However, in comparison with Spain, Portugal had a less organized and institutionalized programme for collecting and researching nature overseas. On the Spanish programme, see Barrera-Osorio (2006) and Canizares-Esguerra (2006). A recent appraisal of Science in the Spanish and Portuguese Empires during the early modern period is Bleichmar, de Vos, Huffine, & Sheehan (2008).

<sup>30</sup> It should be stressed that Nicolás Monardes had not yet published his main book on New World materia medica, *Historia Medicinal de las cosas que se traen de nuestras Indias Occidentales* published in three parts in 1565, 1571 and 1574. The three parts were first collected in Monardes (1574). On his contribution to the subject, see Bleichmar (2005).

<sup>31</sup> For a general history of book censorship in Portugal, see Rodrigues (1980). The study of medical book censorship in Portugal is still a desideratum. The names of the authors and the place of publication could be sufficient reason for expurgation or suppression of medical works. This was especially the case with non-Catholic authors or books published in non-Catholic countries. One of the Portuguese medical authors most heavily censored was the Jewish physician Amato Lusitano. His *Curatationum medicinalium centuriarum*, Basiliae, 1556 appeared in the 1597 Roman Index and his *Discordes de Medica materia Librum quinque enarrationes*, Venice, 1556 joined the 1624 Index. Certain kinds of medical knowledge such as those concerning paracelsism could, by themselves, be considered subversive and were, therefore, widely censored. On the censorship of medical books in a relatively similar context, see Pardo-Tomás (1991, pp. 220–227).

<sup>32</sup> Orta's handling of personal experience and testimony in the *Colloquies* could, in itself, be the subject of another paper. For an appraisal of Orta's informants, see Loureiro (2008, pp. 142–144).

<sup>33</sup> Indigenous healers in Goa belonged to two main groups, hakins (Muslim practitioners) and vaydas (Hindu practitioners also called Panditos). The latter practiced ayurvedic medicine based on the threefold elements: wind, fire and water. Good health depended on their balance and treatment consisted in determining what kind of humours were in excess or were insufficient. Causes often invoked were errors in diet and excess of everyday life such as too much sexual intercourse, anger and exertion. In what concerns materia medica, it was almost restricted to vegetable drugs derived from indigenous plants. The practice of hakins is less known but they shared some elements with Hindu practitioners. On sixteenth-century Indian medical systems, see Pearson (1996) and Grácias (1994).

Yet, he is not uncritical of some of their systems of knowledge and practices: 'These doctors are also wrong in the classification of the medicines, for they call pepper and cardamon cold and opium hot. As for anatomy they do not know where the liver is, nor the spleen, nor anything else' (Orta, [1563] 1987, p. 308). Orta tends to present himself as an European physician but one that is open to trying local methods of treatment and medicines when other methods have failed (Orta, [1563] 1987, pp. 306–310). In addition, he displays a constant concern with knowing more about indigenous forms of treatment from Indian physicians (Orta, [1563] 1987, pp. 305–306, 432, 452). By being attentive to various medical systems and practices, Orta reveals that he is eclectic in his understanding of medical knowledge and practice. Indeed, he asserts his superiority, based on a cultural vantage point. In this respect, the words of the native physician Malupa who pays a visit to Orta are particularly illustrative: 'Dr. Orta often knows better than all of us, for we only know the Gentoos, but he knows Christians, Moors, and Gentoos better than all of us' (Orta, [1563] 1987, p. 436).

However, the mixture of medical traditions was certainly not unique to Orta. Goa was a trading zone in several respects and historians have shown that a combination of medical traditions was current practice in the territory (Pearson, 1996; Gráças, 1994). On the one hand, some European doctors enjoyed a good reputation among Indians for their medical expertise. Orta was a prime example of such physicians. On the other, some native physicians cured the Portuguese, including governors, archbishops, high governmental officials and friars (Gráças, 1994, p. 154). Most importantly, there seems to have been a general agreement that Indian diseases such as Asiatic cholera were environmentally determined and should be treated by Indian methods (Kundra, 2010, p. 237). Processes of exchange and appropriation were therefore mutual among the medical community residing in Goa. Associated with this, there were also processes of resistance especially on the part of the colonizers. In 1563, the very year of the publication of the *Colloquies*, Hindus were prohibited by royal order from practicing medicine and Hindu physicians in Goa were ordered to leave within a month. Other orders followed in an attempt to contain the practice of native physicians, especially when treating Portuguese Christians (Gráças, 1994, pp. 152–157).

In terms of content, the major innovative characteristic of the *Colloquies* is the attempt, amidst the extreme variability of natural products and their uses, to provide a guiding system for regularization covering language, prices, places of origin, morphological and sensory attributes as well as uses according to specific circumstances and bodies. This system would be useful both in Europe and in India and could satisfy the interests of various types of readers. It is this particular form of guidance combined with the far-reaching critique of ancient and modern authors on the subject that would have enabled Orta to fulfil his aspirations as a new medical authority. Because he is both an insider and an outsider in relation to European medical authorities, he can present himself as the critical conscience of established medical knowledge.

An important element in the construction of authority has to do with the envisioning of an audience for a particular work. For

whom were the *Colloquies* written and who should we suppose was the likely audience for the work? In the dedicatory epistle, Orta suggests that his work was written primarily for the local community of Goa and the surrounding regions. However, the vast array of ancient and modern authors mentioned in the work indicates that he aimed it at a wider public. I would argue that he had two main intended audiences, the first was humanist scholars and physicians back in Europe represented in the text by Ruano. Some of them would not be able to understand Portuguese but the readers who were probably more important for Orta, his Portuguese, Spanish and Italian contemporaries Amato Lusitano, Laguna, Monardes and Matthioli, could. The other main intended audience were the resident physicians and apothecaries, represented by Dimas Bosque who appears in one colloquy at the end of the book.<sup>34</sup> He is a colleague living also in Goa and, significantly, the only person from whom Orta readily accepts suggestions and even corrections.<sup>35</sup>

However, it is likely that the contents of the *Colloquies* would also appealed to a more wider audience. The *Colloquies* could be particularly useful at institutions such as the Royal Hospital or the Santa Casa da Misericórdia in Goa, for instance.<sup>36</sup> The work provides also ample information on the locations, prices and routes of trade concerning the simples and drugs of India which might appeal to merchants and statesman.<sup>37</sup> In addition, the book was not only informative, it was also entertaining and shared some of the characteristics of travel literature of the period.<sup>38</sup> In this way, it could as well attract the attention of more general and curious readers. More generally, although the *Colloquies* can be viewed a product for local use by physicians, apothecaries and others interested in the commercial and geographical information provided by the work, they were also a product that was not only the result of geographical expansion, but also conceived of in terms of their circulation in an expanded world.

Geographical expansion demanded a new assessment of Indian materia medica and the Portuguese physician exhibits an obsession with the pursuit of truth with regard to Indian plants and medical drugs. He builds his authority on his learning, reason and long experience and on the fact that, unlike some of his contemporaries who also wrote on non-European *materia medica* such as Monardes and Amato Lusitano, he had been a primary and local witness of the natural products commented on and discussed in his book. This is also why his book had to be printed in Goa and not in Europe. The location contributed to validating his vantage point. However, Orta was also aware of the provisional nature of the acquisition of knowledge, especially in an increasingly globalized world. It is no coincidence in this regard that the *Colloquies* end with Orta commenting on his as yet insufficient knowledge of Persian roses.

## 6. Conclusion

The *Colloquies* were conceived and published at a sensitive moment, both in terms of the history of print culture and of European geographical expansion. As I have shown, Garcia de Orta seized the increasing opportunities offered by both to medical authorship and

<sup>34</sup> The physician Dimas Bosque who appears in the *Colloquies* is a real life-character. As I have pointed out in note 14, he contributed to one of the paratexts of the *Colloquies*. On the career of Dimas Bosque, see Walter (1963c).

<sup>35</sup> It should also be stressed that not only physicians but also some of Orta's servants such as Antonia are shown to have reasonable practical knowledge on the characteristics and healing properties of exotic plants, fruits and seeds. At various times, they bring plants and drugs at Ortás request (Orta, [1563] 1987, pp. 54, 87, 98, 102–103, 203, 227, 234). Sometimes they even advise Ruano on their properties (Orta, [1563] 1987, pp. 264, 323, 428).

<sup>36</sup> The *Colloquies* present two references to hospital facilities in Goa (Orta, [1563] 1987, pp. 229, 232): The Royal Hospital was devoted to the treatment of Portuguese soldiers and other Portuguese but the success in treatment was very low. Orta served as the physician of the Royal Hospital at the time of St. Francis Xavier's stay in Goa in the early 1540s (Pearson, 2005). Goa had also a charitable institution, the Santa Casa da Misericórdia, that provided medical care for the less fortunate (Abreu, 2001, pp. 591–611).

<sup>37</sup> The *Colloquies* were certainly informative but we should not forget that information, medically and otherwise, was presented more or less randomly in the work. In addition, besides its many typographical errors, the work did not present a clear and organized index and included frequent digressions. This would have contributed to limit its use in the period. On the trading routes provided in the *Colloquies*, see Oliveira (1963).

<sup>38</sup> For an appraisal of Portuguese travel literature in the period and its relation to the natural world, see Fontes da Costa (2009, pp. 61–69).

the construction of new forms of authority. However, this was not an easy and straightforward process but one that demanded resourceful and ingenious forms of presentation. It involved Orta's careful self-fashioning as a successful, experienced and virtuous physician and his display not only of knowledge and audacity but also prudence. Similarly central were the Portuguese physician's emphasis on personal experience and access to credible and varied testimonies. However, like his friend Luís de Camões, Orta cherished not only 'Knowledge of experiences made' (Camões [1572] 1846, p. 154) but also literary heritage.<sup>39</sup> Experience and new testimony tempered, clarified and provided new medical knowledge but did not negate the importance of tradition. What was needed was a reassessment of the authority of books, not their radical substitution by the sole authority of nature. In Orta's vindication as a new medical authority he used a variety of elements and strategies that ultimately enabled the creation of a vantage point conducive to a fruitful assessment of knowledge concerning the simples and drugs of India.

However, despite his own particular intentions, historical circumstances also played a pivotal role in Orta's fate as an author. He died in Goa in 1568 and, by then, the Inquisition was deeply entrenched in the territory (Xavier, 2008, pp. 81–144). One year after his death, his family was persecuted severely and his sister Catarina, who by now was also living in Goa, was condemned and burned alive on charges of Judaism (Révah, 1960).<sup>40</sup> Under torture, members of Orta's family admitted that he had been a crypto-Jew which led to his posthumous *auto de fé* in 1580.<sup>41</sup> As a result, the remains of Orta's body were exhumed and publicly burned. It is almost certain that copies of his book were also thrown into the flames and destroyed.<sup>42</sup>

Despite these tragic events, however, there were also other events which favoured the circulation of the book. Carolus Clusius heard about it by chance when he was travelling in Lisbon in January 1564.<sup>43</sup> His epitomised version of the *Colloquies, Aromatum et simplicium aliquot medicamentorum apud indos nascentium historia*, went through several editions which attempted to incorporate new knowledge and new visual representations of nature.<sup>44</sup> Cristovão da Costa, a Portuguese physician also of Jewish ancestry left for India in 1559 and it was here that he discovered the *Colloquies*.<sup>45</sup> He latter admitted (Da Costa, 1578) that Orta's work was crucial for his *Tratado delas Drogas y medicinas de las Indias Orientales, con sus plantas debuxadas al bivo* [Treatise on drugs and medicines from Eastern India with their plants drawn from life].<sup>46</sup> There were several others who read, appropriated and commented on the work such as Juan Fragoso,<sup>47</sup> Hendrik Adriaan Van Reede<sup>48</sup> and Jacob Bontius.<sup>49</sup> The *Colloquies* went through several changes in authorship, language, format, content and shape. Like many others before him, Orta become an authority but in a way that went beyond the undoubted

merits of his work. He become a true authority because, in the words of Michel Foucault, he become a 'founder of discursivity', someone who produced the possibilities and the rules for the formation of other texts, someone who established an endless possibility of discourse (Foucault, [1970] 2002).

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<sup>39</sup> The concept of experience was also important to other contemporary travelers and writers of Orta and Camões such as Duarte Pacheco Pereira and D. João de Castro. On the subject, see Osório (1947).

<sup>40</sup> The documentation regarding Orta's sister condemnation by the Inquisition is now held at the National Archives Torre do Tombo, Lisbon under shelf mark PT/TT/TSO-IL/028/01283.

<sup>41</sup> The documentation regarding Garcia de Orta's posthumous condemnation is at the Portuguese National Library, Lisbon, Codice 203, fl.360v.

<sup>42</sup> There is no information on the number of copies of the *Colloquies* published. The number of available copies in Portuguese and international libraries is relatively reduced (Walter (1963b)).

<sup>43</sup> Between 1564 and 1565, Clusius spent one and a half years crossing Spain and Portugal in the company of his pupil Jakob Fugger. The journey had also and commercial purpose, as his pupil, the son of the German banker Antoni Fugger, was an outstanding trader in American products (Barona, 2007).

<sup>44</sup> All editions of *Aromatum et simplicium aliquot medicamentorum apud indos nascentium historia* were published by the famous Plantin Press at Antwerp. The second edition appeared in 1574, the third in 1579 and the fourth in 1593. In 1605, the text appeared in Clusius' collected works *Exoticorum libri decem* also by Plantin.

<sup>45</sup> Cristovão da Costa or Cristóbal Acosta as he was known in Spain was born in the African territory and came to India in 1568 as a physician surgeon in the fleet of D. Luis de Ataíde, the Portuguese Viceroy to India. In 1571 he left for Lisbon and finally Spain where he worked as a medical practitioner in the town of Burgos till 1586. He died most likely in 1594, Francisco Guerra, 'Acosta, Cristóbal', *Dictionary of Scientific Biography*, Vol. 1. New York: Charles Scribner's Sons, 1970, pp. 47–48.

<sup>46</sup> On this work by Cristovão da Costa, see Walter (1963a) and Nobre Carvalho (2011).

<sup>47</sup> On Juan Fragoso's *Tratado de las Drogas* [Treatise on Drugs] (Burgos, 1578), see Nobre Carvalho (2011).

<sup>48</sup> On Van Reede's *Ortus Malabaricus* (Amsterdam, 1678–1693, 12 Vols.), see Grove (1996) and Fournier (1987).

<sup>49</sup> Jacobus Bontius, *De Medicina Indorum* (Leiden, 1642). The work was translated into English as *An account of the diseases, natural history and medicine of the East Indies* (T. Noteman, London, 1769). Pages 165–231 of this book constitute an 'Animadversion on Garcia de Orta'. On Bontius, see Cook (2005).

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