

## The Medicines Business

This profession is not for the poor.<sup>1</sup>



Once apothecaries had been trained, the opportunities open to them to practise their art varied largely according to the financial resources they possessed. Contemporary observations and advice given to those aspiring to be independent *boticarios* converge in the judgement that in order to establish a pharmacy one had to be a person of moderate means. Christóval Suárez de Figueroa's encyclopaedia of the qualities required of those practising different professions suggested that the pharmacy profession was not one for the poor. This view was echoed by Antonio de Robles Cornejo who with experience in Peru advised that no one should attempt to open up a *botica* "without being rich or at least with substantial funds."<sup>2</sup> The need for *boticarios* to have significant financial resources was underlined in the city ordinances of Seville in 1591 which specified that in order to obtain a licence, a *boticario* not only had to pass the requisite examinations, but also show that he possessed 500 *ducados* (690 pesos) in order to purchase simples for the preparation of medicines.<sup>3</sup> There is no evidence that a similar local ordinance was drawn up in Lima, though there was no lesser need for *boticarios* to have significant financial backing. The reason given was not so much the cost of the premises or labour, but the high cost of medicines. It was generally considered that those

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- 1 Suárez de Figueroa, *Plaza universal*, 302. Paula De Vos, "The Apothecary in Seventeenth- and Eighteenth-Century Mexico: Historiography and Case Studies in Medical Regulation, Charity, and Science," *Colonial Latin American Historical Review* 13(3)(2004): 253 notes that this guide was based on Tomaso Garzoni's, *La piazza universale di tutte le professioni del mondo* [1587] 2 vols. eds. Paolo Cherchi and Beatrice Collina (Turin: Giulio Einaudi, 1996), but suggests that the role of apothecaries is likely to have been similar in Spain and Italy.
  - 2 He says, "sin ser rico o al menos con gruas riquezas mucha cantidad de pesos." ARJBM División 1, leg. 17 Libro de examen de los simples medicinales 1617. These comments echo those of Antonio de Aguilera, who in his *Exposición sobre las preparaciones de Mesue*, fols. 20v.-21v. advised that *boticarios* should be "rich or at least be of sufficient means."
  - 3 AMS Varios Antiguos 370 Ordenanzas de boticarios 1 Mar 1591; Fernández-Carrión and Valverde, *Farmacia y sociedad*, 15.

of moderate means could buy good quality medicines at the time they were needed, whereas the less affluent could only afford poor quality medicines or had to buy them on credit, which meant they actually paid more for items of lesser quality. Given the high cost of establishing and maintaining a *botica*, there were relatively few in the city. Even in 1630 there were only twelve to eighteen recognised *boticas* in Lima, four of which were attached to hospitals.<sup>4</sup>

For many *boticarios* who acquired licences, the expense of setting up an independent business was not a realistic economic proposition. Moreover, established *boticarios* often discouraged those they had trained or who were in their employment from setting up independent businesses for fear of competition and that they would take their customers with them. In the case of surgeons and barbers, the guild persuaded the municipal authority in Lima to introduce a regulation stipulating that apprentices and newly trained journeymen known as *oficiales* could not set up shops within four blocks of their master's practice for a year and a day.<sup>5</sup> A similar ordinance, does not seem to have applied to *boticarios*, but there were private efforts to restrict the competition. For example, in 1618 Luis Nieto Maldonado rented a *botica* in Cuzco from one Fernando de Cartagena and his four-year contract specified that for two years following the end of the contract he could not set up a new *botica* in the city, either personally or through an intermediary, though he could purchase one of the two that already existed.<sup>6</sup> In any case, the establishment of any new *botica* required municipal approval.

In common with other trades, many trained *boticarios* who lacked the resources to set up independent businesses continued to work in the salaried employment of a *maestro* until they had secured sufficient capital to open up their own pharmacies.<sup>7</sup> In the 1630s, the apothecary to the Inquisition, Mateo Pastor, had at least two *oficiales* working in his *botica*.<sup>8</sup> *Licenciado* Bartolomé Díaz Cabeza de Vaca appears to have aspired to be an independent *boticario*, but he could only realise this ambition in 1605 by entering into a *compañía* or partnership with Francisco Martín Reyna to purchase a pharmacy that had formerly belonged to Diego de Tineo. In this *compañía* Díaz Cabeza de Vaca

4 Salinas y Córdova, *Memorial*, 257. At the same time there were said to be nine *médicos*, ten surgeons and three Spanish barbers' shops with many *oficiales*. Juan Bromley, however, suggests there were 18 *boticas* ("La ciudad de Lima en el año 1630," *Revista histórica* 24 (1959): 286).

5 Quiroz Chueca, *Gremios coloniales peruanos*, 14–16.

6 "Un botica colonial," *Revista del archivo histórico del Cuzco* 4 (1953): 279.

7 Quiroz Chueca, *Gremios, razas y libertad*, 19–23.

8 AGNP SO CO 44–394 fols. 191–210 Prisión, secuestro e inventario de bienes de Tome Cuaresma 20 Nov. 1635.

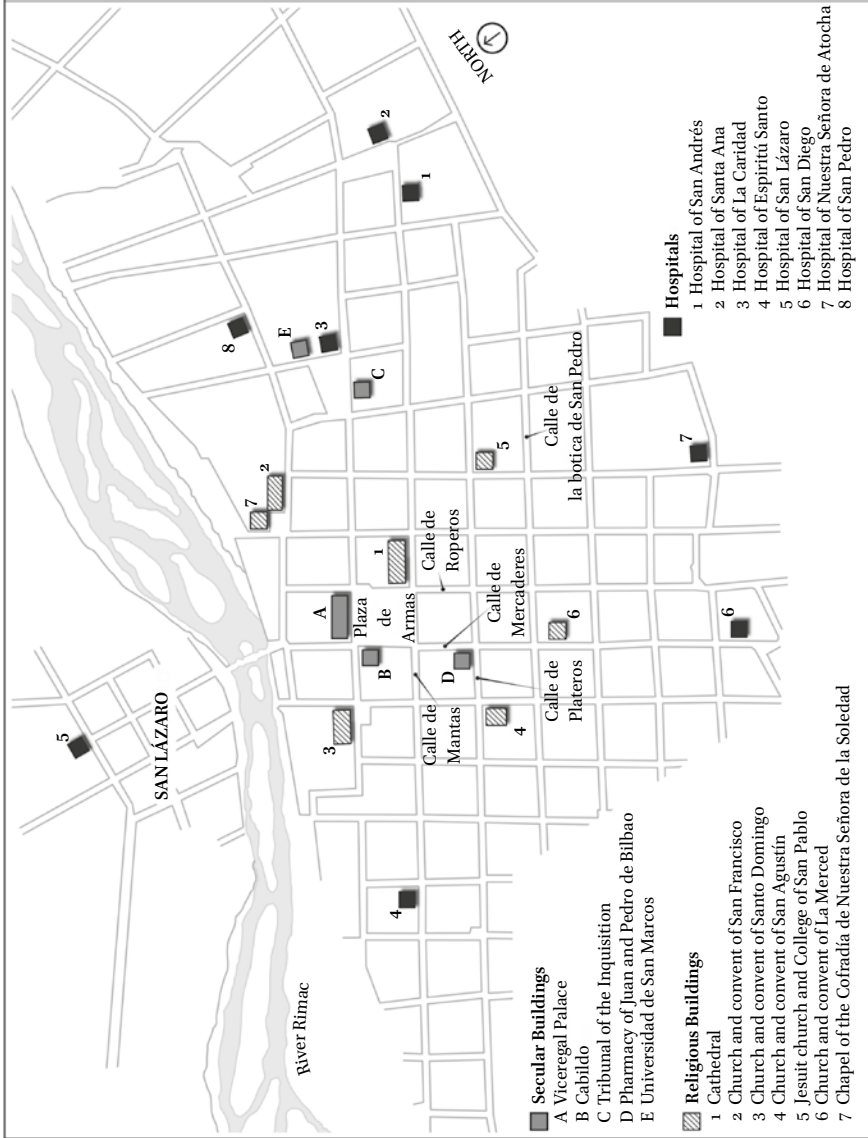


FIGURE 1 Lima in the early seventeenth century.

was only able to afford a one-third share.<sup>9</sup> Prior to this time, in 1596 he had worked under contract for Blas de Medina for the annual salary of 500 pesos.<sup>10</sup> This high salary probably reflected Díaz Cabeza de Vaca's experience and status as a licensed *boticario* since the annual contracts of *oficiales* working in Lima's *boticas* generally specified salaries of 200 to 250 *pesos de a nueve*.<sup>11</sup> These salaries were consistent with those of *oficiales* in other trades such as tailors, masons, carpenters or silkworkers, where most earned less than 250 pesos a year but skilled workers might receive as much as 500 to 600 pesos.<sup>12</sup> Unlike other trades, however, where *oficiales* did not normally reside in the house of the *maestro*,<sup>13</sup> those working in pharmacies seem to have lived on the premises and received food, lodging and clothing.

Other trained *boticarios* sought paid employment in public institutions such as hospitals, convents, or prisons.<sup>14</sup> (see Figure 1) Apothecaries employed in the Hospitals of Santa Ana and San Andrés were paid between 300 and 400 pesos a year, part of which might be paid in kind in the form of accommodation and food. For example, Rodrigo de Vargas, who held the post of *boticario* of the Hospital of Santa Ana for over thirty years was given a house in the hospital grounds and a ration of three pounds of beef and mutton, three loaves of bread of more than one pound, six bottles of local wine, and twelve blocks of soap from Spain.<sup>15</sup> This salary was only slightly less than that paid to physicians in the same hospitals and considerably more than the 200 pesos and 50 pesos paid to surgeons and barbers respectively.<sup>16</sup>

9 AAL Testamentos leg. 5 exp.1 fols. 7v–8 Testamento de Bartolomé Díaz Cabeza de Vaca 10 Apr. 1608.

10 AGNP Protocolos Siglo XVI 55 Rodrigo Gómez Baeza fols. 187–187v. Contract between Blas de Medina and Bartolomé Díaz Cabeza de Vaca 13 Aug. 1596.

11 For contracts between *boticarios* and *oficiales* see: AGNP Protocolos Siglo XVI 54 Rodrigo Gómez Baeza (1594) fols. 641–641v. Contract between Luis Nieto Maldonado and Juan de Arce 7 Jun. 1595; AGNP Protocolos Siglo XVI 55 Rodrigo Gómez Baeza fols. 980–980v. Contract between Luis Nieto Maldonado and Juan de Horosco 12 Jun. 1596.

12 Francisco Quiroz Chueca, "Artisans and Journeymen in Colonial Lima." Unpublished manuscript, 2014.

13 Quiroz Chueca, *Gremios, razas y libertad*, 22.

14 Unlike hospitals and convents, Lima's four public prisons did not seem to have salaried *boticarios* (AGI Lima 134 Cofradía de los pobres de las carceles de la ciudad de los reyes 1598; AGI Lima 131 Los hermanos de los pobres de las carceles de los reyes 27 Feb. 1593).

15 Archivo de Beneficencia Pública, Lima (hereafter ABPL) 9086 fols. 104–105 Visita al Hospital de Santa Ana fols. 104–105 no date [1588]. He was appointed to the hospital in 1567 and was still working there in 1606.

16 ABPL 9086 fols. 272–273 Visita al hospital de Santa Ana 26 May 1588; ABPL 9083 fol. 90 Libro mayor de rentas del hospital de Santa Ana desde 1593 a 1629; ABPL 9084 fols. 132, 145,

### Acquiring a *Botica*

Residents of Lima who became independent *boticarios* acquired pharmacies in different ways. In the earliest years of colonial rule those apothecaries who had been licensed and practised in Spain often brought medicines and equipment with them to set up a pharmacy business, generally migrating with their families, servants or assistants. When the *boticario* Pedro de la Fuente moved to Lima in 1534, he took with him 500,000 *maravedís* (about 1,800 pesos) worth of goods, though it is not known what proportion was destined for the establishment of a *botica*.<sup>17</sup> Pharmacy was often a family profession such that some *boticarios* who settled in the Americas were sons of licensed practitioners in Spain.<sup>18</sup> Once established in the New World, pharmacies might pass from father to son, as was the case with Pedro de Bilbao in Lima who inherited his *botica* from his father, Juan de Bilbao, for whom he had worked for five years.<sup>19</sup> However, more evidence exists for the purchase of *boticas* either individually or as part of a joint venture.

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162 Libro de cuentas de gastos del hospital de Santa Ana año 1598; ABPL 9086 fols. 6–7, 124 Visita al hospital de Santa Ana 1606; AGI Lima 122 fol. 38 Información del hospital de Santa Ana 1570. In 1582 the salary of the *boticario* at the hospital of San Andrés was only 150 pesos (AGI Lima 126 fols. 9v., 16v. El hospital real de los españoles de advocación San Andrés 1582), but in the early seventeenth century was 400 pesos, equivalent to that paid in the hospital of Santa Ana (Cobo, *Obras*, 2: 444). However, the ordinances for the hospital of San Andrés in 1577 made no provision for a salaried *boticario*, rather a priest took care of the *botica* which was supposed to be inspected by a physician or *protomédico* every three months (Guillermo Lohmann Villena and Maria Justina Sarabia Viejo, *Francisco de Toledo: Disposiciones gubernativas para el virreinato del Perú 1575–1580* (Seville: Escuela de Estudios Hispano-Americanos, 1989), 318. For salaries for *boticarios* in Mexico City in the eighteenth century see Hernández Sáenz, *Learning to Heal*, 162, which indicates similar differentials between different types of medical practitioner.

17 AGI Contratación 5536 L2 N167 Licence granted to Pedro de San Martín and Pedro de Fuente, *boticario* 21 Mar. 1534.

18 Joaquín Herrera Dávila, “Las boticas sevillanas de 1631,” *Boletín de la sociedad española de historia de la farmacia* 39 (154–155) (1988): 73; Fernández-Carrión and Valverde, *Farmacia y Sociedad*, 61–64, 73.

19 AGNP Protocolos Siglo XVI 14 Ramiro Bote fols. 1629–1631 Juan de Bilbao dona a Pedro de Bilbao, su hijo, de una botica con todas sus botes y drogas 3 Aug. 1596. In fact Juan Bromley states that Juan de Bilbao inherited it from his father Francisco de Bilbao who had possessed the contract for the establishment of a pharmacy in the Hospital of Santa Ana (Juan Bromley, *Las viejas calles de Lima* (Municipalidad Metropolitana de Lima: Lima, 2005), 257–58.

The cost of establishing a *botica* was high. When a pharmacy was imported from Spain for the Hospital of Santa Ana in 1551, it was valued at 3,400 *pesos de oro*. However, details only exist for a shipment of 30 wooden chests containing medicines, equipment and books, valued at about 1,062 pesos (289,110 *maravedís*).<sup>20</sup> As with *boticas* in general, the medicines accounted for the most significant proportion of pharmacy assets, in this case about 65 percent.<sup>21</sup> The equipment, excluding medicinal books and manuals, was valued at only about 230 pesos (61,750 *maravedís*) (See Table 1). This was significantly less than the value of the equipment of a well-established private *botica*, such as that belonging to Bartolome Díaz Cabeza de Vaca. In 1608 this pharmacy contained stills (*alquitaras*), mortars, spatulas, sieves, ladles, a variety of boxes and phials, and an oven together valued at 2,217 pesos

TABLE 1 *Expenditure on the installation of the first pharmacy for the Hospital of Santa Ana, 1551.*

	Maravedís	Percentage
<i>Materia medica</i>	186,855	64.6
Equipment	61,750	21.4
Books	5,225	1.8
Import tax	27,204	9.4
Labour to build the furniture for the pharmacy and for the preparation and loading of goods for shipment	8,076	2.8
Total	289,110	100.0

Source: AGNP Protocolos Siglo XVI 63 Diego Gutiérrez fols. 167–88 El hospital de españoles y naturales compañía con Francisco de Bilbao 15 Oct. 1551.

20 AGNP Protocolos Siglo XVI 63 Diego Gutiérrez fols. 167–88 Hospital de los españoles y naturales compañía con Francisco de Bilbao de la botica 20 Oct. 1551; Miguel Rabí Chara, “La primera botica de los hospitales de la ciudad de Lima en el siglo XVI,” *Asclepio* 52 (2000): 273–77.

21 AGNP Protocolos Siglo XVI 63 Diego Gutiérrez fols. 167–88 El hospital de los españoles y naturales con Francisco de Bilbao de la botica 9 Mar 1552. The detailed cost of individual items in the *botica* suggests it was worth 289,110 *maravedís* (1,062 pesos), of which 61,750 was spent on equipment. The figure of 289,110 *maravedís*, however, is difficult to reconcile with the stated overall cost of 3,400 *pesos de oro en plata ensayada*.

(See Table 2).<sup>22</sup> However, *boticarios* starting out on their pharmacy careers generally owned much more basic equipment. The weights, cooking pans, spatulas and mortars that the *boticario* Juan Sánchez took with him when he migrated to Lima in 1592 were valued at only 53 pesos.<sup>23</sup>

The total cost of the *botica* of the Hospital of Santa Ana of 3,400 *pesos de oro en plata ensayada*,<sup>24</sup> which was equivalent to 5,625 *pesos corrientes*, does not seem out of line with the value of private *boticas* in the city. The *botica*

TABLE 2 *Assets of the pharmacy belonging to Bartolomé Díaz Cabeza de Vaca, 1608.*

Pesos	Reals	Percentage	Item
596	6	4.4	Cash in a bag in the pharmacy
2,367	2	17.5	Simple and compound medicines
2,217		16.4	Equipment – stills ( <i>alquitaras</i> ), mortars, spatulas, sieves, ladles, a variety of boxes and phials, an oven and other essential tools
200		1.5	An old and infirm African slave
5,708	6	42.2	Client debts (of which 3,874 pesos were receipts for medicines supplied)
1,474		10.9	Owed by Francisco Martín Reyna part investor in the pharmacy
700		5.2	A calvary and linen
274	2.5	2.0	Furniture, including a desk (bureau) and chairs
13,538	0.5	100.0	

Source: AAL Testamentos leg. 5 exp. 1 fols. 175–178 Testamento de Bartolomé Díaz Cabeza de Vaca boticario y autos sobre su cumplimiento con el albacea Juan Manuel Carrasco, 1608–1626.

22 AAL Testamentos 5 leg. 1 fol. 165v. Memoria de las medicinas que tenía esta botica cuando la compraron... Bartolome Cabeza de Vaca 1608. The most expensive items were those made of metal – mortars, boiling pans and ladles –which were worth 250 pesos. Other items consisted of boxes, jars, pots and other receptacles containing pill, powders, syrups, cordials, oils, ointments and plasters. It is not clear whether the value of these receptacles included the medicines they contained.

23 AGI Contratación 1097 N5 fols. 199–202 Registro de Santa Catalina 1592.

24 AGNP Protocolos Siglo XVI 63 Diego Gutiérrez fols. 167–88 Hospital de los españoles y naturales compañía con Francisco de Bilbao de la botica 20 Oct. 1551; Rabí Chara, “Primera botica,” 273–77. A *peso de oro* was equivalent to 450 maravedís and a *peso corriente* 272 maravedís.

commissioned by Diego de Tineo from Seville in 1555 cost 5,000 *pesos de buen oro*.<sup>25</sup> This pharmacy was designed to be exceptionally well-appointed with its installations fashioned by skilled artisans. A carpenter was instructed to create a ceiling for the pharmacy some twenty-two feet square on which were to be painted golden stars and a large sun with golden rays. Tineo indicated that the boxes to be used for the medicines were to be finely decorated with gilt and in place of labels (*medallas*) there were to be paintings of notable historical figures. One of these was to depict the legend known as “Virgil in a basket” (See Figure 2). In this legend, Virgil being enamoured with Nero’s daughter, was enticed to lower himself from a window in a basket, but was suspended by her halfway thereby exposing him to public ridicule.<sup>26</sup> In revenge for his humiliation Virgil employed magic to extinguish the fires of Rome that could only be rekindled by holding a torch or candle to the woman’s private parts. This popular legend was applied to many historical figures, including Hippocrates, and was attached to Virgil in the thirteenth century because of his association with magic and divination. Virgil was regarded as an authority by astrologers and alchemists and was even thought to possess the secret of the Philosopher’s Stone.<sup>27</sup> The use of this image signifies the apothecary’s interest in alchemy, which is further supported by his importation of six stills for use in distillation. The importance of alchemy to pharmacy practice of the time will be discussed further in Chapter 5.

Not all pharmacies were installed so extravagantly, but nevertheless, they commanded fairly high prices. In 1551 a *botica* sold to one Pero Lopes de Aguirre for 2,210 *pesos de buen oro*,<sup>28</sup> and in 1576, when the *botica* of Francisco de Alva was auctioned following his death, it netted a similar 2,400 pesos.<sup>29</sup> However, Alva’s will was disputed by his children and five *boticarios* testified that it was actually worth more than 4,000 *pesos de buen oro*, because it was the best in the city and possessed very good equipment and medicines.<sup>30</sup> One of the

25 John Carter Brown Library (hereafter JCB) Mss codex Sp 136 Francisco Martínez y compañía obligación – Diego de Tineo y consortes 1555.

26 John Webster Spargo, *Virgil the Necromancer: Studies in Virgilian Legends* (Cambridge, Mass.: Harvard University Press, 1934), 136–55, 198–206.

27 Spargo, *Virgil the Necromancer*, 277–79.

28 AGNP Protocolos Siglo XVI 8 Simón Alzate fols. 841v–842 26 June 1551.

29 The *botica* had been purchased from Luis Núñez de Prado (AGNP Real Audiencia. Causas Civiles leg. 16 cuad. 81 fol. 7v., 16 Pleito...contra las bienes y herederos del bachiller Francisco de Alva, boticario morador en la Ciudad de los Reyes, 1576).

30 AGNP Real Audiencia. Causas Civiles leg. 16 cuad. 81 fols. 119–26, 687–715 Pleito... contra las bienes y herederos del bachiller Francisco de Alva, boticario morador en la Ciudad de los Reyes. 1576. The *boticarios* were: Guillermo Rodríguez aged 48, Francisco Velásquez aged 30, Blas de Medina aged 34, Diego de Tineo 70 and Doctor Franco, a physician.



FIGURE 2 *The poet Virgil in a basket.* Lucas van Leyden, Woodcut, Leiden 1512.  
COURTESY OF THE METROPOLITAN MUSEUM OF ART, NEW YORK.

witnesses was Diego de Tineo, the owner of the aforementioned costly *botica*. Francisco de Alba was *familiar* to the Inquisition and was probably the most eminent *boticario* in the city at the time.<sup>31</sup> He was said to be worth 50,000 pesos *ensayados* owning several houses including one on the plaza. He also owned a shop where the *botica* was located and two “shop doors” (*puertas de tiendas*) where presumably he sold medicines.<sup>32</sup> The cost of establishing a *botica* can be compared to setting up a manufacturing enterprise, where the initial investment for a craft workshop might be between only 50 to 200 pesos, and for a manufacturing workshop 500 pesos *de a nueve*.<sup>33</sup> Clearly the high cost of establishing a *botica* limited the number of people who could purchase one outright.<sup>34</sup>

Due to the high cost of establishing a *botica*, some pharmacies were set up as joint enterprises. A common way of establishing businesses in sixteenth-century Lima was to form a *compañía* of two or more investors.<sup>35</sup> Apothecaries were able to attract investment from non-*boticarios*, because pharmacy was considered to be a profitable business.<sup>36</sup> In 1605 the *boticario* Bartolomé Díaz Cabeza de Vaca entered into a *compañía* with Francisco Martín Reyna for the purchase of a *botica* from Pedro and Joan de Tineo, which was located next to the cathedral.<sup>37</sup> Pedro and Joan de Tineo were nephews of the *boticario*

31 *Libros de cabildos de Lima*, 7: 549 Título familiar al bachiller Alba [sic] 21 Jan. 1574, *Libros de cabildos de Lima*, 8: 201 Familiar del santo oficio a Juan de Bilbao 24 Feb. 1576.

32 AGNP Real Audiencia. Causas Civiles leg. 16 cuad. 81 fol. 7v., 687 Pleito...contra las bienes y herederos del bachiller Francisco de Alba, boticario morador en la Ciudad de los Reyes. 1576. In 1599 the *boticario* Francisco Martín Reyna was renting a house under the *portales* of the plaza from the heirs of Marina Alba (*Libros de cabildos de Lima*, 13: 516–17 Francisco Martín Reyna 21 Jul. 1600).

33 Quiroz, *Artisanos y manufactureros*, 83. For similar shared investments in pharmacies in Mexico see: Hernández Sáenz, *Learning to Heal*, 161–62.

34 In the late eighteenth and early nineteenth centuries *boticas* in Mexico City were commonly valued at between one and two thousand pesos though might be considerably more in the case of the major hospitals. For a hospital *botica* it was estimated that 6,000 pesos were required for installations and equipment only, and a further 14,000 pesos to stock it (Hernández Sáenz, *Learning to Heal*, 159–162; De Vos, “Art of Pharmacy,” 72–73).

35 Quiroz, *Artisanos y manufactureros*, 84, and *Gremios, razas y libertad*, 71–82.

36 For example, in 1551 an *alcalde ordinario*, Gerónimo de Silva, sold a *botica* to Pero Lopes de Aguirre, with whom he had formed a *compañía*, neither of whom were referred to as *boticarios* (AGNP Protocolos Siglo XVI 8 Simón Alzate fols. 841v–842 26 June 1551). For Mexico City see: De Vos, “Art of Pharmacy,” 72–74.

37 AAL Testamentos 5–1 fols. 12v–13 Testamento de Bartolomé Díaz Cabeza de Vaca 1608.

Diego de Tineo.<sup>38</sup> The agreed sum of 4,000 *pesos corrientes* was to be paid in two instalments, half to Pedro de Tineo at the end of April 1605 and the other to Joan de Tineo at Christmas the same year. The first instalment of 2,000 pesos was paid in cash on 10 May 1605, while the second was to be paid from the profits from the *botica*. In fact the latter was paid on 4 February 1606. Less than three years later on 15 April 1608, Díaz Cabeza de Vaca died. At that time after deducting expenditures and debts, the *botica* was worth 7,320 pesos, of which one-third belonged to his estate and the other two-thirds to Francisco Martín Reyna, who continued to own the *tienda* after his death.<sup>39</sup> It is unclear at this time whether Francisco Martín Reyna was a trained *boticario*. In the list of Limeños making a donation to the Crown in 1590 he is referred to as a *pulpero* and between 1595 and 1600 was supplying the Hospital of Santa Ana with honey, resins and burlap.<sup>40</sup> However, sometime later, in 1615 and 1618, he was importing *materia medica* from Spain and was referred to as a *boticario*.<sup>41</sup> It may be that his original interest in the pharmacy business derived from being a supplier of these products. Arrangements between artisans and those who supplied them with raw materials, or who traded products on their behalf, were commonplace in other enterprises in Lima.<sup>42</sup> In 1624 a *botica* was sold by one Pedro de Reyna to the *boticario* Bernardo Gil for 4,000 pesos.<sup>43</sup> The seller's surname suggests that this may have been the same *botica* that had been owned by Francisco Martín Reyna which he had inherited as a relative. If this was the case, then its value in 1624, which did not include medicines, had not increased since 1605. When Gil died in 1662 the *botica* was still valued at 4,000 pesos.

38 Diego de Tineo was still practising as a *boticario* in 1590 (AGI Lima 272 fols. 94–112v. Servicio hecho al rey nuestro señor en la ciudad de los reyes 1590).

39 AAL Testamentos 5–1 fols. 175–181v. Testamento de Bartolomé Díaz Cabeza de Vaca 1608.

40 AGI Lima 272 fols. 94–112v. Servicio hecho al rey nuestro señor en la ciudad de los reyes 1590; ABPL 9084 fols. 241–242v. Libro de cuentas de gastos del hospital de Santa Ana 1599–1600; ABPL 9085 fols. 59–64 Libro de la razón que toma Bartolomé de la Cueva escribano y veedor deste hospital de Santa Ana...desde el primero del mes de agosto 1595.

41 AGI Contratación 1162 N4 43–46 Registro del navío San Pedro 1615; AGI Contratación 1166 N1 403–406 Registro del navío El Espíritu Santo 1618.

42 Quiroz Chueca, "Compañías y gremios," and *Artesanos y manufactureros*, 85; Ruth Pike, *Aristocrats and Traders: Sevillian Society in the Sixteenth Century* (Ithaca, NY: Cornell University Press, 1972), 100.

43 AAL Testamentos 52–21 fols. 8v. Testamento de Bernardo Gil, boticario 1662.

## The Premises

Clearly those seeking to acquire or establish *boticas* had to have access to considerable capital resources, but in addition they had to shoulder significant running costs. The value of pharmacies recorded in historical sources generally referred to its medicines, equipment and books and not the premises where it was located, since these were generally rented. A functioning pharmacy required at least three rooms: a front room where the *boticario* met clients and dispensed medicines; a back room known as a *trastienda* or *rebotica* where the medicines were prepared, the equipment kept, and accounts drawn up; and a store room or *aposeno*.<sup>44</sup> In the case of Díaz Cabeza de Vaca, rent for the building in which his *botica* was located was 650 pesos a year; in addition he rented an *aposeno* next door, for an unspecified amount, and where in fact he lived.<sup>45</sup> It was the tradition in Spain, even until recently, for *boticarios* to live on the premises, very often above the pharmacy which was on the ground floor.<sup>46</sup> This *botica* was situated in a prime location next to the cathedral and elsewhere rents were somewhat less.<sup>47</sup> In 1551 the physician, Alvaro de Torres was renting out a *tienda* and *trastienda* on the road running to Callao for the much smaller sum of 120 pesos a year.<sup>48</sup> Even hospitals might rent extra premises. In 1574 Rodrigo de Vargas, the *boticario* of the Hospital of Santa Ana, was renting two houses in the hospital's plaza for 60 pesos and 15 pesos a year.<sup>49</sup> Sometimes the cost of premises was paid for in kind, as was the case with Bernardo Gil who rented an *aposeno* from the widow of the former *boticario* Melchor Malo de Molina for a notional 100 pesos a year for which he paid in kind through supplying her household with medicines.<sup>50</sup>

As for the location of a pharmacy, wind and humidity were thought to damage drugs,<sup>51</sup> so the advice to aspirant *boticarios* was that it should be "situated in a healthy place, dry (*ajena de humedad*) and free from dust, smoke and bad

44 Hernández Sáenz, *Learning to Heal*, 152; De Vos, "Art of Pharmacy," 88–89.

45 AAL Testamentos 5–1 fols. 14v, 181r. Testamento de Bartolomé Díaz Cabeza de Vaca 1608.

46 Herrera Dávila, "Boticas sevillanas de 1631," 72.

47 For an overview of rents in Lima in the seventeenth century see María Antonia Durán Montero, *Lima en el siglo XVII: Arquitectura, urbanismo y vida cotidiana* (Sevilla: Diputación Provincial, 1994), 166–74.

48 AGNP Protocolos Siglo XVI 8 Simón Alzate fols. 924–924v. 9 Jul. 1551.

49 ABPL 9080 fol. 102 Libro de cuentas, censos y haberes que corresponden al del hospital de Santa Ana 1575 a 1585.

50 AAL Testamentos 52–21 fol. 10–10v. Testamento de Bernardo Gil, *boticario* 1662.

51 Aguilera, *Exposición*, fol. 24. "...not windy or humid, or least very clear where there is a lot of sunshine."

odours.”<sup>52</sup> The climate and elevation of Lima and its immediate surroundings did not vary significantly, so climatic factors were probably not an important consideration in the siting of pharmacies; of greater concern was the need to be close to the main market for medicines, which was among elites in the city centre.

### Employing Pharmacy Workers

Licensed *boticarios*, including the *oficiales* referred to above, were probably only a small proportion of the numbers that assisted or even practised pharmacy. Many other pharmacists were Blacks and Indians who worked as salaried employees or slaves in privately-owned *boticas* and hospitals. As early as 1572 the *cabildo* of Lima was concerned that Blacks and Indians working in *boticas* were threatening the lives of patients by supplying medicines that did not comply with prescriptions, sometimes substituting items with ingredients that had been banned, such as opium, or selling mercury chloride or corrosive sublimate (*solimán*). It judged that the art of being an apothecary required scientific knowledge, skill and precision, which it was impossible for Blacks and Indians to possess; it was recognised that even Spaniards trained in the art occasionally made mistakes. The *cabildo* therefore ordered that Blacks and Indians should not work in *boticas* and that apothecaries found guilty of employing them should be fined 200 pesos and the workers exiled.<sup>53</sup>

Despite these concerns and attempts at regulation, to be discussed more fully in Chapter 5, Indians were assigned to work in pharmacies as forced labourers, while Blacks were widely employed there. In fact, *boticarios* observed that clients often sought advice and treatment from practitioners from the same ethnic background and thus they often employed Indians and Blacks to expand their customer base.<sup>54</sup>

### Indian Forced Labourers

When the Spanish arrived in Peru, the native population of Lima was small and subsequently most Indians who resided there came from outside the city.

52 Suárez de Figueroa, *Plaza universal*, 302.

53 *Libros de cabildos de Lima*, 7: 268 Boticarios no tengan en boticas negros 28 Apr. 1572 and 270–72 Que no den medicinas negros en las boticas ni entren en ellas 2 May 1572. The art required “mucha ciencia e abilidad e fieldad.”

54 Eguiguren, *Alma mater*, 256.

The 1613 census of Lima registered only about two thousand Indian residents;<sup>55</sup> these included urban migrants and those from outside the city who had been assigned there to undertake labour in public service. Arriving in Lima these forced labourers settled in El Cercado from whence, under an allocation system referred to as the *mita de plaza*, they were assigned by the *corregidor* to work in the maintenance of the city's infrastructure and elite houses or were allocated for agricultural labour. The Hospital of Santa Ana regularly received forced labourers to work in its pharmacy. For example, in 1596 the *corregidor*, Alonso de Mendoza Ponce de León, assigned Hernando Quispi from Yauyos in the hinterland of Lima to work for one year under Rodrigo de Vargas, the *boticario* of the Hospital of Santa Ana.<sup>56</sup> What tasks such workers may have performed is uncertain, though they were probably fairly unskilled since another *mitayo*, Juan Malca Atoc from Chinchacocha in the region of Junín, who was assigned there in 1593, was only twelve years old.<sup>57</sup> After 1572 *mitayos* were in theory to be remunerated for their labour at the rate of one real a day.<sup>58</sup> Such labour had the advantage of being cheap, but since it was constantly changing employers found it difficult to develop the skills of such workers.

Those who lived permanently in the city and others who were not required for public labour service might contract themselves to employers for fixed periods and wages. These contracts were supposed to be drawn up in the presence of a *corregidor*. Apart from fixed wages, workers on contract might receive clothing, shelter and medical care, conditions that might be attractive to those lacking any alternative means of subsistence. The minimum wage for contracted workers was 12 pesos a year, often plus lodging, food, clothing and medical care, though wages varied according to their skills.<sup>59</sup> In the Hospital of

55 Salinas y Córdova, *Memorial*, 245; Cook, *Indian Population*, 151.

56 AGNP Protocolos Siglo XVI 20 Rodrigo Alonso Castillejo fols. 271v.–272 1 Jul. 1596. There are a large number of contracts for the assignment (*asiento*) of indigenous labourers for different tasks in AGNP Protocolos Siglo XVI 18, 19, 20. For the employment of Rodrigo de Vargas in the Hospital of Santa Ana see: AGI Lima 122 fol. 36–37v. Información hecha... de la parte del hospital de los naturales 30 Oct. 1577; ABPL 9086 Visita al Hospital de Santa Ana fols.104–105 no date [1588].

57 AGNP Protocolos Siglo XVI 19 Rodrigo Alonso Castillejo fol. 575v. 16 Sep. 1593.

58 Lowry, "Forging an Indian Nation," 176–80; Paul Charney, *Indian Society in the Valley of Lima, Peru, 1532–1765* (Lanham, MD: University Press of America, 2001), 20–21. In 1563 the hospital de los españoles (San Andrés) was employing a *yanacóna* at 1 real a day (AGI Lima 131 Juan de Alvear en nombre del administrador y fundador del hospital de españoles 1563).

59 For Lowry, "Forging an Indian Nation," 195, 200–203. For an example see AGNP Protocolos Siglo XVI 51 Rodrigo Gómez Baeza fols. 285–285v. Blas de Medina concierto con Juan Real 8 Mar 1591.

Santa Ana ordinary workers, gardeners, or those who worked in the hospital's *chácara* were paid between 40 and 50 pesos a year.<sup>60</sup> In addition, some Indians were being employed in the *botica* on a casual basis for a few days, perhaps to undertake specific or skilled tasks, for which they were paid at the higher rate of 3 reals a day. Working in a hospital environment, Indians might acquire healing skills. One Indian worker in the Hospital of Santa Ana, Pedro Capicha, acquired sufficient skills as a barber and surgeon to be assigned to work on its hacienda in the valley of Jauja in order to treat the Indians there who were suffering from scrofula and other diseases, for which he was exempted from forced labour.<sup>61</sup>

### *Black Pharmacy Workers*

Blacks vastly outnumbered Indians in Lima. In 1613 there were about 10,000 Blacks in the city,<sup>62</sup> and they were more commonly employed in all types of *boticas* than Indians. Most *boticarios* possessed several slaves, though many probably worked in their households rather than their pharmacies.<sup>63</sup> The will of one eminent apothecary, Francisco de Alva, who became *boticario* to the Inquisition,<sup>64</sup> owned six slaves, of whom one Matheo aged 30 worked in the *botica*.<sup>65</sup> This slave had clearly acquired considerable pharmacy skills, because following the *boticario's* death in 1576 when most of his possessions were auctioned, the “negro boticario” who remained with his second wife became

60 ABPL 9084 fols. 132–70 *passim*, fols. 241–242v. Libro de cuentas de gastos del hospital de Santa Ana año 1598. Charney (*Indian Society*, 21) gives wages of between 22 and 180 pesos a year for those contracted to work in agriculture.

61 ABPL 9095 Real Provisión 31 Aug. 1617. The text is rather ambiguous since it could refer to the general treatment of Indians or to illnesses which were specific to them. It reads: “lamparones y otras enfermedades de los indios naturales.”

62 Salinas y Córdova, *Memorial*, 245.

63 There is evidence for the purchase of slaves by *boticarios* in the accounts of the slave trader, Manuel Bautista Pérez. Bernardo Gil bought a male slave from him in 1618 at the high cost of 655 pesos (AGNP SO CO Ca. 2 doc. 8 Venta e rendimento de duzemas e vimte e sete peças de escravos 1618) and in 1625 Juan Matías de Vera, at that time *boticario* to the convent de los Descalços, purchased one for 580 pesos (AGNP SO CO Ca. 20 doc. 201 Venta de 76 peças de esclavos 1625). In addition, the records of burials in the church of Sagrario attached to the cathedral, include payments, normally of 8 pesos, for the interment of adult slaves by Lima's most prominent *boticarios*, including Diego de Tineo, Francisco de Alva and Juan de Bilbao (AAL Libro Parroquial Sagrario Difuntos libros 1–3 1567–1609).

64 *Libros de cabildos de Lima*, 7: 549–550 Título familiar al bachiller Alba 21 Jan. 1574.

65 AGNP Real Audiencia. Causas Civiles leg. 16 cuad. 81 fol. 7v.-8 Pleito...contra las bienes y herederos del bachiller Francisco de Alva, boticario morador en la Ciudad de los Reyes. 1576.

central to a law suit between her and Francisco de Alva's children by his first marriage. The slave was deemed to be worth 1,000 *pesos ensayados* and able to bring in more than 250 to 300 pesos a year through being hired out.<sup>66</sup> It was common practice in Lima for widows to secure an income through hiring out their slaves. At that time, the "wages" earned by slaves averaged between about 8 and 12 pesos a month.<sup>67</sup> The skills acquired by Matheo were perhaps exceptional, but Blacks were routinely employed in *boticas*. Another skilled *boticario* slave belonging to Bernardo Gil was also judged to be worth more than 500 pesos.<sup>68</sup> Similarly, Francisco Martín Reyna purchased one Luis Biafra for 516 pesos for the *botica* he jointly owned with Bartolomé Díaz Cabeza de Vaca. By the time of the *boticario's* death in 1608, the slave had also died and been replaced by a "Matheo" from Mozambique. This slave, who also worked in the *botica*, had been purchased from father Pedro de Pareja, of the Compañía de Jesús, but was described as old and judged to be worth only 200 pesos.<sup>69</sup> In general, however, *boticarios* were advised not to allow employees to make medicines or to sell poisonous ones, especially if they were slaves in whom, it was judged, there was "always less trust and confidence."<sup>70</sup>

Not only private *boticas*, but also hospitals were staffed largely by African slaves. They mainly undertook routine tasks such as cooking, cleaning and washing, but might also serve as nurses and assist in surgery. In fact, in a *visita* of the Hospital of Santa Ana in 1587 it was recommended that "gente de color" be employed as nurses and assistants in preference to Indians due to their greater dedication to work.<sup>71</sup> Apart from undertaking routine tasks, there is

66 AGNP Real Audiencia. Causas Civiles leg. 16 cuad. 81 fols. 343, 346, 770 Pleito...contra las bienes y herederos del bachiller Francisco de Alva, boticario morador en la Ciudad de los Reyes. 1576.

67 Bowser, *African Slave*, 102–104.

68 AAL Testamentos 52–21 fols. 88–104 Testamento de Bernardo Gil, boticario 1662.

69 AAL Testamentos 5 leg 1 fol. 13v–14, 179 Testamento de Bartolomé Díaz Cabeza de Vaca 1608. At this time the average cost of a newly-arrived slave was between 570 and 600 pesos (Newson and Minchin, *From Capture to Sale*, 228–29). In 1625 the *boticario* Bernardo Gil similarly purchased an African slave for 570 pesos (AGNP SO CO Ca. 20 doc. 201 Venta de 69 piezas de diferentes naciones que traxo Sebastian Duarte 1625). For the employment of Blacks in *boticas* in Cartagena see: Archivo General de la Nación, Colombia (hereafter AGNC) Médicos y Abogados 6 fols. 944v–945 Martín Sánchez de Velasco...informe sobre sus visitas a las boticas de Cartagena 1634.

70 ARJBM División 1, leg. 17 Prohemiales 8 Libro de examen de los simples medicinales Antonio de Robles Cornejo 1617.

71 Rabí Chara, *Hospital de Santa Ana*, 74. This is based on leg. 9086 in the ABPL, from which documents relating to this *visita* have since been lost.

some evidence that they were being trained in pharmacy. In the early seventeenth century, the post of *boticario* of the Hospital of San Andrés was held by an African slave, Juan Mandinga.<sup>72</sup> Somewhat later in 1639 one Antonillo Angola was working in the pharmacy of Santa Ana and despite being slave was earning 7 pesos a year.<sup>73</sup> Most renowned of all was Martín de Porres, a Mulatto and America's first Black saint, who combined the duties of nurse, barber-surgeon, and apothecary in the Dominican convent of El Rosario.<sup>74</sup>

### Running a Pharmacy

Despite Lima being a particularly healthy city, life expectancy in the sixteenth century was low. Its residents were constantly preoccupied with their health which meant that they were willing to expend large sums of money on medical treatments.<sup>75</sup> A priest attached to the Cathedral who suffered from a long-term illness and had no financial resources was willing to take out a loan of 3,000 pesos from its *mayordomo* to pay for his treatment.<sup>76</sup> The high demand for medicines and willingness to pay high prices should have made pharmacy a profitable business, but a central feature of the way it was managed was that it ran largely on credit. This was problematic because often the patients died or migrated elsewhere before clearing their debts, so that *boticarios* were often owed several thousand pesos. On his death in 1636, a number of Pedro de Bilbao's clients were noted as living in Chile, Mexico, and Potosí.<sup>77</sup> Often relatives of the deceased or institutions had to be pursued through the law courts in order to recover the debts. This could be a protracted and costly process which meant that *boticarios* had to have significant financial backing in order to keep their businesses running on a day-to-day basis in the meantime.

Elite families generally made annual contracts with physicians and surgeons to treat their households. How much they charged varied, possibly according

72 AHIRA Maldonado A-III-306 fol. 115 Libros de egresos e ingresos del hospital de San Andrés 1612.

73 ABPL 9104 Libro de cuentas de gastos del hospital de Santa Ana 29 Aug. 1639.

74 Cussen, *Black Saint*, 55–56, 69–84.

75 For the general predisposition of Spaniards to spend large amounts of money on medicine see Lanning, *Royal Protomedicato*, 230. Colonial documents are replete with comments by officials on the state of their health.

76 AAL Causas Civiles leg. 20 exp. 5 Causa de acreedores a los bienes del padre Juan de Vargas y Mendoza que fue de la catedral de Lima 1618.

77 AGNP Protocolos Siglo XVII 1789 Sánchez Vadillo fols. 2068–2072 Inventario de bienes de Pedro de Bilbao 25 Aug. 1636.

to the number of patients they were required to attend. The New Christian surgeon, Tomé Cuaresma, charged an annual fee of thirty to forty pesos for a family, with payments occasionally paid in kind, for example in bags of wheat,<sup>78</sup> whereas in 1633 Licenciado Pedro Rodríguez Merchán contracted a surgeon, Luis de Molina Guzmán for the annual salary of 70 pesos to treat all persons in his household and *chácara*.<sup>79</sup> There is no evidence that similar contracts were made with apothecaries, but it is clear from legal cases that elite families generally acquired medicines from the same *boticario* and that bills were drawn up on an annual basis.<sup>80</sup> Rather than *boticarios* being contracted on a salary, the amount they were paid was dependent on the ailments they were treating and the medicines they dispensed. The slave trader, Manuel Bautista Pérez had agreements with at least two *boticarios*, namely Pedro de Bilbao and Alonso de Carrión, to treat his household and the African slaves on his *chácara*, but whether these were underpinned by legal contracts is unknown. For the year 1628 Manuel Bautista Pérez owed 1,052 pesos to Pedro de Bilbao, while in 1639 when Pérez was put to death by the Inquisition, he was in debt to Alonso de Carrión to the order of 1,710 pesos for medicines he had supplied at various times between 1635 and 1639.<sup>81</sup>

The procedure for charging for medicines and recovering debts was as follows. A physician would draw up a prescription (*receta*) for medicines which would then be supplied by a *boticario*. Generally the patient did not pay for the medicines immediately, but when the medicines were delivered he or she signed the prescription acknowledging that they had been received. The signed receipts or *vales*, which did not indicate the cost, were then kept by the *boticario* as evidence of the medicines he had supplied. Bartolomé Díaz Cabeza de Vaca kept his receipts for different patients and households on separate strings, which at the time of his death numbered 195. He often recorded the profession of his clients, from which it is apparent that he served a wide spectrum of individuals from the governor, members of the *cabildo*, priests,

78 AGNP SO CO Ca. 44 doc. 394 fols. 772–775 Conciertos de curar de Tomé Cuaresma 1623, 1625 and 1630.

79 AAL Causas Civiles leg. 43 exp. 2 Causa ejecutiva que sigue Luis de Molina Guzmán, cirujano, contra el Lic. Pedro Rodríguez Merchán 5 Oct. 1634.

80 AGNP SO CO Ca. 27 doc. 277 Pedro de Bilbao contra Don Juan Arévalo de Espinosa 1629). For the bills incurred by Manuel Bautista Pérez with Pedro de Bilbao and Alonso de Carrión see: AGNP SO CO Ca. 57 doc. 431 1629, 1635–1640.

81 For the bills incurred by Manuel Bautista Pérez with Pedro de Bilbao and Alonso de Carrión see: AGNP SO CO Ca. 57 doc. 431 1629, 1635–1640. When the value of the medicines was assessed by the physicians Doctors Gerónimo Andrés Rocha, Juan de la Vega and Manuel Pérez they were judged to be worth about half the amount claimed.

teachers, and merchants, to a variety of artisans, including silversmiths, a gilder, tailors, hat makers, shoemakers, a glovemaker, a confectioner, and a locksmith. Of the clients, 92 still owed him money at the time of his death. These debts averaged 43 pesos, but ten people owed over 100 pesos. While each of these debts might have been small, they totalled some 3,874 pesos, which together with other debts represented 42 percent of the assets of his *botica*.<sup>82</sup> (See Table 2).

In general large debts, that is mainly those over 100 pesos, were pursued through the courts. A significant number of legal cases relating to the recovery of sums owed to *boticarios* are to be found in the section Causas Civiles in the Archivo Arzobispal in Lima.<sup>83</sup> In presenting a claim a *boticario* would include a list of the medicines that he had supplied and the *vales* on which the list was based (See Figures 3 and 4). The legal procedure was that a physician or *boticario* would then be employed to assess the value of the medicines; in most cases they were valued at about half of what the *boticarios* claimed. *Boticarios* were infamous for overcharging for medicines, so that they rarely challenged the lower assessments.

Sometimes clients objected to the bills on the grounds that the *vales* had not been signed or were not authentic. They might also refuse to pay claiming collusion between the *boticario* and the witnesses who were called to testify. In response to a claim for 150 pesos brought by the *boticario* Bernardo Gil, the defendant a priest, Doctor Sebastián de Betanzos, claimed that two of the witnesses had “a close friendship and connexion with him [Gil] and are in his house and company and eat with him, and as such I think they are untrustworthy and challenge they should be witnesses or be believed.”<sup>84</sup> Similarly, in a redhibition case brought against Manuel Bautista Pérez by one Doña Francisca de Guzmán y Quintana for the sale of a slave who was suffering from severe stomach pains and unable to work, she claimed that all the witnesses, which included two surgeons, were his “servants, compatriots, [and]

82 AAL Testamentos Leg 5 exp. 1 fols. 27v–35v. Testamento de Bartolomé Díaz Cabeza de Vaca 1608.

83 For seventeen cases between 1613 and 1651 see: AAL Causas Civiles leg. 14 exp. 35, leg. 17 exp. 18, leg. 20 exp. 5, leg. 32 exp 14, leg. 33 exp. 19, leg. 39 exp 5, 16, leg. 41 exp. 15, leg. 42A exp. 2, 3, 10, leg. 48A exp. 11, 20, leg. 50 exp. 6, 16, 24, 38, leg. 60 exp.6. For overcharging see also: Biblioteca del Palacio Real, Madrid II/546 fols. 119–119v. Cuaderno de algunos papeles...Marqués de Montesclaros 1 Apr. 1612.

84 AAL Causas Civiles leg. 48A exp. 20 Autos seguidos por Bernardo Gil, boticario, contra el Dr. Sebastián de Betanzos, clérigo de menores órdenes, por 150 pesos de medicinas adquiridas en su botica. 20 Oct. 1639.



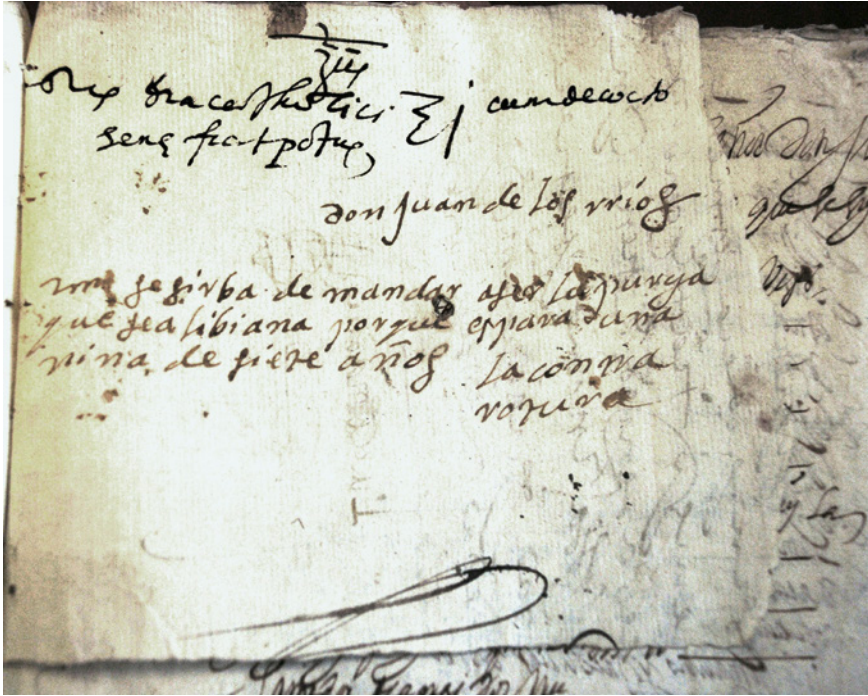


FIGURE 4 Receipt for medicines supplied to Don Juan de los Ríos by Bernardo Gil, 1633.

... diacatholici ꝓ cumdecocto sene fiat potus

[one ounce of diacatolicon with a decoction of senna to make a potion].

don juan de los ríos

... se sirva de mandar aser [hacer] la purga que sea libiana [liviana] porque es para una niña de siete años. La contrarotura.

[...it serves to order to make a purgative which should be light because it is for a girl of seven years old. The plaster.]

Source: AAL Causas Civiles Leg. 42A, exp. 2 Causa seguida por Bernardo Gil, dueño de botica, contra el bachiller Don Juan de los Ríos, clérigo presbítero. 1633.

COURTESY ARCHIVO ARZOBISPAL, LIMA. PHOTO: AUTHOR.

close relatives.”<sup>85</sup> Clients occasionally asserted that the *boticario* had supplied the medicines free of charge. Hence, Doña Beatriz de Garay stated that even though she had signed the *vales* presented by the *boticario* Mateo Pastor, this was only to eliminate fraud and that he had not charged for medicines, indeed she claimed that she could even request medicines by word of mouth. She said this was because he was a “paysano” of her mother and he treated her as family because “in this kingdom those who are from the same place in Spain regard

85 AGNP Real Audiencia Causas Civiles leg. 70 cuad. 263 Autos seguidos por Doña Francisca de Guzmán y Quintana contra Manuel Bautista Pérez sobre la redhibitoria de un esclavo 1626.

each other as *parientes* (relatives).<sup>86</sup> In other cases, the prebend and teacher of the Cathedral claimed he was unable to pay because of the high cost of living in Lima and because due to a long illness he had run up bills with three doctors, a surgeon and a *boticario*.<sup>87</sup> On the other hand, *boticarios* or their executors defended their right to include unsigned *vales* or those signed by a relative because the patients were too ill to sign or had sent their slaves to the *botica* to collect the medicines on their behalf, explanations that were often accepted.<sup>88</sup> Clearly in many cases debts could not be recovered, though there is evidence of relatively small amounts being pursued over several decades.

The largest debts were incurred by monasteries, convents, hospitals, and the Inquisition. It was practice for the *cabildo* to make contracts with specific *boticarios* to supply medicines to all the city's monasteries and from the outset it had to tackle the issue of overcharging.<sup>89</sup> Up to the beginning of the seventeenth century this contract, while substantial, was never worth more than 5,000 *pesos corrientes* and it was handled by one *boticario*. However, in 1604 the contract was divided between two *boticarios* and by 1606 the cost had risen to 13,015.5 pesos, a figure that the *cabildo* considered unacceptable. In order to reduce the cost, the contract was put out to tender and in 1610 it was split between two other *boticarios*: Gerónimo Pujadas, who was to supply the Dominican, Franciscan, and Jesuit monasteries, and Pedro de Bilbao the Augustinian. Pujadas's pharmacy and contract were later taken over by Francisco de Sandoval about whom there were constant complaints. It was claimed he committed many frauds, altering and adding to prescriptions, such that one claim that he submitted for supplying medicines between 1619 and 1620 was reduced significantly

86 AGNP SO CO 132–1199 Don Diego Laurencio Valenzuela administrador del patronato de Mateo Pastor de Velasco contra doña Beatriz de Garay 14 Jun. 1663.

87 AAL Causas Civiles leg. 20 exp. 5 Causa de acreedores a los bienes del padre Juan de Vargas y Mendoza que fue de la catedral de Lima 1618.

88 See for example, AAL Causas Civiles leg. 41 exp. 15 Autos ejecutivos seguidos por Gabriel de España, boticario, contra el Lic. Diego Cabrera albacea y tenedor de bienes del Lic. Francisco Juárez Salgado 1632; AAL Causas Civiles leg. 42A exp. 3 Lima. Causa seguida por Bernardo Gil, contra los bienes que quedaron por fin y muerte del padre Luis Nieto Palomino 1632/1633; AAL Causas Civiles leg. 31 exp. 14 Causa ejecutiva seguida por Antolín Reynoso, boticario, contra Alonso Martínez Pastrana, contador mayor, albacea y tenedor de bienes de don Juan Velásquez 1627. In this case they were signed by his sister or niece, witnesses differ, but the argument was that in his will he indicated in detail the debts he owed. See also AGNP SO CO 125–1091 Gaspar de Calderón sobre medicinas que dio a Juan de Turiçes difunto 18 Sep. 1656.

89 AGI Lima 112 Tristán Sánchez, contador, 1588.

by the assessor to 1,840 pesos. Aware that fraud had also been perpetrated for four years previously, receipts for this period, which amounted to some 13,025 pesos, were also reviewed and assessed by the *boticarios*, *licenciado* Antonio de Robles and Antolín Reynoso, who valued them at 3,511 pesos, an amount to which Sandoval agreed.<sup>90</sup> Subsequently, it was suggested that a limit should be placed on the amount that a *boticario* could claim; both 3,500 and 2,200 pesos were suggested. It was noted that there were other more suitable *boticarios*, who had demonstrated “more satisfaction and knowledge” who could undertake the commission.

Francisco de Sandoval not only supplied several monasteries, but also the female Convent of La Concepción. In 1625 he initiated a legal case against the Convent on behalf of the widow of Gerónimo Pujadas from whom he had assumed charge of the *botica*. This was over the payment of 10,087 pesos relating to medicines that had been supplied between 1619 and 1622.<sup>91</sup> However, the claim was disputed by the Convent on the grounds that not all the *vales* for items listed had been presented and others were unsigned. It also asserted that some of the items had not been claimed for within three years, as was apparently required by law, and were therefore invalid. In addition the Convent argued that the assessment by the *boticario*, Juan Ximénez Villayzan, had included many invalid *recetas* and a number of arithmetic errors. The assessor himself acknowledged that the task of reviewing some 5,912 *recetas* had been daunting and had been hard work over two months. The Convent then raised the question of whether the widow of Gerónimo Pujadas had a legal claim. In attempting to resolve the issue, a reassessment was ordered on the basis of 3,987 agreed receipts and in the end, in 1629, a value of 5,788 pesos 2 reales was imposed by the physician and later *protomédico*, Juan de la Vega. The latter amount appears to have been paid, but there were ongoing disputes between Sandoval and the Convent over medicines that he had supplied on his own account.<sup>92</sup> As late as 1650, the legitimate son of Gerónimo Pujadas

90 AGI Lima 97 Consulta a la Real Audiencia sobre las medicinas donadas a los conventos 12 May 1621; Carta de la Real Audiencia al rey sobre limosna de medicinas a los conventos 6 May 1622. Most likely Antonio de Robles was the physician Antonio de Robles Cornejo, who was the author of several manuscripts on the use of medicinal simples to be discussed in Chapter 5.

91 AAL Monasterio de la Concepción leg. 2 exp.18 Causa seguida por Francisco de Sandoval, boticario de Lima, contra el Monasterio de la Concepción 1626–1629.

92 AAL Monasterio de la Concepción leg. 3 exp. 19 Causa seguida por Francisco de Sandoval, boticario de Lima, contra el Monasterio de la Concepción por las medicinas que sacaron de su botica 1627.

was still trying to claim for the *recetas* on which agreement had not been reached.<sup>93</sup>

Even if claims were valid, often clients lacked the resources to meet them. The Convent of La Concepción claimed that it was poor and did not receive government support, unlike male monasteries. Although in theory it received substantial dowries for the entry of women into the Convent, very often they were paid from *censos*. These were annuities paid from the income of a house or other property, usually of five percent, which were pledged for a number of years or in perpetuity.<sup>94</sup> The problem from the perspective of the Convent was that often householders could not afford repairs to their properties so that many fell into disrepair such that the income they generated declined.<sup>95</sup> Apart from the *censos*, the only other source of income was from an *obraje* producing serges and rope and this was deemed insufficient to pay for medicines and for the service of medical practitioners. The Convent admitted that it owed “a large amount of pesos” which it was unable to pay.<sup>96</sup>

Francisco de Sandoval may have been running a particularly fraudulent business, but supplying medicines to convents required substantial financial resources and incurred some risk for anyone accepting the contract. When Pedro de Bilbao died in 1636, he was not only owed 8,211 pesos for prescriptions supplied to 156 individuals, plus 76 pesos supplied to the Inquisition’s prison, but also for medicines supplied over nine years to the Convent of La Merced and for four years to the Convent of San Agustín.<sup>97</sup> In addition he was owed 28,000 pesos worth for medicines he had supplied to the Convent of Nuestra Señora de la Encarnación, which was subject to a law suit.<sup>98</sup> This was not all,

93 AAL Monasterio de la Concepción leg. 9 exp. 60 Causa seguida por Ignacio de Pujadas, hijo legítimo de Gerónimo de Pujadas, contra el Monasterio de la Concepción por 11,000 pesos de medicinas que le dio de su de su botica y le han quedado debiendo 1651.

94 Arnold J. Bauer, “The Church in the Economy of Spanish America: Censos and Depósitos in the Eighteenth and Nineteenth Centuries,” *Hispanic American Historical Review* 63(4) (1983): 715–17; Brian R. Hamnett, “Church Wealth in Peru: Estates and Loans in the Archdiocese of Lima in the Seventeenth Century,” *Jahrbuch für Geschichte Lateinamerikas* 10 (1973): 115–16.

95 AGI Lima 215 N 6 R 1 fol. 3 Informaciones del monasterio de la Concepción de Lima 18 Mar 1603.

96 AGI Lima 215 N 6 R 1 fol. 11v. Informaciones del monasterio de la Concepción de Lima 18 Mar 1603.

97 This excluded the cost of other medicines that had been supplied previously.

98 AGNP Protocolos Siglo XVII 1789 Sánchez Vadillo fols. 2068–2072 Inventario de bienes de Pedro de Bilbao 25 Aug. 1636.

because another *boticario*, Alonso de Carrión who was not listed amongst his debtors, also certified that he owed Pedro de Bilbao 650 pesos.<sup>99</sup>

One may wonder why *boticarios* allowed clients to run up such large debts, even if they were exaggerated. It suggests that their businesses were sufficiently profitable to bear the debts and that the amounts that they were owed did not affect the day-to-day operation of their pharmacies. There are no instances of *boticarios* being made bankrupt or evidence of them complaining of being poor. Such debts were common in many businesses at this time.

In the early modern period, business success depended on reputation and trust.<sup>100</sup> In Europe the largest debts were incurred by elites, such as government officials and lawyers. Apothecaries felt obliged to treat them even if they anticipated that they would not be paid, since they feared that refusal would damage their reputations.<sup>101</sup> Debts, though incurring a cost, might actually bring some benefits. They could be used to develop or maintain relations of patronage-clientage that could ensure continued custom. Large contracts with major public and charitable institutions could only be fulfilled by *boticarios* with considerable financial backing and a good reputation. Although as shown above a good reputation was not always justified, the award of such contracts served as an indicator of their high economic status. Supplying medicines on credit to charitable institutions might also reflect on the religious piety and social standing of a *boticario*. For this reason, Paula De Vos argues that *boticarios* in Mexico City allowed charitable institutions to run up debts and rarely called them in.<sup>102</sup> The evidence for Lima indicates that convents were similarly allowed to build up debts over considerable periods of time, but in contrast to Mexico some *boticarios* in Lima did pursue some convents through the courts, as was the case of Pedro de Bilbao against the Convent of La Encarnación. Furthermore, in common with other *boticarios* he did not demure from overcharging charitable institutions. It suggests that there were limits to the support that *boticarios* gave to charitable causes in the form of reduced prices for medicines. After all, as will be shown in Chapter 7, they could demonstrate their

99 AGNP Protocolos Siglo XVII 1789 Sánchez Vadillo fols. 1375–1378v Alonso de Carrión to Juan de Sanmillán 28 Jul. 1636.

100 Daviken Studnicki-Gizbert, *A Nation upon the Ocean Sea: Portugal's Atlantic Diaspora and the Crisis of the Spanish Empire, 1492–1640* (Oxford: Oxford University Press, 2007), 84–86.

101 Brockliss and Jones, *Medical World*, 324; Robert Ralley, "Medical Economies in Fifteenth Century England," in *Medicine and the Market in England and its Colonies, c.1450–1850*, eds. Mark Jenner and Patrick Wallis (New York: Palgrave Macmillian, 2007), 29–30.

102 De Vos, "Art of Pharmacy," 185–86.

charity and piety in other ways, such as through membership of *cofradías*, private donations, and charitable works.<sup>103</sup>

### Conclusion

The manner in which *boticas* were established and apothecaries ran their businesses did not differ significantly from those in Spain. However, the personnel they employed and their interaction with charitable institutions seems to have differed. In Lima as in Spain, it was the case that *boticarios* had to have substantial financial resources to own a *botica*. Although detailed financial accounts kept by *boticarios* are lacking, the fact that pharmacy could attract non-*boticario* investors suggests that it was regarded as a profitable business. As will be shown in Chapter 7, the most prominent apothecaries amassed significant personal fortunes and could pay large dowries for their daughters. While *boticarios* in Lima were certainly interested in making profits, at the same time they were not entirely capitalistic for they did not invest their gains in expanding their businesses, but rather expended them on charitable activities that confirmed their social standing and assured them of an advantageous position in the afterlife.

Because substantial financial resources were needed to establish a *botica*, few were established in the city. Yet there were many others who were practising pharmacy as salaried employees, forced labourers, or slaves in both private pharmacies and hospitals. While the *cabildo* issued ordinances against *boticarios* employing non-licensed workers, especially Blacks and those of mixed race, they were not vigorously enforced. While this reflected in part the predominance of African slaves in the city's population, the seeming preference for the employment of slave labour may also have derived from their status of permanent servitude that enabled *boticarios* to invest in developing the pharmacy knowledge and skills of these workers in a way that was not possible with Indian forced labourers who were generally assigned for short periods and were constantly changing.

The ethnic diversity of those employed in *boticas* provided opportunities for the exchange of medicinal knowledge. However, the hierarchical structure of employment in *boticas* and the slave status of many employees would have discouraged a two-way exchange. Employees would have been taught how to prepare medicines by a licensed *boticario*, who invariably had been trained in humoral medicine and on whom they depended for their job, livelihood, and

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103 For Mexico City see De Vos, "Art of Pharmacy," 171–81.

treatment. Nevertheless, there is evidence that Blacks and Indians were altering prescriptions, as attested by *cabildo* attempts to control their employment in pharmacies. Whether such changes to prescriptions were the result of error, insufficient guidance, or deliberate changes based on experience is unknown. However, the general absence of native botanical materials in pharmacy inventories and prescriptions, to be discussed in Chapter 6, suggests that the exchange of knowledge between ethnic groups with different healing traditions with the context of a functioning pharmacy was limited.

Pharmacies whether established in hospitals or run as private businesses did not operate as independent enterprises. They were subject to regulation by the *protomedicato* and municipal authorities, which among other things arranged for the inspection of pharmacies. This was primarily to ensure that out-of-date and dangerous drugs were not being prescribed and to prevent overcharging. However, they also paid attention to the types of medicines they contained, so that as will be shown, the inspections served to promote orthodox humoral practice. The regulation of pharmacies will be explored in Chapter 5 where competing approaches to medical practice are considered. Since considerable insight into medical practices in Peru can be gleaned from an analysis of the cargoes of *materia medica* and books imported from Spain and traded locally, the study turns first to an analysis of the transatlantic and local trading networks through which these commodities moved.