

Bonds of sweetness: A political and intellectual history of citrus circulations across the Western Mediterranean during the Late Renaissance

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Abstract

This article analyses how intellectual and political conversations about the exchanges of fruits interacted with knowledge-power relations across the Western Mediterranean during the Late Renaissance. I argue that scholarly networks fostered informal diplomacy through the use of paradoxical meaning of citrus goods newly arrived via Iberian monarchies, and that this political communication was articulated around concepts such as tolerance and sweetness. Between Spain, Portugal, and Rome, I demonstrate how political practices and discourses about citruses fuelled struggles for sovereignty during a time marked by continuous wars and debates about the status of religious minorities.

Keywords: citrus, sweetness, politics, republic of letters, natural history, Rome, Lisbon, Portuguese Restoration War, Thirty Years' War, Western Mediterranean, Spanish Empire, conflict of sovereignty.

Resum

El present article analitza com les converses polítiques i intel·lectuals sobre els intercanvis de fruita van afectar les relacions entre poder i coneixement a la Mediterrània occidental durant el Renaixement tardà. S'hi argumenta que les xarxes d'erudits van promoure el desenvolupament de la diplomàcia informal a través de l'ús del significat paradoxal dels cítrics nouvinguts per via de les monarquies ibèriques, i que aquesta comunicació política va estar articulada

al voltant de conceptes com la tolerància i la dolçor. Així mateix, es demostra que a Espanya, Portugal i Roma les pràctiques polítiques i els discursos sobre cítrics van alimentar les lluites pel control de la cristiandat en un període que va estar marcat per contínues guerres i debats sobre l'estatus de les minories religioses.

Paraules clau: cítrics, dolçor, política, república de les lletres, història natural, Roma, Lisboa, Restauració portuguesa, Guerra dels Trenta Anys, Mediterrani occidental, Imperi espanyol, conflicte de sobirania.

Resumen

El presente artículo analiza cómo las conversaciones políticas e intelectuales acerca de los intercambios de frutas afectaron a las relaciones entre poder y conocimiento en el Mediterráneo occidental durante el tardo-Renacimiento. En él se argumenta que las redes de eruditos promovieron el desarrollo de la diplomacia informal por medio del uso del significado paradójico de los cítrics recién llegados por vía de las monarquías ibéricas, y que esta comunicación política estuvo articulada en torno a conceptos como la tolerancia y la dulzura. Asimismo, se demuestra cómo en España, Portugal y Roma las prácticas políticas y los discursos sobre cítrics alimentaron las luchas por el control de la cristiandad en un período que estuvo marcado por continuas guerras y debates acerca del estatus de las minorías religiosas.

Palabras clave: cítrics, dulzura, política, república de las letras, historia natural, Roma, Lisboa, Restauración portuguesa, guerra de los Treinta años, Mediterráneo occidental, Imperio español, conflicto de soberanía.

This essay revolves around one question: How did Western-Mediterranean circulations of people and commodities contribute to political communication during Late Renaissance European conflicts? The study of the material contexts of «political ideas», which were exchanged across the Mediterranean through the circulation of fruits (including citrus), allows me to extend the conventional study of early modern intellectual and political exchanges and helps answer this ques-

tion.¹ I argue that material contexts supported political negotiations related to shifting imperial hegemonies and informed the creation of a new European balance of power during the mid-seventeenth century.

In past work, I have shown that Iberian scholarly dissenters channelled political communication between Rome and Lisbon after the start of the Portuguese Restoration in 1640.² Many of these men of letters were former *letrados* (jurists) attuned to imperial administration during the Union of the Crowns of Spain and Portugal (1580-1640). They became political dissidents before 1640 and thereafter brokered exclusive Iberian knowledge to foreign intelligence systems. Their position was based on their access to and knowledge about books, libraries, archives, and natural history collections. Based on such access, they secured refuge after exile and generated political counsel, which was greatly in demand. Material goods—including specialty fruits like citruses—accompanied and interacted with these learned exchanges. Those goods provided alternative access to Iberian natural history data and contributed to political debates about tolerance and sovereignty. In particular, these debates concerned the integration of religious minorities in exile as part of imperial reforms following the mid-seventeenth-century Iberian revolts.

The Late Renaissance craze for citruses resonated with other contemporary obsessions, such as those for tulips and sugar.³ Citruses, conceptually and materially, however, have a long story related to ex-

1. On renewed interest in the agency and meanings of goods/commodities which circulated across the Iberian worlds, see B. Aram and B. Yun-Casalilla, eds., *Global Goods and the Spanish Empire, 1492-1824. Circulation, Resistance, and Diversity*, Palgrave, New York, 2014; and D. Bleichmar and M. Martin, eds., *Objects in Motion in the Early Modern World*, Wiley-Blackwell, Hoboken, 2016.

2. Fabien MONTCHER, «Politics, Scholarship, and the Iberian Routes of the Republic of Letters: The Late Renaissance Itinerary of Vicente Nogueira (1586-1654)», *Erudition and the Republic of Letters*, 2 (2017), pp. 182-225.

3. See Anne GOLGAR, *Tulipmania: Money, Honor, and Knowledge in the Dutch Golden Age*, Chicago, The University of Chicago Press, 2007; and Sidney MINTZ, *Sweetness and Power. The Place of Sugar in Modern History*, Penguin, New York, 1986.

ile.⁴ Their diffusion across the globe and the Mediterranean in particular was, for the most part, the result of wars, conquests, and forced migrations from antiquity to the present. I argue that discussions about lemons and sweet oranges fuelled the learned communications that supported political negotiations during the Thirty Years' War (1618-1648). The cultivation, transplantation, and hybridization of citrus fruits across new territories and their medicinal use among sailors to prevent scurvy reinforced the political uses of such fruits amid seventeenth-century conflicts.⁵ Discourses attached to citruses extended across time and space and channelled political symbols and ideas. This is what men of letters on the move realized and advertised on behalf of their own and their patrons' interests.

The political use of citruses was not new in the seventeenth century. Fruits such as lemons and bitter oranges had long been used as aristocratic and religious symbols, conveying ideas about fertility and redemption, while being often associated with sacred geographies and predictions concerning the fate of empires.⁶ Helena Attlee notes that,

4. On the use of such fruit and «vegetable erudition» during the seventeenth century, see the works of Federico PALOMO, «Ascetic Tropics: Franciscans, Missionary Knowledge and Visions of Empire in the Portuguese Atlantic at the Turn of the Eighteenth Century», *Culture & History Digital Journal*, 5/2 (2016), consulted July 15, 2019: <<http://dx.doi.org/10.3989/chdj.2016.013>>; José Ramón MARCAIDA LÓPEZ, «¿Naturalezas vivas o muertas? Ciencia, arte y coleccionismo en el Barroco español», *Acta Artis. Estudis d'Art Modern*, 2 (2014), pp. 151-67.

5. See Dora DE LIMA, «Saveurs et savoirs du monde. Circulations et appropriations de fruits tropicaux dans l'Empire portugais atlantique (v. 1550-v. 1650)», Thèse de doctorat inédite, Université Paris 1 Panthéon-Sorbonne and Universidade Nova de Lisboa, 2014; Teresa Nobre de CARVALHO, «The Depictions of the Spice that Circumnavigated the Globe. The Contribution of Garcia de Orta's Colóquios dos Simples (Goa, 1563) to the Construction of an Entirely New Knowledge About Cloves», *Abriu*, 6 (2017), pp. 187-212; and Samir BOUMEDIENE, *La colonisation du savoir. Une histoire des plantes médicinales du «nouveau monde» (1492-1750)*, Editions des Mondes à faire, Vaulx-en-Velin, 2016.

6. While the Medici in Florence and across Europe associated their family with the prestige of their gardens and oranges, the humanist and poet, Giovanni Pontano (1426-1503) referred in his famous *De Hortis Hesperidum* (c.1500) to the citruses of

«there was always something mysterious about [a lemon], something fluid and unknowable, so that its fruit was endlessly surprising and entertaining», while Cristina Mazzoni has traced how fruits such as oranges resisted being reduced to a simple commodity.⁷ Before the introduction of sweet oranges in sixteenth-century court societies, citrus-es were often associated with bitterness and, in extreme cases, with poison, even though oranges were known to ancient authors such as Pliny and Dioscorides for their antidotal and digestive properties.⁸ The fame of citrus-es in relation to politics was also linked to notorious deaths such as that of Gabrielle d’Estrées, Henry IV of France’s adviser, mistress, and confidante, who was thought to have died from a poisoned lemon sorbet in 1599 (modern consensus is that her death was due to eclampsia).⁹ Meanwhile, at the beginning of the seventeenth century

Naples and Lake Garda when celebrating Francisco II Gonzaga’s staunch resistance against French incursions in the Italian Peninsula at the end of the fifteenth century. Concerning the use of oranges in portraits of members of the Medici family, see Gudrun RAATSCHEN, «Merely Ornamental? Van Dyck’s Portraits of Henrietta Maria», in E. Griffey, ed., *Henrietta Maria: Piety, Politics, and Patronage*, Ashgate, London, 2008, p. 130. For earlier associations between oranges and politics see Stephen Frederic DALE, *The Orange Trees of Marrakesh. Ibn Khaldun and the Science of Man*, Harvard University Press, Cambridge, Mass., 2015, pp. 247-248. I thank Mohamad Ballan for this reference.

7. Helena ATTLEE, *The Land Where Lemons Grow. The Story of Italy and Its Citrus Fruit*, Countryman Press, Woodstock, 2014; Cristina MAZZONI, «Of Blood Oranges and Golden Fruit: A Sacred Context for the ‘Rosarno Events’», *California Italian Studies*, 5/1 (2014), p. 72; and from the same author, *Golden Fruit. A Cultural History of Oranges in Italy*, University of Toronto Press, Toronto, 2018.

8. See Florentino FERNÁNDEZ GONZÁLEZ and Luis RAMÓN-LACA MENÉNDEZ DE LUARCA, «El tratado sobre los cítricos de Nicolás Monardes», *Asclepio*, 54/2 (2002), pp. 149-164. On the use of citrus in sixteenth-century Habsburg court context see Sylva DOBALOVÁ and Jaroslava HAUSENBLASOVÁ, «Die Zitruskultur am Hofe Ferdinands I. und Anna Jagiellos: Import und Anbau von Südfrüchten in Prag 1526-1564», *Studia Rudolphina*, 15 (2015), pp. 9-36. I would like to thank Florike Egmond and Peter Mason for pointing my attention to this work.

9. Jannine GARRISSON, *Gabrielle d’Estrées: Aux marches du palais*, Tallandier, Paris, 2006, p. 103. My thanks to Etienne Bourdeu for directing me to this episode.

in England, Jesuits used orange juice to communicate secret messages, most famously while preparing an escape from the tower of London. Such practices, often associated with crypto-Catholicism, were depicted in post-Elizabethan theaters, where oranges were sold to (and thrown by) the public.¹⁰

Citruses from both the Portuguese and Spanish monarchies, especially sweet oranges from China, were relatively new and precious in Europe in the 1630s and 1640s.¹¹ The ability to access and acclimate such fruits was used as a symbol of sovereignty.¹² In 1604, James I of England welcomed the constable of Spain with a feast graced with a «melon and half a dozen oranges on a very green branch». In that episode, oranges represented «a superlative that signified the transplanting or grafting of Spain's sovereign goods to England's soil in a form of a sweet-smelling diplomatic centerpiece».¹³ Meanwhile, the introduction of Chinese/Portuguese sweet oranges as well as citrus jams, waters, and sweet-scented containers (called *púcaros*) from Portugal, especially

10. For a detailed analysis see Julian YATES, *Of Sheep, Oranges, and Yeast. A Multi-species Impression*, University of Minnesota Press, Minneapolis, 2017, pp. 135-220. The memory of such practices has been long-lasting, and reminiscences could be found in modern day expressions such as the French: «apporter des oranges en prison».

11. In his *Dialogue Concerning the Two Chief World Systems* (1632), Galileo underlined the intrinsic value of oranges compared to silver and gold. Quoted by ATLEE, *The Land*, ch. 2, «The Scent of Lemons».

12. In his treaty on citruses, the Sevillian naturalist Nicolás Monardes (1493-1588) reported that the Spanish humanist Antonio de Nebrija himself pointed out the superiority of modern times over antiquity due to the modern capacity to discriminate different kinds of citruses. See FERNÁNDEZ GONZÁLEZ and RAMÓN-LACA MENÉNDEZ DE LUARCA, «El tratado», pp. 149-164. The arrival of citruses in the Mediterranean took place in successive waves from antiquity, and in the mid-seventeenth century the fruits became a main focus for scholars and diplomats. On the central role of the Iberian worlds in this citrus craze see Ana DUARTE RODRIGUES, «The Orange Folly and its Dissemination from the Iberian Peninsula to the Old and New Worlds», Paper presented at the international conference *Old and New Worlds: The Global Challenges of Rural History*, Lisbon, 2016, consulted August 9, 2018: <<https://lisbon2016rh.files.wordpress.com/2015/12/onw-0213.pdf>>

13. YATES, *Of Sheep, Oranges*, pp. 198-199.

in Rome, reinforced the political relevance of exiled Iberian scholars and imperial dissidents.¹⁴ For example, after 1640 and the start of the Portuguese restoration, King John IV enhanced his informal diplomatic exchanges with political figures who could not officially recognize his sovereignty by presenting those individuals with a gift of citrus. In Rome, Portuguese agents like the scholar Vicente Nogueira (1580-1654), who found refuge in the city after being condemned by the Inquisition in Lisbon to an exile for life in the Prince's Islands, received packages of fresh fruits and jams from Lisbon.¹⁵ John IV's informal agents in Rome could thus offer sweet Chinese oranges to his Roman patrons along with his arguments about Portuguese sovereignty.

Indeed, official and unofficial negotiations were sustained by the sending of fruit packages by state representatives and patrons who wanted to secure the services of agents such as Nogueira. Like care packages sent to soldiers, the intertwined circulation of books and food-related products offers new insights into how political leaders whose sovereignties were new, unstable, or unrecognized relied on brokers of knowledge when official diplomacy failed (e.g., Rome and Portugal between 1640 and 1668). In Rome, Nogueira craved the citrus jams and flavours he used to consume when living in Lisbon. Bonds of sweetness and shared cravings for citruses strengthened the nostalgia of men in exile, such as Nogueira. That nostalgia ultimately contributed to the political communication of the intellectual networks that supported it. Through overlapping bibliographical and citrus exchanges, such men participated in new forms of public diplomacy and performed as political intermediaries for multiple intelligence systems.

14. *Púcaros* were often associated with citruses. Even some abortifacients were garnished with citrus zests. On the diffusion of *púcaros* and their surprising popularity in Iberian court culture, see Natacha SESEÑA, *El vicio del barro*, El Viso, Madrid, 2009.

15. Before his departure from the Iberian Peninsula, Nogueira lived near the street of the *confiteiros* in Lisbon. See João Pedro GOMES, «Uma doce viagem: doces e conservas na correspondência de D. Vicente Nogueira com o Marquês de Niza (1647-1652)», in C. Soares and I. Coutinho de Macedo, eds., *Ensaios sobre património alimentar Luso-brasileiro*, Universidade de Coimbra, Coimbra, 2014, pp. 213-250.

Tracing citrus exchanges shows how conflicts such as the Portuguese Restoration War or the Thirty Years' War played out in spaces such as the Western Mediterranean that are often overlooked by the history of ideas. The intellectual networks of the Republic of Letters—through which both books and fruits circulated—worked closely with Mediterranean mercantile organizations through the means of personal and familial connections. For example, when enquiring about corsair activity in order to protect the precious cargoes of French merchants circa 1650, French scholars in Rome searched for Spanish books and manuscripts discussing the arrival of Armenians in France and commented on—from a political and strategic point of view—the benefits of such «Mediterranean arrivals» for the king of France against the Ottomans.¹⁶ Such comments were followed in the same letters by references to the hunt for anti-Spanish political pamphlets published in Spanish Naples and inquiries into the publication of works on the natural history of citruses.¹⁷ While in exile in Paris during the mid-1640s, Cardinal Francesco Barberini discussed with the Roman member of the Accademia dei Lincei, Cassiano Dal Pozzo, the arrival of «oranges from Portugal, which they said are coming from India». He mentioned how the fruits were shipped through the city of Rouen before being received at court by the French queen. Francesco pointed out to Dal Pozzo that the fruits were seedless, and how sweet, flavourful, and colourful they were.¹⁸ For many scholars and politicians—including Nogue-

16. See the letter that Christophe Dupuy sent from Rome to his brothers in Paris on January 1651, in K. Willis Wolfe and P. J. Wolfe, eds., *Humanisme et politique. Lettres romaines de Christophe Dupuy à ses frères (1650-1654)*, 3 vols., Papers on French Seventeenth Century Literature, Paris-Seattle-Tübingen, 1988-2005, III, p. 44.

17. See the letter that Christophe Dupuy sent to his brothers, Pierre and Jacques, royal librarian in Paris on September 17, 1646, in Willis and Wolfe, eds., *Humanisme et politique*, vol. 2, p. 39. In the same correspondence, Dupuy informed his brothers about popular revolts in Spanish Naples due to taxes on fruits. See Christophe Dupuy to his brothers, Rome-Paris, March 16, 1648, p. 142; and Christophe Dupuy to his brothers, Rome-Paris, February 26, 1646 and June 3, 1647, p. 14 and p. 81 respectively.

18. See the letter sent by Francesco Barberini to Dal Pozzo in Rome on March 23, 1646. Quoted by Giacomo LUMBROSO, «Notizie sulla vita di Cassiano Dal Pozzo»,

ira and Barberini—their experiences of exile were shared through bonds of sweetness facilitated by citrus exchanges. Such friendships and the political communication they mediated were reinforced across the intellectual networks of the Republic of Letters and through a common passion for the sweet taste of some citrus fruits and interest in their natural history.

Narrowing my focus to Iberian scholars who resided in Rome during the mid-seventeenth century, I argue that access to citrus fruits and citrus-derived products helped those who found refuge in Rome to integrate into Roman political circles. For example, Pope Urban VIII (r. 1626-1644) recruited political dissenters and new converts to Catholicism from all horizons and confessions to promote papal mediation in European conflicts.¹⁹ The new recruits, known as the *Apes Urbanae* (Pope Urban VIII's bees), among whom Iberians constituted a significant group, embodied these ambitions by securing the pollination of knowledge from the Iberian empire to the Roman hive. Along with the metaphor of honey, which had been associated with papal politics from an earlier stage, references to citrus—especially candied ones—were used to promote the sweet politics of the pope.²⁰ Bees, lemons, and oranges were at the core of the political symbols and iconographic programs of universal powers such as that of the pope during the early modern period.

The contributions of the Iberian bees to learned compendia, including books and letters about citrus, promoted by patrons such as

Miscellanea di Storia Italiana, 15 (1876), p. 313. For more information concerning this correspondence see David FREEDBERG, «From Hebrew and Gardens to Oranges and Lemons. Giovanni Battista Ferrari and Cassiano Dal Pozzo», in F. Solinas, ed., *Cassiano Dal Pozzo: Atti del seminario internazionale di studi*, De Luca, Rome, 1989, pp. 37-72.

19. One of the best approaches to the overlapping scientific and political life in Rome during the seventeenth century is Antonella ROMANO, *Rome et la science moderne entre Renaissance et Lumières*, École française de Rome, Rome, 2008. See also the contributions contained within P. Jones, B. Wish, and S. Ditchfield, eds., *A Companion to Early Modern Rome, 1492-1692*, Brill, Leiden, 2019.

20. On the famous letter that Saint Catherine of Siena sent to Pope Urban IV about «honey and candied oranges», see MAZZONI, *Golden Fruit*, pp. 15-46.

Francesco Barberini, renewed papal dreams to universalism during the first part of the seventeenth century.²¹ In publications sponsored by the papacy, Rome itself was presented as the compendium of the world, in which all kinds of knowledge were cultivated.²² Learned enterprises conducted by the representatives of institutions such as the Accademia dei Lincei and Barberini's bees participated in the promotion of papal politics through the accumulation of external knowledge. Iberian men of letters offered access to an extraordinary reservoir of experiences and projects dedicated to books and libraries. That reservoir included natural history, especially related to citruses, allowing Roman scholars to benefit from wide-ranging sources of information related to the territories of the Iberian monarchies.²³

In this context, the Jesuit Giovanni Battista Ferrari (1584-1655), professor of Hebrew and rhetoric at the *Collegio Romano* and garden advisor to the pope, published his *Hesperides* in 1646.²⁴ As David Freedberg showed, Ferrari's empirical classification of citrus was part of a series of

21. For an institutional and intellectual approach to Papal universalism during this period see Giovanni PIZZORUSSO, *Governare le missioni, conoscere il mondo nel XVII secolo. La Congregazione Pontificia de Propaganda Fide*, Sette Città, Viterbo, 2014; Giuliano MORI, *I geroglifici e la croce. Athanasius Kircher tra Egitto e Roma*, Scuola Normale Superiore, Pisa, 2016.

22. This is the image that Giovanni Battista Ferrari, an expert on citruses and one of Dal Pozzo and Francesco Barberini's collaborators, used to define the city in his *De Florum Cultura* (1633). See the Italian translation of this work: Lodovico Aureli PERUGINO, *Flora ovvero cultura di fiori del P. Gio Battista Ferrari*, Facciotti, Rome, 1638, p. 5.

23. On Giovanni Battista Ferrari's reliance on Barberini's bees for his projects on flowers and citruses see Cinzia FORTUZZI, *La Biblioteca Barberina: la raccolta libraria di Urbano VIII e Francesco Barberini*, p. 145, unpublished work, consulted online on March 12, 2018, URL: <https://www.academia.edu/36580655/La_Biblioteca_Barberina_la_raccolta_libraria_di_Urbano_VIII_e_Francesco_Barberini>

24. Giovanni Battista FERRARI, *Hesperides, sive de malorum aureorum cultura et usu libri quattuor*, Rome, Herman Scheus, 1646. On Ferrari's biography and the intellectual context surrounding his editorial projects in Rome it is essential to consult David FREEDBERG, *The Eye of the Lynx. Galileo, His Friends, and the Beginnings of Modern Natural History*, The University of Chicago Press, Chicago, 2002.

works related to poetry, natural history, and politics inspired by the *Accademia dei Lincei*. The book was elaborated under the patronage of the pope's family and published after the death of Urban VIII in 1644, during the subsequent exile of key members of the family in Paris, including Francesco Barberini. Unlike other Roman editorial projects, such as *Il Tesoro Messicano*, that were re-appropriated by Spanish authorities—which ended up being published during Innocent X's pro-Spanish papacy between 1649 and 1651—*Hesperides* was conceived while Francesco Barberini promoted Roman interests over Spanish ones.²⁵ Natural history projects formed part of the wars of sweet and bitter words between Rome and Madrid during the Thirty Years' War. From a Roman perspective and at this particular moment (c. 1635-1646), it was essential to emphasize that Urban VIII's bees had been able to overcome the sovereign defences of Spanish empirical knowledge related to Iberian territories and acquire the information necessary for a project like Ferrari's *Hesperides*.

Ferrari's publications on flowers and citruses appeared during a time when natural historians in Spain had started publishing studies on materials collected across the Iberian empire since the sixteenth century.²⁶ The Spanish monarchy helped fund many of these projects. The emphasis that King Philip IV put on *naturalia* during his reign was connected to the campaigns of learned propaganda that his favourite, the Count-Duke of Olivares, promoted to reaffirm the hegemony of the monarchy over its empirical patrimony amid mid-century conflicts over sovereignty fought between Rome and Madrid.²⁷ Oscillating be-

25. For example, the Spanish ambassador, Rodrigo Díaz de Vivar Gómez de Sandoval y Mendoza, 7th Duke of the Infantado (1614-1657), intervened in the publication of the *Tesoro Messicano*. References to the Barberinis were suppressed and the project ended up dedicated to Philip IV of Spain. See FREEDBERG, *The Eye of the Linx*, pp. 272-74; M. E. Cadeddu and M. Guardo, eds., *Il Tesoro messicano: libri e saperi tra Europa e Nuovomondo*, L. S. Olschki, Florence, 2013.

26. For example, Juan Eusebio NIEREMBERG, *Historia naturae maxime peregrinae*, Officina Plantiniana Balthazaris Moreti, Antwerp, 1635.

27. José Ramón MARCAIDA LÓPEZ, *Arte y ciencia en el Barocco español. Historia natural, coleccionismo y cultural visual*, Fundación Focus-Abengoa and Marcial Pons, Madrid, 2014, p. 129.

tween collaboration and competition, Ferrari's project built upon longstanding Ibero-Roman interactions related to the natural history of the Iberian empire.²⁸ References to Spanish and Portuguese gardens and citruses were unavoidable since the Garden of the Hesperides was often associated with territories under Spanish dominion (e.g., Naples and the Iberian Peninsula).²⁹ The confirmation of Spanish sovereignty over geographies associated with such gardens, either located in the Iberian and Italian Peninsulas, the Atlantic Islands, or in the New World, had been gaining traction in Europe since the early part of the sixteenth century. Iberian Renaissance historiographers maintained that King Hespero, a mythological figure, had established very early on a direct connection between his three daughters (Hesperides) and the eponymous garden located in the New World. Such a narrative reinforced the idea of Spanish dominion over these territories, starting in pre-Christian times.³⁰ In mid seventeenth-century Rome, that history needed to be challenged in order to reaffirm the spiritual jurisdiction of the papa-

28. For example, during their peace legation in Madrid in 1626, Francesco Barberini and Cassiano Dal Pozzo pursued the collaborations initiated decades before between representatives of the Accademia dei Lincei and Iberian scholars (in Spain and Naples) to gather the manuscripts of Philip II's physician, Francisco Hernández (1514-1587), in order to advance the publication of the *Tesoro-Messicano* that finally came out in Rome between 1649 and 1651. See A. Anselmi and A. Minguito, eds., *El diario del Viaje a España del cardinal Francesco Barberini escrito por Cassiano del Pozzo*, Doce Calles, Madrid, 2004, pp. 83 and 328. Ferrari himself relied on information concerning diverse specimens of flowers related to the Iberian presence in Asia when working on his *De Florum cultura* (1633). As Freedberg and Baldini have pointed out, Ferrari claimed to have been the first to grow Chinese roses in Rome (*hibiscus mutabilis*). Ferrari was also probably influenced by the royal gardener of Philip II of Spain when emphasizing the ornamental dimension of flowers in gardens. See D. Freedberg and E. Baldini, eds., *The Paper Museum of Cassiano Dal Pozzo. Series B-Natural History. Part One. Citrus Fruit*, Harvey Miller, London, 1997, p. 40; and FREEDBERG, «From Hebrew and Gardens», p. 44

29. See H. Fischer, V. R. Remmert, and J. Wolschke-Bulmahn, eds., *Gardens, Knowledge and the Sciences in the Early Modern Period*, Birkhäuser, Basel, 2016, p. 309.

30. For more details concerning the history of this idea in sixteenth-century Iberian historiography see MARCOCCI, *Indios, chinos, falsarios*, pp. 93-94 and 98-99.

cy over the New World. With the help of Dal Pozzo, Ferrari relied on Iberian collaborators, who sent him sweet oranges from Naples.³¹ Meanwhile, Cardinal Antonio Barberini offered the sweet lemons he received from Spain to Dal Pozzo and Ferrari for their personal delight but also for their research on the natural history of territories under Iberian control.³² Iberian scholars like Nogueira provided the Barberinis with additional opportunities to access knowledge and products related to Iberian empires through contacts in Portugal (in particular, *citrus sinensis*: sweet oranges from China).

During this period, Roman communications with Iberian territories were particularly complicated. The last-minute incorporation of materials related to Iberian citruses in *Hesperides* reflects this reality.³³ However, around the time of the Portuguese revolution of 1640, associations between the Garden of the Hesperides and the Kingdom of Portugal became very appealing from a Roman point of view when trying to access fruits that circulated across the Portuguese world by circumventing Spanish power.³⁴ Iberian agents like Nogueira facilitated political and learned communication through their personal networks between Rome and Lisbon. Thus, the Jesuits, who played an important role in introducing Asian citruses into Mediterranean and Atlantic societies and markets, also relied on alternative channels of information.³⁵ Nevertheless, while *Hesperides* acknowledged a Chinese source

31. FREEDBERG and BALDINI, *The Paper Museum*, p. 254.

32. Francesco Barberini's brother, Antonio, sent Ferrari and Dal Pozzo «*il limone del agro dolce di Spagna*» from his garden. He probably obtained it in Rome from a Spaniard or a Portuguese. On this episode see FREEDBERG, «From Hebrew and Gardens», p. 67.

33. FREEDBERG and BALDINI, *The Paper Museum*, p. 151.

34. On early modern analogies between the Garden of the Hesperides and Portugal, see Aurora CARAPINHA, «The Guardian of the Mediterranean Madrid – The Portuguese Garden», *Gardens & Landscape of Portugal*, 2 (2014), pp. 6-15.

35. For example, see Ferrari's references to Jesuits such as Álvaro Semedo in relation to «*aurantium sinense*» or Diego Bobadilla in relation to «*aurantium indicum in insulis Philippinis*». FERRARI, *Hesperides*, pp. 429 and 450. In addition to Jesuit networks, Ferrari's *Hesperides* constitutes an unprecedented expansion of Late Re-

for citruses, it did not identify the intermediaries who brought this product to Rome:

... a beautiful tree with golden fruits was sent recently from Lisbon to the gardens of the Pios and the Barberinis, in Rome. They say that this tree is directly coming from China and, for this reason, they call it the tree of China.³⁶

Although this quote emphasizes the circulations of seeds, trees, and fruits between the Iberian and Italian Peninsulas, scholars and politicians across Europe kept complaining about their difficulties connecting with correspondents in Spain, and their limited access to information and goods. Scholars such as Nicolas Fabri de Peiresc (1580-1637)—the so-called prince of the Republic of Letters—sought to communicate directly with Spain and Portugal. He tried to access goods from Lisbon through a ship captain based in Marseille, preparing a *mémoire* about citrus trees and seeds he wished to procure from the Canary Islands and Portugal.³⁷ In Aix-en-Provence, Peiresc was building his own citrus garden, well aware that the Barberini bees were also interested in a natural history of sweetness associated with honey and citruses.

As the basis of exchanging such information, scholars focused on book-hunting in addition to fruits and seeds. From Rome, Nogueira established strong ties with Portuguese diplomats and Jewish merchants based in Lisbon, Livorno, Amsterdam, Rouen, Venice, and Paris. Some of these merchants were interested in establishing direct communica-

naissance knowledge about citrus contained in earlier works, including Pietro MATTIOLI, *I Discorsi di M. Pietro Andrea Matthioli Sanese... Nelli sei libri di Pedacio Dioscoride Anazarbeo della material medicinale*, Felice Valgrisiso, Venice, 1585; Carolus CLUSIUS, *Rariorum Plantarum Historia*, Plantin-Moretus, Antwerp, 1601, pp. 5-7; and Manuel RAMÍREZ DE CARRIÓN, *Maravillas de la naturaleza*, Francisco Garcia, Cordova, 1629.

36. FERRARI, *Hesperides*, p. 425. Translated by Aurora CARAPINHA, «A essência do Jardim Português», Unpublished PhD Thesis, Universidade de Évora, 1995, p. 243.

37. *Mémoire delli Agrumi ou Orangeries qui se peuvent recouvrer de Portugal*, in Bibliothèque Nationale de France, Latin 8957, 255. Quoted by Peter MILLER, *Peiresc's Mediterranean World*, Yale University Press, New Haven, 2015, pp. 237-238.

tion with Portugal in order to access Atlantic and Asian markets, including the sugar trade.³⁸ Citruses circulated through these networks along with books imported to or exported from the Italian Peninsula and products coming from all over the territories of the Portuguese and Spanish monarchies. Scholars and merchants sought to avoid Spanish commercial control while accessing empirical knowledge guarded in the Iberian Peninsula under the banner of natural «secret sciences».³⁹ Taking advantage of the revolts destabilizing Iberian politics during the 1640s, the pope and other foreign powers or would-be empires like France, saw an opportunity to acquire empirical knowledge that had sustained Iberian imperial governance during the last century.⁴⁰ It was through these channels and thanks to the citrus packages he received from Lisbon, that Nogueira was able to offer materials and ideas to enterprises like Ferrari's *Hesperides* through the mediation of his Roman patrons.⁴¹

38. See Francisco ZAMORA RODRÍGUEZ, «Interest and Curiosity. American Products, Information, and Exotica in Tuscany», in B. Aram and B. Yun-Casalilla, eds., *Global Goods*, p. 176.

39. See María M. PORTUONDO, *Secret Science: Spanish Cosmography and the New World*, University of Chicago Press, Chicago, 2009; see also, by the same author, *The Spanish Disquiet: The Biblical Natural Philosophy of Benito Arias Montano*, The University of Chicago Press, Chicago, 2019; Jorge CAÑIZARES-ESGUERRA, *Nature, Empire and Nation. Explorations of the History of Science in the Iberian World*, Stanford University Press, Stanford, 2006. For approaches that transcend the Iberian worlds, see P. Findlen, ed., *Empires of Knowledge: Scientific Networks in the Early Modern World*, Routledge, 2018; and J. Marroquín Arredondo and R. Bauer, eds., *Translating Nature: Cross-Cultural Histories of Early Modern Science*, University of Pennsylvania Press, Philadelphia, 2019.

40. See Arndt BRENDECKE, *The Empirical Empire*, De Gruyter, Berlin, 2018.

41. Right after the publication of *Hesperides*, Nogueira informed Francesco Barberini about the situation of the Jesuits in China while commenting on the introduction of sweet oranges to Rome. Nogueira to Francesco Barberini, Rome, March 4, 1647; March 6, 1647; and March 31, 1647, Biblioteca Apostolica Vaticana (BAV), Barb. Lat. 6472, fols. 146-147, 151-152 and 155-156. See also GOMES, «Uma doce viagem», pp. 213-250. See the unpublished correspondence between Nogueira and Dal Pozzo, Accademia Nazionale dei Lincei, Archivio Dal Pozzo, ms. X, fols. 418r-545r.

The Roman appropriation of Iberian empirical knowledge was both implicit and explicit in Ferrari's work. In his *De florum cultura*, an engraving by Greuter made after a drawing of Guido Reni featured prominently an image of «The Indies handing seeds to Neptune to transport to the Barberini gardens in Rome». ⁴² This image corresponds with the engravings displayed in *Hesperides*, in which a visual history recounting the arrival and cultivation of citruses in the Italian Peninsula is presented to the reader making clear that both the flora of the New World and the Italian citrus cultivars functioned as an eloquent sign of papal jurisdiction over such territories. The combination of Greek mythology and *prisca theologia* (the idea of a true theology, common to all religions, given by God in ancient times) in these images served to circumvent references to the dominion of the Spaniards over the New World but also over natural history itself. In the image of «The Indies handing seeds to Neptune to transport to the Barberini gardens in Rome», Neptune appeared as the main intermediary of seeds between Rome and the New World, leaving aside references to Columbus and/or the Spaniards.

Not only was the Spanish role in transmitting natural knowledge from the New World circumvented, Spanish scholarly authorities themselves came under attack. For example, in *Hesperides*, Ferrari dismissed the authority of the sixteenth-century Spanish naturalist Nicolás Monardes on the hybrid origin of oranges by alluding to the fact that «our peasants» have observed otherwise. ⁴³ Learned propaganda campaigns directed against Spain found additional resources in men like Nogueira when dismissing Spanish scientific discourses on empirical information.

As both a vernacular philology and a work of antiquarianism, Ferrari's publications on flowers and citruses, along with his sermons dedicated to the rhetorical sweetness of Hebrew, all echoed the political

42. FREEDBERG and BALDINI, *The Paper Museum*, pp. 48 and 378. On Roman intellectual networks and their relation to the natural history of the New World, see Sabina BREVAGLIERI, *Natural desiderio di sapere. Roma barroca fra vecchie e nuovi mondi*, Viella, Rome, 2019.

43. On Monardes's treatise on citrus and Ferrari's dismissive quote, see FERNÁNDEZ GONZÁLEZ and MENÉNDEZ DE LUARCA, «El tratado», p. 153.

discourse of Iberian scholars who—from Rome—defended the role of Jews and New Christians in the restored Kingdom of Portugal. Like Ferrari, Nogueira was well aware of the importance of sweet citrus products in political negotiations concerning religious minorities. In a letter he sent to Francesco Barberini, a few months after the start of the Portuguese «rebellion», he mentioned how the Portuguese ambassador offered sugar to the House of Orange (a name derived from the principality of Orange, a strategic place for the medieval and Mediterranean circulation of citruses) to sweeten and seal an alliance with the new king of Portugal.⁴⁴ In this letter, Nogueira seized the opportunity to remind his patron that the fertile kingdom of Brazil—where sugar was mass-produced and where citrus trees flourished after New Christians brought them as a consequence of their inquisitorial exile—had recognized the sovereignty of John IV, while other unfertile territories, such as Terceira Island, remained loyal to the Spanish king.⁴⁵ Through allusions to citrus and sweetness, Nogueira made simultaneous arguments in favour of Portuguese sovereignty and the value of Jewish and «New Christian» communities.

With these allusions, Nogueira pressed the nephew of the pope on sensitive matters concerning Urban VIII's recognition of the sovereignty of John IV of Portugal. Nogueira thus acted as an informal ambassador who gathered and sold information through the means of book and food product exchanges on behalf of diverse political powers while securing alternative and informal means of political negotiations between Portugal and Rome. Nogueira's book exchanges and food circulations allowed him to participate in wars of propaganda raging during the Thirty Years' War. For example, during his Roman residence, Nogueira asked his patrons for an extra room in which he would be able to separate the books he had accumulated to sell from the food and

44. Nogueira to Francesco Barberini, Rome, June 11, 1641, BAV, Barb. Lat. 6472, fols. 48r-49v.

45. On the introduction of citruses to Brazil by Portuguese *degredados* (convicts in exile) during the sixteenth century see Pierre LASZLO, *Citrus. A History*, The University of Chicago Press, Chicago, 2007, p. 29.

liquid products he received from Portugal in the form of care packages.⁴⁶ In this, Nogueira adopted the same strategy as more formal embassies at the beginning of the century, reorganizing his library and pantry to be used as resources in political negotiations.⁴⁷ Thus, access to citrus helped scholarly dissidents consolidate themselves as political mediators between Rome and the Iberian monarchies. In the absence of a Portuguese permanent embassy in Rome (the pope did not recognize the king of Portugal's sovereignty until 1668), John IV counted on informal agents like Nogueira to cultivate papal support against Spain.

By distributing sweet oranges, marmalades, and citrus waters in scented ceramic containers, Nogueira strengthened his profile as John IV's counsellor while echoing political ideas promoted by projects like Ferrari's *Hesperides*. For example, the implicit associations made by Ferrari in his *Hesperides*, *Orationes* (originally published in 1625 and extended and reedited many times afterward), and *Collocutiones* (1652) between the sweetness of citruses, the stylistic beauty of Hebrew, its linguistic sweetness, and political tolerance toward Jews, echoed the arguments of Portuguese agents in favour of the return of Jews and *conversos* to Portugal.⁴⁸ As a professor of Hebrew at the *Collegio Romano* in Rome, Ferrari added his voice to a movement that emphasized «sweetness»—the rhetorical and the etymological value of Hebrew—during a time of increased anti-Semitic attacks across Europe. Ferrari was well aware that

46. Nogueira to Francesco Barberini, Rome-Paris, March 31, 1647, BAV, Barb. Lat. 6472, fols. 155r-156r.

47. Alfredo ALVAR EZQUERRA, *Algunos aspectos de las despensas de los embajadores extranjeros en Madrid en la primera mitad del siglo XVII*, Artes Gráf. Municipales, Madrid, 1992.

48. Among the many editions of *Orationes* see the Roman fourth edition by Pietro Antonio FACCIOOTTI, 1635, dedicated to Francesco Barberini. More particularly, see: 1) *Hebraicae linguae suavitas*; 2) *Hebraicae musae sive De Disciplinarum omnium Hebraica origine*; 3) *Hebraicae litteraturae securitas, sive De Arguto dicendi genere usurpando*; and 4) *Stylus Hebraicus, sive in hostes brevitatis*. FREEDBERG, «From Hebrew», p. 42. On how natural history and antiquarianism intersected with the treatment of Jews in Rome see David FREEDBERG, «Cassiano and the Jewish Races», *Quaderni Puteani*, 3 (1992), pp. 41-56.

the confusion around citrus favoured a negative image of fruits associated in part with Jewish ceremonies (e.g., the Etrog used during Sukkot/Feast of the Tabernacles) and above all with the bitterness of exile.

In this debate, citrus took on an ambivalent meaning. In Rome, crowds used citrus (mainly rotten oranges) to mock Jews forced to race in the streets during the Roman carnival. On the other hand, Ferrari's work on citrus would be used as an alleged authority when in 1668 Pope Clement IX prohibited such spectacles, the very same year that the papacy recognized Portuguese sovereignty. Through tales of metamorphosis and natural conversions associated with Jewish traditions, *Hesperides*, *Orationes*, and *Collocutiones* all provided material upon which it was possible to formulate political arguments in favour of New Christians and Jews in Rome.⁴⁹

As a potential collaborator and as someone who worked as a jurist near where the Jewish carnival races were supposed to start in Rome (at the *Palazzo della Cancelleria*), Nogueira related to Ferrari's concerns. Since the end of the sixteenth century and during his time in the Iberian Peninsula, Nogueira had advocated across the networks of the Republic of Letters for «political tolerance» and «soft conversions» of religious minorities. Amid the Iberian revolts of the 1640s, men of letters such as Nogueira used their discourses and connections to promote political reforms in order to design new monarchies—Portugal in this case—whose legitimacy would be based on «soft and sweet» religious

49. It is worth noting that the few direct allusions that Nogueira made to Ferrari in his correspondence with the Portuguese ambassador in Paris concerned the role that Ferrari played in the Roman Inquisition and the influence of this institution on other inquisitions across the world. Nogueira lamented the fact that Roman influence was not as direct over the Spanish and Portuguese inquisitions. Nogueira to the Marquis of Niza, Rome-Paris, September 19, 1650, in J. C. Gonçalves Serafim and J. A. de Freitas Carvalho, eds., *Um diálogo epistolar: D. Vicente Nogueira e o marquês de Niza (1615-1654)*, CITCEM, Porto, p. 366. Ferrari also helped Nogueira when he worked on obtaining a license to read prohibited books on behalf of the Portuguese ambassador in Paris. Vicente Nogueira to Pedro Mendez de São Payo, Rome, January 20, 1646, in *ibidem*, p. 81.

conversions.⁵⁰ The authority of such a power was conceived against the pro-Spanish politics of the Portuguese Inquisition.

In addition to facilitating the integration and consolidation of Iberian scholars in Roman politics, book and citrus exchanges helped these men to participate in negotiations about the role of minorities in new imperial projects. Along with another Jesuit, the Brazilian Antonio Vieira (1608-1697), and in collaboration with Jewish and New Christian communities, Nogueira supported the *conversos* at the Portuguese court by asking the king to secure their return and to protect their persons, families, and patrimonies. The idea was that, if these communities returned to Portugal and remained unmolested, they would provide extra financial resources and commercial networks to a commercial company principally dedicated to the trade of Brazilian sugar.⁵¹ Nogueira's support for this policy also aimed to obtain the support of the leaders of Jewish communities in places like Amsterdam, where John IV's agents (including Vieira) were trying to reach an agreement with the Dutch concerning their occupation of Brazilian territories. Learned and moralized arguments about citruses thus helped create intellectual and diplomatic networks that aimed to end Spanish impe-

50. Ferrari and Nogueira's claims were shared by other diplomatic figures who promoted tolerance on behalf of diaspora communities. See Claude STUCZYNSKI, «Richelieu in Marrano Garb: Conversos as Agents of the French Confessional Model, c. 1640», in Y. Kaplan, ed., *Religious Changes and Cultural Transformations in the Early Modern Western Sephardic Communities*, Brill, Leiden, 2019, pp. 71-112.

51. The General Brazilian Company of Commerce was established in 1649. See Stuart B. SCHWARTZ, *Tropical Babels: Sugar and the Making of the Atlantic World, 1450-1680*, University of North Carolina Press, Chapel Hill, 2004; and Daniel STURM, *O comércio do Açúcar. Brasil, Portugal e Países Baixos (1595-1630)*, Versal Editores, Rio de Janeiro, 2012. On regarding Nogueira's pragmatic considerations concerning Jewish communities settled in Holland, he writes: «*Dos judeus de Holanda, que parece um corpo desprezado e desprezável, é notório e certo, ser ãa comunidade muito rica e estendida, por cuja mão negoceam, não só os Judeus de toda Turquia e Berberia, mas cristãos de toda Europa, e até alguns cristãos-novos de Castela, e Portugal*». Nogueira to John IV, Rome-Lisbon, April 8, 1647, in Gonçalves Serafim and Freitas Carvalho, eds., *Um diálogo epistolar*, p. 92.

rial and inquisitorial hegemony by including religious minorities in Portuguese politics. In his dedication to *Praxis Historiarum... Liber septimus*, the Portuguese-born physician Abraham Zacutus (1575-1642) emphasized Nogueira's linguistic skills in relation to Hebrew while celebrating his suave and sweet treatment of theological questions.⁵² While in Rome, Nogueira took great care to self-fashion as an expert in all kinds of languages, emphasizing his expertise in Hebrew in order to become an active member of anti-Spanish «networks of sweetness». Nogueira's ideas about soft religious conversion, sweet political tolerance, and freedom of will were ultimately inspired by his involvement with the Roman Jewish and *converso* communities. For example, after attending the sermon of a new rabbi in the Roman ghetto, discussing sweet and heavenly food opposed to bitter and earthly products, Nogueira reported to Portuguese authorities that:

[the rabbi spoke] without any of Boccaccio's Tuscan inflection or any Lombard pronunciation, nor the screeches of the Florentines, but as sweet as if he had been born in the antechambers of Rome, which is the only place in Italy where they know how to speak [...] and if he were to become Christian, he would rise above all of our Castroverdes, Pedrosas, and Hortensios.⁵³

Nogueira praised the *suavitas* of the Rabbi's Roman accent, arguing that he would promote the king's reputation better than any Spanish preacher, if converted «softly» and granted royal protection.⁵⁴

52. ZACUTUS LUSITANUS, *Praxis Historiarum... Liber septimus*, Henrici Laurentii, Amsterdam, 1641.

53. Nogueira to the Marquis of Niza, Rome-Paris, October 21, 1647, in Gonçalves Serafim and Freitas Carvalho, eds., *Um diálogo epistolar*, p. 131.

54. Similar scenes were common across the Italian peninsula. Leone di Modena remembered in his autobiography how he gave a sermon in 1622 «before a huge standing crowd, packed in as never before, with many Christians and noblemen among the listeners. Poems and melodies were composed and Zebulum (his son) sang a song that I had written. The listeners could not stop praising his sweet voice». See Mark R. COHEN, *The Autobiography of a Seventeenth-Century Venetian Rabbi*, Princeton University Press, Princeton, NJ, 1988, p. 117. Similar allusions to sweet voices are

Allusion to religious conversion through soft means and implicit references to political tolerance fuelled anti-Spanish political discourses shared by Iberian intellectual dissenters and the enemies of the Spanish crown. These discourses echoed humanistic narratives concerning the idea that with the passing of time and cross-cultural contacts, acidic fruits such as citruses became increasingly sweet.⁵⁵ Such narratives provided an allegorical ground upon which it was possible to advocate on behalf of the aforementioned natural, soft, and sweet conversions. Ultimately, these discourses contributed to the wars of words that raged across Europe after the beginning of the Franco-Spanish war in 1635. The exchanges of books and citruses provided additional means to win these wars by supporting the writing of natural histories (e.g., Ferrari) that depended on but were not controlled by the Spanish Empire.

Circulation of and conversation about citruses and sweetness reinforced what is best defined as a seventeenth-century political vocabulary articulated around a common opposition to Iberian inquisitorial politics across the Western Mediterranean. If in England a Protestant could be converted into a Spaniard by eating an orange, then trading sweet oranges between Rome and Lisbon could potentially foster the return of religious minorities to Portugal. From Nogueira's perspective, the ambivalent nature of citruses as objects of political mediation whose meaning oscillated between the bitterness of exile and the sweetness of refuge constituted a perfect allegory of the political program that John IV of Portugal should follow against Spain and the Portuguese Inquisition (suspected as an institution to collaborate with the Spanish king) to consolidate his sovereignty.

Across the global reach of early modern European religious and dynastic conflicts, commodities such as books and citruses «that appeared as trivial things [...] showed that they were, in reality, a very queer thing, abounding in metaphysical subtleties and theological ni-

to be found in Ferrari's discussions of mythological metamorphoses related to citrus (e.g., Harmonillus, who was converted into a citrus tree because of his sweet voice).

55. FERNÁNDEZ GONZÁLEZ and MENÉNDEZ DE LUARCA, «El tratado», p. 161.

ceties».⁵⁶ The present article constitutes a first step toward the history of «the subtleties» (in early modern terms, the word refers to sugar sculptures) and «niceties» of political ideas and ambivalent commodities that circulated across the Western Mediterranean and the Iberian worlds. The ideas connected to the luxury goods that accompanied intellectual and material exchanges impacted debates on sovereignty through the untold story of a citrus craze, and constitute an essential part of the natural history of early modern politics.

56. *The Fetishism of Commodities and the Secret Thereof*, in Karl MARX, *Capital*, vol. 1, part 1, ch. 1, section 4.