Mandrake and Monarchy in Early Modern Spain

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In 1673 Tomás de Murillo y Velarde, a personal physician to the Spanish royal family, published a treatise on medicinal plants entitled *Tratado de raras, y peregrinas yervas* (Treaty on rare and migrating herbs). His ostensible purpose was to demonstrate the differences between the medicinal plant abrotano (*Artemisia abrotanum*), a species in the Asteracaea family, and its lesser variant bupthalmo (another species of Asteracaea) with, as the full title announces, "some annotations" on the subject of mandrake, a plant associated with love magic and fertility.[1] Murillo's "annotations" are not an afterthought to his main text, as the title insists, but instead compose roughly half his narrative. Forty-five of his 126 pages address the uses of mandrake, which he claims cures infertility, and sections on mandrake and fertility-related topics appear in other portions of the treatise, particularly in the final chapters. Murillo promises the reader that "this plant has the virtue and effect . . . of making fecund and fertilizing what is sterile" (50r). This bold declaration departs from contemporary botanical treatises, such as vernacular translations and commentary on Dioscorides, whose descriptions of mandrake are generally short and mention its use as an aphrodisiac or fertility aid as one element among many uses; these treatises do not give fertility the prominence that Murillo does. This article explores Murillo's fascination with mandrake's potential as a fertility drug, a subject that he returns to repeatedly throughout the text, even in sections not ostensibly on mandrake.

Fertility was a subject of paramount consequence to the Hapsburg court in which Murillo served. In 1665 King Philip IV of Spain died, leaving a sole legitimate son and heir, Charles II, who suffered a number of physical infirmities that would now be attributed to inbreeding.[2] Following Philip's

[1] Tomás Murillo y Velarde, *Tratado de raras, y peregrinas yervas, que se han hallado en esta Corte, y de sus maravillosas virtudes, y la diferencia que ay entre el antiguo abrotano, y la natural, y legitima planta bupthalmo, y unas anotaciones a las yerbas mandragoras, macho, y hembra* (Madrid: Francisco Sanz, 1674), Biblioteca Nacional Española, Madrid. All translations are my own unless otherwise noted. This work is hereafter cited parenthetically in the text.

[2] For biographical information on Charles II, see Henry Kamen, *Spain in the Later Seventeenth Century: 1665–1700* (New York: Longman, 1980); José Calvo Poyato, *Carlos II:*

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death, his wife, Mariana of Austria, assumed the regency, a state of affairs that continued even after Charles reached the age of majority at fourteen. Despite two marriages, Charles II died childless in 1700, predeceased by all potential Hapsburg successors. His death sparked the War of Spanish Succession (1701–14), after which the monarchy passed to the Bourbon line, ending Hapsburg rule in Spain. Although marital negotiations were under way, Charles was merely thirteen years old when Murillo wrote, and therefore Murillo's attention to mandrake and its potential to cure infertility is not necessarily aimed at the monarch. The textual fixation on fertility more likely reveals a broader concern for the future of the Spanish state, which, as Murillo wrote, was under the leadership of a queen regent whose son was nearing the age of majority even as the king's illegitimate son, John Joseph of Austria, attempted to wrest influence over his half-brother from her.[3] In this article, I examine Murillo's construction of a protonationalist relationship between Spanish herbal medicine and Spanish fertility, arguing that Murillo presents the science of botany as a masculine terrain that could not only cure infertility but also reinvigorate the empire. In doing so, Murillo endorses mandrake as a legitimate and theologically licit medicine despite its association with witchcraft and love magic, and he displaces anxiety about perceived Spanish decline onto concerns about gender and sexuality.[4] Murillo expresses his impassioned defense of mandrake as a fertility drug using a series of female metaphors for Spain, promising a return to splendor through spiritual devotion and optimal use of Spanish herbs.

El hechizado (Barcelona: Planeta, 1996); Gabriel Maura y Gamazo, *Vida y reinado de Carlos II* (Madrid: Espasa-Calpe, 1954); Luis Ribot, ed., *Carlos II: El rey y su entorno cortesano* (Madrid: Centro de Estudios Europa Hispánica, 2009); and Sylvia Z. Mitchell, "Growing Up Carlos II: Political Childhood in the Court of the Spanish Habsburgs," in *The Formation of the Child in Early Modern Spain*, ed. Grace Coolidge (Burlington, VT: Ashgate 2014), 189–206. Recent scholarship contests the extent of the young monarch's disability. However, even if, as Ribot and Mitchell contend, the Spanish monarchy was resilient despite Charles's weakness and Charles II was less feeble than hostile accounts from French courtiers rumored, neither of his marriages produced a single confirmed pregnancy, indicating that he was infertile if not impotent.

[3] While Philip IV struggled to produce a legitimate heir, he fathered illegitimate children prolifically, among them John Joseph of Austria (1629–79), his son with actress María Calderona. John Joseph is the second illegitimate child of a Spanish monarch to go by the name John of Austria and should not be confused with his more famous predecessor, John of Austria (1547–78), the illegitimate son of Charles V who served as admiral during the Battle of Lepanto.

[4] Whether Spanish society was actually in decline or merely perceived to be is a long-standing historical debate. Christopher Storrs makes a convincing argument for the resiliency of the Spanish monarchy, arguing that the Spanish Empire even grew slightly in the closing decades of Habsburg rule. See "Nuevas perspectivas sobre el reinado de Carlos II (1665–1700)," in *La decadencia de la monarquía hispánica en el siglo XVII: Viejas imágenes y nuevas aportaciones*, ed. María del Carmen Saavedra Vázquez (Madrid: Biblioteca Nueva, 2016), 17–37. Nonetheless, Baroque aesthetics emphasized imagery of decadence and decay, creating at least a perception of decline.

In order to make this argument, I first introduce Murillo and the practice of botany in seventeenth-century Spain. I then turn to Murillo's remarks about mandrake. This plant was often sexualized and anthropomorphized, frequently depicted nude, and used as a fertility aid, as well as in love magic, a practice associated with women. Murillo's scholarly treatise seeks to distance mandrake from superstition and defend its use as a legitimate and theologically licit medicinal plant. In order to do so, he relies on humoral theories of the body and theological understandings of the harmony of nature. This background reveals that magical and medical uses of the plant often do not differ in practice, since Murillo advocates using the plant as an aphrodisiac; instead, he seeks to establish the authority of the practitioner, asserting the superiority of the physician over magical practices generally associated with women. After discussing Murillo's general claims for the plant's efficacy, I turn to an examination of his examples in the text of women and female animals who use mandrake to conceive. He utilizes the exemplary tale of elephant mating rituals to endorse the use of mandrake as an aphrodisiac. Intriguingly, the female elephant takes the initiative in sexual encounters, seeking out mandrake and using it as an aphrodisiac. Murillo also examines the biblical story of Rachel and other Old Testament women who used mandrake to conceive. Here again, women took the initiative to seek out and utilize the plant. Analysis of these female exemplars allows me to demonstrate that Murillo opens a limited space for female agency in sexual matters even within rigid patriarchal norms that emphasized female submission. Finally, I turn to Murillo's closing example, again biblical, of mandrake's role as aphrodisiac in the Song of Songs. As we shall see, Murillo symbolically shifts from mandrake's effects on the human body to the metaphorical realm, turning his female exemplars into symbols for Spain and its relationship to divine authority. In doing so, he turns his medical treatise into an impassioned plea for Spain to restore order and overcome perceived decline through a return to botanical medicine.

Murillo was a prestigious seventeenth-century botanist and personal physician to Philip IV and his family at a time when herbal medicine was beginning to decline in popularity.[5] Humanist interest in classifying and collecting drove an early sixteenth-century spike in publication and popularity of herbal compendiums, including translations of Dioscorides's *De materia medica* (On medical material, published in AD 70), the foundational text

[5] Around thirty physicians worked in the court, with a group of about twelve *protomédicos* serving as chief physicians to the royal family. Of these, approximately five or six, Murillo among them, enjoyed the post of *médico de cámara*, or personal physician to the monarch, the highest rank to which a Spanish physician could aspire. See Andrea María Bau, "Porque la peregrinación es útil y necesaria a todos los hombres," *Tiempo y sociedad* 22 (2016): 115–16; and Álvar Martínez Vidal and José Pardo Tomás, "Un siglo de controversias: La medicina española de los novatores a la Ilustración," in *La ilustración y las ciencias: Para una historia de la objetividad*, ed. Josep Lluis Barona Vilar, Javier Moscoso, and Juan Pimentel (Valencia: Universitat de Valencia, 2003), 118, on the hierarchy of physicians at court.

of early modern botanical knowledge, into Romance languages such as Italian (by Pietro Andrea Matthiolo, 1544) and Spanish (by Andrés Laguna, 1554), which included extensive commentary on the original. However, this vogue for herbal knowledge faded rapidly, and publication of herbals nearly ceased in the latter half of the seventeenth century.[6] As John Slater relates, "Shortly after he was crowned in 1598, Philip III abandoned his father's magnificent garden of simples [medicinal herbs] and exotic plants at Aranjuez, simply allowing it to go fallow."[7] Philip IV showed no more interest in botanicals than did his father. Herbal medicine began to fall out of scientific favor, to be replaced by iatrochemical medicine, a precursor to chemistry, which, though initially slow to be accepted in Spain, flourished during the regency of John Joseph of Austria, who supplanted Mariana as regent from 1677 to 1679.[8] During this same period the exploration of the Americas brought new botanical products to Europe, and Spanish intellectuals debated the relative worth of foreign versus native medicinal plants. Murillo emphatically defends the superiority of Spanish plants to heal Spanish bodies; in fact, John Slater calls Murillo's treatise "one of the most energetic condemnations of the transatlantic trade in medicinal simples."[9] Similarly, Andrea María Bau argues that while Murillo called for the circulation of medical products, he firmly asserted the superiority of Spanish herbs.[10] In his treatise, Murillo pleads with the reader to eschew foreign plants, which are "without any virtue or efficacy" (2r). He contends that "Castile does not need anything whatsoever for the conservation of its health and to demonstrate its brilliance, while other provinces and kingdoms in the world need Castile," since it contains "herbs, and plants,

[6] For a brief history of the Renaissance herbal, see Brent Elliott, "The World of the Renaissance Herbal," in *Locus Amoenus: Gardens and Horticulture in the Renaissance*, ed. Alexander Samson (Malden, MA: Wiley-Blackwell, 2012), 24–40.

[7] John Slater, "The Green Gold Fallacies: Myth and Reality in the Transatlantic Trade in Medicinal Plants (1493–1663)," in *Geografías médicas: Orillas y fronteras culturales de la medicina hispanoamericana (siglos XVI y XVII)*, ed. José Pardo-Tomás and Mauricio Sánchez Menchero (Mexico City: Universidad Nacional Autónoma de México, 2014), 100.

[8] On John Joseph's patronage of scientific advancement, see Allen G. Debus, "Paracelsus and the Delayed Scientific Revolution in Spain: A Legacy of Philip II," in *Reading the Book of Nature: The Other Side of the Scientific Revolution*, ed. Allen G. Debus and Michael T. Walton (Kirksville, MO: Sixteenth Century Journal Publishers, 1998), 151–60. José María López Piñero challenged the "Black Legend," which portrayed the Inquisition as stifling all or nearly all scientific innovation in early modern Spain, proposing instead that a short period of stagnation was followed by renewed interest in iatrochemical theories by a group of *novatores* (a term meaning "innovator" that was initially used pejoratively by their intellectual adversaries) that gave new impetus to Spanish scientific inquiry. See "Juan de Cabriada y las primeras etapas de la iatroquímica y de la medicina moderna en España," *Cuadernos de la historia de la medicina española* 2 (1963): 129–54. Lopez Piñero's theories have been revised and expanded upon by subsequent critics such as Allen G. Debus, José Pardo Tomás, Martínez Vidal, María Luz López Terrada, John Slater, and many others.

[9] Slater, "Green Gold," 107.

[10] Bau, "Porque," 131.

that in faculties, valor, and virtue exceed those of other kingdoms, and are more wholesome and of greater virtue" (2r–2v). He decries the lack of appreciation Spanish doctors give to Spanish herbs, quoting Luke 4:24 that "no prophet is accepted in his own country" (2v). Murillo defends the supremacy of native botanical medicine and native doctors from the perceived disdain of foreign doctors who were bringing foreign methods to the royal court.[11] The cultural depreciation of Spanish botanicals stems, he charges, from their misuse, which his treatise aims to counter. Mandrake figures prominently among the botanicals he claims are misused, and he asserts that this plant is particularly suited to what he contends is the widespread problem of infertility plaguing Spain, since mandrake is native to Castile. He contends that doctors and druggists should travel to different regions to form plant knowledge, combining this with the "interior eyes of studious contemplation" developed in their academic training. But they should then rely on local plants that are more suited to the humoral environment, which varied by geographical location (8v).[12] Murillo relies on ancient authorities such as Galen and Dioscorides, as well as on his contemporaries such as Matthiolo. In humanist fashion, he combines ancient knowledge with natural theology: the belief that God's creation could reveal divine truth through a careful examination of the physical world.

Murillo's defense of herbal medicine is set against a backdrop of court politics that includes the advance of iatrochemical medicine, which both Slater and Bau describe as a central context for his work, and the contentious rivalry between the queen regent, Mariana, and the former king's illegitimate son, who wished to supplant her. Moreover, recent scholarship has questioned the long-standing historical assumption that Mariana's rule was nothing but a precursor to Charles II's reign, and scholars such as Sylvia Z. Mitchell have demonstrated that many of the assumptions made about her, particularly that she was dominated by male confidants such as her confessor, are the product of bias. "In spite of her preeminence and extensive authority," Mitchell writes, "Mariana has been disempowered in studies that focus on men and discuss her regency as part of Carlos II's reign."[13] On her ascension to regent, Mariana restructured the king's household to eliminate excess spending. She retained the king's druggists and physicians, placing them under the authority of the queen's household.[14]

[11] On Murillo's rivalry with other doctors, see Bau, 115.

[12] On early modern humoral theory regarding plant efficacy in different regions, see Emily Kuffner, Dyani Taff, and Elizabeth Crachiolo, "Time, Gender, and Nonhuman Worlds," in *Gendered Temporalities in the Early Modern World*, ed. Merry E. Wiesner-Hanks (Amsterdam: Amsterdam University Press, 2018), 69–93.

[13] Sylvia Z. Mitchell, *Queen, Mother, and Stateswoman: Mariana of Austria and the Government of Spain* (Philadelphia: Pennsylvania State University Press, 2019), 5. Laura Oliván Santaliestra comes to similar conclusions. See *Mariana de Austria: Imagen, poder, y diplomacia de una reina cortesana* (Madrid: Editorial Complutense, 2007).

[14] See Mitchell, *Queen*, 57–60.

Indeed, Murillo specifies that he has planted mandrake in "the garden of our lady the queen," casting the queen as an implied reader of his treatise (4r).

Rather than making an argument regarding Spain's role in the emergence of scientific epistemologies, as Slater and Bau do, my reading will focus instead on the importance of fertility and conception within the work and on the particular moment in Habsburg rule in which Murillo wrote. John Joseph was in open conflict with Mariana after a controversial incident in which she had her confessor, Everard Nithard, naturalized so that he could serve on her council of state. (Philip IV's will had barred foreigners from such positions.) John Joseph's opposition to Nithard resulted in both John Joseph's expulsion from Spain on Mariana's command and Nithard's removal from office. Shortly after, the controversial ascension of another of Mariana's favorites (Valenzuela) to gentleman of the chamber in 1676 gave him precedence over the grandees of Spain and angered the aristocracy. John Joseph returned to Spain and gained Charles II's favor, and by 1677 he had supplanted Mariana as regent and exiled her.[15] In this climate of court intrigue, Murillo's defense of herbal medicine and the native plants of Spain from the incursion of imported species and methods implicitly locates him in Mariana's faction. Conversely, John Joseph's support for and eventual patronage of iatrochemical medicine favored the foreign doctors whom Murillo disdained.

Mandrake is the third plant discussed in Murillo's treatise, but his interest in fertility and conception is also apparent in his discussions of other plants. For example, he asserts that abrotano promotes fertility and counters female disorders by provoking menstruation.[16] The female variant of abrotano counters "the white discharge of women," a disorder that was believed to cause infertility (14v). Murillo assures the reader that the male of this plant species "is of value to the uterus" and can be "used to stimulate Venus, and against all sorcery, and binding spells that could impede generation"; thus, the plant can be used to treat the female genitalia, generally promotes conception, and combats sorcery and *ligadura* (a common magical practice of tying knots, which, among other things, could induce impotence) (15r).[17] While these first mentions of women's genital health are made in

[15] See Kamen, *Spain*, 325–50; Mitchell, *Queen*, esp. 122–26.

[16] The role of menstruation in fertility was not clearly understood, since sperm and eggs would not be discovered until the eighteenth century. However, most early modern medical theorists believed that menstrual blood was used to form or nourish the developing infant and later became breast milk; they therefore related menstruation to a woman's capacity to procreate. See Merry E. Wiesner, *Women and Gender in Early Modern Europe*, 2nd ed. (New York: Cambridge University Press, 2000), 54–56.

[17] The term *uterus* did not exist in the Spanish language at this time, though it did in Latin. The term used in Murillo's Spanish commentary is *madre*, the most commonly employed term at this time, which also means "mother." On magically induced impotence, see Catherine Rider, *Magic and Impotence in the Middle Ages* (New York: Oxford University Press, 2006); Angus McLaren, *Impotence: A Cultural History* (Chicago: University of Chicago Press, 2007), 43–48.

passing, Murillo soon addresses the subject in much greater depth. After a brief discussion of bupthalmo, another member of the Asteracaea family and a plant that Murillo asserts is often mistaken for abrotano even though it does not share its medicinal properties, he turns to a study of mandrake. He then repeatedly underscores the usefulness of mandrake in promoting fertility and draws on knowledge of the plant that had been passed down through classical texts, contemporary authors, folklore, and bestiaries (books listing real and mythical species of animals and drawing moral lessons from them; these books flourished beginning in the twelfth century).

Although Murillo draws on earlier traditions, mandrake symbolism was malleable and changed considerably over time, so that "we cannot speak of one single concept that was universally associated with the mandrake at any given moment."[18] As Anne Van Arsdall, Helmut Klug, and Paul Blanz assert, from 1500 to 1700 the plant's occult associations eclipsed its medicinal usage so that "the mandrake root itself became only a legend, used less and less in medicine and increasingly distant from the world of actual plants."[19] Similarly, Diane Wolfthal contends that during the medieval period, mandrake's magical properties superseded medical usage, emphasizing its aphrodisiac qualities. At the same time, visual depictions became more anthropomorphized, often with explicitly depicted genitalia. The image Wolfthal examines, by Abraham Bosse from 1701, depicts a headless mandrake with clearly drawn labia.[20] Murillo seeks to overcome the plant's interconnectedness with love magic, witchcraft, and superstition through a combination of bestiary lore, theological traditions, and humoral medical epistemologies, asserting that when used properly by a trained physician, the plant is a potent tool to increase fertility. This approach was not new, since early modern writers did not separate medicine from other areas of natural philosophy. Nevertheless, Murillo's emphasis on fertility is more extended and detailed than other sources on the mandrake plant.[21]

In making the argument that mandrake is a legitimate medicine, Murillo had to confront its long-standing correlation with witchcraft and the occult. Mandrake was so symbolically tied to witchcraft that in the early modern period the mere possession of the plant was often enough to condemn its

[18] Anne Van Arsdall, Helmut W. Klug, and Paul Blanz, "The Mandrake Plant and Its Legend: A New Perspective," in *Old Names—New Growth: Proceedings of the 2nd ASPNS Conference, University of Graz, Austria*, ed. Peter Bierbaumer and Helmut W. Klug (New York: Lang, 2009), 314.

[19] Van Arsdall, Klug, and Blanz, 335.

[20] Diane Wolfthal, "Beyond Human: Visualizing the Sexuality of Abraham Bosse's Mandrake," in *Renaissance Posthumanism*, ed. Joseph Campana (New York: Fordham University Press, 2016), 226.

[21] As mentioned earlier, Murillo dedicates about fifty pages to his examination of mandrake. In contrast, Matthiolo and Laguna each assigns about two pages to mandrake, and Lemnius only one paragraph.

owner as a witch.[22] As Murillo admits, mandrake was also called zirzeas, or Circe, plant for its association with "Circe, the valiant sorceress, who discovered it and used it in her spells and false superstitions, instructed by Hecate, her mother, in such vanities and depraved arts" (20r).[23] Mandrake was commonly believed to be the plant Circe used to drug Ulysses and his men in order to turn them into swine. Spain was not subject to the same witch-hunting craze as northern Europe. According to William Monter, "The Spanish Inquisition normally considered diabolical witchcraft a relatively minor problem."[24] With the exception of the Basque country, very few witches were prosecuted and/or condemned to death; most were only publicly shamed. But as Murillo's reference to Circe indicates, the practice of witchcraft in Spain was gendered. Nearly all condemned witches were female, and most recorded instances of witchcraft in Iberia were related to love magic.[25] Love magic in seventeenth-century Spain encompassed a wide variety of practices, including spells, prayers, charms, potions, amulets, and other superstitious practices whose aim was to either ensure faithfulness or capture the love of another person. In most cases, the client was female, since women's place in the patriarchal order relied on their relationships to men, and such practices were almost always carried out by a female practitioner, usually lower class.[26] Aphrodisiac potions often used magicomedicinal plants such as mandrake and artemisia. Jennifer Evans argues that "aphrodisiacs were at this time almost ubiquitously understood as medicaments for infertility," and they were therefore indistinguishable from infertility medicines, since they aroused lust for the purpose of conception.[27] However,

[22] Frederick J. Simoons, *Plants of Life, Plants of Death* (Madison: University of Wisconsin Press, 1998), 119. One of the charges against Joan of Arc, which she denied, was that she possessed a mandrake root. See Daniel Hobbins, *The Trial of Joan of Arc* (Cambridge, MA: Harvard University Press, 2005), 75. Intriguingly, mandrake and artemisia, the two herbs most commonly associated with witchcraft, were both primarily utilized as fertility aids in early modern Europe. See John M. Riddle, *Goddesses, Elixirs, and Witches: Plants and Sexuality throughout Human History* (New York: Palgrave Macmillan, 2010), 146.

[23] On the relationship between Circe and mandrake, see Cecilia López Ridaura, "De la mandrágora al peyote: Plantas brujeriles en España y América," in *Las minorías: Ciencia y religión, magia y superstición en España y América (siglos XV al XVII)*, ed. Rica Amrán (Santa Barbara: Ehumanista, 2015), 55.

[24] William Monter, "Witchcraft in Iberia," in *The Oxford Handbook of Witchcraft in Early Modern Europe and Colonial America*, ed. Brian P. Levack (Oxford: Oxford University Press, 2013), 270.

[25] See Stacey Schlau, *Gendered Crime and Punishment: Women and/in the Hispanic Inquisitions* (Boston: Brill, 2013), esp. 119–46.

[26] María Helena Sánchez Ortega classifies and describes in detail the different types of love magic employed in early modern Spain. See "Sorcery and Eroticism in Love Magic," in *Cultural Encounters: The Impact of the Inquisition in Spain and the New World*, ed. Mary Elizabeth Perry and Anne J. Cruz (Berkeley: University of California Press, 1991), 58–92. See also María Taussiet, *Urban Magic in Early Modern Spain: Abracadabra Omnipotens*, trans. Susannah Howe (New York: Palgrave Macmillan, 2013), 58–99.

[27] Jennifer Evans, *Aphrodisiacs, Fertility, and Medicine* (Rochester, NY: Boydell, 2014), 2.

Murillo seeks to differentiate between superstitious use of mandrake as an aphrodisiac, what he calls "provoking to lust" in "love potions," and its proper medical use to stimulate fertility in order to distance himself from superstitious practices associated with the reviled figure of the witch (19v). This distinction lies mainly with the user. Murillo champions the discerning observation and experience of the university-trained physician to recognize the true plant and regulate its use properly, thus asserting the supremacy of male physicians over medical practice. As I noted, his title claims that the chapters on mandrake are merely "annotations" to his remarks on abrotano and bupthalmo. But the previous chapters could also be read as an introduction to the subject of mandrake, since their main argument is that the medically worthless plant bupthalmo is often mistaken for the medicinal abrotano by lesser practitioners.

Murillo's effusive claims regarding mandrake are situated within a humoral medical framework and a hierarchy of professional practice, with the university-trained physician at the apex. Humoral theory asserted that each individual body had an optimal balance of humors (black bile, yellow bile, phlegm, and blood) with their associated qualities (hot, wet, cold, and dry). Internal balance should be maintained through factors such as diet, sleep, exercise, and control of the emotions. If humoral imbalance occurred, resulting in sickness, it could be treated by releasing humors from the body, usually through bleeding, or by introducing opposing elements that would bring the body into balance.[28] Thus, for example, if a sickness resulted from an excess of cold humors, the cure would involve introducing hot elements. Physicians such as Murillo did not typically examine the physical body. Rather, they established their preeminence through diagnosis of the inner humoral forces that governed the body by questioning the patient about diet, sleep, and other factors that affected internal balance. Though a physician might make some limited physical contact, such as taking a pulse, for the most part physical contact was left to less educated and less prestigious practitioners such as surgeons and midwives.[29] Murillo repeatedly attacks the incompetence of druggists and herbalists, demeaning "the pharmacists of this court who have no curiosity to have or know rare and migrating plants, and do not even know ordinary ones" (33r). Murillo's treatise aims to demonstrate medical authority; though written principally in the vernacular (with Latin quotations left in the original), it does not belong to the genre of what William Eamon calls "books of secrets," which

[28] See Luis García Ballester, *Galen and Galenism: Theory and Medical Practice from Antiquity to the European Renaissance* (Burlington, VT: Ashgate, 2002), esp. 105–10.

[29] See Eve Keller, "The Subject of Touch: Medical Authority in Early Modern Midwifery," in *Sensible Flesh: On Touch in Early Modern Culture*, ed. Elizabeth D. Harvey (Philadelphia: University of Pennsylvania Press, 2016), 62–80; Roy Porter, "The Rise of Physical Examination," in *Medicine and the Five Senses*, ed. W. F. Bynum and Roy Porter (New York: Cambridge University Press, 1993), 179–97.

promised to reveal arcane knowledge to the layperson.[30] Murillo gives no information regarding dosage and little description of the preparation of medicine; instead, he implies that the secrets of academic medicine must remain in the hands of experts. His purpose is not to instruct his reader in medical techniques but rather to insist upon the authority of botanical science and of physicians. Rather than describing the body's physical manifestations, Murillo establishes his specialized botanical knowledge and superior observation by outlining the different qualities and properties that distinct parts of the mandrake plant can have on the humoral forces that regulate health. Murillo strives to bring mandrake into the sphere of academic medicine by appealing to ancient, classical, and contemporary authorities and to the tenets of natural philosophy (such as the doctrine of signatures and natural theology) and by providing examples of successful uses of mandrake.

Murillo opens his remarks on mandrake by parsing the distinction between its medicinal use, overseen by a physician, and witchcraft, and he asserts that the plants sold as mandrake are generally fraudulent. This distinction is vital to Murillo, since, as we have seen, mandrake's use as an aphrodisiac was culturally tied to love magic. Murillo cautions against the dangers of misuse, deriding love magic as a fraudulent practice whose practitioners realize that "these plants are very effective to provoke venery, and they make drinks for that effect and for the most part they are machinations of the Devil" (19v). Murillo warns that mandrake love potion users "lose their senses," driven mad, since the plant is "exceedingly cold and can kill because it is poisonous" (19v).[31] His description references a long tradition of medieval lore regarding the perils of harvesting mandrake; the supposed resemblance of mandrake roots to the human form led to frequent anthropomorphizing. Various legends described the plant's screams as it was wrested from the ground, which could supposedly drive the human harvester mad or even be fatal. Therefore, medieval authors recommend tying the plant to a dog, who would then be offered meat from just out of reach, prompting the dog to pull the mandrake out of the ground while the human herbalist covered his or her ears, killing the dog but allowing the plant to be safely collected once the screams had subsided.[32] Murillo

[30] On books of secrets, see William Eamon, *Science and the Secrets of Nature: Books of Secrets in Medieval and Early Modern Culture* (Princeton, NJ: Princeton University Press, 1994).

[31] Mandrake, a member of the nightshade family, is fatal in high doses. Cervantes's novella *El licenciado vidriera* (The glass graduate) illustrates the danger of love potions; the protagonist drinks a philter prepared by an unscrupulous admirer that drives him mad, causing him to believe he is made of glass.

[32] This account of mandrake extraction emerged in the eleventh century and appears in a number of medieval herbals such as the *Tacuinum Sanitatis* (fifteenth century), Meydenbach's *Hortus Sanitatis* (fifteenth century, an important source for Murillo), and early modern herbals such as William Turner's *New Herbal* (sixteenth century). It is possible

does not mention harvesting with dogs but declares the belief that the plant must be harvested on certain days or at certain times to be "magic," "sin," and "superstitious" (35v–36r). Furthermore, he warns that mandrake roots sold by herbalists are generally "figurines or fetishes" carved out of the roots of common plants to mimic human form and the anthropomorphized features of mandrake but actually devoid of medicinal value. Since mandrake roots were rare and valuable, fraud was common. Murillo claims that these "little idols" are called *mandragula* in Italy, "which is different from Mandrake [*mandragora*] but it is all chimera and false" (23v). Moreover, he accuses charlatans of specifically targeting infertile women, stating that "herbalists and druggists, in order to deceive women longing to become pregnant, and to have children, counterfeit with deceitful and fraudulent artifice, and adulterate the true and legitimate mandrake, which is so apt and ideal for repairing uterine sterility" (34r). Murillo repeats several times the accusation that most mandrake plants sold to early modern consumers are fraudulent and therefore insists that herbal medicine can only be safely and effectively practiced by university-trained practitioners (by definition male, since women did not attend university), who combined experiential knowledge with the "inward eyes of studious contemplation," even as he insists that the true plant produces "rare qualities and miraculous effects" (8v, 20r).

The line between magic and medicine was often nebulous in this era. Murillo and other natural philosophers promised to reveal hidden secrets, wonders, and marvels that God had placed in the natural world. This natural magic was part of the teleological order and therefore distinct from witchcraft, which John Riddle succinctly defined as "a means of getting nature to act unnaturally by a suspension of regular laws."[33] Of course, the devil and his agents could not work outside the will of God, and Murillo therefore reminds us that even "the devil has his [male and female] doctors" (19v).[34] Murillo begins to defend himself from potential allegations of sorcery in his preface, stating that he has planted "rare and inestimable" herbs in the court gardens, even though some "impugn them as diabolical and against the purity of our holy Catholic faith" (4r). This assertion could only refer to the sections on mandrake, since neither of the other two herbs studied (abrotano and bupthalmo) had any superstitious or diabolical associations. Throughout the chapters that follow, Murillo, who later in life became a priest, seeks to demonstrate that mandrake is part of the teleological order

that herbalists may have invented this legend to augment the price of their product by portraying it as dangerous to harvest.

[33] Riddle, *Goddesses*, 134. On medicine and the marvelous, see Lorraine Daston and Katherine Park, *Wonders and the Order of Nature, 1150–1750* (New York: Zone Books, 1998), 137–45. On natural magic, see Paula Findlen, *Possessing Nature: Museums, Collecting, and Scientific Culture in Early Modern Italy* (Berkeley: University of California Press, 1994), 53–55.

[34] Murillo uses both the masculine plural (*médicos*) and feminine plural (*médicas*).

and even was placed in the natural world by God for healing purposes, legitimizing mandrake within the confines of the Catholic faith.

Although Murillo explicates other uses for mandrake, which serves as an antidolorific and as a soporific, he concentrates his remarks on regulating fertility and pregnancy and asserts that many different parts of the plant, in both its male and female forms, support conception.[35] Juices extracted from the roots assist both in preparation of the womb for implantation and in the birth process itself. Citing Aristotle's *Generation of Animals*, Murillo contends that the juices of mandrake roots "soften and clean the uterus, attract the fetus, and provoke childbirth" (28r). The bark of the roots "purges the womb and disposes it for conception," and it also "provokes the menses and expels the placenta or afterbirth" (29v). Both the juice of the fruit and the seeds can also "purge the uterus" and "stop discharge from the womb" (30r, 31r). Murillo thus echoes the belief that the womb must be cleaned or purged of unclean menstrual blood in order to prepare it for conception, a belief that is found in many contemporary medical texts and midwifery manuals.[36] He then reinforces mandrake's role in conception by insisting that it "attracts, retains, and conserves the semen" within the womb (49v).

Murillo also insists that the mandrake root's resemblance to male thighs indicates that it could lend virility to the male body. To establish this claim, he refers to the classical doctrine of signatures, the theory that parts of a plant could cure parts of the human body to which they bore physical similarities.[37] Murillo applies the doctrine of signatures to other facets of the natural world, asserting, for example, that aetites, commonly known as eagle stone and frequently used as a fertility aid and in childbirth amulets, "helps pregnant women accelerate the birth and abbreviates their pains. . . . [E]ven the stone itself is pregnant, containing another inside itself; and so even the most perverse will recognize the parallel and the connection between cause and effect" (40r). Thus, just as plants that resemble a body part can heal that very organ, the "pregnant" eagle stone can assist pregnant women or help impregnate them. Indeed, throughout Europe pregnant women and women who wished to become pregnant used eagle stone amulets to boost fertility and to lessen the pain of childbirth. Murillo adds that another stone, galactite, can help produce milk "in women whose breasts are infecund and sterile" (41r).[38] Thus, close observation of nature can reveal to the trained eye the healing potential of stones and herbs.

[35] What Murillo regards as male and female mandrake roots are now known to be two distinct species, *Mandragora officinalis* and *Mandragora autumnalis*.

[36] For a discussion of this debate with reference to English literature, see Evans, *Aphrodisiacs*, 172–73.

[37] For a discussion of the doctrine of signatures, see Evans, 116–17; Susannah Gibson, *Animal, Vegetable, Mineral? How Eighteenth-Century Science Disrupted the Natural Order* (New York: Oxford University Press, 2015), 20–22.

[38] Galactite contains soluble calcium nitrate, which gives off a milky solution.

Although he cites classical authorities, Murillo sets the doctrine of signatures within a specifically Christian interpretation guided by natural theology, which turned close observation of the natural world into a spiritual exercise. Natural theology posited that humans can understand God by contemplating the perfect order of creation. Murillo repeatedly asserts that the mandrake roots "look like two legs . . . and resemble humans," specifically the male thighs (24r). He returns to the subject a number of times to explain how "the celebrated, mysterious, fruitful and virile mandrake so resembles and symbolizes the legs and thighs of man, which indicates and is a certain signal of the clarity of its potent fecundity" (44r–44v). Murillo repeatedly insists on the similarity between mandrake and the male thighs throughout his treatise. He returns to the subject in the final chapter, asserting that another name for the plant is "anthropomorphom" and stating yet again that its resemblance to legs and thighs "is a certain and clear indicator of its potent fecundity" (46v). In chapter 8, entitled "On the Analogy That Many Plants Have with Parts of the Human Body," Murillo asserts that God created medicinal plants with remarkable resemblances to certain parts of the human body so that humans could easily discern their proper medicinal use. Of mandrake, he states, "Experience, which is the mother of the sciences, says that those plants that symbolize and resemble the parts of the human body have special virtue and efficacy to cure" (37r). God's revelation of medicinal uses of plants through their resemblance to the body is, Murillo declares, a "natural language . . . the voice of God" (38r). Thus, humans can perceive God's will through contemplation of the natural world.

Sixteenth-century herbal compendiums often suggest close observation of nature as a means to understand relationships between the sexes as well, thereby naturalizing the subordination of women to men. For example, in the prologue to his Spanish translation of Dioscorides's *De materia medica*, Andrés de Laguna states that male and female palm trees grow together, with the male on top, "which also demonstrates the strength of conjugal love, since the female of that species wastes away if the male is taken from on top of her."[39] In other words, females require subjugation to male authority in order to thrive. This statement also naturalizes the sexual submission of women to men, since early modern sexual mores dictated that the only natural sexual position was the missionary position, with man on top. Although God granted man dominion over the natural world, humans can learn from the teleological order of God's creation, which Murillo calls the voice of God. Consequently, natural theology both reasserts male authority over creation and decenters the human male by calling for him to learn from beings theoretically inferior to him. The inversion of the continuum that placed male above female and human above nonhuman allows an

[39] Andrés de Laguna, *Pedacio Dioscorides anarzarbeo: Acerca de la materia medicinal y de los venenos mortíferos* (Antwerp, 1555), MSS 37225, Biblioteca Nacional Española, Madrid, 7.

agential space for the nonmale (whether plant, animal, or female) while also bounding that space within male authority, since only the male author can properly interpret nature's revelation; Murillo applies this theory to both plant and animal realms.[40]

Beginning in his introduction, Murillo establishes an analogy between human and plant that exhorts his reader to emulate the exemplarity of the botanical realm. He asserts that man is "a terrestrial plant who, being such, is heavenly," and he refers to his patron, Don Pedro Fernández del Campo Ángulo y Velasco (a member of the Council of State that advised the queen regent), as a "plant full of affectionate piety" (2r). Murillo encourages the reader to emulate the "excellence of plants" by mimicking botanical behavior. He states that plants love God "with all their hearts, and . . . give us a clear model to exercise equity and justice, so that none usurps a kingdom nor a province, nor the place of another nor his site, but rather we should stay in that place where we were planted without taking another's, and moreover some [plants] demonstrate charity, such that they protect diverse other herbs under their arms; there are other plants that show us an example of strength, and how to resist with valiant spirit, astutely, slights, trials, and adversity" (2r–2v). This statement is a near verbatim summary of similar pronouncements in Laguna's and Matthiolo's introductions to their translations of Dioscorides. These authors contend that humans can learn fortitude and just behavior from the order of the botanical realm.

Murillo also insists that humans can learn moral lessons by emulating animals, since "God put in man similarities to all the creatures" (41v). Just as plants' visual similarity to parts of the human body indicates their medical purpose, animals illustrated certain character traits. He describes people who are generous, for instance, as having the "air of the lion" (43v). This symbolic code was laid out in medieval bestiaries and emblem books (a popular genre in the sixteenth and seventeenth centuries that extended the bestiary tradition by pairing illustrations with pithy moral dictums). In his last chapter, dedicated to the medicinal uses of animal parts (a topic discussed in Dioscorides's *De materia medica* and other herbals), Murillo describes mandrake's role in the mating rituals of elephants, an animal associated with chastity. After a short overview of the most useful medicinal products extracted from animals, this final chapter once again returns to

[40] On the exemplary uses of the bestiary, see Debra Hassig, ed., *The Mark of the Beast: The Medieval Bestiary in Art, Life, and Literature* (New York: Garland, 1999). On early modern animal studies, see Erica Fudge, *Renaissance Beasts: Of Animals, Humans, and Other Wonderful Creatures* (Urbana: University of Illinois Press, 2004). Gibson gives an overview of the influence of Renaissance modes of thinking about the nonhuman in *Animal, Vegetable, Mineral?* The emerging field of critical plant studies provides a useful lens of analysis for this section. See Monica Gagliano, John C. Ryan, and Patricia Vieira, eds., *The Language of Plants: Science, Philosophy, Literature* (Minneapolis: University of Minnesota Press, 2017). On nonhuman studies, see also Jeffrey Jerome Cohen, ed., *Animal, Vegetable, Mineral: Ethics and Objects* (Washington, DC: Oliphaunt, 2012).

the connection between mandrake and female conception, relying on bestiary lore to illustrate mandrake's benefits as an aphrodisiac. Within early modern patriarchal thought, women's inherently lustful nature and lesser ability to control their bodily desires required control by the more rational male.[41] However, one of the key properties of mandrake, according to Murillo, is "to encourage the venereal act, and to stimulate the potency licitly," since mandrake "ignites the libido" (33r, 49r). Therefore, Murillo seeks to distinguish between an orderly use of lust that remains within the bounds of procreation and is facilitated by medicinal use of the plant and the disorderly lust provoked by love magic. Murillo praises the female elephant as a model of modesty who uses the mandrake plant as part of a mating ritual that is admirable because of its rarity. According to the bestiary tradition, elephants copulate only once in their lifetime and for the sole purpose of generation.[42] The female elephant instinctively seeks out the plant to awaken sexual desire and make her "inflamed," which inspires her to seek out the male and induce him to eat the plant as well, "and the same effect comes to pass with him also" (45v). Matthiolo, one of the authors who most influenced Murillo, similarly praises male elephants as paragons of abstinence, since they "do not copulate except with a sole female, and they do not touch her again once she has become pregnant."[43] The stories of elephant mating rites come from the *Physiologus*, a second-century Greek text that served as the basis for the medieval bestiaries and whose account Murillo follows closely. The *Physiologus* states that the female elephant is so chaste that she feels "no desire to mate."[44] When she wishes to conceive, the female elephant brings a mandrake plant to her chosen mate, after which they travel east to Paradise, where they eat mandrake and procreate (45v). This narrative mirrors and inverts the Genesis account of the Fall through the elephant couple's pilgrimage to the Garden of Eden, where the female partner eats the fruit first, then offers it to her mate. In fact, the *Physiologus*

[41] See Wiesner, *Women and Gender,* 22–40. On the humoral argument for women's inferiority, see Gail Kern Paster, "Unbearable Coldness of Female Being: Women's Imperfection and the Humoral Economy," *English Literary Renaissance* 28, no. 3 (1998): 416–40.

[42] As Matthiolo reminds his reader, Aristotle adds that elephants can also generate asexually. See Pietro Andrea Matthioli, *I discorsi di Maestro Pietro Andrea Matthioli* (Venice: Vincenzo Valgrisi, 1573), 272, OCLC #14301768, Hill Manuscript and Museum Library, Saint John's Abbey and University, Collegeville, Minnesota. Many of the assertions found in bestiaries and early modern sources regarding elephants may seem strange to the modern reader, such as Matthiolo's statement that elephants cannot bend their knees and therefore cannot get back up if they fall, but early moderns were correct in some aspects, such as that elephants gestate for two years (Matthiolo, 272). Of course, female elephants do have sex more than once in a lifetime, though their long gestation, single births, and longer spacing between births (four or five years) mean they have fewer offspring overall than many species of animals.

[43] Matthiolo, 272.

[44] Michael J. Curley, ed. and trans., *Physiologus: A Medieval Book of Nature Lore* (Chicago: University of Chicago Press, 2009), 29.

claims that the tree of knowledge in Genesis was actually a mandrake plant. Before eating the plant, Adam and Eve "had no knowledge of copulation," a state that the elephant partners symbolically reproduce, since their chaste copulation "is free from wicked desire."[45] Eve's sin introduces disorderly lust into human society, while the elephant's lust is bounded within acceptable limits by the procreative nature of her coitus (45v). Murillo emphasizes that it is the female elephant who approaches the male and initiates sexual contact; however, Murillo takes care to indicate that she does so while still preserving her modesty. Murillo praises her "temperance . . . in restraining her appetites" (46r). In this elaborate description of elephant mating rituals, which extends through five pages and cites numerous classical and contemporary sources, Murillo implies that it is the female partner's role to ensure fertility and initiate conception and that she must utilize the plant's aphrodisiacal properties to incite the male partner to perform his conjugal duty while keeping their sexual desire bounded within that conceptive role.

This description of elephant mating would have been familiar to early modern readers, but Murillo adds a medical explanation, asserting that the female elephant eats mandrake both as an aphrodisiac and to purge her body in preparation for conception. Immediately prior to his description of elephant mating rites, he reminds the reader that the plant "purges and cleans the uterus, tempers and comforts it, and attracts and moves the menses and is the ideal plant . . . to retain and conserve conception" (44v–45r). He makes a very similar claim right after the passage about elephants (46r), thus framing the section on elephant mating between two claims that mandrake prepares the womb for conception. These observations about plant physiognomy and animal behavior are part of Murillo's effort to bring mandrake into the realm of legitimate medicine and the teleological order of the natural world and to distance it from superstition and witchcraft. He closes the chapter on the use of animals in medicine by stating again that the plant's aphrodisiac and conceptive properties is "the motive for having had them planted in this court, and in its gardens, and for having brought them from Africa." The chapter can therefore be seen as a plea to Spanish women to emulate the elephant's example (46v–47r).

Murillo illustrates his assertion that the female elephant can be sexually active and even initiate coitus while still preserving her modesty with a woodcut of a female mandrake that is copied from Jacob Meydenbach's *Hortus Sanitatis* (The garden of health, 1491). Mandrake imagery varied enormously; in many renderings the plant is anthropomorphized, as in the woodcuts that accompany Murillo's text (figs. 1 and 2). In some cases mandrake is depicted as a headless torso and legs, while in other texts (such as the vernacular translations of Dioscorides's *De materia medica*) it is presented as entirely botanical, lacking anthropomorphized features. In Murillo's woodcut, the naked female mandrake covers her genitals with her

[45] Curley, 29.

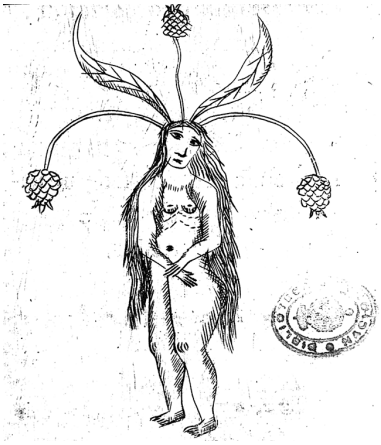

Figure 1. Woodcut of a female mandrake plant (Murillo, *Tratado*, 31v). Spanish National Library.

Figure 2. Woodcut of a male mandrake plant (Murillo, *Tratado*, 19). Spanish National Library.

hands and stands with downcast eyes (see fig. 1). The male mandrake, in contrast, stands confidently erect, with his hands behind his back, gazing directly at the viewer (see fig. 2). While he lacks explicitly drawn genitalia, a dark mark on his thigh gives the viewer the suggestion of an erect penis. Even the fruits that sprout from the female's head droop in contrast to the male's erect plumage. These images reinforce gendered roles with respect to the coital act: the female must protect her modesty through a display of shame, while the male indicates his virility through an erect and confident bearing. The female mandrake, much like the elephant, is simultaneously sensual and modest.

These two images of a demure yet sexually active female partner contradict the prevailing view of female sexuality found in Counter-Reformation prescriptive literature, which tended to describe any initiative taken in coitus by the female partner as immodest. For example, in his treatise *De Institucione Feminae Christianae* (*The Education of a Christian Woman*, 1523), Juan Luis Vives lauds the virtue of Christian queens who maintained chastity even while married, and he gives examples of virtuous women who never initiate sexual activity or engage in it for anything other than procreative purposes.[46] The depiction of women's sexuality in conduct manuals parallels the Catholic Church's exertion of increased control over marriage through canon law, stricter punishment of offenses such as priests keeping concubines, and instruction of clergy as part of Counter-Reformation

[46] Juan Luis Vives, *The Education of a Christian Woman: A Sixteenth-Century Manual*, trans. Charles Fantazzi (Chicago: University of Chicago Press, 2000), 225–28.

ideology. The Council of Trent (1545–63), the nineteenth ecumenical council of the Catholic Church that formulated the church's response to the Protestant Reformation, introduced a number of changes to marriage rituals that reinforced women's subservience within marriage. The chaste biblical marriage of Mary and Joseph was increasingly held up as a model of conjugal life, and new restrictions on fasting days limited the occasions when coitus was considered licit.[47] For example, church prohibitions banned sexual intercourse during the entire season of Lent.[48] Vives strongly admonishes wives not to take the initiative in sexual matters; a chaste woman, he argues, will not awaken her husband's desire or "engage in sex except to satisfy her husband," nor will she derive "any lustful or even moderate pleasure from the sexual act."[49] Conduct manuals like Vives's were a popular genre across Europe in the Counter-Reformation period, and they enacted a rigid paradigm of sexual behavior that called upon women to display unblemished purity and passive obedience at all times. Indeed, the very language used to discuss conception imbeds a cultural construct of women as passive. In medical texts and other sources, men are described as planting seeds, while women's role in conception was to receive and nurture the seed. Murillo states that he has brought the mandrake plants to the court because "many women . . . are infecund [*infecundas*]," an antonym of the Latin *fecundus*, or "fruitful," thus portraying women as passively awaiting fertilization (47r).

On the other hand, two countervailing tenets problematized this idealized model of subservient femininity: the concept of conjugal debt and a medical understanding of conception as occurring only after the emission of seed through the mutual orgasm of both partners. The latter would have implied that Vives's perfect wife, who experienced no pleasure from the sexual act, would not have been fertile. The belief that women must emit seed for conception to occur led many early modern medical authors to instruct husbands to engage in foreplay to stimulate female pleasure, and it may have allowed women a more active role in marital intercourse than conduct manual sources would suggest.[50] Aristotle argued that only men had seed and that women were passive recipients, yet the Galenic two-seed model was more influential in early modern Spain. Thus, medical literature generally asserted that wives must enjoy marital sex to procreate, though the limited agency that this might have allowed was bounded within strict

[47] On chaste marriage as an ideal, see Gabriela Carrión, *Staging Marriage in Early Modern Spain: Conjugal Doctrine in Lope, Cervantes, and Calderón* (Lewisburg, PA: Bucknell University Press, 2011), 10–11.

[48] See Allyson M. Polska, *Regulating the People: The Catholic Reformation in Seventeenth-Century Spain* (Boston: Brill, 1998), 101–26.

[49] Vives, *The Education*, 227–28.

[50] See Thomas Laqueur, *Making Sex: Body and Gender from the Greeks to Freud* (Cambridge, MA: Harvard University Press, 1992), 43–52; Rudolph M. Bell, *How to Do It: Guides to Good Living for Renaissance Italians* (Chicago: University of Chicago Press, 1999), 34–35; and Wiesner *Women and Gender*, 69.

limits. Though most sources from the period did not openly discuss sex for fear of inciting sexual thoughts in the reader, treatises for those who had to instruct married couples (such as confessors' manuals, written for priests) insisted that the man should be on top in sexual relations and proscribed nonprocreative sexual acts. Nevertheless, texts on marital relations also stressed that just as the wife's body belonged to her husband, so too the husband belonged to his wife. Marriage partners owed one another a conjugal debt, "the obligation of husband and wife to have sexual intercourse with each other upon demand by either spouse."[51] There were some exceptions to this general rule. The wife was generally allowed to refuse sex if her life or health was in danger, for example, or if her husband had committed adultery. Any partner could also refuse to engage in "unnatural" acts, defined in this period as any nonprocreative sexual act, such as anal sex or withdrawal before ejaculation. But at least theoretically, satisfaction of the conjugal debt "contained lust to the marital bed" and prevented adultery while giving the woman some limited scope to take an active role in marital relations.[52] Thus, by invoking female exemplars who had sought to gain agency over conception, Murillo found a tenuous midpoint between behavioral ideals and medical epistemology.

As Elizabeth Lehfeldt and Amanda Wunder have separately demonstrated, anxiety about gender and sexuality often expresses broader concerns about the social order.[53] In early modern Europe, ideologies of marriage reached beyond the microcosm of the married couple, since marriage often served as a metaphor for orderly public life. As Mitchell explains, in Habsburg Spain the relation of subject to ruler was often metaphorically applied to marital relations so that "the submission of the wife to the husband paralleled that of subject to ruler."[54] Just as the patriarch protects his wife, so too the ruler assists, governs, and defends his subjects. But at the time Murillo was writing, a female regency had inverted these gendered norms, and Mariana had to carefully manipulate her public image to simultaneously convey the humility and modesty expected of a widow and the strong leadership required of a Habsburg monarch. As Katherine B. Crawford demonstrates with regard to France, female "regents reassured observers with 'normal' gender behavior to imply that their only 'abnormal' behavior was the public exercise of authority. . . . [R]egents subsumed unacceptable public behavior under the

[51] Bell, *How to Do It*, 30.

[52] Edward Behrend-Martínez, "Female Sexual Potency in a Spanish Church Court, 1673–1735," *Law and History Review* 24, no. 2 (2006): 321.

[53] Elizabeth Lehfeldt, "Ideal Men: Masculinity and Decline in Seventeenth-Century Spain," *Renaissance Quarterly* 61, no. 2 (2008): 463–94; Amanda Wunder, "Women's Fashions and Politics in Seventeenth-Century Spain: The Rise and Fall of the Guardainfante," *Renaissance Quarterly* 68, no. 1 (2015): 133–86. Wunder argues that one of the reasons Mariana and other queen consorts wore the controversial *guardainfante* was that it "promised fertility and the political stability that came with an uncontested succession" (160).

[54] Mitchell, *Queen*, 180.

performance (often hyperperformance) of acceptable gender identities."[55] Mariana's dress and demeanor shifted radically after Philip IV's death as she underwent a transformation from subservient wife to ruling mother and widow. As regent, she traded her enormous *guardainfante*, a type of hoop skirt, for an austere *monjil*, a style of dress used by elite Spanish widows that was based on a Franciscan nun's habit. Mariana's was made of rich fabrics with abundant folds; Mitchell calls it "one of the most fashionable examples of widow's weeds among her Habsburg counterparts."[56] This elegant yet austere style allowed Mariana to project authority without compromising modesty, and it emphasized the continuity of the Habsburg dynasty through her role as mother to the heir. As Mercedes Llorente demonstrates, Mariana fashioned her image in official portraiture through "a visual representation of the function that King Philip's testament bestows on the Queen," who, as guardian of the minor king, "safeguards the future of the monarchy."[57] Her nun-like widow's garb announced her subservience and faithfulness to the dead king, as well as to God, even as she projected her authority and right to succession through such visual symbolism as wearing her dead husband's wedding ring.[58] Mariana's example illustrates that early modern women in powerful positions had to carefully shape their public image in order to maintain the appearance of modesty and submission expected of them. Furthermore, her example illustrates the malleability of gendered norms and expectations. As queen regent, Mariana could assume a male role as long as her authority was delimited by the patriarchal order. But the symbols she deployed made it clear that male authority would be restored when her son reached the age of majority.

Ideologies of marriage also expressed theological imperatives in answer to the biblical call to "increase and multiply."[59] The inability to procreate, therefore, was often taken as indicative of God's disfavor. Philip IV worried in his letters to his spiritual advisor and confidante, Sor María de Ágreda, that his wives' frequent miscarriages, the early deaths of so many of his children, and his failure to produce a viable male heir were divine retribution for his many extramarital sexual relationships. God, Philip believed, was punishing Spain for his licentiousness.[60] Of the thirteen legitimate children born to Philip IV by his two wives, only four survived childhood, one of whom

[55] Katherine B. Crawford, *Perilous Performances: Gender and Regency in Early Modern France* (Cambridge, MA: Harvard University Press, 2004), 4.

[56] Mitchell, *Queen*, 50.

[57] Mercedes Llorente, "Queen Mariana of Austria as Regent and the Boundaries of Her Power in Mazo's Portrait," *Object* 12 (2010): 26–40, 31, 34. Like Mitchell, Llorente argues that Mariana's power and authority have been underestimated.

[58] Llorente, 29.

[59] Genesis 1:28 (DV).

[60] On Sor María's relationship and correspondence with Philip IV, see Marilyn H. Fedewa, *Sor María de Ágreda: Mystical Lady in Blue* (Albuquerque: University of New Mexico Press, 2009), 125–65.

(Balthazar Charles) died at age seventeen.[61] Charles II's older brother, Felipe Prospero (1657–61), died a mere fifteen days before Charles's own birth. Reproduction was at the intersection of private life, political subjectivity, and religious ideologies in this period. Thus, the Spanish people and even Philip himself broadly perceived Philip IV's struggle to produce a male heir and the failure of succession in the Habsburg line as indicative of divine displeasure with the monarchs and the Spanish state.

Indeed, historical and literary sources attest to the centrality of generation to early modern gender identity.[62] In an era in which one of every two children born did not reach adulthood and when accidents and illness often ended life suddenly, only prolific procreation could ensure that some would survive. Historical and medical texts of the period attest to the fact that failure to produce children was a matter of grave concern and that medieval and early modern readers, both male and female, frequently sought to augment fertility through diet and herbal remedies and through superstitious or supernatural means such as fertility prayers, the wearing of amulets, or magical rituals such as urinating through a wedding ring.[63] Infertility and miscarriage rates may have been elevated due to the effects of communicable diseases, poor diet, and other factors, and even when pregnancies were brought to term, high rates of infant mortality threatened the newborn. As a result, early modern culture construed fertility as something that must be actively regulated and promoted within marriage.

Nonetheless, expectations, assumptions, and interpretations of perceived problems with conception were gendered in complex ways. As Edward Behrend-Martínez explains, early moderns distinguished between impotence, the inability to have sex, and infertility, which did not impede coitus. Spouses could separate or divorce due to impotence, but "because non-procreative sex served matrimony's second purpose, satisfying and containing lust, only *impotentia coeundi*, sexual impotence, rather than *impotentia generandi*, sterility," could give a partner grounds to break the nuptial bond.[64] As various scholars have noted, concerns about feminization, infertility, and impotence were widespread across Europe in the seventeenth century, and medical writers anxiously speculated on the causes.[65] As

[61] Two of Philip IV's daughters survived to adulthood. Maria Theresa, daughter of Philip's first wife, Elizabeth of France, married Louis XIV of France. One of her grandsons, Philip V, eventually inherited the Spanish throne, passing the inheritance from the Habsburg to the Bourbon line. Charles's only full sibling to survive childhood, Margaret Theresa, married the Holy Roman emperor Leopold I.

[62] See, for example, recent studies of the importance of virility to masculinity, such as Edward Behrend-Martínez, *Unfit for Marriage: Impotent Spouses on Trial in the Basque Region of Spain 1650–1750* (Reno: University of Nevada Press, 2007).

[63] For examples, see McLaren, *Impotence*, 43–48; Behrend-Martínez, *Unfit for Marriage*, 74.

[64] Behrend-Martínez, "Female Sexual Potency," 313; see also Behrend-Martínez, *Unfit for Marriage*.

[65] See Pierre Darmon, *Trial by Impotence: Virility and Marriage in Pre-revolutionary France* (London: Chatto & Windus, 1985); Behrend-Martínez, *Unfit for Marriage*; Evans

Behrend-Martínez's and Pierre Darmon's research on impotence demonstrates, men were far more likely to be accused of impotence; women, on the other hand, were more likely to be judged infertile. However, Evans explains that "these terms were not consistently applied throughout the early modern era, the conditions were blurred, and the boundary between the two could be indistinct."[66] Even though early moderns understood that either partner, husband or wife, could be impotent or infertile, medical discourse tended to discursively focus on the imperfection of the female body, and Murillo's text follows this general trend.

The story of Charles II and his wives illustrates the complex gendering of infertility in a period that often described the female body as deficient. Enormous pressure was placed on elite women to produce male heirs, and so-called barren women were considered to be cursed by God.[67] The Spanish Council of State first proposed that Charles, then age sixteen, marry the Archduchess Maria Antonia, a Habsburg, but ultimately deemed the six-year-old girl too young to produce an heir quickly. At eighteen, Charles married Marie Louise of Orléans. During this marriage, courtly and popular opinion blamed Marie Louise for the lack of offspring from their union despite Charles's infirmity. A popular *letrilla* (satiric poem) sung in the streets of Madrid in 1688 implores:

> Give birth [*parid*], beautiful fleur-de-lis,
> Who art in such a strange affliction.
> If you give birth, you give birth [*parís*] to Spain.
> If you do not give birth, go back to Paris.[68]

This poem's pun, juxtaposing the verb *parir* (to give birth), repeated three times, with the synecdoche of Paris as marker of Marie Louise's French identity, illustrates the pressure placed on elite wives to procreate. The assertion that Marie Louise is welcome in Spain only if she is capable of producing the expected heir makes clear that responsibility for fertility rested primarily on the female partner. Naturally, as Murillo's many assertions regarding the mandrake root's resemblance to the male body demonstrate, early moderns understood that males could be infertile. Even as Marie Louise was publicly

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"'They Are Called Imperfect Men': Male Infertility and Sexual Health in Early Modern England," *Social History of Medicine* 29, no. 2 (2014): 311–32; McLaren, *Impotence*. Lehfeldt examines the perceived feminization of the Spanish nobility in the seventeenth century ("Ideal Men").

[66] Evans, "'They Are Called,'" 314.

[67] Speaking of France, Holly Tucker demonstrates that "even the most private functions of the queen's body were under . . . surveillance" and shows a link between commemorative medals and the queen's "reproductive successes and failures" (*Pregnant Fictions: Childbirth and the Fairy Tale in Early Modern France* [Detroit: Wayne State University Press, 2003], 3). Despite giving birth to two children, Marie de Médicis was depicted as a palm without fruit when she failed to become pregnant again the following year.

[68] Cited in a number of sources, including Calvo Poyato, *Carlos II*, 127.

vilified for her perceived infertility, courtiers allegedly examined the marital bedsheets and Charles II's undergarments for proof that he was capable of coitus. This indicates that the court had considered the possibility that Charles's impotence was to blame for the failure to produce an heir.[69] However, to publicly assert the king's impotence would have been unthinkable. As Evans asserts, since the remedies for infertility were generally the same whether taken by males or females, the tendency to focus remedies on female deficiency may have simply been convention, even though authors frequently phrase such remedies as cures for women's infertility issues.[70] Evans demonstrates that the medical literature of the period tended not to discuss male infertility, and the tendency to view the female body as an inferior copy of the male led to a greater emphasis on the female body as the source of disease.[71] This was particularly true of academic medical treatises such as Murillo's, while popular texts included more acknowledgment that males could be infertile. Even these popular texts, however, also tended to focus on remedies for women's infertility rather than on the male body.[72] Both of Charles's wives reportedly resorted to desperate measures to produce the desired heir. María Ana of Neuberg, Charles's second wife, allegedly subjected herself to regular bleeding, purging, herbal baths, and the use of leeches (thought to overcome *mal de madre*, or uterine complaints), along with other measures to enhance fertility.[73] Later in this second marriage, rumors blamed the failure of succession on the influence of witchcraft (earning Charles the nickname "the bewitched"), and Fray Mauro Tenda performed an exorcism to counter this malignant magic. While cultural attitudes toward fertility and conception were complex, the female body took most of the blame for generative failure.

In line with such beliefs, Murillo argued that Spain's decline was due to women's imperfection even as he implied that Spain, as a whole, must be restored to balance in order to regain God's favor. In his treatise, Murillo contends that he has brought mandrake to the Spanish court in order to counter the influence of the "many noblewomen, due to whose infecundity and lack of succession innumerable houses of gentlemen and Grandees of Spain are dying out" (47r). Murillo thus understood the problem of infertility to be not individual but rather endemic to Spain—a threat to the very future of the nation. Such assertions stemmed from the imperial worldview of Spain as a new chosen people with a divine mandate to spread

[69] See Calvo Poyato for a historical account of efforts to conceive during Charles's two marriages (134–45). On early modern male impotence, see Behrend-Martinez's analysis of impotence trials (*Unfit for Marriage*).

[70] Evans, *Aphrodisiacs*, 117.

[71] Evans, "'They Are Called,'" 312. On the female body as pathological, see also Encarnación Juárez Almendros, *Disabled Bodies in Early Modern Spanish Literature: Prostitutes, Aging Women, and Saints* (Liverpool: Liverpool University Press, 2017).

[72] Bell, *How to Do It*, 41.

[73] See Calvo Poyato, *Carlos II*, 134.

and defend Catholicism. During the seventeenth century, Spain faced increasing challenges to this self-perception, including loss of territory, debt created by a series of wars, devastating waves of disease (such as the plague that Murillo spent his early career combatting), dependence on foreign goods, and criticism of perceived extravagance during the reigns of Philip III and Philip IV. Indeed, before she donned widow's weeds after Philip IV's death, Mariana's enormous *guardainfante* hoop skirt had served as a multivalent symbol; as Wunder demonstrates, the enormous skirt, criticized due to its ability to hide pregnancies, "when worn by a princess or a queen . . . promised fertility and the political stability that came with an uncontested succession," yet it also symbolized Spanish extravagance and decadence.[74] During Mariana's regency, Louis XIV's breaking of the Peace of the Pyrenees by refusing to acknowledge his wife's renunciation of her claim to Spanish possessions as Philip IV's daughter by his first wife, Elizabeth of France (her dowry had never been paid), sparked new tensions between Spain and France in the Netherlands, and Spain lost territorial control of Portugal. Mariana had inherited a lost cause in the war against Portugal, and her regency was plagued by tensions with France. Though some historians have dismissed Mariana as "ill-equipped to rule," Mitchell has shown that she was a savvy stateswoman and skilled leader.[75] Historians debate whether Spain was actually in decline or merely perceived to be in decline during this period, but there is a consensus that Spain's self-image was in crisis, and the widespread anxiety regarding fertility was part of a generalized anxiety over a perceived loss of divine favor.[76]

Murillo concludes the allegation cited above that Spain's great houses were in peril due to women's infertility with a biblical reference, comparing Spanish noblewomen with "the story of Rachel" (47r). Rachel was Jacob's second wife and his favorite. Genesis recounts that Jacob was tricked into marrying Rachel's older sister Leah since she, as the eldest daughter, needed to be married first. He later married Rachel as well and showed an obvious preference for Rachel, sparking a rivalry between the sisters, as well as divine wrath for his dismissive treatment of Leah. Genesis recounts that "the Lord seeing that he despised Leah opened her womb, but her sister remained barren."[77] Thus, Rachel served as the archetype of the barren wife, and her inability to conceive was a result of divine disapproval. Murillo's reference to "the story of Rachel" implies that restoring God's favor was a key goal of Murillo's presentation of mandrake as an ancient and proven remedy for infertility (47r). Genesis asserts that God later took

[74] Wunder, "Women's Fashions," 160.

[75] Kamen, *Spain*, 329. Mitchell refutes the contention that Mariana was dominated by her confessor, Nithard, and instead highlights her direct interventions in matters of state, as, for example, her role in brokering the Peace of Westphalia (*Queen*, 161).

[76] See J. H. Elliott, *History in the Making* (New Haven, CT: Yale University Press, 2012), 114–35, for an overview of the evolution of this debate.

[77] Genesis 29:31 (DV).

pity on Rachel and removed her barrenness, allowing her to conceive a single son, while Leah bore Jacob eleven sons. In Genesis 30, Leah's eldest son, Ruben, finds a mandrake plant while he is working in the fields, and he brings it to his mother. Leah, having been given the rare plant, barters with Rachel to spend the night with their husband, Jacob, despite it being Rachel's turn, in return for the mandrake. Genesis then states that God "opened her womb."[78] While the biblical account leaves some ambiguity about whether this pregnancy, Rachel's only conception, was the direct result of mandrake, Murillo certainly ascribes to this view. He asserts that Rachel's cure was the direct result of mandrake and that the use of mandrake was widespread among Hebrew women of the Old Testament era. Murillo explains that Hebrew women who were unable to conceive were labeled cursed by God. However, mandrake often cured these Hebrew women and proved its "virtue and efficiency . . . in inseminating and fertilizing what is sterile" (50r). His allusion to the story reinforces the principle that the resolution of infertility rests with the female partner, yet he also leaves open the possibility that human action to cure infertility can sway God's will.

Murillo mentions Rachel directly after his assertion that the great houses of Spain are in crisis due to women's infertility. He thus implies a connection between his biblical examples of Jewish women, whose fecundity carried on the lineage of the chosen people and made the birth of Jesus possible, and the women of his day, whose failure to procreate imperiled the viability of the Spanish Empire. Old Testament women often strove desperately to conceive, and their efforts could be rewarded by miracles. Sara, for example, offered her handmaid Hagar as a maternal substitute to bear her husband's child, and she was rewarded by a miraculous pregnancy at the age of ninety. Similarly, Tamar was driven by her duty to extend the line of Judah after the death of her husbands (Judah's eldest and second-eldest sons). Since Hebrew norms dictated that younger sons must marry their brother's widows in order to give them a place in the social order, it was Judah's obligation to marry Tamar to his third son, Onan. However, Judah believed Tamar to be cursed, since two of her husbands had died, and refused to marry her to Onan, thus leaving her a childless widow without patriarchal protection. Tamar disguised herself as a prostitute, seduced her father-in-law, and gave birth to twin boys, thus restoring herself to a secure place in the social order and providing Judah's family with an heir. Such biblical accounts were well known to early modern audiences, and the pregnancies they described were interpreted as signs of divine favor. This was particularly true in Catholic Spain, where it was common to believe that God still performed miraculous works and that the saints and the Virgin Mary could intercede to sway God's will.

Having described these biblical anecdotes, Murillo then turns to a contemporary example. He states that the women of Bologna used mandrake

[78] Genesis 30:20 (DV).

"to conceive and make themselves fecund with a mandrake potion cooked in wine; and behold, it was rare she who did not achieve the desired effect" (46v). These Bolognese women took mandrake as a preventive measure rather than to overcome identified infertility. Murillo then explains that he has brought mandrake to "plant in this Court and its gardens, and have brought them from Africa, although there are many of them in many parts of Spain, and particularly in Andalusia and Cordoba, with the intention that many ladies may take advantage of this remedy, who are infecund, and because of their lack of succession innumerable houses of lords and grandees are dying out, as experience shows us, and of which one could name a number of examples" (47r). The implication in this final statement is that Spanish women are infertile on such a mass scale that many great lineages are dying out, and he connects his biblical exemplars to the present and future of Spain in order to demonstrate that, like their Hebrew forebears, Spanish women should combat their barrenness in order to carry out a divine mission. Murillo's approach blends theological exegesis with medical epistemology to make a case for mandrake as a fertility drug that can restore order at the individual level in order to restore national order.

Murillo's argument rests on the assumption that the humoral quality of the wombs of Spanish women is different from that of the women of other lands. His wholehearted endorsement of mandrake was not shared by all authors, since most remedies to stimulate the libido and overcome infertility were thought to create heat, which was considered necessary to provoke sexual desire and the emission of seed. Women were thought to be of a naturally cold humoral condition and therefore in need of heating; however, as Murillo admits several times throughout his text, mandrake is "notably cold in the third degree" (22r, 23r). Within the humoral system, qualities such as heat and cold were marked from first to third degree, with third being the most extreme. Murillo states that "often mandrakes are eaten to encourage the venereal act and to stimulate the potency licitly, but this will be the effect of the flatulence it produces" (33r). Murillo claims here that mandrake incites the libido by introducing windiness rather than heat, since gas was thought to inflate the penis, producing sexual desire. Addressing Levinus Lemnius's argument that mandrake "sterilizes the uterus, removing from it all fecundity" because it increases women's already cold humoral makeup (47r–47v), Murillo instead argues that the distinct humoral quality of Spanish women's wombs allows mandrake to have the opposite effect on them.[79] He summarizes Lemnius's conclusion that "if one speaks of uteruses that are hot, being in torrid lands and provinces," then the argument that mandrake has a deleterious effect on humoral balance does not apply (48r). Furthermore, Murillo claims that Spain is one of the locations with a hot humoral makeup, a statement not found in Lemnius's text (48r). Thus, Murillo claims that the humoral condition of Spanish

[79] Lemnius's objection is found in book 4, chapter 10 of *The Secret Miracles of Nature*.

wombs differs from the colder wombs of northern Europe in that they are of a naturally hot disposition and will therefore benefit from the cooling effects of mandrake, a plant that is native to Spain and therefore suited to the humoral character of its inhabitants.

Murillo ends his treatise with another biblical example, this time from the Song of Songs. The Song of Songs contains a poetic rendering of the relationship between the poet and his beloved. The poetic voice alternates between the male and female partner, both of whom describe their desire for one another, often in explicitly sexual terms. In Catholic doctrine, the relationship between the poet and his lover is interpreted as a metaphor for the relationship between God and the church. Neither of Murillo's contemporary sources (Juan de Laguna's Spanish translation of and commentary on Dioscorides's *De materia medica* and Matthiolo's Italian translation and commentary) mentions the link between mandrake and the Song of Songs. In Song 2 the male lover states, "I am the flower of the field and the lily of the valley."[80] Murillo claims that the original Hebrew *flos saren*, translated in English as "flower of the field" or "lily of the valley," is a mandrake (50v). In doing so, Murillo asserts that the male lover (usually interpreted to represent God) describes himself as a mandrake. In Song 7 the female beloved invites the male to consummate their relationship, stating, "I will give thee my breasts. The mandrakes give a smell."[81] Murillo claims that this verse indicates that mandrake incites the procreative act between the couple. He states that the reference to mandrake in the Song of Songs "gave the husband to understand that although their marriage and love were chaste, they were at the same time fecund; and that such purity as the two professed, and that was between them, was not sterile, but rather fecund with children of love and purity, that is what is communicated by calling the mandrakes that give a smell *flor del saren*: that this alone signifies the intention of impregnation" (50v). Thus, the coital relation between the spouses in the Song of Songs is both chaste and fecund because of the use of mandrake, which indicates that the partners engaged in coitus for purely procreative purposes rather than lust. Here again, Murillo finds a middle ground between the medical need for sexual desire and the theological imperative to keep lust bounded within Christian marriage. The marriage in the Song of Songs serves as a metaphor for the relationship between God and the church. In Murillo's interpretation, the use of mandrake by the spouses in the Song of Songs ensures procreation and allows them to engender "children of love and purity" (50v). By using the Song of Songs as his closing exemplar, Murillo converts his discussion of fertility into a metaphor for the union of God with the Spanish state. In his telling, the order between spouses in the Song of Songs, achieved through the use of mandrake, symbolizes Spain as God's chosen people and the Catholic

[80] Canticle of Canticles 2:1 (DV).
[81] Canticle of Canticles 7:12–13 (DV).

Church as the bride of Christ, thus promising that the fecundity conveyed by mandrake can insure the future health of the Habsburg crown and a return to spiritual purity. Murillo repeats the trope of the active yet chaste female as a metaphor for the mystical union of Spain with God, promising a restoration of divine favor that will overcome the perceived crisis of fertility through Spain's natural botanical riches.

Throughout his text, Murillo seeks to distance mandrake from association with witchcraft and the occult, bringing it into the (male-directed) realm of academic medicine and within the tenets of the Catholic faith. His endorsement of mandrake as a fertility cure underscores that in early modern Spain, procreation and marriage were not private matters; his continual insistence on the need to restore female fertility reveals deep-seated insecurity over Spain's future. Holding out hope that a return to traditional herbal medicine can restore national fecundity, assuage Spain's political crisis, and engender a return to imperial strength, Murillo weaves together theology and medicine and urges his reader to learn from the natural world. He emphasizes close observation of nature as a means to discern and influence God's will so that by listening to the voice of God in the botanical, Spain can be brought into balance using its own natural riches. Throughout Murillo's treatise, examples of female symbols—the elephant, the female mandrake plant, Rachel, and the female partner in the Song of Songs—serve as metaphors for the Spanish nation. Thus, within a patriarchal discourse that emphasized the deficiency and even pathology of the female in relationship to the male, Murillo describes a few limited ways that the male can learn from the female and from the natural world. He thus finds an intriguing middle ground between ideals of female passivity and fear of the disorder created by female sexuality. Marriage serves as a metaphor for the balance of authority at the national level and for the relationship between the nation and the divine. Murillo implores Spain to return to spiritual balance through the authority of botanical medicine.

In the end, both herbal medicine and the Habsburg line failed to recover despite the mandrakes that Murillo had planted in the court gardens. Eventually, the humoral model of the body yielded in the face of emerging discoveries in anatomy, alchemical medicine, and other scientific innovations. The discovery of the egg and sperm, a process begun in the late 1600s, led to a scientific view of sexuality that relegated the female to an exclusively passive role in conception: rather than producing seed, she was merely a vessel containing eggs to be impregnated.[82] Carlos II's two marriages never

[82] The discovery of eggs and sperm was a lengthy process that began in the 1660s when Antonie Van Leeuwenhoek first observed spermatozoa through a microscope. Though he did not fully understand the function of the "animalcules" he observed, he and other early scientists, such as Jan Swammerdam, also observed eggs in female animals. Human reproduction would not be fully understood until much later. See M. Cobb, "An Amazing 10 Years: The Discovery of Egg and Sperm in the 17th Century," *Reproduction in Domestic Animals* 47 (2012): 2–6.

resulted in pregnancy. His nephew Joseph Ferdinand of Bavaria, chosen as his successor, died in childhood in 1699 shortly before Charles's death in 1700, ending Habsburg rule in Spain. Consequently, Murillo's text became an impassioned yet anachronous plea for a miracle cure, and it was ultimately a failed enterprise that restored neither fertility nor botanical medicine.

About the Author

Emily Kuffner is an assistant professor of Spanish at California State University, Fullerton. Her monograph, Fictions of Containment in the Spanish Female Picaresque: Architectural Space and Prostitution in the Early Modern Mediterranean (Amsterdam University Press, 2019), examines how debates over the legality and morality of prostitution in early modern Spain figure in fictional representations of prostitutes through architectural metaphors. Her research investigates the history of sexuality in Spanish literature, especially as it pertains to fertility, maternity, prostitution, and medical humanities.