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Consumption, retailing, and medicine in early-modern London

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This article examines the early development of specialized retail shops in early modern London. It argues that apothecaries' shops were sites of innovative shop design and display. These practices were responses to attitudes to consumption, the problematic nature of the medical commodities which apothecaries sold, and, particularly, contemporary concerns about their reliability, trustworthiness, and honesty. The article concludes that analyses of the rise of the shop need to be revised to incorporate early developments by producer-retailers, such as apothecaries and goldsmiths, and suggests that investments in retailing were driven more by worries about commodities than enticing customers.

The retailing and consumption of drugs in western medicine has always been inflected by the ambiguous nature and understanding of the therapeutic products involved.¹ Uncertainties about the quality, efficacy, and expense of medical drugs troubled people in early modern Europe, as they continue to do today. In outline, drugs shared many characteristics with other products. However, the effects of asymmetries of information, where the medical practitioner knows more than the patient about a remedy, are particularly acute in healthcare, where an understanding of the esoteric nature of the materials employed in therapies is an intrinsic element of the skill of the prescriber.² Early-modern patients faced many difficulties in gathering information about the combinations of products and services that they purchased: medical knowledge was complex, there was a huge variety of drugs available, drugs varied in quality and were hard to evaluate, and the patient's judgement might be constrained by ill health and urgency. Even when a sick person recovered after following a medical practitioner's advice, it was unclear if it was because of the treatment they had received. Francis Bacon articulated the essence of the patient's problem: 'the physician . . . hath no particular acts demonstrative of his ability, but is judged most by the event; which is ever but as it is taken: for who can tell, if a patient die or recover, or if a state be preserved or ruined, whether it be by art or accident? And therefore many times the imposter is prized, and the man of virtue taxed'.³ In medicine, there was no straightforward recognition of, or reward for, skill and labour. It was no wonder, Bacon thought, that physicians tended to wander into other professions.

¹ I would like to thank Rosie Blau, Nick Crafts, Larry Epstein, Mark Jenner, Ludmilla Jordanova, Margaret Pelling, the anonymous referees, and audiences at seminars in Oxford, UEA, and York for comments on earlier versions of this paper. I am particularly grateful to Georgina Hooper, then curator at the National Museum of Science, London and Alan Humphries, librarian of the Thackray Medical Museum, for supplying information on their collections. The research for this paper was supported by the Wellcome Trust.

² Arrow, 'Uncertainty'; Sloan 'Arrow's concept'; Robinson, 'Asymmetric information'. Arrow's commentary focuses on physicians, but much applies to the market for drugs as a semi-autonomous extension of such professional advice.

³ Bacon, *Advancement of learning*, p. 106.

Today, the professional organization of medical practice provides a set of devices to help patients trust the healthcare they purchase, in the form of licensing, institutional supervision, and ethics. However, like most areas of the economy, medicine in early-modern England operated largely within weak or at least questionable institutional and ethical constraints, despite the existence of some medical guilds and the London College of Physicians.⁴ The ambiguity and distrust that surrounded medical products and services created difficulties for all medical practitioners. Inevitably, a heavy burden fell on the group most closely involved in meeting the demand for medicines: the apothecaries. This article focuses on how these concerns shaped the retailing of medicines in London from the late-sixteenth to the end of the seventeenth century.

In particular, this article seeks to explore how shops mediated between people and things in early modern medicine. It argues that one of the key devices that apothecaries used to address the problems of medical consumption was the material form and arrangement of their shops. In this way, we can explain the oddities of the spaces apothecaries created, particularly their prominent displays of drug jars and collections of exotica, echoes of which persist in the distinctive form of pharmacists' shops today. This focus on the physical spaces of consumption is intended both to develop our understanding of attitudes to medicine and medical commodities, and to provide a case study in the relationship between material, social, and cultural factors in the development of retailing and production in early-modern England. Addressing such questions obliges us to draw on a very broad range of evidence. However, it is only through the integration of a range of visual, material, and textual sources that we can approach the logic, forms, and functions of many aspects of the early-modern economy.

Healthcare is often presented as a special case in discussions of consumption, partly due to the information asymmetries outlined above. My analysis shares something of this perspective. However, the boundaries between healthcare and other trades and services were indistinct in early-modern Europe. The aspects of the apothecaries' shops discussed here form part of wider developments in the spatial reconfiguration of workplaces and the incipient separation of retailing and production. Pennell has noted that a proper understanding of consumption requires us to 'recover the contexts which shaped the motives (conscious and unconscious) informing consuming acts'.⁵ In this regard, early-modern shops could, I suggest, offer a means to address contemporary difficulties with consumption, problems that have been neglected too often in studies captivated by consumption's pleasures and shops as a means to entice and excite customers.

Medicine offers a particularly good area in which to explore these questions, because it focused and intensified many general concerns about fraud; as a consequence, those involved in medicine took the lead in finding ways to address such concerns.⁶ In attempting this through their shops, apothecaries played an important role in changing techniques of retail and consumption. Apothecaries thus acted alongside other groups of producer-retailers, particularly goldsmiths—who faced comparable problems due to the characteristics of the commodities they

⁴ Pelling, *Medical conflicts*; Cook, *Decline*.

⁵ Pennell, 'Consumption', p. 552.

⁶ Park, 'Country medicine', p. 117.

produced and sold—in initiating developments in shop form in England. However, it is also clear that in much of what they did, London's apothecaries were adopting earlier continental developments in display and shop style, underlining the importance of prior Dutch, French, and Italian changes in consumption in defining the terms of the English 'consumer revolution'.

I

The 'rise of the shop' in the long eighteenth century has become a common feature of histories of consumption, discussed alongside shifts in patterns of domestic and leisure consumption.⁷ The evidence put forward centres on the increasing numbers of specialized mercers and grocers' shops in England and the changes that occurred in their appearance as they became elaborate and enticing temples of consumption.⁸ The scale of this transformation has sometimes been exaggerated. As Keene has shown, dedicated retail shops were well-established in London by 1300 at the latest, while their size and form seems to have been changing by the latter half of the sixteenth century.⁹ This no doubt intensified over the seventeenth century, although by then, London's significance as the nation's greatest centre of consumption was long established.¹⁰ These new shops, 'perfect gilded theatres' as one contemporary described them, were markedly different to their sparsely furnished ancestors, often little more than stalls or market booths, in fifteenth- and early-sixteenth-century England.¹¹

The modes of consumption that occurred within these new shops have been taken as indicators and facilitators of broad changes in English society. While medieval fairs and markets seemed to exist as liminal spaces that could disorder and invert society, in a neat inversion, eighteenth-century shops are presented as fertile spaces for 'polite' social intercourse.¹² Shops allowed consumption to be stratified both horizontally and vertically, giving each level of society an appropriate and separate place to buy.¹³ They also allowed women, particularly of the gentry and middling sorts, to create a new combination of leisure and labour in regular shopping. Shopping could then be appropriated into a socially and sexually exclusive pattern of leisure activity, a more refined form of entertainment, distinct from searching markets for necessities or the disordered, inclusive, and sometimes grotesque pleasures of the fair.¹⁴

⁷ The key studies remain McKendrick, Brewer, and Plumb, *Birth*; Brewer and Porter, *Consumption*; and Weatherill, *Consumer behaviour*.

⁸ Early-modern retailing remains neglected. The most recent full-length study is Cox, *Complete tradesman*. See also Walsh, 'Goldsmith's shops'; Berg, *Luxury and pleasure*, pp. 247–78; Stobart and Hann, 'Retailing revolution'; Shammas, *Pre-industrial consumer*, pp. 225–90. Influential, if sometimes inaccurate, older studies include Davis, *Shopping*; Adburgham, *Shops and shopping*; *idem*, *Shopping in style*; Mui and Mui, *Shops*; Willan, *Eighteenth-century shopkeeper*.

⁹ Keene, 'Shops', p. 29; Archer, 'Material Londoners?'; Blayney, 'John Day'.

¹⁰ Fisher, *London*; Peck, *Consuming*.

¹¹ Quotation from Walsh, 'Goldsmiths' shops', p. 102. On medieval shops, see Keene, 'Shops'. On provincial changes, see Berger, 'Retail trade'; Fowler, 'Provincial retail'.

¹² Bakhtin, *Rabelais*; Agnew, *Worlds apart*; Stobart, 'Leisure and shopping'; Vickery, *Gentleman's daughter*; Berry, 'Polite consumption'.

¹³ Cox, *Complete tradesman*, pp. 98–102.

¹⁴ Vickery, *Gentleman's daughter*; Berry, 'Polite consumption'; Kowaleski-Wallace, *Women, shopping, and business*. Although see Finn, 'Men's things', for a critique of some readings of gender and consumption.

Unsurprisingly, the changes that occurred in the number and appearance of shops have often been interpreted as part of their role as a nexus of consumption, fashion, and leisure. However, consumption has a more complicated history than this suggests. Levels of consumption were increasing, but it remained subject to profound moral doubts, as did its bedfellows: fashion, aspiration, and luxury. Luxuries, in particular, were still regularly condemned—and apothecaries' wares included spirits, chocolate, perfumes, and tobacco, substances that gradually shifted from medicine to luxury and then to necessity.¹⁵ Moreover, specific acts of purchasing were fraught with concerns over quality, credit, and deceit. Consumption has been described as 'an irresistible drug'.¹⁶ Yet as it assumed new and omnipresent forms, consumption also seemed to produce 'an intolerable sense of unpredictability and risk'.¹⁷ Misconduct appeared endemic in the early-modern marketplace, a perception to some extent justified by the ubiquity of its discovery by city officials and guilds.¹⁸ Hidden trading and market manipulation were widespread concerns. The unreliability of vendors even led the mid-seventeenth-century physician and reformer William Petty to justify his plan to give children a mechanical education on the grounds that: 'they shall be lesse subject to be cousened by Artificers'.¹⁹

The material fabric and space of the shop was a focus for many of these concerns. Contemporaries repeatedly identified the store's interior, in particular, as an active part of retailers' strategies. Unlike the open, public spaces of the street and market, the shop facilitated deceit: strategic lighting alone could, Daniel Defoe warned, provide 'a counterfeit coin to cheat . . . customers'.²⁰ Like taverns, shops were suspected of promoting disorderly sociability. Barber-surgeons' shops frequently offered a venue for music, drinking, and gossip.²¹ Apothecaries' shops sometimes performed similar functions, as a section of Thomas Middleton's play *The Roaring Girl* (1611) set in the apothecary Master Gallipot's shop underlines. In this scene, indications of the dangers of consumption are almost overdetermined: the shop is a resort of thieves and gallants who gather to smoke the controversial new import, tobacco. Gallipot is even cuckolded by his clients, the feminine associations of medical skills here manifested literally in his sexual impotency.²² With the neighbouring feather shop and sempster, his shop forms part of a triptych of waste, luxury, and debauchery.²³

However, the material culture of the shop could also provide a means through which to try and resolve some of the anxieties that enveloped consumption. Shops frame the interactions of vendors and customers.²⁴ The objects they contain serve obvious, vital, practical ends in storage and retailing. But they also form icono-

¹⁵ Matthee, 'Exotic substances'; Jones and Spang, 'Sans-culottes'; Berg and Clifford, *Consumers and luxury*; Berg and Eger, *Luxury*.

¹⁶ McKendrick et al., *Birth*, p. 10. For an interesting critique of this analysis, see Campbell, *Romantic ethic*.

¹⁷ Hutson, 'Displacement'; Manley, *Literature and culture*, pp. 91–2. On medieval commercial risks, see Gustafsson, 'Medieval craft guilds'.

¹⁸ Ward, *Metropolitan communities*, pp. 46–57; Berlin, 'Broken'; Wallis, 'Controlling commodities'.

¹⁹ Petty, *Advice to Hartlib*, p. 6. Critiques of retailers are commonplace; Earle, *Micro-cosmographie*, sig. M12r; Scott, *Drapery*; Mandeville, *Fable*, vol. i, p. 351. See also Archer, 'Material Londoners?', pp. 175, 178.

²⁰ Defoe, *Complete English tradesman*, p. 173; Davies, 'Tailors', p. 175.

²¹ Pelling, *Common lot*, pp. 222–3.

²² Pelling, 'Compromised by gender'.

²³ Middleton and Dekker, *Roaring girl*. Similar associations are apparent in Dekker, *Gull's hornbook*.

²⁴ Glennie and Thrift, 'Consumers'; although see Miller, 'Could shopping matter?'.

graphic constellations that convey messages about the value, quality, origins, and cost of the products, the status, reliability, credit, and aspirations of the vendor, and the types of consumers which they seek. The respectability and status, even the fashionability, of a shop were indicated in this way. However, against a backdrop of anxieties about personal and financial security, fraud, over-charging, and bad advice, the physical characteristics of early-modern shops were also closely related to the need to placate consumers' fears. Deliberate retail design to reassure as well as attract customers has often been linked to 'modern retailing' in the nineteenth and twentieth centuries.²⁵ Yet it is clear that early-modern shops attempted to achieve many of the same goals, albeit on a smaller scale. Indeed, as Walsh, one of the few historians to give shop design serious attention, has noted, in the absence of branding, the shop space was *more* important than it would later become.²⁶ The shop thus functioned alongside other contemporary sources of customer reassurance, such as the vendor's reputation, the personalized nature of credit, and the intermingling of social, emotional, and financial ties, all of which raised the penalties for fraud or other dishonesty.²⁷

II

What did apothecaries' shops look like? Together with a number of trades, apothecaries had long used fixed shops rather than market stalls. Their shops had to meet a range of purposes. Throughout this period apothecaries combined the production and sale of medicines with other aspects of medical practice, often operating as general practitioners. Some also pursued less obviously related occupations, such as selling non-medical commodities or money-lending, although this seems to have been relatively rare compared to those based in provincial towns.²⁸ Like other producer-retailers and merchant-retailers, their shops therefore emerged easily from the spaces they required for storage and production. Such permanent shops could be run effectively even in their absence with the help of apprentices, journeymen, and, perhaps most important of all, their wives, who often continued to keep shops as widows. Work on the material culture of such relatively anonymous minor buildings and sites remains rare. Many of the studies that have emerged focus on provincial changes and dedicated retailers, such as grocers and mercers.²⁹ Yet in London, quite elaborate fixed shops were commonplace by the mid-seventeenth century, as noted earlier. The most famous of these expensive and ornate retail premises were the shops within the Royal Exchange, established in 1566, while the external appearance of shops in prestigious parts of

²⁵ See, for example, Alexander and Akehurst, eds., *Emergence*; Kelley, 'Equitable consumer'; Richards, *Commodity culture*; Bowlby, *Just looking*; *idem*, *Carried away*.

²⁶ Walsh, 'Goldsmiths' shops'. A more functional analysis is proposed in Cox, *Complete tradesman*, pp. 76–115.

²⁷ Muldrew, *Economy of obligation*; *idem*, 'Credit'.

²⁸ Wallis, 'Medicines', pp. 4–5. See also Pelling, *Common lot*, pp. 220–5.

²⁹ Recent exceptions include McKellar's study of London building, although she concentrates on houses, not shops: McKellar, *Modern London*, pp. 155–87; Griffiths, 'Politics'; Blayney, 'John Day'.

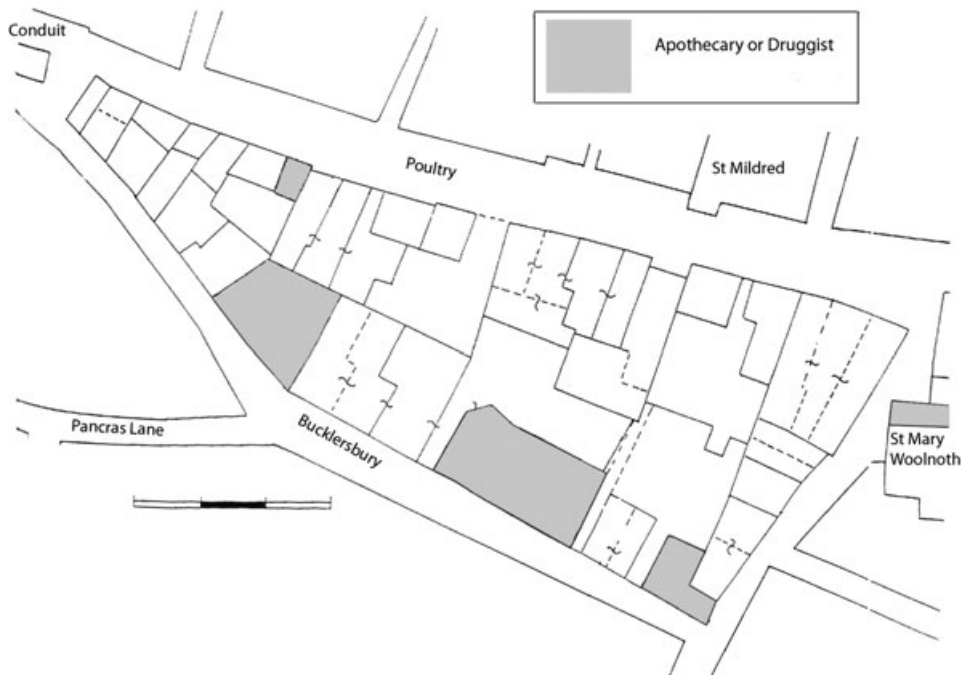


Figure 1. *Apothecaries and druggists in Bucklersbury and the Poultry*

Source: Adapted from Keene, D., 'The Walbrook study', p. vi, with the kind permission of Derek Keene.

the city, notably Cheapside, was of sufficient concern for both guild and Crown to attempt to resist their decline.³⁰

The Royal Exchange did house a few apothecaries' shops; Cheapside, just a short walk west along Poultry, was the location of many more. Apothecaries tended to cluster in this rich and densely built-up area—unlike the barber-surgeons, who spread widely across the city.³¹ Cheapside and Bucklersbury, the street that spurred off its west end at a tangent to Poultry, had been the traditional centre of the apothecaries' and grocers' trades from the fourteenth century onwards, and they retained this role throughout the seventeenth century. In 1666, druggists and apothecaries comprised 22 per cent of all householders in the parishes of St Benet and St Stephen Walbrook, 91 per cent of whom were based on or near Bucklersbury.³² Figure 1 illustrates the sheer density of shops in the Poultry that formed one part of this cluster. It was presumably Cheapside that led one Venetian visitor to note that one quarter of the city was 'full of apothecaries' shops on either side of the way'.³³ Shops in these locations were regularly transferred between several generations of apothecaries, ideally with some of the goodwill, clientele, and reputation of

³⁰ Saunders, *Royal Exchange*, p. 12; Peck, *Consuming*, 45–61. More generally, see Brown, 'Urban house'; Schofield, ed., *London surveys*. Earlier arguments about the novelty of eighteenth-century shops now seem unconvincing, e.g. Kalman, 'Architecture of mercantilism'; McKendrick et al., *Birth*, p. 85.

³¹ Pelling, 'Appearance and reality', p. 85.

³² Keene, D., 'The Walbrook study: a summary report' (1987), typescript, Institute of Historical Research, University of London, p. 13.

³³ *State Papers Venetian*, 1617–19, p. 257.

each owner being conveyed along with the premises.³⁴ One shop in Bucklersbury passed through the hands of at least four apothecaries between 1617 and the Great Fire.³⁵ Apothecaries did set up shops elsewhere in the city, although, as in Venice, they remained most numerous in richer areas, such as Westminster, the Strand, Fleet Street, Holborn, and around the Old Bailey.³⁶

The shops that apothecaries established in these locations were not ephemeral stalls or transient establishments. Early-modern medical practitioners—including apothecaries—were notorious for their self-promotion, be it by relentless publishing or through their coaches, dress, and posturing. The aspiration of many physicians towards a practice among the gentry and aristocracy that would centre around a cycle of visits to the houses and lodgings of their patients focused their investments on their transport and clothing. Made more dependent on a space by their need for a retail and manufacturing site, apothecaries took the opportunity to use their shops to advertise their qualities.

Shops' sites and appearances were important enough to warrant considerable investment, but analysing the physical appearance of apothecaries' shops in the sixteenth and seventeenth centuries is difficult. In particular, the exterior appearance of apothecaries' shops is hard to discern from the available sources, although, with the increasing use of glazed windows, interiors can hardly be separated clearly from external appearance. It seems unlikely that apothecaries' shops were structurally much different to the other permanent shops in the neighbourhoods where they were clustered. Inventories indicate that many apothecaries lived in the same building as their shop, in the upper levels of the narrow three- or four-storey houses that were characteristic of the better city streets. Over the door hung the sign of the shop, sometimes, but not always, linked to their trade.

It is the interiors of apothecaries' shops that constitute a special case in the broader transformation of retailing in this period. Interiors are marginally easier to study than their exteriors, although even here, sources are sufficiently scarce that we can approach them only in a relatively general manner. This does mean that we necessarily end up obscuring the substantial differences between particular apothecaries' actual businesses. Nevertheless, it is clear that apothecaries invested an unusually high proportion of the value of their shops in fixtures, fittings, and processing equipment. Although they did not need a particularly high initial capital investment, requiring only £50–£200 to set themselves up, they tied up an average of nearly 40 per cent of the total value of shops in fixtures and fittings.³⁷ The practicalities of manufacture, especially storage and the cost of stills, mortars, and pestles, explain some of this cost. But a significant element of the expense was

³⁴ Wallis, 'Medicines', pp. 147–8, 212; Henning, *Parliament*, vol. iii, p. 379; PRO, STAC 8/44/9, ff. 4r–4v, 52r–53r, 58r–60r.

³⁵ Keene and Harding, *Historical gazetteer*, 105/26E.

³⁶ MacKenney, *Tradesmen*, p. 89; PRO, SP/16/539, pt. 1, section 72, f. 155; Pelling, 'Appearance and reality', p. 85; Spence, *London*, p. 142.

³⁷ This is based on 16 surviving inventories of London apothecaries' shops with this data: Corporation of London Record Office, hereafter CLRO, Orphans Court inventories, 66, 292, 636, 749, 786, 840, 865, 883, 959, 1050, 1073, 1104, 1111; CLRO, MC1/189.161, MC1/230.145; Guildhall Library (hereafter GL) MS 9174/14). They date from the 1660s (4) and 1670s (12). Two earlier inventories (from 1628 and 1637) show an even larger share of the shop value taken up by fixtures and equipment (59 per cent and 81 per cent respectively): CLRO, MC1/47.128, MC1/60A.59. All surviving collections of London inventories were surveyed; the date range was a function of the evidence, not sample selection. See also Earle, *Middle class*, pp. 108–9.

due to their investment in display and decoration, which reached a far higher level than in almost any other trade or craft. Apothecaries' expenditure on display was unusual, even in a period in which rank was highly signified through external markers such as dress. As an ornate technology of presentation, contemporary images, comment, and surviving artefacts suggest that the apothecaries' drug jars in particular are without obvious parallel in other retail trades of the time.

By the mid-seventeenth century, at the very latest, apothecaries' shops had become highly stylized and distinctive. Shops contained a very large number of containers, which were increasingly standardized in form, particularly the elaborately painted sets of ceramic and glass jars which were systematically arranged and ordered into sets and rows on extensive shelving units. Jars and vials of coloured waters were often set out where passers-by could see them through windows or doorways. Counters divided the interior space, separating vendor and customer. Most strikingly of all, the ceilings and walls might be used for the display of exotic objects and curios. This ornate style of shop design was characteristic of Dutch as well as English apothecaries' shops from the seventeenth and eighteenth centuries, and is represented in a number of contemporary paintings.³⁸

This distinctive corpus of retailing paraphernalia can be seen in one of the earliest extant English representations of an apothecary's shop: a panel in the frontispiece by William Fairthorne in *The expert doctors dispensatory* (1657), Nicholas Culpeper's translation of the Montpellier physician Pierre Morel's *Methodus praescribendi formulas remediorum* (figure 2).³⁹ It shows a collection of jars, drawers, a counter, and pharmaceutical equipment surrounding the apothecary, who is an exemplary figure in his use of the dispensatory and reliance on a physician's prescription, delivered here by a servant. The few other seventeenth-century English illustrations of apothecaries' shops are similar.⁴⁰ During the eighteenth and early-nineteenth century, images of English apothecaries' shops became more common, particularly in satirical prints such as Thomas Rowlandson's 'The Dance of Death: the Apothecary' (1816) (figure 3). The representations of shops in these prints are richer and more elaborate, yet in essence they follow the formula apparent in sixteenth- and seventeenth-century images. Indeed, the internal appearance of the shop becomes almost indistinguishable from print to print. The visual cues that indicate its function—jars, pestles, mortars, and sometimes curios, represented in Rowlandson's engraving by the puffer-fish—are the same set apparent in earlier images, and they continue to telescope into a single space the various practices that characterized pharmacy, even those such as distillation which were generally banished elsewhere.⁴¹

It need hardly be said that these are not attempts at realistic depictions. Some are didactic, others simply satirical. Each presents its own interpretative problems.

³⁸ Dutch paintings include 'Interior of a 17th century Dutch pharmacy', attributed to Gerard ter Borch (Apotekarsocieten, Sweden); 'The apothecary's shop', by Willem van Mieris (Apothekenwesen, Basel); 'Apothecaries shop', by F. van Mieris, 1714 (Rijksmuseum, Amsterdam). On employing Dutch visual sources in an English context, see Pelling, 'Body's extremities', pp. 223–4. More generally, see Brown, *Everyday life*; Schama, *Embarrassment*, pp. 9–11.

³⁹ Morel, *Expert doctors dispensatory*, n.p.; Fagan, *Works of Faithorne*, p. 95. The upper panel, not reproduced here, shows a physician making a diagnosis.

⁴⁰ A similar, slightly earlier image of pharmacy is found in Paré, *Works of Paré*.

⁴¹ Good examples include Thomas Rowlandson's prints: 'Ride to Rumford' (1802) and 'How Merrily we live that Doctor's be' (1793), and his illustrations for Smollett, *Roderick Random*.



Figure 2. *Frontispiece to Morel, The expert doctors dispensary*
 Reproduced by permission of the Royal Pharmaceutical Society.



Figure 3. *'I have a secret art to cure' in Thomas Rowlandson, The English Dance of Death*

Reproduced by permission of the Wellcome Trust.

The satirical prints of the eighteenth century incorporate spatial games, juxtapositions, and parody, just as the subtle iconographic subtexts of genre paintings undermine their more apparent realism. The shops that serve as backdrops in each image are interwoven with these intentions. Most obviously, the almost grotesque abundance of objects in Rowlandson's 'I have a secret art to cure' underlines its critique of the greed and duplicity of apothecaries. Nonetheless, they and other representations share the use of a limited set of signs to indicate an apothecaries'

craft, whether their purpose is prescriptive, descriptive, satirical, or celebratory. This striking symbolic formula centred on the shop and the objects it contained is, moreover, shared by Dutch, English, Italian, and some German and French representations.⁴² In France, its common ingredients can be best seen in Arcimboldesque figures in prints from the late-seventeenth century; this genre relies on the association of object with occupation, and thus apothecaries are depicted by anthropomorphized collections of jars, bottles, and stills. Similar features are also obvious in sixteenth- and seventeenth-century German woodcuts of apothecaries' shops and emblematic representations of pharmacy which have a clear similarity to those produced a century later in England.⁴³ The similarities between the contents of the prints of shops and the inventories that survive from the period suggest that artists employed a facticity in their depiction of such backgrounds, in counterpoint to the frequently comic or didactic behaviour of figures in the foreground.

What many of these images show most obviously is the overwhelming volume of storage containers. The abundance of these containers highlights the technical and logistical needs that constrained the form of apothecaries' shops. Well-stocked shops might carry several hundred drugs and simples, often in small quantities. These materials could be wet or dry, powdered or solid, and were sometimes powerfully corrosive, including acids such as vitriol. In 1637, the London apothecary John Arnold's shop, for example, contained 117 glasses of different kinds, 295 pots and jars, and 183 boxes and barrels, both in nests and individually.⁴⁴ Nevertheless, the sheer pressure that these storage requirements put on the use of shop space did not prevent apothecaries from carefully deploying objects with a close eye for the perceptions of customers. The exceptionally detailed inventory of the Oundle apothecary Arthur Coldwell's shop, made in 1669, allows us to see how his shop was organized with the purchaser in mind.⁴⁵ As customers entered, they faced a wall covered with shelves bearing 70 gallypots, the heart of the apothecaries' system of display, plus 35 small boxes, 12 barrels, a box of rice, and a parcel of little glasses and chemical oils. To their right were more shelves, with another 65 bottles, 13 syrup glasses, 65 boxes of simples (gum Arabic, scurvy grass seed, and the like), 8 empty pots, and 60 more gallypots. To their left was yet more storage: 82 parcels of drugs and a nest of boxes for simples. A counter with sugar, skins, and a stone mortar stood in the middle of the shop (a further 'old' counter with some other lumber and a brass mortar and pestle was also present). Even the weighing beam had a shelf set over it bearing more bottles. This encyclopaedic arrangement of storage ended, however, at the point of departure; it was not until a customer turned to leave that they would see the shelves over the door, invisible from the outside, where old drugs and spare bottles and pots were stored. Significantly, the display

⁴² Drug jars often appear in continental portraits of apothecaries, e.g. Wittop Koning, *Art and Pharmacy II*, pp. 38, 45.

⁴³ See, for example, Ryff, *Confect Büchlin*, sig. Aii (the same plate is in the 1563 Frankfurt edn., sig. A, and the 1578 Frankfurt edition, sig. Aiiiii); the woodcut of an apothecary by Jost Amman of Nuremberg (1539–91) in Sachs, *Eygentliche Beschreibung*, sig. D; the Polish woodcut from Stephan, *O Ziolach* (Krakow, 1534), in *Illustrierter apotheker-kalender*, p. 2; Sennert, *Institutionum medicinae*, title page; Geiger, *Microcosmus hypochondriacus*, title page.

⁴⁴ CLRO, MC1/60A.59. French apothecaries' shops contained much the same variety of jars and the like; see Lafont and van Robaey, 'La pratique de l'art'.

⁴⁵ PRO, PROB 4/21721. Coldwell also had a second shop containing preserves, oils, and wine.

Coldwell had created focused on containers rather than the *materia medica* itself. The most valuable and instantly recognizable substances—bezoar, precious stones, leaf gold and silver, and ambergris—were safely stored in a back room.

Apothecaries' main shops were, as this suggests, retail spaces focused on the selling of medicines. Of course, apothecaries did sell products that were not drugs, and there was no firm boundary between their products and the wider range of commodities sold by many grocers and merchants. The multiple applications of many drugs as dyes, flavourings, and artists' pigments blurred matters further. But a study of surviving shop inventories suggests that stocks of drugs far exceeded those of non-medical goods, which tended to be limited to occasional batches of sugar and tobacco.⁴⁶ Specialization was probably increasing from around 1600, although we have no more than anecdotal evidence for this. In the later seventeenth century, John Aubrey noted that his grandfather and several old men had been able to remember when 'In Queen Elizabeth's time the apothecaries did sell sack in their shoppes'.⁴⁷ By Aubrey's time, however, the London apothecary John Downton felt the need to keep two sets of accounts to distinguish his brandy business from his medicine trade, much as Arthur Coldwell in Oundle sold wine from one shop and medicines from another.⁴⁸

This specialization of their shops did not mean that apothecaries had stopped producing medicines. In addition to extensive storage, they usually owned mortars and pestles, weights and beams, sieves, stills and alembics for distilling medicinal spirits and waters, presses for extracting juices, and furnaces, kettles, and pans for making infusions. However, by the second half of the seventeenth century, at least, apothecaries' premises normally contained more than one workspace. From the distribution of possessions, it is clear that certain parts of the manufacturing work of pharmacy were relegated to less visible back shops and yards. Distilling equipment in particular was normally located outside, or in cellars or kitchens, where the risk of fire and the stench could be minimized. Production was not totally excluded from the main shop where it could be seen by the customer. But the aspects which still occurred there tended to be related to particular sales, such as weighing drugs or rolling pills.⁴⁹

The London apothecary Thomas Prescott's shop illustrates this division of space and function. In 1686, its two rooms had clearly distinguished roles. The front shop that was the main point of retail contact was almost a parody of the genre. Full of drug containers, including 179 shop pots, 98 'species glasses', various barrels, jars, and the like, it was also decorated with a stuffed alligator and a pill tile decorated with the arms of the Society of Apothecaries, which no doubt reminded Prescott's customers of his legitimacy. Only the less noxious and laborious elements of the trade were practised here. Besides the scales and weights needed to measure out sales, the best mortar and pestle was present, meaning that customers might witness some pharmacy in action and thereby be further assured of Prescott's competence and openness. By contrast, the back shop was reserved for

⁴⁶ Wallis, 'Medicines', pp. 191–4.

⁴⁷ Dick, ed., *Aubrey's brief lives*, pp. 319.

⁴⁸ PRO, PROB 4/14609 and 4/21721.

⁴⁹ Inventories that show this change particularly well include: CLRO, Orphans Court Inventories 292, 959, 1111; CLRO, MC1/47.128; NA, PROB4/17465; NA, C239/97/132.



Figure 4. *Seventeenth- and eighteenth-century drug jars*

From left to right: 'Loh Epassuslis', c. 1680–1700 [106]; 'V Aegyptiacv', c. 1660–1725 [114]; 'S: Cort: Aur:', c. 1720–40 [180]; 'U. Enulae. Mer:', c. 1710–30 [145]. See Hudson, *English Delftware*, pp. 139, 147, 178, 213. Reproduced by permission of the Royal Pharmaceutical Society.

storage and bulk processing, with larger quantities of drugs and various odds and ends kept out of sight. The two smelly and dangerous copper stills and furnaces were relegated to the yard.⁵⁰

The careful melding of display and function apparent in these shops reached its apogee in the dominant feature of the interior: the painted gallypot or shop pot. Drug jars of this kind were relatively uniform in size and shape. The vast majority were between 15 and 20 centimetres high, and shaped with a lip that made it easy to tie a waxed cloth or paper cover over the top—few were fitted with tin lids. What distinguished them from earlier ceramic pots was the majolica glaze. Majolica jars had been imported to England since the fifteenth century, coming initially from Italy, where they were first made in this form. A domestic manufacturing industry in the provinces and in London developed from the mid-sixteenth century, as immigrants from France and the Netherlands imported the new technique.⁵¹ Nonetheless, in 1673 the apothecary William Hardy still owned seven 'Leghorn pots' worth a shilling apiece.⁵² The majolica glaze gave a resistant and watertight surface. This kind of glaze also lent itself better to complex multicoloured decoration than earthenware.

As can be seen in figure 4, jars were normally decorated with an elaborate scroll, often a baroque confection incorporating leaves, seeds, exotic birds, and angelic figures or putti, oddly reminiscent of the sculptural repertoire used on tombs. Designs sometimes incorporated medically-related images, such as busts of Apollo, and hints at the contents, through profiles of a pipe-smoking man, and some jars were personalized with the owner's initials.⁵³ Within this cartouche, the name of the contents was written, normally in an abbreviated Latin that probably

⁵⁰ CLRO, MC1/203.121. Gabriel Sherriffe's shop shows a similar hierarchy: PRO C/239/97/132.

⁵¹ Cooper, *Foreign Protestants and aliens*, p. 97; Keene, 'Material London', pp. 62–9.

⁵² CLRO, Orphans' Court inventory, 840. On shifts in ceramic production, see Keene, 'Material London', pp. 64–5. On drug jars, see Crellin, *Medical ceramics*; Drey, *Apothecary jars*; Garner and Archer, *English Delftware*; Howard, *Early English drug jars*; Hudson, *English Delftware*.

⁵³ Drey, *Apothecary jars*, pp. 130–6. The range of designs can be seen in the John F. Wilkinson collection, now held at the Thackray Museum, Leeds. Images can be found on the online catalogue, at <http://www.thackraymuseum.org/>.

obscured as much as it conveyed to customers, even given widespread familiarity with elements of medical knowledge. This kind of decoration was also deployed on other kinds of apothecaries' storage, including brass mortars and the 'painted boxes' which Hamnet Rigby had in his shop.⁵⁴ Majolica jars supplanted simple colour-glazed or geometrically-patterned earthenware jars, distinguished at most by a heraldic symbol to identify the contents, as the principal storage container used by English apothecaries from the sixteenth century.

Tough, hard-wearing drug jars might seem an eminently practical choice for a busy apothecary. Yet, while the jars certainly provided useful repositories for drugs, the cost of decoration—particularly with the label for the contents permanently glazed on—meant they were neither as flexible, simple, or cheap as they might have been. Indeed, such jars were replaced in the nineteenth century by simpler containers, generally in glass, with self-affixed paper labels.⁵⁵ Relative cost helps explain the use of ceramics rather than glass in the seventeenth century (although glass jars are reasonably common in seventeenth-century inventories), but it does not provide a reason for the investment in jar decoration and labelling that has since made them such desirable objects for collectors. These decorated drug jars came at a higher price than their plainer cousins. The two 'stall pots' William Whitwell owned, for example, were together worth five shillings.⁵⁶ Apothecaries could have instead used plainly glazed majolica jars or cheaper earthenware pots, wooden boxes, and drawers. These had been the main methods of storage previously used, and they did continue to be employed alongside drug jars. However, it was precisely their decoration, neatness, and suitability for ordering into displays, characteristics that made them very different to the anonymous boxes, sacks, and rough jars used in most branches of retail, that gave apothecaries' drug jars their role.

The design of drug jars did vary between countries in this period. English jars were almost identical to Dutch jars. This reflected both the presence of Dutch immigrant producers and the powerful influence the Netherlands had on seventeenth-century English medicine via migrant practitioners, and the heavy circulation of people, images, and texts between the two countries.⁵⁷ It also underlines the parallels between how medicine was organized in the two countries, which were both home to large numbers of independent apothecaries, and the shared impact of the Reformation. By contrast, Italian and French drug jars, which are common from the late fifteenth century onwards, were even more colourful and ornate. A number include religious or mythological themes, as well as the coats of arms of institutions or patrons: such jars were mostly made for wealthy and large institutional pharmacies which were often run by religious bodies or tied to large charitable hospitals.⁵⁸ There is no north European equivalent to the Duke of Ferrara's commissioning of Titian to supervise the design of majolica jars for his court pharmacy.⁵⁹

⁵⁴ CLRO, Orphans' Court inventories, 865; Lewis and Boorman, 'Pharmacy in Winchester', pp. 127–30.

⁵⁵ Crellin, 'Pharmaceutical history', p. 225

⁵⁶ GL, MS 9174/14.

⁵⁷ See Cook, *Ordinary doctor*; Keevil, *Hamey*; Grell, 'Plague in London'.

⁵⁸ Farris and Storme, *Ceramica e farmacia*; Fréal, *Pots d'apothicaire*; Johnson, 'Renaissance drug jars'; Rocchetti, *Antichi vasi*; Borghini, *Farmacia preindustriale*; Mazzucato, *La ceramica*.

⁵⁹ Wilson, 'Preface', p. 12.

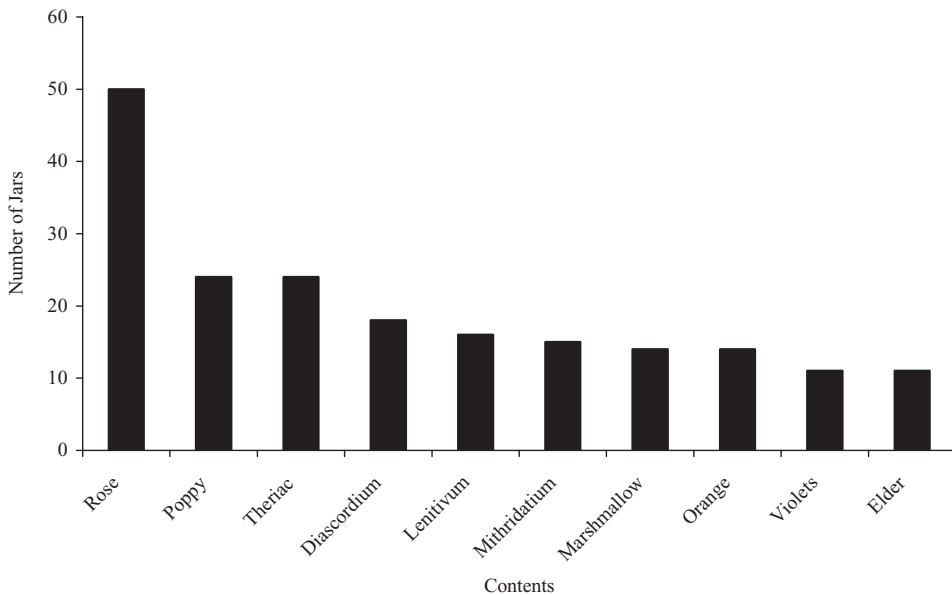


Figure 5. *Drug jar contents*

Notes and sources: The fig. lists the most common substances for which surviving decorated jars were made. It is based on a sample of 609 labelled jars which pre-date the nineteenth century, for which dates or estimated dates of manufacture (based on design) are available. This is a subset of a larger sample of 1,207 jars drawn from the collections of the Wellcome Trust, now held by the National Science Museum (730 jars), the Thackray Museum in Leeds (444 jars), and the Royal College of Surgeons, catalogued in Negus, *Artistic possessions* (33 jars).

It was the decorated drug jars' value as elements in a system of display that made them worthwhile investments for apothecaries. Drug jars were not employed indiscriminately across the pharmacopoeia. Jars survive in sufficiently large numbers that it is possible to examine their uses systematically through an analysis of their labels and designs. Extant jars are, of course, likely to be a selective subset of those produced at the time, and their survival will be skewed by the preferences of collectors for particular jars. Nonetheless, the major collections considered here were gathered with a broad enthusiasm that appears to have encompassed all available jars, and jars do survive for a very large number of drugs and medicines. Figure 5 indicates the most common substances for which jars were made. Their most common contents were roses and poppies, which demand intensive labour to harvest and process, and had wide uses. Roses were heavily used in perfumery, and this may help explain their frequency; that said, perfumery was often part of medicine in this period as well as being practised as a separate occupation. As in France, jars for theriac, diascordium, and mithridatium were also frequently produced.⁶⁰ These were very complex and expensive compound medicines which were often imported; Venice had a successful export trade in theriac throughout this period. The other substances for which jars were frequently manufactured were all similarly valuable and exotic: squills (sea onions), tutty (zinc oxide),

⁶⁰ Drey, *Apothecary jars*, p. 84.

saffron, lemons, and basilicum (which included myrrh and frankincense).⁶¹ These jars were devoted primarily to a limited range of the most distinctive, expensive, and exotic simples and compound medicines in the apothecaries' armoury, rather than the ones they used most frequently. This was, it suggests, display organized with the consumer's knowledge, wealth, and hopes in mind.

Apothecaries' interest in shop design found a profitable compromise with their pragmatic needs for storage in decorated drug jars. However, it reached its most elaborate form in the exhibition of exotica, in particular stuffed animals, often fish or reptiles, suspended from roof-beams. These exotica were ubiquitous in literary representations and in satirical images of apothecaries' shops by the end of the sixteenth century. A stuffed alligator featured in the apothecary's shop in *Romeo and Juliet*. The practice was alluded to in another play, *Have with you to Saffron Walden*, in which one character has a rat hanged 'over his head in his studie, in stead of an Apothecaries Crocodile, or dride Alligatur'.⁶² This was no literary fiction, although it was hardly as universal as the decorated drug jar. As we saw, Thomas Prescott owned a stuffed alligator. The Kentish apothecary Charles Duck displayed 'a serpent fifteen feet long and thicker than an arm' which had been caught hunting rabbits in the sand-hills near the seashore.⁶³ The London apothecary Thomas Johnson presented a vegetable parallel by showing off the first bananas known to have reached England in his shop window between April and June 1633.⁶⁴

The apothecary's shop was an appropriate home for such ambiguous exotica. Collecting and natural history were closely connected to medicine. Preserved fish and animals played a prominent role in the collections of natural and artificial wonders that were one of the major scholarly enterprises of the period. They might also be used as powerful and expensive medical ingredients. Apothecaries' development of natural history collections was facilitated by their interaction in the medical trade for exotics that included, at least in Italy, the artificial construction of natural wonders such as hydra and basilisks.⁶⁵ The intimate connection between medicine and natural history was exemplified in the work of a number of scholarly apothecaries such as John Conyers and John Haughton, both Fellows of the Royal Society, and the Italian apothecary Ferrante Imperato, whose collection became famous across Europe. In England, a number of apothecaries' shops also served as sites for natural philosophical experimentation and discussion. In the 1650s, for example, Robert Boyle carried out experiments in the apothecary John Crosse's shop in Oxford.⁶⁶

For those engaged in the genteel world of natural philosophy, such apothecaries' shops became stops for conversation, enquiry, experiment, and practical instruc-

⁶¹ The next nine most common labelled jars were for the following substances (numbers in brackets indicate the number of surviving jars): zinc oxide ('Tutia', Tutty, 'pompholyx') (10); Rhubarb ('Rhabarbarum') syrup (9); Scurvy grass ('cochleariae hortensis') conserves (9); Squills ('Scillae') oxymel (9); Basilicum ointment (8); Rosemary conserves (8); Buckthorn ('Spina Cervina') syrup (8); Bay laurel ('baccis lauri') plaster & ointment (8); Saffron ('Crocī') syrup (7); Lemons ('Limonis') syrup (7); Stomach pills with gum ('Pilulae Stomachicae cum Gum') (7); Wormwood ('Absinthio') (7); Red drying ointment ('Unguentum Desiccativum Rubrum') (7).

⁶² Nashe, *Works*, vol. iii, p. 67.

⁶³ Johnson, *Botanical journeys*, p. 115.

⁶⁴ Bananas are shown on the frontispiece of his edition of Gerard's *Herbal*: Wall, Cameron, and Underwood, *Society of Apothecaries*, p. 163.

⁶⁵ Findlen, 'Inventing nature', pp. 307–18.

⁶⁶ Shapin, 'House', p. 380.

tion on the tours of the commercial spaces of early modern science that Jim Bennett has described in his work on scientific instrument makers' shops.⁶⁷ This kind of social practice combined business with pleasure, advancing the apothecaries' reputations, and hence profits, while allowing them to pursue their own research interests. Benefits might also accrue socially, as Findlen has shown in her analysis of the varied uses of collections by those on the margins of gentility. Findlen notes the additional role that physicians' and apothecaries' collections played in the regulation of medicine in Italy, where they provided reservoirs of authentic drugs against which suspect medicines could be compared; a similar intention was implicit in John Tradescant's dedication to the College of Physicians of the printed catalogue of his museum, which, among other wonders, included an alligator from Egypt and a dried puffer-fish.⁶⁸ The presence of such objects in a shop thus reinforced the 'authoritative nature' of the medicines sold.⁶⁹

To regulation and social aspiration, we should add the important part such spectacles played in the apothecary's relationship with his customers more generally, particularly his need to indicate his access to the wonders of the natural world and his possession of the particular skills and esoteric learning that allowed him to manipulate it. Exotica thus had a role in commercial as well as courtly self-fashioning, particularly in the looser medical markets of northern Europe. Indeed, crocodiles and puffer-fish, the paradigmatic exotics displayed in apothecaries' shops, were rarely used in therapies. It seems likely that it was their effects as objects of wonder and signifiers of knowledge, rather than as practical tools for comparative drug trials or the study of natural philosophy, that were the main reasons for their display.⁷⁰ Together with the decorated drug jars, pill tiles, and painted drawers, these items formed part of a stage set that supported, elaborated, and informed the meanings of the actions that went on in the shop.

III

How are we to interpret this set of material practices? As we saw earlier, the features of apothecaries' shops were a special case in a wider phenomenon: the development of elaborate fixed shops. The desire to create spaces that are fashionable, exciting, and attractive in order to entice customers no doubt played a part. Yet the physical and symbolic richness of apothecaries' shops can only be related partially to the range of dangers and opportunities that shopping in general presented to the early-modern consumer. If it was entirely a product of this wider context, then all shops would have shown a similar investment in display. Of course, shops will differ in relation to the level and nature of competition in a particular sector and the storage they need for the goods they sell. Apothecaries certainly faced intense competition, particularly in the densely clustered areas

⁶⁷ Bennett, 'Shopping'.

⁶⁸ Tradescant, *Musaeum tradescantianum*, sig. A2v.

⁶⁹ Findlen, *Possessing nature*, pp. 241–87, 246. See also Daston and Park, *Wonders*, pp. 148–59; Tribby, 'Cooking (with) Clio'.

⁷⁰ Some medicinal uses were attributed to them: Topsell, *Four-footed beasts*, vol. ii, pp. 682–91 (crocodiles). More practical collections of plants and botanical samples were also created; see Cook, 'Time's bodies', pp. 223–9. French apothecaries also owned unusual numbers of mechanical clocks; see Bénézet, *Pharmacie*, p. 263.

around Cheapside. They also faced clear physical and technical constraints as a function of their trade, especially the obvious issue of how effectively to arrange and store the plethora of ingredients required by early-modern pharmacy. However, to explain why apothecaries resolved these practical issues in the elaborate way that they did, rather than, for example, through cost-cutting devices and cheaper storage technologies, we need to explore the specific issues that structured the consumption of medicines. Indeed, it was the medicines themselves that presented apothecaries with their primary commercial problem of how to reassure customers of the efficacy and quality of their wares.

The roots of the peculiar developments that can be observed in apothecaries' shops can be found in the problematic nature of their wares. The sheer volume of demand for medicines apparent in early-modern Europe, together with the apparent improbability of many of the remedies and treatments on offer, has sometimes led medicine to be presented as a particularly extreme example of the intoxicating effects of consumption.⁷¹ However, the demand for healthcare was not tapped without effort. People's faith in medical practitioners and their advice was contingent on each individual's reputation. Any more generic belief in the power of medicine was unlikely, given the active contesting of medical ideas in disputes that ruptured any semblance of a single medical community in early-modern Europe. Commodifying medicines, in particular, was made difficult by a number of factors. Early-modern drugs had a number of troubling associations. In the Galenic tradition which still dominated, medicines regularly included polluting substances, such as human and animal waste or body parts, dirt or earths—'matter out of place' with the symbolic power of transgression that Douglas identified.⁷² In a deliberate contrast, physicians who favoured newer Paracelsian and chemical theories promoted the purity of their new 'chemical' medicines, a product of their complex processing. Such claims of quality were, however, countered with accusations that they were prescribing poisons.⁷³ Indeed, the most obvious and tragic aspect of the ambiguity of drugs was the double life some had as poisons when consumed unadvisedly. The link of poison and pharmacy was given focus in the sixteenth and seventeenth centuries by various notorious murders involving medicines and the growing use of exotic simples and chemical drugs.⁷⁴ Many more medicines not directly identified as poisons nonetheless seemed to harm as well as help, with the harshness of their effects on the bodies of the sick being implicitly accepted as the price of healing. Hence, the dangers of all medicines were a worry, leading some medical entrepreneurs to emphasize the 'gentleness' of their own remedies.⁷⁵

Profit was another area where apothecaries were particularly suspect. Drugs could be expensive and exotic substances, such as woods, spices, gums, and the like, imbued with occult properties or oriental promises of panaceas from afar.⁷⁶ With the expansion in international trade, such drugs were increasingly common and affordable. However, medicines also included cheap and widely available

⁷¹ Porter, *Health for sale*, pp. 49–51.

⁷² Douglas, *Purity and danger*.

⁷³ Lindemann, *Medicine and society*, pp. 88–91; Wear, *Knowledge and practice*, pp. 87–9.

⁷⁴ Pollard, 'Dangerous remedies'; Harris, *Foreign bodies*, pp. 48–55.

⁷⁵ Wear, *Knowledge and practice*, pp. 46–103.

⁷⁶ Daston and Park, *Wonders*, pp. 144–6.

materials, basic foodstuffs, indigenous plants, and other commonplace substances. There was little that could not be used for medicine, thanks to belief in divine provision for human need.⁷⁷ Knowledge of many such substances was widely diffused, and formed part of the skills expected of women in particular.⁷⁸ Yet in the apothecaries' and druggists' hands, these commonplace materials somehow also became expensive and exclusive, a transformation of muck into brass that seemed to many a uniquely, and unjustifiably, profitable enterprise. As Adam Smith noted in 1776, before contrarily seeking to justify their rewards, 'Apothecaries' profit is become a bye-word, denoting something uncommonly extravagant'.⁷⁹ This problem of profit was compounded by the fact that they were profiting from the sickness and incapacity of others, needs that demanded charity, not charges, from the Christian.⁸⁰ This was an issue that shaped the entire medical sector, manifesting itself in various ways: commercial associations were central to definitions of quackery; conversely some physicians sought payment through 'gifts' rather than settled fees.⁸¹

If the value and safety of medicines was not worrying enough, contemporaries also feared straightforward fraud and deceit by apothecaries.⁸² Critics of apothecaries repeatedly returned to variations on the charge that 'more are killed by the ill-compounded, succidaneous Medicaments of many Apothecaries here in this City, than by the malignity of any distemper whatsoever'.⁸³ Behind this lay a practical issue of information. Compared, say, to judging the quality of a length of cloth or the freshness of fish, drugs presented a technical problem of a different order. It was—and remains—very difficult to evaluate processed medicines or preserved simples.⁸⁴ Concerns among consumers over counterfeited and fraudulent goods were thus redoubled for medical commodities. The undecipherable identity of medicines made them a useful dramatic device, as in the *Family of Love*, where Doctor Glister punished the two gallants who sought to cuckold him by substituting a fierce purge that 'Shall take 'em down' for the mild physic they requested.⁸⁵ To the medical consumer, the possibility that an apothecary might substitute or omit expensive ingredients was less comic. State programmes to police apothecaries and the *materia medica* flourished in parts of Europe, but had little impact in England.⁸⁶ Instead, the sick were left to resort to medical books that promised to discover 'all dangerous mistakes' and uncover medical practitioners' 'subtilty for their own profits'.⁸⁷ No wonder that some contemporaries preferred 'kitchen physic':

⁷⁷ Examples are common in the archives, e.g. Royal College of Physicians, London, Annals, vol. iii, p. 51 (1613); Pomata, *Contracting*, pp. 75–7.

⁷⁸ Wear, *Knowledge and practice*, pp. 48–55; Mendelson and Crawford, *Women*, pp. 224–5.

⁷⁹ Smith suggested that apothecaries obtained profits of 300, 400, or even 1,000 per cent on their goods, but argues that 'This great apparent profit, however is frequently no more than the reasonable wages of labour'. Smith, *Wealth of nations*, vol. i, p. 128.

⁸⁰ Siraisi, *Early Renaissance medicine*, pp. 44–7; Harley, 'Pious physic', pp. 153–5; Harley, 'Good physician'.

⁸¹ Porter, *Health for sale*, p. vii.

⁸² Merrett, *Accomplisht physician*; Harvey, *Family physician*; Wear, *Knowledge and practice*, pp. 73–4.

⁸³ Renou, *Renodaeus*, sig. Nnn 2 ii v. See also Bullein, *Gouvernement of healthe*, f. 121.

⁸⁴ Although see Fissell, *Patients, power and the poor*, p. 40.

⁸⁵ Middleton, *Family of love*, V.i. It also provided a forceful political analogy; see Sacks, 'Countervailing of benefits', pp. 278–9.

⁸⁶ Findlen, *Possessing nature*, pp. 261–72; Reeds, *Botany*; Palmer, 'Pharmacy in Venice'.

⁸⁷ See, for example, Morel, *Expert doctors dispensatory*. See also Harvey, *Family physician*, sig. A2r; Topsell, *Four-footed beasts*, vol. i, pp. 38–9; Slack, 'Vernacular medical literature'.

My kitchin is my Doctor, and my garden,
My college, Master, chiefe Assistant, Warden,
And Pothecarie

was the creed of the sensible householder in John Day's satire of 'an imposterous Quacksalver'.⁸⁸

The difficulties that apothecaries faced as traders in medicines lay behind the material developments within their shops. Shop design was utilized to plot a safe passage through the troublesome waters of consumption, conveying reassuring messages about the quality and value of products, more than enticing promises, to the customer.⁸⁹ The separation that the drug jars established between raw material and finished product and the association between their value and the value of the goods they contained offered a defence of the worth of the apothecaries' labour and the authenticity and reliability of their drugs, signifying, as Hallett has suggested, 'the successful transformation of the natural plant into an imported commodity'.⁹⁰ In their sheer volume and variety, they suggested that the apothecary held at least a significant portion of the massive range of drugs they might require, and so perhaps would be less tempted to adapt a prescription to his means. Similarly, the displays of corporate affiliation made by those jars and pill tiles which bore the arms of the Society of Apothecaries carried an obvious message of identity, reputation, and reliability for customers. Collections of exotica played a related part. In themselves sometimes part of the *materia medica*, these strange animals operated as signs for the foreign and the unknown, the distant quasi-mythical sources of many traditional and new drugs.⁹¹ They indicated the presence of such substances and signified their authenticity, circumventing the problems of judging the substances as such. Equally, they suggested the apothecary's broader learning and skill, and their greater than usual comprehension and mastery of the substances available to preserve and improve health. We need not assume education or literacy on the part of the customer to explain the impact of this kind of display; indeed, apothecaries' customers included men and women from a relatively wide range of backgrounds. Rather, such displays were richly encoded in a way common to early-modern visual practices.⁹²

Any single explanation or reading of an area of material culture must, of course, remain provisional, given the nature of the sources and the multiple and sometimes contradictory meanings they can convey. The shop was a backdrop, a frame for the interactions between apothecaries and their customers that would not be interpreted univocally or even noticed by all. That said, it is striking that some contemporary critics sought to warn people about the potentially misleading nature of apothecaries' shops, suggesting a perception that they were intentionally aimed at gaining the confidence of consumers, even if this ambition was thought by these authors to be pernicious. The relationship between spectacle in the shop and high prices was underlined by the physician Jonathan Goddard in 1670, who

⁸⁸ Day, *Parliament of bees* (1641), character 9. See also Greene, 'A quip for an upstart courtier', cited in Paster, 'Purgation', p. 196.

⁸⁹ On bookshops and similar issues, see Jacobs, 'Buying into classes'.

⁹⁰ Hallett, *Spectacle of difference*, p. 145.

⁹¹ Smith, 'Mystification of spices' pp. 123–4.

⁹² Ashworth, 'Natural history'; Bath, *Speaking pictures*, pp. 8–15; Praz, *Studies*, pp. 50–4; Findlen, *Possessing nature*.

argued that apothecaries were increasingly common because it took 'no great sum to purchase fine painted and gilded Pots, Boxes, & Glasses; and a little stock is improveable to a manifold proportion of what is capable of in other trades'.⁹³

The same connection had been made nearly a century earlier. In a defence of Paracelsianism, published in 1586, the author 'I.W.' noted that apothecaries made Galenic medicines and 'Then are they put up in paynted potts till the sicke sende for them, and (selie soule) many times he giveth a noble for that, which doth him not two pennie woorth of good'.⁹⁴

Critics of apothecaries faced by similar displays elsewhere in Europe made much the same point. In Italy, Tommaso Garzoni accused apothecaries of fraud and pretence, pointing to the 'great capital letters' on their jars and boxes which allude 'to a thousand unguents or confections or precious aromatics, and which are nevertheless empty inside'.⁹⁵ Indeed, as Gentilcore has noted, the lettering used by apothecaries on their containers was distinctive enough to acquire its own label: '*lettere di scatola*'.⁹⁶

IV

I have argued that the apothecary's shop served to complicate and clarify simultaneously. It provided a method of harnessing value much as the spectacle of the nineteenth-century department store would: its richness assured credit and respectability; its permanence was a signifier of quality; and the ordered jars and selected exotica emphasized skill and knowledge, rebuffed accusations of bad drugs and hidden contamination, and offered a guarantee that the ingredients were genuine.⁹⁷ The shop was thus shaped to integrate these messages with apothecaries' practical needs for the storage and arrangement of a copious array of drugs.

Through these technologies of display, apothecaries attempted to deal with a problematic product and mode of production in the absence of effective institutional reassurances for the public. These shops manifested pressures that are also visible in the material practices of other parts of medicine. Most obviously, similar objects, especially jars and exotica, could be seen in barber-surgeons' shops, although in far lower volumes.⁹⁸ Display, through dress or performance, was also a common characteristic of empirics, astrologers, and quacks, often distinguished by accompanying monkeys or 'wast trinkets', and, in inverted form, in the scholarly garb and docile mount, or sober carriage, of the physician.⁹⁹ Early-modern medical practitioners, as satire after satire suggests, were particularly prone to relative

⁹³ Goddard, *Discourse*, p. 40.

⁹⁴ I.W., *Copie of a letter*, sig. A5r.

⁹⁵ *La piazza universale di tutte le professioni del mondo* (1585), quoted in Gentilcore, 'For the protection', p. 115.

⁹⁶ Gentilcore, 'For the protection', p. 121.

⁹⁷ Glennie and Thrift, 'Consumers', p. 37; Hann and Stobart, 'Sites of consumption'.

⁹⁸ Several examples are apparent in the paintings reproduced in Pelling, 'The body's extremities', pp. 222, 226, 228–9. Prints linking jars and exotica to medical practitioners include Martin Droeshout, *Doctor Panurgus* (c.1620), and the title page to Helkiah Crooke, *Microcosmographia* (1613), also engraved by Droeshout (see Hind, Corbett, and Norton, *Engraving*, plates 224(a), 227).

⁹⁹ Nashe, *Works*, vol. i, p. 364; Primerose, *Popular errors*, sig. Bii. More generally, see Katritzky, 'Marketing medicine'.

excesses of display that can best be explained with regard to the characteristics of the commodities and services they sold.¹⁰⁰

The pervasive nature of concerns over quality also produced the precocious use of packaging, branding, and advertising in the promotion and sale of medicines. The best-known examples are the proprietary medicines of the Restoration era, recently discussed by Styles, but their manufacturers did not invent such techniques.¹⁰¹ The surgeon John Woodall recalled a Dutch apothecary using ingeniously marked pewter boxes to pass off fake mithridatium and theriac as the genuine Venetian article around 1600, underlining both the importance of such devices and their vulnerability.¹⁰² To the extent that a chronology can be established for the changes in apothecaries' shops discussed here, the development of the majolica industry and the comments of Elizabethan and Stuart dramatists suggest that they were well underway by the late-sixteenth century, even if the extent of display, and particularly the use of large sets of jars, continued to grow over time.

The important part played in this process by the imitation of pre-existing continental forms indicates that these developments in apothecaries' shops were not a local innovation but a product of the relationship between London and northern Europe. Apothecaries' shops across Europe appear to have developed in broadly similar ways, with latecomers borrowing objects and ideas from abroad, much as 'cultural borrowing' drove changes in English luxury consumption of other kinds.¹⁰³ English and Dutch shops, in particular, seem almost identical in form and content. However, both majolica jars and displays of exotica were developed first, and reached their greatest degree of elaboration, in Italy.¹⁰⁴ They were, if anything, simplified in the north. This was, therefore, a display strategy that was imported and adopted in England, much as technologies of production such as silk-weaving, beer brewing, and distilling had been. As in these other cases of transmission, immigrants played a vital role in the process of introduction, both in supplying technical skills and, as prominent practitioners, in shaping the medical context.¹⁰⁵ The similarities of shop form and display that can be observed across Europe underline the fact that medical practitioners across Europe were enthusiastic developers of flamboyant commercial practices.

In the context of the rise of consumption in England, apothecaries' commercial practices indicate the leading role of producer-retailers in the development of retailing techniques, rather than the dedicated retailers, such as mercers, grocers, tea-sellers, and drapers, who have drawn most historians' attention. This was, in London at least, a distinctive phenomenon by the start of the seventeenth century, and even later in the century many retailers continue to produce or wholesale goods in addition to selling them directly. The broad significance of producer-retailers can, for example, be seen in the apothecaries, armourers, goldsmiths,

¹⁰⁰ The impossibility of ascribing single meanings to goods in consumption is well discussed in Miller, *Dialectics of shopping*.

¹⁰¹ Styles, 'Product innovation', pp. 148–58.

¹⁰² Appleby, 'Woodall, John'.

¹⁰³ Peck, *Consuming*, pp. 73–111.

¹⁰⁴ Apothecaries in Catalonia and southern France seem to have adopted similar strategies: Bénézet, *Pharmacie*, pp. 251–336.

¹⁰⁵ Luu, *Immigrants*; Keene, 'Material London', pp. 65–9.

glaziers, and booksellers who dominated the finest retail space of all, the Royal Exchange. Studies of particular retail trades remain scarce, but it is surely significant that the other group of early-modern tradesmen known to have invested heavily in shop display were goldsmiths. Obviously, goldsmiths targeted wealthy customers, and thus fashion and politeness were considerations. Yet to explain their particular investment and style of material culture, we need to consider the characteristics of their products.

Indeed, goldsmiths present a pattern of concerns similar to that discussed here for medicine. Like the apothecaries, goldsmiths dealt in high-value commodities where the complexity of production and the difficulties of evaluating quality worried consumers for good reason. The similarity goes further, in that goldsmiths also faced a practical storage problem of their own, in their need to show off their products without allowing easy access to thieves. The proximity of the goldsmiths to the apothecaries in London—both clustered in the wealthy streets around Cheapside—suggests the possibility that this district of the city fostered retailing innovation through spill-overs between different specialized groups.¹⁰⁶ Goldsmiths were extremely highly regulated by contemporary standards.¹⁰⁷ Yet even this level of supervision was far from a perfect guarantee for the items they sold. As has been observed here for the city's apothecaries, one response to this can be seen in the ornate display cases, velvet-lined drawers, and large windows with which they fitted up their shops: an array that underlined the reliability, trustworthiness, and honour of them and their goods, as well as their tastefulness and fashionability. The connection between the particularities of the product and shop form is, however, most apparent here in an absence: goldsmiths continued to rely on natural light at a time when many retailers, particularly drapers and china-sellers, were becoming heavy users of candles and mirrors to give an artificial brightness to their shops.¹⁰⁸ The suspicion of lighting as a device for deceit was too strong for a substance as valuable as gold to be judged and sold by candlelight.

More important here than questions of leading and lagging retail sectors is the interpretation of the meaning and purpose of shop design and its relationship to consumption. Much recent research has examined the relationship between shops and polite sociability in the long eighteenth century. The investments in fixtures—such as glass windows, mouldings, classical pillars, and sculpted archways—and furnishings, particularly display cases, cabinets, chairs, mirrors, cushions, and prints, that Walsh has shown helped to make London drapers, mercers, and other tradesmen's shops more comfortable and alluring in the late-seventeenth century have been rightly identified with fostering polite shopping.¹⁰⁹ Stobart and Hann and Mui and Mui have identified similar changes occurring in shops in the provinces as they expanded over the eighteenth century.¹¹⁰ These studies reveal the intimate relationship between shop design and fashion, polite sociability, and consumption. Shops, in these accounts, both provide access to and help generate demand for commodities by offering a space

¹⁰⁶ Walsh, 'Goldsmiths' shops'.

¹⁰⁷ Griffiths, 'Politics'; Forbes, 'Search'.

¹⁰⁸ Walsh, 'Newness', p. 49.

¹⁰⁹ Walsh, 'Goldsmiths' shops'; *idem*, 'Shop design'; *idem*, 'Social meaning'.

¹¹⁰ Hann and Stobart, 'Sites of consumption'; Stobart, 'Shopping streets'; Stobart and Hann, 'Retailing revolution'; Stobart, 'Leisure and shopping'; Mui and Mui, *Shops*.

for social as much as commercial interaction that is carefully attuned to the status, aspirations, and tastes of shoppers. The shop is thus part and parcel of the construction of social identity through consumption.

Although they apparently served much the same middling and genteel market, apothecaries' shops were less visibly focused on polite interaction, taking tea, or socializing in this way, with little sign of investments in pictures, chairs, or cushions, let alone mirrors. The medical commodities they primarily sold were of course less likely to attract a browsing shopper than trinkets, fine cloths, or laces. Despite this, some do clearly act as sites for entertainment, conversation, and discussion, as well as the more particular kinds of natural philosophical enquiry and experiment which were facilitated by the natural curiosities and scientific devices they contained. Apothecaries' shops in France and Italy held a comparable position.¹¹¹ Similarly, impressing prospective customers with their respectability and credit was a concern shared by apothecaries and the most fashionable of West End drapers alike. To some extent, what we have observed of apothecaries' shops can therefore be fitted into the predominant social explanation for changes in shopping. However, the issues explored here about the relationship between shop design and concerns over quality, reliability, and commodification indicate the need to balance assumptions about the positive potential of shopping.

Two interrelated points might therefore be made in conclusion. First, it is clear that there is a need to better integrate the characteristics of products into accounts of retailing and consumption, and in particular to consider their effect on the need to reassure as well as to enthuse customers. This is an issue that has been overlooked in most studies of consumption and retailing, which instead have tended to emphasize the role of shops as agents shaping a limited set of external product characteristics, particularly fashionability and status.¹¹² Second, attending to the implications of the commodity and its technical and social characteristics will oblige us to differentiate more clearly between varieties of shops, rather than addressing them as a homogenous phenomenon.

I have argued that medical commodities were the focus of unusually intense anxiety for various reasons linked to the nature of the products, the production processes, their application, and purpose. However, all commodities were likely to raise broadly comparable questions in the minds of consumers. This can be observed with even the most familiar of products, such as textiles. An incident recorded in 1830 by the Yorkshire schoolmaster Robert Sharp neatly captures the persistence of concerns about fraud, quality, and value in fashionable consumption. With a friend, he had 'bought a handkerchief which the dealer told us was real Indian silk we gave 2s. a piece for them, and now we are told they are Cotton, worth nothing at all'. Sharp disputed this on economic, empirical, and social grounds: 'I say Cotton handkerchiefs are not to be wasted, though I really believe they are silk, and those who depreciate them, are sorry we had them so cheap'.¹¹³ Sharp does not describe the dealer's shop, but as we would expect, the effect of these concerns can be recognized in the way cloth was often sold. In drapers' and

¹¹¹ Bénézet, *Pharmacie*, p. 264; Gentilcore, 'For the protection', p. 111.

¹¹² The attention to skill and trustworthiness in Hann and Stobart, 'Sites of consumption', is a notable exception.

¹¹³ Finn, 'Men's things', p. 140.

haberdashers' shops, bolts of fabric were often hung from rods or poles, turning it into the central element of the shop display, while simultaneously offering it up for the direct physical inspection of the shopper. Shopping of all kinds continued to demand the exercise of skill and discernment, with even the politest purchasing remaining 'a visual and tactile experience, with proper scrutiny and inspection of the goods on sale', as Berry has recently noted.¹¹⁴ Much like the behaviour of the shopper and shopkeeper, the shop itself was shaped by these pressures. As the case of the apothecary's shop suggests, consumption demands more from material culture than the cultivation of consumers' desires.

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¹¹⁴ Berry, 'Polite consumption', p. 387.

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