

# Furnishing the Shop: The Material Culture of Apothecaries in Britain and the Atlantic World (c.1617-1815)

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## Abstract

This thesis examines the material culture evidence for the apothecary shops of Britain, Ireland, and British North America between 1617 when the Society of Apothecaries of London was founded and 1815 when the Apothecaries Act made the apothecary a general practitioner of medicine. Given their ubiquity, and the centrality of material culture to both their medical practice and retail spaces, a thorough material assessment of apothecaries is a notable gap in the historiography of the seventeenth and eighteenth centuries which this important interdisciplinary thesis fills.

First, the thesis explores the visual and material experience of apothecaries' shops utilising ten archaeological assemblages from the City of London, Stratford, Brentford, Colchester, Norwich, Dublin, and Williamsburg VA, along with probate inventories and contemporary manuscript and printed sources. It examines the remarkable similarity of these spaces in this period and across the North Atlantic and explains potential differences. Second, the thesis draws on the same array of sources, as well as trade cards and prints, to explore how and why apothecaries used their material culture within the shop to engender trust in their patients as medicine became removed from home-produced, traditional herbal remedies. Finally, this thesis explores the role of apothecaries in integrating newly 'discovered' and imported *materia medica* into acceptable consumption for British patients whilst simultaneously emphasising their mastery of nature through participation in global networks of knowledge exchange and enquiry, and by displaying *naturalia* in their shops.

The thesis concludes that apothecaries, although largely overlooked within medical, scientific, and social history, were important agents of historical change in the seventeenth and eighteenth centuries. Making conscious use of material culture to create remarkably similar visual and material experiences, their shops were both a space of broad and unusual encounter with the products of the global trade in medicinal plants and knowledge, and a space of anxiety, where harm and healing were closely associated. The unfamiliarity of the materials that apothecaries sold, and their changing position within the medical marketplace, forced them to work hard to introduce and contextualise these products within systems of medicine and acceptable consumption so that they might engender trust which would allow them to provide care for their patients and profit.

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## Introduction

A green cross illuminated in flickering light or painted on a sign outside; workers in starched white coats, washed out by harsh fluorescent lighting; open racks of myriad boxed medicines; the feel of plastic, child-locked bottles or a foil-covered blister pack of pills; packages opened with practised gestures; a sterile scent in the air; and rows of shelves bearing health, hygiene, and cosmetic products. The modern experience of pharmacies, at least in Europe and its historic colonies, is consistent and familiar. Visiting a CVS or Walgreens in the USA shares much with a visit to Boots, Lloyds, or one of any number of family-run pharmacies across Europe. Moreover, the near-universal experience of these spaces is heavily mediated by material culture. Each of the elements listed above are material, visual, and sensory indicators that we are in a space where medicines are sold, where care and expertise can be found, and usually, where a variety of other goods can also be purchased, from cosmetics to chocolate. This material mediation of the purchase of medicines goes, as intended, largely unnoticed, but forms a frame by which we can understand the purpose of the shop we have stepped into, regardless of language barriers or the otherwise unfamiliar place we might be visiting.

The place of purchase and, until relatively recently, of compounding and dispensing medicines is not just a feature of the modern pharmacy. This thesis contends that similar material mediation of space was a key feature of apothecaries' shops in the seventeenth and eighteenth centuries across Britain and the North Atlantic. The seventeenth and eighteenth centuries are of particular importance for this idea as they are centuries of increasing consumption where the variety, value, and meanings of material culture available to the majority of people expanded rapidly. They are also the centuries where the ingredients of

medicinal preparations became increasingly unfamiliar to the consumer through developments in scientific knowledge, an expanding colonial and global world, and the creation of what has come to be termed the 'medical marketplace' which featured competition and rivalry between different categories of practitioner. Although apothecaries in the seventeenth and eighteenth centuries were not simply early pharmacists, they did sell medicines and their practice forms the basis for retail medicine in the modern European and western world. Apothecaries' shops were a ubiquitous urban phenomenon that served arguably the largest section of the population of all professional medical practitioners in the post-medieval period, and their shops were such a materially-mediated space that an assessment of the material culture of apothecaries of the seventeenth and eighteenth centuries is overdue (Burnby, 1983: 3; King, 2006: 78). It is the aim of this thesis to contribute such an assessment to the literature and to suggest routes for further investigation of these key spaces in these centuries.

Apothecaries are a valuable subject of study because they existed at the intersection of many different areas of social, scientific, medical, and global change in the seventeenth and eighteenth centuries. Situated between science and commerce, retail and medicine, and tradesman and professional, apothecaries' shops were the key spaces in which the public encountered these varied roles, types of knowledge, and accelerating change. These encounters can be examined through the choices which apothecaries made when furnishing their shops, through understanding public exposure to imported *naturalia* and *materia medica* in these spaces, and through the performative nature of pharmaceutical compounding and dispensing in these centuries. As Paul Starr (1982: 4) explains, medical practitioners 'come into direct and intimate contact with people in their daily lives; they are

present at critical transitional moments of existence', and so are a good lens to examine all levels and aspects of society. This is never truer than in a period of significant social, global, and imperial change where conceptions of the world and access to its products were expanding for all levels of British society.

Furthermore, within medical histories the 'history of pharmacy has tended to overshadow the history of the pharmacist' (Gentilcore, 2003: 91). This fact is in part the impetus for this study; we know more about the medicines and therapeutics of the early modern period than we do about the social importance of the retail and medical institution responsible for preparing and dispensing those medicines despite their ubiquity in urban centres. This thesis then makes a contribution to the social history of medicine, examining the activities of an often-overlooked class of medical practitioner for insight into their roles in scientific advancement, the acculturation of new *materia medica* and the potential of studying apothecaries to examine issues of access to and engagement with the medical marketplace across Britain and the North Atlantic in the seventeenth and eighteenth centuries.

To fully study the material culture of a profession in these centuries it is not enough to rely on any single type of evidence, instead it is necessary to take an interdisciplinary approach which integrates both archaeological and historical sources. The 'material turn' in history has encouraged engagement with material culture sources but generally has relied on the individual object, the rare survival, and done so to support documentary analyses (Pennell, 2010: 27; 2012: 65; Findlen, 2013: 13-14). Archaeological approaches to historical periods also grapple with the intersection of text and artefact but often reach the opposite compromise, centring the assemblage and using documents as, at best, supporting context (Moreland,



2001: 103). This thesis has taken a broader approach, integrating large archaeological assemblages from the period with varied manuscript and printed sources, working to position neither group of sources as more significant, rather, attempting to integrate the two to demonstrate the importance and value of a broad theoretical and multi-disciplinary approach to the study of the material culture of historical periods. This is an approach argued for as early as 1998 by Anders Andrén (1998: 155) but has rarely been attempted.

The thesis focuses on the period c.1617-1815. It does so because this span starts with the chartering of the Society of Apothecaries of London, which legitimised the profession as a separate group and threatened the supremacy of the Physicians in the medical marketplace, and ends with the Apothecaries Act of 1815 (55 Geo. 53., c.194) which legally transformed the apothecary into what we might recognise as a 'General Practitioner' of medicine rather than a retailer and created the separate classification of dispensing chemist. Further, this period also places the Rose Case from the House of Lords in 1704 as a central turning point, after which apothecaries were allowed legally to advise their patients on medical matters, although they could only charge for the medicines they dispensed (The House of Lords, 1704). Each of these events shifted the role, legitimacy, and social position of apothecaries and so are key to conflicts between the College of Physicians and apothecaries which are explored later in this thesis.

The three areas of enquiry which this thesis focuses on within that period are: Firstly, what was the visual and material experience of apothecaries' shops in the seventeenth and eighteenth centuries? How did it change throughout this period, if indeed it did, and what similarities and differences were there depending on the location of the shop, in the

metropole, the provinces, or colonial cities? Secondly, having established the material and visual environment, how did apothecaries manipulate their shop and its furnishings to engender trust in their patients? This was particularly important in the face of repeated attacks in published pamphlets from those who opposed the profession and as medicine became more and more removed from the familiar and traditional remedies their customers may have expected. Finally, how did apothecaries integrate newly 'discovered' and imported *materia medica* into acceptable consumption for their British patients, whether in London, the provinces, or the colonies, whilst simultaneously emphasising their mastery of nature through displaying their participation in global networks of knowledge exchange and enquiry?

The thesis seeks to answer these research questions through analysing a range of primary sources including ten archaeological sites from across the British North Atlantic with substantial assemblages of apothecary material culture, probate inventories, commercial inventories, pamphlets published by apothecaries and physicians as they competed in the medical marketplace of the seventeenth and eighteenth centuries as well as published volumes related to medicine including pharmacopoeias, medicinal and retail guides, trade cards and satirical prints. Utilising such a broad range of sources necessitates that this thesis takes an interdisciplinary approach, and such interdisciplinary research requires engagement with new ways of writing. Although the timeframe of this study is largely defined by events in Britain this thesis also includes work on the material culture and shops of apothecaries in Dublin and Virginia in Colonial North America. These regions were selected in part because they provide significant archaeological evidence through excavations of apothecary shops dated to the period of study, and because these places are influenced by, but remote both geographically and in some ways culturally from, Britain which forms the centre of influence

in this study. Furthermore, although there have been some attempts to study apothecaries as a profession, and their role in the development of seventeenth- and eighteenth-century science and medicine, there is a paucity of such studies for the North Atlantic as a whole, and so North America and Ireland are included alongside Britain in this study project.

Working primarily between the conventions of archaeology and history this thesis is divided into three main parts: Historiography and Methodology, Data Presentation and Analysis, and finally Interpretation and Discussion. This division allows the thesis to thoroughly examine the above research questions in an iterative structure that integrates the contributions of both disciplines to which this thesis relates. In the Historiography and Methodology section, Chapter 1 provides a brief history of the profession of the apothecary in Britain, Ireland and Colonial North America alongside a consideration of the existing historiography of apothecaries within social, economic, and medical histories in these regions, whilst Chapter 2 explores the value of material culture approaches to seventeenth- and eighteenth-century historical enquiry, examining approaches and methodologies as well as the existing material culture historiography of apothecaries and their shops, before explaining the approach to be taken in the rest of the thesis. The thesis takes as its starting point the archaeological and material remains of apothecary shops but then incorporates contemporary printed sources, manuscript sources, and pictorial depictions of these spaces as equally important for the ultimate analysis.

The gaps in existing research and a methodology for approaching these data established, Chapters 3 and 4 form the Data Presentation and Analysis portion of the thesis. Chapter 3 presents the archaeological data from six apothecary shop sites in the City of London and the

close-by towns of Stratford and Brentford. Along with Chapter 4 which presents the archaeological data from two provincial English, one Irish, and one North American apothecary shop site, these two chapters analyse issues of regionality and chronology in the material and visual aspects of these spaces, considering the archaeological data and incorporating evidence from probate inventories, shop documents, and contemporary printed materials. These chapters form the first ever synthesis of the archaeological data relating to the profession of the apothecary in the seventeenth- and eighteenth-century British North Atlantic, and as such are a significant contribution to the discipline. Having presented and analysed the main datasets with which apothecaries' shops in these centuries can be explored, Chapters 5 and 6 form the Interpretation and Discussion section of the thesis, utilising the material evidence and methodology set out in the previous two sections to explore specific historical questions to which analysis of apothecaries' shops in the seventeenth and eighteenth century can make a valuable and hitherto unrecognised contribution.

Chapter 5 incorporates a wide variety of these identified data and also pictorial representations of apothecary's shops on trade cards and in satirical prints to explore the ways in which apothecaries made active choices, mediated through their material culture, to engender trust and communicate knowledgeability to their customers, something which became necessary as their profession was attacked by competing interests, especially in London, and as commercial medicine incorporated more ingredients, both botanical and chymical, which were not familiar to the traditional home-based herbal medical practice passed down from the medieval period. Chapter 6 in turn explores in depth the ways in which apothecaries used their material environment to facilitate the introduction of this new and

unusual *materia medica* into acceptable medical consumption across the British North Atlantic whilst at the same time emphasising their mastery of nature, which could be dangerous and alien, to facilitate their continued role as retailers of, and experts regarding, these global products. Finally, I offer concluding thoughts on the value of a broad material culture centred approach to the history of this institution sitting at the nexus of retail, global, and medical history which has so far been largely overlooked, and some indications of future avenues of research which would be valuable to increase further our understanding of seventeenth- and eighteenth-century apothecaries and their shops.

## **Chapter 1 - The History and Historiography of the Apothecary**

Many people today consider apothecaries to be predecessors of modern pharmacists, compounding and dispensing drugs to patients based upon a prescription. However, this is a flawed and limited understanding, that ignores the other products that apothecaries in the early modern period sold and their position at the centre of increasing global networks of trade, provision of social care, changing attitudes to medicine, scientific advancement, and developments in retail culture. Furthermore, apothecaries were not the only ones selling medicines; charlatans, folk healers and others were trying to create for themselves a position and social identity at least in part by providing medications (Gentilcore, 2003: 93). Simply defining apothecaries as providers of medicines ignores the multiplicity of roles that they played in early modern society. This chapter will therefore outline a brief history of the profession of the apothecary in Britain, Ireland, and British Colonies in the Atlantic, before exploring their position within several key areas of interest in early modern historical research, highlighting the areas where these studies are still lacking and where archaeology and a material culture approach may be able to make a valuable contribution such as the visual and material experience of the shop space, and the way that apothecaries introduced new *materia medica* to the consuming public in the British North Atlantic.

### **1.1 A Brief History of Apothecaries**

Most of the historical understanding of apothecary shops in the period before that examined in this thesis is outside of Britain. Significant work on the apothecary shops of Florence and Italy more generally has been carried out but these focus almost solely on the shop accounts and not the material culture used in these spaces.

### **1.1.1 England**

Apothecaries are first recorded, under that name, in Britain in the later twelfth century, selling spices and imported goods. At this early date there is little evidence for apothecaries and their shops in Britain, or indeed in Europe. The historiography of the profession has focused on better documented locations and periods and so the best evidence for early apothecary practices comes from the fifteenth century in Italy, especially Florence and Venice where studies based in shop account books and governmental documentation have explored the medicines and social position of apothecaries in these centres and have touched upon the spatial arrangement of the shops, drawing on early visual sources (de Vivo, 2007; Welch, 2008; 2009: 67, 151; Welch & Shaw, 2011; Douwes, 2020).

The lack of evidence in Britain during this early period is at least in part due to the fact that by the mid-fifteenth century apothecaries were securely under the purview of the Company of Grocers who had inspection privileges over all shops which sold drugs, ointments, and spices (Grier, 1937: 38; Rolleston, 1937; Schmeidler, 1944: 33; Homan, 2005: 117). Indeed, the distinction between Grocer and Apothecary may have been a largely personal one as Grocers themselves also sold the same 'medical' commodities alongside other imported materials (Nightingale, 1995). Until the late sixteenth century, apothecaries were essentially specialised grocers who stocked and compounded medicines, nominally on the orders of physicians, as well as more general, usually imported, spices and other products. Although they were widely considered as retailers and not medical practitioners, they were nevertheless an integral part of the medical marketplace during the medieval and early post-medieval period.

Apothecaries were one of the three main branches of medicine, each of whom had legally defined rights and duties; physicians advised on matters of physic and prescribed medications, apothecaries compounded and dispensed those prescriptions, and surgeons performed all types of physical intervention from bloodletting to amputation and trepanation. The supposed social station of apothecaries as simply tradesmen can also be seen in a 1579 description of an apothecary by the physician William Bullein (1579: 403):

[The apothecary]

- i. Must first serve God, foresee the end, be cleanly, and pity the poore
- ...
- iii. His place of dwelling & shop must be cleanly, to please the sense withall
- iiii. His garden must be at hand with plenty of herbs, seeds and roots
- ...
- vi. To read Dioscorides, to know the natures of plants & herbes &c.
- ...
- viii. To have his mortars, stilles, pottes, filters, glasses, boxes clean and sweete &c.
- ...
- xi. To have two places in his shop, one most cleane for the Phisik and a baser place, for Chirurgie stuffe
- xii. That he neither increase, nor diminish the Phisicians bill, and kepe it for his own Discharge
- xvii. That he meddle only in his own vocation
- xix. That he do remember his office is only to be the Phisicians Cooke

This description emphasises the subservient position of apothecaries to the more learned physicians but also notes that they should be able to perform some minor surgical procedures in addition to their duties as the medical 'cook' (Cowen, 1976: 83). This description then shows that even in the professional opinion of a physician, there was not a clear separation between different classes of medical practitioner in the medieval period and into the sixteenth century (Shyrock, 1960: 5, 10; Sonnedecker, 1963: 93; Beier, 1987: 167; Bynum, 1994: 6; King, 2006: 50). Due to such blurred definitions of the apothecary, as well as the



apothecaries' belief that they were best placed and trained to judge the purity of drugs, there was significant pressure throughout the last decades of the sixteenth century for a separate Society or Company of Apothecaries who could establish a distinct profession and ensure quality of practice (Grier, 1937: 110).

After petitions in 1613-1614, James I granted a charter in 1617 to the new Worshipful Society of Apothecaries ('Society' is used in the charter but in common usage 'Company' was preferred until the mid-eighteenth century) along with a monopoly on keeping and inspecting apothecary shops within 7 miles of London (Corfe, 1897; Grier, 1937: 110-111; Copeman, 1967: 10). By 1694 there were 1000 members of the Society and many of these apothecaries had started to act as general medical practitioners rather than just tradesmen; their shops became consulting rooms as well as retail spaces despite the supposed illegality of encroaching into the monopoly of the College of Physicians (Cook, 1986: 47; Loudon, 1986: 20-21; Beier, 1987: 14-15). In the last quarter of the seventeenth century therefore, open (corporate) conflict between the Physicians and Apothecaries erupted with both sides publishing pamphlets in support of the superiority of their profession (Schmeidler, 1944: 39). The success of the Society in legitimising and embedding apothecaries in the medical marketplace through the course of the seventeenth and eighteenth centuries, however, can be seen in the contracts that the Society signed with government bodies. They, for example, had a monopoly on supplying drugs to the Royal Navy from 1703 and contracts to supply large quantities of drugs to the East India Company after 1766 (Sonnedecker, 1963: 97; Anderson, 2009: 13).

Despite the legitimacy that these prominent contracts gave apothecaries, The Royal College

of Physicians started to sue individual apothecaries for the illegal practise of physick, an area of medicine which they considered their preserve alone (Beier, 1987: 28; Wallis, 2007: 55). It is interesting, however, that alibis were often provided by physicians who claimed that they had been consulted by the apothecary in question but never saw the patient, a legitimate way to practise medicine at the time (Watson, 1965: 45-47; Wallis, 2007: 55). The fact that there were physicians who were willing to testify to this, in some cases possibly perjuring themselves, shows that despite the distaste of the College, physicians and apothecaries were both invested in the ability of the apothecaries and other 'street-level' practitioners to be able to practise medicine beyond the strict boundaries of their profession (Wallis, 2007: 56). The grievances regarding the illegal practise of physic were only legally settled when The House of Lords (1704) ruled, in 'The Rose Case', that apothecaries could consult with patients but reaffirmed that they could only charge for the medicines that they dispensed and not their advice (Grier, 1937: 112; Loudon, 1986: 22-24; Burnby, 1989: 18). The Rose Case and its subsequent application meant that from the middle of the eighteenth century apothecaries began to be regarded more as professionals than tradespersons, although the stigma of keeping a shop never fully went away (Loudon, 1986: 68-69). Even after the apparent resolution provided by the Rose Case, however, the Royal College of Physicians continued to be at odds with the Society of Apothecaries and regularly accused them of selling sub-par products or being otherwise a danger to the health of the population (Grier, 1937: 112; Beier, 1987: 10; Cohen, 2004: 142). The apothecaries naturally responded to these attacks, both in print and materially in their shops, and these will form a key part of the analysis later in this thesis (see Chapter 5).

Outside of the contentious situation in London, medical practice in provincial and rural areas

of England never really reflected the tripartite medical hierarchy that the Royal College of Physicians consistently fought to protect through the seventeenth century. One practitioner was usually responsible for all aspects of medical care and since market towns rarely had formally trained physicians this fell to the resident apothecary, whose patients generally called them 'Doctor' regardless of their training and who could even appear as a physician in local records (Loudon, 1986: 20-21; Porter, 1987: 41; Mortimer, 2009: 68). A recent research project from the University of Exeter to create a database of medical practitioners in England between c.1500 and 1750 (<http://practitioners.exeter.ac.uk>) has confirmed this low number of qualified physicians outside of London, and a significant quantity of medical practices by other individuals who nonetheless were sometimes referred to as doctors (Barry, 2019: 139). In Kent for example, George Baily, an apothecary (according to his probate account), was described as a physician in records relating to his activities (Mortimer, 2009: 70). In smaller towns and villages an apothecary would not belong to a specialised guild or even have formal training, and they usually treated pharmaceutical practice as a supplement to their regular businesses of grocery or tavern-keeping (Lindemann, 1999: 216; Mortimer, 2009: 71). Most larger provincial towns also did not have enough apothecaries to replicate the specialised guild in London and so many apothecaries in these places belonged to mixed guilds, such as the Grocers or Mercers, although in Norwich there was an independent apothecary guild by 1622 (Whittet, 1989: 20; Pelling, 1998: 208-212; Rawcliffe, 2013: 303). The situation in Scotland was somewhat different to that in London, with no corporate body to which apothecaries could belong, but, like their London, rural, and provincial colleagues apothecaries nonetheless acted as general practitioners to such an extent that 'apothecary' became a generic term for a medical practitioner (Dingwall, 1995: 185-186).

The rural and provincial situation, the conflict between governing bodies, and the equal opportunity application of the honorific 'Doctor', permanently blurred the lines between the different categories of medical practitioner through the seventeenth century. As the three branches of the old tripartite system of medicine integrated more fully in the eighteenth century, combination titles, such as surgeon-apothecary, became more common and were used interchangeably (Porter, 1987: 19; Burnby, 1989: 18; Grogan, 2017: 8-9). More than 80 per cent of practitioners in provincial England by 1783 were categorised as surgeon-apothecaries, which thanks to the Rose Case meant that these practitioners could work in all three of the supposedly separate branches of medicine (Loudon, 1986: 22-24; Corfield, 2009: 6). As apothecaries therefore trended towards becoming general medical practitioners (as we might understand it today) in the last quarter of the eighteenth century, a large part of their compounding work was taken over by 'pharmaceutical chemists' and 'druggists' (Hazen, 1841: 74-75; Wall *et al.*, 1963: 192; Fissell, 1991: 57). Although this group of pharmacy practitioners were not legally medical practitioners, they were, like the apothecaries before them, regarded suspiciously by physicians who were sceptical of their qualification to produce medicines. They also made use of the same retail environment as apothecaries in earlier decades. For this reason, they are included in the category of 'apothecary' within this thesis.

The overlap of categories and the blurred lines between medical practitioner and medicine retailer culminated in the Apothecaries Act 1815 (55 Geo 53. c. 194), which forms the end of the period of study for this thesis. The Act forbade unqualified persons from practising medicine in any form and extended the oversight of the Society of Apothecaries to the whole country. As this Act fully recognised apothecaries as qualified medical practitioners, from this point they focused almost entirely on their 'general practice' of medicine and left their

previous compounding and dispensing work wholly to pharmaceutical chemists and druggists whom the act allowed to legally compound, dispense and buy medical preparations but gave no ability to practise medicine.

### **1.1.2 Ireland**

Technically a separate territory with its own laws until 1801, when the Acts of Union (39&40 Geo. 33, c. 67; 40 Geo. 43, c. 38) came into force, the Kingdom of Ireland was functionally controlled by the Parliament of England and later the Parliament of Great Britain who had to approve all acts of the Parliament of Ireland (Pack, 2002: 6). This meant that there was a similar architecture of control over medical practice in both countries, which in Ireland supplanted a system of hereditary 'physicians' linked to specific noble or chieftain families (Fleetwood, 1983: 20). The first individual in Dublin explicitly referred to as an apothecary was an English settler named Thomas Smith who arrived before 1566. John Fleetwood (1983: 81) claims that Smith initially only served English settlers and the nobility as apparently his wares were too expensive for the 'native Irish'.

The earliest date of a formal organisation including apothecaries was in 1687 when apothecaries were incorporated into the guild of St Mary Magdalene of Ireland alongside barber-surgeons and wig-makers (Wilkinson, 2008: 159). The first organisation solely of apothecaries was the Guild of St. Luke which was established by a Royal Charter granted by George II in 1754 (Fleetwood, 1983: 83; Wilkinson, 2008: 159; Wheelock, 2011: 2). The guild was controlled by the King and Queen's College of Physicians in Ireland who had inspection privileges over apothecaries' shops, but it was able to regulate its membership with some autonomy (Fleetwood, 1983: 82). Slowly, over the next three decades, apothecaries were

given the same social and legal status as surgeons or physicians and so became medical practitioners under the law (Fleetwood, 1983: 84). Succeeding the Guild of St Luke, the Apothecaries' Hall of Ireland was established in 1791 (31 Geo. 3, c. 34). Membership was open to all apothecaries in Dublin and the Act placed restrictions on the apprentices who could be taken by apothecaries. It also required a certificate be obtained from the Hall by anyone who wished to open a new apothecary shop in Dublin and placed restrictions on the sale and storage of arsenic and painters' pigments (Fleetwood, 1983: 87). Although around a century behind the progression of the legal status of the profession in Britain, the social position and normal mode of practice of apothecaries were broadly the same in both countries which makes a comparison of their archaeology and material culture a valuable exercise to explore the differences between apothecaries in the metropole and those in a prominent but secondary city.

### **1.1.3 Colonial North America**

Medical practice in the British Atlantic colonies developed rather differently. In J.H. Cassedy's (1991: 8) general history of medicine in America, he notes that in the British Colonies there was usually no official provision for medical care, especially after the crown asserted control. Medicine was instead practised by colonists who happened to have pre-existing knowledge, usually surgeons, surgeon-apothecaries, or apothecaries, but also grocers, and women who came to be described as 'doctoresses' and whose practice was accepted without controversy until nineteenth-century education requirements *de facto* excluded women from medical practice (Sonnedecker, 1963: 134; Lerner, 1969: 7-9; Cassedy, 1991: 8). These practitioners would, through necessity, practise all branches of medicine, no matter their training, and colonists came to expect all of their medical care to come from one individual (Cowen, 1975c:

8; 1975d: 8; 1975e: 12; Duffy, 1978: 131). As early as the 1750s commentators and historians of the colony of New York were claiming that in the earlier colonial period anyone who wanted to set up as a physician, apothecary or surgeon could, and did, with no oversight (Shyrock, 1967: 5).

The lack of tripartite division, and oversight, is easiest to see in the earliest colonial period when amongst the first colonists was invariably a person described as a physician, surgeon, or apothecary who nevertheless would have needed to practise all branches of medicine (Bell Jr., 1978: 43). In Jamestown, VA, for example, the second medical man to arrive was described both as a surgeon, doctor, and distiller, which combines elements of all three areas of medical practice, and there were only five individuals described as an apothecary in the colony across the whole of the seventeenth century (Blanton, 1930: 116; Bell Jr., 1978: 42). Even in later periods this overlap was present; in Pennsylvania one Dr John Kearsley, who arrived in 1711, practised medicine and surgery, but 'of necessity' opened an apothecary shop, and in Virginia many apothecary shops were opened by physicians, although they often hired an apothecary to run them (Blanton, 1931: 31; Malloch, 1946: 57). The thorough blending of the three main branches of medicine was aided by the fact that most university-educated colonial physicians completed some or all of a 3-to-6 year apprenticeship with an apothecary or dispensing surgeon, which was on its own enough to practise medicine in the colonies, before attending medical school in Europe (LaWall, 1927: 399-400; Malloch, 1946: 57; Shyrock, 1966: 6, 10). This suggests that the distinctions made in British medical law simply did not exist in Colonial North American medical practice, as each group of practitioners took part in the areas of medical care that traditionally belonged to the others, and further all practitioners could be referred to as 'Doctor' (Sonnedecker, 1963: 140; Shyrock, 1967: 6, 9; Cowen, 1976: 83-84; Bell

Jr., 1978: 43-44; Starr, 1982: 39).

Cost provides the easiest means of distinguishing types of practice, or at least education levels of practitioners, in the later colonial period. Colonial legislation limited the fees chargeable by apothecaries for consultation. While this meant that, unlike in England, they were explicitly permitted to charge for advising patients, it was as little as half the statutory physician's fee (Cowen, 1976: 83-84). A 1736 law passed by the General Assembly of Virginia (10 Geo. II. c.10) entitled *An Act, for Regulating the Fees and Accounts of the Practicers in Physic*, for example, is the first documentary evidence that apothecaries were taking and training apprentices in the colony. The law uses that fact as evidence that apothecaries should not be able to charge the same fees as university-educated physicians (Cowen, 2006: 26). Additionally, whilst the Act referenced surgeons and physicians dispensing medicines it also included apothecaries who made up the prescriptions of other practitioners, suggesting some pharmaceutical specialisation amongst apothecaries alongside general practice in the colonies (Shyrock, 1967: 9; Cowen, 2006: 26). Apothecaries, therefore, were usually a conveniently at-hand source of medical care for most colonial settlements (Cassedy, 1991: 11, 21). More specialised apothecaries, or at least shops referred to as apothecaries' shops, were concentrated in the larger colonial settlements. In Boston in 1721 there were 14 apothecary stores, and there are records of apothecaries' premises in Savannah, GA (after 1740), New York/New Jersey (as early as 1685), Williamsburg, VA (before 1746), Baltimore, MD (before 1794), and Nashville, TN (after 1795) (Malloch, 1946: 87, 92, 102, 114; Wilson, 1959: 163; Sonnedecker, 1963: 143; Gill, 1972: 30, 54-55).

Whitfield Bell Jr. (1978: 42), in his historical sketch of the colonial physician, suggests that



medical provision in these eighteenth-century urban centres like Charleston, SC and Philadelphia, PA, were comparable to provincial British cities like Bristol or Manchester. Indeed, by the time Savannah, Georgia was founded in 1733, an expedition that the Society of Apothecaries partly funded to seek more drug plants for export, there was the beginnings of a professional medical association in Charleston with an international reputation for the quality of their observations (Wilson, 1959: 6; Cowen, 1975b: 10; Waring, 1975: 143-144; Dorner, 2019). However, there should be caution with making too close a comparison between colonial settlement and regional cities in Britain as their links to international trade, and access to both durable and consumable goods, not to mention their populations, can be differentiated throughout the colonial period (Weatherill, 1996: 60). In addition, there has been some historiographical criticism of too simplistic a division between central and peripheral regions, as in actuality there were greater differences in wealth and ownership of material culture between towns and rural areas in regions traditionally analysed homogeneously both in North America and in Britain (Weatherill, 1996: 52).

Broadly speaking there was continuity in medical provision from the Colonial period through the Revolutionary War and into the early Republic (Cassedy, 1991: 11, 21). Apothecaries, however, usually relied on imports of medicines from Europe and began having to substitute native plants for those that they could no longer import during and after the revolution, and also took to refilling patent medicine bottles with similar recipes using only local ingredients (Parascandola, 1976: 809; Cassedy, 1991: 6, 11). Medical licensing and oversight did not become a high priority in the new Republic until into the nineteenth-century, and before then the issue was left to the states, which led to an unenforceable patchwork of regulations in

effect allowing continuity of practise through to the end of the period that this thesis is focused on (Bynum, 1994: 11).

The other British colonies in the Atlantic; those in the Caribbean and Québec, have distinct histories of medical provision, but, as there were no identifiable archaeological sites of the appropriate period from these regions, they are not necessary to relate in full for the purpose of this thesis. Briefly, it appears that in the Caribbean much of the British system was transplanted, although similar to North America there was a significant blurring of the professional boundaries which were nominally enforced in Britain, and medicine was provided to both colonists and the enslaved people on the islands (Sheridan, 1985: 47; Anderson, 2009: 11; Harrison, 2010: 13). In Québec the overlaying of the British system of medicine on a pre-existing French one after 1763 led to some quirks; under the French system apothecaries were not considered to be medical practitioners, and so surgeons, not apothecaries, began to move into what might be called 'general practice' including the practise of some physic (Anderson, 1946: 214; Ramsey, 1988: 29; Collin, 2010: 100). The Québécois response to the different expectations of medical status after the change of rule was to pass an ordinance in 1788 that both recognised apothecaries as a medical practitioner, and strictly limited their practice to the preparation and sale of medicine, bloodletting, and tooth pulling, thus maintaining some of the separation of practice from the French system, but conceding that apothecaries were medical men (Collin, 2010: 103).

Similar to Québec, there was a change of power and governance in the New Netherlands colony in the latter seventeenth-century during the Third Anglo-Dutch War. There is an equal dearth of material evidence for early pharmacy in this colony as in the French colony, and no

recent historical research on the practice of apothecaries in the colony. What work has been done confirms that Leiden-educated physicians were present in New Amsterdam by 1637 and that surgeons were accompanying settlers ‘provided with medicines’ throughout the period of Dutch colonisation (Jelliffe, 1906; Heaton, 1941: 136; 1958). There is however no mention of a Dutch apothecary in any of the records that I could find and no seventeenth- or eighteenth- century archaeological assemblage relating to apothecarial practice in the area that has been published. The first recorded individual identified as an apothecary that I am aware of in New York did not arrive until 1718 (Heaton, 1958: 519). It may have been difficult to distinguish the practice at the transition of power in any case. The predominant ceramic for apothecary wares was made in both the Netherlands and England, and in the seventeenth century can often not be distinguished without invasive examination. Moreover, consumers in North America seem to have consumed tin-glazed wares from both centres without remarking on the difference of their origins (Koot, 2011: 36-47). It is possible therefore that apothecary shops in New York were more, or equally influenced, by Dutch rather than English practice and norms, but we do not have the evidence to explore this question further.

## **1.2 Apothecaries in Early Modern Historical Research**

As retailers, medical professionals, international traders, and on occasion respected scientific men in the seventeenth and eighteenth centuries, apothecaries ought to appear regularly in a wide variety of historical publications and yet, in most of these aspects of their practice, they are largely overlooked. Nevertheless, there is a historiography in these areas upon which this thesis builds.

Early 'histories' of the practices and positions of apothecaries which were written from 1795 and throughout the nineteenth century, were focused on justifying the existence of apothecaries as medical practitioners rather than strictly as historians (Good, 1795; Bell & Redwood, 1880; Loudon, 1986: 11-12; 1992: 223; Bynum, 1994: 2; Pelling, 1998: 232; Wallis, 2000; Gentilcore, 2003: 91; Anderson, 2005: 6, 11; Corfield, 2009: 2). Apart from these early justifications, and biographical, 'great-man' history mostly written in the twentieth century, the history of medicine has largely ignored the role and importance of apothecaries in the seventeenth and eighteenth centuries (Meiklejohn, 1957; Watson, 1965; Bell Jr., 1975; Duffy, 1979; Porter & Porter, 1990; Cassedy, 1991; Duffy, 1993; Bynum, 1994; Pelling, 1998: 11; McVaugh, 2007). More significantly for the present project, the historiography addressing apothecaries began to change significantly with the development of the social history of medicine in the 1960s. This development in the history of medicine acknowledged the wider social impacts of illness, medicines, and medical practitioners in the past. Historians who work in this area have looked at issues of social access to treatment, recipe transmission, and the changing attitudes to disease and the body amongst not only professionals but also the wider public, to name but a few areas of research spawned from this movement.

For the study of apothecaries, the beginning of a social-historical exploration of the profession began with the publication of Juanita Burnby's 1983 volume *A Study of the English Apothecary from 1660 to 1760*. Burnby began to ask detailed social-historical questions and recognised that apothecaries were not only a ubiquitous urban phenomenon found in the 'smallest and most unlikely of places' in the post-medieval period but were uniquely positioned within many of the important historical questions of the period (King, 2006: 78). Building upon some earlier studies of apothecaries which gestured towards social-historical enquiry (see Gill,

1972; Cowen, 1975a, 1975b, 1975c, 1975d, 1975e, 1976), Burnby (1983) examined the training, scientific interests, social position and status, and role of both provincial and London apothecaries within the medical marketplace of the seventeenth and eighteenth centuries. This introductory volume linking apothecaries to the social history of the early modern period and clarifying their importance and position within the medical marketplace and scientific networks of these centuries has been the foundational volume for research using apothecaries as a lens through which to explore both social-historical and history of medicine questions. Since Burnby's work, historical interest in apothecaries has largely focused on their geographical distribution, social position, role in developing their retail practices, and their engagement with the developing sciences of botany, chemistry, and medicine, especially in the eighteenth century.

### **1.2.1 Medical Regionality and Social Stratification**

Until relatively recently there was only weak knowledge of how different sections of the population across social levels, and in different regions, accessed medicine during these centuries. These are valuable questions which can help understand the similarities and differences in medical and social experience of illness, and, for the purposes of this thesis, access to drugs through local apothecaries, across these centuries in various locations and different sections of society.

In London the access of a wide variety of people of all social levels to varying types and qualities of medicine was supported by the rise of a substantial, urban middle class from the later sixteenth century, and, as Trease (1964: 169) has suggested, this was also the case in regional cities. The number of apothecaries in London increased significantly during the

seventeenth century and tended to cluster in a wealthy and densely built-up area around the Royal Exchange and Cheapside, where, in the 1660s, one in five households were apothecaries or druggists (Pelling, 2003: 109; Wallis, 2006: 21, 23; 2008: 31). This clustering was a continuation of an established pattern of commercial specialisation in the area between Cheapside and Bucklersbury that was begun by the Grocers of thirteenth-century London and continued for over four centuries (Nightingale, 1995: 76, 566). Despite regularly being accused of profiteering, at least one or two apothecaries served every parish in London, no matter the general prosperity of the parish's population (Porter & Porter, 1990: 7-8; Wallis, 2006: 23). So while geographic distributions show that apothecaries did target wealthy customers, it is clear that apothecaries did not exclude 'the middling sort', or even some of the poorer sections of early modern London society from accessing their drugs (Wallis, 2006: 24). Being poor, and being a consumer of medical products, it would seem, were not mutually exclusive (Shammas, 1990: 1). Patrick Wallis (2006: 15), for example, found no significant distinction between rich and poor when it came to the use of common herbs and ingredients in their medicines in London, though price levels for more exotic ingredients forced some differentiation (Wear, 2000: 69).

The engagement of apothecaries with consumers of medicine across socio-economic levels is further evidenced by their willingness to extend credit to their middling customers (Corfield, 2009: 5; Grogan, 2017: 42). In their economic analysis, Pirohakul and Wallis (2014: 10) found that three-quarters of probate and similar inventories in 1780s London that could be accessed show some level of medical debt, though this varied with geography and wealth distribution. Using probate inventories for their economic data, this work confirmed that medical debts over the long eighteenth century occurred mostly among 'less wealthy testators' showing

that apothecaries extended credit to their poorer customers (Pirohakul & Wallis, 2014: 11). The results of this analysis also showed that apothecaries are the most common type of medical practitioner in the records, suggesting that they were the first stop for people seeking medical care (Pirohakul & Wallis, 2014: 19-20, 23; Grogan, 2017: 8). Building on such work, this thesis seeks to interrogate the presence of apothecaries in different regions and social environments in order to explore the differences, and similarities, in the material and visual experience of these shops between metropolitan and provincial, urban and rural, British and colonial.

Both King (2006) and Withey (2011) have examined apothecaries and access to drugs outside of the metropole in a similar way to the intended approach later in this thesis in, respectively, Northamptonshire and Lancashire, and Wales, in the seventeenth and eighteenth centuries. In these regions, provision was good in towns and cities that were linked by the major turnpike roads, canals, or which were market towns with large economic catchment areas as they were best connected to national networks of trade and knowledge (King, 2006: 52-53; Withey, 2011: 228-230). These towns may even have had several apothecaries in direct competition; nine of eleven apothecaries in Breconshire during the century covered by Withey's work (2011: 228-230) were in the market town of Brecon. Rural apothecaries did not seem to suffer for custom, however, attracting customers from more than 15 miles away from their village shops (Withey, 2011: 230-231). Apothecaries in these regions therefore participated in the national medical marketplace centred on London, and through London would have had access to the international medicinal trade. It is even noted by Withey (2011: 245-246) that 'Apothecaries in small towns and villages could display markedly similar

characteristics to their London counterparts and were often literate, if not highly educated, well-to-do if not wealthy.'

Regional English parishes also provided medicines and medical care to the poorer sections of society and even provided drugs charitably (Pelling, 1998: 241; King, 2006: 72-74). Some Poor Law authorities engaged apothecaries to provide care for the worthy poor of the parish, however, due to inconsistent application of the Poor Law and the need of the poor to establish that they were settled and worthy of the parish's charity, many had to turn to apothecaries in their own right, being extended credit or being charged on a sliding scale (Watson, 1965: 57; Pelling, 1998: 88; King, 2006: 74-75). Thus, whilst there were significant economic differences between the population of a regional market town such as Northampton, and the larger metropolitan population of London, individuals in each place were able to access medicines from an apothecary. Furthermore, customers in rural locations would also be able to access an apothecary, although their access would be more limited as they may have to travel up to 15 miles to their local market town. Apothecaries across Britain were therefore serving all levels of society and engaging with the robust and complex international, national, and regional marketplaces to source their drugs and material culture (King, 2006: 77). The developing historiography around medical access in the early modern period shows that the apothecary was central to most people's experience of medicine. Unfortunately, there is no significant historiography addressing these issues across the Atlantic region although Mullaney (2019) has explored the expansion of medical provision by surgeons and apothecaries in Dublin.



Questions regarding differential access to medicines and apothecaries across Britain and the British North Atlantic are valuable to examine in greater detail. Building on the work of King (2006); and Withey (2011) this thesis will extend our understanding of the similarities and differences in the provision of medicine by apothecaries across the wider geography of the British colonial North Atlantic throughout the seventeenth and eighteenth centuries. Were there significant differences in provision, understanding of, and engagement with medicine across this wide region, which incorporated metropolitan, provincial urban, rural, and colonial contexts? Further, was this access and engagement consistent across the two centuries under study, especially considering the significant developments in both medical theory and medicinal ingredients throughout that time span? To address these questions this thesis will focus on the space of the apothecary shop and engage with documentary, visual and material sources for those spaces rather than relying on probate inventories as previous research has done.

### **1.2.2 Retailing and the Space of the Apothecary Shop**

Apothecaries occupied a distinctive and sometimes uncomfortable position between their roles as a medical professional and a retailer, and as such any study of apothecaries must engage with social histories of consumption and retailing in addition to medical history. The repeated element of the historical research outlined above is a focus on the apothecaries' shops as key sites. Such research emerged in parallel with that on eighteenth-century retailing in general which developed understandings of shop displays, advertisements, and experiences of shopping.

There is relatively little historiography in this area which has specifically addressed apothecaries but there has been a significant amount of attention paid to the social and cultural changes accompanying the transitions from markets to fixed shops, and on to department stores in this period (Walsh, 1999). Shopping has often been dismissed as a passive and restricted experience before the nineteenth century due to the presence of a counter and salesperson between the customer and the goods. However, in the 1990s, scholarship in this area began to reveal the dynamic nature of eighteenth-century retail spaces, with the salesperson retrieving goods from the shop and presenting them to the customer whilst also explaining the product to them (Walsh, 1999: 50-52, 55; 2000: 88). The spatial dimension of shopping is key to the understanding of both retail and consumption in these centuries (Pennell, 1999a). Starting in the 2000s, Jon Stobart, Andrew Hann, and Clare Walsh extensively explored 'polite' modes of shopping and even touched on the experience of shopping in apothecary shops in the eighteenth century (Walsh, 1995, 1999, 2000; Hann & Stobart, 2005; Walsh, 2006; Stobart *et al.*, 2007; Stobart, 2013). Archaeology too has engaged with the retail space as a valuable unit of analysis to gain insight into the experience of shopping in these centuries. Work such as that of Matthew Jenkins (2013, 2018) in York has shown the value of analysing the extant remnants of these spaces in dialogue with documentary records of the shops they once contained, a comparable approach to that taken in this thesis. Apothecaries in the seventeenth and eighteenth centuries made use of many of the cultural developments around retailing that have attracted the attention of historians of retail, especially advertising, shop design, and brand recognition.

Stobart *et al.* (2007: 126) has specifically discussed how the material culture of apothecaries' shops served three main purposes; marketing, communicating the 'status, professionalism

and knowledge of the shopkeeper', and to serve 'polite' modes of shopping where the customer was essentially waited on by the shopkeeper who retrieved products from the shelves behind the counter for their perusal. This is possibly why the visual impact of the interiors of apothecaries' shops are emphasised in contemporary sources as much as their practical use, and why apothecaries spent so much money on the furnishing of their retail spaces (Stobart *et al.*, 2007: 126, 128; Wallis, 2008: 32-33). Thus, the use of material culture by apothecaries to create a narrative about themselves and their products, and to perform their professionalism and professional knowledge; 'relies on particular engagements with, and presentations of, objects' (Woodward, 2007: 152).

Emerging in tandem with such retail histories was a further interest in the apothecary shop as a site of retail activity developed by the economic historian Patrick Wallis. In his seminal 2008 article 'Consumption, retailing, and medicine in early-modern London', Wallis explored the centrality of London apothecary shops as retail spaces and sites of trade and exchange, in which apothecaries acted as economic agents, medical retailers, and spice and *materia medica* importers throughout the seventeenth and eighteenth centuries. Wallis (2006: 27; 2008) argued that these roles were most obviously expressed in the design and furnishing of apothecaries' shop interiors, especially in the display of 'exotica', the drug jars, and the material culture used to compound medicines on the shop counter. Wallis (2006: 27) argues that apothecaries used displays of highly decorated vessels to communicate their trustworthiness as practitioners, relying on evidence from inventories for the material character of these spaces. According to the 1637 inventory of John Arnold, an apothecary in London, a well-stocked apothecary would have several hundred drugs and simples available stored, in this case, in 117 glasses of different kinds, 295 pots and jars, and 183 boxes and

barrels (Wallis, 2008: 35). Many of these vessels would have lined shelves behind the counter of his shop, forming a display of the simples and compounds that could be purchased, some larger vessels would have also been displayed in the window of the shop (Matthews, 1962: 273).

The use and display of non-storage vessels and compounding instruments in the shop is another strand of Wallis' (2006) argument and has also been discussed by him in a later article (2008: 36). Reflecting insights in broader retail histories, Wallis argued that apothecaries performatively used the large mortar and pestle, as well as the pill tiles, often listed in apothecary shop inventories. These tasks, which did not involve heating or more dangerous processes, but did involve grinding powders, and rolling out pills, reassured the customer that the apothecary was the person making their medicines by showing them some 'pharmacy in action' (Wallis, 2008: 36). Wallis (2008: 32-33) has additionally suggested that the display of taxidermy and similar specimens emphasised the knowledgeable and worldliness of the apothecary themselves. Dutch artists' depictions often showed a crocodile or alligator or two as well as a unicorn horn, and Shakespeare thought that a taxidermy crocodile and assorted fish were important enough to mention in the description of the apothecary's shop in *Romeo and Juliet* (Shakespeare, 1623: Act 5, Scene 1, Lines 42-44; Matthews, 1962: 265; Porter, 1989: 92).

Wallis' argument is primarily that apothecaries made extensive use of display and material culture within their shops to make them seem a knowledgeable, 'worldly', specialist retailer, engendering trust in their customers and patients. It is for this reason that Wallis (2008: 32-33) underlined how approximately 40 per cent of the value of apothecary shops was tied up

in internal fixtures and fittings; an unusually high figure when compared to other classes of shop, and comparable to goldsmiths (Walsh, 1995: 161-163; Morrison, 2003: 67). Building on such work, this thesis seeks to develop a more nuanced understanding of the material and visual experience of the apothecary shop in the seventeenth and eighteenth centuries. Specifically, this thesis will engage with the materiality of the tin-glazed earthenware and other furnishings identified by Wallis to address questions of *how* and *why* these pieces of material culture would have communicated ideas of knowledgeability and trustworthiness to a customer in part through a deeper consideration of the materiality of these ceramics. Additionally, whilst Wallis (2006, 2007, 2008, 2012) relies primarily on inventories with some pictorial sources, this thesis will engage with material assemblages from archaeological excavation, museum collections, varied documentary sources including probate inventories, and also pictorial sources to thoroughly contextualise the material character of the apothecary shop space and how that character changed across the seventeenth and eighteenth centuries and across Britain and the British North Atlantic.

More recent studies have also examined the shop space of apothecaries in provincial Britain. Alun Withey (2011: 232, 234-235) has shown, for example, that in inventories of Welsh apothecaries the containers of medicine lining the shops were valuable, although few are recorded as highly painted. This lack of detail regarding decoration is characteristic of the level of detail in inventories rather than the use of painted tin-glazed jars in these shops and is a further argument for engaging with the material culture from these spaces itself rather than relying on written descriptions alone. Those few painted jars would have communicated the apothecary's knowledge, status, and access to national marketplaces as most English tin-glazed ceramics were manufactured in London. Working from inventories as Withey and

Wallis have done, however, it is not possible to consistently say what fabric or decoration the ceramics would have, what colour the glassware was, or the construction method of the boxes that contained medicinal simples, all of which would have contributed to the attempts of the proprietor apothecary to communicate his knowledgeable and therefore trustworthiness.

Withey's (2011) examination of inventories of apothecaries in Wales shows that they were using broadly the same remedies and material strategies as their London counterparts, but with some key differences. He shows that in Wales, apothecary shops had none of the esoteric items used in London to combine medical practice, mysterious and specialist knowledge, and retail environments; no inventories record taxidermy of exotic animals for example (Withey, 2011: 233). Welsh shops probably did not need to compete for business as intensely or prove that they were linked to such extensive networks to impress their customers compared to apothecaries in London. There were fewer apothecaries in each area or town compared to the concentration in London and this allowed them to remain more utilitarian in their furnishing (Withey, 2011: 234). The same may be true of other provincial apothecaries, although more prosperous towns and provincial capitals like Bristol and Norwich which were well connected both nationally and internationally would have felt some competition from other apothecaries and so would likely have made use of coherent material culture displays and even possibly taxidermy and imported curiosities.

More recently, Briony Hudson, who is a pharmaceutical historian and serves as the president of the Faculty of History and Philosophy at the Society of Apothecaries of London, has summarised the history of pharmacy shops from the seventeenth century to the present for

the Science Museum's redisplay of their medicine collections. Hudson (2019: 159) suggests that 'many British apothecary shops in the 17th and 18th centuries were vibrant places, acting literally as a window on the medicines available to those that could afford them, and increasingly embracing exotic global discoveries alongside more traditional remedies and recipes' and that by studying these spaces they provide insight into 'the relationship between the seller of medicines and their customers'. Hudson (2019: 162-163) cites Wallis' work on the inventories of London apothecaries, repeating and summarising his conclusions, and begins the process of considering the reason for the 'high level of decoration' of pharmaceutical ceramics (as a promotional technique), and the value of taxidermy display beyond the concept of 'worldliness', but rather as a reputational tool to suggest the apothecary was involved in 'informed scientific enquiry and debate'. It is these ideas; apothecaries were actively promoting their business and professionalism, and they were seeking to indicate their involvement in the 'new' sciences of these centuries that this thesis will build upon through the interrogation of assemblages from archaeological excavations of apothecary shops; a set of sources that has yet to be incorporated into these areas of historical enquiry.

It should also be noted that these shops were not simply sites for the dispensing of medicines but were, like a modern pharmacy, selling a variety of other goods alongside the medicines. This diversification of practice did decline over the early modern period with some apothecaries, especially those in London, being able to support themselves on just their pharmaceutical practice by the end of the eighteenth century (Cook & Walker, 2013: 339). However, for most apothecaries selling other products was essential to making a living. These additional products often included imports that were related in some way to the medical

products that were stocked, for example, painters' pigments, tea, and coffee (Cowen, 1976: 86; Starr, 1982: 39; Stobart, 2013: 50). Starr (1982: 39) records an example from eighteenth-century Virginia where Dr John Payras dispensed drugs but also sold 'tea, sugar, olives, grapes, anchovies, raisins and prunes', and one from Fredericksburg in 1732 where a Mrs Levistone was a 'doctress' and a 'coffee-woman'. These diverse businesses likely compare well with rural areas in Britain where diversification was encouraged by a population too small to support a specialist apothecary. It was also likely present in some areas of early eighteenth-century London where the medical marketplace was so crowded that diversification was probably necessary to be profitable. It even may have occurred in larger regional cities like Bristol, which had 30-to-40 apothecaries at any one time in the eighteenth century (Fissell, 1991: 57; Rawcliffe, 1995: 166). This diversity in occupation needs to be considered when analysing the experience of apothecary shops and the material culture which was in use in those spaces, and as discussed below, provides a valuable comparison for the acculturation of the newly imported *materia medica* from North America into British and British Colonial consumption in these centuries. It also needs to be considered when the civil and professional status of the apothecaries in the records is called into question and this thesis will include these complications in the later analysis.

Utilising the latest developments in retail practice in the seventeenth and eighteenth centuries, especially in the design and furnishing of the shop, apothecaries represent an excellent case study for retail historians and this thesis will contribute to scholarship in this area. It will further our understanding of the experience of the spaces and materials within apothecary shops by engaging with the actual material culture of the shop spaces, especially assemblages from archaeological excavations, and will combine its analysis with these with a



focus on inventories and other documentary sources. Whilst it is reasonable for historians to suggest that consistent sets of ceramic and glass storage containers, instruments used to compound medicines, and taxidermy in the retail space intimated that the apothecary was successful, knowledgeable, and could therefore be trusted, the route by which this was achieved is not as easy to explore without broadening the range of primary sources analysed and the methods of analysis. The highly constructed nature of the retail space of the apothecary shop in these centuries was leveraged to engender trust in patients, and by engaging more fully with documentary, pictorial, and material culture sources of these spaces this thesis will be able to more confidently explain *why* apothecaries felt they had to spend so much money on the fittings and contents of their shops, and more clearly articulate the effects of doing so on their retail and medical practise than has been done before.

### **1.2.3 Histories of Acculturation and Global Trade**

Alongside interrogating the complex material experiences at stake in seventeenth- and eighteenth-century apothecary shops, this thesis also seeks to resituate these retail sites within global networks of trade and exchange. As such, this thesis is influenced by recent work exploring global histories of the seventeenth and eighteenth century. Utilising new insights from this historiography, this thesis will move beyond the focus on shopping and consumption of Wallis (2006, 2008) and other retail history, and question the importation and acculturation of new *materia medica* and medical knowledge, as well as curiosities and specimens. In doing so it will connect the study of medical practice and scientific interests with the retail relationships surveyed above.

Much material culture history of the early modern period is concerned with the movement, acquisition, and adoption of new global commodities. Insightful examples include Giorgio Riello's 2013 volume *Cotton*, Jennifer Anderson's 2012 volume *Mahogany*, and Marcy Norton's 2008 volume *Sacred Gifts, and Profane Pleasures*, each of which is concerned with the adoption, acceptance, and proliferation of various imported commodities in European and colonial markets and how each came to influence those consumer societies, although each takes a different approach. *Cotton* focuses on the economic impact of cotton imports to Europe and the emerging (and ongoing) global textile market that resulted, using economic records tempered with 'cultural and artefactual evidence' (Riello, 2013a: 11). *Mahogany* instead focuses on a rare and highly desired commodity which continues to be expensive today, making use of probate inventories and exploring the production and social meaning of this commodity through an understanding of the enslaved workers who made this trade possible in contrast to the high social value of the products produced from it by cabinetmakers and joiners (Anderson, 2012). *Sacred Gifts* approaches chocolate and tobacco from their north and central American contexts first, rather than their European ones, and seeks to invert traditional understandings of the acculturation of these products through records of colonial encounter with native peoples' use and understanding of these substances (Norton, 2008). In each case these volumes engage with material culture, though they tend to focus on single objects or illustrative groups, and do not incorporate archaeological evidence. This thesis seeks to expand the evidence used in these kinds of analyses to include large archaeological assemblages which can provide additional context and inform a more nuanced analysis. In the case of this thesis, the acculturation and acceptance, as well as the social effects, of imported commodities, specifically *materia medica*, forms a significant

element of the project that could not be analysed as thoroughly or carefully without the incorporation of the ten identified archaeological assemblages discussed below.

In the late medieval period the making and giving of remedies, like the diagnosis of illnesses, were areas of knowledge that the medical practitioner and layperson shared, although the former professed greater understanding and expertise (Wear, 2000: 47). Medical remedies were both in the realm of (usually but not exclusively male) 'learned' medicine and the realm of female household skills (Fissell, 1991: 16-17; Wear, 2000: 55). It is nearly impossible to divide the remedies employed by 'lay' practitioners in the sixteenth and early seventeenth century from those of 'professional' medical men. The difficulties of distinction are in part thanks to a proliferation of almanacs and dispensatories which made available the medicinal recipes that were used by apothecaries (Wallis, 2006: 15-17). From the re-establishment of consistent trade to Asia during the medieval period to the expanding Atlantic world in the seventeenth and eighteenth centuries, however, increasingly unfamiliar herbal and mineral ingredients came to be used in medicine (Freedman, 2005, 2008). Sassafras, Cinchona Bark, Mercury, and Antimony all came into regular use and were hailed as effective medicines that could supplant or complement the traditional herbal medicine of England (Bynum, 1994: 6). The dramatic expansion of international trade in the early modern period was partially driven by European demand for drugs and spices and those newly imported products were sold in apothecaries' shops (Porter, 1987: 35; Lindemann, 1999: 232; Freedman, 2005, 2008; Wallis, 2012: 20).

Beier (1987: 15) has asserted that apothecaries benefitted from a strong market for medicines and were well placed to exploit the influx of materials from Asia and the Americas. Initially,

however, there was a suspicion of New World ingredients which, along with Spanish interference in Atlantic trade, meant they were very slow to be adopted into regular practice in England (Roberts, 1965: 168-169; Benjamin, 2009: 232). On the other hand, the re-discovered *materia medica* from Asia which reached Europe via Venetian and Genoese trade in the eastern Mediterranean were rapidly adopted as these ingredients had been mentioned by the classical medical authors (Wear, 2000: 68-69; Rawcliffe, 2013: 308). As social and personal knowledge became increasingly removed from 'professional' practice, the unease of the individual purchasing the medicines increased, and in the early seventeenth century we start to see increasing negative descriptions of apothecaries, such as the 'caitiff wretch' of an apothecary in *Romeo and Juliet*, and worrying and sometimes ridiculing depictions of apothecaries in caricature and theatre (Shakespeare, 1623: Act 5, Scene 1, Line 52; Trease, 1964: 99; Helfand, 1978: 34, 40; Boussel et al., 1983: 142; Arnold-Forster & Tallis, 1989: 38, no.69; Helfand, 1995; Wear, 2000: 86; Pollard, 2005: 3). Medical anxiety, however, was not new. In the sixteenth century the concern around poisoning was so great that laws were passed making it treason to murder by poison (22 Hen. 8., c.9.), and ensuring the rights of all subjects with knowledge of herbal medicine to provide care (35 Hen. 8., c.8.), although the former was repealed in 1547 (Green, 1979: 196).

Suspicion of 'New World' and other exotic ingredients in medicine began to dissipate in the later seventeenth century due to increasing British dominance in the Atlantic, an emerging 'empire of goods', as well as increasing acceptance of non-classical remedies such as those chymical remedies pioneered by Paracelsus (Morgan, 2000: 36; Elliott, 2006: 223). Some scholars have suggested that the imperial associations of these goods, especially those from North America, were central to their meaning and were the main way that the public

interacted with and were aware of the Empire (Stobart, 2013: 42; Dorner, 2019). From the late sixteenth century onwards, apothecaries were keen to include new global commodities within their medical practice, yet the role apothecaries, and especially their shops, played in processes of appropriation have been overlooked in historical research. In response this thesis seeks to examine how the material culture of the apothecary shop and the role of the apothecary contributed to the wider acculturation of these goods.

Roberts (1965: 170) and Wallis (2012: 38) tangentially discuss this process of acculturation through discussion of the scale of change in the import and export figures of drugs and medical ingredients to Britain as well as re-exports of compounded drugs made with now-popular imported, exotic ingredients. These figures show that apothecaries took part in introducing these new remedies and knowledge into common consumption. Wallis (2012: 25-26) has shown that these imports increased dramatically through the period 1550 to 1800 and reached £100,000 per year in the 1770s. Imports of drugs grew more quickly than imports in general which suggests a rapidly growing market for non-European medical ingredients. 80 per cent of these imports came through London, and the medicinal plants imported from North America included ginseng, sassafras, pinkroot, ipecacuanha, and lignum vitae (Cowen, 1975a: 8-9; Weatherill, 1996: 50; Wilson, 2013: 353). There is also a rise in the export of 'processed medicines' listed as 'apothecaries' wares' back to North America; £23,259 per year in the 1770s amongst a total export figure to North America which went from £256,000 (1700-1701) to £971,000 (1750-1751) (Trease, 1964: 155-156; Morgan, 2000: 36; Wallis, 2012: 29-30). Economic analysis is helpful in understanding the scale of this process and the success that retailers, including apothecaries, had in getting their customers and patients to be willing to consume these medicines but they do not address how such engagement was encouraged

both at an institutional level (the acceptance of new *materia medica* by medical professionals) or at a consumption level (the willingness to consume these medicaments by the public).

The early eighteenth-century trade in medicine in the North American colonies relied on imports from across Europe, especially in Philadelphia and the more southerly colonies, at least in part because the traditional medicinal plants would not grow well in the Colonies and also in part due to the associations with the 'homeland' (Wilson, 2013: 352-354). Sonnedecker (1963: 143) has examined advertisements from fourteen apothecary shops in Boston in 1721 who regularly advertised their wares with the promise that they were freshly imported from London. In the eighteenth century therefore drugs seem to follow a clear path through the medical market in the British Atlantic (Roberts, 1965: 171). Simples and other medical ingredients were imported to Britain, these were then bought in bulk by 'Druggists' who then sold them to apothecaries to be compounded into medicines. These medicines were then sold to other apothecaries, druggists, surgeons, or physicians across Britain and thus eventually prescribed to British patients, or were re-exported as compound drugs from London and Bristol (McGrath, 1968: 252; Sacks, 1991: 332).

Similar pressures to those at play in colonial, urban, or London apothecary shops can be seen in the *materia medica* stocked in Welsh apothecary shops although the quantities stocked varied considerably, likely closely linked to the demand (or lack of) for internationally-sourced and/or high-priced remedies and ingredients (Withey, 2011: 237). Such regional apothecaries also stocked proprietary/patent medicines, perhaps in response to competition from corresponding apothecaries in cities where such remedies were produced (Withey, 2011: 238). 'Exotic' medical ingredients could also be found in Welsh markets, imported either

through their own ports, the port of Bristol, or London suppliers. Withey (2011: 244-245) notes that the records of the debts at death (1694) of apothecary Elias Preston illuminate a wide network of suppliers including some in London and Chester. The inventories of Welsh apothecaries in the seventeenth and eighteenth centuries provide significant evidence about the exchange of professional knowledge regarding pharmaceutical preparations. The remedies stocked by these shops were recorded in English in recipe books, highlighting the interconnectedness of the Welsh and English markets because at this time the majority of people in Wales spoke only Welsh (Withey, 2011: 236). As Withey (2011: 241-242) has noted, English was the language of Welsh medicine, permanently linking their medical markets as well as the 'orthodox' practice of physicians and apothecaries in both countries. Withey (2011: 225) therefore, provides strong evidence which suggests that there was a range of overlapping and intersecting medical marketplaces across the British Atlantic in the Early Modern Period and that these markets drew on national and international trade and communication networks for supplies of medicines, exotic ingredients, and pharmaceutical and medical knowledge.

The divergence in lay and professional knowledge also incorporated 'Chymical' medicines introduced in the seventeenth century (Young, 1961: 4-5). With the publication of Robert Boyle's *The Skeptical Chymist* in 1661 a new kind of medical practice began to emerge, relying solely on chemical remedies (Boyle, 1680; Trease, 1964: 150), and according to Withey (2011: 226) the range of goods sold in rural Welsh apothecaries' shops suggests that these new chemical remedies were popular throughout Britain. Wear (2000: 74) has argued that the inability of the average consumer of pharmaceuticals in these periods to identify the materials that they were being sold also led to an inverse suspicion; that the drugs were not real or

genuine and that the apothecary was enriching themselves at the cost of their patients. As the front line of medicine for the majority of the population, it would have fallen to the apothecaries to introduce these materials to their customers and induce them to consume them and the ways in which this process was embodied in their material culture will be discussed throughout the rest of this thesis.

Despite the importance of this process of introduction and acculturation to both the wider history of medicine and the history of global trade and exchange in the North Atlantic there has been no substantial work on this process of acculturation in the space of the apothecary shop. There has however been important comparable work on the acculturation of the stimulant beverages tea, coffee, and chocolate in these centuries as well as 'New World' foodstuffs such as potatoes (Pennell, 1999b; Pennell, 2009). Moreover, projects such as the Intoxicants Project (<http://intoxicantsproject.org>) have studied the consumption of alcohol, tobacco, and a variety of drugs. Utilising the approaches of these previous studies but embedding them in the space of the apothecary shop this thesis will explain the process by which 'newly' discovered and imported *materia medica* in the seventeenth and eighteenth centuries came to be accepted into medical orthodoxy and wide consumption.

One piece of research in this area, focused on coffee, which has included some discussion of medicine, is *Coffee, Mind and Body* by Christine Fertig and Ulrich Pfister (2016). Fertig and Pfister (2016: 221-222) compare the acculturation of coffee and medicine and conclude that both groups of products were recontextualised in similar ways, making them suitable for use in Europe and separating them from the ritual and dietetic practises for which they were used in a non-European context. Studies of the acculturation of stimulant beverages, which were



often initially considered medicinal in the seventeenth century, (see for example Cowan, 2005; Norton, 2006, 2008; McCants, 2013; Ellis *et al.*, 2015) do not often engage in detail with their acculturation as medicines, preferring to focus on the process by which they came into mass consumption. This thesis responds to such work and seeks to expand the methodologies they employ when considering the processes by which medicinal substances were introduced and accepted for consumption and the role which material culture, especially that visible in archaeological assemblages and absent in other sources, played in such processes. Several of the studies mentioned do, however, engage with the importance of material culture in acculturative processes. Anne McCants (2013) for example engages with material histories of commodities in Amsterdam, in this case tea, coffee, and chocolate, as well as the histories of durable material culture that were created to facilitate the consumption of these hot drinks. Lorna Weatherill (1996) has similarly looked at the material culture related to stimulant beverage consumption in Britain.

Historiographies of international trade in the early modern period overlap with examinations of the shops of apothecaries and their use of the new imported materials that were, within a half-century, adopted into regular medical practice. By making their shops highly controlled and expensive sites of retail the apothecary was able to not only promote their own business but also influence the customer's opinion of the newest imported *materia medica* serving to speed up their acceptance in the marketplace. The work of Marcy Norton (2006, 2008) is particularly valuable for this approach. In her examination of the acculturation of chocolate in Spanish colonial communities and upon its introduction to Spain, Norton (2006) focuses on *sites of encounter* to discuss the social processes at work in making this drink an acceptable even desirable product to consume. Norton's work provides a model for the importance of

looking to spaces, in the case of this thesis the apothecary shop, as key sites of encounter and appropriation. This thesis will therefore consider the ways in which the apothecary shop's furnishings and material culture were manipulated to introduce the apothecaries' patients to new imported *materia medica* and chymical medicines and influence them to agree to purchase and consume them, an approach to these spaces which has not previously been explored.

### **1.3 Research Aims**

Apothecaries appear in a variety of historiographies, including histories of medicine and science, histories of retail, and economic histories of global exchange in the seventeenth and eighteenth centuries. The development of the social history of medicine has allowed questions regarding the differential access to medicine and medical professionals across Britain to be asked. Building on this work, especially that of Withey (2011) and King (2006), this thesis will extend these lines of enquiry to explore how the visual, material, and medical experience of the apothecary shop varied, or remained consistent, across the two centuries under study and across the British colonial North Atlantic, in Williamsburg VA, and Dublin, as well as in the metropolis of London and the regional English centres of Norwich and Colchester. Having established the material and visual character of the apothecary shop in these places and across the seventeenth and eighteenth centuries this thesis will then build upon the work of scholars of retail history and especially the work of Patrick Wallis (2006, 2008, 2012) to explore the issue of trust in the shop of apothecaries through the material culture of these spaces. The thesis will establish the professional environment and threats to the apothecaries from competitors and the changing nature of medicine in these centuries before exploring in more detail exactly *how* and *why* the choices that apothecaries made in

furnishing their shops was able to achieve trust in the marketplace. Once the material world of the apothecary shop has been characterised, and the ways in which these experiences were leveraged to engender trust, it becomes possible to engage with the historiographies of science which engage with the apothecary such as Armytage (1954: 24), Burnby (1983), and Burnby (2004), as well as histories which explore the acculturation of stimulant beverages. Doing so, this thesis will explore the ways in which apothecaries were key to the acculturation of newly 'discovered' and imported botanical *materia medica* into acceptable consumption for their British patients, whether in London, the provinces, or the colonies, whilst simultaneously emphasising their mastery of nature through displaying their participation in global networks of knowledge exchange and enquiry within their shops.

Their position at the centre of all these developments across the early modern period makes the apothecary a particularly useful lens through which to examine early modern social and economic history. Furthermore, the centrality of the shop and its material culture to these processes means that an archaeological and material culture study of these spaces is a valuable contribution to the historiography. It is evident therefore from this historiographical review that material culture and archaeology have significant potential to make a meaningful contribution to the study of apothecaries and, through them, other questions in early modern historical research upon which they touch. Engagement with archaeology, museum objects, documentary, and pictorial sources demands an interdisciplinary and deeply contextual approach due to the variety of methods employed in the analysis and of such a diverse range of sources and the methods of writing in each discipline. Such an approach which has not been applied to the case of apothecaries previously and which is one of the major contributions that this thesis will make to the literature. This interdisciplinary thesis then, will

build upon the historiographies outlined in this chapter to explore and describe in detail the visual and material experience of the apothecary shop in the seventeenth and eighteenth centuries across the North Atlantic making use of the overlooked archaeological evidence, museum collections, and a variety of documentary and pictorial sources. First, however, it is necessary to address the research and methodologies which have engaged with this varied source-base, and especially the material culture itself, so that this thesis can build upon and utilise a firm, interdisciplinary, methodological foundation.

## **Chapter 2 - Research into the Material Culture of Apothecaries**

This interdisciplinary thesis seeks to explore the material and visual experience of the apothecaries shop in seventeenth- and eighteenth-century Britain and the British colonial North Atlantic, to enable questions regarding access to medicine, trust and professionalism in medical retail, and the acculturation of 'new world' *materia medica* into consumption in the British world during those centuries. It will do so through the close and contextual examination of a wide variety of sources including archaeological assemblages from ten identified shop sites, museum collections from across the North Atlantic, trade cards, engravings, pamphlets, herbals and pharmacopoeias, and shop and probate inventories. This chapter will explore the strengths and limitations of such sources and will examine the approaches this thesis will utilise in interpreting them. The chapter concludes with a summary of the value of using material culture in research such as this as well as an explanation of the approach taken throughout the rest of this thesis to the material and documentary sources for the apothecaries shop through these centuries.

### **2.1 Approaches to Material Culture**

This thesis primarily focuses on material culture sources but by working at the intersection of historical and archaeological approaches does so in an interdisciplinary, and deeply contextual way. Drawing on the work of other prominent scholars working at this intersection such as the historians Karen Harvey and Sara Pennell, and the archaeologists Nigel Jeffries and Craig Cessford, this approach is a novel and valuable one for studies which address the shop space and material culture of apothecaries in the seventeenth and eighteenth centuries, and indeed novel and valuable for an archaeological study. Harvey (2018: 2), acknowledges

that 'history is impoverished' when it does not include material culture, and I would argue that in periods where it is possible, archaeology is likewise impoverished if it does not include documentary sources. The importance of utilising material sources in historical research is also asserted by Tara Hamling and Catherine Richardson (2010: 7-8) who recognise that there are elements of materiality that existed outside of the written record and that the meanings and use of these objects may have not been consciously considered. Anne Gerritsen and Giorgio Riello (2015: 2) also write that 'Material Culture ... consists not merely of "things", but also of the meanings they hold for people' which means that material culture can have several kinds of value to those who make, use, own, or discard it. This multifaceted nature means that 'there is no single way of engaging with material culture'; material culture studies are necessarily inter- and multi-disciplinary (Prown, 1982: 3-4; Auslander *et al.*, 2009: 1367). The sources for material culture studies therefore necessarily include 'surviving artifacts, representations of things that are themselves objects (paintings, drawings, engravings, inventories, wills, catalogues, advertisements), and inquiries into things (mercantile assessments of production, use, and value, artisanal how-to books, and learned books about objects)' as well as 'Diaries, account books, travel and trade journals, guild and shop records' (Findlen, 2013: 7-8). Historians and archaeologists should make use of the full range of these sources.

Since the 1980s there has been an increase in scholarship exploring different theories of studying material culture. This plethora of theory has come from several disciplines including sociology, anthropology, history, and archaeology. Each has taken a slightly different set of approaches although most theorists now emphasise the need for these disciplines to be in dialogue when analysing material culture (Auslander *et al.*, 2009: 1388-1389; Trentmann,

2009: 284, 286; Harvey, 2018: 15). Primary to this research are history and archaeology, each of which present their own methodological approaches and issues to be considered when researching in this area.

Historians, such as Giorgio Riello in his 2018 chapter 'Things that shape history', divide their approaches to material culture into two, 'History from things', and 'History and things'. In the first, the historian uses objects as a source like any other, reading them like texts and using them to support the historical narratives extracted from documentary sources (Berry, 2018: 187; Riello, 2018: 28). In the second approach material culture is placed separate from texts and historiographical writing which allows for more creative interpretations, often developing arguments about the symbolic meanings and value of an object, based in its form, features, and materials (Riello, 2018: 29). Karen Harvey (2018: 7) goes further and explains that material culture cannot be treated as 'sources' in the traditional way that historians tend to approach documents because objects are *of* the past not simply *about* it. Whilst both approaches are integrative and multi-disciplinary, the 'History and things' approach is the closest to my methodology, based in archaeology with a focus on the material properties, affordances, functions and meanings of the things in each assemblage alongside relevant documentary and pictorial sources.

Archaeologists, with their inherent interest in the material world, have been involved in the study of material culture as long as the discipline has existed, but continue to debate how to 'read' its meanings (Hodder, 1989: 250). Hodder (1989: 266) for example suggests that emphasising language as the methodology to analyse material culture is doing a disservice to the symbolic and other levels of meaning that may be embedded in that artefact or

assemblage. Instead, material objects perform cultural work, expressing and mediating, rather than simply recording, human experience and so need to be analysed in that frame, distinct from, but related to texts which themselves can be materially considered as objects in addition to their more traditional analysis. In periods where there are texts this approach, emphasising the cultural work done by objects, is comparable to the 'History and things' approach in material culture history. One consistency in this milieu of approaches and theoretical frameworks is that most edited volumes of material culture study emphasise the diversity of their contributions rather than prescribing a uniform approach. This can especially be seen in the introduction to Paula Findlen's collection *Early Modern Things* (2013: 6).

There are historical researchers who engage specifically with the idea that material culture can perform cultural work as many archaeologists now argue. One example is literary scholar David Porter's 2010 *The Chinese Taste in Eighteenth Century England*, which is an examination of the adoption and fetishization of Chinese porcelain in the seventeenth century and its transition into the private sphere in the eighteenth century. In this volume Porter (2010: 133) states that 'Chinese objects imported in vast quantities in the seventeenth and eighteenth centuries were never simply passive objects of consumption, evaluation, and symbolic appropriation, but rather functioned also as active catalysts for the transformation of sensibilities and social identities'. The active nature of material culture raises the concept of object agency which is a matter of ongoing debate in material culture studies (see for example Daston, 2004: 11; Trentmann, 2009: 290; Otter, 2010: 45; Hodder, 2012a: 215; Dikötter, 2018: 208; Harvey, 2018: 6-7). One of the most widely cited examples of this debate is a 2007 issue of *Archaeological Dialogues* which included papers by Tim Ingold (2007a, 2007b), Christopher Tilley (2007), and Carl Knappett (2007). In summary this issue highlights the debate between



using agency to bring objects back to 'unlife' (Ingold, 2007a: 11), or analysing 'things', which, because they are dynamic products of, and agents in, processes of all sorts can be considered as functionally living and so should be analysed ecologically (Ingold, 2007b, 2010, 2012). Although it is possible to argue that all of the authors in this journal issue commit the same sin; that they do not engage with material culture itself but rather with 'the abstract ruminations of philosophers and theorists' (Ingold, 2007a: 2), there is value in this debate, and for the purposes of this thesis it has clarified the theoretical basis for the interdisciplinary approach which will be taken throughout.

This thesis is primarily influenced by Knappett (2007) and Tilley (2007) as unlike Ingold (2007a, 2007b) this project is concerned with the people in the space of the apothecary shop and how they were affected, influenced, and informed by the material culture furnishing that space, as Auslander *et al.* (2009: 1372) suggests, people should be the primary focus of all historical and archaeological work. When combined, Knappett and Tilley argue that material culture studies should be focused on the interactions between the material and the social, with the understanding that both the material and the social are agents in those interactions. In the case of the material their agency and influence are determined by social definitions as well as their materiality, which must form a key element of any assessment of these spaces and the human experiences within them (Knappett, 2007: 20-22; Tilley, 2007: 17-18). As Frank Trentmann (2009: 307) has rightly stated 'things and humans are inseparably interwoven in mutually constitutive relationships', and these relationships are the focus of material culture studies. As set out in the research questions above, in the analysis of this thesis the material culture in the apothecary shop is an indicator of the access to medicine in different locations; the influence of corporate and professional identities on commercial success; and the

introduction and acculturation of imported *materia medica* to the medicining consumer through the seventeenth and eighteenth centuries. Central to the analytical methodology used throughout this thesis is the idea that these understandings can be drawn out through analysis of form, decoration, and ascribed function, but must also be drawn from the materiality of these objects. The affordances provided by the choice of impermeable glaze and soft but mass producible earthenware influences the choices made when furnishing an apothecary and in turn then affected the social-material interactions in the shop for both the apothecary themselves and customers. Dealing primarily with assemblages, rather than individual objects it becomes difficult to explore each item as a 'thing' the way that Ingold would prefer, and because the shop is the key site of analysis in the present work and questions arising from the production of the material culture used in that space are relatively limited there is little value in adopting the ecological approach developed by Ingold (2007a, 2007b, 2010, 2012) above that of Tilley (2007) and Knappett (2007).

In addition to issues of agency, all historical archaeologies also grapple with the intersection between material culture and writing (Moreland, 2001: 103). The similarities between artefacts and texts are often cited, but many scholars argue that artefacts and texts are different in principle and should be analysed as such (Johnson, 1996: 189; Andrén, 1998: 145; Hodder, 2012b: 172; Harvey, 2018: 13-14). In fact, rather than interpret artefacts as texts to be 'read' Hodder (2012b: 173) treats written texts as a 'special case of artifacts' in his analysis and exploration of research methodologies. The archaeology and history relationship, in reality, should be considered as a 'special historical archaeological context', an approach that presupposes neither discipline as the origin for interpretation and considers them equally and in dialogue (Andrén, 1998: 155). This means that, in periods where it is possible, material

culture, visual culture, documentary sources that relate to material culture, and even texts that are related in topic only to the wider research questions ought to be included (Pennell, 1999b: 36). This is complicated however by 'acute differences of training, language acquisition, methodological approaches, and research questions between those focused on documents and those focused on sites and artifacts' (Beaule, 2017: 8), a division that this research project seeks to bridge. The complex, and multifaceted meanings of material culture that are evident from the varied approaches to analysing them are often left implicit in documentary sources because many of these meanings and understandings with which material culture was imbued, would have been evident to those people who used or otherwise interacted with it (Johnson, 1996: 187). It is for this reason that this thesis takes an interdisciplinary and multi-disciplinary approach integrating texts, material culture, and the pictorial sources to better analyse the physical, and visual experience of the early modern apothecary shop material culture, through meanings not visible in the material culture itself, and incorporating elements of the furnishing of the shop which do not survive archaeologically.

One final aspect of archaeological analysis which differs from material culture histories is the use of assemblages of artefacts rather than individual specimens. Paula Findlen (2013: 13-14) suggests that historians of material culture should be wary of focusing too much on 'exceptional things' over assemblages or mundane things. In archaeological understanding an assemblage is a group of artefacts, and/or ecofacts, found together and therefore linked by their context. This can range from a group found in a single cut feature such as a pit to the entire artefactual collection from across a site, as long as the contextual, stratigraphic, and spatial relationships between those materials is recorded and understood. Gaimster (2015:

59) rightly claims that 'Archaeology and the study of excavated material culture have the capacity not only to calibrate and amplify but also challenge the established documentary record of changing human experience'. It does this by incorporating both the visual and symbolic aspects of things, and their functional natures. Some objects are designed specifically to be representational, to communicate a message; however, most objects are produced with their function, not symbolism, as their most important aspect (Hodder, 2012b: 175-176). Indeed Olsen *et al.* (2012: 155) critique material culture studies for focusing on the symbolic and representational aspects of an object, but their functions are equally if not more important, especially for those people of the past who actually used them. The reverse is true as well though; even everyday objects are 'not merely functional' but are inherently tied to constructions of self, professional, and/or, social identity (Woodward, 2007: 161). It is the performance of these multiple meanings that archaeology is best placed to examine though the aggregate of an assemblage with multiple vessels and materials represented. The additional context of the other material culture present in an apothecary shop for example allows a more nuanced understanding of the messages imparted by each vessel in relation to the other and by the furnishing of the room as a whole setting. Indeed the 'narratives and performances' that Ian Woodward (2007: 151) ascribes the cultural efficacy of objects to is the central focus of this thesis, as is the importance of the assemblage as a unit of analysis.

This thesis then will combine the 'History and things' approach of material culture historians which considers objects and texts as separate but entangled lines of evidence for understanding the past with the archaeological unit of the assemblage which allows a more detailed analysis of the performance of identity by apothecaries in their shop spaces. Doing so will highlight that material culture cannot simply be 'read' but that analyses in this area

must also consider the materiality and material affordances which are so key to archaeological analyses of material culture but are sometimes overlooked in traditional material culture history. In this respect the thesis will show how meaning in the material experience of apothecary shops was communicated not only by the surface level designs and symbolism of objects, but that meaning also arose from the materials themselves allowing them to be agents in the interactions within the shop space acting upon the apothecary's and the patient's understanding of the space. Integrating these analyses with documentary and pictorial lines of evidence as is done in both historical and historical archaeological research will allow this thesis to unlock a fuller analysis of the choices made by apothecaries within their shops in the seventeenth and eighteenth centuries

## **2.2 Sources for the Material Culture of Apothecaries**

Considerations of the material culture of apothecaries, both within and without their shops have been completed before, though none has taken the deeply contextual and integrated approach to the sources that this thesis does. Eighteenth-century Britain and Colonial North America are especially good for these kinds of study as they were saturated in rich accounts of material culture and significant quantities of that material culture survive for primary study, including, the study of globalisation, consumption, and retailing (for some examples see Pennell, 1999a; Shamma, 2001: 164; Trentmann, 2009: 285). The ways in which analysis of apothecary shop material culture in the seventeenth and eighteenth centuries can provide insight into the global trade and exchange of medicines and scientific knowledge will form a significant element of this thesis.

With the above understanding of the multi-disciplinary approach that this thesis intends to take when analysing the material, documentary, and pictorial evidence, evidence which has never been studied as a coherent body of evidence before, it is valuable to explore the sources for this research in detail and to justify the choices which were made when selecting sites, documents, and collections to include or exclude. First, examples of archaeological explorations of these sites and types of material culture will be discussed and the reason for this thesis' focus on shop sites will be explained. Next, other encounters with this material culture in museums will be discussed and the problems and value of these largely contextless vessels to a history of these spaces will be explored to see how they might contribute to this thesis. Finally, material culture history will be re-visited, and the sources utilised throughout this thesis will be examined, including probate inventories, shop inventories, printed pamphlets, and reference books for both medicines and the 'proper' mode of medical retail.

### **2.2.1 Archaeologies of Apothecaries and Pharmaceutical Material Culture**

A key aim of this thesis is to fill a significant gap in the published archaeological record. As discussed in Chapter 1, apothecaries were arguably the most common class of medical practitioner in the early modern period and they should be the most archaeologically visible as they utilised the most durable material culture; however, there has never been a synthetic analysis of apothecary shop sites or the apothecary as a professional through archaeology before. Additionally, as already established, apothecaries present a unique locus for studying the rapidly and profoundly changing world of the seventeenth and eighteenth centuries. That chronological change, and the active choices made to incorporate new knowledge and commodities into society whilst advancing botany, chemistry, and medicine, can be seen through archaeological excavation. Archaeology also allows us to examine the retailing and

other aspects of the business of the apothecary that are often overlooked in favour of their medical practice in museum presentations and pharmaceutical histories.

This thesis explores the archaeology of apothecaries' shops through the material recovered from ten sites which can be confidently linked to a practising apothecary shop. Within the assemblages presented in Chapters 3 and 4 of this thesis are four apothecary shop sites in the City of London, and one each from the close-by towns of Stratford and Brentford. Outside of London, sites from Norwich, the second city of England at this time, and Colchester, a prominent provincial town are included. Further afield there is one recently excavated site from Dublin in Ireland, and one well-known site from Colonial Williamsburg, VA in North America which form valuable comparisons to the otherwise relatively clustered English data. Apothecary related material culture is present in a much wider range of contexts in the archaeological record, however, and in some sense formed a ubiquitous and familiar aspect of early modern material worlds.

In completing a comprehensive survey of archaeological sources for the material culture of apothecaries there are generally four main ways that the material culture of the apothecary appears in archaeological literature outside of sites that can be confidently linked to an apothecaries' shop. These different types of sites where apothecary material culture is encountered are valuable for understanding the range of places where this material would have been encountered in the seventeenth and eighteenth centuries. Moreover, they are valuable for research into the material context within which such shops were operating. The first is single find spots where one or a small number of pharmaceutical ceramics are excavated in isolated or unclear contexts, or where they form a small part of refuse, cess, or

similar pit-assemblages, usually associated with domestic contexts or community level dumping activity. The second is their inclusion in typologies, in much the same way as occurs in art-historical approaches to this material, although often with a greater focus on the materiality of the vessels rather than just their form and decoration. The third way that archaeologists encounter and write about the material culture of apothecaries is through the excavation of production sites due to the significant interest in early-modern industrial sites such as potteries or glassworks. Finally, there are wreck sites and institutional excavations where apothecaries were present, or at least pharmaceutical practice was carried out outside of the shop setting that is the core to this thesis. I will also discuss here the few sites that it was not possible to access in detail but where it may be possible to suggest from the material the presence of an apothecary shop. Investigating these sites will form an important part of future work.

### ***2.2.1.1 Shop Sites***

This thesis then will focus on apothecaries' shops as a nexus of retail, international trade, and medical practice. These spaces are uniquely suited to these areas of inquiry as apothecaries in their shops made use of advancing retail practices in the seventeenth and eighteenth centuries, were engaged in international trade and exchange of both *materia medica*, material culture, and knowledge, and were the most accessible medical practitioner for the majority of the population. Chapter 3 and Chapter 4 will cover ten sites where an apothecary shop is indicated through material culture, documentary research, or both. Those sites are situated in the City of London, Stratford and Brentford in Greater London, Colchester, Norwich, Dublin and Colonial Williamsburg, VA, USA. Although this is the largest such survey to have been undertaken to date, it has not been possible to access material or complete



reports from several other possible sites of apothecary shops that have been excavated, or such examinations have suggested that the site may not be an apothecary's shop, so the sites have been excluded from the later analysis. These sites are summarised here and their exclusion from the later analysis is justified.

Sites of apothecary shops are often suggested by excavators based on limited material culture, or otherwise in such a way that an artefact catalogue is not available to review. Allan (1999: 162) for example cites a 'Pharmaceutical Jug' from the 1982 Paul Street excavations in Exeter (find nos. 1491, 1492) which was decorated with dark and light blue, green, orange/brown, and yellow with bold floral scrolls and a rosette below the spout and associated with a 'major' group of late sixteenth-century glass that was not enumerated. This led Allan to suggest that it came from a shop's stock and was not in domestic use. A similar site from Leicester, 101-105 High Street, excavated by University of Leicester Archaeological Services (ULAS) in 1998, included two probable pits of interest (Gnanaratnam & Sawday, 1998: 1). These pits were dated to the later seventeenth or early eighteenth century and produced fragments of possibly as many as nine ointment pots and two glass phials (Gnanaratnam & Sawday, 1998: 3). With the small quantities on this site, the presence of an apothecary is not supported. What would be needed to identify the site of an apothecary's shop using this material culture is high numbers of each type of vessel. Further complicating the association of this site with an apothecary shop is the complete lack of documentary information regarding the property ownership, residents, and boundaries on Leicester High Street in the later seventeenth and early eighteenth century (Gnanaratnam & Sawday, 1998: 4). For these reasons I must disagree with the, admittedly tentative, conclusions in the site

report and published excavation note, that these pit fills were the result of waste from an apothecary's shop (Gnanaratnam & Sawday, 1998: 4, 6; Gnanaratnam, 1999: 80).

In a similar case, Rutter (1984) reports on the excavations at 11 Watergate Street, Chester. Excavation at this site, as with many in Chester, was focused on the Roman remains, but the medieval and post-medieval finds were retained although their associations and stratigraphy, unfortunately, were not (Rutter, 1984: 58). In all nine fragments of nearly complete drug jars were excavated, along with seven sherds of ointment pot and one large piece of an apothecary pill tile (Rutter, 1984: 62, 65). Rutter (1984: 67) suggests that this group of seventeenth-century material 'may well be all or in part the debris from an apothecary's shop', admitting though that 'no documentary reference has been found relating to these premises as belonging to an apothecary'. Unlike the Leicester site, however, I think that Rutter (1984: 67) was likely right since, as they point out, 'the number of jars and pots in a purely domestic context and a [pill] tile of this type ... would be unusual' anywhere except the shop of an apothecary. This assemblage was not able to be accessed but is a candidate for future study as the quantity of material culture and the location of the site support its initial identification as the remains of an apothecary shop.

One site which has provided even more convincing evidence of an apothecary shop that nonetheless could not be included in the fuller catalogue comes from the site of the Bodleian Library Extension on Broad Street, in Oxford. The excavations of this site, which was immediately outside of the medieval city walls and opposite the Smithgate, was reported by Rupert Bruce-Mitford (1939). The evidence suggests that the site was occupied from the thirteenth to sixteenth centuries and records from the end of the sixteenth century suggest

that the people living in the houses on the site included an apothecary and a doctor (Bruce-Mitford, 1939: 91). The features of interest on the site are amongst the twenty-six medieval and post-medieval wells, none of which seem to have been in use for more than thirty years, and the 'considerable number' of medieval and post-medieval pits which were excavated (Bruce-Mitford, 1939: 93, 95). Pits A and B, each 8ft. square and stone-lined contained 'the bulk of the bellarmines or greybeards found in the site; a quantity of squat English glass wine-bottles, 1660-1720, and most of the small tin-glazed drug-pots and apothecaries' medicine-bottles' (Bruce-Mitford, 1939: 132). These pits could be associated with Nos. 46 and 47 Broad Street, respectively. Pit F also contained a 'large drug-jar of tin-glazed Lambeth delft with blue and white decoration, and other fragments of the same ware', whilst Well 5, the only post-medieval well, contained 'one large and two smaller drug-pots of tin-glazed Lambeth delft' dating to the seventeenth century (Bruce-Mitford, 1939: 137-138). There was also, across the site, 'numerous small plain tin-glazed drug jars both of the cylindrical type and of the pedestalled type' (Bruce-Mitford, 1939: 140). Combined with the rest of the pharmaceutical ceramics these excavations suggest that there was possibly an apothecary shop on Broad Street in the seventeenth century. As with the assemblage from Chester, this likely apothecary shop assemblage is a candidate for further study though at present it is unclear where the assemblage is stored.

Amongst the possible sites I have examined in North America there is one definite apothecary shop that I was not able to include in the full catalogue as there was no artefact evidence of pharmaceutical activity found when it was excavated (South, 1999: 140). This site is the apothecary shop at Bethabara, in North Carolina, the first Moravian settlement in the state (South, 1999: 3). The building of the apothecary shop at this settlement was begun in 1763,

it was finished and in use in 1764, and during tree clearances for the new town of Salem in 1766 it still contained drugs and was presumably well used (South, 1999: 135). Although there was no artefactual evidence at the apothecary shop some evidence from the nearby pottery, built in 1756, suggests the types of locally made pharmaceutical ware that may once have been present (South, 1999: 3, 235). From South's (1999: 235) description and illustrations it seems that apothecary jars of a cylindrical form, or a bulbous form similar to later English shop jars, with a flared rim and often incised with lines at the shoulder and near the base, were produced at the Moravian pottery in the eighteenth century. Since this study is focused on the material culture of apothecary shops this site, although one of few apothecary shops confidently identified archaeologically from the correct period in North America, could not be included. More common in North America are apothecary shops where there is little to no archaeological evidence for their existence. For example, Bonasera and Raymer (2001: 53) talking about a mid-nineteenth century apothecary in the Five Points neighbourhood of Lower Manhattan, have only one piece of direct archaeological evidence for its existence; a proprietary medicine bottle. The bottle is embossed M. E. HALSEY & Co/DRUGGISTS/421 PEARL ST NY, and Bonasera and Raymer (2001: 53) confirm that the shop was at this location between 1851 and 1853.

Although these sites are not of the quality of publication, or otherwise were inaccessible or inappropriate for inclusion in the main analysis of this thesis, they do show that *in situ* assemblages of these kinds of material culture are immediately able to indicate the experience of the shop spaces from which they originated. For example, the Five Points shop from the mid-nineteenth century was using branded medicine bottles embossed with their address and so a branded experience of the shop and medicines was a feature of sourcing

medical care at that shop. There are also however already some shortcomings of the shop sites when addressing these historical questions. The material culture recovered at these sites are primarily or solely ceramics and glassware which is necessarily only a fraction of the totality of the shop material culture, and so other collections, which include extant material culture, are a useful supplement to the archaeological data for this thesis presented in Chapter 3 and Chapter 4.

### ***2.2.1.2 Wrecks and Institutions***

Perhaps the most prominent, to the public at least, archaeological site where pharmaceutical material culture has been recovered *in-situ* is the wreck of the Mary Rose (sank 1545). Although the ship was wrecked before the period under study it is an interesting example of an alternative site where the material culture of medicine, both surgical and pharmaceutical, may be encountered. During the recovery work on the wreck the Barber-Surgeon's cabin was excavated (Derham, 2002: 105). The walnut, dovetailed chest of the barber-surgeon aboard was recovered intact, and more than 60 items were stored in the chest with several more found in the cabin (Derham, 2002: 105; Castle *et al.*, 2005: 189-190). The material found in the cabin, although heavily related to pharmaceutical preparations and the storage of medicines, is markedly different to that found in the seventeenth and eighteenth centuries as this was before tin-glazed earthenware was being made in Britain, and even before it was a common import. Seven of the nine ceramic jugs found in the cabin and chest for example were Raeren stoneware with cork bungs, rather than tin-glazed earthenware (Castle *et al.*, 2005: 190). Stoneware was preferred at sea as it was corrosion-resistant and non-porous like tin- or lead-glazed wares, whilst being much more robust (Gaimster, 1997: 107, 123). There was one example of south Netherlands delft in the cabin, but it was of a markedly smaller size

than the other ceramic storage vessels and the only highly decorated ceramic, so Castle *et al.* (2005: 192) suggest that it was used to store a valuable liquid that was only needed in small quantities.

In addition to the ceramics, three glass phials, nineteen turned wooden containers and lids, three pewter canisters, three pewter flasks, and a copper alloy mortar were recovered; emphasising the variety of material culture that was used to store and prepare medicines in the early post-medieval period (Castle *et al.*, 2005: 192-193, 199, 202). Spectral analysis of residues from the various containers that were recovered revealed a wide range of metallic compounds that were in use for pharmaceutical purposes on the ship; mercury, tin, zinc, and copper, all usually mixed into organic preparations (Derham, 2002: 109). Botanical remains were generally absent apart from peppercorns and flax fibres; however, a two-handled jug was excavated with a cork bung and the internal residue suggested that it contained fern oil or root extract which had been mixed with an animal fat (Derham, 2002: 109-111; Castle *et al.*, 2005: 192). The spectral and chemical analysis of the residues suggests that the Barber-Surgeon was using some imported ingredients that would have had to come into England through the Grocers' Company at this time, unless they were bought abroad by the Barber-Surgeon himself (Derham & Castle, 2005: 224). Other wreck sites have also provided a significant quantity of material culture evidence for pharmacy and apothecary practice. In the 1980s and 2010-2011 excavations of the tentatively identified 'Scorpion', Joshua Barney's flagship from the War of 1812, for example, the second most common category of artefacts were medical (Neyland & Enright, 2016: 125, 133). Those artefacts included scalpels, forceps, scissors, a dental tooth key, and a number of pharmaceutical bottles and jars (Neyland & Enright, 2016: 134-135).

In wrecks then we have an example of archaeological sites where the material culture which forms the central focus of this thesis was in use. However, they are contextually a very specific and limited space where an individual practitioner, who was often a surgeon rather than an apothecary, treated a limited group of patients and did not have a thriving retail business in the same way as their colleagues on land would have. In this regard the value of these sites to questions of retail are limited but through careful analysis they could contribute to questions regarding the accessibility of medicines and the acculturation of imported *materia medica*, some of which would have been transported as commodities on these ships and some of which would have been carried as personal or company stock for use on them.

A more chronologically relevant way that apothecaries, and medicine in general, are encountered *in-situ* through archaeology is in the excavation of medical institutions like hospitals. In the majority of these excavations, however, there is an osteological focus, for example at the London Hospital burial ground excavations in 2006 (see Fowler *et al.*, 2014). Although this is often forced by the context of planning archaeology it means that the medical personnel, their practices, and material culture are often not included in these studies. Some pharmaceutical material culture was engaged with at Radcliffe Infirmary, Oxford, however, which was opened in 1770. Specifically, the assemblage was from the first laundry's soakaway which was used as a dump after its demolition in the early nineteenth century (Jeffries *et al.*, 2015: 249-250). Two hundred and eighty ceramic vessels were excavated as well as a large quantity of glassware, of which a significant proportion (28.7 per cent) could be classed as pharmaceutical (Jeffries *et al.*, 2015: 250, 261). Twelve late-eighteenth-century, tin-glazed earthenware drug jars decorated in blue and manganese stripes of varying sizes were represented, as were 45 intact creamware ointment pots representing twelve different sizes,

and twelve tin-glazed examples (Jeffries *et al.*, 2015: 251). Twenty-five free-blown glass phials and two distinctively shaped bottles for Daffy's Elixir were also excavated in the same assemblage (Jeffries *et al.*, 2015: 251, 253). One of the delft ointment pots was painted with WALKER OXFORD, which relates it to the tenure of Richard Walker who was the apothecary to the infirmary between 1781 and 1805 (Jeffries *et al.*, 2015: 252).

Apothecaries were also intimately involved in this kind of medical care in London where charitable hospitals were founded in the eighteenth century with the 'elaboratory' for the apothecary being amongst the first departments established and resident apothecaries being employed to ensure the supply of medicines (Ellis, 2005: 136; Anderson, 2007: 3). These apothecaries were more limited than their freely trading peers as they were not able to practise pharmacy or any other business outside the hospital (Crellin, 1961: 333). In these hospitals in London, the apothecary was considered inferior in medical matters to the surgeons and physicians and the same was the case in North America after the founding of the Pennsylvania Hospital in Philadelphia in 1752 (Williams, 1976: 804). However, they were indispensable because they were resident which the physicians and surgeons were not, which meant that often decisions regarding each patient's care were left to the apothecary (Crellin, 1961: 327; Whittet, 1965: 34). These apothecaries 'diagnosed and treated patients, but their bills were simply for the supply of medicines' (Anderson, 2007: 5). In addition to these medical decisions, the apothecary had to take care of the shop, utensils and medicines and they also had to provide written instructions to the patients who got their medicines despite the illiteracy of many patients in hospitals for the poor (Crellin, 1961: 335-336).



As in the case of the excavation of early-modern wrecks, hospitals often produce significant assemblages of material culture related to the work and practice of an apothecary, who was often resident in or solely employed by the institution. Here too there are interesting questions about acculturation and access to new *materia medica* which can be asked, and which form an element of the later analysis of apothecary shops in this thesis. However, once again the apothecaries who served these institutions served a small and specific population and were also limited in their pharmaceutical practice as they could not keep a shop as their retail colleagues did.

### **2.2.1.3 Production Sites**

Productions sites for ceramics and glassware in the seventeenth and eighteenth centuries tend to produce extremely large assemblages of material culture and can provide insights at the other end of the use-life of these materials from the refuse, domestic, and single-findspot sites discussed above. Since the majority of diagnostically pharmaceutical ceramics in the seventeenth and eighteenth centuries are tin-glazed earthenware it is no surprise that the majority of production sites that include finds of this kind of material culture are pothouses. Bloice (1971: 99) for example reports the excavation of a tin-glazed pottery manufacture site in Lambeth called the Norfolk House Kilns. The archaeological and documentary evidence suggests that this site was producing delftware from c.1680 to c.1737, and the majority of the finds from the site were 'kiln furniture and of pottery both in biscuit and in glazed state' (Bloice, 1971: 99, 117). Within this assemblage, Bloice (1971: 126-127) identified a wet drug jar from a rim and upper body fragment, as well as eleven 'albarello-type containers' some cylindrical, and some with constricted waists. In total there were nineteen sites of tin-glazed earthenware production in London between 1540 and 1846 (Tyler *et al.*, 2008: xiv). The

Pickleherring and Rotherhithe potteries are known archaeologically, and both are known to have produced pharmaceutical ceramics. Tin-glazed pottery was also manufactured at Glasgow, Bristol, Liverpool, Wincanton, Lancaster, Belfast and Dublin, and as early as 1674 English potters were exporting tin-glazed earthenware to Barbados and the 'King's Plantations' (likely the West Indies or America) (Tyler *et al.*, 2008: 11).

The excavation of the Rotherhithe Pothouse, in Southwark which was in production from c. 1638 to 1684, revealed no structural remains but a series of pits filled with waste from the pottery (Tyler *et al.*, 2008: 60-61). As would be expected a far greater quantity of biscuit-ware was discarded than glazed wares (92 per cent biscuit to 8 per cent glazed, excluding kiln furniture) (Tyler *et al.*, 2008: 64). As at Pickleherring (see below) wet and dry drug jars were recovered both in biscuit and glazed, their forms being extremely similar to those from the other pothouse (Tyler *et al.*, 2008: 68-69, 77-79). Apothecary's jars are estimated by Tyler *et al.* (2008: 114) to make up between 23.75 per cent and 48.06 per cent of production at Rotherhithe. Another of the London pothouses to have been excavated is at Mortlake where excavations on the High Street between 1996 and 1997 revealed the remains of a pothouse that opened in 1745 (Sloane *et al.*, 2003: 43, 53). This is the only pothouse excavated where significant numbers of tin-glazed earthenware pill tiles have been recovered, in this case octagonal 'pill slabs' with the arms of the Society of Apothecaries on them (Sloane *et al.*, 2003: 71). In addition to the pill tiles, there were the usual drug jars and ointment pots that might be expected including some painted ointment pots with a flared pedestal base and decorated in a blue floral design (Sloane *et al.*, 2003: 71).

In the excavations of the Pickleherring Pothouse, Southwark which produced pottery between c.1618 and 1723 there were significant quantities of apothecary's wares across the site. In a dump of biscuit ware (VIN88 [84]) associated with Kiln 1 for example there was a sherd of wet drug jar <P49>, and another was found in demolition material associated with Kiln 3 (ABO92 [620]), both dated to the seventeenth century (Tyler *et al.*, 2008: 36-37). Drug jars of various sizes from 25mm to 300mm in diameter were excavated from across the site in both biscuit and glazed states, with most of the glazed jars in plain white, either to be sold undecorated or not yet decorated (Tyler *et al.*, 2008: 37-38, 47). The few decorated jars that were excavated tended to only be painted with geometric forms or horizontal bands of colour, with one or two sherds that appear to be decorated with flowers or a 'bird on the rock scene <P47>' (Tyler *et al.*, 2008: 47-48). There is also documentary evidence for the importance of apothecaries to the tin-glazed earthenware potteries. In the inventories of the Pickleherring Pottery, 23,340 out of a total 84,259 listed delftware vessels were described as 'Apothecaries Wares', and 222 other vessels were 'Stall Jars' which were large storage jars used by apothecaries and other retailers (Britton, 1993: 64). The sheer volume of apothecary's wares (27.7 per cent) shows how important the business of apothecaries was to the London delftware potteries but tells us a little about the apothecaries themselves; however, it is interesting to note the extreme standardisation even between pothouses when it came to apothecary wares.

That standardisation is an element of the apothecary shop material culture which will be explored later in this thesis; however, it must be noted that it is not reasonable to make too many inferences and draw too many conclusions from these material culture assemblages before any of it was used in an apothecary shop. Production sites can aid in answering

questions about the medical, retail, scientific, and social work of apothecaries but only in supplement to assemblages from shop sites or other sites where the material culture was in use.

#### ***2.2.1.4 Single Findspots and General or Domestic Refuse***

This is a broad and necessarily ill-defined group of sites and findspots where some pharmaceutical or apothecary material culture was encountered. It is by far the most common way in which these artefacts enter the archaeological literature, and in most cases the short note or quick mention of the find is all that comes from these sites; no further work is done whether because other research questions are being pursued or through lack of interest or funding. Most of these kinds of finds come from London where the greatest concentration of recorded post-medieval archaeology has been carried out in Britain.

The findspots from London include a tin-glazed drug jar which was recovered from a pit on the site of the Guild Hall of the Salters' Company, excavated 1949-1950, and a tin-glazed drug jar excavated from the site of Minster House (excavated 1954-55) (Blair *et al.*, 2013: 110). At the site of Gateway House, 1 Watling Street (excavated 1954) three tin-glazed drug jars were excavated, as well as several phials dated to before 1630-50 (Blair *et al.*, 2013: 111-112). Phials were also found at 110-116 Cheapside (excavated 1955-1956) (Blair *et al.*, 2013: 113-114). The Cheapside site is interesting as this was an area in the city where there was a significant concentration of apothecaries in the seventeenth and eighteenth centuries, but the other sites noted by Blair *et al.* (2013) are more difficult to analyse without the rest of the assemblage and the history of the sites being listed. In perhaps the most egregious example that I have come across, Noël Hume (1956: 100-101) describes the contents of a brick-lined

refuse pit which was excavated in London containing some tin-glazed ointment pots and a variety of pharmaceutical glassware and then goes on to describe the bottles and phials without identifying where the excavation took place. He concluded that these were dispensing vessels from an apothecary but does not explore whether the site was an apothecary shop or a domestic site and so instead the finds could simply be evidence of the consumption of medicines rather than their production or sale.

Outside of London, Wilson and Williams (2001) published a short note on the second part of an Italian albarello recovered from the roots of a fallen oak in Merstham Surrey. The sherd was made of maiolica and decorated in 'grotesque' style on a white ground with human-headed figures and a P and a D remaining from the name of the compound that this jar used to contain (Wilson & Williams, 2001: 119). In this case, Wilson and Williams (2001: 119) do not simply report the find, but instead suggest that the vessel that this sherd came from was most likely made at Montelupo, near Florence. These vessels would have been the standard ceramic drug jars for the sixteenth and early seventeenth century in Europe. Wilson and Williams (2001: 120) note that:

The archaeological record indicates that relatively little grotesque-painted maiolica was imported into England at this period: it is a remote but attractive possibility that the jar found in Surrey might have formed part of [a] documented consignment of maiolica made in Pisa, sent on the orders of the Grand Duke of Tuscany to England around the beginning of the 17th century.

This analytical work however is the exception, more common is an excavation report for a site at Upper Maudlin Street in 1989 in Bristol that states only that the excavators recovered 'three 17th century apothecary's bottles' (Ponsford *et al.*, 1990: 181). Single findspots then

are valuable as indicators of the kinds of material culture related to medicine and apothecaries in use through the two centuries which this thesis is focused on. They do not however have the main advantage of archaeological explorations of these periods; the assemblage.

More useful than those single findspots or limited reports then are domestic sites where pharmaceutical material culture has been excavated as those sites indicate the types of material that were used to dispense medicines bought at an apothecary and their use or discard once they were taken home. An example comes from the site of The National Gallery East Wing development in London which was a wealthy residential district near the Royal Mews in the seventeenth and early eighteenth centuries (Telfer, 2006: 208). The features of interest at this site are two brick-lined cellars and a cesspit. The cesspit contained an assemblage of pottery and glassware from c.1670-1690 described as an 'important and impressive collection of vessels and bottle glass as well as English tin-glazed earthenware' (Telfer, 2006: 193). That assemblage included pharmaceutical bottles and phials as well as small white tin-glazed ointment pots, which is the dispensing material culture that is commonly found on domestic sites (Telfer, 2006: 199, 202). There was however one decorated albarello which is a little more unusual but may have been used to transport a large amount of one medicine or was used for a non-medicinal purpose (Telfer, 2006: 202).

These sites and findspots are not restricted to Britain; there are also many examples from Colonial North America. The isolated findspots are often from the sites of early forts established in newly colonised areas. Grimm (1974: 52-53) mentions and illustrates an ointment pot and drug jar from Fort Ligonier (near Pittsburgh, PA), and the assemblage from

Fort Albany, established by the Hudson Bay Company between 1674 and 1679 in present-day Ontario, included thirteen reconstructable plain white tin-glazed earthenware apothecaries' pots, and three larger apothecary jars that could not be reconstructed (Kenyon, 1986: 55). There is even an example of this material in the assemblage from an English fort. Drug jars dating to the seventeenth century formed 1.4 per cent of the ceramics recovered at Tillbury Fort, Essex, and pharmaceutical bottles and a variety of hygiene wares were also present (Moore, 2000: 44).

Another example of excavations where isolated pieces of pharmaceutical material culture have been recovered is Jamestown, VA (Straube, 2002; Horning, 2013: 293). The Historic Jamestowne settlement excavations, whilst of great importance to historical and colonial archaeology in the USA, recovered mainly structural evidence. In John Cotter's (1994) summary the assemblage of interest is from Refuse Pit 5. This was a small shallow pit associated chronologically and spatially with Well 20, from which was recovered 'seventy-five Dutch delft and majolica fragments including drug jars' (Cotter, 1994: 152). This complex is identified as a possible brewery and/or apothecary by some scholars (McCartney & Ayres, 2004; Edwards, 2005: 66). It is interesting that the ceramics were Dutch since a lot of domestic pottery was imported to Jamestown from the Dutch and Germans, in defiance of trade obligations that the colony supposedly had with England (Cotter, 1994: 165). Jelks (1994: 206) notes the presence of Dutch and Flanders delftware, French faience, Hispanic, Portuguese, and Italian Majolica, and even some possible Mexican and West Indian majolica. In more recent excavations at the nearby James Fort by Jamestown Rediscovery, tin-glazed earthenware drug jars were the most common form of European ceramic, with thousands of

shards recovered, found in the earliest contexts (pre 1610) of English settlement at the site (Jamestown Rediscovery, 2021).

At Roanoke too, the early colonial fort and settlement excavations include pharmaceutical material culture. An apothecary weight and at least two albarelli were excavated from the Fort Raleigh site in North Carolina, and at Roanoke itself, some Anglo-Netherlandish tin-glazed earthenware apothecary jars have been found (Skowronek & Walker, 1993: 58, 62-63; Straube, 2013: 194). The examples at Roanoke were found in the 'science centre' related to the work of scientist Thomas Harriot who wrote of "many sortes of Apothecarie drugs" that the colonists encountered, but these are also amongst the most common vessels in excavations at James Fort (Straube, 2013: 194). There was also evidence of crucibles, cupels and distilling vessels at Roanoke and James Fort indicating scientific enquiry including alchemy, medical science and metallurgy (Straube, 2013: 195).

Apothecary wares also occur in significant numbers in later eighteenth-century refuse dumps and domestic sites. In an example from Charleston, SC, excavations 'in front of the redan at South Adger's Wharf' for example produced a 'representative sample of materials used in the city at the beginning of the 18th century' due to its use as a communal dumping area over the seawall in the late seventeenth and early eighteenth centuries (Zierden *et al.*, 2016: 102-103). The finds included undecorated, blueish tin-glazed ointment pots and taller cylindrical gallipots decorated with blue horizontal stripes (Zierden *et al.*, 2016: 103). The area was excavated in 2007 as part research, part preservation work in advance of a historic street restoration project (Zierden *et al.*, 2016: 94). In Anne Yentsch's (1991) summary of Chesapeake artefacts and their cultural context, there are two domestic sites where



apothecary material culture was excavated. At the Drummond site, Governor's Land in James County, Virginia there were 30 drug jars and 4 ointment pots from the 1680-1710 layers (Yentsch, 1991: 57-58). This site is associated with one William Drummond who was a governor of North Carolina in the third quarter of the seventeenth century and was also a wealthy planter (Yentsch, 1991: 57). At the Calvert site, in Annapolis, Maryland there were 12 ointment pots from the c.1730 features (Yentsch, 1991: 57, 59). This site was occupied by two of the fifth Lord Baltimore's brothers as well as one of his cousins. Two of those men served as governors of Maryland for the period between 1720-1733 (Yentsch, 1991: 57).

Assemblages of medical ceramics then, especially in domestic and refuse contexts, allow an exploration of what material culture was in use at these sites and through these centuries. They highlight the familiar presence of certain types of apothecary wares in everyday contexts, demonstrating the widespread access to their medical preparations across early modern society. At the same time, other categories of apothecary ware such as the large and decorative drug jars are comparatively rare and can be seen as distinctive elements of the material and visual experience of the apothecary shop. It is the confluence of this distinctive and even diagnostic material culture and the space of the shop in which it occurs that is most valuable for an examination of the ways in which apothecaries presented themselves, their profession, and their scientific entanglements.

### **2.2.2 Collections and Display in Museums**

The fascination with the history of medicine amongst the public, since medicine in some form is a near-universal experience, means that pharmaceutical and surgical material culture is widely collected and displayed by various kinds of museums and heritage institutions. This

thesis draws from the collections of the Charleston Museum, Charleston, SC; the Stabler-Leadbeater Apothecary Shop Museum, Alexandria, VA; the Thackray Museum of Medicine, Leeds, UK; the Pasteur and Galt Apothecary Shop Museum, Colonial Williamsburg, VA, the Royal Pharmaceutical Society Museum, London, UK; and The Wellcome Collection, London, UK. Museum collections that do not originate in archaeological excavations present a supplement to an archaeological understanding of the shops of apothecaries. These collections often include material culture which does not survive archaeologically due to recycling or being made of perishable materials. They can also present the material in a recreation of the physical nature of these spaces and making them more easily experienced. There are mainly three ways that apothecaries are presented to a curious public.

The most common is probably the social history display of a reconstructed apothecary shop. These collections, such as the Apothecaries Hall Museum at the Charleston Museum, and the Stabler-Leadbeater Apothecary Shop in Alexandria VA, present a unique array of problems because of the variety of materials that they incorporate; ceramics, glassware, laboratory equipment, *materia medica*, dispensing apparatus, shop furniture, trade cards and advertisements could all be included (Arnold-Forster, 1993: 250). These are generally composite collections rather than extant collections from individual premises although in some examples large quantities from single premises do survive (Arnold-Forster, 1993: 250). In both cases the nature and size of these collections often lead to mismatched displays with 'backroom items' in the shop area as well as items of inappropriate date alongside one another (Arnold-Forster, 1993: 250-251).

Thus, the impression that the display at The Charleston Museum Apothecaries Hall gives is one of a chaotically organised and overcrowded nineteenth-century drug store, not the neatly organised and highly controlled eighteenth-century apothecary that the premises originally were (see Figure 2:1). A better example of this kind of display is the Stabler-Leadbeater Apothecary in Alexandria, VA which displays an approximation, based on contemporary photographs, of how the shop may have looked in the later nineteenth century (see Figure 2:2). In these two cases the collections were related to a specific apothecary shop, and in Alexandria, displayed and interpreted in those same premises. At Colonial Williamsburg in Virginia however the revolutionary war era display in the 'living' museum of the Pasteur and Galt apothecary shop, is a mix of reproductions based on the George Gilmer archaeological site (see Chapter 4) and contemporary pieces collected after the fact (for the contemporary ceramics collected in the twentieth century see Austin, 1994; Kipps, 2006; The Colonial Williamsburg Foundation, 2016b, 2016a).

These general social history collections are, ultimately, of limited value for this thesis. The deliberate or accidental confusion of front and back shop material culture, and the examples of material culture with different chronological ranges, most obviously in the Charleston example, limit analytical clarity. More valuable are the collections of material presented as coherent survivals from an apothecary shop, usually from the nineteenth century, and collections, usually of pharmaceutical ceramics, presented to form an aesthetically pleasing display, indeed their aesthetic qualities being the primary reason that they were collected in the first place.



*Figure 2:1. Apothecary's Hall display at The Charleston Museum, Charleston, SC, USA. Showing a variety of nineteenth-century medicine containers stacked several vessels deep on the shelves and alongside one another which goes against the highly organised and well-spaced display which would be expected in an eighteenth-century apothecary's shop. Photograph by Author, Courtesy of The Charleston Museum, Charleston, South Carolina.*



*Figure 2:2. Shop shelving at the Stabler-Leadbeater Apothecary Shop Museum, Alexandria, VA, USA. Showing an organised and consistent display of later nineteenth-century glass drug jars labelled similarly and shelved in their individual spaces. Photograph by Author, Courtesy of the Office of Historic Alexandria.*

### ***2.2.2.1 Coherent Collections of Material***

One other valuable type of museum collection for research in this area are coherent collections of material culture; collections that have an unbroken provenance that links them together and to a single apothecary shop, or a succession of shops. There are several examples of this kind of collection that this thesis draws upon; for example, the Apothecary's Hall Collection at The Charleston Museum, Charleston, SC; the collection at the Stabler-Leadbeater Apothecary Shop Museum, Alexandria, VA; and the Richmond Collection of ceramics at the Thackray Museum of Medicine, Leeds.

The first two of those collections, as discussed previously, are from apothecary shops that have their origins in the late eighteenth century, and which have passed into the care of the city museum or local heritage authority. It may seem then that these collections are uniquely placed to allow us to examine the experience of entering an early modern apothecary shop in colonial and early republican USA. These collections however are subject to issues of retention and selection similar to aesthetic collections (see 2.2.2.2) for this kind of research. The Charleston and Alexandria collections for example are mainly mid-nineteenth century or later in date due to the retention choices made by successive apothecaries and drug store owners. In the Apothecary's Hall collection there is only one thing in the collection that dates to the eighteenth century; a pill tile manufactured in Wolverhampton, similar to one illustrated in Matthews (1971: pl 14, described on page 15). This collection, and much of the interior and exterior woodwork, were donated to The Charleston Museum in the 1960s by the Poulnot Drug Company and the Schwettman family (Anderson Daily Mail, 1960; The State, 1960). The material originates from premises now known as The Lining House, built c. 1715 at the Corner of Broad and King Streets in Charleston, and currently the law offices of Howell

Linkous & Nettles, where from 1780 to 1960 an apothecary shop, drug store, and pharmacy were in operation (Preservation Society of Charleston, 2006; The Charleston Museum, 2013).

Similarly, the Stabler-Leadbeater Apothecary Shop, which opened at its current location in 1796 and closed in 1933, is dressed as it would have appeared at around the time of the American Civil War, partly as this is when the majority of the material culture in the museum dates to, and partly because of the importance of Alexandria to the Union during that conflict (Griffenhagen & Becker, 1997: 20; Office of Historic Alexandria, 2008: 1). There are, however, in the attic preparation room, some sets of drawers that likely date to the late eighteenth or early nineteenth century (see Figure 2:3). Survival of eighteenth-century furniture in British and Atlantic contexts is rare, although the interiors of apothecary shops have been reconstructed through inventories and other documentary sources. One exception to this is a collection from Winchester where a set of dry drug drawers and ceramics dating to the eighteenth century was discovered in 1961 and subsequently donated to the Winchester Museum (Lewis & Boorman, 1990: 125). Lewis and Boorman (1990: 126, 138-139) suggest that these drawers and the associated ceramics originated in an apothecary shop in the city in c.1750 and were then passed from business to business until they were found, rather than bought later as antiques for display. A similar collection of ceramics to that from Winchester can be found at the Thackray Museum of Medicine in Leeds, where the Richmond Collection includes forty seven tin-glazed earthenware drug jars of both dry and wet forms as well as a pill tile decorated with the arms of the Society of Apothecaries of London, two glass carboys, and a 1747 pharmacopoeia (Lewis & Boorman, 1990: 147-151). This collection is believed to have been owned by Matthew Bowes, an apothecary in Richmond, North Yorkshire in the

mid-eighteenth century, and forty-three of the forty-seven vessels were likely purchased as a single group and are clearly painted in the same style and possibly the same hand.

These coherent collections have at least one major interpretive advantage over primarily aesthetically constituted collections; they may contain vessels in perishable and more mundane (less display focused) materials such as the bent-wood boxes in the Charleston Apothecaries' Hall collection and the plain white stoneware mortars and pestle in the Stabler-Leadbeater Apothecary Shop collection. As such they form a valuable supplement to the material found in archaeological excavations too. Although these collections are coherent and can be linked to a single apothecary shop, they do still have some issues when used to try and reconstruct the material and visual experience of the shops of apothecaries. They are assemblages and so can be compared to the best archaeological sites for understanding these institutions, but they are nevertheless not the complete contents of these shops. Due to the passage of time and processes of retention, use, and display by successive practitioners, most similar collections are nineteenth century in date. In these processes there seems to have been a similar focus on ceramics as in the aesthetic collections, with little glassware and painted furniture, at least from the eighteenth century retained. Some element of aesthetics, therefore, may have been involved in the choices made in the past about what 'antique' materials to retain as the material culture of a pharmacy was being updated through the nineteenth and twentieth century. These collections are also often displayed in a way that dissociates them from their original context; as racks of ceramic jars behind glass (The Richmond Collection), and so relating them to the space of their use; the apothecary shop floor, becomes challenging. One solution to this which provides additional insights into the



*Figure 2:3. Attic pharmaceutical preparation room at the Stabler-Leadbeater Apothecary Shop. Showing eighteenth-century storage drawers for materia medica. Photograph by Author, courtesy of The Office of Historic Alexandria.*

apothecary shop as a physical space would be a more socio-historically oriented display of such collections.

#### **2.2.2.2 Aesthetic Collections**

Collections of pharmacy materials in museums are rarely complete and coherent sets of artefacts originating from a single apothecary through time, and often are collected for reasons other than social history. These more common collections were often collected from the open market from the nineteenth century onwards. These collections were formed for a variety of reasons including interest in ceramics or glassware, or in the history of pharmacy, but the method of collection was almost always primarily concerned with aesthetic aspects of the objects; their form and design was most important. Whether collected by the Royal Pharmaceutical Society, The Wellcome Collection, or Colonial Williamsburg these



aesthetically oriented collections present a significant number of problems when they are used to answer questions about the social and cultural position of apothecaries in the early modern period. The first of these is the loss of context from coherent collections of vessels originating in a single shop being distributed across collections, often by sale, and therefore divorced from any simple means to reconstitute these groups. The second is studies of decoration and form for their own sake and with little consideration of the social, cultural, and medical context or entanglements of these vessels when they were in use. Finally, there is the development and reliance on typological catalogues focused on identifying and describing these vessels largely without consideration of the socio-historical questions with which this thesis is concerned.

The phenomena of highly decorated jars being over-represented in museum and private collections of pharmacy material culture is not confined to Britain. Museums everywhere tend to 'focus on the complete ceramic', and even the 'luxurious and artful' with galleries being 'shrines to the rare survival ... rather than to that archaeological commonplace, the potsherd' (Pennell, 2010: 27; 2012: 65). In France such collections are mainly made up of hand-painted and highly decorated faience, as a result of collecting for style in the nineteenth century, which also results in an over-selection of the drug pots which were painted with the names of their (presumed) contents (Alexandre-Bidon, 2013: 6, 10). In addition, the collections tend to be mismatched due to the 'best' sets being spread between different museums (Alexandre-Bidon, 2013: 6). This type of collecting completely overlooks other kinds of pharmaceutical ware that are less immediately aesthetically pleasing (Alexandre-Bidon, 2013: 6). Furthermore, the forms of faience or maiolica vessels in French museum collections are artificially divided between pharmaceutical and domestic contexts when there was significant

overlap between these two spheres of use (Alexandre-Bidon, 2013: 6-7). These losses of context, the more mundane vessels which would have appeared alongside the more highly decorated vessels, and the distribution of coherent collections across institutions, mean that there is little that these collections can show regarding the full furnishing of the apothecary shop. There is still value however in incorporating these collections into research into apothecaries.

The natural outcome of collections such as these is a focus on art-historical investigation that, whilst aware of the greater context of these vessels, primarily concerns itself with the decorative schemes of the ceramics that are most often the centre of these collections. John Wilkinson's (1970) article 'Old English Apothecaries' Drug Jars' is an excellent example of the strengths and limitations of taking a visual approach to studying the material culture of apothecaries. In his article, the cartouche decorated style of drug jar, which is overrepresented in collections specifically because of its aesthetic appeal, is analysed and distinguished by the specific design scheme around the cartouche and each design is assigned a date range. This approach, also used in Briony Hudson's (2006) book looking at the jars in the collection of the Royal Pharmaceutical Society's Museum in London, is valuable as a typology for vessel identification and dating, and I do not dispute the scholarship that goes into each publication or the typology that results, but it tells us little about the apothecaries who chose to purchase these expensive vessels or even the significance of choosing one decorative scheme over another where more than one may have been available. In a hint that there could be social questions asked of these data Hudson (2006: 43) does note that there seems to be no correlation between the design scheme and the contents of the jars but does not pursue this further within the book.

Fourest and Sainte-Fare-Garnot (1981a, 1981b) produced a two-volume art-historical catalogue of pharmacy pots from the collection of many French museums. Their catalogues are less concerned with the specific design schemes employed on these vessels, although they remain prominently illustrated, but they define and catalogue the forms of drug pots produced in France in the early modern period. In the first volume, concerned with ceramics made in Paris and l'Île-de-France, there are examples of all the expected forms of drug jar from albarelli in small ointment pot sizes up to storage jars, wet and dry drug jars for shelves in an apothecary shop. The main difference of these jars from English or Dutch ones is the exaggerated foot of the seventeenth-century forms, with the neck extending as a cylinder much further than is usual elsewhere. The ceramics included also follow the English trend towards simpler shapes by the end of the eighteenth century, in this case becoming simple cylinders with lids and painted cartouches (Fourest & Sainte-Fare-Garnot, 1981a). In the second volume, concerned with ceramics made in Rouen, Normandy, Picardy, and Brittany, the sixteenth- to eighteenth-century examples are much closer in shape to English and Dutch examples (Fourest & Sainte-Fare-Garnot, 1981b).

If the natural outcome of an aesthetic focus is studies of form and decoration, then the natural result of those studies are vast numbers of catalogues that list and examine the differences in those two aspects of the material culture. In 1931 Geoffrey Eliot Howard published *Early English Drug Jars with some notes on Jacobean wine pots, cups, etc.* which appears to be the earliest example of such a catalogue. There are examples of these catalogues published throughout the twentieth century (e.g. Drey, 1978; Griffenhagen & Bogard, 1999), and often the pharmaceutical wares form a smaller part of a large catalogue of delftware, ceramics, or in one case 'artifacts' more generally (e.g. Noël Hume, 1969b; Garner & Archer, 1972; Britton,

1982: 76-84; 1986: 103-169; Archer, 1997; Lange, 2001). One form of this literature is catalogues and guides published specifically for collectors. In an article in *The Connoisseur*, a magazine for collectors of fine art, collectables, and antiques, Agnes Lothian (1953: 9) catalogues several ointment pots inscribed with the name and/or address of apothecaries, presumably the apothecaries who dispensed their original contents. Although some attempt to link these addresses or names to specific practitioners is made (one vessel labelled 'Grindle, Pall Mall' is linked to a listing in the 1790 London Directory for a 'Chemist to the Prince of Wales'), it is clear the intent is to furnish collectors with information to make discerning purchases rather than any historical enquiry. Similarly, in his volume *Antiques of the Pharmacy* Leslie Matthews (1971) describes, with a little history of the profession of pharmacist, spicer, or apothecary, the instruments and vessels that might be of interest to a collector so that they may be assisted in their 'search for rarities' including ceramics, glassware, metal instruments, and other ephemera. Elisabeth Bennion (1979) authored a very similar volume on *Antique Medical Instruments*, and John Crellin (1974) published a short article on *Pharmacy Glass* in a book entitled *Historical Hobbies for the Pharmacist*. Matthews is also the author of many other similar publications including a journal article that enumerates the forms and decorations of tin-glazed earthenware pill tiles which displayed the arms of the Society of Apothecaries (Matthews, 1970).

I do not intend to suggest that these publications have no value for scholarly studies of the early modern apothecary. As typologies and catalogues, they are immeasurably helpful with the identification of specific jars and similar designs. For example, the aims of Colonial Williamsburg's collection of English, Irish, and Scottish delft was in the first place to be a 'well rounded collection of good quality pieces' to show the range of forms and decoration of this

ware, the second was to provide whole-vessel comparisons to delft excavated in Williamsburg from the seventeenth, eighteenth, and early nineteenth centuries (Austin, 1994: 22). Similarly, Crellin's (1974) chapter identifies four categories of phial: those with more than eight fluid ounces capacity for juleps, those at four, six, or eight fluid ounces capacity for mixtures, those with capacities between one and a half and three fluid ounces for draughts, and those with a capacity of one fluid ounce or less for drops. In archaeological studies too, typologies are commonly generated to help with the identification of material culture (for example, see Noël Hume, 1977; Beaudry *et al.*, 1983). However, Beaudry *et al.* (1983: 20) note in the Potomac Typological System (POTS), of ceramics in the Chesapeake, in early modern sources 'vessels that are given the same name even though they have significantly different shapes. Even worse, two identical vessels illustrated on different pages may be given different names', complicating analysis and identification based on such typologies.

Nevertheless, catalogues and typologies can be a way to start to ask interesting questions about museum collections of pharmacy material. In a volume that at first glance seems like it is a similar catalogue or summary of the highly decorated ceramics associated with early modern apothecaries, Crellin (1970) does some more in-depth socio-historical work on these objects. He notes that labelled, blue and white, tin-glazed pharmaceutical jars get the most attention of all medical ceramics despite the fact that comparatively few shops would have had what would constitute a 'full set' of the painted storage jars, context that is not brought into the other catalogues listed (Crellin, 1970: 191-192). Instead, if there were not large numbers of tin-glazed pots in a particular shop then (Crellin, 1970: 193) suggests that attractive displays would still be created with glass containers instead.

Crellin and Scott (1972) followed up the volume on pharmaceutical ceramics with one on pharmaceutical glassware where they continued to expand on the material rather than simply catalogue it. This is especially important with the glassware as the forms in use changed relatively little between the sixteenth and nineteenth centuries with phials, bottles, and other small glass vessels predominant (Crellin & Scott, 1972: 1-3). Where the largest changes seem to have occurred is in vessels used for display. Although 'Specie' Jars and large carboys of coloured water in the windows are often mentioned in histories of pharmacy they probably only became popular in the later eighteenth century as larger window panes became popular (Crellin & Scott, 1972: 4). These cylindrical jars, up to twelve inches tall gave way to show globes in the early nineteenth century which were produced exclusively for window display (Crellin & Scott, 1972: 5). For more practical storage cylindrical glass vessels of five to ten inches in height called 'shop rounds' were used from the nineteenth century, competing with creamware which had taken over from tin-glazed earthenware (Crellin & Scott, 1972: 10). Shop rounds were in use in the eighteenth century, made of flint glass with cut-glass stoppers; Guy's hospital acquired a number of these in 1725, though these were possibly custom made for the hospital (Crellin & Scott, 1972: 10-11).

Similarly, in her book on French and European pharmaceutical ceramics Danièle Alexandre-Bidon (2013) claims that pharmaceutical jars have not been studied from an epigraphic perspective, and they are also very poorly recorded by art historians. Going beyond the work of the catalogues and similar volumes and building her argument from the vessels themselves she claims (2013: 211) that pharmacy jars themselves were therapeutic objects in the medieval and early modern periods, and that it is mainly for this reason that they were decorated. The specific designs of these jars in France; in series of zoological or floral scenes,

astrological subjects, mythology, and even ancient emperors, were intended to signal to semi-literate or illiterate persons their contents or even their effects, where this was not the intention these decorative motifs could alternatively be reminders of piety, or even visual games, though they always would have referenced illness and remedies in some way (Alexandre-Bidon, 2013: 214, 277, 305-306). Even the undecorated examples would have been labelled, though usually in a cursive hand that would have been difficult to read from the counter (Alexandre-Bidon, 2013: 291).

The work by Crellin (1970), Crellin and Scott (1972), and more recently Alexandre-Bidon (2013) shows that more can be done to examine social or cultural questions through these static objects in museum or private collections, no matter the rationale behind their initial acquisition, and further shows that this is done by expanding the sources that can be drawn on beyond the de-contextualised object. This thesis is concerned primarily with archaeological assemblages, it will therefore also make use of museum objects from a variety of types of collection alongside as much contextual information as possible in the form of documentary and pictorial sources to place these objects back into their proper context. This is made easier in cases where the ceramics, glassware, or other extant material is strongly associated with its original context and with other types of material culture from the spaces of apothecaries' shops. As outlined above however, neither the material evidence or documentary evidence is enough on its own to successfully re-create and analyse the material and visual experience of the space of the apothecary shop in the seventeenth and eighteenth centuries. It is important then to also consider the value and issues with the documentary sources which will be used in this thesis.

### **2.2.3 Material Culture History and Probate Sources**

The value of using the material culture itself as a direct source for exploring the visual and material culture of the apothecary shop in the seventeenth and eighteenth centuries is clear. However, using these sources alone is problematic, particularly in terms of missing elements of material culture which only rarely survive archaeologically, and which were not aesthetically valuable for museum collections. To enable a fuller understanding of the space of the apothecary shop in these centuries it is also necessary to include documentary sources. The most common documentary sources relating to material culture in early modern historiography is the probate inventory. In the works of Withey (2011) and Wallis (2006, 2008) these documents are the primary sources upon which the argument in each article is based, and in a wide variety of material culture historical research probate inventories form one key group amongst a wide variety of sources to support their arguments. This thesis will use published pamphlets, and herbals or pharmacopoeias, alongside trade cards and engravings, and both archaeological and museum material culture. In addition, it will also make use of the probate inventories of several apothecaries from the seventeenth and eighteenth centuries. Given that such inventories have been one of the main ways that the material culture of apothecaries has been studied in the past and are a set of sources this research will engage with, it is necessary to discuss their strengths and shortcomings in terms of content and methodology.

In the centuries under study in this thesis it was required, before probate was granted on the estate of a deceased individual, for the executors of the deceased to take a full inventory of their belongings, personal goods, and chattels, 'properly valued by competent persons' (Cox & Cox, 2000: 25). These inventories represent a household in a frozen single moment; that



just after the death of the householder, although in reality the inventorying could have taken place at some remove from the date of death (Riello, 2013b: 136). It is important to note that the law only required an accurate valuation not an accurate catalogue. Some things were legally excluded (freehold land for example), some were recorded with more or less detail as their importance in the minds of the inventory takers changed through time, and a great many types of object were excluded because they were objects of low to no financial value (Moore, 1985: 11-12; Riello, 2013b: 137). There is also extensive evidence that many valuable personal items were distributed before the inventory was taken; wills often mention jewellery and silver that is not listed in the same deceased individual's inventory (Riello, 2013b: 137). Inventories then are not the panacea to historians that some consider them, as they are often painting a distorted picture of wealth, household goods, consumption, and shop stock amongst the many other uses to which historians have put them (Moore, 1985: 11-12; Riello, 2013b: 125). Furthermore, due to the nature of the creation process for probate inventories, it is not possible to provide an external check on their accuracy (Moore, 1985: 15).

Most of the probate inventories from England and Wales date to c.1580-1720, fewer inventories than wills have survived, and survival is not consistent across the country (Arkell, 2000: 72). These inventories were not universally created either, as in practice the estates of the poorest in society (with estates valued at less than £5) were excluded, but their numbers did increase in the later sixteenth century and seventeenth century, and apothecaries as middling tradesmen and shopkeepers are likely to have been members of the inventory-making group (Moore, 1985: 13; Riello, 2013b: 129). Women are also often underrepresented; no more than 20 per cent of the total number of inventories are those of women, and the women who had inventories produced were usually widows (Riello, 2013b:

136). Only one quarter to two-thirds of colonial North American households left an inventory, and in early modern Britain that number was somewhere between 10-40 per cent of the population with significant local variations (Riello, 2013b: 136). In the eighteenth century the practice of exhibiting these inventories in front of ecclesiastical courts started to die out but inventories continued to be created (Cox & Cox, 2000: 26). Those which were created are, like all historical documents, however seemingly mundane, a subjective representation of reality affected by who and how they were compiled as well as a variety of social and cultural factors (Riello, 2013b: 135). This can be seen in the different ways that these inventories were compiled; 'sixteenth-century inventories are frequently just lists of possessions, those of the seventeenth century are more commonly lists taken room by room, and by 1750 they are often just lists of rooms, each valued but with no information on the contents' (Cox & Cox, 2000: 34). The simplification of inventories was partly due to the significant increase in possessions that people in the eighteenth century owned, as well as different cultural value attached to material possessions (Cox & Cox, 2000: 34).

Probate inventories are simple enough in format that it is tempting to use them without fully understanding the context and process of their production (Cox & Cox, 2000: 14). However, it is necessary to understand that there were gaps between the legal requirements and actual practice in probate, as well as jurisdictional competition, and differing social attitudes towards belongings and how to dispose of them after death that all need to be considered when working with probate sources (Cox & Cox, 2000: 15). Despite these complications 'the evidence is overwhelming that inventories were usually made carefully and the goods valued appropriately though this may be less true by the mid-eighteenth century' (Cox & Cox, 2000: 30). Moore (1985: 23-24) however, suggests that inventories are best used in conjunction

with other sources; secular inventories, estate surveys, and farm accounts. This thesis will consider these complications when utilising probate sources and will use them alongside material culture, especially archaeology, using each to interrogate the other; to highlight gaps in the utility of each alone. Inventories for example may include materials like metalwork, textiles, and wooden vessels which do not survive archaeologically whilst archaeological assemblages often contain ceramics and utilitarian material culture which is usually below the notice of the people compiling probate inventories due to their relative low value.

Inventories have been used to explore the range and diversity of urban occupations in the early modern period, although many people had multiple occupations of which only one is listed in probate documentation, and more trades are likely missing from probate inventories than are represented in most towns in this period (Arkell, 2000: 83-84). For the purposes of this research the detail recorded in such inventories is as important as the quantity of material culture recorded because there are few inventories which list and value the equipment comprehensively for each trade (Arkell, 2000: 79). Christine North (2000) conducted a study of merchants and those who re-sold commodities rather than producing their products themselves, such as mercers, in Cornwall in the first half of the seventeenth century. Apothecaries are not mentioned in the 92 inventories that were included in her study but she was able to conclude that 'the Cornish in the first half of the seventeenth century had access to as wide a range of home-produced and imported goods as their contemporaries elsewhere in England' (North, 2000: 303). These types of study have been used to begin to explore one of the questions which this study is concerned with: the material and visual experience of being a customer in an early modern apothecary shop.

In one prominent example of this, *Shops and Shopkeepers in Norwich* by Priestly and Fenner (1985) relied almost solely on probate inventories. Using the data regarding apothecaries in Norwich, Priestly and Fenner (1985: 15) conclude that in general they had:

dim shops furnished, with great shop-chests and lined from floor to ceiling with shelves and tiers of labelled drawers. Huge glass jars, galli-pots and phials filled the shelves, and scales and weights stood on the chests alongside pestles and mortars. All apothecaries used stills (known as 'limbecks' or alembics) to extract the oils and essences needed for their perfumes and medicines. Sometimes the distilling apparatus was kept in the shop, but sometimes there as a separate 'still-house', rather like a laboratory, with a furnace, crucibles, and 'appozine' pans for preparing 'apozems' or infusions

Similarly, Vaisey (1985) explores what the shops in rural or provincial areas of seventeenth-century Britain contained through wills and probate. These studies provide evocative descriptions of the spaces with which this thesis is concerned and significantly include material culture which do not commonly survive archaeologically or in museums collection such as 'herb barrels', 'nest of drawers', and 'great shop chests'. This kind of 'thick description' that is possible from inventory sources is a valuable and engaging methodology, but not one which this thesis will pursue as the present research is concerned with specific questions arising from the material culture in the shops of apothecaries, but there is valuable future work which could be done in this area to communicate the essence of the experience of these spaces. Inventories therefore form a valuable companion source to the direct study of the archaeological material culture and enable each set of sources to interrogate the other so that the flaws, oversights, and analytical issues of each can be identified and addressed.

Beyond probate inventories there are many other types of documentary sources which are valuable to a consideration of the material culture and social role of the apothecary within

their shop. This thesis especially considers the threats to the profession presented by politically motivated pamphlets published by members of the Royal College of Physicians of London who were seeking to cause patients to distrust the apothecaries so that they could regain control of all aspects of medicine. It also includes evidence from printed volumes such as pharmacopoeias and herbals, as well as books of instructions on how to furnish and run an apothecary shop (these were usually written by a physician). More esoterically there are indications of the opinions that people held about apothecaries to be found in satirical plays and captioned prints, as well as correspondence. The methodological challenges of these disparate document types are discussed below as they become relevant.

### **2.3 Methodology**

Starting with an understanding of the theoretical basis for the study of material culture, this chapter has built to two interrelated conclusions. First, that the shop site is the key locus in which the medical, retail, social, and scientific positions and practices of apothecaries, both individually and in dialogue, can be best studied. Although excavations of individual findspots, pothouses, hospitals, and wrecks also produce the kinds of material culture which apothecaries used, for the questions of regionality, trust and retailing, and international trade and exchange of both material culture, *materia medica*, and knowledge, they are only useful as supplementary sites to the shop. Secondly, it is only through a study of the material culture of apothecaries itself; the visual effects, material and physical qualities, and totality of a shop assemblage that the experience of entering that space of medicine and retailing can be properly examined. Engaging with material culture, as this thesis does, is not a simple matter of reading or translating objects but rather is the complex process of examining and untangling the layers of meaning that are inherent to things. These layers are more easily

untangled with the help of as much contextual data as possible and so incorporating as wide a range of contemporary sources that discuss or list the material culture that is being studied is necessary.

This thesis then will use archaeological assemblages, alongside museum objects, inventories and other documentary culture to contextualise the analysis of seventeenth- and eighteenth-century apothecary shops more fully. Inventories will be especially useful for filling in the gaps in the archaeological assemblages. Some of the furnishings and other material culture in the shops of apothecaries in these centuries will rarely appear archaeologically; most prominently vessels made in metal, wooden furniture and containers, and stone or bronze mortars and pestle. These do feature in probate inventories of apothecaries, and occasionally in museum collections, and so when used carefully, with consideration for the limitation of these sources, can help to add further detail to our understanding of the visual and material experience of the apothecaries' shop of the seventeenth and eighteenth centuries. In the next two chapters ten archaeological excavations of shop sites are examined and the assemblages and other notable links to apothecaries for each are enumerated before the sites are used to examine issues of regionality and trade regarding access to medicine across the British North Atlantic in the seventeenth and eighteenth centuries. These sites will form the core of the analysis in the chapters which follow. In dialogue with museum collections, documentary sources, and pictorial depictions of these spaces this thesis will be able to explore the construction of professional identity, the projection of trust and knowledgeability, and the techniques used to introduce new products and knowledge into the medical and domestic marketplace.

### **Chapter 3 - London Apothecaries and their Archaeology**

This chapter presents apothecary sites identified from archaeological excavation in both the City of London and Greater London alongside the contents of contemporary probate and other inventories to identify common elements between the material culture of apothecaries in London in the seventeenth and eighteenth centuries. The material evidence from each site will be presented in turn along with any additional information about the possible occupiers of each site and their practice. The sites will then be discussed with reference to the probate inventories of seventeenth- and eighteenth-century apothecaries from London and surrounding towns held at The National Archives as part of the records of the Prerogative Court of Canterbury. Such an analysis is then bolstered by recourse to letters, business inventories, and recipe books which relate to the material culture of apothecaries in London in these centuries and are held at The Wellcome Library.

The presentation of the material archive and other archaeological data has been standardised where possible but due to the time over which these excavations took place there are some notable differences in the definitions of ceramic fabric and decoration, and the level of analysis that glassware received. The 'Orton' and 'Orton and Pearce' typologies of tin-glazed wares are sometimes used and sometimes those vessels are simply described. A description of each type can be seen in Table 3:A.

<b>Code</b>	<b>Description</b>	<b>Date Range</b>	
TGW	English tin-glazed ware	1570	1846
TGW A	London tin-glazed ware with blue- or polychrome-painted decoration and external lead glaze (Orton style A)	1570	1650
TGW B	London tin-glazed ware with manganese-mottled glaze (Orton style B)	1630	1680
TGW BISC	London biscuit-fired tin-glazed ware	1570	1846
TGW BLUE	London tin-glazed ware with plain pale blue glaze	1630	1846
TGW C	London tin-glazed ware with plain white glaze (Orton style C)	1630	1846
TGW D	London tin-glazed ware with blue- or polychrome-painted decoration and external lead glaze (Orton style D)	1630	1680
TGW E	London tin-glazed ware with 'sgraffito' on dark blue (Orton style E)	1570	1615
TGW F	London tin-glazed ware with 'Chinaman among grasses' decoration (Orton style F)	1670	1690
TGW G	London tin-glazed ware with 'Lambeth polychrome' decoration (Orton and Pearce style G)	1701	1711
TGW H	London tin-glazed ware with pale blue glaze and dark blue decoration (Orton and Pearce style H)	1680	1800
TGW I	London tin-glazed ware with bianco-sopra-bianco decoration (Orton and Pearce style I)	1745	1770
TGW J	London tin-glazed ware with panel decoration on manganese ground	1735	1770
TGW LATE	London late tin-glazed ware	1745	1846
TGW M	London tin-glazed ware with 'Persian blue' decoration (Orton style M)	1680	1710
TGW SPNG	London tin-glazed ware with sponged decoration	1700	1760

*Table 3:A. Typology of tin-glazed earthenware produced in England and London between 1570 and 1846 used in the analysis of ceramics from the identified apothecary sites. Categories derived from MOLA Medieval and Post-medieval Pottery Codes, correct in 2019.*



### 3.1 City of London Sites

The four sites from the City of London where the presence of an apothecary is supported by the archaeology form the densest concentration of apothecaries in this thesis (see Figure 3:1). These sites span one hundred and fifty years of apothecaries' shops in the City (see Table 3:B). They are presented here in chronological order of the deposition of the material culture relating to the apothecary or apothecaries at each site.

Site Name	Site Location	Date of Deposition of Apothecary Material
Wood Street	14-18 Gresham Street	Mid seventeenth century
Poultry	1 Poultry	Late seventeenth to early eighteenth centuries
Eagle House	90-96 Cannon Street	Early eighteenth century
Moorgate	19-31 Moorgate	Late eighteenth century

*Table 3:B. Locations and dates for City of London sites.*

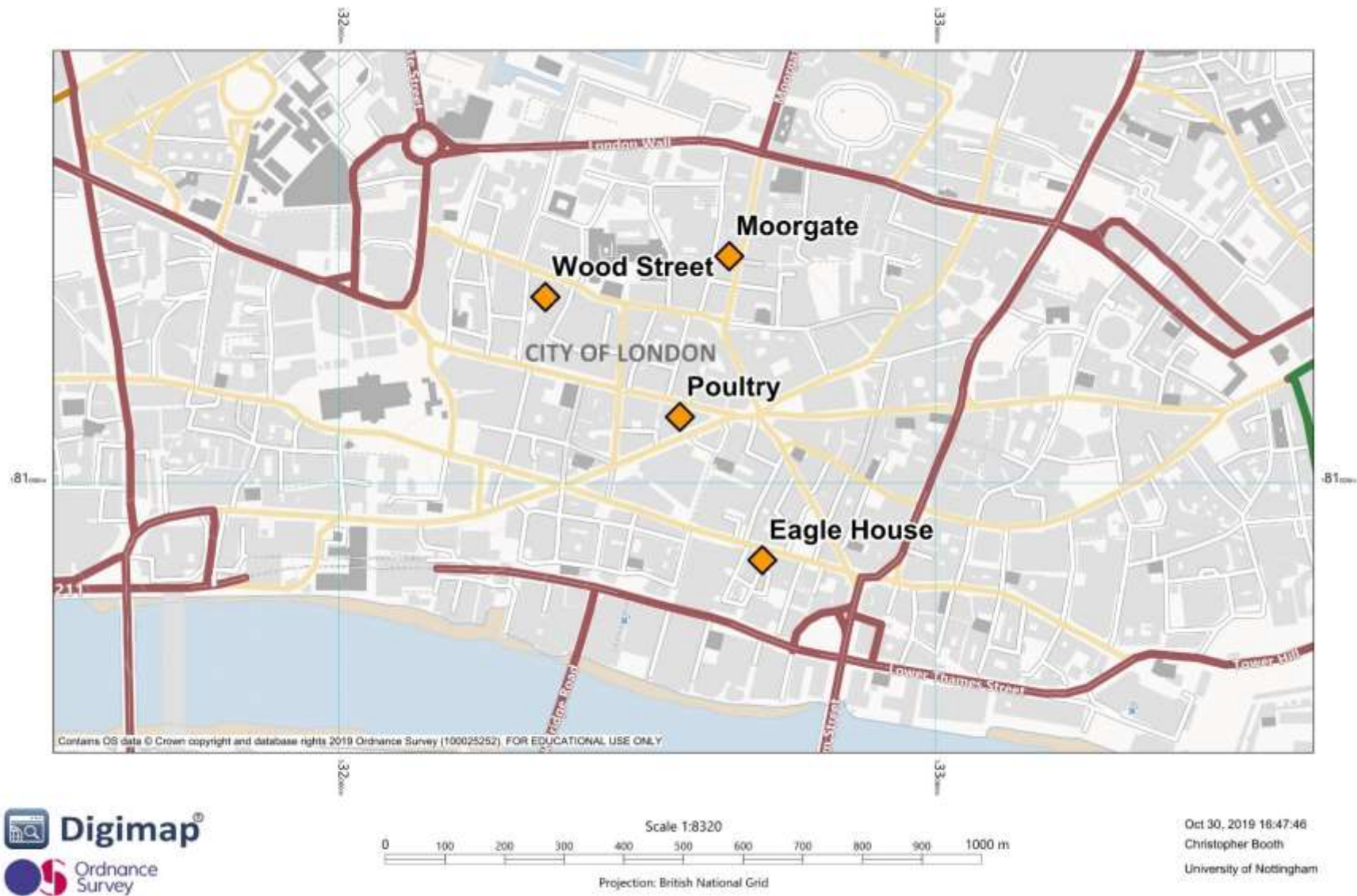


Figure 3:1. Map showing the locations of the four City of London apothecary sites. Created with Digimap.

### 3.1.1 Wood Street

During the 2005-2006 excavation in advance of redevelopment at 25 Milk Street and 14-18 Gresham Street with site code GHM05, Museum of London Archaeology (MOLA) uncovered a structure containing a significant assemblage of ceramics that suggest the presence of an apothecary in the seventeenth century. This site was bordered by Gresham Street to the north, Milk Street to the east, and Wood Street to the west, centred on TQ 32347 81311. To the south, another site excavated by MOLA at the same time with the site code CDP04 extended the area under investigation to Cheapside in the South. Those two sites were published in a single volume which focused mainly on the Roman period evidence from this area but, somewhat unusually, included a significant section on the medieval and post-medieval finds (Watson, 2015).

The structure of interest on this site is Structure 12, a red brick insert or repair to the medieval Structure 10, which seems to have been inserted in the early sixteenth century (Watson, 2015: 59). This structure appeared to have been backfilled shortly before the building suffered some demolition and robbing which was likely related to the Great Fire of 1666, based upon the charcoal staining at the bottom of the robbery cuts (Watson, 2015: 59). The large pottery assemblage in the backfill (53 ENV) had a high proportion of reconstructable or nearly complete vessels suggesting that the pottery was discarded over a short period or in a single event (see Appendix 1 for a catalogue of the finds from Structure 12) (Watson, 2015: 59). The fabrics and forms in the assemblage are in keeping with the expected range for the City of London in the early seventeenth century, a suggested date of deposition is between c. 1630 and 1660 (Watson, 2015: 59). These include Surrey-Hampshire Borderware, and London-area and Essex type Redwares, mostly in forms described as 'kitchen ware' though they would not

be out of place in an apothecary shop, with tripod pipkins, skillets, and a colander (Watson, 2015: 59).

Most interestingly for this research is the significant quantity of tin-glazed earthenware largely in the form of albarelli and cylindrical drug jars used by apothecaries. At least thirteen different vessels, eleven of which were albarelli, and seven of which were reconstructable, were in the assemblage (for a summary see Table 3:C) (Watson, 2015: 59). Unfortunately, the assemblage was not available for me to photograph at the London Archaeological Archive and Resource Centre (LAARC) and so cannot be illustrated here. Watson (2015: 59) suggests that these were produced at either the Aldgate or Southwark potteries in London. The assemblage also contained imported wares from Europe, including an albarello in Montelupo Polychrome Maiolica and one in late Valencian Lustreware (Watson, 2015: 59). I am indebted to Jacqui Pearce of MOLA who provided me with the complete pottery finds list for the appropriate context as the monograph only catalogued the illustrated vessels (see Pearce, 2015). It is the presence of the relatively large quantity of London produced polychrome albarelli, as well as two imported examples, that led the excavators to suggest the possible presence of an apothecary at this site, something which is a common conclusion when quantities of these vessels are excavated, as discussed in 2.2.1.1 above. The other vessels in the assemblage, with the possible exception of the chamber-pots, would also have been useful in the production of drugs in an apothecary shop.

Documentary research found one 'Dr' Scarborough who was listed between 1650 and 1659 in the vestry minutes of the parish of St Michael Wood Street and who may be the John Scarborough who was apprenticed to William Harwick, Apothecary of London, in December

1630 (Guildhall, MS 2597/1; MS 8200/1 cited in Watson (2015: 59)). Watson (2015: 59) suggests that it is highly likely that John Scarborough operated an apothecary shop in the premises of which Structure 12 was a part between 1650 and 1659 which fits with the estimated date of deposition and suggests that he ceased in practice at that date which would explain the discard of nearly complete ceramics. The monograph does not list any glass in the assemblage which is unusual if this is indeed a single event disposal of the contents of an apothecary's shop though it is possible that more expensive glass vessels would have been sold rather than discarded. No environmental samples were analysed from the fill of Structure 12, and no specific mention is made of any animal bone in the structure's fill either.

Form	Material	Quantity	Percentage
Cylindrical Drug Jar	London tin-glazed ware (Orton D)	1	28.3%
Albarello	London tin-glazed ware (Orton D)	10	
Albarello	Montelupo Polychrome Maiolica	1	
Albarello	Late Valencian Lustreware	1	
Total Other Ceramic Vessels		33	71.7%

*Table 3:C. Summary of ceramics from Wood Street highlighting the apothecary wares. Percentages are rounded to one decimal place.*

### 3.1.2 Poultry

The excavations at 1 Poultry and its vicinity in the City of London (TQ 32580 81100) including the eastern end of Cheapside and the side streets of Bucklersbury, Pancras Lane, and Sise Lane took place between 1994 and 1996 and were carried out by MOLA under site code ONE94. These excavations took place concurrently with the redevelopment of the site. In addition to three monographs including *The Development of Early Medieval and Later Poultry and Cheapside* (Burch *et al.*, 2010), many specialist reports and finds catalogues relating to the site were deposited with the Archaeological Data Service (Museum of London Archaeology, 2013). Three buildings are of interest on this site; Building 184, 185, and 186, each building's brick-lined cellar or cesspit contained material culture suggestive of an apothecary (see Figure 3:2) for a map showing the location of each building on the site).

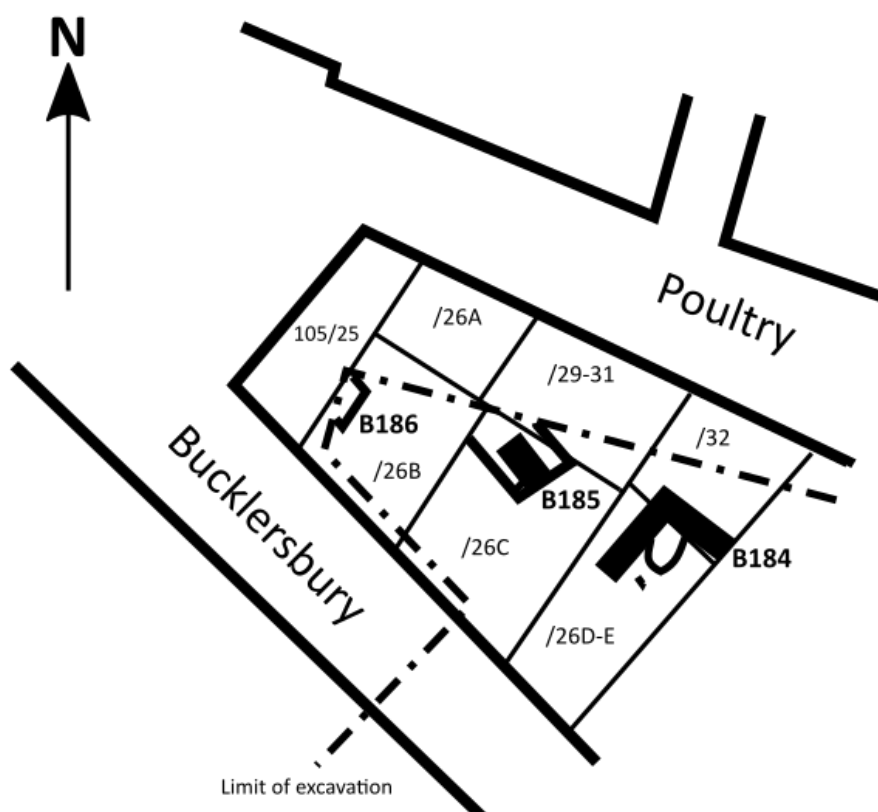


Figure 3:2. A map showing the locations of the three buildings of interest at Number 1 Poultry. Created by Author, adapted from Burch *et al.* (2010: 147, Figure 119).

The brick-lined cesspit of Building 184, located in the north-western corner of the earlier medieval cellar of Building 164 was 2.6m by 2.0m and was backfilled with ceramics that date to between 1630 and 1700, as well as glassware dating to the seventeenth century (Contexts 1000 and 16005) (see Appendix 2 for catalogues of the finds from the relevant buildings and features) (Burch *et al.*, 2010: 152). Of most interest for this research is the three tin-glazed ware albarelli with 'Orton type A' decoration and fourteen plain white tin-glazed ointment pots (for a summary see Table 3:D, and for an exceptionally small example see Figure 3:3). This small assemblage is dated by the clay pipes to c.1680-1700 and this is used as a reasonable estimate of the date of deposition (Burch *et al.*, 2010: 153). The albarelli are all of London manufacture and the monograph suggests that they were purchased locally for pharmaceutical use, possibly in-home remedy production though in combination with the ointment pots, two case bottles, and globular phials are an unusually large assemblage for a domestic site (Burch *et al.*, 2010: 153). Since between contexts (1000) and (16005) 67.7 per cent of the assemblage is pharmaceutical and the tygs, jugs and bowls which form the majority of the rest of the assemblage could have seen use in an apothecary shop it seems more likely that this cess-pit contains the waste material culture from an apothecary shop or druggist. Willmott (2010: 278) however suggests that because the glassware from this cesspit was very fragmented, that it likely represented accumulated rubbish over time rather than a single deposition event. The building associated with this cess-pit in the report is **105/26D** also known as The Falcon in the seventeenth century, though with the intermingling of the housing on this site it could belong to an adjacent property (Burch *et al.*, 2010: 146, 153-154). According to extensive primary research conducted by Keene and Harding (1987: 568-583), The Falcon was inhabited by Job Nutt, who was a drugster, in 1647; on the eve of the Great Fire apothecaries were leaseholders of **105/26E** which adjoined The Falcon to the east; and

another apothecary, named Thomas Child rebuilt the properties **105/26D, E, F** after the fire (Burch *et al.*, 2010: 154). Additionally in the 1690s the parish of St Mary Colechurch, which includes this end of the site was home to seven individuals called either a druggist or apothecary all of which supports the idea that these ceramics are the refuse from, or partial clearance of, an apothecary's premises (Burch *et al.*, 2010: 242 (Table 225)).

Form	Material	Quantity	Percentage
Ointment Pot	London tin-glazed ware (Orton C)	14	67.7%
Albarello	London tin-glazed ware (Orton A)	3	
Globular Phial	Green Clear Glass	2	
Case Bottle	Various Glass	2	
Total other Ceramic Vessels		9	29.0%
Total other Glass Vessels		1	3.2%

Table 3:D. Summary of vessel glass and ceramics from Building 184, Poultry highlighting the apothecary wares. Percentages are rounded to one decimal place.



Figure 3:3. An ointment pot from Building 184, Number 1 Poultry, ONE94. Approximately 2cm in diameter. Scale c. 1:1. Photo by Author, courtesy of MOLA.



Building 185 is represented by a 2.5m square brick-lined structure that may have been a cesspit or a cellar to the west of Building 184. Its seventeenth-century relation puts it in the north-west corner of **105/26C**, probably known as The White Heart (Burch *et al.*, 2010: 146, 154). The backfill of this structure appears to have occurred in two distinct phases unlike in Building 184 where the material is all relatively closely dated. Instead, this structure had a lower fill dated to the late sixteenth century (16027) and an upper fill dated to the late seventeenth century (16001) (Burch *et al.*, 2010: 154). The earlier context contained a large assemblage of glass, mainly flasks and jars, as well as a small utilitarian assemblage of ceramics largely in local wares including pipkins, cauldrons, and cooking pots (see Appendix 2) (Burch *et al.*, 2010: 154). Except for a possible pharmaceutical grinding slab, there is little to confidently suggest a relationship between this assemblage and an apothecary. In the latter context, however, there is some evidence to suggest the presence of an apothecary nearby. (16001) contained a minimum of 83 glass vessels, one of the most important groups of late seventeenth-century glass excavated in England, as well as a large collection of early seventeenth-century ceramics (for a summary of the apothecary wares see Table 3:E). There was also a variety of clay pipe fragments dated to c.1640-1710, and a fragment of a late seventeenth- or eighteenth-century tin-glazed wall tile that is possibly Dutch, these have not been included in Appendix 2 which only includes the ceramics and glassware (Burch *et al.*, 2010: 154). There were a significant number of tin-glazed vessels that are related to pharmacy in (16001) with five vessels described as drug jars, albarelli, or storage jars in both London tin-glazed ware and Montelupo polychrome maiolica out of twenty-three total ceramic vessels in the context (Burch *et al.*, 2010: 154). One of these albarelli was inscribed T : D...IRHA (see Figure 3:4). In the glassware there is an extraordinary range of flasks, phials, case bottles, and posset pots which may relate to pharmaceutical function, though there are also a large

number of beakers, drinking vessels, and goblets which are domestic in function (Burch *et al.*, 2010: 154). Perhaps most significantly there were sherds of an alembic in the assemblage, suggesting that there was distillation occurring for which the flasks would have made suitable receivers for the distillates (Willmott, 2010: 283-284). In all, if all case bottles, flasks, phials, albarello shaped glass jars, tin-glazed jars, and the Montelupo vessel are included then 43.1 per cent of the assemblage in (16001) is related to pharmacy or an apothecarial function. This is likely the upper bound for this proportion as flasks and jars could be used for a wide variety of functions, though this proportion does not include the posset pots which would have been used to administer the remedy posset; a mixture of warm ale and curdled milk favoured as a remedy for colds and influenza in the seventeenth century (Willmott, 2010: 282).



*Figure 3:4. A labelled albarelli from Building 185, Number 1 Poultry, ONE94. Photo by Author, courtesy of MOLA.*

Form	Material	Quantity	Percentage
Albarello	London tin-glazed ware	1	41.7%
Possible Drug Jar	London tin-glazed ware	3	
Possible Drug Jar	Montelupo polychrome maiolica	1	
Alembic	Green Clear Glass	1	
Albarello Shaped Jar	Various Glass	7	
Flask, Various	Various Glass	30	
Case Bottle	Green Clear Glass	9	
Phial, Cylindrical	Blue Green Clear Glass	1	
Total other Ceramic Vessels		20	15.7%
Total other Glass Vessels		52	40.9%

Table 3:E. Summary of vessel glass and ceramics from Building 185, Poultry highlighting the apothecary wares. Percentages are rounded to one decimal place.

Finally, the assemblage from Building 186. This building also contained a brick-lined cellar or cesspit close to the junction of Poultry and Bucklersbury which may have been associated with property **105/26B**, known as The Black Bear, or just The Bear, or **105/25**. The structure was heavily truncated but contained a significant assemblage of ceramics and glassware (see Appendix 2, context 16004) (Burch *et al.*, 2010: 154-155). The ceramics assemblage was dated to c. 1665-1730 and was formed of fine tablewares, pharmaceutical wares, and hygiene wares. These included a variety of spectacular, manganese purple ‘peacock eye’ decorated Westerwald Stoneware jugs and tankards as well as two Chinese Porcelain tea bowls (Burch *et al.*, 2010: 155). The majority of the ceramics from this context were in tin-glazed ware

including plates, bowls, chamber pots, and chargers, one of which had a pomegranate design (Burch *et al.*, 2010: 155). These occurred alongside twenty-nine ointment pots and two albarelli which formed 36.4 per cent of the ceramics assemblage (see Table 3:F for a summary of the apothecary material) (Burch *et al.*, 2010: 155). The glassware from this assemblage included several opaque white bowls that are without parallel in England as well as case bottles, phials, flasks, and fragments of one to three alembics which bring the total pharmaceutical proportion of the assemblage from (16004) to 38.8 per cent (Burch *et al.*, 2010: 155-156; Willmott, 2010: 287-288).

Form	Material	Quantity	Percentage
Albarelo	London tin-glazed ware	2	38.8%
Ointment Pot	London tin-glazed ware (Orton C)	29	
Phial	Various Glass	2	
Case Bottle	Various Glass	4	
Flask, Various	Various Glass	4	
Alembic	Green Clear Glass	3	
Jar, Albarelo Shaped	Various Glass	5	
Total other Ceramic Vessels		49	38.8%
Total other Glass Vessels		28	22.2%

Table 3:F. Summary of vessel glass and ceramics from Building 186, Poultry highlighting the apothecary wares. Percentages are rounded to one decimal place.

Further supporting the connection of these assemblages with the trade of an apothecary, druggist, or similar trader is the association of the area in the sixteenth and seventeenth

centuries as a place where spices, imported materials, vegetables, and fruits could be obtained, especially on the side street of Bucklersbury (Burch *et al.*, 2010: 144). For example, in Gerrard's *Herball* (1633: 430) there is a mention of Golden Rod which is a 'dry herbe which came from beyond the sea sold in Bucklers Bury'. Additionally, the reconstructed distribution of occupations across the site based upon the Lady Day 1666 hearth tax records reported in Burch *et al.* (2010: 241) shows that the length of Bucklersbury within the study area was occupied by at least four grocers, two apothecaries, two gentlemen, two victuallers, and five druggists. On balance then, it seems likely that these three groups of refuse are related to one or more seventeenth-century grocers, apothecaries, or druggists on Bucklersbury who traded in imported consumables, medicines, and groceries.

### **3.1.3 Eagle House**

The excavations at Eagle House (90-96 Cannon Street), centred on TQ 32712 80869 were carried out in 1988 by the Department of Urban Archaeology at the Museum of London under the site code EAG87, in advance of some redevelopment at the site. The excavations took place in the basements of the existing building and so were limited by the existing architectural structures. The basements had truncated the stratigraphy to within 0.3m of the natural, however, evidence of Roman foundations and more deeply cut post-medieval features had survived. One of those post-medieval features, a backfilled well, is of interest for this research. This site's material archive has never been fully processed, some of it was still in need of washing when I visited the LAARC to see the material. Additionally, no summary report was finalised, and no publications focusing solely on this site have been released. Some parts of the assemblage have received attention such as the wine bottles, specifically those with seals (see Jeffries & Major, 2015), and a summary was published in the *Gazetteer*

*Archaeology in the City of London 1907-91* (Schofield & Maloney, 1998: 247), but overall this assemblage has been ignored since it was excavated.

There is no finds table for this site due to the lack of complete processing but an indication of the assemblage and some of the stratigraphy and analysis could be reconstructed through an early uncorrected draft of a site report and my visit to the LAARC to access the material archive. Based upon the finds catalogue sheets recorded in the field there is a clear series of contexts that contained the material culture related to apothecary activity (see Figure 3:5). These contexts contained a large quantity of post-medieval material culture including ceramics, vessel and window glass, building materials, mammal bones, leather, and nails and when analysed the nature of the finds was restricted in functional category to largely storage vessels relating to pharmacy or possibly an inn (Oetgen, 1989: 10-11). Furthermore, the contexts were intermingled at their interfaces which suggests a rapid period of deposition, perhaps a clearance event (Oetgen, 1989: 11).

The material archive, curated at the LAARC, includes large quantities of bottles including wine bottles and phials most notably in green glass from (206), (200), and (195). The phials date the deposits to c.1675-1700 with an early eighteenth century date of deposition likely (Sygrave *et al.*, 2009: 102). The sheer quantity of wine bottle body sherds and near-complete wine bottles made it difficult to assess the glass to any greater level of detail than this but it is worth noting an almost complete thin, green-glass, square case bottle from (200) which was likely used to store medical preparations. A quantity of the glass is amongst the unwashed and unprocessed portions of the assemblage. There was also a significant quantity of glassware in the registered finds from this site with sixteen complete blue-green phials from

(202), seven phials and a globular flask from (195), five complete phials from (200), and one complete phial from (186). There was also another case bottle, this time complete from (202).

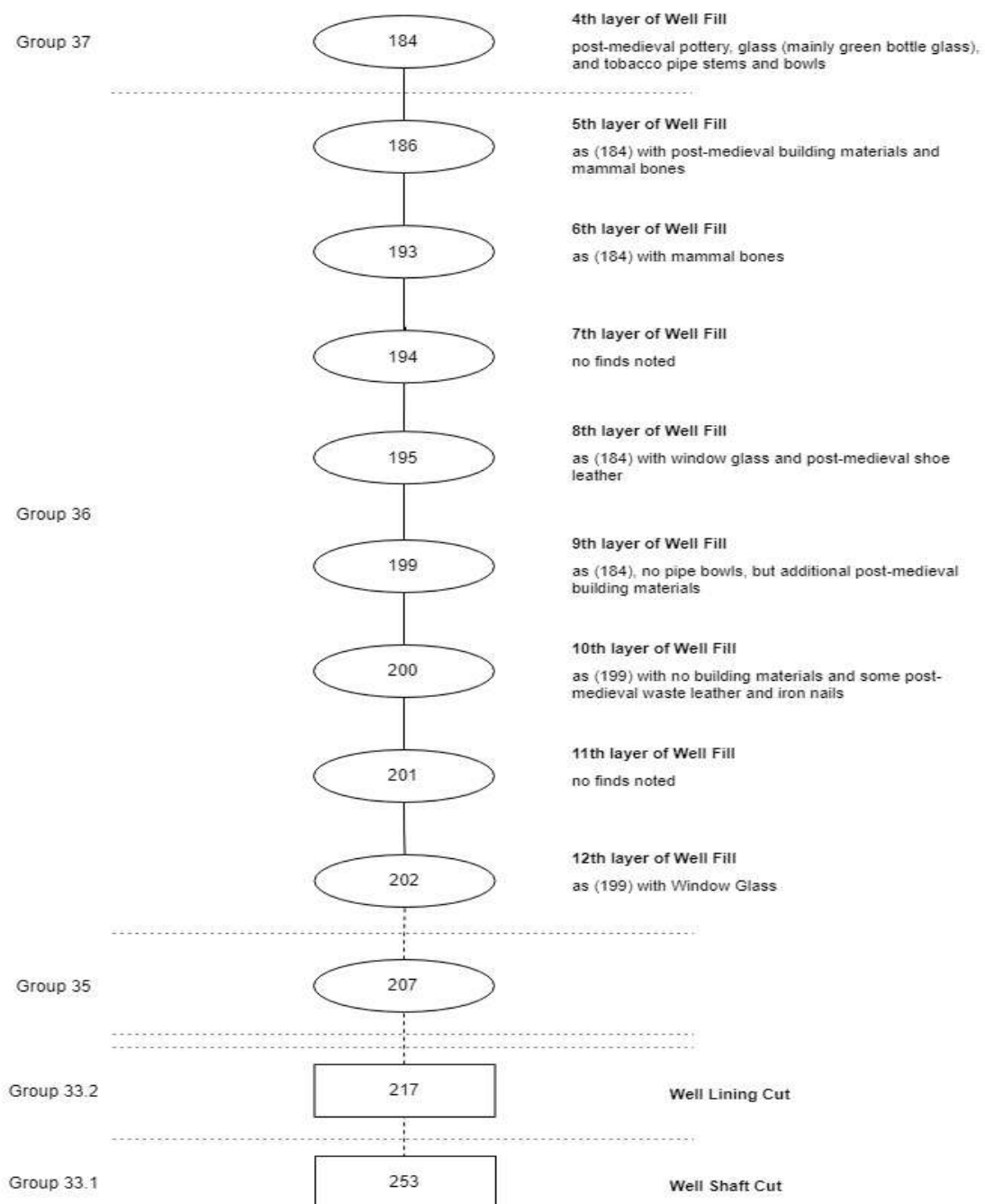


Figure 3-5. Simplified stratigraphic matrix for the EAG87 well. Data from Oetgen (1989: 10).

The ceramics from the site are similarly only partially processed so complete quantification and identification was impossible, however, the contents of a sample of boxes give an idea of the nature of the assemblage. One box of ceramics from (200) contained a near-complete blue and white tin-glazed spouted wet drug jar inscribed with the cartouche O:CATELLORV which signifies Oil of Puppy-dogs which was used for treating bruises and weakness in the limbs (see Figure 3:6) (Culpeper & Cole, 1661: 181; Short, 1970: 10). It also contained one substantially complete tin-glazed dry drug jar with a cartouche inscribed METHREDATE, which is probably referring to a pre-mixed powder used to create the electuary Mithridate, a classically derived compound medication thought to be a panacea against poisons, bad medicines, and cold humours (see Figure 3:7) (Culpeper & Cole, 1661: 145-146). Additionally, there was a sherd of a third cartouche, and sherds of at least one off-white tin-glazed ointment pot, identified by its small size and undecorated glaze, as well as half of a stoneware tankard. In a box from (202) there were four substantially complete ointment pots and sherds from too many others for me to be comfortable providing an 'estimated vessel equivalent' (EVE) which is a count of the number of vessels based on the quantity of rims and bases. That box also contained eight complete tin-glazed earthenware ointment pots and one albarello with helical decoration in cobalt blue with a significant quantity of other tin-glazed earthenware sherds. In a different box from (202) another helically decorated albarello and large numbers of sherds of plain tin-glazed earthenware drug jars and ointment pots, most in white or blueish white, but some in light blue. In a third box from (202) there were twenty-four plain tin-glazed ointment pots, three albarelli decorated with three stripes of manganese purple at the rim and foot and a helix of cobalt blue around the centre of the body (see Figure 3:8). Finally, in a box from (195), there were at least nine complete or near-complete ointment pots of varying sizes and sherds of several others. In the registered finds too, there were



apothecary vessels including three complete pinkish-white tin-glazed earthenware ointment pots from (195) and three from (205/206).



*Figure 3.6. A wet drug jar from Eagle House, EAG87 (200) inscribed O:CATELLORV. Photo by Author, courtesy of the Museum of London.*



Figure 3:7. A dry drug jar from Eagle House, EAG87 (200) inscribed METHREDATE. Photo by Author, courtesy of the Museum of London.



Figure 3:8. An albarello from Eagle House, EAG87 (202). Photo by Author, courtesy of the Museum of London.

Beyond the glass and ceramics, there is also one other registered find of interest: <169> which was a wooden disc preserved by the sealed deposits in the well. This is significant because if this assemblage does represent the clearance of an apothecary, which with the shop drug jars with cartouches and the sheer number of ointment pots and albarelli seems almost certain, then wooden storage vessels, or parts of them, are extremely rare survivals both archaeologically and in extant collections. These vessels are attested in contemporary sources (see de Renou, 1657: 471-472) and have also been recovered from one other site, at Kevin Street in Dublin (see Chapter 4).

Since this site has never received the post-excavation attention that it deserves, no documentary work was done to establish whether there was an apothecary nearby the site who could be the origin of this clearance assemblage. Due to COVID-19 restrictions I have been unable to do this research myself and is an obvious next step in developing the understanding of this site, as is a full quantification and publication of the assemblage. Despite this, the assemblage itself is enough for me to be confident that this site represents the partial contents of an apothecary shop. No domestic site that I am aware of has produced this number of ointment pots, and the presence of drug jars with cartouches, for both wet and dry preparations, is diagnostic of an apothecary shop as these vessels were not used in other contexts.

### **3.1.4 Moorgate**

Excavations at 19-31 Moorgate by MOLA under site code MGA00 took place between 2000 and 2001 in advance of redevelopment at the site and uncovered extensive medieval and post-medieval evidence (Sygrave, 2002: 2). The site was bounded by the western side of

Moorgate, by Great Bell Alley to the south, and Coleman Street to the west and is centred on TQ 32655 81380 (Sygrave, 2002: 8). Of most interest for this research are the three post-medieval cess pits excavated from the basement of Building number three on the site (Sygrave *et al.*, 2009: 98-99). The primary fills of these pits suggest that they were open and in use by the late seventeenth century, probably with the reconstruction of a building on the site after the Great Fire of 1666 which is indicated as they are dug through fire debris deposits (Sygrave, 2002: 22; Sygrave *et al.*, 2009: 99). At least two, possibly all three, of these cesspits were in use until the late eighteenth century when they were permanently backfilled with many of the ceramics having adjoining sherds across the different pits (Sygrave *et al.*, 2009: 99).

The 'Apothecary or Druggist Assemblage' as it is labelled in Sygrave *et al.* (2009: 99), from context (49), contained ceramics, glass, and a complete iron knife with an ivory 'pistol grip' handle, part of a lead sheet, a copper-alloy mount, a fragmentary pin with a wound wire head, and a fragment of corroded iron (see Appendix 3) (Sygrave *et al.*, 2009: 99). The ceramic assemblage contained mainly pharmaceutical vessels though hygiene wares, vessels related to food and drink consumption, and kitchen serving vessels were also represented (see Table 3:G) (Sygrave *et al.*, 2009: 99). This assemblage is closely datable to within twenty years and there was no residual or intrusive material (Jeffries, 2002: 36). Jeffries (2002: 36) suggests that the combination of hygiene wares, cylindrical storage jars, and ointment pots is suggestive of an apothecary practising at or nearby the site resulting in this clearance group. The group contained fifteen plain white tin-glazed ointment pots ranging from 40mm to 90mm in diameter (see Figure 3:9), bowls and dishes in Surrey/Hampshire border whiteware and redware, and in London-area post-medieval redware (Sygrave *et al.*, 2009: 99). Also food

consumption vessels including plates in Chinese blue and white porcelain and tin-glazed wares with plain white or 'chinamen in the grasses' decoration, drinking vessels including teacups, tea bowls, and tankards in Staffordshire white salt-glazed stoneware, and Chinese blue and white porcelain were present in the assemblage (Sygrave *et al.*, 2009: 99). Finally, there were hygiene vessels including chamber pots and stool pans in plain white or plain blue tin-glazed earthenware, Surrey/Hampshire border redware, and London-area post-medieval redware (Sygrave *et al.*, 2009: 99).

The other two cesspits in Building 3, contexts (61) and (62), contained similar but smaller assemblages of the same date with one plain white tin-glazed ointment pot, one blue and white tin-glazed albarello, some shards of a glass phial, as well as the domestic border whiteware pipkins and London-area post-medieval redware handled bowls that are to be expected based on the other cess-pit (see Table 3:H and Table 3:I) (Sygrave *et al.*, 2009: 104). The ointment pots and single albarello from the site could be dismissed as the product of a highly medicated household alongside the rest of the ceramics if it wasn't for the associated glassware (see Appendix 3 for a finds catalogue from each relevant context) (Sygrave *et al.*, 2009: 100). That assemblage contained up to six wine bottles, fifty-nine clear and green phials (see Figure 3:10), two shards of a clear, small, globular flask and a near-complete green flask, all of which may be pharmaceutical in function (see Table 3:G) (Keily, 2002a: 40; 2002b; Sygrave *et al.*, 2009: 100-101). The ceramic assemblage dates to c.1745-1780 which fits with the most likely dating of the glass (c. 1725-1750) (Sygrave *et al.*, 2009: 101-102). As with Wood Street I am indebted to MOLA, and specifically, Nigel Jeffries for providing the full finds catalogue of these features which were not included in their entirety in the site report or journal article publication of the site.

Form	Material	Quantity	Percentage
Cylindrical (Drug?) Jar	London tin-glazed ware (Orton C)	9	66.7%
Ointment Pot	London tin-glazed ware (Orton C)	6	
Flask, Globular	Green Glass	1	
Phial, Cylindrical	Greenish to Clear Glass	59	
Phial, Globular	Greenish to Clear Glass	1	
Total Other Ceramic Vessels		29	25.4%
Total Other Glass Finds		9	7.9%

Table 3:G. Summary of vessel glass and ceramics from (49), 19-31 Moorgate highlighting the apothecary wares. Percentages are rounded to one decimal place.

Form	Material	Quantity	Percentage
Albarello	London tin-glazed ware (Orton D)	1	25%
Ointment Pot	London tin-glazed ware (Orton C)	1	
Phial, Cylindrical	Clear Glass	1	
Total Other Ceramic Vessels		7	58.3%
Total Other Glass Vessels		2	16.7%

Table 3:H. Summary of vessel glass and ceramics from (61), 19-31 Moorgate highlighting the apothecary wares. Percentages are rounded to one decimal place.

Form	Material	Quantity	Percentage
Cylindrical (Drug?) Jar	London tin-glazed ware (Orton C)	1	20%
Total Other Ceramic Vessels		4	80%

Table 3:I. Summary of vessel glass and ceramics from (62), 19-31 Moorgate highlighting the apothecary wares. Percentages are rounded to one decimal place.

Sygrave *et al.* (2009: 102) suggests that the assemblage originated from a nearby shop based on the completeness of the phials and based upon this some documentary work was done to link the site to an apothecary or druggist. Documentary research with the Worshipful Society of Apothecaries and included in the journal article by personal comments suggested that this assemblage could have originated in two places; an apothecary shop from the late 1730s and a druggist shop from the late eighteenth century (Sygrave *et al.*, 2009: 102). Robert Millecent, a freeman of the Society of Apothecaries, is recorded in the Society's records as having his residence and business in Coleman Street in 1739 but is absent from the records from 1740 and is presumed to have died which suggests that the assemblage, although dated a little later than this, may originate with the clearance of Millecent's shop at his death (Sygrave *et al.*, 2009: 102). There is also a record in Kent's London Directory of 1754 for a druggists shop in Coleman Street owned by William and Robert Charlton (cited in Sygrave *et al.*, 2009: 102). Their shop is again mentioned in the 1760 Trade Directory but this is the last record of it in the area which would again make a clearance of their shop fit with the assemblage's date of deposition (Sygrave *et al.*, 2009: 102). Sygrave *et al.* (2009: 103) thinks that there is not enough evidence to decide one way or another whether this is an apothecary's or druggist's assemblage, though they do note that there is a lack of production vessels, pill slabs, and wet and dry drug jars that one might expect if this represented the clearance of an apothecary.



*Figure 3:9. A plain blue-white tin-glazed ointment pot from 19-31 Moorgate, MGA00. Photo by Author, courtesy of MOLA.*



*Figure 3:10. Two phials, one in blue-green clear glass and one in clear glass from 19-31 Moorgate, MGA00. Photo by Author, courtesy of MOLA.*



### 3.2 Greater London Sites

The two London-area apothecary shop sites that are not in the City of London nonetheless are firmly within the immediate hinterland of the Capital and so contribute to the analysis of the importance of London to the profession of the apothecary in this thesis (see Figure 3:11). These sites span a century of apothecaries' shops in Greater London (see Table 3:J). They are presented here in chronological order of the deposition of the material culture relating to the apothecary or apothecaries at each site. One, Stratford, was within the seven-mile boundary of control that the Society of Apothecaries' Charter allowed, this meant that apothecaries in Stratford, in theory, were subject to the same inspection and oversight as shops in the City of London. Brentford sits just beyond that boundary at about nine miles from the City, and so, in theory, was free of the oversight of the Society, though still subject to any legislation concerning apothecaries and their shops.

Site Name	Site Location	Date of Deposition of Apothecary Material
Stratford	108-119 The Grove	Late Seventeenth Century
Brentford	233-246 High Street	Mid to Late Eighteenth Century

*Table 3:J. Locations and dates for Greater London Sites.*

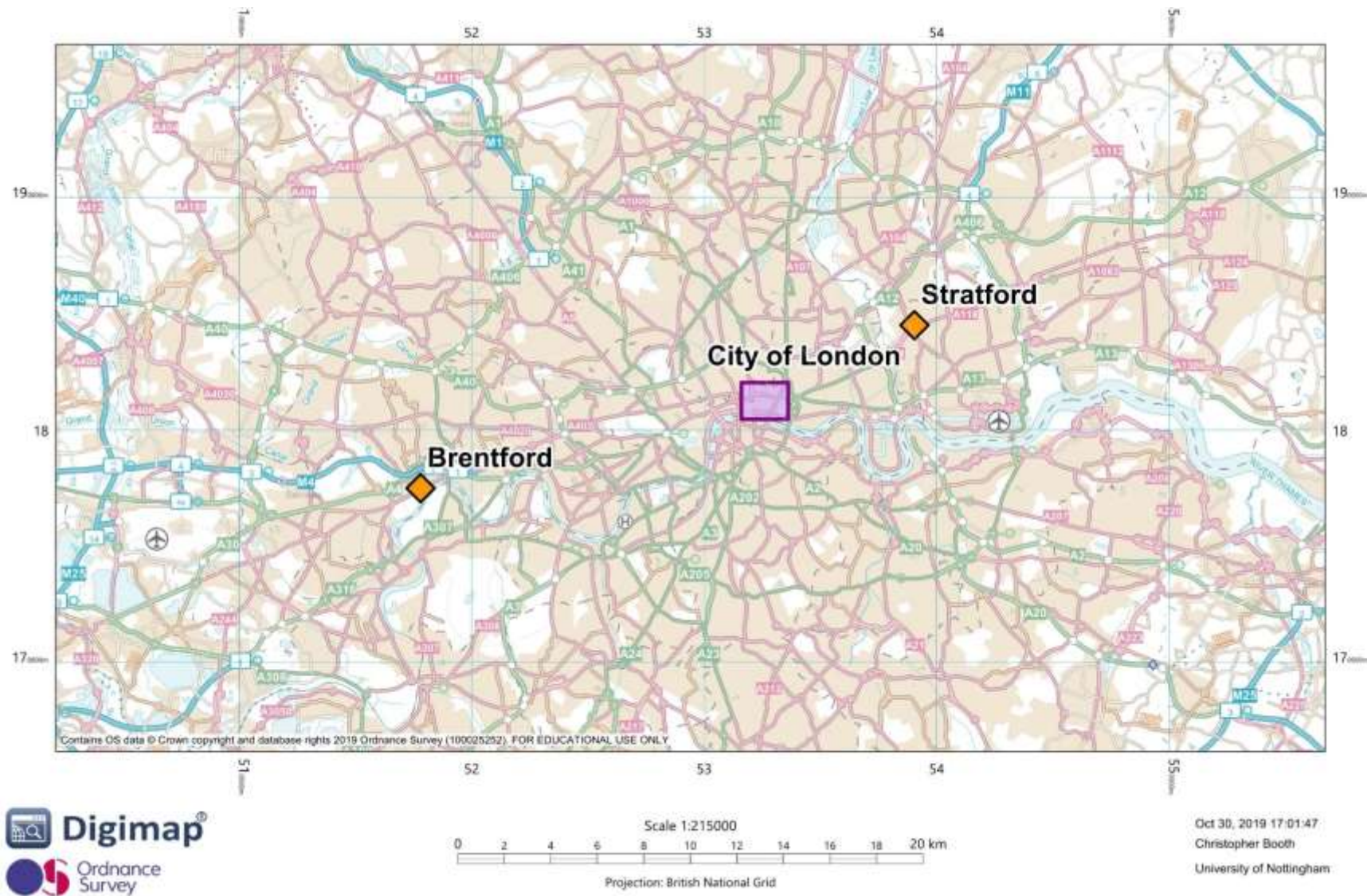


Figure 3:11. Map showing the locations of the two Greater London apothecary sites and the approximate boundary of the City of London. Created with Digimap.

### 3.2.1 Stratford

108-119 The Grove, Stratford (TQ 3905 8451), in the London Borough of Newham, was excavated in 2001 by Pre-Construct Archaeology as GVE01 in advance of development. The main features revealed by these investigations were a series of pits, dug into the natural gravels of the area, and dating from the medieval period to the nineteenth century whose contents were mainly refuse (Leary & Jarrett, 2002: 380). Those of interest for this thesis were a group of pits dated to the end of the seventeenth century whose contents formed a small but significant assemblage of glass and ceramics indicating the presence of a seventeenth-century apothecary at the site (Leary, 2001: 1; Leary & Jarrett, 2002: 380). Stratford became prominent in the seventeenth century due to its proximity to London and position on major routes into the City; by 1670 it consisted of 179 houses (Leary, 2001: 9; Leary & Jarrett, 2002: 380). This growth was centred on the High Street and The Grove, where this probable apothecary's premises were located (Leary & Jarrett, 2002: 380-381). The refuse pits related to the apothecary were set back from the road and were probably to the rear of the shop which likely fronted onto The Grove. Unfortunately, twentieth-century development had erased any evidence of the building that would have housed the apothecary. (Leary & Jarrett, 2002: 382). The site archive is deposited with the Museum of London where I was able to access the material archive and a copy of the summary report.

The main element of the assemblage was London made tin-glazed earthenware in the form of albarelli decorated with blue on white patterns, mainly horizontal stripes at the rim and base, though there was one with a cable design, one with swag decoration, and one with an abstract floral pattern (Leary & Jarrett, 2002: 382). One Dutch tin-glazed earthenware drug jar was also recovered in the assemblage (see Figure 3:12). It had noticeably finer painting

than the London examples and was covered in a running foliage design except for a cartouche over a cherub's head (Leary & Jarrett, 2002: 382). The cartouche was inscribed T:HYSTER (Leary & Jarrett, 2002: 382). These running foliage design jars are typical of Dutch examples from the seventeenth century and several were also found in the excavations at Lion Walk, Colchester (see Chapter 4). T:HYSTER refers to *Troch. Hysterici* which was a medicine for women's ailments in general and disorders of the uterus especially (de Renou, 1657: 641-642; Leary & Jarrett, 2002: 382). There were also fragments of one wet-drug jar in the assemblage with the hollow pedestal base and pouring spout that are common to this type of vessel (Leary & Jarrett, 2002: 382). The fragmentary cartouche below the spout is decorated around its border with the head of Apollo flanked by two possible rhinoceros supporters which may be a reference to the arms of the Society of Apothecaries which has a rhinoceros crest and two unicorn supporters (Leary & Jarrett, 2002: 382). The cartouche bears the legend '...[LY]MON...' with the 'L' and 'Y' faintly but clearly visible, and this could refer to any number of pharmaceutical preparations which contained lemon at this time (see Figure 3:13).



*Figure 3:12. Dutch albarelo decorated in running foliage design inscribed with T:HYSTER from 109-119 The Grove, Stratford, GVE01. Photo by Author, courtesy of the Museum of London.*



*Figure 3:13. Drawing of wet drug jar sherds from 108-119 The Grove, Stratford, showing portions of a cartouche surmounted by Apollo's head and containing the inscription LYMON. Drawing by Author, courtesy of the Museum of London, and adapted from Leary and Jarrett (2002: 383, Figure 7).*

In sum, fill (33) of pit [34] contained at least six albarelli, the wet drug jar sherds, and the Dutch drug jar and fill (70) also produced a sherd of the wet drug jar (Jarrett, 2001: 39). In addition to the ceramics, the assemblage also contained several glass vessels which can be associated with apothecary uses including phials, 'apothecary bottles', and the neck and shoulder of a case bottle from fills (15), (41), (47), (70) and (78) (Tyson, 2001: 50). These vessels would have been used to dispense medicines by the dose and to store liquids respectively, there was no evidence however of production glassware such as alembics (Leary & Jarrett, 2002: 382). The case bottle is a particularly large example so lends weight to the idea that it was used professionally and not domestically, by an apothecary for example (Tyson, 2001: 51). These finds are summarised in Table 3:K, and a full catalogue of the ceramics and glass from these pits is in Appendix 4. The site also had one pit dated to the early eighteenth century which produced a mainly domestic assemblage including fine drinking glasses and a linen smoother, and which Leary and Jarrett (2002: 382) suggest meant

that the presence of an apothecary at this site was relatively short-lived. Leary and Jarrett (2002: 384) go on to suggest that the assemblage represents accidental breakage as there is a relatively contained date range of both production and deposition, and the assemblage does not come close to representing a full set of apothecary jars so cannot be the result of a clearance event.

Form	Material	Quantity	Percentage
Albarello	London tin-glaze ware	6	47.1%
Albarello	Dutch tin-glaze ware	1	
Wet Drug Jar	London tin-glaze ware	1	
Dry Drug Jar	London tin-glaze ware	1	
Phial	Glass	4	
Case Bottle	Glass	1	
Apothecary Bottle	Glass	2	
Total Other Ceramic Vessels		3	8.8%
Total Other Glass Vessels		12	35.3%

*Table 3:K. Summary of vessel glass and ceramics from 108-110 The Grove, Stratford highlighting the apothecary wares. Percentages are rounded to one decimal place.*

### 3.2.2 Brentford

233-246 High Street, Brentford (TQ 1780 7750) was the ninth of a program of develop-led excavation along the Brentford High Street between 1966 and the mid- 1970s and was excavated between 1970 and 1971 (Canham, 1978: 1, 17, 24). Across this series of sites the post-medieval evidence was mainly confined to cesspits and refuse pits in the backyards of

properties that fronted onto the High Street, and no structural evidence from before the nineteenth century survived (Canham, 1978: 31, 151-152). The feature of interest for this thesis is z32 which was an oval pit in the north-west corner of area K of the site with a filling of dark soil (Canham, 1978: 25-26, Figures 29 and 31). The excavators presumed that this was a cesspit or refuse pit when interpreting this section of the site. The assemblage from this pit included a variety of zoo-archaeological material, ceramics, glassware, and an unusual piece of worked marble (see Appendix 5 for a catalogue of the finds excluding the zoo-archaeological material). The finds from this site were not able to be accessed so the site is included based on its publication.

The zoo-archaeological assessment of z32 noted the usual expected domesticates, brown rats, mallard, magpie, and a kittiwake gull (Canham, 1978: 146). These species do not appear to have been regularly used in medicinal preparations from the later seventeenth century, but such usage is a potential explanation for their presence in the assemblage. The glass from the assemblage was illustrated and listed in the ceramics chapter of the monograph but not analysed, whilst the ceramics received a detailed report, and the marble piece was included in the Small Finds catalogue (Eastop & Sudul, 1978: 130; Sheppard, 1978: 96-98). The ceramics catalogue lists the illustrated vessels and indicates where similar vessels were not illustrated, of the sixty-two illustrated vessels, fifteen can be categorised as pharmaceutical, however, expanding the catalogue to include all the finds, sixty-nine of the one-hundred-and-twenty-seven identifiable ceramics and glass vessels can be categorised confidently as pharmaceutical (see Table 3:L) (Sheppard, 1978: 99-103). In total there were three wet drug jars dated to the mid-to-late-seventeenth century with two surviving inscriptions, three dry drug jars with two surviving inscriptions, ten albarelli, and twenty-five ointment pots (see

Figure 3:16 for examples of the albarelli and ointment pots), as well as 28 glass phials, and a marble pestle handle, that suggest the presence of an apothecary shop on this site.

The inscriptions on the wet drug jars were S:CORTICUM, which refers to a Syrup of Citron Pills, a remedy that strengthened the stomach, and S.DE:POMPUR (likely S.DE:POM.PUR.), a Purgative Syrup of Apples used when a cooling rather than heating purge was called for (see Figure 3:14) (Culpeper & Cole, 1661: 117, 123). The two dry drug jar inscriptions were FL:TVSSILAG, possibly related to *Tussilago* commonly known as Coltsfoot, and DI:ALT... (see Figure 3:15). The inscribed wet and dry drug jars especially suggest this, as does the sheer quantity of other pharmaceutical glass and ceramics, which would be very unusual in a domestic context. Canham (1978: 97) even suggests that this assemblage represents the clearance of an apothecary shop and not domestic refuse. The date of deposition for this assemblage is suggested as the second half of the eighteenth century based on a plate in the assemblage which is inscribed with the date 1752 (Canham, 1978: 97).

Form	Material	Quantity	Percentage
Albarelo	London tin-glaze ware	10	54.3%
Wet Drug Jar	London tin-glaze ware	3	
Dry Drug Jar	London tin-glaze ware	3	
Ointment Pot	London tin-glaze ware	25	
Phial	Glass	28	
Total Other Ceramic Vessels		61	45.7%

Table 3:L. Summary of vessel glass and ceramics from 233-246 High Street, Brentford highlighting the apothecary wares. Percentages are rounded to one decimal place.





Figure 3:14. Wet drug jar cross-section with two surviving cartouches from 233-246 Brentford. Drawing by Author, adapted from Canham (1978: 101).

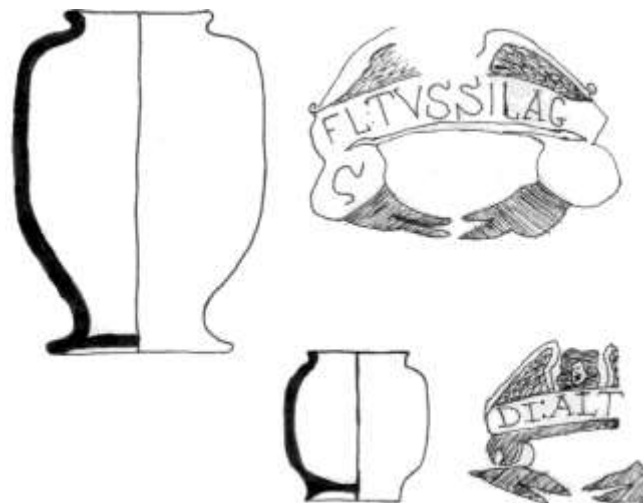


Figure 3:15. Dry drug jar cross-sections with two surviving cartouches from 233-246 Brentford. Drawing by Author, adapted from Canham (1978: 101).

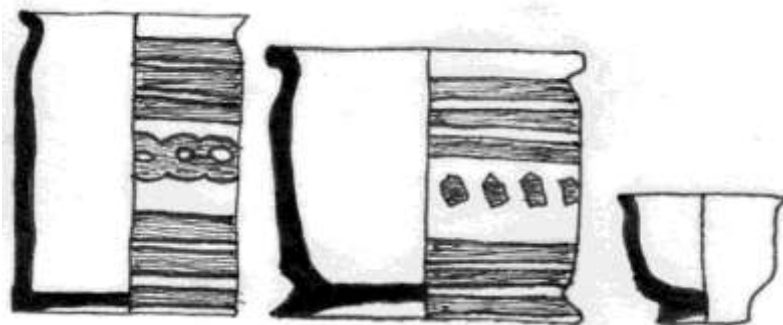


Figure 3:16. Albarelli cross-sections and ointment pot cross-section from 233-246 Brentford. Drawing by Author, adapted from Canham (1978: 101).

### **3.3 Discussion: Apothecaries in and around the Metropolis**

London, as the home to the Society of Apothecaries was the conceptual centre of the profession for apothecaries in the English speaking, early modern world. It was from here that the latest *Pharmacopoeia Londinensis* was published (after 1618), it was from here that the majority of the English made tin-glazed wares were produced from the mid-seventeenth century, and it was through the Port of London that the bulk of the medicinal ingredients were imported for sale (Archer, 1997: 377; Wallis, 2012: 22). It is perhaps this central importance of the city within all aspects of the work of the apothecary that led to the remarkable material similarity between the four sites excavated there.

The four sites from the City of London span at least a century and a half (see Table 3:B) and yet all contain albarello shaped tin-glazed storage jars either made in England, the Netherlands, or less frequently elsewhere in Europe including Spain and Italy. It is not surprising that this variety of durable trade goods is found in London because as Parker (2010: 81) states 'Cities formed the spatial environment for exchange between foreign merchants and organisations in the early modern world', and by the end of the seventeenth century London was 'comfortably the biggest city in Europe' by population (Merritt, 2001: 1). The sources of vessels make sense when the trading links upon which apothecaries relied for their ingredients are considered; materials from North Africa and the Middle East were brought into Northern Europe via Italy and this provided the route for Italian apothecary wares to reach England, simples from South East Asia similarly entered Britain after reaching the Netherlands, specifically Amsterdam, and the trade routes which brought ingredients from South America and the Spanish Caribbean would also have brought Spanish Maiolica. London was the endpoint of a trading network that covered all of Europe and, through Europe, all of

the world as early as 1600 (Keene, 2000: 59). Indeed, it is regularly assumed that ceramic vessels, though usually coarsewares, were imported incidentally as containers for the real trade goods throughout the early modern period (Gutiérrez, 2007: 75-76). This may be true of these medical ceramics although it would be expected that they would be more common in the archaeological record if this was the case. In this respect the material culture of these four sites illustrates and emphasises the importance of the global trading networks into which London was embedded in the seventeenth and eighteenth centuries.

These vessels do show some chronological variation with the polychrome decoration of the Wood Street site in the mid-seventeenth century giving way quickly to blue and purple decoration through the eighteenth century. This change has been noted before by Ivor Noël Hume (1977: 25) who suggested that at English potteries polychrome decoration was no longer produced after about 1640. There is not, however, any other significant variation in the tin-glazed vessels which the apothecaries at these sites were using to store their drugs until the Cartouche shelf jars from Eagle House (see Figure 3:6 and Figure 3:7). These vessels are the kind of drug jar most likely to be on display in museums and have therefore become the standard style of drug jar that is imagined by the anachronistic name of that functional category. Produced from the late seventeenth century these vessels do not appear archaeologically in any great quantities until the eighteenth century which may be explained by their expense, or possibly that they simply had a long use-life. It is interesting to note however that no such vessels were excavated at Moorgate, which had a later date of deposition, so it is possible that the adoption of pre-labelled jars with painted cartouches was not as universal as museum displays might suggest, or that such jars were worth rescuing from the clearance of an apothecary or druggist's shop for sale or further use. There is also

no great variation in the glassware at each site which could be related to pharmacy, the domestic glassware shows much more variation with goblets, beakers, and wine bottles all variously present. There is some development in phial shape through the century that these sites span with globular phials more common at earlier dates and cylindrical ones more common later. This is supported by the work of Karime Castillo Cardenas (2014: 314) who proposed a typology of pharmaceutical glassware found in London and notes that the relative abundance of each type, both of which are free-blown in a variety of glass colours, changes from predominantly globular in the seventeenth century to cylindrical in the eighteenth and nineteenth. Cardenas (2014: 314) proposes that this was due to an increasing demand for phials to be stored efficiently which became a necessity as the demand for medicines increased through these two centuries. Alongside the wide variety of flask shapes present at sites from both the seventeenth and eighteenth centuries, however, this move from globular to cylindrical phials is a relatively minor development. There is a similar lack of significant development in the form of plain white tin-glazed ointment pots through these centuries. So, it seems that a patient would have received their drugs and medicines in familiar containers throughout the period covered by these sites.

The two sites from Greater London, Brentford in the West and Stratford in the North East, are similar in the material recovered to the sites in the City of a similar date. At Brentford, a site where the date of deposition is similar to Moorgate or Eagle House, there are cartouche decorated drug jars of both wet and dry types which are also found at Eagle House, alongside a series of geometrically decorated albarelli. At Stratford, where the assemblage is dated to a century earlier, at the end of the seventeenth century, there were few such vessels, the only examples of a cartouche coming from a definitively Dutch vessel with a running foliage design,

and a fragmentary wet drug jar. Though there are no examples of this kind of jar from Poultry, which is the City of London site that most closely matches the date of the Stratford site, they appear in abundance at Eagle House and the vessels could date from the same period of manufacture, and therefore have been deposited earlier in its use-life at Stratford. The fact that sherds of only one such vessel were recovered also emphasises their archaeological rarity and bolsters the suggestion that these were far less disposable vessels than the ointment pots which form the bulk of these assemblages and even the albarelli which they in many ways superseded in shop-display. The move from geometrically decorated albarelli which would have been labelled in paper hanging from the string tying on their parchment lids, to prominently painted cartouche jars may be related to the increasing importance of labelling and classification in the early modern period as these labels could be read by educated customers who could then link these *materia* to their understandings of the world and medicine, a factor which will form an important element of analysis in Chapters 5 and 6. These jars also provided a place to repeat symbolic imagery that linked the apothecary to the Society of Apothecaries, as many of these cartouches are surmounted by an Apollo's head and rhinoceroses which appear on the arms of the society.

Despite these minor differences it is still instructive that these sites, a little further from the Port of London and the Southwark and Lambeth potteries producing the tin-glazed wares, had such a similar material culture set to the City sites. This can perhaps be explained by the extension of the influence of the Society of Apothecaries to seven miles around the City of London which would include Stratford and only just exclude Brentford. It is therefore probable that the same civically controlled professional identity was important to those apothecaries in the London region. This becomes more likely when you consider that the

region that was considered London was expanding at this time as the city spilt far beyond its still-standing walls and the population doubled from somewhere around 200,000 to over 500,000 (Harding, 2001: 117, 122).

The centrality of London in the early modern period has been the subject of much scholarship. Lena Orlin (2000: 1) for example makes specific mention of a broadside printed in c.1600 that displays the 'cheiffest Citties, and Townes in England' in a circular chart based upon their distance and direction from the central metropolis of London. She notes that in addition to the thirteen major urban centres that are listed on this chart there were around eight hundred market towns in England at the turn of the seventeenth century and yet London is seemingly already the central urban node in the country. Perhaps understandably given that alongside an increasing urban population across the country, the proportion of the urban population who lived in London had doubled in the preceding two centuries despite the demographic challenges posed by the crises of the fifteenth century, making London an extreme outlier in population concentration (Glennie & Whyte, 2000: 169; Griffiths *et al.*, 2000: 196; Keene, 2000: 57). London then was imagined by some in these centuries as a central point from which England, all of which could be counted as the city's hinterland, could draw material culture, fashions, and behaviours (Orlin, 2000: 3; Sacks, 2000: 20). There is also an element of international competition in contemporary writers positioning London like this, they sought to compare London's population and area to those of Paris and Amsterdam, seeking to prove that London was the most important city of the Northern European trading centres (Harding, 2001: 123).

By the end of the seventeenth century London had cemented its position at the heart of a global trading network which allowed it to dominate; becoming the central node from which goods, behaviours, and fashions were distributed, or re-distributed to the rest of the British Atlantic (Sacks, 2000: 26). Or as David Sacks (2000: 42-43) eloquently puts it, early modern England:

pivoted on London, from whence flowed to other towns and the countryside not only bundles of merchandise, but styles of life – manners of diet, dress, home furnishing, and cultural preferences – accompanied by the habit of relying upon the market not only for supplying necessities but for satisfying personal desires and conveying social identities

It is this reliance on the flow of goods and the national and international market to communicate social, and I would suggest professional, identities that is being seen in the similarity of material culture from the sites across what is now Greater London (Peck, 2000: 280). It is also the fact of London's centrality in these processes that meant early modern people at the far ends of these trading networks in colonial North America, or partway along the routes of Atlantic exchange, in Ireland came to be familiar with the names of parishes and wards across the 'varied social topography of London' (Harding, 2001: 135). Chapter 4 will explore whether this influence also affected the material culture of the apothecary shop in provincial England, Ireland, and Virginia.

These sites then, although separated by as much as two centuries, show a remarkable similarity in the material culture that survives. Tin-glazed wares form the most prominent and recognisable group of apothecary material, in the form of albarelli, ointment pots, and drug jars. These are accompanied at most of these sites by a variety of pharmaceutical glassware including case-bottles, wine bottles, flasks, and most importantly large quantities of phials.

What must be emphasised however is that though these are rich sites in terms of the material that survives, they necessarily only reflect a fraction of the visual and material experience of apothecary shops in the seventeenth and eighteenth centuries. Bio-degradable vessels, furniture, and metal vessels are absent, as are any indications of the medicines themselves with the exceptions of the translatable cartouches. No residue or bio-archaeological analysis was done at most of these sites and where it was carried out it was inconclusive. We must necessarily ask ourselves what is missing then. To begin to examine the other material elements of apothecary shop interiors the most valuable source is the inventory, whether produced for stock keeping, valuation, or probate.

Twenty-two inventories of London apothecaries held at The National Archives of the UK (TNA) and originating with the Prerogative Court of Canterbury were identified which included a listing of the shop goods at varying levels of detail. In addition, letter books, inventories, and accounts produced for a variety of purposes were able to be identified in the collections of the Wellcome Library that also speak to the material culture that may have been found in the shop of an apothecary, druggist, or in the late eighteenth century, a chemist. It is, perhaps unsurprisingly, the materials that there is most archaeological evidence for that are recorded with the least detail in these inventories, likely due to a combination of their sheer quantity in the shops, as well as their relative individual cheapness. The probate inventories available from The National Archives cluster between 1660 and 1700 with between four and six dated to each decade in that range. This is a key-hole view of the material culture of apothecaries in the early modern period but as it is at the centre of the time-period that this thesis examines it provides evidence of the mid-point of the early modern professional development of the apothecary in Britain and the British Atlantic from a dispenser to a medical professional



able to consult patients unrestricted by the College of Physicians. The assorted other manuscripts in the Wellcome Library date from 1740 to 1777 and as such represent the end of the period this thesis considers. At this period apothecaries were increasingly independent medical practitioners but were still subject to repeated attempts by the College of Physicians to legislate them into subservience and were also being squeezed in their dispensing function by new compounding chemists and druggists moving into retail trade.

It is unfortunate that most of these earlier documents provide little detail regarding the shop materials of the deceased. As mentioned above the focus of the probate inventory was to catalogue the things of value belonging to the deceased, but, as this was not often done by specialists in the same trade as the decedent, though related tradespersons were sometimes consulted, the shop goods were often treated as a single line in the inventory. Examples of this sometimes frustrating lack of detail include the 1670 inventory of Jeramiah Webb whose entire shop contents was listed as 'Item pottes Glasses Boxsses and Apotehcaryes druges and medicines' totalling £40 (TNA, PROB 4/4127), John Finch's 1662 probate inventory simply lists 'The Morters & Stills and Pottes and Glasses' at £15 6s. 8d. (TNA, PROB 4/3174), and Thomas Wale Senior whose 1694 summarised his entire business assets as 'In the Shopp All the medicine druggs Morters Stills & other [illegible] for the Shoppe' (TNA, PROB 32/39/249). Benjamin Skynner's shop inventory may be the closest geographic match available to the assemblages of the sites listed in this chapter. Unfortunately, however, his 1687 inventory, produced where he lived in St Alban Wood Street, included very little indication of shop material culture as these goods were left unvalued and to be kept by the executor (TNA, PROB 5/1716: f. 20r.). What it did include was an entry for thirty glass bottles and a frame on which to dry them in the room next to the shop (TNA, PROB 5/1716: f. 17r.). This is the most

suggestive indication for the re-use of containers in an apothecary shop that I have come across.

An alternative format present in some of these inventories which also obscured the material experience of the shop was a list of the items of value from across the property, not divided by room and often unquantified. The inventory of William Greene, from St Bartholomew the Great, exhibited in 1661, includes such an example; a long and unquantified list of stills, limbecks, mortars, pestles, pots, glasses, and pewter pots (TNA, PROB 4/11653). These lists often omitted certain kinds of comparatively low-value material culture, for example, John Becke of St. Andrew Hubberd who died in 1662, had two counters, one with drawers, one without, amongst his shop contents, as well as a stone mortar, and a bell-metal one, but his ceramics and glassware were not listed in the total value of the 'Apothecary wares in the shopp' which was £27 3s. 9d. (TNA, PROB 4/8193). Or these lists only included certain materials such as the 1694 probate inventory for Thomas Soper of St Olave in Southwark which lists the mortars and metal vessels but otherwise only has a generic statement of the shop contents (TNA, PROB 4/20950). Similarly, the inventory of Thomas Warner of Richmond in 1694, which like Brentford was on the boundaries of Apothecaries' Society control, only listed 'Two nests of Boxes for Apothecaryes use' at 10s. and an unspecified number of 'Gally potts' which were stored in 'two upper Garretts', there was no listing for the shop itself or its contents (TNA, PROB 5/2281).

These inventories however show that the London apothecaries of the later seventeenth century had a variety of vessels that do not survive archaeologically, mainly in a variety of metals. Most importantly were their stills, limbecks, retorts, and receivers which were used

to distil medical ingredients and infusions which became the favoured method of extracting the efficacy of their ingredients due to the influence of Paracelsus and the chymical physicians (Multhauf, 1956: 333-334). Also important were their mortars and pestles which were used to grind ingredients into powders so they could be added to oils, waters, or pills and then made into remedies, together these two tools came to represent apothecaries and so any assessment of the material experience of apothecary shops would be incomplete without them even if they do not survive in the archaeological record (Griffenhagen, 1958: 233).

Many of the inventories, however, are detailed enough to allow us to say more about the material culture of the apothecary. Alongside the glassware and ceramics, which were occasionally enumerated and even categorised, the inventories tend to focus on several specific categories of material culture in the shop. Given their appearance in even the abbreviated inventories, it is not surprising that mortars and pestles appear frequently in those with more detail. What cannot be seen in the previous inventories however is the quantity and variety of this seemingly mundane vessel and instrument. For example, Edward Willson's inventory from 1661 lists not only a 'greate Brasse Morter and pestle' but also a 'middle one', and also '2 Marble' mortars (TNA, PROB 4/3542). Similarly, John Beatniff's 1667 inventory lists a 'great Brass Morter with an Iron pestill' a 'small bell metal Mortar' and one other mortar whose material was illegible (TNA, PROB 4/19702). Moses Monloise of St Sepulchre had 'Two Brass mortars & pestelles' and 'Two stone Mortars & pestelles' in 1679 (TNA, PROB 4/80). William Slade in the same year had 'Pestel mortar & block', 'a Stone Morter & pestle', '2 brass Mortar', and 'a Marble Mortar & pestles' (TNA, PROB 4/2043). Richard Worcester in 1694 was recorded as owning 'Two large brass morters', '2 small brass morters', and 'two stone morters' (TNA, PROB 32/32/97). It seems then, that simply having a mortar

and pestle, which most kitchens also would have at this time, was not enough. To be able to properly compound and dispense drugs and medicines several different materials and sizes of mortar and pestle were required in bell metal, brass, stone, and/or marble. Each material of which would have had their own material affordances, indications of embodied skill (more fragile mortars would have been troublesome to work with), and potential effects on the medicines themselves, real or imagined. Of those listed, the metal ones were likely recycled when they ended their useful life and so would not have survived archaeologically.

The only archaeological indication of these vessels or instruments from London is the single fragment of worked marble found at Brentford which may have been part of a pestle (Eastop & Sudul, 1978: 130), though this was deposited fifty to one hundred years after these inventories were compiled. Such stone and marble mortars and pestle could not simply be recycled and they would have had an exceedingly long period of usefulness and were expensive which would have encouraged their sale or at least retention rather than disposal. Stills too could be recorded in more detail though this was less frequent than was the case for mortars and pestles. The extensive 1694 probate inventory of Edward Nowell of St Dunstan in the West a 'Citizen and Apothecary' lists a 'Limbeck', 'Limbeck Worme Tubb', and a 'pewter head to it the limbeck' in the yard for example (TNA, PROB 4/4145), and Richard Worcester's inventory also included 'two pewter Stills', 'one Firnis', and 'one Copper Still', with 'wormes' (TNA, PROB 32/32/97). Similarly, the stills and mortars of William Pickering in 1693 were valued at a combined £12 10s. (TNA, PROB 4/11357), for comparison the 'The Frame Boxes & Counter' of Richard Worcester's shop in 1694 were valued at only £3 (TNA, PROB 32/32/97). The materials and expense of these vessels explain their archaeological

absence and their inclusion in these detailed inventories shows their importance for apothecaries at the end of the seventeenth century.

Another element that does not survive archaeologically but which would be key to the visual and material experience of shopping at an apothecary is the counter and shelving. These elements are often listed in the inventories however and so we can get an idea of the importance of these pieces of furniture and sometimes their design and layout. A counter was amongst the shop contents listed in eight apothecary inventories dated between 1676 and 1694 (TNA, PROB 4/80; PROB 4/2043; PROB 4/4145; PROB 4/7104; PROB 4/11357; PROB 5/1586; PROB 5/3899; PROB 32/32/97). While the 'frame of the shop' or similar is listed in four surviving seventeenth-century inventories (TNA, PROB 4/80; PROB 4/3542; PROB 4/7818; PROB 32/32/97). These elements, where they were valued individually, formed only a small portion of the value of the shop contents, £3 - £7, but would have marked out the separation of space within the shop and formed the space in which the apothecary displayed their wares and engaged both personally and visually with their customers or patients and so must form part of the consideration of these spaces even if they do not appear archaeologically (Walsh, 1995: 164). These counters made the apothecary shop into a place where 'polite' modes of shopping were replicated; the shopkeeper retrieved products from the shelves behind the counter for the perusal of the customer (Stobart *et al.*, 2007: 126). Shopping in these environments then was a highly active experience which allowed the apothecary to engage with their patient and suggest new and effective alternatives to the requested remedies, something which served to introduce new remedies and imported goods to the market (Walsh, 1999: 50-52, 55; 2000: 88; Stobart *et al.*, 2007: 129).

Materials that do appear archaeologically, and in significant numbers, also appear in these inventories though usually in an abbreviated summary that is not useful beyond confirming that the apothecary shop in question had ceramics and glassware. Adam Moore of St Lawrence Jewry for example is recorded as having 'several quantities of potts and glasses' in his shop (TNA, PROB 4/7104), whilst Moses Monloise simply had 'shel[f]weres' (TNA, PROB 4/80), and Edward Nowell had 'Potts Glasses boxes [and] drawers' in his shop (TNA, PROB 4/4145). Sometimes we get a little more detail such as confirming that the predominant ceramic form was that of albarelli which in the seventeenth century were usually referred to as gallipots or gally potts. Richard Worcester had 'Glasses and Gallepotts in the Shop' (TNA, PROB 32/32/97), and Peter Culley had 'Glasses [and] Gallipotts' amongst the 'other Utensills' (TNA, PROB 5/3899). There are a few inventories that are much more detailed and provide specific quantities and descriptions of the vessels in use in these shops at the end of the seventeenth century, although it is sometimes difficult to equate early modern descriptions with vessel types that have been categorised in the modern period. The probate inventory of John Beatniff from 1697 was not divided into rooms or sections but does record that he owned '95 gally potts' and '64 Glasse quart bottles' (TNA, PROB 4/19702). This is a high number of individual vessels, far more than might be expected at any other type of establishment, it is also interesting to note the 'quart' sized bottles as no bottles of that size other than wine bottles are found in the glass at any of the archaeological sites listed above.

Richard Foucant's 1667 inventory from his premises in Covent Garden is even more detailed and lists '3 dozen and ii pottle shop glasses', a pottle being an archaic measure for a half a gallon, '10 dozen & 7 potts', '1 dozen and a halfe of pill potts', '3 dozen of Species glasses', and '32 Gallon glasses' (TNA, PROB 4/11990). It is likely that the unspecified 'potts' were the

albarelli, whilst the 'Specie' glasses would be cylindrical glass jars used to store and display medicinal ingredients, the 'pill potts' would likely have fallen into the category of ointment pot in modern definitions as those would have been used for all types of small quantity prescriptions though it could be referring to a bent-wood box of a kind that very rarely survives archaeologically but is known from one site in Dublin (see Chapter 4) and in a variety of depictions of apothecaries and alchemists from Northern Europe in this century. It is possible that we are seeing a diversification of the forms of ceramic used by apothecaries, or that the category which we label 'ointment pots' is a crude estimation that includes pill pots, and other vessels distinguished in the seventeenth century by size or depth.

John Downton's inventory is also detailed; listing '28 conserve potts & 30 Syrrupp Potts', '10 Oyle potts', '15 Oyntment potts' and '56 [illegible] glasses for Simple Waters' totalling £2 10s. (TNA, PROB 4/14609). The division of the ceramics into those for conserves, syrups, oils, and ointments is interesting but is difficult to link directly with most modern categories of drug jar or apothecary ware, it is possible that subtleties in the form or decoration of these vessels distinguished them in the contemporary mind, or possibly they were grouped in inventories based upon their painted or affixed labels, and so doing also stood in for their contents, thus two identical wet drug jars may be assigned as one syrup jar and one oil jar. Ointment pots are likely the same kind of pots that we define by that name and conserve pots could be drug jars or albarelli. It is in the division between oil and syrup pots where modern definitions let us down as we tend to only have one type of 'wet drug jar' in our classifications and these jars were used for syrups *and* oils (see Chapter 1). Nevertheless, it makes it likely that Downton had both wet and dry drug jars as we would define them, possibly albarelli, and definitely

small ointment pots. The glasses for simple waters could take any form and would likely be smaller jars or larger flasks, which have been found at Poultry and Moorgate.

Finally, there is William Hardy's 1673 probate inventory (TNA, PROB 4/21082) which is unusual because it was low on detail when it came to household goods but was more detailed for the shop goods. He was recorded as having '[?]28 square gallon-glasses 13 round gallon-glasses [illegible] 52 pottes bottles round & square 3 dozen sirrop [illegible] & square quarts & 16 pints 10 oile potts [illegible] 10 stout bottles all [illegible]' as well as '32 Shopp-potts of [?]severall sorts 4 stall boxes two 4 gallon glasses & several small pottes & glasses' and '3 gross & 4 dozen of Small glasses.' There may have been more detail originally, but unfortunately, significant portions of the inventory were illegible. The distinction between square and round gallon glasses is interesting and suggests a quantity of what we would call case-bottles as well as jars in glass. There is again the specific designation of bottles or pots for syrups and oils, as well as the significant designation of 'Shopp-potts' of several sorts, presumably different sizes and forms, possibly the cartouche painted drug jars of later classifications which were specifically designed for use and display in the front shop of an apothecary.

These probate sources have made it clear that the archaeological remains of apothecaries, whilst constituted of some of the most recognisable material related to the profession in the early modern period, are necessarily incomplete representations of the interiors of apothecary shops. Metal and stone vessels also need to be considered alongside the frame, shelves, and counters. It is also clear that the variety of ceramics and glassware evident in the archaeology is only a small sample of the variety of forms and materials that would have been



in use in such a shop, though this is partially explained by the fact that the contexts in which the material most commonly occurs are related to disposal and discard. The question that remains though is how representative are these inventories if they are confined to the last half of the seventeenth century? A selection of sources held at The Wellcome Library provides a point of comparison for the latter half of the eighteenth century. All are non-probate sources which can also be useful to suggest the material culture that may have been present in an apothecary's shop, perhaps even more accurately than probate sources as these were produced through the normal operation of these shops and not after the death of the proprietor.

One key source of information are apothecaries' business archives; there are some examples of bills and accounts listing not only the remedy dispensed but also the cost of the vessel it was dispensed in. For example, Wellcome MS.5269/2, a bill for one Lady D'Oyly from an unnamed apothecary dated 1688, includes 'Aq Cinamom opt ?ite & Bottle 4s. 3d.', as well as 'Aq floz Aurantiae & Bottle 2s. 3d.'. These are rare however and provide more information about dispensing vessels than shop ones. In a similar vein, the foreign letter books of Thomas Corbyn and Co., a large chemist and druggist company in eighteenth-century London, provides another source for this kind of information. These books contain copies of the outbound letters sent by the company in the course of their business and are more useful than the rare indications in accounts or bills. In addition to the sale of medicines and medical ingredients, Thomas Corbyn and Co. appear to have been engaged in the wholesale trade of the *materia medica* and material culture necessary to run an apothecary or druggists' shop. In the book dated between 1741 and 1755, there are listings for a variety of material culture sent to foreign customers. For example, in the account of Doctor Daniel Lothrop of South

Carolina, there was recorded 'a parcel of vials £3 16s. 6d.' sent on 7 January 1746 (Wellcome, MS.5442: 122). There was also 'a Parcel of Drugs & Still £13 2s. 3d.', '8 D° Vials & Small Bottles £6 2s. 6d.', '12 D° Vials Via New York £9 3s. 8d.', '31 D° & 5 Crates Vials in [illegible] £74 7s. ½d.', and 'a Large Parcel of Hungary Water Vials' which were sent to a Doctor White of Philadelphia throughout 1745, 1748, and 1749 (Wellcome, MS.5442: 142). Finally, in a letter to a 'Lovinge Friend' Joseph Jackson in 1752 included an 'account of a New Compleat set of Drawers & Bottles' totalling £22 9s. 0d, indicating the importance of not only professional but also personal relationships in transatlantic trade and exchange (Wellcome, MS.5442: 179-180). Whilst these sources are light on detail, they do indicate something that becomes relevant when considering provincial and colonial shop sites as I will do in Chapter 4; shops across the British Atlantic are deliberately sourcing their material culture and *materia medica* from London firms. This suggests that London was not only the conceptual, but also commercial centre of the pharmaceutical profession for the British North Atlantic.

In other records from the same business, we can get an idea of the materials that they stocked for both their own use and their wholesale business, although no quantities are listed. In the 1770 inventory the following are listed (Wellcome, MS.5451/7):

Stone & Earthen Jarrs, including all the different sizes, Stone bottles, of all sorts Sal. Absinth Bottles, Marble Mortars, Deal, Wainscot & Chip Boxes of all sorts & sizes, ... Daffy Bottles, ... Hungary Water Bottles, Turlington's Bottles, Lavender Water Bottles of all sizes, ... Vials in Sp. Wide and Narrow mouth of all sizes, ... Flint Stopper Bottles of all sizes, Glass Pill Jars, Spec. Glasses, Qt & Pt Green Stopr Bottles, Gallypotts of all sorts & sizes, ... Common 2Qt Qt Pt & ½Pt bottles

Similar types of material culture, jars, bottles, and vials appear in the 1773 inventory (Wellcome, MS.5451/9), and an even greater variety of stone and glass jars, 'bung and corks',

'flasks', and 'sundry quack medicine bottles' appear in the 1776 inventory (Wellcome, MS.5451/5). A similar variety of material was present in the inventories and valuations from 1761-1770 although these were divided between the shop and the company's laboratory premises at 'Cold Bath Fields' (Wellcome, MS.5452/1-3). This series of sources suggests that ceramic and glass jars and storage bottles remained in use in the apothecary shops which Corbyn & Co. supplied right up until the last quarter of the eighteenth century and also shows the increasing importance of specialist packaging for proprietary and patent medicines such as Daffy's Elixir, Turlington's Balsam, and generic 'Quack Medicine' bottles, something that is entirely missing from the earlier inventories and is also invisible archaeologically at the sites in London through the seventeenth and eighteenth centuries. This suggests an increasingly informed consumer who sought out specific remedies by their distinctive packaging and an increasingly commercial medical market where brand recognition was important and drove sales. Such developments are reflected in the marketing and advertising of medicines which can begin to be seen in the eighteenth century. Newspaper advertisements for medicines first sought to promote specific wares and create a brand identity and secondarily to direct consumers to retail outlets (Walsh, 2000: 87). Therefore, to meet the demands of many customers apothecaries necessarily had to stock the remedies which were so visibly branded and advertised or lose significant custom.

These sources also show some continuity in the practice of compounding in shops, something which starts to die out into the nineteenth century, with the stocking of marble mortars, weights and scales. There is also continuity in the containers used to dispense (non-proprietary) drugs and medicines with the as many as thirty-four gross (4896) green vials in stock in 1776, and a variety of 'Pill Jars' and 'Pill Boxes' as well. Another source of value for

this kind of information is production books which recorded the recipes, necessary materials, and stock of manufacturing chemists and apothecaries. In one example from London dated to between 1741 and 1777 there is an entry on an undated page for '70 Vials in [?all]sorts', '4 ounces bottle white', '8 ounces bottles D<sup>o</sup>' in a seeming price list for purchasing these necessary vessels (Wellcome, MS.5940: 254). This would line up with the extremely large quantity of the same vessels that Corbyn and Co. had in stock in 1776.

Once again, the manuscript sources make it evident that the archaeological assemblages of London apothecaries from the eighteenth century offer only a partial window into the material culture that made up the physical experience of these shops for both patrons and proprietors. They indicate that more attention needs to be placed on the proprietary and otherwise recognisable containers for specific medicines, but they also confirm the substantial continuity of material previously noted in the archaeology, especially with respect to ceramic and glass containers both in use in the shop and those used for dispensed medicines. What they can confirm, which the earlier sources on their own were not able to, is that London was categorically the commercial centre of the pharmaceutical profession alongside its conceptual centre with the Society of Apothecaries. This is shown by the North American and Caribbean apothecaries and doctors ordering glassware as small as phials, and occasionally complete sets of shop jars from London alongside their *materia medica*. Despite the first successful glassmaker in North America being established in New Jersey in 1739 this is not a surprising trend; the Anglo connotations of the imported material imparted status and served as a social marker in a way that domestically produced North American durables could not even by the 1790s (Scoville, 1944, 195; Shepherd & Walton, 1976: 407; Breen, 1988).

### 3.4 Conclusions

Apothecaries in seventeenth- and eighteenth-century London were stocked with ceramics and glassware that remained similar across the city and the two centuries that this thesis is concerned with. These tin-glazed albarelli and glass jars were stored behind similar wooden counters and on similar wooden shelving with one or more mortars and pestles in the front shop made in brass or marble. These elements can be seen in both the archaeological remains and probate inventories. All of these elements, even those which do not appear archaeologically, need to be considered when assessing the material and visual experience of shopping in an early modern apothecary shop, but it is only through the inclusion of archaeological finds that the visual and material can be confidently included in the analysis and comparison of these spaces. There are some differences from site to site, but these are more related to chronology than to geography. Albarelli gave way to barrel-shaped or spouted jars with cartouches to enable the customer to see and read their contents, and nondescript glassware and globular phials were gradually replaced with cylindrical phials and mould-blown containers for proprietary medicines in the name of efficiency and in the face of successful newspaper advertising. There is no significant revolution in how medicines and other goods that apothecaries sold were stored, presented, or labelled in these two centuries, however, and this can be seen in both the archaeology and the documentary sources.

The shops' material culture is similar whether or not they are in the City of London or what would, in the seventeenth century, have been outlying towns. Does this only speak to the centrality of London and its local influence, since one of the two peripheral shops was under the aegis of the Society, or does it perhaps speak to a more general visual and material identity which was rapidly adopted and spread along the trade networks and population

movement of which London was the centre? It seems likely that it is the latter, especially since London was increasingly embedded in, and controlled, a network of exchange in goods, knowledge, and fashion that spanned the North Atlantic, and which influenced Europe and, through Europe, much of the rest of the world. Apothecaries themselves were nodes on a smaller network within the city, also exchanging goods and knowledge, and as can be seen by the records of Thomas Corbyn & Co. were sometimes agents of international commerce, sending apothecary material culture to the Caribbean and North America in the latter half of the eighteenth century. As the central point on that network, it would be unsurprising for the material culture of London apothecaries to be similar to that in the provinces and colonies across the North Atlantic. To get a better idea of these effects, as well as any unique aspects of these sites outside of London the same approach to the archaeological and documentary records of provincial and colonial apothecaries is needed.

## **Chapter 4 - Provincial and Colonial Apothecaries and their Archaeology**

Like Chapter 3, this chapter presents apothecary sites identified from archaeological excavations across England outside of London, and in Ireland and British Colonial North America. It will present these data alongside the contents of contemporary probate inventories and a variety of other documentary sources to further identify the common elements between the material culture of apothecaries in the seventeenth and eighteenth centuries, this time outside of the metropolis. The material evidence from each site will be presented in turn along with any additional information about the possible occupiers of each site and their practice. The sites will then be discussed with reference to the probate inventories of seventeenth- and eighteenth-century apothecaries from England held at The National Archives as part of the records of the Prerogative Court of Canterbury, The Norfolk Record Office as part of the records of the Dioceses of Norwich, and the Cheshire Archives and Local Studies office, as well as letters, and business accounts, held at The Wellcome Library, and the Stabler-Leadbeater Apothecary Shop museum in Alexandria, VA. Many of these provincial sources have been included thanks to The Intoxicants Project (<http://intoxicantsproject.org>), which has an online database of transcribed inventories from Cheshire and Norfolk of individuals involved in the trade of intoxicants including distillers, brewers, and, importantly for this research, apothecaries.

In the same way as in Chapter 3, the presentation of the material archive and other archaeological data has been standardised where possible but due to the time over which

these excavations took place, there are some notable differences in the definitions and levels of analysis of the material culture.

Site Name	Site Location	Date of Deposition of Apothecary Material
Lion Walk	Lion Walk, Colchester	Early to mid-seventeenth century
Kevin Street	Kevin Street, Dublin	Mid to late seventeenth century
London Street	13-25 London Street, Norwich	Late seventeenth century
The Dr George Gilmer Household	Palace Green, Williamsburg Historic Area	Mid eighteenth century

*Table 4:A. Locations and dates for provincial English sites, Irish sites, and North American sites.*

#### 4.1 Provincial UK Sites

There are two identified apothecary shop sites from provincial England that date to the seventeenth and eighteenth centuries. Both are in East Anglia with one at Colchester and one in Norwich (see Figure 4:1 for their locations within England). Norwich was the second city of the country in the late medieval and early modern periods and also had a significant Dutch population (Corfield, 2004: 142, 144). Colchester was similar in its Dutch population and has been described as a smaller Norwich which was closer to London (Cotter, 1999: 167). They are presented here in chronological order of the deposition of the material culture relating to the apothecary or apothecaries at each site (see Table 4:A).





Figure 4.1: Maps showing the locations of the London Street, Norwich and the Lion Walk, Colchester apothecary sites. Created with Digimap.

#### 4.1.1 Colchester, Lion Walk

Excavated between 1971 and 1974 as a series of self-contained sub-sites by the Colchester Archaeological Trust, the site of Lion Walk (approximately centred on TL 99693 25114, Site Codes in the format LWC followed by the letter code for each sub-site) is situated to the south of the High Street in Colchester (Crummy *et al.*, 1984: 1). Bounded by Culver Street to the north, and the town wall to the south these excavations were carried out in advance of the development of a shopping centre. Unfortunately for this study, the site was published as a small part of several finds-volumes on the material culture of Colchester by the Trust and the glassware was never analysed. This means that the site has had to be reconstructed from reports published across a span of sixteen years during which time standards and recording conventions had developed. The relevant reports, all part of the Colchester Archaeological Reports series, are Crummy *et al.* (1984) which focused on the buildings evidence from the 1970s excavations at Lion Walk, Balkerne Lane, and Middleborough in Colchester; Crummy *et al.* (1988) which looked at the post-Roman small finds from all excavations in Colchester between 1971 and 1985; Luff and Brothwell (1993) which looked at the animal bones from all the excavations in Colchester between 1971 and 1985; and Cotter *et al.* (2000) which looked at the post-Roman pottery from all the excavations in Colchester between 1971 and 1985 (see Appendix 6 for a catalogue of the ceramics from the relevant features). The site is included in this thesis based on these reports and a visit to the material archive which was accessed at Colchester + Ipswich Museums in June 2018.

It is also worth noting that this site was excavated with limited funds and in a truncated timespan for its size and complexity. Indeed, part of the reason for the split publication is the fact that the 'funds available for ... the sites were very inadequate. Areas were left

unexamined, drastic machine stripping had to be undertaken and the resources devoted to post-excavation work were minimal apart from what was needed for the preliminary sorting and marking of the finds' (Crummy *et al.*, 1984: 1), which has implications for the interpretation. Nevertheless, it has been possible to confirm that at least fifteen features across five of the sites produced pharmaceutical ceramics, and in total sherds of at least seventy-seven tin-glazed apothecary jars dated to between c.1575-1650 were excavated (Cotter, 1999: 167).

Most of the seventy-seven apothecary vessels recovered were albarelli, both in polychrome (see Figure 4:4), and in simple blue and white (see Figure 4:2). The assemblage also contained several spouted drug jars (see Figure 4:3 and Figure 4:7) and some albarelli that were labelled in the same way that might be expected on dry drug jars (see Figure 4:6 and Figure 4:9 for examples). Most of these ceramic vessels have simple geometric or stylised vegetal decoration and are described by Cotter (1999: 167) as Anglo-Netherlandish because similar vessels were made in both countries and their origin cannot easily be distinguished. Jars of this kind in England are generally dated to the first half of the seventeenth century whilst evidence from Antwerp shows that they were produced as early as c.1560 (Cotter, 1999: 167). In addition to the tin-glazed drug containers there was a quantity of fine German stoneware, and a complete 'hessian' crucible with a mercury residue (Cotter, 1999: 168; Cotter *et al.*, 2000: 230). In combination, this series of assemblages suggests alchemy or pharmaceutical practice nearby (Cotter, 1999: 168; Cotter *et al.*, 2000: 230). This conclusion is reinforced in comparison to two other sites in Colchester of comparable size; Middleborough and Culver Street which produced only six and three undecorated drug jars each (Cotter *et al.*, 2000: 230).



Figure 4:3. Wet drug jar from Lion Walk Colchester, probably made in the Netherlands. Labelled S>FVMOTERRA (Syrup of Fumitory). COLEM:1986.65.4382. Photograph © Colchester + Ipswich Museums, reproduced by permission.



Figure 4:2. The simplest of the decorated albarelli from Lion Walk Colchester in white and blue tin-glazed ware, English or Dutch. COLEM:1986.65.144. Photograph © Colchester + Ipswich Museums, reproduced by permission.



Figure 4:4. A polychrome albarello from Lion Walk Colchester, Site C, Feature 42, likely made in the Netherlands though similar designs are known in London produced albarelli before c.1640, most prominently at Wood Street in the City of London (see Chapter 3). COLEM:1986.65[C43]. Photograph © Colchester + Ipswich Museums, reproduced by permission.

Although it has proven impossible to completely reconstruct the finds catalogue of the site, the illustrated and catalogued vessels in the various finds volumes and the material archive have allowed the reconstruction of the ceramics and small finds from the four most prominent pits and pit complexes which contained pharmaceutical material. The first of these was Lion Walk Colchester Site K Feature 15 (LWC KF15), a deposit of sixteenth-century material likely cleared c.1600. Secondly, LWC BF14 [Stratified Group 20] the material from which dated to between 1575 and 1625, and LWC VF2 [Stratified Group 19] where slightly later material was found. Both Stratified Group 19 and 20 seem to have been deposited in the mid-seventeenth century. Finally, the 'Lion Walk 'C' Pit Complex' which consists of LWC CF61/F42/F23/F19 & F95(65) the material from which was manufactured between 1600 and 1650 but was deposited in the latter part of that century.

LWC KF15 contained six albarelli at least two of which had painted labels with their contents and one 'pharmaceutical bottle' which is an unusual form in British contexts (see Figure 4:5). In addition to the pharmaceutical wares, which form 58.3 per cent of the contents of the pit that could be reconstructed (excluding clay pipes), there was a Bartmann Jug in Cologne or Frechen stoneware, a cup, bowl, and tripod pipkin in post-medieval red earthenware, and a pancheon in early Essex-type post-medieval red earthenware all of which could have been used in an apothecary shop or in a domestic context (for a summary of the pharmaceutical finds see Table 4:B). The tin-glazed earthenware is identified as of North Netherlands manufacture and along with the stoneware is dated to the latter half of the sixteenth century, making it the earliest assemblage identified in the course of this research (Cotter *et al.*, 2000: 232-234).

Form	Material	Quantity	Percentage
Albarelo	North-Netherlands Tin-Glazed Earthenware	6	58.3%
Pharmaceutical Bottle	North-Netherlands Tin-Glazed Earthenware	1	
Total other Ceramic Vessels		5	41.7%

Table 4:B. Summary of ceramics from Lion Walk Colchester, Site K, Feature 15, highlighting apothecary wares. Percentages are rounded to one decimal place.



Figure 4:5. A pharmaceutical bottle from Lion Walk Colchester, Site K, Feature 15. This is an unusual form of pharmaceutical ceramic in English contexts and was produced in the Netherlands. COLEM:1986.65.4384. Photograph © Colchester + Ipswich Museums, reproduced by permission.

Stratified Group 20 is the largest single group that was reconstructable from Lion Walk and produced at least twenty, possibly as many as twenty-five tin-glazed earthenware drug jars of albarello and wet drug jar forms, though only ten were illustrated in Cotter *et al.* (2000) (for a summary of the finds from this group see Table 4:C). The rest of the assemblage is made up of stoneware or local post-medieval red earthenware in forms that would have been useful in an apothecary shop: storage jars, a tripod cauldron, jugs, and bowls. This assemblage also produced some small finds; two bone knife handles, one of which was in the form of a horse's hoof (Crummy *et al.*, 1988: 75), and a Nuremberg token (Crummy *et al.*, 1987: 133, small find 138). 37.7 per cent of this larger assemblage is diagnostically pharmaceutical but most of the vessels in this group could also have been used in an apothecary shop. This group is all dated to between c.1575 and c.1650, and a deposition date of c.1650 is suggested in the finds volume (Cotter *et al.*, 2000: 337).

Form	Material	Quantity	Percentage
Albarello	Tin-Glazed Earthenware	9	44.1%
Wet Drug Jar	Tin-Glazed Earthenware	1	
Possible Drug Jars / Albarelli	Tin-Glazed Earthenware	20	
Total other Ceramic Vessels		38	55.9%

Table 4:C. Summary of ceramics from Lion Walk Colchester, Site B, Feature 14 (Stratified Group 20), highlighting apothecary wares. Percentages are rounded to one decimal place.

Stratified Group 19 produced seven albarelli with geometric and abstracted floral designs of various sizes alongside a 'Hessian' type triangular crucible which was found to contain a mercury residue, a colander in Surrey-Hampshire Border Ware, three Red Earthenware storage jugs, a Frechen stoneware jug, and two plates or dishes, which again could all have

been used in either an apothecary shop or in a domestic context (for a summary of the finds from this group see Table 4:D). The albarelli formed 46.7 per cent of this assemblage and including the crucible, 53.3 per cent of the assemblage can be linked directly to pharmaceutical use. This group is all dated to the first half of the seventeenth century, and a deposition date of c.1650 is suggested in the finds volume (Cotter *et al.*, 2000: 334).

Form	Material	Quantity	Percentage
Albarelo	Netherlandish or Anglo-Netherlandish Tin-Glazed Earthenware	7	53.3%
Crucible	Hessian Ware	1	
Total other Ceramic Vessels		7	46.7%

Table 4:D. Summary of ceramics from Lion Walk Colchester, Site V, Feature 2 (Stratified Group 19), highlighting apothecary wares. Percentages are rounded to one decimal place.

The pit complex from site C included ten albarelli, one barrel-shaped drug jar, and two wet drug jars variously described as of Dutch, Netherlandish, and Anglo-Netherlandish manufacture, and all dated to the first half of the seventeenth century (for a summary of the finds from this group see Table 4:E). In addition to these pharmaceutical ceramics which formed 45.8 per cent of the assemblage (excluding clay pipes), a quantity of domestic tin-glazed earthenware plates as well as a variety of stoneware, slipware, and border ware vessels that would not be out of place in an apothecary shop, but could also have served as domestic storage and tablewares (Cotter *et al.*, 2000: 235). This site was likely deposited in the late seventeenth century.



Form	Material	Quantity	Percentage
Albarello	Anglo-Netherlandish Tin-Glazed Earthenware	7	42.9%
Wet Drug Jar	Anglo-Netherlandish Tin-Glazed Earthenware	2	
Dry Drug Jar	Tin-Glazed Earthenware	1	
Possible Dry Drug Jar / Albarelli	Tin-Glazed Earthenware	2	
Total other Ceramic Vessels		16	57.1%

*Table 4:E. Summary of ceramics from Lion Walk Colchester, Site C, Feature 19, 23, 42, 61, 65, and 95, highlighting apothecary wares. Percentages are rounded to one decimal place.*

Overall, 46.3 per cent of the vessels in these four assemblages are diagnostically pharmaceutical, though significantly more than that could have been used in pharmaceutical preparation. Eleven of the pharmaceutical jars in the assemblage had legible inscriptions, which, in translation, included ‘syrups of fumitory’, ‘borage and elder flowers’, ‘lanolin, myrrh, and pills for nervous disorders’ (see Figure 4:6, Figure 4:7, Figure 4:8, and Figure 4:9 for examples of painted cartouche labels on albarelli, wet, and dry drug jars from Lion Walk) (Cotter, 1999: 168). This is enough to be confident that there was at least one apothecary shop at this site between the late sixteenth century and the late seventeenth century and that its contents were cleared periodically, possibly at a change of ownership. The most significant clearance appears to have happened in the middle of the seventeenth century with Stratified Groups 19 and 20, and that period of disposal included material produced 50 to 75 years earlier which has significant implications for the visual and material experience of the shop; the older material would have been worn but familiar and the long use life they had suggests that they were expensive to replace or valuable in their own right. The figures also show that despite production in the Netherlands the same colour schemes are in use in the

production of pharmaceutical ceramics as in London through the lifespan of this apothecary shop with blue and white predominating and some ochre and manganese also used.



Figure 4:6. Labelled albarello from Lion Walk Colchester. The label reads OSUPVS.HVMD (wool fat or lanolin). Labelled albarelli are not known at this period from English producers. COLEM:1986.65.4383. Photograph © Colchester + Ipswich Museums, reproduced by permission.



Figure 4:7. Wet drug jar from Lion Walk Colchester. Labelled O.VIOLARVM (Oil of Violets). COLEM:1986.65.4399. Photograph © Colchester + Ipswich Museums, reproduced by permission.



Figure 4:8. Dry drug jar from Lion Walk Colchester, Site C, Feature 42/47. Labelled C.PARALICIS (Composition of Cowslip). COLEM:1986.65.4379. Photograph © Colchester + Ipswich Museums, reproduced by permission.



Figure 4:9. Labelled albarello from Lion Walk Colchester, Site K. The label reads CASSIA MANDA (?Cassia and Almonds). Labelled albarelli are not known at this period from English producers. COLEM:1986.65[K118]. Photograph © Colchester + Ipswich Museums, reproduced by permission.

Further supporting the idea that this site is that of a single apothecary shop is the documentary research completed by Cotter *et al.* (2000). The evidence from Colchester allows the identities of the apothecarial families in the town to be 'known with a high degree of confidence' (Cotter, 1999: 168). This includes specifically the area around Lion Walk and the Red Lion Hotel on the High Street which formed one end of the alleyway that was originally known as Cat Lane (Cotter *et al.*, 2000: 230). The Red Lion Inn was sold in 1722 by Thomas Great, an apothecary. Thomas was the son of Samuel Great, who was also an apothecary and who served his apprenticeship to Robert Buxton who in addition to being at least a second-generation apothecary – his father Thomas (possibly d. 1607) was also an apothecary in the town – served twice as the mayor of Colchester (in 1635 and 1645) and was an alderman during the siege of the town in 1648, siding with the royalist cause. Whether Robert Buxton owned the Red Lion Inn and the adjacent apothecary's shop which existed by the eighteenth century is not known but it is likely. His successor, Samuel Great, established a 'dynasty of apothecaries' who were based at 'The Old Twisted Posts & Pots' on the High Street adjacent to the Red Lion Inn which was likely also the premises of Robert Buxton (Cotter *et al.*, 2000: 230). This then supports the presence of an apothecary at the Lion Walk site from the second half of the sixteenth century with Thomas Buxton, through the ownership of his son Robert, and then his apprentice Samuel Great in the latter half of the seventeenth century, finally to Samuel's son Thomas into the early eighteenth century. Although there is no eighteenth-century material in this assemblage the archaeology does support this sequence of ownership and the use of the site.

Cotter (1999: 168) makes the specific suggestion that some of these pits, especially Stratified Groups 19 and 20, were dug after the death of Robert Buxton (b.1577-d.1655), which would

be the middle of the three possible clearances at this site. Most of the vessels excavated date to the Buxton period which was also the high point of Dutch influence over the town (Cotter *et al.*, 2000: 232-234). Cotter (1999: 167) regards Colchester as a smaller Norwich based on the town's significant Dutch population and the similarity of the material culture from the sixteenth and seventeenth centuries in both cities, something which is supported by the similarities between this assemblage and that of London Street, Norwich (see below). He further suggests that for Buxton and his contemporaries Low Countries jars may have been preferred to English tin-glazed earthenware in Colchester and other places where there was a significant Dutch presence (Cotter, 1999: 168).

#### **4.1.2 Norwich, London Street**

The other provincial English apothecary site is 13-25 London Street, Norwich (TG 2305 0861) which was excavated in 1971 and 1972 as part of the Norwich Survey, a project initiated in 1971 by the Centre for East Anglian Studies at the University of East Anglia, to examine the history and development of the city of Norwich through archaeological, documentary, and standing building evidence (Margeson *et al.*, 1993: 241). The site produced a pit containing a large group of seventeenth-century vessels, including tin-glazed earthenware drug jars and glassware from an area which may have been within a tenement owned by John Birch who was an apothecary (Jennings *et al.*, 1981: 254; Priestly & Fenner, 1985: 15; Margeson *et al.*, 1993: 241). Due to the current redevelopment of the Castle Museum in Norwich this site is included only based on the publication as access to the material archive was not possible.

The pit which is the feature of interest regarding the apothecary materials was noticed during excavations only when some of its contents was discovered on a developer's spoil heap. The

material from the spoil was given context numbers (33) whereas the material still *in-situ* was given context number (32). No stratigraphic relationships were recorded due to the disturbance and so the pit contents were grouped as a single deposit by the Survey's excavators and then subsequently published in two finds volumes (Jennings *et al.*, 1981; Halsam, 1993; Margeson *et al.*, 1993). These volumes however are organised on a city-wide basis. Jennings *et al.* (1981) for example group the ceramics of the Norwich survey excavations by fabric or ware, and do not analyse the assemblages site-by-site, and similarly Halsam (1993) organises the glass analysis chronologically rather than by site. The illustrated and catalogued contents of the pit from those two volumes is collated in Appendix 7 and a summary is presented below in Table 4:F.

The published catalogue of the pit assemblage included just thirty-six ointment pots (see Figure 4:10 (1)) or albarelli (see Figure 4:10 (2-4)). The description of the site in Jennings *et al.* (1981: 187) however notes that at this site the largest single group of tin-glazed earthenware excavated in Norwich to that date was recovered, including fragments of more than sixty albarelli and ointment pots. Since I am only able to work from the published catalogue, I am unable to account for these extra vessels in my analysis; for reference however if these other ceramics are the only omission then pharmaceutical wares would account for 38.9 per cent of the assemblage rather than the 29.2 per cent shown in Table 4:F. Of these sixty, some are similar to Southwark produced examples but Jennings *et al.* (1981: 187) suggest that the majority of Norwich ones may be from the Netherlands, though they are described as Anglo-Netherlandish in the catalogue apart from some plain white tin-glazed ointment pots which were likely made in London. The ceramics are attributed to the first half of the seventeenth century (likely 1625-1650). Overall, 29.9 per cent of the catalogued finds from the pit (215N

32, 33) could be confidently identified as pharmaceutical between the phials, albarelli, and ointment pots.

The possible origin of the ceramics from this site in the Netherlands makes sense given the prominence of the Dutch community, who formed over a third of the population, in Norwich during the sixteenth and seventeenth centuries (Corfield, 2004: 142, 144). Within that large population there were medical practitioners, including Dr Martin van Kurnbeck (d. 1578) (King, 2011: 88). Moreover, this Dutch population was responsible for what was likely the earliest manufacture of tin-glazed earthenware in England, before the much larger London tin-glazed earthenware industry was initiated (Ayers, 2009: 76). In this environment Dutch ceramic technology would have enabled an apothecary to engage with a significant section of the community, signalling things to customers through their choices of familiar material culture.

Form	Material	Quantity	Percentage
Probable Ointment Pot	English? Tin-Glazed Earthenware	7	29.2%
Albarelo	Anglo-Netherlandish Tin-Glazed Earthenware	29	
Hexagonal Phial	Glass	2	
Phial	Glass	4	
Case Bottle	Glass	1	
Alembic (fragments of spout)	Glass	2	
Total other Ceramic Vessels		92	59.7%
Total other Glass Vessels		17	11.0%

*Table 4:F. Summary of the vessel glass and ceramics from London Street, Norwich highlighting the apothecary wares. Percentages are rounded to one decimal place.*

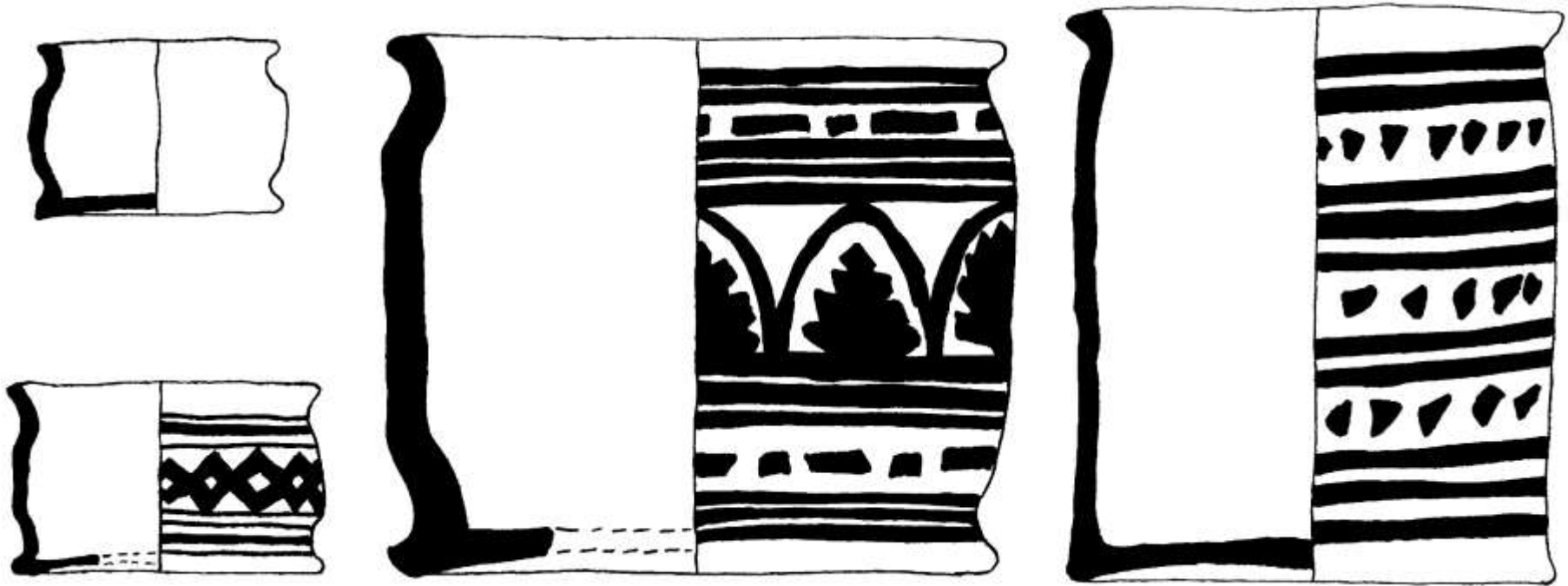


Figure 4:10. A selection of the tin-glazed ceramics from London Street Norwich. From left to right: (1) A plain white glazed ointment pot (Jennings et al., 1981: Figure 91, 1449), (2) A small geometrically decorated albarello (Jennings et al., 1981: Figure 91, 1453), (3) A more elaborate and pseudo-foliage decorated albarello of a similar style to those found at Wood Street, London (see Chapter 3) (Jennings et al., 1981: Figure 93, 1481), (4) A more cylindrical albarello decorated in a simple blue and white geometric design (Jennings et al., 1981: Figure 93, 1484). Drawings by Author, adapted from (Jennings et al., 1981: Figures 91 and 93).



## **4.2 Ireland**

As mentioned above, the only site from Ireland where a direct connection to an apothecary shop has been suggested is from Kevin Street in Dublin (see Figure 4:11) which was excavated in 2017 and dated to the mid- to late-seventeenth century (see Table 4:A). The site has not yet been fully published and so these data should be considered preliminary. I am grateful to Alan Hayden of Archaeological Projects Ltd. for generously providing the below information in advance of publication.



Figure 4:11. Maps showing the location of the Kevin Street, Dublin apothecary site. Created with Digimap and Google My Maps.

#### **4.2.1 Dublin, Kevin Street**

During 2017 excavations in advance of hotel construction at the corner of Kevin Street and New Street in Dublin under site code 15E0033, a significant assemblage of apothecarial material culture in the backfill of two cess-pits was uncovered (Hayden, 2018: 15). The deposition of these finds was dated to between the 1640s and the 1660s and the identification with an apothecary assemblage rather than an alchemical assemblage was made on the basis that no metalworking vessels were identifiable (Hayden, 2018: 15). Of potential additional importance is the fact that the assemblage contained wall plaster and lead window comes which suggested that the clearance event which led to the backfilling of these pits was associated with some damage or demolition to the premises where they originated (Hayden, 2018: 15). It is notable however that despite these indications the discarding of this material was not haphazard or indiscriminate as the assemblage contained no objects of significant value; no metal mortars, no weights, no evidence of discarded books, and the only porcelain in the assemblage were three broken Chinese tea bowls (Hayden, 2018: 15-16). We can tell that this assemblage originated in a single deposition event because the partially complete vessels were neatly stacked inside one another and could be joined to sherds found elsewhere in the cesspit (Hayden, 2018: 16).

The assemblage from these two pits constituted 341 sherds of ceramics dated to the early- to mid-seventeenth century and four sherds which were residual medieval ceramics (see Table 4:G) (McCutcheon, 2018: 1). The majority were imported, variously from England, the Netherlands, Portugal, and Germany (McCutcheon, 2018: 1). Of most interest amongst the ceramics are the eight albarelli and six ointment pots (see Figure 4:12 and Figure 4:13). The albarelli are of Dutch manufacture and are decorated in blue, white, and manganese purple

geometric designs (Hayden, 2018: 16; McCutcheon, 2018: 7-8). One of the ointment pots is in tin-glazed earthenware like the albarelli but the others are in internally glazed, red earthenware and this suggests that the apothecary was using cheap local ceramics for their dispensing vessels (McCutcheon, 2018: 1, 8-9). These ointment pots are larger than those produced in tin-glazed ware in London and the Netherlands and are produced in a Dublin-area fabric which is unusual, though there are isolated redware examples known from several other sites, for example, Good Shepherd Hospital, Exeter (20) (see Figure 4:14) (Allan, 1984: 177, no. 2047; Hayden, 2018: 16; McCutcheon, 2018: 8-9). One of the ointment pots was inscribed with the number 1639 which is believed by Hayden (2018: 16) and McCutcheon (2018: 8-9) to be its date of manufacture and would fit with the general date of the assemblage and its deposition in the 1640s to 1660s.



*Figure 4:12. Dutch tin-glazed earthenware albarelli recovered from Kevin Street, Dublin. Photographs courtesy of Archaeological Projects Ltd. reproduced with permission (McCutcheon, 2018: figure 7).*



*Figure 4:13. Internally glazed local redware ointment or salve pots recovered from Kevin Street, Dublin. Photograph courtesy of Archaeological Projects Ltd. reproduced with permission (McCutcheon, 2018: figure 11).*



*Figure 4:14. Internally glazed local redware ointment or salve pot from Good Shepherd Hospital 20, Exeter. Photograph by Author, courtesy of Royal Albert Memorial Museum, Exeter City Council.*

Form	Material	Quantity	Percentage
Albarelllo	Probably Dutch Tin-Glazed Earthenware	8	6.7%
Ointment Pot	Local Redware	5	4.2%
Ointment Pot	Probably Dutch Tin-Glazed Earthenware	1	0.8%
Bent-Wood Box	Pine	1	0.8%
Bent-Wood Box Side	Pine	16	13.3%
Bent-Wood Top/Base	Pine	42	35.0%
Stave Built Vessel	Wooden	2	1.7%
Total other Ceramic Vessels		45	37.5%

*Table 4:G. Summary of the ceramic and wooden vessels from Kevin Street, Dublin, Ireland, with a focus on apothecary wares. Percentages are rounded to one decimal place.*

In addition to the diagnostically apothecary vessels, there is a large quantity of functional pottery in the assemblage some of which is extremely unusual (for a catalogue of the ceramics and wooden artefacts see Appendix 8). Along with the usual porringers, cauldrons, cooking pots, and stoneware jars, the assemblage includes one extremely large colander which is unusual for its three-handles and for how flat it is (see Figure 4:15) (McCutcheon, 2018: 4-5). The usual colander in domestic assemblages at this time was a deep pierced bowl that was shaken to drain the liquids inside, this vessel appears to have been hung and the draining, therefore, appears to have happened unaided (McCutcheon, 2018: 4-5). Though this kind of strainer is not attested in contemporary domestic assemblages in Ireland similar vessels do sometimes appear in Dutch paintings of apothecaries and alchemists, which suggests that the apothecary whose shop this assemblage originated from may have been from, or trained in, the Netherlands (McCutcheon, 2018: 1). These utilitarian wares occurred in German stoneware, Dutch tin-glazed ware, and both English and Dutch red earthenware (Hayden,

2018: 16). The assemblage also contained one of the first types of Chinese porcelain bowls seen in post-medieval Europe, known to the Dutch as Kraak ware (McCutcheon, 2018: 1).



*Figure 4:15. Dutch red earthenware strainer or colander from Kevin Street, Dublin. This is an unusually flat strainer which is not comparable to other known vessels from Dublin. Photograph courtesy of Archaeological Projects Ltd. reproduced with permission (McCutcheon, 2018: figure 5).*

Unusually, and uniquely for the archaeological sites in this thesis, this assemblage contained a large variety of wooden artefacts. Fifty-seven artefacts which comprised the sides, tops, or bases of bent-wood boxes were found in one of the cesspits (F60) (see Table 4:G), these vessels were used to store pungent dried spices and were considered to be superior at helping them retain their odour and thus efficacy (Hayden, 2018: 16; Moore & O'Carroll, 2018: 2-4). There were also at least two stave-built casks, although the most complete was of exceptionally small size; 164mm tall, 100mm diameter at the base (Moore & O'Carroll, 2018: 7). These vessels were made to store high-value liquids; as this is a particularly small example,

it may have been made to hold a liquid only dispensed in very small quantities (Moore & O'Carroll, 2018: 7). Perhaps more intriguingly there was also five spirals of bark, likely of birch and three fragments of petrified wood both of which could have been used in medical recipes in the sixteenth and seventeenth centuries, indeed one fragment of petrified wood appears to have portions gouged out with a metal tool (Moore & O'Carroll, 2018: 8-9).

In addition to the wooden vessels, there were possibly as many as seventy glass vessels in the cesspits. Hayden (2018: 16) suggests that most of the glassware was too finely made in clear glass to have been made in seventeenth-century Ireland and was therefore likely imported. Amongst the glassware were between seven and twelve phials, possibly twelve glass measures used to quantify liquids in medicinal recipes, and about twelve case bottles used to store medicines (Hayden, 2018: 16). There were also two unusual glass cucurbits, one with a narrow neck and one wide. These vessels were used to hold the materials to be distilled when making medical alcohols, waters, and oils (see Figure 4:16) (Hayden, 2018: 16). It is also possible that the narrow-necked vessel is a urinal, used for the examination of a patients' urine, a discredited yet still popular diagnostic technique in the seventeenth century (Armstrong, 2007: 386-387). Unfortunately, the glass report for this site was not available when completing this research and so the glassware could not be included in the finds tables for this site.





*Figure 4:16. Narrow-necked and wide-necked cucurbits or urinals from Kevin Street, Dublin. Photographs courtesy of Archaeological Projects Ltd. reproduced with permission.*

The final element of this exciting and unique assemblage is the four oyster shells and small vessels which contained chemical residues in the form of yellow, red and purple powders or adhered pastes (Hayden, 2018: 17). At the time of writing these residues are still being analysed, but there are some interesting implications for the use of oyster shell to mix ingredients or possibly pigments. Edward Norgate (c.1625: 122-123) a famed seventeenth-century miniature painter wrote that the proper vessel in which to temper your pigments as a miniature painter was ‘a large shell off Mother of Pearlle’ and Hayden (2018: 17) suggests that this was not only because of their relative cheapness, as a food waste product, but also their perceived cleanliness. Such concerns would also have been important to an apothecary who wanted to produce properly their medicines, so these residues are likely pigments, which

apothecaries sold, or powders or pastes that are related to seventeenth-century medical preparations.

This assemblage is the most well contained of all the sites in this study, it came from a single deposition event as vessels were stacked together before being placed in the cesspit, and there appears to be little to no contamination with material not originating at the apothecary shop. This means that though we cannot say it is a complete assemblage, this is the most complete assemblage of a single apothecary shop's contents at a single moment in time that has been recovered. Therefore, all of the material culture excavated was in the shop or household apartments of an apothecary. Whilst the Kraak ware Chinese bowl was unlikely to be used in the production of pharmaceuticals, it may have been used in their consumption. At this early date, tea was considered medicinal and so having imported material culture specifically for its consumption, in a material which was the original ceramic fabric emulated by the tin-glazed earthenware so clearly linked with medicine in the shop's storage jars, would have made the shop into a safe and comfortable place for a customer to consume this foreign and unfamiliar medicine (Ellis *et al.*, 2015: 32-35). The unusual colander and the variety of porringers, cauldrons, and cooking pots, which in another context may be unambiguously domestic in function, here are associated with the heating and processing of medical preparations that an apothecary had to carry out. This site makes it clear that the domestic ceramics which may be found with the other apothecary's assemblages discussed in this thesis need not be contamination from another household or purely an indication of the domestic element of an apothecary's shop or home, rather they may form part of a functional assemblage that was used for their trade, something which Simon Werrett (2019) argues was

fundamental to scientific inquiry through the early modern period and into the nineteenth century.

This functional assemblage is tentatively identified as having belonged to Jacob Ryckman (James Rickman) who was a Dutch apothecary and perfumer in Dublin in the mid-seventeenth century (Cunningham, 2018: 3-4; Hayden, 2018: 18). His Letter of Denization from 12 July 1641, which allowed him to receive most of the same privileges as a natural-born subject of the crown, described him as a perfumer, suggests that he had premises in the 'parish of St Keven', which was immediately east of the Kevin Street site where the material culture was dumped (Shaw, 1911: 337). Self-identifying as a perfumer may have helped to remove some scrutiny from merchants and medical guilds, especially whilst classified as an alien before 1641 (Cunningham, 2018: 4). It is also suggestive that there are records of a family of Dutch merchants named Borrs living in Bishop Street, adjacent to Kevin Street in the parish at the same time (Hayden, 2018: 18). Hayden (2018: 18) suggests that this could indicate a small community of Dutch refugees from the Thirty Years War settling together in a newly developing part of Dublin in the mid-seventeenth century. This attribution is further supported by the fact that almost all of the utilitarian ceramics and the tin-glazed albarelli, were probably Dutch and so may have been brought over to Dublin by Ryckman. Hayden (2018: 18) suggests that it would have been more usual for Dublin apothecaries to source the vessels that could not be made locally from English or Scottish potteries than from the Netherlands.

### **4.3 USA**

The only site that could be included in this thesis from North America was the Dr George Gilmer household site in Williamsburg, Virginia (see Figure 4:17) where extensive refuse in a series of pits included material culture from his shop (see Table 4:A for the location and date of this site). The fact that only one eighteenth-century site was identifiable in North America is more than a little surprising as historical archaeology of this period has received much more attention in the USA and Canada than in the UK and Europe. There are several other apothecary shop sites which have been identified and one was mentioned in the previous chapter; the Stabler-Leadbeater Apothecary Shop in Alexandria, Virginia. Despite this shop being open within or immediately after the period which is under examination in this thesis the material culture that was recovered or retained was invariably mid-nineteenth to early-twentieth century in date and so is not within the chronological scope of this thesis.

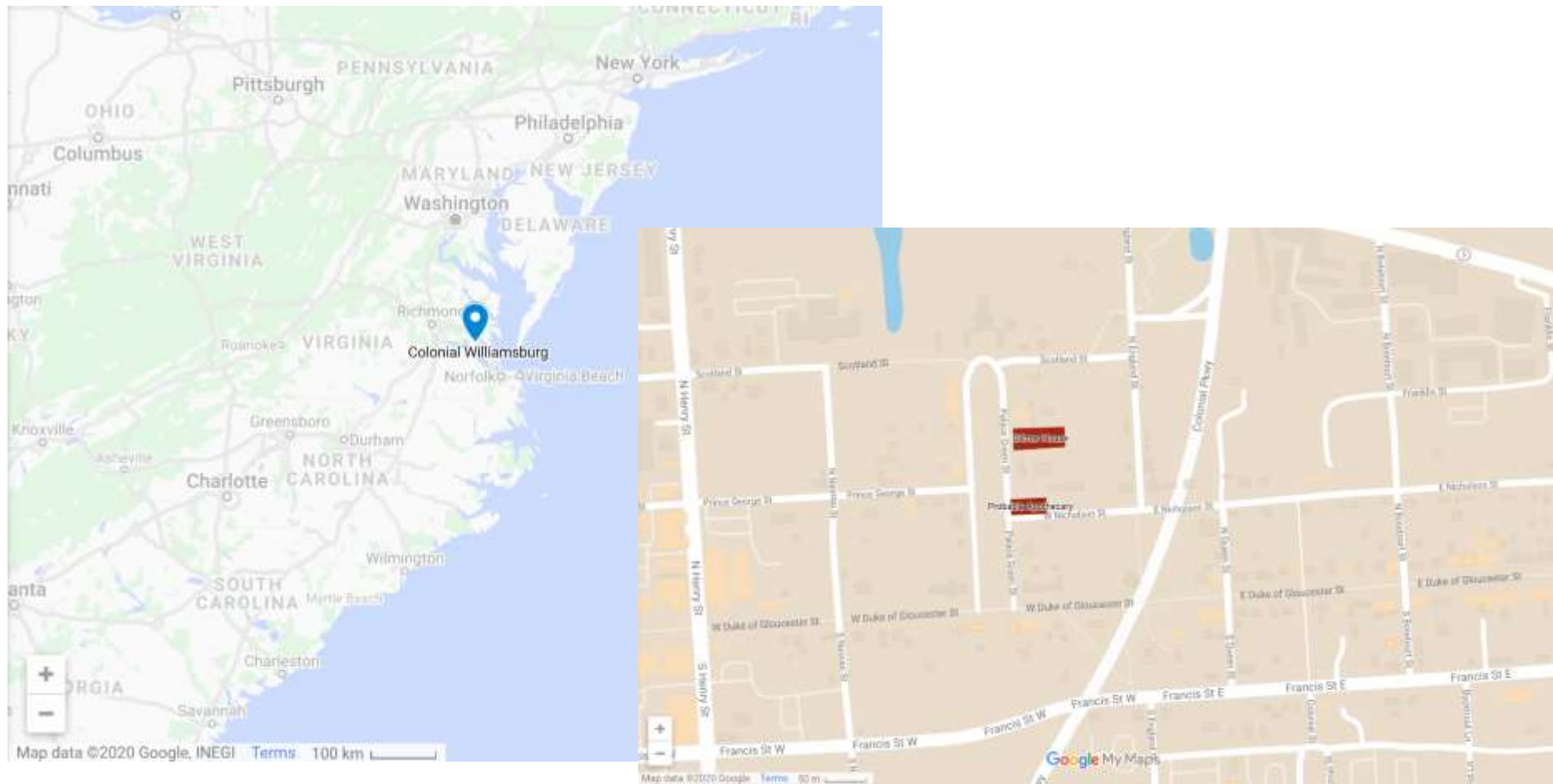


Figure 4:17. Map showing the location of Williamsburg within eastern North America, and the location of the Dr George Gilmer Household within Williamsburg. Created with Google My Maps.

#### 4.3.1 Virginia, Williamsburg, The Dr George Gilmer Household

First excavated in 1967, and again evaluated in 1988, the northernmost extent of the Gilmer household site revealed several layers of general refuse and six refuse pits relating to the Gilmer occupation of the property (Samford *et al.*, 1999: 69). Of interest for this research are the refuse pits which Samford *et al.* (1999: 70) state 'constitute the finest assemblage of mid-eighteenth century apothecary-related items ever recovered in a Williamsburg excavation.' Gilmer was one of four known apothecaries operating in Williamsburg, which was the capital of the colony of Virginia, in the early- to mid-eighteenth century and also practised surgery (Samford *et al.*, 1999: 76). The other apothecaries who operated at the same time as Gilmer were Thomas Wharton (c. 1735-1746), Dr Peter Hay (1744-1766), and Dr George Pitt (1744-1768) (Samford *et al.*, 1999: 76). Gilmer was a Scot, who was educated at The University of Edinburgh before setting up practice in London and then moving to Williamsburg in 1731 (Samford *et al.*, 1999: 69). He bought a property on Palace Green to the South of the Brush-Everard property in 1735 and resided and practised at or adjacent to that property until his death in 1757 (Samford *et al.*, 1999: 69). Archaeologically, Gilmer's apothecary shop, which is believed to have been on the corner of Palace Green and Nicholson Street, has never been found, however, the extensive archaeological investigation of his house site, and especially the back yard has revealed an extensive amount of pharmaceutical material culture (Samford *et al.*, 1999: 69).

There were four tin-glazed ointment pots or albarelli and two pharmaceutical phials or bottles in the refuse layers, but the concentration of pharmaceutical material culture was much higher in the refuse pits (Samford *et al.*, 1999: 71). Trash Pit A, partially excavated in 1967 and completely re-excavated in 1988, was the largest refuse pit on the property, contained three

defined contexts, and produced the most artefacts with over 11,000 sherds and fragments representing 375 ceramic and glass vessels (Samford *et al.*, 1999: 71-72). Unfortunately, the complete catalogue of finds from the six pits was not available for study, but a catalogue of the pharmaceutical vessels was reconstructable and can be seen in full in Appendix 9. The large number of pharmaceutical vessels (80 albarelli and 151 ointment pots) does suggest that at least a portion of the assemblage originated at Gilmer's apothecary shop (for a summary of the apothecary wares from the trash pits see Table 4:H). In addition to pharmaceutical wares, Trash Pit A also contained a significant quantity of stoneware and other storage vessels, alongside some fine tablewares including some Chinese porcelain cups, bowls, and plates (Samford *et al.*, 1999: 73-74). Trash Pit C, excavated in 1967, was cut and largely destroyed by later Trash Pit E but did contain a number of tin-glazed pharmaceutical vessels and glass phials (Samford *et al.*, 1999: 72, 74). Trash Pit D, which like A was partially excavated in 1967 and further excavated in 1988 also contained 16 tin-glazed pharmaceutical vessels and three pharmaceutical glass bottles, and Trash Pit E, fully excavated in 1967, likewise contained a relatively small number of albarelli (see Figure 4:18, Figure 4:19, Figure 4:20, and Figure 4:21 for examples), ointment pots (see Figure 4:22), and pharmaceutical glassware (see Figure 4:23 for an example of the types of phial recovered, and Figure 4:24 for an example of the case bottles in the assemblage) (Samford *et al.*, 1999: 72-73, 75). The decorated albarelli are outnumbered in the assemblage at a rate of three to one by the plain white ointment pots, and some of the undecorated vessels were discarded whole (Samford *et al.*, 1999: 77). This suggests that even in the colonies of North America those ointment pots were considered disposable, possibly after only one use, whilst the painted ceramics were only found in fragmentary states suggesting that they were kept in use for as long as possible, likely due to their expense, but also their visual importance for the apothecary's shop

(Samford *et al.*, 1999: 77). As Pennell (2010: 36) notes in the context of domestic ceramics ‘severe breakage probably meant disposal’ but ‘living with the odd crack and chip’ would have been as commonplace in the eighteenth century as it is in the present. In the context of an apothecary shop, the importance of unblemished display may be higher than in domestic contexts, but the principle is still the same; utility rather than aesthetic concerns was of primary importance in the decision to throw away or retain these imported ceramics. This is also likely the reason that at the Kevin Street Dublin site only albarelli which were damaged in such a way that they were no longer capable of holding liquid or powdered materials were in the ‘clearance deposit’.

<b>Form</b>	<b>Material</b>	<b>Quantity</b>	<b>Percentage</b>
Albarelo	English Tin-Glazed Earthenware	80	29.3%
Ointment Pot	English Tin-Glazed Earthenware	151	55.3%
Carboy/Demijohn	Glass	1	0.4%
Case Bottle	Glass	5	1.8%
Phial/Small Bottle	Glass	36	13.2%

*Table 4:H. Summary of the vessel glass and ceramic apothecary wares from The Dr George Gilmer Household site, Williamsburg VA, USA. Percentages are rounded to one decimal place.*





*Figure 4:18. Unique Vessel 01157 from the Gilmer Household site, an example of a blue and white decorated albarelo with stripes and lozenges at the rim, stripes at the base and a central cable design around the waist of the vessel. Photography by Author, courtesy of Archaeological Collections, Department of Archaeology, Colonial Williamsburg Foundation.*



*Figure 4:19. Unique Vessel 01126 from the Gilmer Household site, an example of a blue and white decorated albarelo with stripes at the rim and base and a central cable design around the waist of the vessel. Photography by Author, courtesy of Archaeological Collections, Department of Archaeology, Colonial Williamsburg Foundation.*



Figure 4:20. Base of Unique Vessel 01142 from the Gilmer Household site, an unusual example of an albarello painted with black rather than blue stripes. Photography by Author, courtesy of Archaeological Collections, Department of Archaeology, Colonial Williamsburg Foundation.



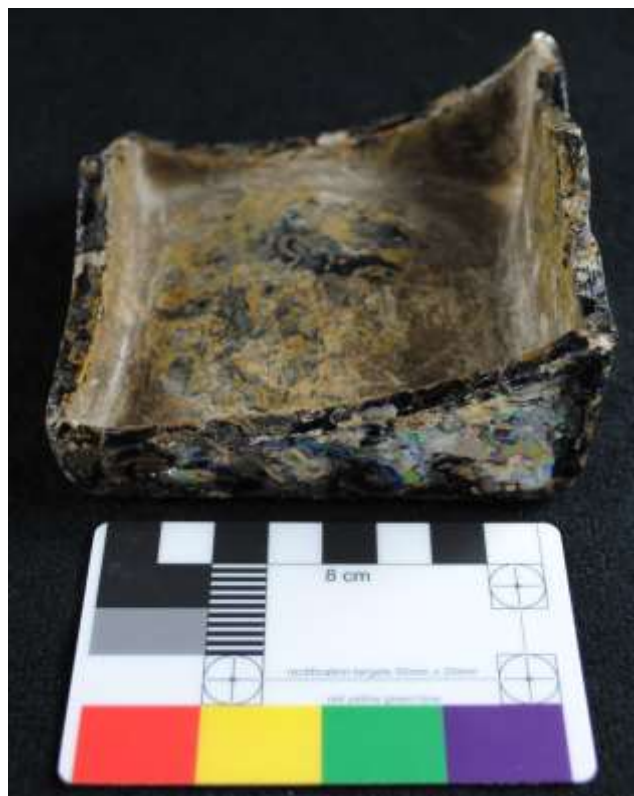
Figure 4:21. Unique Vessel 00426 from the Gilmer Household site, an example of a blue, purple, and white decorated albarello with stripes at the base and a cross design in manganese purple around the waist of the vessel. Photography by Author, courtesy of Archaeological Collections, Department of Archaeology, Colonial Williamsburg Foundation.



Figure 4:22. A range of the plain white or off-white tin-glazed earthenware ointment pots from the Gilmer Household site. Unique Vessel numbers 01030, 01034, 01050, 01054 (left to right). Photography by Author, courtesy of Archaeological Collections, Department of Archaeology, Colonial Williamsburg Foundation.



*Figure 4:23. Four phials/bottles from the Gilmer Household Site. Unique Vessel numbers 08231, 08233, 08242, 08243 (left to right). Photography by Author, courtesy of Archaeological Collections, Department of Archaeology, Colonial Williamsburg Foundation.*



*Figure 4:24. The base of a square case bottle, Unique Vessel number 08153 from the Gilmer Household site. Photography by Author, courtesy of Archaeological Collections, Department of Archaeology, Colonial Williamsburg Foundation.*

#### **4.4 Discussion: Apothecaries in the Provinces and Colonies**

This chapter's sites, perhaps unsurprisingly, are more varied than those in Chapter 3, spanning as they do the Atlantic Ocean and a variety of commercial and legal systems with oversight of apothecary practice. Broadly they can be divided into two provincial English sites, an Irish site, and a North American site although as is made clear above there are significant overlaps in the ways that these apothecaries are represented archaeologically. With themes of regional commerce, Dutch influence in Dublin and East Anglia, and the exchange of knowledge across the Atlantic there is a lot that could be explored with the data from these sites; however, with only four sites this discussion is comprised of illustrative examples rather than an attempt at a comprehensive survey.

The two sites in England not in close proximity to London are London Street in Norwich and Lion Walk in Colchester. Although they cannot be considered as representative of the country as a whole, there are many elements of these assemblages which suggest that fruitful comparisons can be made between them, the Dublin site, and the London sites. We should begin by examining what the archaeological assemblages from these two sites can show us about the material and visual experience of the apothecary shop in the city of Norwich and the market town of Colchester. The apothecary ceramics from London Street show two probable origins with the at least seven plain white ointment pots most likely produced in London whilst the at least 29 geometrically decorated albarelli were probably produced in the Netherlands. The decorative schemes that were in use in London were remarkably similar to the majority of these Norwich vessels, decorated in a dark or mid-blue geometric scheme on a white or grey-white ground, and occasionally incorporating orange, even though the London assemblages did not include any Dutch albarelli (Jennings *et al.*, 1981: 203-207). This site,

unfortunately, produced limited pharmaceutical glassware, though the phials are consistent with the apothecarial nature of the assemblage and the glass alembic fragments strongly suggest that the apothecary at this site was producing their own medicines.

In Colchester, the variety of material was much greater as would be expected given the timespan of the site. Material deposited in the last half of the sixteenth century was found on the same site as material likely deposited c.1650 (see Appendix 6). The ceramics again are the most striking element of the assemblage and therefore the most valuable for communicating the successive experiences of being in an apothecary shop which seems to have been in operation for a century or more. Like London Street, the majority of the albarelli from Lion Walk were identified as Dutch or Anglo-Netherlandish. The international connections of these apothecaries were therefore not only important for the import of new *materia medica* and medical knowledge, but also for importing the correct shop furniture when none was manufactured locally. As with the Norwich vessels, the colour schemes and general trends of decoration are similar to the London examples with only a few outliers in the completely florally decorated northern European fashion and in the labelled albarelli (see Figure 4:3, Figure 4:5, Figure 4:6, and Figure 4:9). Lion Walk stands out from the other sites in this data set in the early appearance of spouted drug jars for the storage and dispensing of oil and liquid-based *materia medica* and remedies. These spouted jars (see Figure 4:3 for an example) predate the examples from Eagle House in London by almost a century and are forerunners of the later forms that would come to dominate the shelf-wares of apothecaries' shops. As with several of the other sites analysed in this thesis the glassware from Lion Walk was not able to be fully collated and was not therefore included in this analysis.

Like the sites from London, the ceramics from London Street and Lion Walk cannot be considered as comprehensive collections of the material culture of the apothecary shops from which they originated; additional evidence is needed to form a complete picture of the visual and material elements of those shops. To bring in a broader range of evidence it is worth thinking about the geographical context of these sites. They sit in a city and a large town within the economically interconnected counties of East Anglia. East Anglia at this time was largely reliant on its wood-pasture agricultural economy but was also the most densely populated area of England outside of London until the end of the seventeenth century with several significant population centres, notably Norwich and Cambridge, as well many established market towns like Colchester (Corfield, 2000). It was also an area with a high Dutch population, and physical proximity to the coast of the United Provinces across the North Sea enabling direct trade to its ports, especially at Great Yarmouth (Lucas, 1998: 76). In this context the apothecary shops in the population centres are likely to have been wealthier and better stocked, as the internal trade within England relied on the turnpikes and coastal routes to move goods from London, and the cities and towns would have attracted custom from a wide rural hinterland as market centres.

Documentary evidence is likely to be limited to the market towns and cities of East Anglia where apothecaries who died were most likely to have had estates valuable enough to require a full assessment for probate. Norwich however is worth separating out as it was easily the second city in England at this time, with a major population and as a major centre of trade and commerce (Priestly & Fenner, 1985: 4). Cambridge too had a distinct character to the rest of East Anglia, even amongst its towns and cities, as it was home to Cambridge University, and therefore had a population of wealthy scholars and university-educated medical men.

Only three inventories of East Anglian apothecaries which include entries for shop goods are held at the National Archives in the records of the Prerogative Court of Canterbury. The first two are both from Cambridge. The 1688 inventory of Martin Buck includes only 'Item his Drugs, Medicines potts and all other things in the shop LXXX Li' relating to his trade (TNA, PROB 4/3210), and the 1675 inventory of William Frisby the elder is just as lacking in specificity: 'Item the goodes of his shopp as medicines & druggs & other materialls belonging to the shopp xlvijij Li. v s. iij d.' (TNA, PROB 4/6717). More useful is the inventory dated to 1683 which values the estate of Richard Beaumont of Ipswich in Suffolk. He had 'Three dozen of Pottle Glasses / 30 Conserve Potts / 15 Large Conserve Potts / 47 Syrup Potts Broke & whole / 21 oyle Potts' in his 'Shopp' when his inventory was taken in 1683 (TNA, PROB 4/8815). This shows that by the 1680s East Anglian apothecary shops had embraced the use of wet drug jars (syrup and oil pots) which are rare archaeologically except for the early Dutch examples at Lion Walk in Colchester. As discussed in Chapter 3 the distinction between syrup and oil pots is one that is not clear from the material culture that survives archaeologically, and both appear to fall within the definition of 'wet drug jars' which are spouted and used to dispense liquid, oil, and syrup based medical preparations. The presence of large 'conserve potts' (probably albarelli as cartouche-decorated drug jars are more commonly referred to as such), alongside the wet drug jars suggests a mix of albarelli and spouted jars on the shelves of Beaumont's shop. The shop furniture was likely at a transition between geometrically decorated vessels and labelled cartouches. Beaumont's adoption of the cartouche-decorated drug jars may have been a functional decision as the spouts and handles on those jars would have made handling such *materia medica* and remedies easier. The fact that Richard Beaumont's inventory was filed with the Prerogative Court of Canterbury is worth noting as it means that he likely held property in more than one diocese and was potentially of

exceptional wealth. This might not, therefore, be the most representative of the shops in the area.

There are further inventories in the Norwich Diocesan Archives held at the Norwich Record Office. As with the Cambridge inventories, these often do not include details of the shop contents, for example, the 1719 inventory of John Colby, Merchant and Apothecary, includes '1 parcel goods and books £22 10s 0d' in his shop in the coastal town of Lowestoft, Suffolk (NRO, DN/INV 74A/207). Similarly, the 1668 inventory of Thomas More from the town of East Dereham, Norfolk which included 'Old lumber', and 'odd things which may be forgotten' alongside £5 13s 6d of 'Apothecary drugs' in the shop (NRO, DN/INV 53A/43), and the 1681 inventory from Watton, another Norfolk market town of Francis Cuffard who had '1 parcel pots and glasses, waters, syrups, drugs, other things in the shop £5' from a total estate value of '£51 15s 8d' (NRO, ANW 23/1/115). Although his inventory is not specific about the material culture which was present in his shop the 1702/3 inventory of William Sheldrake from the market town of Fakenham, Norfolk, does show a similar pattern to many of the London inventories where a large proportion of the total value of the estate was tied up in the shop goods and fittings. In this case £72 8s 10d worth of 'divers sorts of goods appertaining to the apothecary in his shop' out from a total assessed estate value of £130 12s 10d (NRO, DN/INV 69A/5). This is not the only thing that can be gleaned from these apparently unhelpful inventories; in the case of Benjamin Gibbs of Diss in Norfolk the inventory makes a point to note not only the 'Syrups, conserves, electuaries, pills, unguents, plasters, oils, other impositions and drugs £14 5s 4d' and the 'Pots, boxes, other standing things £15 2s 11d' but also separately the 'Grocery wares £59 13s 5d' (NRO, DN/INV 64/133A). Gibbs then, at his death in 1687, was both an apothecary and a grocer. Grocers by their profession dealt in bulk



products, often imported, and grocery was historically a profession related to the sale of medicines since apothecaries were under the purview of the Grocers Company in London before their own company was chartered. It was a good fit as a secondary profession for an apothecary who could not survive on their medical income alone, although of course it is not always possible to tell which was the side-line and which the main profession. Such secondary occupations were common for apothecaries outside of London or wealthy cities and would have affected the customer's experience of the apothecary shop if both businesses were conducted in the same place as appears to be the case with Mr Gibbs (Pelling, 1998: 31-32).

There are indications of the material culture which forms the central focus of this thesis in some of the Norwich Diocesan Records, and, as in London, they tend to show elements which do not survive archaeologically. The inventory of Edward Salter, apothecary of Hingham in central Norfolk, compiled in 1720, significantly later than the archaeological sites from this area, includes entries for 'Drugs, furniture, books £20 0s 0d', '2 mortars, 1 brass pan, 1 press, scales £2 10s 0d', and '1 marble mortar, 1 marble stone, 1 glass mortar £0 15s 0d' (NRO, DN/INV 76B/111). As noted in Chapter 3 the mortars were important functionally and performatively and were listed as essential equipment for the furnishing of an apothecary shop. Having a marble mortar, and two others presumably made of metal, as well as one in glass (one of only two such mortars I have found a reference to during this research) means that Salter took this part of his business seriously and was willing to invest in the equipment to ensure that he had the right mortar for any given remedy. Indeed, these entries in the inventory total more than one-third of the value of Salter's estate (£60 15s 0d). Scales were also listed in his inventory and were of vital importance to the trade of an apothecary. They

would have been used in the front shop as well as in a compounding room for simultaneously performative and functional reasons, similar to mortars and pestles.

In the inventory of Richard Rickes from Norwich, compiled in 1639 during the period when the London Street shop was likely in operation, there are entries for '5 pair of scales 6s 8d', '1 pair of gold scales 3s 4d', and 'Brass weights 1s 9d' (NRO, DN/INV 45/46). This quantity suggests that Rickes had significant custom and possibly more than one apprentice or assistant who was producing medicines and fulfilling prescriptions on his premises, whilst he used the gold set in the shop when serving customers. Rickes, like Salter, also had a variety of mortars, two wooden with pestles, one brass, one glass with pestle, and two small whose material was not noted, alongside '3 pewter pots, other small measures 4s 6d' none of which are usual survivals archaeologically and all of which would have formed a part of the material and visual experience of his shop (NRO, DN/INV 45/46). Rickes' inventory is also interesting because it is the only one which lists in detail the furniture in the shop, with 'Long tables' likely functioning as the shop counter, a variety of boxes and chests, as well as shelves which formed a portion of a £1 entry in the inventory (NRO, DN/INV 45/46). Rickes then, invested as heavily in his ceramics, scales, and mortars and pestle as he did in his shop furniture which shows the importance of the performative elements of his work.

The Norwich site on London Street was positioned below the Castle in the centre of the second city of England which meant that it would be comparable to London apothecaries in terms of wealth and prominence. For this reason it is not surprising that so much tin-glazed earthenware was found at this site; to maintain a proper image in such a wealthy ward the Byrche apothecary family who operated this shop would have had to invest heavily in the

material and visual experience of their shop (Priestly & Fenner, 1985: 15). Priestly and Fenner (1985: 15) conclude that 'The composite picture presented by the inventories of Norwich apothecaries is one of dim shops furnished, with great shop-chests and lined from floor to ceiling with shelves and tiers of labelled drawers', although there is little to suggest that these shops would be any dimmer than other retail spaces in use at this time. Nevertheless, the shop-chests, drawers, jars, gallipots (albarelli), and phials, which filled these shops, along with the scales and weights, pestles and mortars on the counters, and stills, usually in a separate still room, were key to the construction of the apothecary shop and by extension the professional identity of the apothecaries themselves whether those apothecaries were in London or Norwich, both major cities.

Similarly, the site at Lion Walk borders the High Street in Colchester and so the apothecary shop here would have been extremely prominent and within the commercial core. As mentioned earlier Cotter (1999: 168) has suggested that many of the pits, especially the later ones, were dug in response to the clearing of the shop after the death of Robert Buxton (1577-1655) who was both a wealthy apothecary in Colchester and the Mayor on two occasions. Robert and his father Thomas before him owned most of the Lion Walk complex of shops and timber yards including the High Street fronting property which came to be known as 'The Old Twisted Posts and Pots' in the eighteenth century (Cotter, 1999: 168). This was the property which was run by the Buxtons as an apothecary shop, and also their successors the Great family (who were apothecaries until 1762, and then grocers until 1797) (Cotter, 1999: 168). It is important to consider the location of these apothecary shops within towns, as much, if not more so, than their position within England or in relation to London. Those shops in the commercial cores of market towns or cities would have had greater access to the material

culture produced in both London and the Netherlands, as well as medicines imported from abroad, than those in the poorer areas of the same settlements which may be more comparable to those in small towns or villages. Overton *et al.* (2004:168) however, reject the idea that the prominence of a town was the deciding factor in purchasing more expensive or newer durable material culture, noting that in the case of Cornwall and Kent, profession or social status was a more reliable indicator. Indeed there was no simple hierarchy of settlements in the early modern period with London at the top and a hamlet at the bottom (Weatherill, 1996: 72). In that case then the similarities of apothecaries' furnishings can best be explained by their common occupation adjusted by their wealth and success, and their access to London trade, either direct or indirect, as the metropolis retained its prominence in the production pharmaceutical ceramics and distribution of durable material culture within England (Weatherill, 1996: 61-62).

Whilst there were no other accessible archaeological sites that could be confidently identified as an apothecary shop from this period elsewhere in England there is a variety of documentary evidence which allows this issue of the location within the country to be examined. First, I have been able to find two records relating to apothecaries in Hertford, Hertfordshire, a small but prosperous county town close to London. One is a letter from William Baker to the third Duke of Portland from 1792 commenting on the number and quality of apothecaries in the town. He states that 'In the first place the number of apothecaries in the Town of Hertford has within my memory, increased from Three to Five' he did not believe that the quantity of business in the town could support that number of apothecaries, and indeed concluded that two, Mr Frost and Mr Hewitt, had the bulk of the trade there (UoN MssSC, Pw F 230/1-2: 2-3). This tallies with the increasing medicine trade

through the eighteenth century and shows that even in relatively small towns there would have come to be fierce competition in the medical marketplace by the nineteenth century.

From a century before, one inventory of an apothecary from Hertford survives. In 1673

Thomas Clarke's shop (TNA, PROB 4/5088) contained:

Two shelves of Pottle & Gallon Glasses w<sup>i</sup>th Small quantities of Simple waters £1, one Shelve of syropp Potts w<sup>i</sup>th Little syropps 14s 09d, 3 small shelves of Pill Pottes & specie Glasses 10s, 2 small shelves of Electuary & counserve potts w<sup>i</sup>th small quantities of the sam 19s 11d, one shelve w<sup>i</sup>th oyles oymnts & Playsters 12s.

His inventory succinctly shows that his shop was shelf lined and that there were large quantities of the ceramics and glassware which should be expected in these spaces. Clarke also had 'two old Counters' 'Mortars Pestles Scales Wights' and 'small nests of Draw boxes' (TNA, PROB 4/5088). The impression that this inventory gives is similar to the broadly contemporary sites in East Anglia and Greater London, but the overall value of his shop contents was lower than those in more prominent towns and cities despite the proximity of Hertford to London.

There are also sources relating to apothecaries in towns and cities further from London including Bristol (TNA, PROB 4/11848), Chester (CALS, WC 1669-70), Coventry (TNA, PROB 4/8391), Leicestershire (TNA, PROB 3/26/128), Northamptonshire (TNA, PROB 4/21721), Shropshire (TNA, PROB 5/4547; PROB 5/4708), and Wiltshire (TNA PROB 5/2751). Largely these apothecaries' inventories list the same types of material culture as those in East Anglia, London, and Hertfordshire. Although Samuel Astley of Coventry's 1677 inventory had no separate entry for the shop, he did own several galley potts and six stills in a variety of metals (TNA, PROB 4/8391). Interestingly he also has 'old ticknell potts' stored in the same room as

'old Galley potts' and it is possible that these Derbyshire vessels would have been cheaper alternatives to store medicines and *materia medica* (TNA, PROB 4/8391), indicating that Astley was not investing in more expensive tin-glazed earthenware for storage vessels outside of the shop room which relied on the visual impact of the furnishings to engage customers.

Hollid Smith from Leicestershire (exactly where is illegible in the inventory) had 'Syrup Conserve Oyle Pill Pots', four mortars, and 'a Counter' in 1737 which is less than the two counters that might be expected, suggesting a smaller shop than other inventories (TNA, PROB 3/26/128). Edward Wicksteed of Whitechurch, for example, had 'One long counter' and 'One short counter' with shelves, and nests of boxes giving the impression of a well-appointed if crowded shop (TNA, PROB 5/4547). Thomas Garbett of Bridgnorth in Shropshire on the other hand had a surprisingly valuable estate in his 1690 inventory given the location of his shop in as small a town as Bridgnorth. He had £468 6s 6d worth of 'the stock of wares and goods belonging to his Trade' though these are unfortunately not itemised, and a total estate value of over £2540 (TNA, PROB 5/4708), similarly Arthur Coldwell of Oundle in Northamptonshire's 1669 inventory records an estate valued at over £5100 (TNA, PROB 4/21721). The same caveats mentioned earlier in relation to these inventories proved at the Prerogative Court of Canterbury apply however, so although this value seems extraordinary for an apothecary in a rural provincial town, it is probably the case that the inventory survives for that very reason, and that Garbett and Coldwell were landowners across parishes whose wealth came from rents or other business interests. It is worth noting however that debts both owed and owing may have affected the reality of these estate valuations greatly, and not all debts were recorded in probate records. That being said Samuel Rogers of the 'Citty of Bristol' had his probate exhibited at the Canterbury court in 1683 and only had £14 7s worth

of entries relating to his profession (TNA, PROB 4/11848), and Samuel Percivall of Highworth in Wiltshire only had £58 5s of 'household and shop goods' in his estate (TNA PROB 5/2751), so the survival of probate records is not limited to only the extraordinarily successful or wealthy.

These numerous and valuable sources providing an insight into the shops of apothecaries survive in relatively large numbers in local records offices. For an example, the 1670 inventory of William Kelsall from Chester which survives in the Cheshire Archives and Local Studies collection describes an estate of £80 16s. containing £36 4s 4d of material culture and stock from his shop (CALs, WC 1669-70). This shows that apothecaries in well-connected cities which served as local hubs of commerce like Chester had to invest proportionally as much as those in London in their shops to stand out from the competition and meet the expectations of their patients. Unfortunately, there is not space or time in this thesis to explore this rich set of sources in full, but those listed here form an illustrative set of examples of apothecaries' inventories in towns and cities in East Anglia and across areas of England not in direct proximity to London.

Another, related, set of sources which could be explored further, and which provide evidence for the shops and material culture of apothecaries across England are advertisements for the sale of apothecary stock, such as those published by John Houghton FRS in *A Collection for the Improvement of Husbandry and Trade* (1692–1703). Barry (2018: 595), for example, highlights a June 18, 1697, advertisement for "all the utensils belonging to an apothecary's shop to be sold, and if desir'd some drugs and a few compositions. They will be sold a pennyworth and are at Newberry in Berkshire. The buyer may remove them if he pleases."

Elsewhere Houghton advertised for whole businesses that were for sale or lease after the death of their proprietors, most of which seem to be seeking a London apothecary who is willing to move to a market town (Barry, 2018: 593-595). Such sources provide evidence of the interconnectedness of the national medical marketplace by the end of the seventeenth century and, potentially, of the idea that you could successfully run an apothecary shop with the contents bought from another business, suggesting some level of standardisation given the lack of detail in the advertisement. These sources warrant further investigation but that falls beyond the scope of this thesis.

One element of the analysis of the archaeological sites which are the core of this thesis that does need additional attention here is the influence of the Dutch in East Anglia at London Street and Lion Walk. These apothecaries were, by the mid-seventeenth century, making a deliberate choice to import and use Dutch and North Netherlandish vessels rather than those produced in London. While they are visually similar this difference would possibly have communicated slightly different messages to their patients and customers. Both Colchester and Norwich had significant Dutch populations from the sixteenth century, approximately a third of the population in Norwich by the end of the sixteenth century and a significant minority in Colchester by the same point, and the pharmaceutical material from both come from the period in the seventeenth century when the Dutch influence over each town was at its peak (Priestly & Fenner, 1985: 3-4; Cotter, 1999: 167-168; Goose, 2001: 88; Fagel, 2005: 52; Goose, 2005: 17). It was the transfer of populations from the Low Countries which influenced the increasing market for tin-glazed tableware and likely the adoption of this style of ware in apothecary shops (Esser, 2005: 170). Cotter (1999: 168) suggests that for early seventeenth-century apothecaries the Low Countries jars may have been preferred to English



tin-glazed earthenware by apothecaries in Colchester and other places where there was a significant Dutch influence. Thus, apothecaries in these cities were balancing the increasingly standardised visual expectations of the material culture of an apothecary shop which was being disseminated from London, with their important international connections which afforded them access to medicines from East Asia as well as continental durable material culture via Amsterdam. Thus, they were able to appeal to English customers who came to expect the tin-glazed jars they would have seen in London and their Low Countries patients who saw jars produced in their homeland.

This is an argument for Amsterdam and London both serving as central nodes for the trade and exchange of *materia medica* and medical material culture in this period. There is even an argument to be made that until the mid-seventeenth century it was Amsterdam, and, via Amsterdam, the potters of Antwerp, who created and disseminated this visually and materially distinct apothecary experience. All of the assemblages with early-seventeenth century and earlier material analysed here and in Chapter 3, with the possible exception of Wood Street, included Dutch or Anglo-Dutch vessels. This chronological argument is complicated by the evidence of Antwerp potters producing apothecary wares in London as early as the 1570s (Britton, 1982: 14, 20; Tyler *et al.*, 2008: 9). Overall, however, the influence of London as the central metropolis from which fashions, professional identities, and corporate controls originated is clearly not a singular one. Harold Cook (2007) has explored the Dutch medical trade in these same centuries in significant detail, and Annemarijn Douwes (2020) has explored specifically the space of the apothecary shop in Amsterdam in this period. A valuable future project therefore would be to link, compare, and contrast these two metropolises and their influence over medical practice and its material culture.

The site at Kevin Street in Dublin, much further from the influence of London than East Anglia, also exhibits significant Dutch influence for example and so it is clearly important to consider the particular national and international links of each site because these strongly influence the material character of the apothecary shops in each city. Dublin in the seventeenth century was comparable to Norwich in population and area, and was the principal city in Ireland (Jordan, 2008: 136). The guild structure of trade and mercantile businesses here influenced the rest of Ireland. That structure largely originated with a series of royal grants and charters and a large amount of power was invested in the heads of the guilds, the guilds themselves, and the mayor, who usually was a former master of a mercantile guild. The apothecaries of the city were organised under the auspices of the Guild of the Holy Trinity, which was a general merchants guild until 1687 when they, along with the Barber-Surgeons and Periwigmakers were joined to the Guild of St Mary Magdalen, and so it is the Guild of the Holy Trinity who were responsible for the apothecary trade within the walls of the city at the date of the deposition of the material found at Kevin Street (Cunningham, 2018: 1).

It would be of value then to look at the records of the guild alongside the testamentary and other evidence that has shown the relations of provincial city apothecaries to the wider networks of trade and influence which affected their shop material culture. Unfortunately, such sources do not survive in Dublin as during the Battle of Dublin in 1922 the Public Records Office which held guild records, as well as wills and other legal records, was destroyed (Cunningham, 2018: 1). It is for this reason that this site is so significant as it represents some of the only direct evidence for the practices of apothecaries in Dublin before the eighteenth century. It is clear from what records remain though that the Trinity guild and the Dublin Common Council were actively hostile towards foreign merchants, especially those who

illegally acted as retailers without gaining their freedom or obtaining a licence, similar to the situation in Elizabethan England (Loeber, 2002: 160-161; Luu, 2005: 64). It was theoretically possible for 'suitably qualified immigrants' to become citizens of the city, but in the first half of the seventeenth century few were able to overcome the legal, procedural and financial barriers which were erected by the guilds and common council to prevent this (Whelan, 2012: 28). It is this situation in which the apothecary of Kevin Street was trading.

However, if this apothecary was Jacob Ryckman, as Cunningham (2018: 3-4) suggests then he was a part of the largest immigrant population to Ireland outside of the English or the Scottish in the seventeenth-century (Loeber, 2002: 155). This means he would have had access to a support network that patronised his business and would have provided a sense of community. Additionally, the contents of his shop were deposited within St Patrick's liberty, one of the districts outside the walls of the city not subject to the oversight of its guilds and council. The majority of migrant merchants in Dublin resided in the liberties where landowners regularly defended their chartered rights to independence from the oversight of the city, although the tenants of the liberties, on whom the landlords relied for income, are even less well recorded than the citizens of Dublin in the seventeenth century (Loeber, 2002: 160; Whelan, 2012: 29; Cunningham, 2018: 2).

This site is unique amongst those in this thesis for the confidence with which it can be linked to Dutch influence in northern Europe. Not only were the albarelli from the site probably of Dutch manufacture but so too were the utilitarian or household ceramics except for locally made ointment pots and one Kraak tea bowl which would have been imported to Europe through the United Provinces. Was this just attachment to the material culture of Ryckman's

homeland or is it more representative of the state of the apothecary trade in Dublin at the time? I suggest that it is the latter. There is a preponderance of evidence to suggest that the trade links between the United Provinces and Dublin were stronger than those between London and Dublin. In 1612 the publication of *Beschrijvinghe van de Zeekusten ende Havenen van Ierlandt* in Amsterdam detailed the Irish coast for Dutch merchant sailors, and the Dutch helped rid the Irish Sea of pirates in the same decade (Loeber, 2002: 160). It is clear then that the Dutch were investing in their trade with Ireland and that this was to the benefit of those Dutch individuals who lived there and wanted to import material culture from their homeland. Indeed, even the English government seems to have encouraged this trade by reforming the Dublin customs to include foreign merchants in the city over the objections of the common council (Loeber, 2002: 162). This went so far that the Dutch were dominant in the trade of Dublin by 1611 and were said to have 'the whole trade of Ireland' by 1629 (Loeber, 1981: 73; 2002: 163). Ryckman's choice of material culture to furnish his shop then aligned both with his likely clientele of Dutch immigrants, the material he would have been familiar with from home, and the more commonly available ceramics imported into Dublin in tin-glazed earthenware.

That then leaves only the one site from North America: Dr George Gilmer's household in Williamsburg. Williamsburg is an especially interesting case study for this chapter as it shares elements with all of the other sites, and indeed those in London. First, it was the colonial capital of Virginia until 1780, and so was a hub for colonial government and trade, like London and Dublin; second it was a small settlement comparable to a market town in area and population (approximately 1500 people in c.1750) (Morgan, 2004: 32); and third there was no formal federal oversight of the trade of apothecaries in Colonial North America until after

the Revolutionary War, and only limits on prices under the oversight of the Colonial Virginia Government (see Chapter 1), which is comparable to the freedom of trade in the liberties of Dublin. Although the material from this site dates to approximately 100 years after the other provincial sites there is a remarkable level of similarity with eighty blue and occasionally black geometrically decorated albarelli in tin-glazed earthenware, an even greater quantity of ointment pots in the same material, and a large number of glass phials and bottles. This material was necessarily imported, there were no tin-glazed earthenware potteries in North America by the mid-eighteenth century and no significant glass manufacturing operations until 1739 (Scoville, 1944: 195). All the ceramics and most likely the glass vessels too were produced in England and exported to the colonies, as the pharmaceutical vessels were in tin-glazed earthenware they were most likely produced in London from where they would have been directly shipped to Williamsburg. This direct access to the material of London apothecaries is analogous to the route that the ceramics from the Netherlands took to Dublin and suggest a more direct link than for those apothecaries in remote parts of Britain whose material culture would likely have passed through several hands before reaching their shop.

This trade to North America and the importance of pharmaceutical goods, both medicines and equipment is well documented in account books of London traders who were involved in exporting those materials. Thomas Corbyn and Co., for example, record sales to Maryland in 1741, Philadelphia in 1742, 'Barbadoes' in the 1740s, and Antigua in 1747, as well as Virginia in 1741 which is during the time that Gilmer was operating the shop from which this material culture was discarded (Wellcome, MS. 5442) (for a more detailed summary of the Foreign Letter Book of the druggists Thomas Corbyn & Co. see Chapter 3). The evidence for this trade and therefore the material similarity of apothecaries across the North Atlantic does not only

survive in England. Records from the Stabler-Leadbeater Apothecary Museum from the end of the eighteenth century show the continuation of this trade even after American independence though by this time there was a significant internal trade as well. Griffenhagen and Bogard (1999: 107-114) transcribe all of the entries from the purchase records of the Stabler-Leadbeater apothecary shop in Alexandria, VA that included the purchase of material culture, specifically 'vials and bottles', though several accounts mention the purchase of 'gallipots'. These include a purchase of '1 gross gallipots assorted' from John Hart of Philadelphia in 1794 (Griffenhagen & Bogard, 1999: 108), as well as '3 gross gallipots' purchased alongside '6 gross pill boxes large', '1 gross essence vials', '20 gross green vials assorted', and '20 gross vial corks', from Mildred & Allen of London in 1795 (Stabler-Leadbeater, Mildred & Allen, March 2, 1795), and '4 gross gallipots, four sizes' and '8 and  $\frac{3}{4}$  gross gallipots' from Hugh Smith, also of Alexandria in 1800 and 1803 respectively (Stabler-Leadbeater, Hugh Smith, June 17, 1800; May 5, 1803).

The material culture in Williamsburg being so rich in quantity and similar in style to the London, Dublin and Norwich shops is not surprising as all of these sites were prosperous and well connected on trade routes to either London manufactured pharmaceutical pots or Netherlands manufactured ones. Colchester fits into this picture as a smaller Norwich with access to Dutch trade, but also closer to London and so the capital's products were readily accessible. This discussion however has shown that although there is great similarity in material culture, both stylistically and materially, amongst these shops and that this was led by the Netherlands and London potteries, it has also shown that these sites are probably the exception for apothecaries as they are all located in prosperous and well-connected places. The apothecaries plying their trade in more remote regions such as Wales had to buy their

*materia medica* and material culture through intermediaries and therefore at a marked-up price. This is likely why the shops of apothecaries in those places would have had less tin-glazed earthenware to store their medicines and may have relied upon local fabric ceramics to furnish their shops, only keeping one or two high status painted vessels as Alun Withey (2011) has suggested.

These four sites, and the sites analysed in Chapter 3 represent a specific window into the material lives of apothecaries in the seventeenth and eighteenth centuries and so we must be careful not to generalise too much from the data that they provide, which is one of the reasons that I have brought in documentary sources so prominently, to corroborate and provide alternative interpretations of the archaeological data.

#### **4.5 Conclusions**

Provincial and Colonial English apothecaries shared a significantly similar material culture set to the shops of their colleagues in the City of London and the area controlled by the London Society of Apothecaries. Although there is not as much chronological variation in this chapter as there was between the sites in Chapter 3 there is nevertheless an interesting story to be told about the ways in which the apothecaries from these towns and cities interacted with the influence of London as the centre of the occupation of apothecaries in these centuries. The sites in East Anglia used material culture which would have been familiar to customers who had been to a London apothecary, with geometric decoration on albarello shaped tin-glazed jars and, according to testamentary evidence, the same range of shelves, mortars, pestles, and other equipment as might be expected in London. The shops in Norwich and Colchester for which we have archaeological evidence however did not source most of these

materials from London but rather from the United Provinces where their Dutch population had trading contacts and where the technology for producing those vessels was brought to London from. This served to in fact diversify the forms used in these shops to store medicines into shapes not produced in London and connect the medical practices here to the international links of the Dutch into Asia and North America. The same process was occurring in Dublin even more explicitly as the proprietor of the shop was likely a Dutchman himself.

These examples make it clear that there are multiple interpretations of any given material culture set, or visual experience in a shop, and that the interpretation and messages that a customer familiar with London apothecaries might take from these shops may be different to those of a customer familiar with North European apothecary shops, and indeed the shops' owner. In this regard it is important to make sure that any interpretations drawn from these three shops are not necessarily generalisable to the profession of apothecaries. Even harder to generalise from is the shop of Dr George Gilmer in Williamsburg, VA where we have evidence of the most direct links to London manufactured ceramics. The city was of similar importance for the residents of Virginia, to that of London for England, or Dublin for Ireland, and yet we have none of the distinct drugs jars with their cartouches which by the date of this site had become popular in London. The experience of this shop therefore, though familiar, would have been distinct to a customer newly arrived from London.

Nevertheless, the impression that it is hard to avoid with all these sites and the various testamentary and account records from across the North Atlantic is a remarkably coherent set of material culture, and visual and material cues that these were apothecary shops, especially the rows of tin-glazed earthenware ceramics and performatively used mortars and



pestle. The question then becomes: Why were these shops conforming to these cues? What were the messages that the proprietors were attempting to communicate to their customers? Was it simply the shop equivalent of a uniform to indicate membership of a specialised profession? Was it an attempt to put customers at ease in familiar surroundings associated with healing? Were they trying to communicate their enviable position as gatekeepers to the wider world or nodes in the exchange of new global knowledge about the natural world and medicine? The final section of this thesis moves on to consider these possibilities through a detailed contextual analysis of the archaeological data alongside contemporary pamphlets, trade cards, and other contemporary documentary sources.

## **Chapter 5 - The Material Construction of the Apothecary: Trust, Knowledgeability, and Efficacy**

In the period under study the role of apothecaries and the forms of practice they should be involved in were scrutinised and challenged. This chapter explores the entanglements at stake in such debates by exploring the pamphlets published to communicate these views. Apothecaries were often challenged over the way they practised their trade and their encroachment into the practice of physick and away from simply compounding and dispensing physicians' prescriptions. These challenges came in a variety of forms, most notably pamphlets published by leading physicians, and legal challenges and prosecutions. The chapter then goes on to examine how apothecaries responded to such challenges through the material forms found in their shops. As such it extends our understanding of apothecaries and their shops by placing their material strategies in a wider social and professional context to understand what was at stake in the choice and display of specific jars or the material from which a mortar and pestle was made. Although the expression of apothecaries' 'worldliness' and 'knowledgeability' through material culture, has been highlighted previously (see Wallis 2008), there has been no comprehensive assessment of these concepts as expressed within the apothecaries' shops of the seventeenth and eighteenth centuries before. Claims to understanding of imported, global, *materia medica*, can be found in the specific and standardised set of ceramic material culture, alongside key elements of shop design and furnishing in these spaces. That material environment sought to communicate the idea that apothecaries were the group of medical professionals who were best equipped to compound and sell pharmaceuticals to their customers and patients, and that they did not need any oversight from another professional group.

## 5.1 Challenges to Business

In the later seventeenth century, challenges to the apothecaries' practice began in earnest. Voiced through newly emerging forms of print culture, pamphlets on the topic flourished. Amongst the most prominent contemporary writers who challenged the apothecaries was physician Christopher Merret who published three pamphlets attacking the Apothecaries' Society, and apothecaries in general, in 1669 and 1670, one of which ran to a second edition (Merret, 1669, 1670a, 1670c, 1670b). Merret was a prominent fellow of both the College of Physicians and a founding fellow of the Royal Society and frequently published pamphlets on medical matters in London (Allen, 2013). Merret's main aim was to re-establish oversight of apothecaries by the College of Physicians and to incorporate the production of medicine into the practice of physicians. Merret advocated for these reforms in response to the encroachment of apothecaries into the practice of physick, advising patients and prescribing medicines without the involvement of a physician.

In the first edition of his *A short view of the frauds, and abuses committed by apothecaries* Merret (1669: 8) identifies numerous infractions including the 'falsifying of Medicines' artificially increasing 'the number of their Bills and prescriptions' and 'the prices of them'. Further, he accused them of endeavouring to 'usurp' the practice of medicine, for which as evidence he used the fact that apothecaries had taken to calling their customers 'Patients'. Merret (1669: 24) found this 'absurd', for 'tis most certain that in all reason and language the Physician and Patient only have relation to each other, but not to the Apothecary, who is but a Tradesman, and manual Operator'. The second edition was more explicit in its criticisms. Merret (1670c: 24-25) claimed that 'since the firing of London not one Apothecaries Servant hath been examined by the Censors, for more then these three Years last past, in which time

perhaps no less than 100 have been made free by the company'. Merret argued that apothecaries, even those with freedom of the Society of Apothecaries, were not properly qualified and suggested that their medicines were possibly dangerous. Merret (1670c: 35-36) also claimed that apothecaries were deliberately overcharging and undertreating people to their own benefit and against the maximum benefit to the public. Later in the pamphlet, Merret (1670c: 71-72) suggested that the apothecary amongst all medical people had the best opportunity to poison a patient or provide poison to be used to kill someone. He was then careful to make it clear he was speaking hypothetically and that this had never been proven to have happened. Where Merret (1670c: 35-36) did make a specific accusation was his claim that:

the great charge of Apothecaries Bills, and nauseousness of their Medicines, appears to be the cause why long habitual diseases, as the Kings Evil, Falling-Sickness, Convulsions, Melancholies, and Winds in the Bowels, Gouts, &c. become seldom relieved, though they may with a constant, facile way be perfectly cured, where neither the great charge, nor unpleasantness of Medicine, deter them from a continued necessary use of Remedies.

Merret argued that the apothecaries were deliberately overcharging people rather than using the 'constant, facile' remedies that could be sold for 'no great charge'. Merret's *A short view* ran to a second edition which perhaps highlights the level of professional and public interest in the issue of medical professionalism and governance, and the ongoing public conflict between the College of Physicians and the apothecaries.

Christopher Merret's other pamphlets, including *The accomplisht physician* (1670a), and *Self-conviction* (1670b), also attacked the apothecaries. Singling out apothecaries who practised physick as lumps of 'confident ignorance, who followeth only the shadows of Physicians' and

who cured 'but one distemper in twenty' and 'sends the remaining nineteen with a Letter to St. Peter', Merret (1670a: 33-34, 82) argued that apothecaries sought to profit as much as possible at the expense of the patient. In the first edition of *A short view* (1669: 7) he explained that the only remedy for the encroachment of apothecaries into physick was that physicians should produce their own medicines. Acknowledging that this would lead to the ruination of apothecaries Merret (1669: 47-48) argued that

if needs, one or the other must be ruined, 'tis more reasonable that the Apothecary should suffer then the Physician, because the one acts but his duty and for the publick good, but the other are transgressors of the Law, and act above the Sphere of their skill, and do many prejudices to the precious lives and healths of men.

Merret then, writing as a member of the College of Physicians, thought that it was an acceptable outcome for apothecaries to become redundant in the medical marketplace and that the physician should remain preeminent amongst medical practitioners. In this way Merret was claiming that the greater public good was served by the promotion of the physicians even if that meant the elimination of the apothecaries. He was seeking to assert power over, and the ability to police those he saw as inferiors in the medical marketplace.

Merret and many other authors of similar pamphlets in the late seventeenth century make three main accusations against apothecaries which, without refutation would have impacted the livelihoods of and public confidence in apothecaries. First, they accused the apothecaries of London, and presumably elsewhere, with illegally practising physick, properly the domain of the university-educated physician. This was a serious accusation with legal ramifications, but it was not a new one. John Hatchett (Latinised to *Securis* in his publications) was a sixteenth-century medical practitioner although he did not hold a medical degree (Moore &

Bakewell, 2004). In his book *A detection and querimonie of the daily enormities and abuses committed in physick* Securis (1566: f. 36v) makes clear that 'Poticaries or Surgion beying onely of that arte may not be a physition unless he abuse and falsely exercise against all reason and conscience, (as many do nowe a days) the science of physicks' showing that such accusations of false practice were published at least as early as the sixteenth century. John Cotta, a Cambridge educated physician from Coventry who practised in and around Northampton (Elmer, 2008), 50 years before Merret and 50 years after Securis, wrote that apothecaries 'may haue prerogatiue ti be Physitions, by the excellence and rare choice of medicines', though he did warn that 'if the pride and maister-ship of the medicine stirre once in them the ambition of medication, as in the former me commend them, so in the second they shall iustly condemne them' (Cotta, 1619: 45-46). Cotta's warning suggests that he thought apothecaries were important but easily corrupted by elevation to the status of physician. His pamphlet shows that the concern about the overreach of the apothecary into physick was not a London phenomenon but rather something which was on the minds of medical men across Britain.

The physician and founding fellow of the Royal Society (Symons, 2004), Thomas Coxe took a harder line than Cotta in the preface to his 1669 pamphlet *A Discourse* where he argued that 'there are many things wherof most Apothecaries are highly guilty as carelessness, Unskilfulness, Unfaithfulness on the one hand, and Intrusion into the Physicians Employment (I mean the Practice of Physick) on the other' and proposed, like Merret did, that the only solution was for physicians to prepare their own medicines (Coxe, 1669). The longevity of the accusations of the improper practise of physick speak to their ineffectiveness in curtailing the trade of apothecaries and reasserting the oversight of physicians, and this is reflected in the

practical attempts to curtail the practice. The College only ever prosecuted a handful of apothecaries for the crime of practicing physick without qualification. To make the accusation have more impact then, Merret and many other writers attached to it their second line of attack; the idea that the improper practise of physick and the resulting dispensing of medicine was harming the health of the apothecaries' patients, and the public in general.

This second accusation; that apothecaries were dispensing harmful medicines because they were not relying on prescriptions from physicians, had the potential to undermine the trust which was key to profitable trading as an apothecary. If patients or customers thought the medicines were harmful then they would seek treatment elsewhere. Coxe specifically accused apothecaries of frequently using 'bad Druggs, add[ing], subtract[ing], or substitute[ing] at pleasure one Ingredient instead of another', and calls them 'Careless, Slovingly, and Slight' (Coxe, 1669: 9, 40). In another example, Gideon Harvey (1676: 14), physician-in-ordinary to the King, in his volume of medicinal recipes for the household noted, after a recipe for 'London Treacle Water', that:

the Apothecaries commonly (without other digestion than letting it stand three or four days in their Shops in a great glass) distill this and other compound Waters in a small Copper Still with a Bucket Head; but then those Waters shall not be so full of virtue, nor so pure as the Waters distilled in a Glass.

Such a statement was attempting to make clear that apothecaries cut corners in their production methods for medicines, and that this was a symptom of their avarice. Further, Harvey was suggesting that medicines bought from apothecaries were inferior and more expensive to those which could be produced at home by following the instructions of a physician, or a recipe compiled in the commonplace book of the family (Leong & Pennell,

2007: 146). Such accusations of dangerous or poor medicines were also promulgated by the apothecaries' competitors in the medicinal marketplace. In his 1696 volume *Pyrotechny asserted*, alchemist and medical practitioner George Starkey attempted to persuade his readers of the efficacy of chymical and alchemical remedies produced by specialists and not apothecaries (Newman, 2015). He claimed that the 'Empyric Preparations' in apothecaries' shops are 'for Gain's sake ... daily more and more adulterated' to the point that 'Chymistry on this score had almost been brought into disgrace' (Starkey, 1696: 9-10). These intersecting concerns of dangerous medicines and avaricious apothecaries reached a level of cultural pervasiveness that they were regularly incorporated into fiction, theatre, and other forms of popular media for the time, much as they did when Shakespeare was writing in the early seventeenth century about the 'meagre' apothecary full of 'sharp misery' who provided poisons to love-sick teenagers (Shakespeare, 1623: Act 5, Scene 1, Lines 40-41).

Similarly, at the end of the seventeenth century, the Thomas Brown (1697) play *Physick lies a bleeding, or The apothecary turned doctor* satirised apothecaries through four characters; one who inflates his bills, one who claims to have learnt all of surgery and to bleed patients better than any in the city, one from Italy who only sells the most expensive potions, and one from the North of England who is a self-described physician, apothecary, surgeon, distiller, and corn cutter. Ultimately the play's message is that apothecaries cannot be trusted and are either inexpert enough to be a danger or interested only in the money that they can get from their patients. Another play from the start of the nineteenth century (1802) entitled *Lottery Prize, of 2, 5, 3, 8; or, Pedantic Apothecary Quizzed*, was a farce in which an apothecary's apprentice poisons the mayor to increase his master's profits to the approval of the apothecary who claimed the aspects of Apollo. The cultural awareness of these concerns and



accusations persisted into the nineteenth century, across the whole period that this thesis studies.

These accusations were also present in publications from Ireland during the eighteenth century. Dublin apothecary Charles Lucas for example published *Pharmacomastix: or, The office, use, and abuse of apothecaries explained* in 1741 to persuade lawmakers in Ireland and England to impose greater oversight on apothecaries and druggists upon the renewal of the Irish *Statute for preventing Frauds and Abuses in the making and vending unsound, adulterate, and bad Drugs and Medicines* (9 Geo. 2., c.10; Murphy, 2004). It is likely that Lucas was free of the City of Dublin and wrote to try and restrict the practice of apothecaries in the Liberties or otherwise not free of the city. Lucas (1741: 49) especially emphasised that ‘The unparalleled naked villainy of the English druggists... [which] is the principal cause of the many abominable sophistications of medicine’, sophistications here meaning the substitution of ingredients and falsifying of compounds. He further claimed that apothecaries in Dublin had crossed into the practice of physick and surgery out of self-interest and greed, despite their ignorance of each area of medicine, the idea that they had ‘skill and judgement’ in these areas being ‘a groundless notion’ (Lucas, 1741: 21, 36, 41). This source again indicates that these were not just issues in London, but rather that the whole British and Irish medical marketplace was grappling with these accusations.

Writing seven years later, John Chandler (1748: 2) who was also himself an apothecary (Bettany & Corley, 2008), believed that the royal directive for apothecaries to only use the London Pharmacopoeia was not a strong enough security against ‘Deceits, Differences, and Incertainties’ in the preparation of medicines. He specifically repeated the suggestion that all

apothecaries, druggists, chymists and others in the country should be subject to examination upon oath and subject to inspections for the quality and strength of their drugs by physicians (Chandler, 1748: 32-33). It is unclear why Chandler would seek to restrict his own trade, though it may have been through genuine concern for the health of his customers which would also elevate the perceived status of his business over the 'deceitful' apothecaries practicing elsewhere in the city. There is also evidence that at a similar period the colonial governments of North America were dealing with these issues. *An Act, for Regulating the Fees and Accounts of the Practicers in Physic*, passed by the General Assembly of Virginia (1736: 10 Geo. II. c.10) created a hierarchy of the practise of physick based on education with university-educated physicians at the top and able therefore to charge the highest fees, and the apprenticeship-trained apothecary at the bottom (Cowen, 2006: 26). Unlike the situation in Britain and Ireland where the right of apothecaries to advise patients was derived from a House of Lords judgement (1704) and not statute, this act explicitly allowed for the colony's apothecaries to advise patients and therefore dispense medicine without the involvement of a physician. Improper practice and dispensing dangerous remedies were a serious set of accusations that would have impacted the patronage of apothecaries by both the literate and politically engaged portions of society, and those who consumed theatre and other popular images of apothecaries, and the apothecaries needed to respond. Their critics had one other major accusation which also had the potential to impact their business, greed.

The final set of accusations that were commonly made against the apothecaries in contemporary publications were that they consistently put their profit above the health of their customers and patients. In a 1606 letter written by Eleazar Duncon, a physician from Suffolk, mainly concerning the doctor's opinions of tobacco, there were a series of attacks on

'Empricks' which explicitly included apothecaries (McElligott, 2004). The recipient of the letter, who caused its publication, compared empiricks to the hydra, and claimed that they shorten the lives of their patients (Duncon, 1606: 15-16), and in the list of irregular practitioners of medicine Duncon (1606: 17, 19) included witches alongside 'our common Apothecaries'. Of the apothecaries, Duncon (1606: 19) claimed specifically that 'they have not so much humanity in them as to mourne in the miseries of others; but all that they hunt after is how they may inrich themselues, though it be with the loss, not of the goods alone, but of the liues of men also'. Clearly emphasising that apothecaries, in his view, placed profit above the wellbeing of patients, and that this led to the deaths of many whom the apothecary did not mourn, having already profited.

Coxe, the late-seventeenth-century London based physician, proposed once again that physicians should be empowered, this time to set the prices of medicines and to have them printed in the pharmacopoeia so no one would be made to overpay (Coxe, 1669: 217-218). Such lists were produced, though never by statute in Britain. For example, a translation from French of Philbert Guybert's (1639: 45-61) *The Charitable Physitian and The Charitable Apothecary* included a price list of both simples and compounds so that informed customers would not be taken advantage of by an unscrupulous druggist. In a similar proposal to remedy the avarice of the apothecary, Jonathan Goddard (1670: 28-34), a prominent seventeenth-century London physician (Oster, 2006), argued for a reduction in the number of remedies it was legal for apothecaries to compound, and for physicians to keep a store of the most important remedies to make and dispense these themselves, which would allow the physicians to regulate both medicinal quality and price.

These complaints continued into the eighteenth century when an anonymous broadside published in London in 1703 and entitled *The dispensaries, and dispensary physicians vindicated* used the College of Physician's charitable dispensaries to attack the apothecaries. The broadside explained that the College of Physicians attempted to provide charitable medical care to their neighbouring sick poor in the City of London and for seven miles around and were forced to do so without the assistance of the Apothecaries who would not provide drugs at cost, 'so inconsistent is Charity with the Friendship of the Apothecaries' (Anonymous, 1703). Consistent attacks from as early as the sixteenth and continuing into the nineteenth century suggested that apothecaries were greedy and overcharged their patients. These accusations were paired with the suggestion that their medicines were improperly compounded or even actively dangerous, and the further idea that they were straying into a profession for which they were not personally or socially suited and certainly not trained. Combined, these attacks had the potential to significantly reduce the number of customers and therefore the viability of apothecaries as a trade. Moreover, the reaction to such accusations could feasibly lead to the imposition of punitive oversight by a hostile group of professionals who, in print, had suggested the elimination of their trade altogether.

In the face of these accusations apothecaries and their allies, many of whom were physicians, were not silent. Beginning in the seventeenth century, they and their allies printed responses both defending their business and attacking the physicians in turn. Indeed, an anonymously published response to Merret's *The accomplisht physician* turns these claims on their head and suggested that the idea that apothecaries could supplant physicians should be a shame on the physicians since they had such high social status through their university education and the apothecaries did not (Anonymous, 1670: f. 4r).

Taking a different approach, Guillaume Rondelet, professor of medicine at the University of Montpellier in France, decried the ignorance, despite all of their education, of some physicians in his pamphlet *De Succedaneis*. Rondelet claimed that physicians, when the most suitable simple for a malady was not available, included all the simples for the symptoms into a single remedy, which was not only less effective but caused the apothecaries to be 'destitute of Succedanea' (Rondelet, 1649: 2-3). He attempted to rectify this ignorance by listing the appropriate succedanea (substitute ingredients) for commonly used simples at the end of the pamphlet (Rondelet, 1649: 10-22). Rondelet's pamphlet shows that the fraught interactions between apothecaries and physicians were a Europe-wide concern despite the different systems of oversight in France and Britain. William Staines (1678: f. 8v) who was also a physician, argued for the reconciliation of the physicians and apothecaries in *Medela medicorum* and warned that if that did not occur, then both groups would be ruined by an unchecked influx of quacks and empiricks, directly challenging the idea that apothecaries could be grouped in with such fraudulent practitioners. Unlike his seventeenth-century colleagues, such as Eleazar Duncon above, who lumped apothecaries in with the quacks, Staines recognised them as medical men and sought to create an alliance against entirely untrained and dangerous practitioners.

An anonymous broadside published in 1724, seemingly written by an apothecary or an ally to their cause, argued that the province of Physick was too big a topic for one person to be a master over all of it and that although Physicians were pre-eminent, the education and continual work amongst the *materia medica* made the apothecary best placed to judge the quality of drugs and simples (Anonymous, 1724: r). The purpose of this broadside was to oppose legislation which made the censors of the College of Physicians an inquisition with no

oversight and the power to judge the materials of apothecaries. The anonymous author suggested that the new statutory power would be greedily accepted by the physicians who wanted any power which allowed them to subjugate the apothecaries (Anonymous, 1724: v). Similarly, chemist James Goodwin, in 1731, argued strongly for the professional knowledge and trustworthiness of the apothecaries. In his pamphlet he outlined that although the Apothecaries' Society were happy to have defective or deficient medicines destroyed through a process of inspection, the physicians were too well known for their opposition to the apothecaries to be impartial. He proposed instead that a panel of three apothecaries, three druggists, and two chymists, acting in a manner akin to traditional guilds, be convened who would search a shop whenever there was a complaint regarding the quality of the drugs by a physician or patient but not more regularly than twice a year (Goodwin, 1731: 10). Goodwin (1731: 11) also defended apothecaries who were practising physick, explaining that they only did so out of charity for those who could not afford a physician.

Even into the nineteenth century these kinds of defences were necessary. A letter published in 1813, though written by a member of the College of Physicians, concluded that the apothecaries had been 'ignominiously fettered' by the restrictions placed upon them, especially by not being able to charge for visitation and not being considered medical practitioners, and that reversing these rules would benefit the public without harming the business of the chemists and druggists (Anonymous, 1813: 64). These responses themselves provoked replies throughout the seventeenth and eighteenth centuries, including some in the more 'popular' presses. An anonymously published 1709 pamphlet *The Tatler's character* (July 21.) attacked the 'Practicing Apothecaries' and groups them with 'Empiriks' (Anonymous, 1709: 3-4). The pamphlet was referencing an article in the periodical *The Tatler*

published on July 21 of the same year on a similar subject (Steele, 1709). Such attacks, on both sides, continued through the eighteenth century and into the nineteenth, but once the position of apothecaries as medical practitioners was confirmed by statute in 1815, these attacks lessened (55 Geo. 53., c.194).

If the popular presses were repeating the accusations of the physicians, and responses were only provoking more accusatory pamphlets in turn, then how were the apothecaries to defend themselves? How were they to communicate more directly with their customers and potential customers? Their shops, the material culture it contained, and their ways of working provided important means by which apothecaries could engender trust, communicate their knowledgeability and suggest at the efficacy of their medicines. Such messages needed to be articulated to patients, many of whom, in London especially, would have been aware of the popular cultural depictions of apothecaries which reflected all three accusations. As Wallis (2008) has explored, apothecaries manipulated their shop spaces in response to changing attitudes around consumption, the introduction of new medical commodities and the need to communicate their trustworthiness. What this chapter has demonstrated so far are the reasons why such manipulations were necessary. Building on the evidence for the challenges apothecaries faced, as well as Wallis's work, the rest of this chapter utilises the archaeological data from Chapters 3 and 4 alongside trade cards, advertisements and printed manuals to demonstrate the specific ways in which apothecaries utilised the visual and material experience of their shop to counter the accusations levelled against them. Moreover, it explores how they were able to construct a resilient professional and corporate consistency which could continue to rebuff attempts by competitors in the medical marketplace to limit their practise.

## 5.2 Visualising the Apothecary Shop

Pictorial sources are the most direct way to be able to visualise these spaces, however, there is a lack of pictorial sources from the seventeenth century. Other sources can make up for that gap, especially the archaeological assemblages discussed in Chapter 3 and Chapter 4 and, as will be analysed here, contemporary printed materials which contained instructions for the best way to organise and furnish an apothecary shop. Those instructions were often written by physicians and they tended to emphasise the shopkeeping over the medical work of apothecaries; nevertheless, they are valuable sources for understanding how these shops may have been furnished whilst also demonstrating the expectations and limitations consistently placed upon apothecaries by physicians. Christopher Merret (1670a: 58-59) in *The accomplit physician, the honest apothecary, and the skilful chyrurgeon* included a list of the things that an apothecary should know like 'tying up Gallipots and Viols, with old Taffety, ranging of 'em in order on the Stall, to give passers by a nota benè of the great Trading of that Shop' showing the importance of display to apothecary shops, and that gallipots at this time had tied-on lids. In a more detailed example, the 1639 English translation of Guybert's *The Charitable Physitian* lists an extensive catalogue of all the instruments necessary to furnish an apothecary shop, including four mortars of different materials with their pestles, copper boiling pans, a still, scales and weights, an iron furnace, 'Gally pots, or earthen pots, to keepe Conserves, Electuaries, Syrups, Oyles, Oyntments' and 'Two great Gally pots, and two great earthen pots' (Guybert, 1639: 65-67).

More specific is the advice of Jean de Renou published in 1657 in his *Medicinal Dispensatory*. He emphasised that the apothecary should purchase 'Those are useful, but more profitable, which are more expetible for their ornament, and greater splendour, then their inservience;



as many Silver vessels, which take much with the Vulgar', making it clear that the apothecary needed to consider display when purchasing vessels (de Renou, 1657: 472). Unusually he included architectural and interior design advice for prospective apothecaries. The interior of the shop space, according to de Renou, should have a door onto the street and a door into the preparation room with a viewing window between the two so the apothecary could keep an eye on his assistants (de Renou, 1657: 471). Within the shop 'many shelves must be classically collocated ... from the bottom upwards, upon wooden and iron nails fastened in the walls', these shelves should contain 'lesser' and 'greater boxes', some 'Earthen vessels', some 'Glasses; some Tinne-vessels; and some, Wood-vessels' arranged by how often they are used, and 'The names also of the Medicaments, must be inscribed upon every vessel, and bag, wherein they are included; that the Medicament to be exhibited, be soon be seen, and not mistaken for another' (de Renou, 1657: 471-472). These labelled ceramics jars, and the silver and glass containers were a key part of the way that apothecaries manipulated their shop space to engage with and retain customers, forming as they did the most prominent visual element within the shop.

The sources that may most directly show the material and visual elements of apothecaries' shops, however, in addition to the archaeological assemblages, are eighteenth- and nineteenth-century trade cards. Given to customers after purchase and then widely circulated, these cards depicted the apothecaries' shops as they wanted them to be seen (Scott, 2004: 98; Berg & Clifford, 2007: 146-147). They contained an idealised representation of the shop as chosen by the retailer. Alongside the shop space, these imagined spaces offered an important means by which apothecaries communicated to their customers. As such they are a direct source for the choices that apothecaries made when advertising themselves and

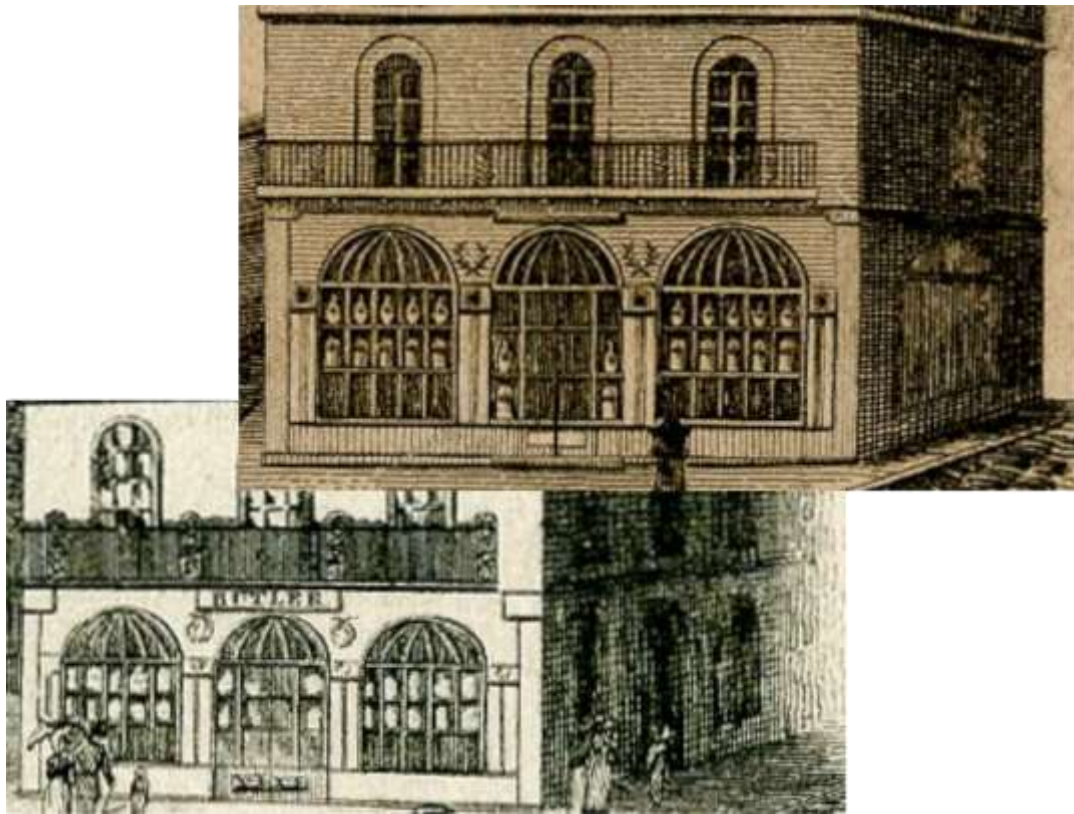
their profession, and so are especially valuable to this research. Using a selection of these cards we can identify repeated elements of material culture that apothecaries, and members of overlapping allied trades of the eighteenth century, were using to advertise themselves and the messages that these images were supposed to convey. Although many of these businesses did not explicitly describe themselves as apothecaries they are included in this analysis as there was significant overlap in the definition of druggist, chemist, and apothecary, until the 1815 Apothecaries Act formalised their definition (Hazen, 1841: 74; Fissell, 1991: 58). Before this date the main distinction was in the length of apprenticeship served, membership of the Society of Apothecaries, and whether the business also supplied drugs wholesale. Since these trade cards are all for retail businesses that compounded and dispensed medicines, they were all responding to the same sets of accusations outlined above against apothecaries.

By the last quarter of the eighteenth century, these trade cards primarily depicted the shop building itself. Figure 5:1 is a trade card for Butler's chemists' shop on Cheapside, London c.1800. This area was home to a concentration of apothecary and druggists' shops since the seventeenth century. In the expanded details of these two cards, you can see through the windows of the shop where there are the labelled ceramic and glass jars for storing medicinal ingredients in ordered rows with spouted jars stored above the dry drug-jars (see Figure 5:2). These trade cards referred to the familiar material culture set identified in Chapter 3 and Chapter 4 which apothecaries across the North Atlantic were using to furnish their shops. The display of these jars in the window would have shown a customer holding these trade cards that a large variety of ingredients and medicines were stocked in the shop. For customers arriving at this shop, using the address listed to find it, the labels on the drug jars which appear

to be turned out to the window in Figure 5:2, would have indicated the knowledgeability of the shops' proprietor through their possible use of Latin. These two trade cards also made use of the shop itself as an indicator of status; it was of typical Georgian design with large windows and at a prominent London address, depicting the highly recognisable St Paul's cathedral dome adjacent to the shop. The contemporary architecture and large amounts of glazing would communicate, to an informed viewer, financial success which in turn would have suggested the efficacy of their remedies. Those apothecaries whose treatments failed would surely not have the repeat custom to maintain a business in an up-to-date central London building.



Figure 5:1. DRAFT Trade card of Butler, Chemist c.1800. Heal, 35.14 © The Trustees of the British Museum (CC BY-NC-SA 4.0)



*Figure 5.2. Heal,35.13 and Heal,35.14 (detail) showing the window displays of labelled glass or ceramic medicine containers in orderly rows. © The Trustees of the British Museum (CC BY-NC-SA 4.0), detail cropped by Author.*

Similarly, Price & Co, Chemist and Druggist of Great Russell Street in their 1809 trade card emphasised the appearance of their shop with large glass windows and rows upon rows of glass drug jars with suggestions of labels (see Figure 5:3). Their signage also suggests financial success as it extends over more than one frontage from the corner building that is centred in the trade card's depiction. Combined with the extremely large quantity of glass, there are whole glazed walls it appears, this trade card indicates an extremely successful company of Chemists and Druggists. Glass windows of this scale were a relatively new technology at this period which made the interior display of the shop into a public one; they extended the shop into the street, and served to engage with customers even before they enter the premises (Armstrong, 2008). The large size of the shop would also suggest that they had enough space to compound for several customers at once and to treat them in a polite and comfortable manner (Berry, 2002). Moreover, the large, open windows which would have been expensive

served to refute any suggestions of secretive, or underhand practices as the shop would be entirely visible from the street. The c.1800 example of Woolfrey Middleditch, Chemist is even more laden with symbolism (see Figure 5:4). In addition to the shadows of the drug jars through the large windows, this shop front also sports the Prince of Wales Feathers, and the text indicates that Middleditch was indeed the chemist to HRH The Prince of Wales, something which is meant to indicate the status not only of his customers but Middleditch himself. There is also a statue of Britannia with her anchor making clear that this shop was a portal to products from across the British Empire, and a phoenix which since the middle ages had been used as a medical and alchemical allegory of the renewal of the body (Ferguson & Ferguson, 1961: 23; Krivatsy, 1970). Middleditch, through the depiction of his shop, regardless of its accuracy, was saying to anyone holding the card that his remedies were good enough for royalty, incorporated the bounty of empire and would renew your body from illness.



Figure 5:3. DRAFT Trade card of Price & Co, Chemist and Druggist, Great Russell Street, 1809. Heal,35.59.+ © The Trustees of the British Museum (CC BY-NC-SA 4.0)

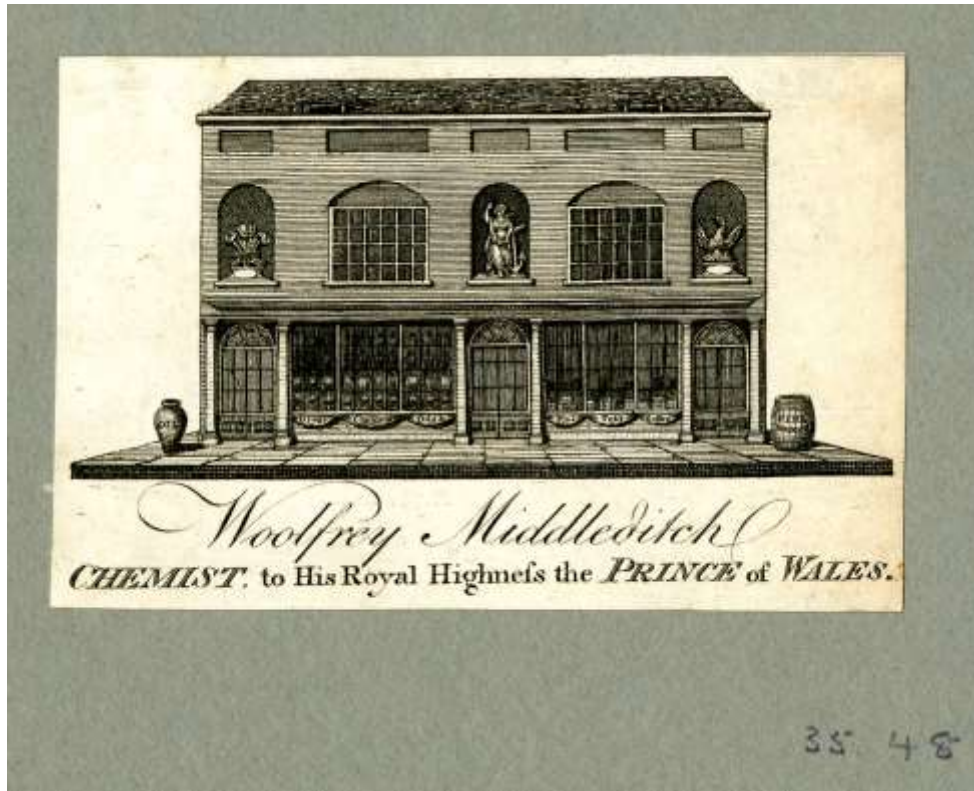


Figure 5:4. DRAFT Trade card of Woolfrey Middleditch, Chemist c.1800. Heal,35.48 © The Trustees of the British Museum (CC BY-NC-SA 4.0)

Possibly more useful for a material culture history of the apothecary and allied professions are cards that depict shop interiors. Although this is rarer than the external images some examples depict these spaces and the work of the apothecary. The earliest selected for this analysis is that of Richard Siddall, chemist at the Golden Head in Panton Street, near the Haymarket, London which could be as early as 1738 (see Figure 5:5). This unusually intricate trade card is based on a French oil painting entitled *La Pharmacie* by Jacques de Lajoue (see Figure 5:6). In Siddall's card a chemist or apothecary, presumably himself, sits next to a still in front of a complex pile of various instruments on a furnace. Hanging from the ceiling of the laboratory are various dried or stuffed animals including a crocodile, an elephant head, a rhinoceros head, and fish. Finally, there is a set of shelves with labelled jars in the background. The still and instruments on the furnace relate to the production of medicines, especially chymical ones: Siddall was attempting to convey his competence by centring these processes.

He then surrounded this central message with references to the apothecary's company (a rhinoceros), apothecaries' and druggists' shops (the wall of painted drug jars), and his access to the ingredients from across the world (the animals foreign to Britain). These elements, although they rely on material culture that does not survive archaeologically, with the exception of the drug jars, were all used to communicate Richard Siddall's professionalism, the quality of the product, and access to global knowledge and materials. He has nothing to suggest that he acted as a physician, and he has access to every required ingredient to compound medicines properly and effectively. Thus, alongside the economic purposes of these cards, Siddall was refuting all of the arguments presented by physicians and popular media and in doing so was working to build the confidence of his customers in his products and himself.

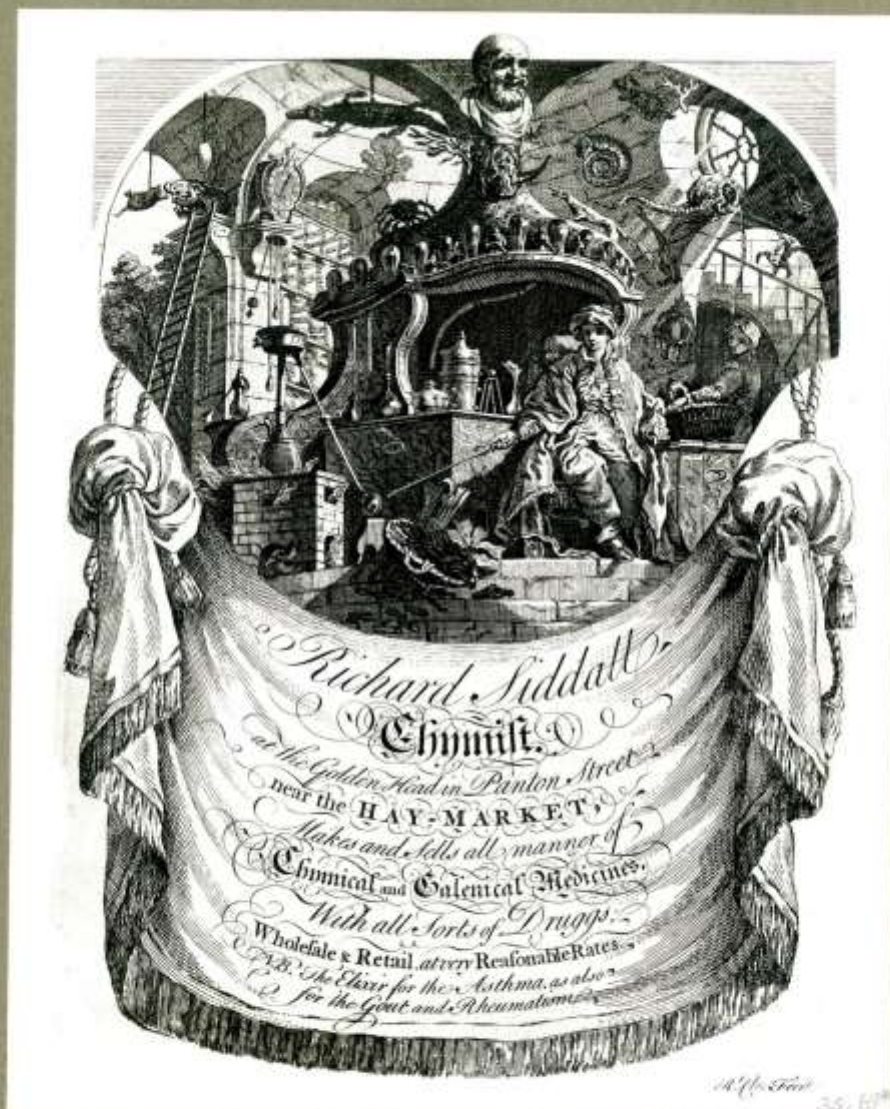


Figure 5.5. Trade card of Richard Siddall, chemist at the Golden Head in Pantion Street, near the Haymarket, London; a scene of an apothecary's laboratory above, with an advertisement lettered on a fringed curtain below; the chemist seated next to a still and upsetting a log-basket; immediately behind him, an elaborate covered stove with various instruments, surmounted by a bust of Galen; to right, a woman with another basket, looking over her left shoulder; hanging from the ceiling and around the walls, various dried and stuffed preparations including a crocodile, an elephant head, a rhinoceros head, a crab, coral, fish and shells; in the background to left, shelves with labelled jars, a clock; based on 'La Pharmacie' by Jacques de Lajoue. Etching with engraved lettering, 1738-1773. Heal,35.64.+ © The Trustees of the British Museum (CC BY-NC-SA 4.0)





Figure 5.6. *La Pharmacie (Pharmacology)*, 1738, etching and engraving by Charles Nicolas Cochin père, after Jacques de Lajoue, 31.1cm x 37.6cm. 1989,0930.8 © The Trustees of the British Museum (CC BY-NC-SA 4.0).

A similarly effective depiction of the interior of an apothecary shop, though much less grandly presented, can be seen in the trade card of Christopher Woodhouse, an apothecary and druggist based at Shadwell Dock, located to the East of the City of London outside of the walls, in 1795. This image shows an apothecary using a large mortar and pestle to grind a medicinal preparation, a still, and many labelled boxes, drawers, barrels, and bulbous glass bottles which were used to contain medicines (see Figure 5:7). Unlike Siddall's this trade card does not seem to be based on an earlier etching or painting. Nonetheless, Woodhouse is making the same points as Siddall, though has had to substitute the barrels and crates of shipping for the taxidermy and other symbols of foreign territories to suggest his access to the products of empire. Woodhouse is depicted in the process of compounding a medication that, the surrounding boxes and barrels suggest, is made with imported ingredients, possibly straight from the ships which docked in Shadwell Dock. The Dock was involved in shipping to and from the Caribbean and West Africa, through the 'triangular trade' of chattel slavery, as well as to Russia, and so was a setting where imports from across Britain's Atlantic colonial territories and trading partners would have been readily available (see Morris & Cozens, 2013). Sixty years after Siddall was trading then, similar issues were at play in how apothecaries were choosing to depict the interiors of their shops when attempting to advertise their business. However, unlike Siddal, who emphasises knowledge through collection and organisation, Woodhouse emphasises labour and practical application of medicinal knowledge. Woodhouse showed holders of his trade card that he was producing high-quality medicines himself, that his shop was ordered and well-stocked, and that he had access to global simples with which to compound, directly refuting the accusations of underhand and sub-standard production of medicines in the pamphlets circulating in London at this time. These ideas are

all echoed in the material culture analysed in Chapter 3 and Chapter 4 and can be seen in the exterior shop depictions analysed above.

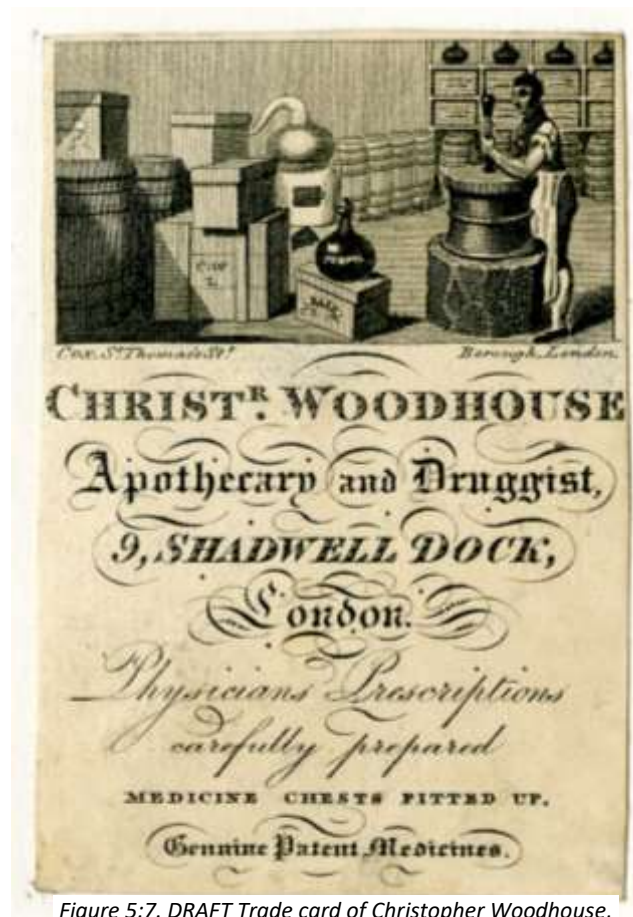


Figure 5:7. DRAFT Trade card of Christopher Woodhouse, Chemist c.1795. Heal,35.84 © The Trustees of the British Museum (CC BY-NC-SA 4.0)

Other trade cards do not depict a space, but instead present composite images of materials associated with the trade they are advertising. In the case of apothecaries, druggists, and chemists, these tend to be the material culture for the storage and production of drugs and medicines. The 1748 card of Thomas Townshend, Chymist in Ordinary to the king, tells us he produced and sold Galenicals (plant-based medicines) and emphasises his scientific prowess as a chymist by showing two stills and several labelled containers. These surround the royal arms which centres Townshend's status via his royal appointment just as Woolfrey Middleditch's card did for him (see Figure 5:8 and Figure 5:4). The stills on Townshend's card are a piece of material culture that was so strongly associated with apothecaries they came to be used on apothecaries' trade tokens throughout the seventeenth and eighteenth centuries (Whittet, 1989: 20). Fenwick Bulmer's trade card from c.1770 also emphasises a still, as well as boxes containing 'manna' and 'bark' as well as bottles of 'hartshorn' and 'oil' all of which were prominent ingredients or groups of ingredients in medicines (see Figure 5:9). Interestingly he also used the image of an Aloe plant, which is still used in medicinal and skincare products today and which were symbols of access to materials from southern Africa and Asia where such plants grew (Reynolds, 2004: 4-6).

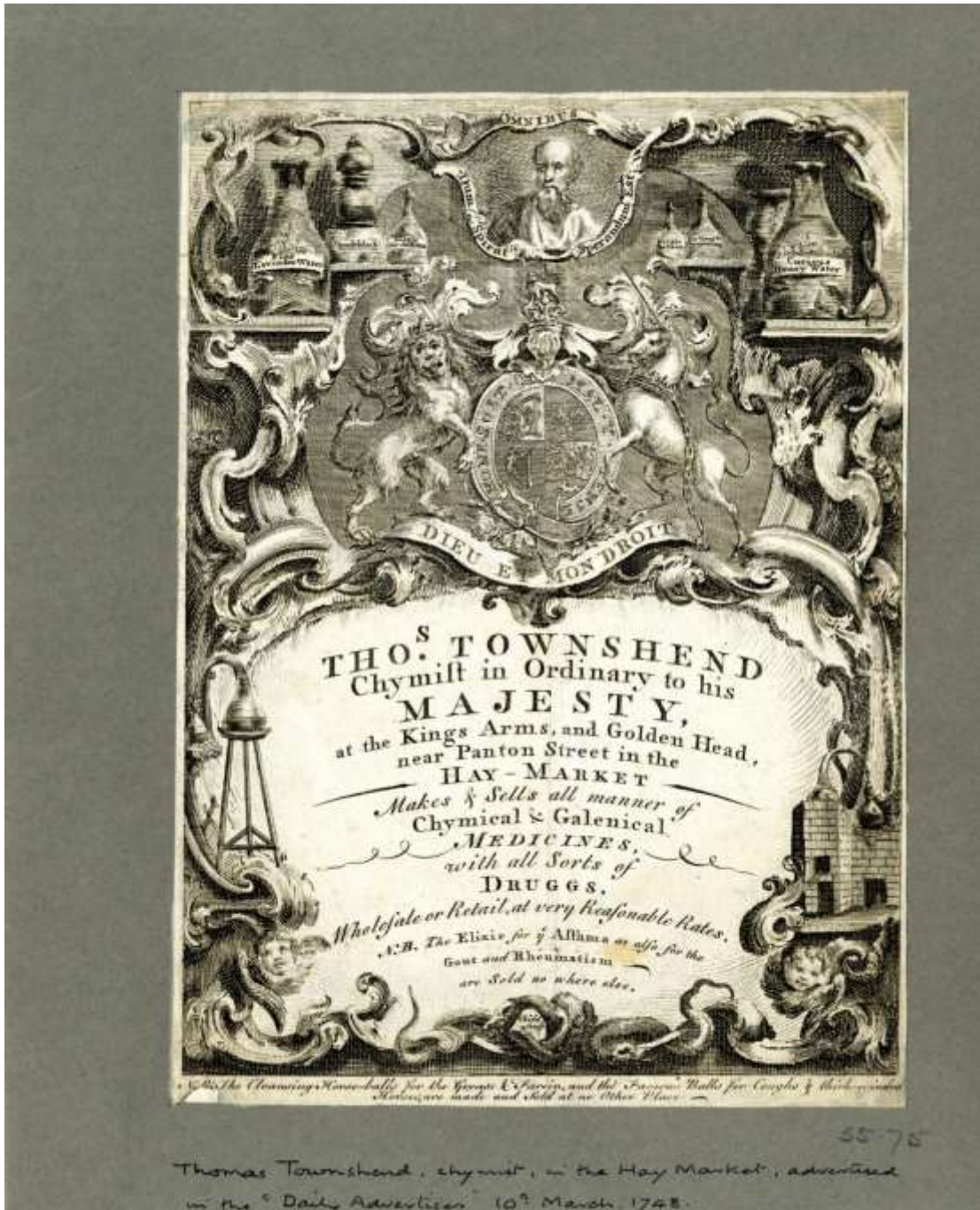


Figure 5:8. DRAFT Trade card of T. Townshend, Chemist c.1748. Heal,35.75 © The Trustees of the British Museum (CC BY-NC-SA 4.0)

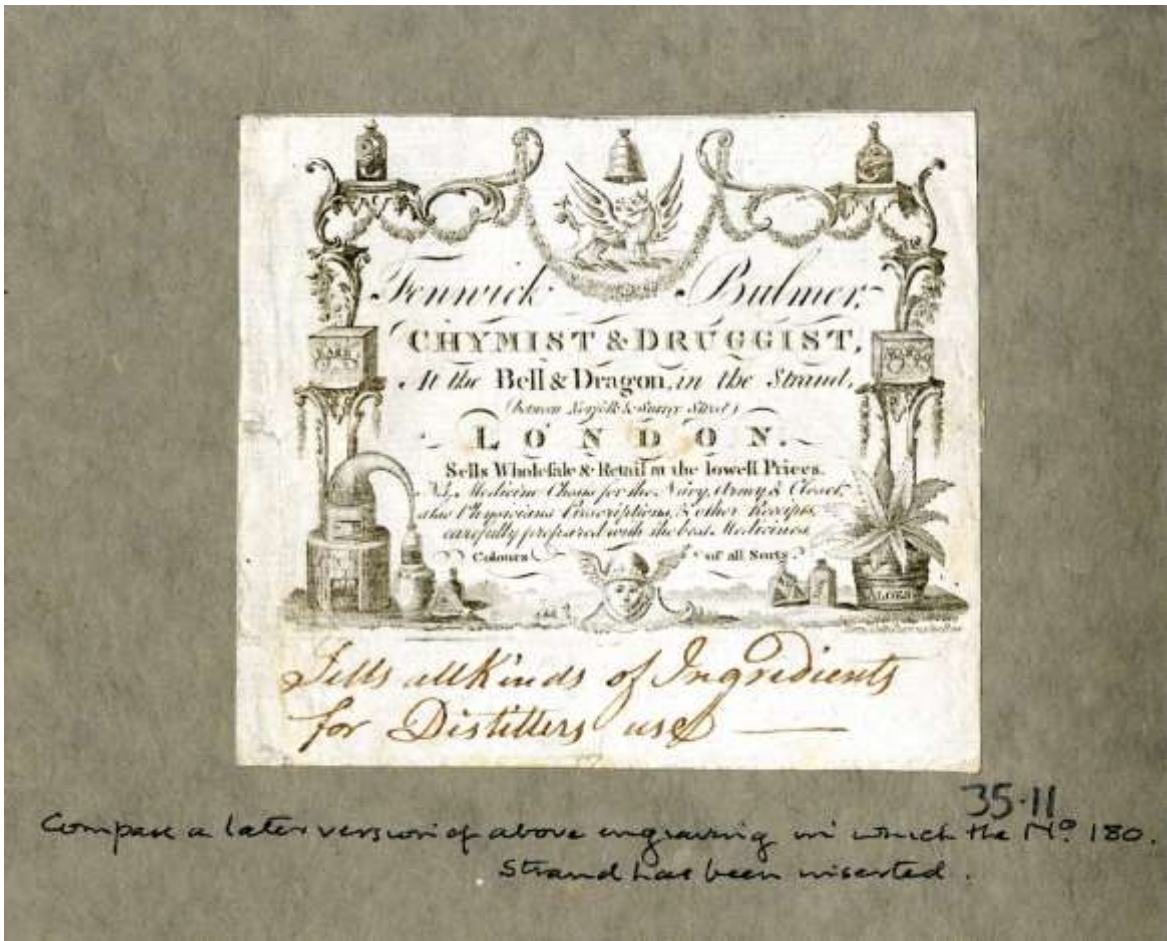


Figure 5:9. DRAFT Trade card of Fenwick Bulmer, Chemist c.1770. Heal,35.11 © The Trustees of the British Museum (CC BY-NC-SA 4.0)

Thomas Stephenson in c.1775 also chose to include depictions of two stills, two medicine bottles, and a small mortar in his trade card. Again, this emphasises the importance of material culture for the professional identity of apothecaries, druggists, and chemists and the need to use it to mediate interactions with their customers and patients (see Figure 5:10). The final example of this kind of trade card for apothecaries and druggists is that of William Curtis, which is described as nineteenth-century in the British Library catalogue but is more likely late eighteenth-century as Curtis died in 1799 (Hunt & Smith, 2008). In this trade card a man is depicted next to a barrel-shaped drug jar and a still, and is holding, or perhaps inspecting, a small medicine bottle (see Figure 5:11). He uses the same elements as the other cards but emphasises them less than the books piled on top of the cartouche which contains his name alongside Linnaeus, physician and professor at Edinburgh Medical School William Cullen, and Swiss anatomist and naturalist Albrecht von Haller. This emphasis on medicine, anatomy, botany and scientific classification makes sense as Curtis was a prominent botanist, entomologist, and one of the keepers of the Chelsea Physick Garden for the Society of Apothecaries (Hunt & Smith, 2008). Apothecaries then, at the same time as emphasising their medical literacy and mastery of the *materia medica* in use at the time of their practice, also went to pains to make links to their heterogeneous scientific interests; be they botany as is the case for Curtis, or chemistry, indicated by the various furnaces and stills depicted on the trade cards of Fenwick Bulmer (see Figure 5:9) and Thomas Townshend (see Figure 5:8).

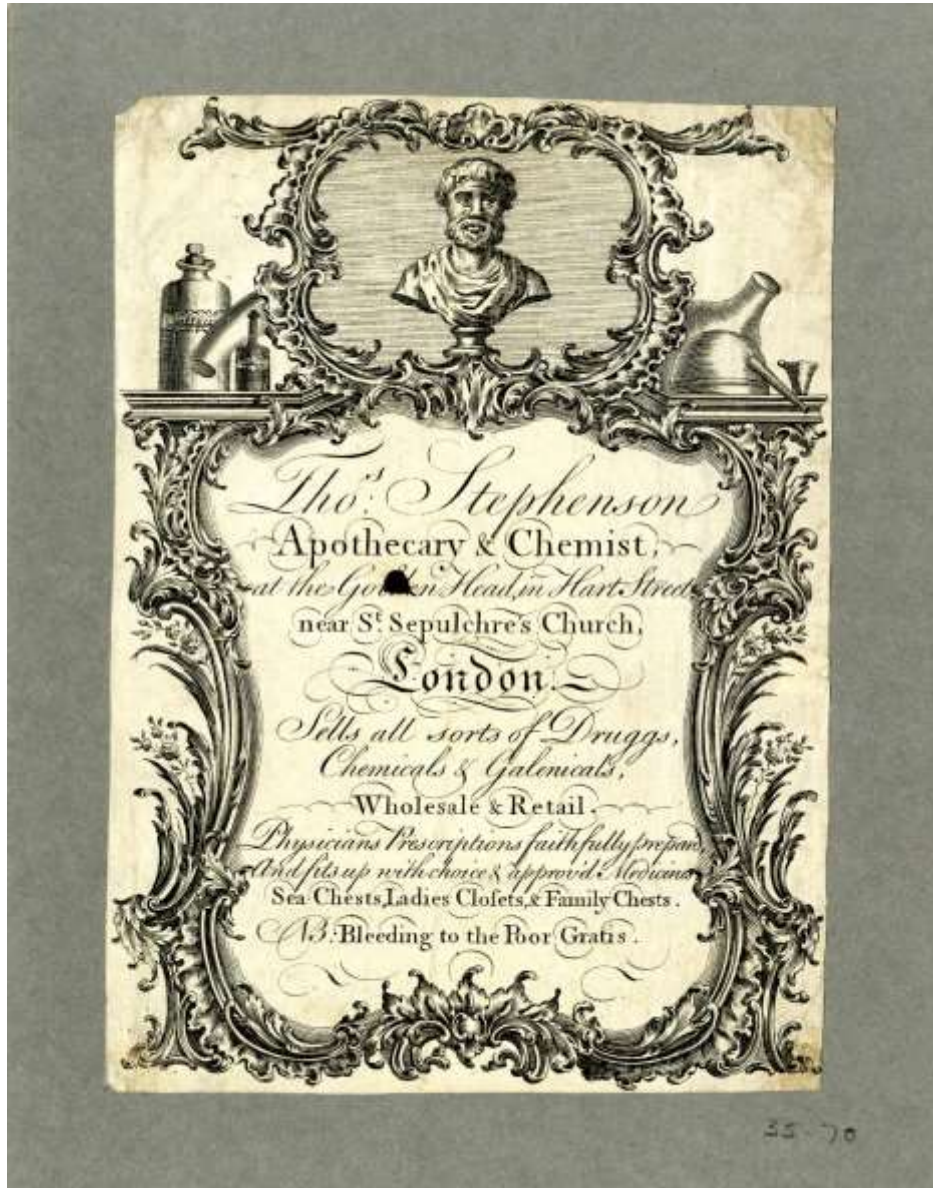


Figure 5:10. DRAFT Trade card of T. Stephenson, Chemist c.1775. Heal,35.70 © The Trustees of the British Museum (CC BY-NC-SA 4.0)





Figure 5:11. DRAFT Trade card of William Curtis, Apothecaries, nineteenth century. Heal,2.1 © The Trustees of the British Museum (CC BY-NC-SA 4.0)

There are other sources to which we can turn to analyse the depiction of apothecary shops. On the side of visual culture there are satirical depictions including 'The dance of death: the apothecary' by Thomas Rowlandson in 1816. This depicts a well-dressed, wealthy apothecary with a line of poor customers waiting to be served being assisted in making 'slow poison' rather than medicine by death themselves, depicted as a skeleton behind a curtain in the shop (see Figure 5:12). The print and the accompanying couplet ('I have a secret art to cure / Each malady, which men endure') are suggesting that death is the ultimate cure, both natural and interventionist (Wark, 1966; Paulson, 1970). Whilst we can include Rowlandson's cartoon as yet another example of the many of the attacks on apothecaries' livelihoods that persisted into the nineteenth century, it also shows us a depiction of their shops which would have been recognisable enough to allow the satirical point to be effective (Haslam, 1996: xv). We can again see the shop is lined with shelves containing a variety of painted jars containing ingredients and compounded medicines, we can see a fish stuffed and hung from the ceiling, and we can see in addition to the large mortar used by death, a small mortar and pestle in use on the counter as the apothecary is compounding medicine for the first patient. These elements then, we can assume, were at least somewhat realistic to how apothecary shops were furnished in the early nineteenth century, and through the similarities with the trade cards, in the eighteenth century too. Although as Wallis (2008: 33-34) notes in his brief discussion of this print the quantity depicted (a 'grotesque abundance') is probably an exaggeration of the recognisable material elements of these spaces. This print works as a satire because it combines those respectable and familiar elements of apothecaries' shops with the oft-repeated accusation of secret, sub-standard, or outright dangerous medicines being compounded behind this façade of the respectable tradesman and medical professional.



Figure 5:12. 'The dance of death: the apothecary. Coloured aquatint by T. Rowlandson, 1816.' by Thomas Rowlandson. Credit: Wellcome Collection (CC BY 4.0)

Beyond visual sources, evidence about the use of space and material culture by apothecaries is also to be found in the buildings in which these shops were situated. The research on eighteenth-century consumption and retailing explored in Chapter 1, and above, does not often incorporate evidence from standing buildings. Though many buildings have survived they have usually been heavily modernised and decoration, as well as interior furnishings, are removed. The space of the shops themselves can still be informative, however, and some work has been done on the surviving architectural elements of these shops (Morrison, 2003; Jenkins, 2013: 239; 2018: 42). Matthew Jenkins' work on eighteenth-century shops in York, for example, betrays the exaggerated reality of trade cards. Most show shops as large spaces furnished extensively in the latest fashion, leaving room for browsing and seating for prestigious customers, whereas there are surviving shops in York that were only seven feet across, which, with shelving and counter, would have left approximately two feet of space for customers to stand and move past each other, a far less luxurious shopping experience (Jenkins, 2018: 43).

Nos 18 and 20 Stonegate, York, however, is an extant, large, three-storey house dating to 1747 when it was built by Theophilus Garencieres, who was an apothecary (Jenkins, 2013: 143). Two front rooms formed the main shop to the south-west, and a smaller side room to the east was probably used as a compounding room for the apothecary remedies. These were decorated with simple cornices that were considered suitable for a shop room (Jenkins, 2013: 145). The room behind these in contrast is one of the finest in the house and was adorned with 'sunken panelling and a cornice enriched by both dentils and modillions' (Jenkins, 2013: 145). Jenkins (2013: 145) suggests that this room would have been used for entertaining, not just for guests of the family, but also for the more important or private clients of the

apothecary shop so that they would be able to discuss their ailments away from the public in the front shop. This suggests that the high level of decoration in this rear room was for customers as much as for guests, either of whom may be offered a seat and a refreshment to enable polite (and relatively private) conversation (Berry, 2002: 386; Jenkins, 2013: 146).

Jenkins' analysis suggests that despite what we might assume for the later eighteenth century the presence of commercial premises within the house did not, in York at least, lower the status of the building or the family who lived there, and by blurring the distinction between the shop and domestic space for high-status customers the apothecary may have been advertising the politeness of the shop, and their status as medical professionals and genteel members of society (Berry, 2002: 146; Jenkins, 2013: 93-94). One element of shop architecture which is borne out by the fabric and architectural elements of surviving Georgian shops is the high quantity of glazing, especially small panes which each framed a single jar or carboy, these can be seen in the trade cards above and are also frequently noted in histories of the spaces of retail (Morrison, 2003: 41-46, 71). Mui and Mui (1989: 50-51) and Wallis (2008: 32) especially emphasise the high rate of expenditure in furnishing apothecary shops in the seventeenth and eighteenth centuries, as much as forty per cent of the value of the shop for apothecaries in London. This level of glazing, and expenditure of furnishing, is most associated with goldsmiths which makes apothecary shops of a potentially comparable status with such luxury retailers despite serving a wider section of society (Walsh, 1995: 161-162; Morton, 2016: 154).

Although there are examples of large, multi-room, well-appointed shops, sometimes the idealised trade cards contradicted the physical reality of an apothecary's shop interior

(external depictions are likely to be more accurate as they were designed to aid a customer in finding their way to the correct shop). That disparity in the projected image and the reality of many of these shops provides some insight into the importance to apothecaries of depicting themselves in a more genteel and high-status way. Partly it is likely that this was necessary so that they could incorporate all of the elements of imagery that they needed to communicate their knowledgeability, access to ingredients, and trustworthiness. Partly it was also a tactic to elevate their status in the eyes of prospective customers, whose opinion of the profession may have been influenced by the profusion of public attacks from physicians lobbying for legislative and professional oversight. Both the imagined images of apothecaries' shops, produced for and approved of by the apothecary, chemist, or druggist themselves, as well as the reality of the shop space and furnishings evident archaeologically, allow us to see how they wished to be perceived by their customers, both those in the shop and those who were being handed their trade cards by their networks. Rather than seek the approval of their physician colleagues in the medical marketplace, it seems that apothecaries primarily concerned themselves with the opinions of their customers, engendering trust directly rather than through the acceptance of their supposed medical superiors.

### **5.3 Constructing an Apothecary**

Incorporating the visual, textual, and material evidence presented above allows us to reach a clear picture of the choices that apothecaries made when furnishing and acting in their shops, and the messages that these choices were intended to communicate. They also allow us to understand how these choices both emerged from and influenced the continual visual and material construction of the profession of the apothecary through the experience of these shops throughout the early modern British North Atlantic. This section of the chapter extends

that analysis to the archaeological and other material evidence and will present the practical steps which apothecaries took within their shops, rather than in often idealised depictions of them, to form coherent professional, and corporate identities which suggested their membership of a wider body of qualified and trustworthy medical practitioners who were up to date on the latest medical, botanical, and chemical developments.

It is worth starting with a reminder of the nature of the material evidence which can be brought to bear on these questions. The archaeological material from sites as far apart as Virginia and Norwich and separated by approximately two centuries shows a remarkable level of similarity in both visual impact in the shop and material experience in use. Tin-glazed earthenware predominates for the whole period and the colours and patterns of their decoration remain consistent despite some development in the forms which were favoured by apothecaries for their shop jars. Beyond the ceramics, which form the bulk of the archaeological evidence, there was also glassware and wooden storage vessels which indicate some diversity, though nothing else that survives is of the same level of visual impact as the tin-glazed wares. What these assemblages did not contain, and for which we must turn to museum collections to incorporate into our analysis, are vessels that could still have functioned which are rare in these contexts, and objects of high value or recyclable materials, namely metal. These, interestingly, are the stills and mortars and pestle which came to be intimately linked with the profession of the apothecary and so are key to this analysis. In constructing their shops, and acting within them in the manner expected of an apothecary, the dispensers of medicines in these centuries fit themselves into a developing corporate identity, developed a wider professional identity which was recognisable across the British North Atlantic, and used material culture, proprietary medicines, branding, and advertising to

engender trust in themselves as individual practitioners as well as the wider profession to which they, however nominally, belonged.

The first choice that apothecaries in these centuries made when furnishing their shops was to engage with and contribute to an emerging corporate identity; constructing their shops and acting within them in the manner expected of an apothecary across the British North Atlantic. This took several forms, including membership of actual corporate entities like the Society of Apothecaries or local guilds, or references to them as authorities. Whilst there is no direct evidence that any of the apothecaries whose assemblages have been excavated were associated with The Society in London or any of the guilds in provincial or colonial towns, there are indications of the power of such entities in those assemblages. The clearest example of this is the presence of a rhinoceros and an Apollo's head from the arms of the Society of Apothecaries surrounding the painted cartouches from the Stratford apothecary site in London discussed in Chapter 3 (see Figure 3:13), and pill-rolling tiles in museum collections, discussed in Chapter 2, which reproduced the arms in full and were made to be hung in the shop as a display (for an example from the Thackray Museum of Medicine see Figure 5:13).

The importance of a corporate identity can also be seen in the satirical prints and trade cards, which used elements of the arms of the London Society, or other references to it, such as the sign for 'Apothecaries' Hall' in Thomas Rowlandson's 1816 *The Dance of Death: The Apothecary* (see Figure 5:12), and the mounted rhinoceros head in the trade card of Richard Siddall (see Figure 5:5). Such references to authority, and thus legitimacy are not restricted to the arms of the Society of Apothecaries as can be seen in the use of the Prince of Wales feathers on the trade card of Woolfrey Middleditch (see Figure 5:4) and the Royal Coat of



Arms on the trade card of Thomas Townshend (see Figure 5:8). The types of authority are not the same between these examples; the London Society had status in a limited area of the country and membership could be crudely compared to a guild licence, whereas the royal authority indicated by the coats of arms are effectively an endorsement from the highest, or second highest authority in the country. Perhaps more importantly the Society of Apothecaries is a signal of meeting professional standards and knowledge whilst the royal appointment is about suggesting status. Regardless of the exact nature of the endorsement or membership (real or claimed), these examples all linked the apothecary or chemist in question with a higher authority which provided them legitimacy, or in the case of the satirical print, allowing an attack on the whole profession through the depiction of a single shop.



*Figure 5:13. English Delftware Pill Tile, Octagonal, Arms of Apothecaries Society, Bow in Left Hand of Apollo, OPIFERQVE. PER. ORBEM. DICOR, Inscribed Below. Object No. 752.489, J.F. Wilkinson Collection, The Thackray Museum of Medicine. Image © The Thackray Museum of Medicine.*

Many apothecaries also achieved civic office during their time in business, at least partially in an attempt to communicate their trustworthiness (Pelling, 2003: 18). Medical culture and identity in York, for example, could not be separated from a social landscape that valued gentility and civic responsibility as well as interpersonal connections; the medical 'faculty' was small with maybe only 5 physicians, 5 surgeons and 10 apothecaries at any given time (Brown, 2011: 17). Amongst these groups, the apothecaries were the most civically involved, perhaps because theirs was the closest medicine to a trade (Pelling, 1998: 208; Corfield, 2009: 8). The same pattern appears to have also been repeated in other towns and cities across Britain. Robert Buxton, for example, the earliest proprietor of the apothecary shop excavated in Colchester, was the Mayor on two occasions (Cotter, 1999: 168). Achieving these offices required the freedom of the town or city in which an apothecary traded and that was most usually granted through membership of a trade guild (Brown, 2011: 21). The achievement of these offices would have made a clear link between the apothecary, respectability, and local authority in the minds of their customers, and indicated the apothecary was examined and properly apprenticed before being admitted to the guild. This was as close as customers could come to seeing the credentials of the apothecary from whom they were buying their medicines. The importance of these institutions is shown in Charles Goodall's attacks on the Society of Apothecaries which he used as a route into membership of the College of Physicians. Goodall published *The College of Physicians Vindicated* in 1676 in response to previous pro-apothecary publications. His pamphlet characterises the Society of Apothecaries as a group of 'empiricks ... united into a confederacy and fortified by a common stock' and suggested that the Society 'barbarously assaulted' the College of Physicians (Goodall, 1676: 1). Goodall's reward for his vocal support of the College and opposition to the Society was permission to take the entrance exam to the College of Physicians, advancing to candidacy in

1676 but being passed over for fellowship until 1680 (Cook, 2004). Goodall used the opportunity to attack one corporate symbol of status to join another.

These corporate identities were not the only identities that apothecaries were claiming through their material culture and advertising, there was also a developing professional identity from the seventeenth century that created a largely common experience of shopping at an apothecary in the British North Atlantic. As emphasised in Chapter 3 and Chapter 4 the ceramic material culture of the apothecary shops across seventeenth- and eighteenth-century British North Atlantic was remarkably consistent in form (albarelli and barrel-shaped or spouted drug jars), fabric (tin-glazed earthenware), and design. The earliest seventeenth-century polychrome Dutch albarelli from the site at Lion Walk in Colchester and the early English polychrome examples from Wood Street in London could have been produced at the same pothouse looking at the similarity in their decoration (see Figure 5:14). The later seventeenth-century blue and white albarelli in Dublin, Norwich, and at No. 1 Poultry in London, as well as the eighteenth-century examples from the Gilmer Household in Virginia, and Eagle House in London, are also all startlingly similar despite their production spanning a century and at least two countries (see Figure 5:15). The late seventeenth-century cartouche decorated drug jars from Stratford (see Figure 3:13), and the eighteenth-century ones from Brentford, and Eagle House (see Figure 5:16) are also strikingly similar. In all of these comparisons there is a remarkable consistency and similarity in the visual and material experiences that a customer of these shops would have encountered due to the ceramic material culture. Even between these categories, the form of the decoration is similar between the polychrome and the monochrome albarelli; each display geometric patterns painted on the surface of cylindrical jars with a pinched neck. Moreover, the colours used in

the decoration of the otherwise white ceramic are the same between the later albarelli and the jars bearing cartouches; cobalt blue and manganese purple or black. This overwhelming coherence in the material culture set meant that the shop furnishings became synonymous with the profession of the apothecary. This can be seen in the fact that within the seventeenth-century Pickleherring Pottery's inventories more than a quarter of the products that they produced were described as 'Apothecaries Wares' (Britton, 1993: 64).



*Figure 5:14. Early seventeenth-century polychrome albarelli from Lion Walk, Colchester. COLEM:1986.65.4389 and COLEM:1986.65.4390, photographs © Colchester + Ipswich Museums, reproduced by permission. These can be compared to the albarelli from Wood Street, London which are available from <https://www.mola.org.uk/blog/apothecary-wood-street> <08/07/2020> © Museum of London Archaeology.*



Figure 5:15. Late seventeenth-century and eighteenth-century blue and white albarelli with occasional manganese black or purple. Top Left from Kevin Street Dublin (photograph courtesy of Archaeological Projects Ltd. reproduced with permission from McCutcheon, 2018: figure 7). Top Centre from London Street, Norwich (drawing by Author, adapted from Jennings et al., 1981: Figure 93, 1481). Top Right from No.1 Poultry London (drawing by Author courtesy of Museum of London). Bottom Left, left to right, unique vessels 01126, 00426, 01130 from the Gilmer Household, Williamsburg VA, photographs by Author, reproduced by permission of The Colonial Williamsburg Foundation. Bottom Right from Eagle House London (202), photograph by Author, courtesy of the Museum of London.



Figure 5.16. Wet and Dry Drug Jars with contents labels in decorated cartouches. Left from High Street Brentford, drawings by Author, adapted from Canham (1978: 101). Right from Eagle House London (200), photographs by Author, courtesy of the Museum of London.

The use of tin-glazed wares as the standard apothecary ceramic for more than two centuries was not simply a matter of proximity or convenience, Dutch tin-glazed wares were also used, and this ceramic communicated messages which were desirable for apothecaries to present to their customers and patients. Delftware and other tin-glazed wares were a cheaper alternative to the high-priced imports from China whilst maintaining many of the finer ceramics' social qualities (Odell, 2018: 181). The associations of this white ceramic with cleanliness and wellbeing are recorded as early as the late sixteenth century when it was compared to alabaster and sapphire (Finlay, 2010: 69-70). The comparison with precious gemstones and minerals used for religious statuary gives some idea of the value-system to which tin-glazed earthenware was aspiring and some of the associations that large quantities of it would evoke in the shop of an apothecary.

In addition, early porcelain-like ceramics upon which tin-glazed wares were based were considered appropriate for storing medicines in the South China Sea and Indian Ocean regions as early as the twelfth century (Lambourn & Ackerman-Lieberman, 2016: 218). In Middle Eastern contexts this was likely due to the perceived resistance of fully glazed (internally as well as externally) ceramics to pollution and the ease with which they could be ritually purified so that they were considered suitable for kosher use amongst the Jewish community (Lambourn & Ackerman-Lieberman, 2016: 225-226). Although this was not a universal rabbinic opinion these associations are likely to have travelled with Middle Eastern migrations into Europe and so be linked with the 'rediscovery' of ancient medical texts that came through Christian – Muslim interactions along the same routes into Europe in the middle-ages. It is natural then that the European approximations of these fabrics, with their clean white glazes

internally and externally, came to be considered universally suitable for medicinal storage by the seventeenth century.

The consistent material culture set used by apothecaries, and the experience of the apothecary shop that it created, reinforced the coherence of the profession across the British North Atlantic and the seventeenth and eighteenth centuries. The shelves of tin-glazed drug jars would tell the customers of an apothecary that the proprietor was a member of the profession, who was storing their medicines correctly, was well trained, and produced effective medicine, because their show was conforming to the expectations their patients had for the appearance of an apothecary shop. This consistency was almost entirely within the interior of the shop and so customers would have needed to be familiar with more than one apothecary shop to understand this consistency. However, as discussed throughout this thesis apothecaries were ubiquitous, with a fifth of households on Cheapside in London being apothecaries and even a remote town such as Brecon having nine of the county's eleven apothecaries practicing within its boundaries, so familiarity with more than one apothecary was likely commonplace (Pelling, 2003: 109; Withey, 2011: 228-230). This was true even in colonial cities. Apothecaries in Dublin and Williamsburg for example could refer to the material culture of London, seeking comparable status as the shops of the national capital, and engaging with North American and Irish elites who were familiar with that city's shops. Similarly, Norwich was the second city in Britain at this time and had significant trade and population exchange with London, whilst Colchester was, and remains, a county town with strong links to both London and Norwich, so familiarity with a wide variety of apothecaries' shops was probable for the mobile classes in these population centres.



The ceramics which were fundamental to this consistency were also not cheap and would remind a viewer of high-priced Chinese porcelain, suggesting wealth, status, and success in business which would engender greater trust from the customer (Pierson, 2012: 23). One effect of using a material culture set like ceramic jars to signify membership of the profession was that it was a low bar for successful (with access to capital or credit) but uncredentialed people to essentially furnish their way in; this can be seen archaeologically in the shop of Jacob Ryckmann in Dublin's liberties who was probably not free of the city and was likely the case in at least some of the London shops whose proprietors may not have been free of the Society of Apothecaries (see Chapter 4 and Chapter 3). This danger, echoed by the concerns of the pamphleteers discussed earlier in this Chapter, would however have been a necessary cost of the professional and corporate consistency across the British North Atlantic in these centuries. The consistency evident in these constructions of corporate and professional identity was also reflected in the stocking of branded and recognisable proprietary medicines.

Although now considered to be definitionally quack remedies, in the early modern period patent, or more properly proprietary, medicines were stocked by respectable apothecaries and they served to suggest that the apothecary was at the forefront of modern medicine; stocking the latest products which were marketed directly to the consumer (Porter, 1989: 141). As early as the seventeenth century, the importance of named, proprietary, or patent medicines to the trade of apothecaries was well documented. Nicaise Le Fèvre, the Apothecary in Ordinary to the French King, for example, wrote in his 1664 *Discourse upon Sr Walter Rawleigh's great cordial* that named medicines were valuable, especially those with which the originator became synonymous due to their commitment to 'give the Publick those good Remedies which they had attain'd to by Practice and Experience' (Le Fèvre, 1664: 2).

While none of the sites detailed in Chapter 3 and Chapter 4 included evidence of the specialist packaging of proprietary or patent medicines that developed in the eighteenth century there are archaeological examples of this kind of material culture which otherwise only occasionally survive, highlighting the value of archaeology to this kind of research. These bottles were extremely distinctive and would have had their own influence on the visual and material experience of the apothecary's shop and the process of purchasing medicine (for two examples of Turlington's Balsam Bottles excavated in colonial contexts see Noël Hume (1969a: 34) and Watters (1981)). These distinctive bottles were such important elements of the material culture of apothecary shops and the medical marketplace that they were often refilled and even, in North America, imported empty to be filled (Young, 1961: 14; Parascandola, 1976: 809; Busch, 1987: 69; Cassedy, 1991: 6, 11; Cox, 2004). This indicates that the bottle was what was driving both purchases and was the most important element for the patient to trust the medicines that the apothecary was selling.

A further value of stocking these medicines for apothecaries was that they were commonly advertised in the press; they were the second most commonly advertised products after books in eighteenth-century newspapers according to research by Claire Walsh (2000: 80), and so were a tool for attracting extra customers. These advertisements were paid for by the manufacturers of the proprietary medicines and they ended the advertisements with a list of stockists, so stocking these medicines could lead to the business appearing in one of these advertisements (Walsh, 2000: 80). Additionally, stocking them suggested that the apothecary was up to date and knowledgeable regarding the best and latest medicine in the market which would create a sense of trust in their judgement in their patients who had already been informed about, and persuaded by the efficacy of these medicines through advertising. These

distinctively formed medicine bottles serve to link the apothecary shop and the developing professional and corporate identities expressed therein to wider processes of commercialisation which were accelerating from the mid-eighteenth century into a form which is somewhat familiar to shoppers today.

There was also a significant element of performance in the compounding of medicines in the shops of apothecaries that has been analysed by Patrick Wallis (2008: 36). Performative compounding was done for a combination of practical and social reasons; the final stages of preparing the pills, powders, or unguents that the customer in the shop was purchasing, as well as reassuring the customer that the medicine that they were purchasing was genuine and compounded by the apothecary themselves (Wallis, 2008: 36). Moreover, this performance served to reassure the customer that the ingredients in the medicine were those detailed on their prescription if they had one, or in the pharmaceutical recipe book that the apothecary was supposed to be working from, combating the accusations that apothecaries improperly substituted ingredients. The customer or patient could see that they were getting what they paid for. Most prominent amongst these performances of pharmacy was grinding ingredients using 'the best mortar and pestle'.

Mortars and pestles are rare in archaeological contexts for this period as they were usually made of valuable and recyclable metals. There are examples in museum collections though that show the size and ornamentation of shop mortars. The Stabler-Leadbeater Apothecary shop museum in Alexandria, VA has a display of three stone or ceramic mortars and pestle as well as one small metal one displayed in the shop space ready for use on the counter in front of patients (see Figure 5:17). They also appear in most of the detailed probate inventories of

apothecaries' shops such as Edward Willson's large and medium brass mortars, and two marble ones in 1661 (TNA, PROB 4/3542), or Richard Worcester's two each large and small brass mortars and two stone mortars in 1694 (TNA, PROB 32/32/97) (see Chapter 3 and Chapter 4). The centrality of the mortar and pestle, and more specifically one of the correct material, to the work of the apothecary is also confirmed in the lists of necessary equipment to furnish an apothecary discussed above, and in trade cards such as that of Christopher Woodhouse (see Figure 5:7), confirming their importance for both the creation of medicine and their performative use in the shop. This performative aspect of medicine was important enough that the mortar and pestle came to be a symbol that apothecaries used as their shop sign, and even on their trade tokens. In T.D. Whittet's (1985, 1989) studies of Dorset and Lincolnshire trade tokens of apothecaries they note that after elements of the arms of the Society of Apothecaries (Apollo, and a rhinoceros being most popular), the motto of the society, or the arms of the City of London, the most popular symbol used by apothecaries was a mortar or a mortar and pestle. The apothecaries were symbolised by their material culture in currency, and the material culture that was most impactful was the equipment used in the shop to show customers that the medicines were being produced expertly and that they would therefore be effective. This is why the Rowlandson cartoon (see Figure 5:12) is so effective; the performative compounding is still being carried out by the apothecary in the front shop, but despite this action supposed to confirm the efficacy of the medicines the primary production of the medicines is done out of sight by Death.

The performance of compounding also highlighted another element of the apothecary's manipulation of space and material culture to engender trust in their patients and customers, the highly organised nature of their shop stock, both simples and compound medicines. The

labelled jars and drawers (see Figure 5:16 for examples of the jars, and Figure 5:18 for examples of the drawer fronts), especially in the eighteenth century, made use of Latin and by doing so referenced the new systems of botanical classification which were beginning to take hold in the scientific community whether or not they used the same nomenclature. These links would have been visual triggers to the customer which would suggest that their apothecary was not only medically knowledgeable but that they were linked to the emerging sciences of botany and chemistry.

In his book *The Mind Is a Collection: Case Studies in Eighteenth-Century Thought* Sean Silver sets out the argument that a variety of environments constructed through material culture were reflective of early modern modes of cognition, and that developing modes of cognition in the long eighteenth century in turn influenced human-constructed environments (Silver, 2015: 269). The shops of apothecaries reflect this theory; the organisation of their shops was influenced by developments in knowledge creation and exchange that occurred through the seventeenth and eighteenth centuries, and the organisation of those shops, in turn, influenced the systems of thought that were developing through those centuries. Crudely put, the orderly arrangement of the stock in the shop also communicated something important. The competence of the shopkeeper was reflected in the drawers and boxes; they suggested that the mind of the apothecary was also ordered and further that they were knowledgeable about the ingredients and medicines they stocked from all over the world (Hann & Stobart, 2005: 171-172). Furthermore, the fact that these containers were labelled in Latin would suggest the apothecary had the social status of a grammar school or university education, although most apothecaries would have learnt their trade through apprenticeship and may have had minimal formal schooling.

Apothecaries, then, leveraged their material culture to create and be created by a developing corporate identity, a recognisable professional identity, and to advertise their engagement with the latest medical developments in proprietary remedies. In doing so they countered the accusations that they were improperly compounding, through performance and organisation, that they were improperly encroaching on physic, through an emphasis on their pharmaceutical skills and knowledge, and that they were avaricious, through the visible investment in their shop furnishings.



*Figure 5:17. Four mortar and pestle of various sizes and materials displayed in the shop ready for use at the Stabler-Leadbeater Apothecary Shop Museum, Alexandria, VA. Photograph by Author, courtesy of the Office of Historic Alexandria.*



*Figure 5:18. Late eighteenth-century green and gold painted drawer fronts from the Stabler-Leadbeater Apothecary Shop Museum, Alexandria, VA. Top, RAD:MEZERE, roots of Mezereum, a flowering herb used to stimulate the kidneys and ease nausea and purging (Wood & Bache, 1849: 460-462). Bottom, SAGO., a starch derived from a variety of Indian Ocean originating palms used to form the body of a sweetened and spiced drink for 'febrile' cases (Wood & Bache, 1849: 620-622). Photographs by Author, courtesy of The Office of Historic Alexandria.*

## 5.4 Conclusions

Attacked by physicians and other commentators, apothecaries in the seventeenth and eighteenth centuries had to work hard to defend their trade and their position as medical practitioners until this was confirmed by statute in 1815. To do this they deployed the material and visual experience of their shops. By examining visual and archaeological sources, we see that apothecaries used a highly constructed image, developed using tin-glazed earthenware, performative pharmaceutical compounding, the stocking of the latest proprietary medicines, and the highly organised nature of their shops to engender trust in their patients and customers as well as communicate their knowledgeability and thus the efficacy of their products. Moreover, printed pamphlets and material evidence demonstrate that apothecaries also took other measures to engender such trust through indications of membership or relationships with high-status guilds and the achievement of civic office such as mayoralties. The success of this material identity in defending the position of the apothecaries in the British North Atlantic medical landscape is confirmed by their continuance despite the series of attacks, spanning more than two centuries, made against the profession by the College of Physicians. Central to their success was the creation of a coherent and consistent visual and material identity. The value of this coherent material and visual identity is also evident in its inclusion within depictions on trade cards used as advertisements and the widespread adoption of the recognisable material culture of blue and white tin-glazed ceramics by apothecaries operating throughout the seventeenth and eighteenth centuries in London, East Anglia, Dublin, and Virginia.

In this way, the choices of individual apothecaries when furnishing and stocking their shops influenced their profession as a whole and as the profession standardised its material



expression that set of visual and material cues came to be expected by the consumers of early modern pharmacy. This in turn influenced the material choices of apothecaries setting up their shops and so came to spread across the seventeenth- and eighteenth-century British North Atlantic in a remarkably coherent and consistently recognisable form. One other part of this material and visual professional identity was the incorporation of taxidermy and other scientific specimens into the décor of apothecary shops. Combined with the Latin labels of drawers and jars indicating simples that could only be imported, whether from the Americas or Asia in England, or from Europe and Asia in Virginia, these specimens added a key element to the apothecary's shop and the experience of shopping there; access to the products of the rest of the world and, in the eighteenth century, incorporated these spaces, their proprietors, and their customers into the burgeoning British Empire. It is how apothecaries used material culture to mediate these interactions that will form the focus of the next chapter.

## **Chapter 6 - Introducing the World: Acceptance of medical commodities, knowledge, and new ways of thinking through the material choices of apothecaries**

Much has been made of the movement, acquisition, and adoption of new global commodities in the early modern period, especially the long-eighteenth century. Insightful examples include Giorgio Riello's (2013a) *Cotton* and Jennifer Anderson's (2012) *Mahogany*. The first of these is a global economic history that uses cotton and cotton fabrics as its lens, investigating the role that this commodity played in global trade from the medieval period until the twentieth century. The second is concerned with the ways that commodities and materials (in both raw and refined states) were adopted and accepted, and in turn exerted influence on, early modern and nineteenth-century development of European societies. It is this second approach, looking at the adoption, acceptance, and influence that imported and 'exotic' products had on the consuming public that this chapter focuses on. Specifically, the focus is on the acceptance of new *materia medica* introduced to North Atlantic apothecary shops from the Americas and South Asia in the seventeenth and eighteenth centuries. This chapter is illustrative of the utility of studying apothecaries and their shops to enable enquiry into broader historical themes in the seventeenth and eighteenth centuries; in this case the apothecary shop can inform us about the acceptance of medical innovations, imported materials, and global and imperial trade and exchange.

A closer parallel than cotton or mahogany for the medical products in question is perhaps to be found in Sara Pennell's (2009) paper 'Recipes and reception: tracking "New World"

foodstuffs in early modern British culinary texts, c. 1650-1750' which examines the acceptance and uses of imported foodstuffs from the Americas in both printed and manuscript recipe collections. Looking beyond the standard examples of tea, coffee, and sugar, which Pennell explains are not strictly 'new world' produce as they are not native to the Americas, she examines the adoption and acculturation of potatoes and chocolate through their differing roles in culinary recipes. Pennell (2009: 12) is concerned with 'taste and familiarity', factors which also affected the consumption of medicine. She notes however that in 'pharmacopoeia, novelty was a factor to value' whereas in foodstuffs 'familiarity is arguably the guiding principle'. Focusing on recipes and analysing how chocolate and potatoes were utilised through the late seventeenth and early eighteenth centuries Pennell (2009) tracks the use of these commodities as ingredients in familiar recipes to demonstrate the trajectories of their acceptance into consumption, rather than as foodstuffs in their own right. Similar processes were at work in early modern therapeutics; new ingredients were valued for their novelty but had to be embedded within recognised systems of medicine, and the familiar space of the apothecary shop, to be accepted into consumption and eventually to become embedded in medical practice (Wallis 2008). This chapter examines how proprietors shaped and utilised the visual experience and material culture of the apothecary shop to facilitate the acceptance of new materia medica within medicinal preparations.

Studying examples of material culture which were used in the various spaces where people encountered new global, imported consumables is not without precedent. In both the archaeological and historical literature much has been written about spaces of encounter with coffee and chocolate both in the Americas and Europe (for example Cowan, 2005; Norton, 2006, 2008; Cessford *et al.*, 2017), and the material culture of tea in domestic

inventories up and down the social order (for example McCants, 2013; Blondé & Ryckbosch, 2015; Ellis *et al.*, 2015). Marcy Norton's work has particularly highlighted the importance of considering sites and spaces when studying processes of appropriation. Unlike the spaces of encounter with stimulant beverages, where specific imported products were consumed in particular social and cultural contexts, the apothecary shop was a space of broad encounter with a variety of the products of a global trade in medicinal plants and knowledge that were consumed in several different ways. It was a space of anxiety where harm and healing were intimately associated, and the unfamiliarity of the materials which apothecaries sold forced them to work hard to introduce and contextualise these products within systems of medicine and acceptable consumption so that they might provide care for their patients, and profit. Although apothecaries were in many respects specialist retailers as well as medical professionals, they served a wide section of the population who were most likely more concerned with the nature of the strange products which they were purchasing for consumption than customers at coffee and chocolate houses where the sociability of the setting contributed to the acceptance of the consumables served there (Maydom, 2020: 214). Therefore, as spaces of encounter, they are perhaps the most significant arenas in which ordinary people were confronted with the products of colonial expansion and global trade in the seventeenth and eighteenth centuries, if only because of the importance of these products for healing.

### **6.1 Two Categories of Knowledge**

Apothecary shops sit at the intersection of many processes which enabled the introduction, understanding, and acceptance of *materia medica* in the seventeenth and eighteenth centuries. These processes can be divided into two 'categories' of knowledge each of which

must be understood to enable a full analysis of the ways that apothecaries introduced new consumable products to Britain, Ireland, and British North America. The first is 'scientific' knowledge; that is the knowledge acquired, exchanged, and published by pioneers in botany, chemistry, and academic medicine. That 'science' was concerned with the definition of the properties of new plants as well as their potential utility. When combined with commercial imperative this knowledge was leveraged to create profitable products which would ideally become widely consumed. The second is 'popular' knowledge; the knowledge of dietary and medicinal plants that was held and circulated by consumers, regarding their suitability for consumption, utility for treatment, and the ability to recognise those plants in shops. Using popular knowledge, the profitable products derived from the 'scientific' knowledge networks were embedded by apothecaries into acceptable, even unremarkable consumption for medical purposes. In this way they were more likely to be purchased by a broad section of the public. Such a process made the apothecary a profit and created an overlap between the scientific knowledge and popular knowledge of these medicines in the space of the apothecary shop. To examine the encounters between ordinary customers and imported medicines then, we must first examine how knowledge of products, such as sassafras, sarsaparilla, and Peruvian or Jesuit's bark, reached apothecaries and how they became incorporated into British medical knowledge via the developing disciplines of chemistry and botany. Only then can we explore the place and presentation of these new products and knowledge within the space of the apothecary shop, where the material and visual choices that the apothecaries made carried messages about these networks and systems of knowledge exchange, both the global scientific and commercial, as well as the individual commercial transactions with each customer.

### 6.1.1 Scientific Knowledge Reaching Commercial Spaces

The interchange between science and commerce – key to the way that apothecaries gained knowledge and experience of new *materia medica* – does on occasion get discussed in the history of science. Schiebinger (2004) and Easterby-Smith (2017: 142) for example examine this interchange as a part of debates about what was the driving force for colonial, imperial, and individual botanical exploration and collecting. However, the specific place of apothecaries in this arena is often overlooked, despite their position as a ‘nexus of commercial ambition and scientific curiosity’ (Weisberg-Roberts, 2014: 101). Apothecaries were situated at the centre of both spheres and used the commercial imperative of their trade to introduce new scientific knowledge to the public, as did dyers, distillers, and chemists. Alicia Weisberg-Roberts (2014: 87) has persuasively argued with reference to dyeing that even though merchants and artisans are usually excluded from the histories of science they were integral to the production and exchange of scientific knowledge, emphasising that ‘the reproducibility of results in the experimental culture of dyeing was judged not by the academy, but by the market’. It was the same in the medical field; patients had to believe that the remedies they purchased were effective to become repeat customers of an apothecary. These points have also been made by Patrick Wallis and Catherine Wright (2014: 138) and Harold Cook (2007: 416), who argue that artisanal (and therefore commercial) knowledge was not discrete from the knowledge of scientific bodies in the eighteenth century and that ‘manual and commercial works’ added as much to the sum of human knowledge as natural philosophy did, with both global commerce and global knowledge forming the foundation of modern science. Or, as Pamela Smith (2004: 238) has noted artisans ‘*knew* nature through the practice of their bodily art’ despite a ‘culture that viewed them as socially and intellectually inferior because of their bodily labour’ and retail premises.

Apothecaries then were engaged in or interested by the production of medicinal and scientific knowledge. The clearest demonstration of this is that more than half of the fellows of the Royal Society in the seventeenth century were interested in medicine and pharmacy (Armytage, 1954: 28; Trease, 1964: 137). These individuals, some of whom were wealthier apothecaries, spent their spare time in scientific enquiry especially focused on botany which had developed out of herbalism into a recognisable scientific study (Schmeidler, 1944: 77; Trease, 1964: 111; Francis, 2014: 229-230, 235). Apothecaries outside of London, and consequently the centre of the Royal Society and scientific advancement, were still intimately related to those networks of knowledge exchange. The Welsh probate inventories discussed throughout this thesis included a diverse set of texts and refute the idea that these were 'rustic' practitioners; instead there was great interest in the latest improvements in their profession and, although not usually university educated, these individuals could be called learned (Withey, 2011: 241-242). The same is true in colonial North America where many early colonial thinkers such as Benjamin Rush, who was a leader in the American Enlightenment and a physician, were often supported by their medical practice or work as teachers (Shyrock, 1949: 283-284, 286; Stearns, 1970: 5).

Such learning took place in different institutions and spaces, including shops, universities, schools and laboratories. The materiality of these spaces, and the specific material culture they contained, is of paramount importance for understanding how such learning took place. Apothecaries engaged with and created knowledge in two key areas of early modern natural history: botany, and medicine. Understanding the importance of manual, materially embodied, and commercial systems of knowledge and experimentation to the medical marketplace and the scientific establishment in these centuries is crucial for explaining how

new imported products came to be accepted by apothecaries and other medical professionals in Europe and European colonies. The process of discovery and collection of botanical samples, and their eventual incorporation into botanical and medical systems of knowledge, were influenced by a range of agendas in the eighteenth century, but fundamental to most of these, including imperial expansionist agendas, required that newly discovered plants be exploitable for the profit of those who sponsored the voyages of discovery (Easterby-Smith, 2015: 182, 199). This fundamental focus on commerce and profit caused the increase in the numbers of merchants, with apothecaries represented, who were actively engaged with the scholarly networks of the seventeenth and eighteenth centuries.

Whilst the position of apothecaries in these correspondence networks has often been overlooked in favour of botanists or prominent scientists such as Sir Hans Sloane, there were many apothecaries who corresponded with people across the world to acquire new knowledge and specimens related to healing (Stewart, 2003: 833-834). Notable amongst them was James Petiver, a late seventeenth-century London apothecary, collector, botanist, and a Fellow of the Royal Society whose papers may comprise the most complete record of an early modern apothecary's practice in Britain (Maydom, 2020: 213). Interest in such correspondence networks and the value of them to early modern science and medicine is a phenomenon of the last three decades in the history of science. There has been an increasing focus on the 'processes of communication and circulation of knowledge', and a rejection of bio-essentialism, the idea that the popularity of new consumables was due entirely to their effects on the human body. Newer studies in this area instead centre on the social and cultural factors which influenced the adoption of new plants into botanical and medical systems of



knowledge, especially early modern ideas of utility and commercial viability (Meredith, 2009: 156-157).

The records of Petiver's medical practice have recently been analysed by Katarina Maydom (2020) to examine how American drugs were integrated into late seventeenth- and early eighteenth-century British medicine. Petiver saw his botanical collecting, interactions with scholarly networks, and his apothecary practice as fundamentally intertwined, and his extensive network in the American colonies was essential to his enthusiastic adoption and prescription of American herbal remedies which he believed would improve medicine (Maydom, 2020: 214, 219). In this pursuit he created a collection of natural rarities and medicinal plant specimens and kept detailed records of their origins and commercial viability, and he regularly prescribed them to his retail and institutional customers (Maydom, 2020: 221-222). Petiver was not necessarily representative of all apothecaries. He was prominent in both his profession's London society and a learned society, and as the 'centre of a global network of correspondence' he was an influential figure (Maydom, 2020: 214-215, 2020). Furthermore, his networks allowed him to include plant specimens in his medical practice that other apothecaries may not have had access to (Maydom, 2020: 237). This lends credence to interpretations of the introduction of new medicinal plants as being driven by those at the top of the profession and trickling down to less well-connected apothecaries. However, there is ample evidence that provincial apothecaries, and those at colonial ports, would have had access to such materials through less formal networks of trade and correspondence.

Beverly Lemire (2015: 313) has examined the networks of British mariners in the seventeenth and eighteenth centuries and has found evidence of both long-distance and domestic maritime sailors engaging with informal trading networks in which apothecaries and other retailers were amongst the largest 'occupational group'. Through these informal, and potentially illegal means, apothecaries at ports around Britain and across the British North Atlantic would have gained access to the material culture and botanical resources that were formally traded along networks that apothecaries like Petiver would have had access to. The regular commercial trade across the Atlantic, and around the coast of Britain, when combined with the dissemination of pamphlets and books as well as personal correspondence by those central figures extolling the virtues of the imported medicines, made it relatively easy to incorporate them into wide-scale acceptance amongst scientifically minded individuals and medical practitioners (Harris, 2006: 350; Maydom, 2020: 219-220).

Evidence of these networks can be seen in records of the import and regular dispensing of North American medicinal simples; *materia medica* which was necessarily imported and knowledge of which had to be spread for them to be considered medicinally useful. Examples of this can be found in seventeenth-century manuscripts such as an anonymous stock book held at the Wellcome Library in London and dated to the late 1630s, which includes an entry for 'Sassafras', which is a root bark from one of three North American deciduous trees, worth 1s. 6d. (Wellcome, MS. 7646: f. 99 r). Another example comes from a casebook from Stratford-upon-Avon written by the physician John Hall, who was the son-in-law of William Shakespeare and practised medicine in the West Midlands in the early- to mid-seventeenth century. In a new translation of his casebook, originally composed in 1634-5, it has become clear that Hall had a large library of medical books, and also prescribed North American

simples regularly in his practice including 29 uses of Sassafras and 32 uses of Sarsaparilla, a North American shrub in the ginseng family (Wells, 2020). The use of these ingredients regularly by a physician in a small market town in central England, and Hall's extensive library, makes it clear that there was a reliable supply at local apothecary shops and reinforces the idea that apothecaries at all levels were integrated into a complex network of knowledge and material exchange which enabled the spread of these imported simples as part of medical practice through the seventeenth century.

The examples above begin to suggest at the practical method by which samples from the Americas were likely introduced to the apothecaries and botanists of Britain and across the British North Atlantic. However, the question of how the plant specimens' medical utility, and thus commercial viability, was established remains. Prominent men like Petiver and Sloane had a role to play in establishing these qualities of the imported plants through their curiosity, collecting, and publications, however, there were other factors which influenced how such products were incorporated into British medical practice. The first factor was the collection and re-contextualisation of indigenous knowledge surrounding the consumption or use of these plants. Botanical prospectors, traders, and medical practitioners in the colonial settlements of British North America relied on indigenous or local knowledge for their initial information on the use and preparation of the new botanicals soon to be incorporated into the English medical marketplace (Schiebinger, 2004: 75). The value of exploiting 'new world' plants for medicine and eventually foodstuffs was recognised from the late fifteenth century in the Spanish Atlantic and from at least 1607 in the British (Blanton, 2003: 191; Freedman, 2005; Horning, 2013: 293). This means that in addition to the intelligentsia, and the commercial classes, there were also indigenous peoples throughout the world whose

knowledge came to be fundamental to what is now called science (Cook, 2007: 41). Fenton (1942: 514) and Arnold (1988: 11) both note that European colonisers in North America adopted local ingredients, and to differing degrees, indigenous knowledge, in the seventeenth century, justifying this use of indigenous knowledge because they were encountering illnesses that were unknown in Europe (Schiebinger, 2004: 78-79; Charters, 2012: 228, 230). Nevertheless, indigenous knowledge, which was often 'tightly associated with religious and spiritual beliefs' and therefore initially considered strange and unsuitable for European consumption, to the point that it was rejected in the face of starvation, was, when recontextualised, integral to developments in botany and medicine in these centuries (Blanton, 2003; Easterby-Smith, 2015: 182; Fertig & Pfister, 2016: 230; Crawford & Gabriel, 2019: 7). There is not a large amount of historiography directly addressing this interchange and the place of oppressed peoples in the knowledge networks of the seventeenth and eighteenth centuries. What scholarship there is tends to promote problematic descriptions of the relationship between enslaved persons and the plantation owners who appropriated their medical knowledge. Schiebinger (2004: 80) for example refers to 'voyaging slave naturalists' and 'slave doctors' when discussing the fact that we cannot know with any precision how much African herbal knowledge was transferred across the Atlantic.

Accounts of such indigenous knowledge and associated practises relating to new *materia medica*, written by prospecting Europeans travelled along with botanical samples to Europe and were often the basis, alongside prevailing medical theory such as the doctrine of signatures, for the European understanding of these new plants. Then individuals such as Petiver or Sloane collected, analysed, and published observations on these plants which enabled their medical and commercial utility to spread through domestic correspondence and

publications networks, exchanging the developing knowledge of these *materia medica* across the country and to many individual practitioners. The process of (re)discovery and recontextualization for European consumption was a familiar one to medical professionals, who, from the fifteenth century in Europe had (re)incorporated textually familiar *materia medica* from classical authorities such as Pliny the Elder's *Natural History*. In the medieval period this was a process which became possible thanks to the expansion of reliable trade routes into the Middle East and Asia by Venetian and Genoese merchants. This practice of incorporation then could be easily applied to the truly unfamiliar simples and compounds which came into European medicine from North America (Cook, 2007: 22-24).

'Scientific' analysis, publication, and observation then recontextualised American substances for use in Europe and separated them from the ritual or dietetic context in which they were used by indigenous peoples, transforming or erasing cultural knowledge with formal European classifications (Olwell, 2005: 267; Pennell, 2009: 27; Fertig & Pfister, 2016: 222, 230). Influential books on the new *materia medica*, whose sale and lending formed part of the domestic networks of knowledge exchange mentioned above, were often written by authors who had never been out of Europe. These authors were integrating second-hand knowledge acquired through correspondence with bio-prospectors and colonists, as well as study of botanical samples sent back to Europe, with pre-existing European ideas about the pharmaceutical efficacy of plants and European methods of observation and classification (Charters, 2012: 223, 225; Fertig & Pfister, 2016: 230). Famous examples of these texts include the herbals of John Gerard (1633) and John Parkinson (1640: 1614), who specifically noted that 'most of the chiefest drugges in our apothecaries shops ... come to us from forraigne

parts,' a view which is corroborated by the fact that twenty-five times more drugs were imported in the late seventeenth century than in 1600 (Cowan, 2005: 34-35).

Apothecaries then were integral to the adoption and integration of imported herbal remedies into British medicine; they formed key parts of correspondence networks, both formal and informal, across which knowledge and specimens were exchanged (Lemire, 2015; Maydom, 2020). As actors in these networks they collated and recontextualised indigenous knowledge, integrated the new plants into existing systems of classification through comparison to plants identified by the ancients as medicinally useful, and then published and disseminated this European or British understanding of the utility and commercial viability of the new plants. The apothecary shop was a space in which new scientific knowledge was materially and intellectually accumulated, presented, and exchanged, but it also needed to be a place where lay consumers could be confident of the veracity and efficacy of the products which they were purchasing. Apothecaries needed to find a way to communicate these new systems of knowledge to people not involved in the process of its creation and exchange.

### **6.1.2 Consumer Confidence in Commercial Spaces**

Once these products were accepted as both useful and commercially viable by the scientific and medical community, apothecaries needed to make them acceptable for consumption by their patients. To do so, apothecaries had to be credible, and engender trust, something which, as explained in Chapter 5, was achieved through a combination of social authority, and manipulation of their shop spaces. In addition to establishing trust through the material culture that they used to furnish their shops, apothecaries were able to use that same careful construction of their retail spaces to embed new, imported simples into ordinary medicinal

consumption. Through a combination of display in the shop, using the language of the emerging sciences, and advertising the benefits of these newly imported ingredients, apothecaries were able to embed the rapidly expanding list of simples and compound medicines into the marketplace and make them commonplace in preparations which their patients purchased and consumed; in other words, they made them 'familiar and appealing' (Hann & Stobart, 2005: 170; Cook, 2007: 141, 225). Little has been written on this process in the specific case of apothecaries but there is extensive literature on the early modern adoption and acculturation of other imported consumables which started as scientific or medical curiosities and transitioned into unremarkable substances for the public to consume.

The spaces where people in the British North Atlantic encountered coffee and chocolate, consumed as they were in the semi-public spaces of coffee and chocolate houses, have been the focus of much of this research. Both drinks, akin to the botanical medicines being introduced by apothecaries in these centuries, moved from objects of curiosity to botanically and scientifically inclined individuals, into valued international commodities consumed by a wider section of society (Cowan, 2005: 14). Brian Cowan (2005: 30) in his study *The Social Life of Coffee* repeats traditional explanations for Britain being receptive to coffee consumption; that it was due to an 'intense combination of genteel curiosity, mercantile commerce, and metropolitan civil society in the seventeenth and eighteenth centuries.' His study focuses on the sites of encounter in Britain rather than America as Marcy Norton has done more recently. He argues that the coffeehouse was a 'novel and unique' space of encounter with new ideas and consumables (Cowan, 2005: 2). Coffee, in particular, was easily introduced into the consumption habits of the English because it was at once promoted as a medicine in mid-seventeenth-century translations of Arabic texts, and as a commodity beverage; that is it had

health benefits and was a tool that could be used for social emulation, something not entirely true for most purely medicinal plants (Dā'ūd ibn 'Umar Anṭākī, 1599 [Pococke Trans. 1659]; Cowan, 2005: 31). Specifically Cowan (2005: 54) argues that coffee, and tea to a lesser extent, found a wider, although not initially socially broad, market because they were understood almost wholly positively, unlike many of the drug commodities imported at this time. Therefore, it served the interests of 'Doctors and patients, apothecaries and customers, overseas traders and London retailers, and of course coffeehouse-keepers and their patrons' because they were all able to find both profit and pleasure in buying and supplying coffee and similar drinks.

This relatively uncomplicated assimilation, carrying with it an 'esoteric but acceptable' aura of Arabian civilisations, and the broad range of interests in promoting the consumption of coffee led to its widespread acceptance as a consumable in England (Trentmann, 2016: 84). Craig Cessford *et al.* (2017) present the archaeological side of this argument, with the interesting case of Clapham's in Cambridge, a mid-eighteenth-century coffee house. The archaeology of this site, well-dated and unambiguously related to the coffee house, shares many material traits with those of contemporary inns and contributes to the argument that coffee and tea drinking were fully incorporated into the English culture of social drinking which included alcohols as well as imported caffeinated beverages by the mid-eighteenth century.

In the case of chocolate, the start of its adoption by Europeans occurred in the 'new world' amongst Jesuit and Dominican missionaries who depended upon indigenous knowledge to make the chocolate drinkable; frothy with spice, honey, and seeds from the achiote tree to



make it red (Norton, 2006; Trentmann, 2016: 84). The colonial nature of chocolate caused some ambivalence in Europe; it was an elite drink amongst the Mesoamericans who taught its production to European settlers and traders, which endowed it with both elite and 'barbarian' connotations (Trentmann, 2016: 84). The traditional view of the process by which chocolate came to be an acceptable thing to consume in Europe suggests that acceptance amongst the nobility, and the incorporation of this new consumable into the Galenic medical understanding of humours, was key with both the stimulant effects of the drink and trickle-down social emulation working in concert to make chocolate popular (Trentmann, 2016: 84). In these explanations the indigenous knowledge and practises which surrounded chocolate consumption were an impediment to the acceptance of the drink, and only through their elimination or at least obfuscation did chocolate come into European tastes. Marcy Norton (2008: 9) however persuasively argues that 'Europeans did not welcome tobacco and chocolate despite the meanings that Indians attributed to them, but often because of them'. In her argument, when the Spanish encountered chocolate (and tobacco) consumption in the 'New World' they learnt 'not only about what tobacco and chocolate should taste like, smell like, look like, and where and when they should be consumed, but also about these more abstract associations' of the 'relationships between humans and between humans and the spirit world' to the peoples of pre-Columbian America (Norton, 2006; 2008: 9). For Norton the sites and spaces of appropriation need to be recognised as key within such processes.

Once again then there is a multi-stage process of adoption and acceptance, first in the Americas where Spanish colonists encountered indigenous chocolate consumption in domestic, social, commercial, and ritual spaces, understanding and adopting the product and its various associations, before taking it back to Spain and wider Europe. In this second

encounter chocolate was slowly incorporated into a market primed for the wealth of colonial expansion and was adapted out of necessity rather than some attempt to deliberately sever the connection between chocolate and the 'barbarian' peoples who had introduced it to the Spanish. In Norton's (2006: 670) argument the early taste for chocolate actually occurred in the opposite direction to traditional social explanations for the acceptance of novel early modern imports; 'from the colonized to the colonizer, from the "barbarian" to the "civilized," from the degenerate "creole" to the metropolitan Spaniard, from gentry to royalty'. This emergent property of the nature of Spanish colonisation then, in turn, through the process of slow adoption and adaptation, created a market in the 'Old World' for stimulant beverages which coffee and eventually tea filled.

Tea drinking too has been analysed to examine how new consumables entered common usage, although most of the work on tea has been done in the context of the Netherlands, which in the eighteenth century was the most prominent European trading power to East Asia. Tea, like coffee and chocolate, was initially of interest to a group of intellectuals, men of science, and medical practitioners as a new addition to the *materia medica* (Ellis *et al.*, 2015: 31). From there tea was eventually commodified by the merchants who saw in it the potential for profit if demand could be encouraged, both in the Netherlands and in Britain (Ellis *et al.*, 2015: 31). In much the same way as consumers of medicine, 'drinkers and sellers of tea were overwhelmingly ignorant about the tea they were drinking in terms of its origin, manufacture and quality' (Ellis *et al.*, 2015: 51). Nevertheless, the associations of tea with health, and its marketing, made it a product of daily consumption by the mid-eighteenth century, and by the 1780s in Amsterdam even testators who only had one to three rooms listed for their household were in possession of tea and/or coffee wares in porcelain or delftware (McCants,

2013: 318-322; Blondé & Ryckbosch, 2015: 314). To be so commonly consumed, tea had to be flexible in the minds of consumers, a 'novelty' and 'exotic', but capable of 'appropriation within this existing social and cultural context' in Europe (Blondé & Ryckbosch, 2015: 315, 329). It was this same process, on a more intimate scale, that apothecaries were using to embed new herbal simples into acceptable medical consumption, playing on both the imported and foreign nature of the products, whilst embedding them in the intellectual, cultural, and social context of their customers.

Although the overall magnitude of medical trade was small compared to stimulant beverages in the seventeenth and eighteenth centuries, the growth in their imports was comparable and they can firmly be included in examinations of early modern globalisation of trade and knowledge exchange (Fertig & Pfister, 2016: 222). The rest of this chapter returns to sites of encounter in Britain and the British North Atlantic and takes a similar but distinct approach to studies of stimulant beverages. Centring a medico-retail space rather than a public social one (the coffeehouse), or a private domestic one (the tea table), archaeological, historical, and pictorial sources have been used to better understand the appropriation and dissemination of specimens and knowledge from the Americas leading to the adoption and acceptance of new imported medical ingredients in the British North Atlantic. Apothecaries made use of three distinct approaches to introduce their customers to these new products which are mirrored in the examples outlined above. First, they incorporated new medical herbs within existing methods of classification and presentation which their patients would have been familiar with; they did this through the organisation of their shops and advertisements. Second, they used specimens and exotica in a manner akin to a 'cabinet of curiosity' as a counterpoint to this manufactured familiarity, to remind their customers of

their access to the bounty of the whole world and the knowledge of how to use it. Finally, they used their shop furnishings and material culture to re-emphasise their position at the centre of global networks of exchange, networks of knowledge, medicine, and material culture. The rest of this chapter will take each of these approaches in turn to examine the apothecary shop as a key space of encounter for the introduction and acceptance of global, exotic, and imperial goods in the early modern period.

## **6.2 Presenting the World in Order**

The image of the apothecary shop, with its shelves of labelled jars and bottles behind a counter and the apothecary themselves moving between the customer and the medicines they stocked, is a neat encapsulation of one way that new, global products were incorporated into English medicine in the early modern period. These new botanicals were placed in their 'proper' order and labelled in the same system as native or European products by a knowledgeable and trustworthy person. It was the inclusion of these new products in existing systems of organisation, and later, into European (meaning Diderotian or Linnaean) systems of classification, and the skilful navigation of this organisational system, represented by the labels on the medical containers, and the organisation of the apothecary within the shop, that made these products familiar and thus acceptable for consumption.

Eighteenth-century botany was a global project which saw the world, and its plants, as 'an exhibition, to be explored, named, put in order' (Withers, 1995: 138). This naming and ordering was fundamental in bringing pharmaceutically useful products into medicine and inducing people to see them as acceptable to consume; indeed 'the growth of European import trade in dietic and medicinal substances went hand in hand with processes of

classification, creation of meaning and accumulation of knowledge' (Fertig & Pfister, 2016: 222). Whilst Linnaeus and Diderot were crucial later eighteenth-century taxonomists, their idea that all of nature could be classified, ordered, and organised, was not new. Labelling and classification of plants in relation to each other through their moral and medical associations was commonplace in herbals from the medieval period (Harris, 2006: 362). Early modern pharmacopoeias then are a transitional form between medieval herbals and eighteenth-century taxonomies, incorporating traditional associations, new global knowledge, and supposed medicinal effects to classify and group plants rather than strict observations of their biology (Crawford & Gabriel, 2019; Maydom, 2020: 219-220).

The most famous, and subsequently most examined, historical system of classification which was adopted by botanists and apothecaries was that of Carl Linnaeus. His *Systema Naturæ* (second edition, 1740) attempted to use a descriptive system comparing the sexual characteristics of every plant on earth to create a universal classification system and was the epitome of the global aspirations of European colonial powers as expressed through science (Withers, 1995: 147). By displacing traditional names and understandings of these plants, these organisational systems of knowledge, both within early modern pharmacopoeias and later taxonomies, enabled the plants of the world to become familiar, and more importantly reconstituted them as within, not outside, the medical, botanical, and natural historical systems of knowledge which held sway in Europe (Withers, 1995: 159-160). One significant example of this process in action can be found in a manuscript held by the National Library in Rio de Janeiro, a copy of a Jesuit original, which Timothy Walker (2013: 412) describes as having 'an index listing alphabetically more than 200 medicinal plants discussed in the volume, naming them first in Castilian' rather than using their indigenous names, which are

only given as additional information. Similar processes were at work in the project of encyclopaedism which was beginning to take hold in the same century, and an encyclopaedic knowledge of their medicinal stock was what was expected of apothecaries (Llana, 2000: 22).

In their shops, apothecaries sought to materially represent organisation and encyclopaedic knowledge through the tin-glazed earthenware drug jars which lined the shelves along each wall behind the counter where prescriptions were made up. Initially, the names of the *materia medica* which the apothecary was using to make up their medicines would not have been visible to the customer. Earlier drug jars, and those in use in more rural shops, were the unlabelled albarelli which were evident in the assemblages from the Gilmer Household site in Williamsburg, VA, Kevin Street, Dublin, and London Street, Norwich (see Chapter 4), as well as Moorgate, London, and Wood Street, London (see Chapter 3). These unmarked jars would have had a small paper label affixed to the string used to keep their parchment or bladder lids in place. Later jars had abbreviated Latin names of their contents painted within cartouches on their surfaces which would have been visible to patients in the apothecary's shop. Examples of these labelled drug jars, including some which stored imported medicines, were found at 233-246 High Street Brentford, 108-119 The Grove, Stratford, and Lion Walk, Colchester (see Chapter 4), as well as Eagle House, London, and Number 1 Poultry, London (see Chapter 3). Whether or not individual customers were able to read and understand Latin, the fact that all the simples and compound medicines were labelled in this same way served to demonstrate that they were categorised and understood, at least by the apothecary, within the same system of medical and botanical knowledge as the familiar herbs from Britain and Europe whose abbreviated Latin names also adorned the same types of jar. Patients would have seen their apothecary retrieving ingredients from across these shelves efficiently to

make up their prescription. Even if much of this was performative, with most of the medicines made up in a back room ahead of time, such command of the medicinal simples of the world would have engendered trust in the apothecary and thus the materials they were selling. Serving to further embed North American and other imported medicines into routine consumption. Within the archaeological assemblages described in Chapter 3 and Chapter 4 there are several examples of this strategy. Jars where the painted label was still legible, and which indicated they stored imported simples and medicines, were excavated. These vessels were therefore incorporating those ingredients within the familiar visual and material cues of the apothecary shop's storage. Unfortunately, no examples of American simples were recovered in these assemblages. However, there are Lemons (see Figure 3:13) which would have been imported from the Mediterranean, as well as Cassia, native to China and Southern Asia, and Almonds, native to modern-day Iran (see Figure 4:9), amongst the more familiar European simples. Examples of drug jars labelled with 'new world' simples are extant in museum collections however, for example Figure 6:1 from the collection of The Shakespeare Birthplace Trust, was used to hold an electuary of Sassafras, an ingredient derived from a North American tree.



Figure 6:1. Dry drug jar, circa 1730; painted in blue on a white background; E.E.SASSAFRAS (electuary of saffras) on a songbird and basket label. Image © The Shakespeare Birthplace Trust, STRST:SBT 1993-31/56. CC-BY-NC-ND.



Books and pamphlets also supported the idea that an encyclopaedic knowledge of medicinal plants was a skill that apothecaries had and therefore was a source of the informational asymmetry between patient and apothecary which could be exploited. In Gideon Harvey's (1676) *The family physician, and the house apothecary* many North American simples such as sassafras and Virginian snakeroot are included in the recipes which Harvey suggests should be able to be made at home by people treating common ailments, again incorporating these imported materials into familiar forms, in this case household medicinal recipes, and recreating them as the subject of general knowledge amongst the literate classes in the late seventeenth century. Published by Henry Draper Steel (1779) who may have been a physician (see Chakrabarti, 2013: 21), the volume *Portable instructions for purchasing the drugs and spices of Asia and the East-Indies* was a guide for use by both apothecaries purchasing from wholesalers, and members of the public purchasing from apothecaries instructing them in how to recognise and purchase the simples and drugs that were imported to England from Asia and the East-Indies at appropriate prices. Volumes such as these served to reinforce the familiarity of new medicinal ingredients by making it clear that the patients of apothecaries should be able to judge their authenticity and value. Steel (1779: 31) for example notes that 'the greatest deceits, practiced in the sale of cinnamon, are, selling such as has, by distillation, lost its essential oil, and substituting cassia lignea for cinnamon' and that these deceits can be 'discovered by want of pungency' or by 'the cassia's becoming mucilaginous, when held in the mouth, which the true cinnamon never does.' Although this example is for an Asian rather than American simple the education of the public in how to authenticate these *materia medica* firmly embeds them in the accepted practice of medicine and cements their status as acceptable, even desirable, for consumption.

Further examples that embedded this idea of encyclopaedic knowledge possessed by apothecaries can be found in their trade cards. Serving as both advertisements and cards for noting down shopping lists or short invoices, trade cards were widely circulated from retailer to customer and from customers to friends and family as a form of recommendation (Benedict, 2007: 196; Berg & Clifford, 2007: 146-147). Their perhaps exaggerated depictions of neat and ordered spaces suggested the ordering of global knowledge fundamental to this route for the introduction and acceptance of imported simples. Although there are few depictions of the interiors of apothecary shops in the trade cards analysed in the previous chapter, exterior depictions of shops with large windows show this kind of organisation. Figure 5:3 and Figure 5:2 depict two such shops, and through the windows ordered ceramic jars shaped like the wet and dry drug jars can be seen bearing painted cartouche labels possibly of European, Asian, and American ingredients which were all used in the production of compound medicines. The representation of these ceramics as a key part of the depiction of an apothecary shop, and in the case of Heal 35.13 (see Figure 5:2, top) the inclusion of the shapes of the cartouche labels in these depictions, shows the strong association between labelled and organised vessels and the apothecary. This association then meant that the viewer was prompted to link the apothecary with the knowledge systems indicated by the labelled jars with which they would have been familiar. These illustrations served the same purpose as the ordered shelves that they depicted, communicating the large amount of ordered knowledge that the apothecaries possessed and made use of, to best treat their patients.

Alongside order and organisation, apothecaries also sought to appeal to consumers' tastes through advertisements as another means of introducing and embedding new materia

medica. Taste may be an odd element in the sale of medications to modern sensibilities, but in an era when medicines were made up by the person they were purchased from, often (although not necessarily) in consultation with a physician, the customer was able to exercise some discretion over the medicaments they were willing to consume. One such example can be found in the casebook of the Stratford-upon-Avon physician John Hall; described in Case 144, the Countess of Northampton refused to drink rosewater as part of a decoction to treat tertian fever (Wells, 2020: 222-225). Whether this was due to personal medicinal preference or an aversion to the taste of rosewater, it is a clear example of the active involvement of a patient in deciding what medicines they were willing to consume. The ability of patients to exercise discretion meant that advertisements had to include language to persuade customers and patients that these imported medicines were better than any alternative, to create a sense of desirability and efficacy (Berg & Clifford, 2007: 155-156).

An example of this need to communicate the desirability and efficacy of medicines can be seen in this 1750 advertisement (see below) placed on behalf of Dr George Gilmer of Williamsburg, VA for example. Gilmer, whose apothecary assemblage was analysed in Chapter 4, has the imported medicines described as a 'choice assortment' whilst the Rock Oil is described specifically as 'British' (*The Virginia Gazette*, Saturday 17 January 1750-1: 4):

Just IMPORTED in the Rachael, Capt. Armstrong, by the Subscriber, in Williamsburg, A Choice Assortment of Drugs, Almonds, Currans, Prune, Barley, Sugar, Brown and White Sugar Candy, Carraway Comfits, French and Pearl Barlies, Indigo, Candied Nutmegs and Ginger, Sponge, Black Soap, Green Congo and Hyson Teas, Scotch and Havanna Snuff, Salt-petre, Squire's and Daffy's Elixirs, Capers and Olives, Pepper, Alspice, Mace, Cloves, Nutmegs and Cinnamon, Stoughton's, Lockyer's, and Anderson's Pills, Eaton's Balsamic Styptic, Universal Balsam, Turlington's Balsam, Bateman's Drops, Sugar Plumbs, Vermichelli, Sandiver, Borax, Crucibles,

Sago, Candied [?]ringo, Annodyne Necklaces, Sencca and Black Snake Root,  
British Rock-Oil, Pewter Syringes, Glyster Pipes, &c. &c.

In each case these descriptors are important in marketing these imported ingredients to his patients, emphasising variously the 'British' origin of the Rock Oil, and the 'choice' quality of his entire stock. This emphasis is similar to advertisements for tobacco, coffee, tea, and other imported products in Britain, which frequently used geographical origin as a proxy for quality (Stobart, 2013: 71). For example, 'Jamaica rum and Barbados sugar were markers of quality and provenance' (Bickham, 2008). The list form of this advertisement was common and indicated that the retailer posting the advertisement had plenty of stock and a wide variety of products and represents relatively common commodities as 'fresh goods' that give Gilmer the facilities to serve any need a customer or patient might have (Benedict, 2007: 196; Berg & Clifford, 2007: 155, 159). The variety which is emphasised in list advertisements creates a sense of equal value amongst the listed products and so, for the American simples that Gilmer advertised such as Black Snake Root, would serve to equate them to the European simples with which readers would have been more familiar.

We see such geographical indexing at work in other spaces too. There are very few records of the ship *Rachael*, but one record also in the Virginia Gazette from 1752 describes the arrival on April 10 of 'Rachael, of London, John Armstrong, from London, with European Goods' (*The Virginia Gazette*, Monday 7 August 1752: 3), and there are several further advertisements that show the kinds of goods that were imported on this ship including medicines for physician-apothecary Peter Hay at the same date as the above for Gilmer, and similar advertisements from those two men in 1746 (*The Virginia Gazette*, Sunday 18 September 1746: 6; Saturday 17 January 1750: 4), as well as at least one enslaved or indentured person

who arrived on the same voyage as the quoted medicines, and was advertised as a runaway in 1752 (*The Virginia Gazette*, Monday 21 August 1752: 3). We can thus be confident that the *Rachael* was a merchant ship dealing in a variety of goods and, on at least one occasion, people, which sailed from Britain across the Atlantic at least once every two to four years.

It is of note that on these voyages the *Rachel* brought North and South American medicinal herbs back to colonial customers. Peter Hay re-imported cinchona bark, and Gilmer re-imported 'Black Snake Root', one of a group of plants traditionally used in Native American medicine as a treatment for fevers and snakebites, as well as for gynaecological complaints, and which grew wild in Virginia where his shop was located (Predny *et al.*, 2006: 5-6; Schaefer, 2013: 48-49). The re-import of these medicines reinforces some of the key arguments about how apothecaries were enabling the acculturation of non-European herbal simples into acceptable medicinal products. By 1700 England was already re-exporting more new-world-grown products, including medicines, sugar, and tobacco, than domestically produced commodities; the majority to British Atlantic colonies like Virginia where English settlers, indentured servants, and enslaved Africans formed a significant 'extension of the British home market', with tastes and material concerns influenced by Britain (Roberts, 1965: 170-171; Trentmann, 2016: 26-27). By exporting them to London, where they would have had to be processed according to the standards of the Society of Apothecaries or the College of Physicians, and then re-exporting them to colonial but still essentially European consumers in their lands of origin, these plants were made European, and were presented alongside imports of European products such as the proprietary medicines listed in the advertisement. This confirmed their authenticity and suitability for consumption to Gilmer's patients. Those standards were reinforced by a royal directive which theoretically limited apothecaries to only

compounding medicines from, and therefore using ingredients listed in, the London pharmacopoeia (Chandler, 1748: 2). This is an extension of the same process occurring within British apothecary shops where imported products were made acceptable for consumption by incorporation into the same system of organisation as British and European simples. In the case of colonial shops this process seems to have necessitated tangible contact between the *materia medica* and the authorities present in London which necessitated this circular exchange.

The incorporation of novel *materia medica* into the organisational system of the apothecary shop served to make these products acceptable for consumption and at its most extreme recontextualised these simples as essentially European, something which appears to have been especially important for North American colonial consumption. In this process of acculturation, however, there was a danger that the novelty of these medicinal plants was minimised to the detriment of the apothecary's trade or social standing. As such, apothecaries also had to emphasise their command of global products and expose their patients to the novel elements of worldwide nature to position their knowledge above that of their patients. The main way in which this was achieved was through the display of curiosities and specimens from the natural world.

### **6.3 Exposure to Curiosities and Specimens**

To reinforce their expertise over the natural world, especially the plants and animals coming into European consciousness over these centuries from across the globe, apothecaries, like the wealthy merchants and nobility in their Wunderkammer, displayed natural curiosities and specimens, especially unusual, preserved animals, and strange plants, in their shops. In doing

so they ensured that their patients and customers could see that they were knowledgeable about and interested in the products of the world which they were selling and that their expertise extended beyond those simples into wider botanical and biological specimens. This was not an abstract worldliness or knowledgeability, as expressed by Wallis (2006; 2008), rather the apothecaries were attempting to communicate specific messages about their knowledgeability regarding, and more importantly their mastery over, nature. The specimen collections of physicians and apothecaries were predicated on the idea that nature was medically useful and that medical utility was socially (and commercially) advantageous and so served to introduce these previously unknown ingredients into the medical system of seventeenth- and eighteenth-century Britain (Findlen, 1994: 241; Crawford & Gabriel, 2019: 5). Writing about museums in early modern Italy, Paula Findlen (1994: 100-101) points out that possession and understanding of nature was also a marker of status which means that apothecaries who displayed their botanical and faunal collections were making claims to status within society which elevated themselves and the treatments that they compounded; 'Each item ... displayed reinforced the authoritative nature of the medicines ... sold to customers' (Findlen, 1994: 246). Collecting specimens of simples, and other *naturalia* could elevate the status of an apothecary to that of someone who got noticed by the nobility and could make their shop and 'museum' a site of scientific enquiry, and a place that attracted visitors not specifically purchasing medicines (Findlen, 1994: 105; Welch, 2009: 158). These sites of scientific encounter then took on a significance beyond their retail function, albeit one fundamentally concerned with commercial exploitation of the curiosities which were displayed and their related *materia medica*.

Harold Cook explores a similar theme through the examples of several prominent European merchant families such as the Medici of Florence and the Fugger family of Ausberg. These families used their cabinets of curiosity to communicate both political and commercial messages since 'the display of exotic materials demonstrated connections with, and knowledge of, the wider world' but was also concerned with utility and profit amongst the merchant classes (Kenny, 2006: 53; Cook, 2007: 28). He also explains that the shops of apothecaries were often depicted and described in similar terms to these Wunderkammer; with *naturalia* such as stuffed animals and strange botanical samples amongst the shelves and hung from the ceiling (Cook, 2007: 29-30). Since apothecaries were the merchants most used to working with imported materials, with their profession's origins in the medieval spice trade, they became experts in plants, animals, and minerals, and their preparation, which positioned them to be able to collect, display, and experience those and other exotic examples that came into their shops (Cook, 2007: 31, 141). Wunderkammer however were an extremely elite phenomenon amongst the nobility and the very wealthiest merchant families, whilst apothecaries' shops were sites where a broad public accessed medicine in the seventeenth and eighteenth centuries. Apothecaries' shops, then, worked as both commercial spaces and a Wunderkammer of the people, serving as a locale where the consuming public could be confronted with, encounter, and make sense of, the products of expanding global trade and the new approaches to scientific knowledge which developed in tandem with such novel products (Glennie & Thrift, 1996: 35; Cook, 2007: 41; Trentmann, 2016: 94; Crawford & Gabriel, 2019: 5).

Although the curiosities and specimens of apothecaries do not survive at the archaeological sites described in Chapter 3 and Chapter 4 themselves, there are indications of the



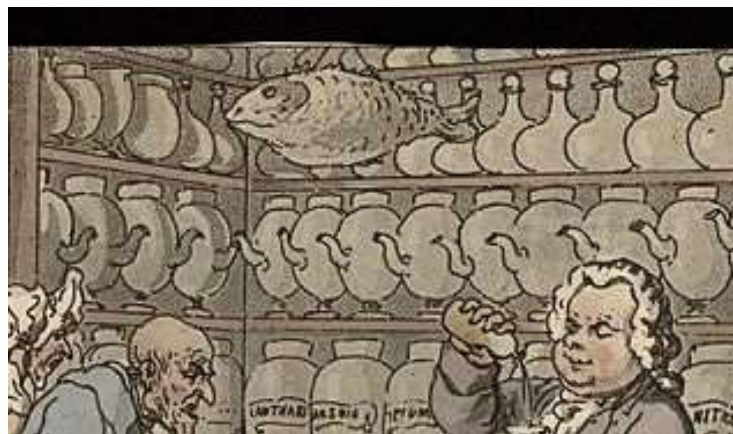
importance of this element of the material culture of the shop in other sources. One notable example is the display of bananas in the Snow Hill, London shop of Thomas Johnson, free of the apothecary company (LaWall, 1927: 268). Johnson reported, in his edition of John Gerard's *Herbal*, that he exhibited a bunch of bananas between April and June 1633, and this is the earliest known example of these fruits being displayed (Gerard & Johnson, 1633: 1515). As Johnson describes receiving the fruits unripe and green in April, them ripening in May, and consuming them in June it appears that he was not attempting to sell these plants; rather they were displayed for their novelty, to show his customers and colleagues that he had access to rare fruits 'from the Bermuda's' (Gerard & Johnson, 1633: 1515). Such a large display - Johnson notes that he had more than thirty-five fruits on the branch he was given - made his shop into a site of encounter, even confrontation, with a plant that his customers would have no experience of (Gerard & Johnson, 1633: 1515).

More commonly referenced than such botanical specimens are the displays of taxidermy and other animal specimens in the shops of apothecaries, often hung from the ceiling. These occur in descriptions of apothecary shops in literature and appear in depictions of those spaces. From the early seventeenth century example in Shakespeare's *Romeo and Juliet* where the apothecary is described as displaying in his shop 'a tortoise hung, An alligator stuffed, and other skins Of ill-shaped fishes' (Shakespeare, 1623: Act 5, Scene 1, Lines 42-44), to a nineteenth-century example in Figure 6:2, a detail from *The dance of death: the apothecary* showing a large stuffed fish hung from the ceiling of an apothecary shop. It is reasonable then to suggest that the display of such specimens was commonly understood to form part of the regular furnishings in the shops of apothecaries. There is also an example of the presence of living *naturalia* such as parrots in newspaper advertisements in the late eighteenth century.

In one case a 'white Parrot with a Topping upon his Head, Body and Wings very dirty' 'Flew away from Mr Hardy's, Apothecary, in Chancery Lane' and was advertised with a reward of 'One Guinea' for its safe return (*Daily Advertiser*, Thursday 12 December 1771). Extant material culture also confirms the regular association of these elements with apothecaries into the nineteenth century. In the collection of the Science Museum is a nineteenth-century wooden alligator designed to fulfil this same function (see Figure 6:3). Patrick Wallis (2008: 32-33) has also explicitly argued that such specimens were displayed to emphasise the worldliness of the apothecary and to visually confirm their connection to materials from across the world. This thesis goes further, building on the material theory of Tilley and Knappett discussed in Chapter 2.1, to argue that specimens were active components of the material world, deliberately chosen to force encounters between customers and the products of the natural world from across the globe. As such, they contributed to making the space of the apothecary shop into an arena where the world could be experienced, and once alien flora and fauna had been experienced, even discussed, only then could they become accepted as consumable.

Trade cards too include depictions of these faunal specimens, showing that the apothecaries themselves were curating an association between themselves and the global knowledge and materials embodied in these animals and other *naturalia*. One extraordinary example, belonging to Richard Siddal, from between 1738 and 1773 depicts an apothecary's laboratory rather than a shop and includes a crocodile, an elephant head, a rhinoceros head, a crab, coral, several fish, and shells (see Figure 6:4). The decision to include such a wide array of non-European animals amongst the *naturalia* displayed in the space makes it clear that the intimate association of apothecaries with the display of these kinds of specimens was a widely

recognisable phenomenon in Europe. In another example, from a trade card produced for Fenwick Butler in the 1770s, a botanical specimen is presented. Figure 6:5 includes a depiction of 'Aloes', a tropical genus of plants cultivated to this day for pharmaceutical and cosmetic applications, and which was necessarily imported for use in the eighteenth century. Depicting the unfamiliar ingredients in his medicines as living plants allowed Butler to make a direct link to the global plants and knowledge that he used to treat his patients, making them more familiar in the process.



*Figure 6:2. Detail from, 'The dance of death: the apothecary. Coloured aquatint by T. Rowlandson, 1816.' by Thomas Rowlandson, showing a stuffed fish hung from the ceiling of the shop. Credit: Wellcome Collection (CC BY 4.0)*



Figure 6:3. Model alligator, England, 1801-1900. Credit: Science Museum, London. Attribution 4.0 International (CC BY 4.0)



Figure 6:4. Detail of the ceiling from Trade card of Richard Siddall, chemist at the Golden Head in Pantom Street, near the Haymarket, London. Showing 'various dried and stuffed preparations including a crocodile, an elephant head, a rhinoceros head, a crab, coral, fish and shells'; based on 'La Pharmacie' by Jacques de Lajoue. Etching with engraved lettering, 1738-1773. Heal,35.64.+ © The Trustees of the British Museum (CC BY-NC-SA 4.0)



Figure 6:5. Detail from DRAFT Trade card of Fenwick Bulmer, Chemist c.1770. Heal,35.11 © The Trustees of the British Museum (CC BY-NC-SA 4.0)



Figure 6:6. A nineteenth-century dried frog specimen mistakenly believed to be a mermaid. From the Apothecary's Hall collection, The Charleston Museum. Photograph by Author, Courtesy of The Charleston Museum, Charleston, South Carolina.

One final curious example comes from Charleston, South Carolina where the Apothecary's Hall collection, now in the care of the Charleston Museum, contains a nineteenth-century specimen of a 'mermaid' which famously caused an angry mob to crowd the apothecary shop of one Dr William H. Trott in 1867, demanding the mermaid be returned to the sea after a period of heavy rain which was blamed on the capture of the creature (Bennett & Zeigler, 1923). In actuality, the specimen was a frog (see Figure 6:6), but this story shows the power that these collections of specimens could have even in the second half of the nineteenth century.

The persistence of these elements of the furnishing of apothecary shops across media in the seventeenth, eighteenth, and nineteenth centuries makes it clear that it was not only an important but recognisable element unique to the shops of apothecaries. Such a significant and confrontational encounter for the customer with the products, plants, and animals of the expanding world reinforced the suggestions otherwise communicated by the apothecary's knowledgeability that they stocked genuine imported simples and had up-to-date knowledge of the world. What is more these specimens and curiosities made the apothecary shop one of a very few places before the opening of public museums (and for some sections of society, even after that date) where ordinary people could *encounter* not only the processed plant matter from across the European colonial world but stuffed skins of animals alien to Britain and other curiosities which only the wealthy and connected were able to collect. This made the apothecary shop a unique site where the majority of people could engage with the wealth, *naturalia*, and benefits of colonial and trading enterprises across the world. The simultaneous integration of new plants into medicinal usage and displays emphasising the foreign nature of many of the elements sold in an apothecary shop was a tension that the apothecaries in

the British North Atlantic negotiated to their benefit, and their messages of global connectivity and a familiar medical system across that area were further reinforced by the material culture which was in use in those spaces.

#### **6.4 Presenting the World Materially**

In addition to the specimens and curiosities, and beyond the painted labels, the material culture of the shop itself served to communicate the apothecary's access to and engagement with new products, global trade, and networks of knowledge exchange. This is visible in the most common material culture within these spaces in these centuries; the tin-glazed earthenware drug jars. Tin-glazed earthenwares are variously known as majolica, delft-ware, and faience depending upon their country of origin and as globally mobile goods, these jars also demonstrated apothecaries' engagement in global flows of knowledge and commodities (Tyler *et al.*, 2008: 3). Among the earliest references to the manufacture of these ceramics in England is in 1570 when Antwerp potters Jasper Andreis and Jacob Jansen asked Elizabeth I for the right to move their production from Norwich, where they had been since 1567, to Thames-side in London and obtain a patent for 'Galley pavinge tyles and Vessels for potycaries' which suggests that they may have produced apothecary wares in their three years in Norwich and a strong early association between the ceramic technology and the profession, although I could find no recognised surviving examples that can be confidently associated with that period and location of production (Britton, 1982: 14, 20; Tyler *et al.*, 2008: 9). That initial application failed and the patent was not granted; however, Jansen was sponsored to start producing tin-glazed ceramics in Aldgate, London by 1571 (Britton, 1982: 14).

Tin-glazed wares did not exist in a vacuum. These wares were, in Britain, a cheaper alternative to high-priced imports of porcelain from China in the sixteenth and seventeenth centuries, and indeed they were produced in increasing quantities in the Netherlands as a direct response to imports of porcelain by the Dutch East India Company (Finlay, 2010: 258). Despite their local manufacture, however, these ceramics maintained a lot of the social and material connotations of the rarer ceramic through their surface similarities; both material and visual (Odell, 2018: 181, 188). A translucent white glazed surface with cobalt blue decoration was common to both ceramic types from the mid-seventeenth century and was associated with cleanliness. The associations of porcelain with imperviousness, cleanliness and wellbeing are recorded as early as the late sixteenth century and the association of tin-glazed ceramics with these connotations both made them suitable for the shop of an apothecary and also connected them to foreign ceramic technology and global trade (Finlay, 2010: 69-70; Porter, 2010; Lambourn & Ackerman-Lieberman, 2016: 218). Moreover, the example of the Kraak ware tea bowl found at the Kevin Street apothecary excavations in Dublin (see Chapter 4) show another link between *materia medica* and this imported ceramic with a piece of imported material culture specifically intended for the consumption of an, at the time, unusual medical substance (Ellis *et al.*, 2015: 32-35). There is an additional comparison between Chinese ceramics and the medical space of the apothecary shop; that of the acculturation of foreign materials. As Stacey Pierson (2012: 23) notes Chinese ceramics 'were first encountered as "curiosities"' whereupon they were copied and altered to make them more familiar before becoming used as tableware and decorative displays. This is comparable to the process by which 'new world' *materia medica* were introduced as 'curiosities' and then altered through association and incorporation with familiar methods of organisation and familiar medical remedies into familiar products.



The early associations of tin-glazed vessels with imported, even luxury, goods, and the esoteric, international knowledge regarding their production, continued to be a factor even after the tin-glazed ceramics industry in London was well established in the seventeenth century. The apothecaries whose assemblages have been analysed from Colchester, Dublin, and possibly Norwich, each of which was dated to the seventeenth century, all preferentially chose to use Dutch ceramics to furnish their shops and store their *materia medica* (see Chapter 4). While this could be explained by the nationality of Jacob Ryckman in Dublin, and the prominence of the Dutch population in Colchester and Norwich, it was nevertheless a deliberate choice to use imported material culture alongside imported medicinal simples in these shops (Margeson *et al.*, 1993; Cotter, 1999: 168; Hayden, 2018; McCutcheon, 2018). Connecting the two elements in the minds of their customers, imported *materia medica* and imported material culture, reinforced the idea that apothecaries had access to and mastery over the necessary goods for their trade from the whole world, both natural and manufactured. In America as well, the necessary connection between importation and the tin-glazed ceramics lining an apothecary's shop communicated messages of access to the global trade which made the production of medicines considered acceptable to the British colonial customers possible. There were no tin-glazed earthenware potteries in North America by the mid-eighteenth century, and so the medicines which people consumed along with the material culture to contain them were all imported from Europe (Scoville, 1944: 195). These ceramics were not cheap, and whether in North America, London, or elsewhere in the British North Atlantic, they would remind a viewer of international and transatlantic trade, as well as high-value European ceramics such as the Montelupo Polychrome Maiolica drug jar, and the late Valencian Lustreware example which were both excavated at Wood Street, London (Watson, 2015: 59).

The production of drug jars after the mid-seventeenth century, and mainly in the eighteenth century, which were pre-labelled at the pothouse during manufacture also served to convey messages about the apothecary's access to materials, and more specifically to the 'standard set' of materials which were necessary to produce the most common medicines. Whether the patient or customer knew what ought to be in that set is irrelevant, the fact that the apothecary had purchased, possibly as a coherent set, a group of already labelled drug jars, would suggest that they were using the *materia medica* which the pothouse considered widespread enough in use to include in their catalogues, or labelled based on the expertise and order of the apothecary themselves. There is no direct evidence from the records of the pothouses which survive what the 'standard set' might have been, but some idea of the importance of these vessels to the furnishing of apothecary shops is indicated by the sheer volume of 'poticary wares' which were produced. Patent applications related to delftware in 1570 and 1628 both explicitly mention pots for apothecaries as a product that would be manufactured, and a large number of both wet and dry drug jars, of the forms which would have had painted cartouches, have been excavated at the Pickleherring Pothouse, Southwark, which was in use c.1618-1723, and the Rotherhithe Pothouse, Southwark, which was in use c. 1638-1684 (Archer, 1997: 377; Tyler *et al.*, 2008). The inventory of the Pickleherring Pottery survives and details almost 28 per cent of the stock at the time of appraisal as being apothecarial (Britton, 1993: 64; Archer, 1997: 377). There is also evidence of a standard (or 'Compleat') set of medical storage vessels from the mid-eighteenth century. Such a set was sold by Corbyn & Co. to a customer in North America in 1752 although what the 'Compleat' set of medicines these drawers and jars would have been labelled with is not recorded (Wellcome, MS.5442: 179-180).

There is no scholarship on the importance of sets in retail environments but Mimi Hellman (2007) has explored the implications of matching sets in the context of wealthy eighteenth-century French domestic interiors. She argues that in an era of limited industrial production, sets were bold statements that showed a high level of expenditure and which created 'a meaningful representational strategy' (Hellman, 2007: 131, 144). These messages are also at play in the apothecary shop where the repeated material and visual elements of a coherent set of ceramics communicated to the customer that they were in an apothecary shop and that the apothecary had ordered and spent significant money on the design of this interior space. Additionally, the variations within the set; especially the labels within the cartouches would be highlighted by the otherwise consistent decorative scheme and would therefore highlight the knowledge system within which the *materia medica* from across the globe was embedded by the time it was sold to patients, and so the consistency of the ceramic storage jars was also directly key to the visual presentation of knowledge systems such as encyclopaedic categorisation and labelling (Hellman, 2007: 144).

One of very few truly coherent and largely complete set of these jars in a British museum is held at the Thackray Museum of Medicine in Leeds, where the Richmond collection (a subset of the J F Wilkinson Pharmaceutical Ceramics Collection) consists of fifty-five drug jars, albarelli, and pill tiles, associated with one Matthew Bowes, apothecary of Richmond, North Yorkshire in the mid-eighteenth century. Wilkinson (1970: 143-144) claimed that the set of jars was 'from the hand of one and the same potter' and that they may have been produced in Bristol. This collection was purported to have been passed down in the Bowes family until they were sold to J F Wilkinson (A. Humphries, pers. comm., June 2018). Within the collection are vessels for a wide variety of ingredients, electuaries, plasters, and ointments all decorated

with the 'cherub and scallop shell' design which was only produced in the eighteenth century (Hudson, 2006: 40-41). While there are not labels which explicitly refer to New World plants in this collection there are several which refer to new chymical remedies including Naples Ointment (a mercury ointment for syphilis) (see Figure 6:7), Lead Acetate Ointment (see Figure 6:9), Zinc Oxide Ointment (see Figure 6:8), and Mercurial Pills (see Figure 6:10). These extremely toxic remedies would also have had to be sold to patients through the same methods explained above for imported *naturalia*, by embedding them within the same systems of ordered medical knowledge as more familiar remedies and ingredients such as an Ointment of Elder Flowers (see Figure 6:11). Whilst this set was probably produced at a single potthouse to the order of Matthew Bowes and are all painted solely in cobalt blue and with the same designs around the cartouches, they remain remarkably similar to all of the other cartouche-labelled English tin-glazed earthenware drug jars. Even between different 'sets' of these jars, therefore, and even if they were purchased piecemeal, the visual and material effect would have been similar to customers in the apothecary shop which they furnished.



Figure 6:7. English Delftware Drug Jar, Cherub and Shell, Dry, U: NEAPOLIT. (*Unguentum Neapolitanum*, Naples Ointment, a mercury ointment used to treat syphilis). Object 752.256, J F Wilkinson Collection, Thackray Museum of Medicine, Leeds, UK. Image © The Thackray Museum of Medicine. Reproduced with permission.



Figure 6:8. English Delftware Drug Jar, Cherub and Shell, Dry, U: TUTIÆ. (*Unguentum Tutiae*, Tutty (Zinc Oxide) Ointment). Object 752.258, J F Wilkinson Collection, Thackray Museum of Medicine, Leeds, UK. Image © The Thackray Museum of Medicine. Reproduced with permission.



Figure 6:9. English Delftware Drug Jar, Cherub and Shell, Dry, U: SATURN. (Unguentum Saturni, Lead Acetate Ointment). Object 752.267, J F Wilkinson Collection, Thackray Museum of Medicine, Leeds, UK. Image © The Thackray Museum of Medicine. Reproduced with permission.



Figure 6:10. English Delftware Drug Jar, Cherub and Shell, Dry, Miniature, P. MERCURIAL. (Pinulae Mercuriales, Mercurial Pills). Object 752.263, J F Wilkinson Collection, Thackray Museum of Medicine, Leeds, UK. Image © The Thackray Museum of Medicine. Reproduced with permission.



Figure 6:11. English Delftware Drug Jar, Cherub and Shell, Dry, U: FLOR: SAMB. (Unguentum Florae Sambucinum, Ointment of Elder Flowers). Object 752.266, J F Wilkinson Collection, Thackray Museum of Medicine, Leeds, UK. Image © The Thackray Museum of Medicine. Reproduced with permission.

Through their shop furnishings apothecaries were able to reinforce the messages that they had to balance regarding both the esoteric nature of the knowledge that they possessed and the safety and suitability of the *materia medica* they used in the medicines they compounded. The tin-glazed wares served both functions, being associated with high-priced imported ceramics, even when produced in London, but also emphasising regularity and conformity to the established medical norms of the time through their similarity from shop-to-shop which is evidenced in Chapter 3 and Chapter 4 where the assemblages are detailed. Additionally, the fact that the set of labelled jars the apothecary was using for storage came pre-painted from the pighthouse with their labels, suggested to the customer that the medicines contained therein were a part of the 'standard set' of *materia medica* and therefore acceptable to consume, whether they were North American imported simples or chymical remedies.

## 6.5 Conclusions

Studying apothecary shops as spaces of encounter with global, imported consumable products is a productive area of inquiry, in much the same ways as studies of coffee and chocolate houses, and cabinets of curiosity. The two overlapping systems of knowledge that were present in apothecary shops were 'scientific' developments in botany, chemistry, and academic medicine and the system of popular knowledge which embedded the new, imported simples and compounds into the arena of acceptable consumption. Both systems were in part driven by commercial concerns, those of the people sponsoring the voyages of discovery, and the apothecary in their retail space, needing to make a profit.

Apothecaries were intimately connected to the networks associated with the first system of knowledge; exchanging and generating new (to Europe) knowledge about medicinal plants

and treatments. They were also key to the second system of knowledge, using, analysing, displaying, and publishing on the qualities of new botanicals, to make them desirable and to recontextualise them within their shops. This process made the new medicines familiar to the consuming public, who exercised discretion over the things they would willingly consume, and through familiarity led to the incorporation of these simples into unremarkable medicinal consumption. The process of recontextualization incorporated various material and visual elements, including placing these materials within a recognisable, ordered, and familiar, system of organisation symbolised through the labelled shop jars and published in botanical volumes and pharmacopoeia. It also encouraged the regular use of these simples in medicines prescribed up and down the social scale to embed them in mundane consumption.

There was a danger in this process for the apothecary whose status was linked to their ability to productively use the natural products from across the world and the knowledge that they held about novel and imported *naturalia*. To combat any diminution of these associations, apothecaries re-emphasised their connection to the scientific networks to which they belonged through the display of floral and faunal specimens in a process akin to that of the Wunderkammer but much more universally accessible in their shops. These two processes in tension made the apothecary shop into a key site of encounter for a wide audience with the products of the globalising and colonial world, attempting to make those new *materia medica* acceptable for consumption and at-once emphasising the strange, esoteric, and foreign *naturalia* which the apothecary was expert in, and could use effectively.



## **Conclusions and Recommendations for Further Study**

The sign of the unicorn's horn; a large glass window display; coloured waters in carboys; a hard-wood counter upon which sits a set of scales and a mortar and pestle; an alligator or a fish, stuffed and hanging from the ceiling; an exotic fruit displayed prominently; wooden drawers with painted and labelled fronts below shelves displaying neat, ordered, and smooth tin-glazed ceramic drug jars each painted with the name of their contents. The seventeenth- and eighteenth-century experience of apothecaries' shops in Britain and the North Atlantic would have been consistent and familiar to patients and customers across the social spectrum. Heavily mediated by the material culture and visual effect chosen and manipulated by the shops' proprietors, these were spaces where medical anxiety, commercial conflicts, and early interactions with global and imperial products took place. This thesis has outlined the importance and relevance of a detailed study of these spaces incorporating archaeological, documentary, and visual sources regarding the material culture used in these shops through the seventeenth and eighteenth centuries.

Three broad areas of enquiry have been addressed. First, Chapter 3 and Chapter 4 have defined, with archaeological data as the starting point, the remarkably consistent visual and material character of apothecaries' shops throughout the seventeenth and eighteenth centuries. That character includes archaeologically visible material culture; tin-glazed ceramics, and glassware mainly, and that which does not survive archaeologically: the counter, shelving, and metal instruments including scales and mortars and pestle. The use of probate inventories in tandem with the excavated assemblages, as well as other inventories and manuscript sources enable a greater proportion of this material character to be

examined, not only that which survived archaeologically. Although there is necessarily material variation between the analysed archaeological sites, these are more a function of chronology than geography with geometrically decorated albarelli giving way to barrel-shaped or spouted jars with labelled cartouches, and globular phials giving way to cylindrical phials and mould-blown containers for proprietary medicines through the later seventeenth and early eighteenth centuries.

The shops' material culture is similar whether they are in the City of London or what would, in the seventeenth century, have been the outlying towns of Stratford and Brentford. Even in East Anglia there is evidence of a significantly similar material culture set to the shops of Greater London, with geometric decoration on albarello shaped tin-glazed jars and, according to testamentary evidence, the same range of shelves, mortars, pestles, and other equipment as might be expected in London. There are some notable differences that it is valuable to highlight, however. The apothecaries in Norwich and Colchester did not source most of their ceramics from London but rather from the Netherlands. This caused some diversification of the ceramic forms used in these shops and connected the practice of medicine in these towns to the international links of the Dutch into Asia and North America. The same process was occurring in Dublin although even more explicitly as the proprietor of the shop was likely a Dutchman himself. In the shop of Dr George Gilmer in Virginia too, there were some notable divergences from contemporary assemblages in London. The site produced no cartouche decorated and labelled drug jars, instead there was an extraordinarily high number of geometrically painted albarelli. The experience of this shop then, though familiar through the materiality of the ceramics and the colours of the decoration, would still have been distinct to a customer newly arrived from London where successful shops formerly furnished with

solely albarelli had moved on to dry and wet drug jars. Such familiarity despite any individual shop's differences was enough, however, to communicate the important messages conveyed by the material culture in these spaces.

These examples show that care is needed when interpreting a material culture set, and that the interpretation and messages that a customer familiar with London apothecaries might understand could be significantly different to those of a customer familiar with North European apothecary shops, and indeed those intended by the shops' owners, making detailed conclusions drawn from individual apothecary shop assemblages difficult to generalise to the whole profession. Each of these shops was catering to its local customers through the use of material culture in the space and while there are distinctions in the precise nature and location of the global links suggested by ceramics from the Netherlands, the *materia medica* imported by the Dutch East India Company from southern Asia, and the *naturalia* and *materia medica* of the Americas, there are common aims at work in these spaces, making use as they do of the same colour scheme and material quality of the ceramic, and the display of *naturalia*.

The unavoidable conclusion to be drawn from the assemblages, probate documents, manuscript sources, and printed volumes used in these chapters to examine the material and visual character of the apothecary shop in the seventeenth and eighteenth centuries is that there was a remarkably coherent set of material culture, and visual and material cues that communicated that these spaces were apothecary shops. For much of the British North Atlantic, this visual and material identity was rapidly adopted and spread along trade networks of which London was at the centre whilst in other centres Amsterdam and Dutch

trade formed the primary centre of influence. London and Amsterdam were increasingly embedded in, and controlled, a network of exchange in goods, knowledge, and fashion that spanned the North Atlantic and East Asia, and which influenced Europe and, through Europe, much of the rest of the world. Moreover, there was significant exchange between these two closely connected international hubs with tin-glazed earthenware first being produced in England by Dutch immigrants. As the central point on that network for the majority of the sites identified in this thesis, it is unsurprising that the material culture of London apothecaries was similar to that in the provinces and colonies across the North Atlantic. A deeper consideration of the differences evident between the individual shops in different contexts would be a valuable route for further study as it will allow a more nuanced understanding of the issues of trust and the introduction of new *materia medica* into these different social, national, and material contexts.

Secondly, Chapter 5 presented evidence from the emerging print culture of the period of the challenges that apothecaries faced in the early modern medical marketplace; accusations of sub-standard compounding, a dangerous lack of oversight, and avarice coming before care. It then built upon Wallis's (2008) work regarding material markers of trust in commerce in the case of the apothecary shop, and the previously defined character and elements of the material and visual environment in apothecaries shops presented in this thesis to show that these challenges were met in part by material culture. The chapter used these data to show that the manipulation of the shop and its furnishings, evident through the material culture, was designed to engender trust in the customers and patients of apothecaries in the face of professional attacks from their competitors in the medical marketplace, the stigma of being tradesmen and retailers, and as medicine continued to professionalise away from the

traditional elements with which patients may have been familiar. The tin-glazed earthenware, performative compounding, indications of guild or company membership, holding of civic office, stocking of proprietary medicines, and the highly organised nature of their shops were all leveraged by apothecaries in these centuries to overcome the attacks by communicating the efficacy of their products, the financial success of the proprietor, and their knowledge of and access to *materia medica* and material culture from across the globe. This was the process by which these elements of the material and visual experience of these spaces became definitional; the profession reflected in its material culture. This is confirmed by the inclusion of elements of this material identity in both satirical prints playing on social anxieties around the profession, and in trade cards which apothecaries deployed to drive custom, as well as in street signage used to identify specific shops, a further aspect of this visual culture that could be explored further in future work. The apothecaries, especially in London but across the whole of the North Atlantic, made choices when furnishing and stocking their shops which influenced their profession as a whole and, as the profession standardised its material expression, that set of visual and material cues came to be expected and trusted by the consumers of early modern pharmacy. Thus, through the close study of the material and visual cultures used in these spaces, the ways in which the apothecaries navigated the complex commercial and cultural challenges and attacks that they faced in this period can begin to be understood.

Finally, Chapter 6 showed that apothecaries also used the material and visual cues of their shops to integrate newly 'discovered' and imported *materia medica* and chymical remedies into acceptable consumption for their patients and customers whilst also emphasising their mastery of nature and involvement in the global scholarly networks of knowledge exchange

and enquiry. Their expertise was especially displayed regarding botany, chemistry, and the study of other *naturalia*. Apothecaries were integrated into the networks exchanging and generating new, to Europe, knowledge about medicinal plants and treatments, and were also key to the commercial application of this knowledge through analysing, displaying, and publishing on the qualities of new botanicals and chymical remedies. Recontextualizing these global and imperial products through material and visual elements of shop furnishing; placing them within an ordered, and familiar system of organisation indicated by the labels of shop jars and drawers, as well as their publication of remedies in pharmacopoeias, encouraged the regular use of American simples and chymical remedies in medicines prescribed up and down the social scale, making them familiar and accepted. Simultaneously, apothecaries re-emphasised their connection to the scientific networks which developed these new understandings of medicinal plants and global *naturalia* through the display of floral and faunal specimens in a process akin to that of the aristocratic Wunderkammer but accessible to a broad public in their shops. The apothecary shop then became a key site of encounter with the globalising and colonial world's bounty. Apothecaries were attempting to make those new *materia medica* acceptable for consumption and were also emphasising the strange, esoteric, and foreign *naturalia* which they were experts in the use of.

This thesis has particularly responded to the work of Juanita Burnby (1983), Wallis (2006; 2008; 2012) and Withey (2011), to offer an extensive study of apothecary shop material culture. Connecting apothecaries to areas of historical enquiry including retail history, medical history, global and imperial history, and commercial and intellectual history, all of which are materially constituted, this thesis has shown that there is value in including archaeological assemblages into wider material culture studies and is therefore a valuable and timely

contribution to the historiography of the seventeenth and eighteenth centuries. Only through direct interaction with, and examination of, the archaeological evidence of the material culture of apothecaries from this period can insights about the choices that they were making in the visual and material experience of their shops be fully drawn out. Even then, this can only occur in situations where the material culture assemblage is coherent to an individual shop or apothecary, something which is exceedingly rare in museum collections, and so is best served by centring the analysis on the archaeological remains of apothecary shops in Britain and the North Atlantic.

Combining manuscript, archaeological, pictorial, and museum collection sources has allowed this thesis to show that apothecaries in these centuries were at the forefront of changing modes of retailing, especially the use of a relatively standardised set of material furnishings in their shops to communicate professional and corporate membership and to engender trust in their patients. Taking a distinctly interdisciplinary approach, the thesis has also shown through material culture that the apothecaries of the seventeenth and eighteenth centuries were embedded within the commercial and intellectual milieu which drove and benefitted from biological exploration and exploitation of the Americas, and was key to the motives behind much of the British colonial efforts in the eighteenth century, displaying these connections in their shops through exhibited *naturalia* and the incorporation of imported *materia medica* into their remedies. These findings are significant as they expose the extraordinary potential for apothecary shops as a lens through which the social, cultural, and intellectual developments resulting from globalised networks of exchange and imperial ambition in the seventeenth and eighteenth centuries can be studied.

There are some limitations to the research in this thesis that are worth highlighting. The first is a methodological one; the assemblages from Chester, Norwich, and Brentford were not accessible due to storage and access issues at the institutions which hold them. This was not an insurmountable issue as the Norwich and Brentford assemblages were published but it is possible that additional insights could have been gleaned from an in-person examination of that material. Similarly, due to COVID-19, I was unable to examine the trade cards and pictorial sources included in this research in person, relying on the digitised scans available online. One issue, which has a greater potential to develop the conclusions of this thesis, is that only one site was found in the North American colonies, and Ireland. This is somewhat surprising, especially in the North American case where apothecaries' shops are recorded from a variety of early colonial cities including Boston, but no archaeological sites related to the profession have been identified in those settlements. Additionally, all the sites identified in Britain are from major cities or large market towns and there is likely to be greater variation in the shop furnishings of apothecaries in smaller and more remote market towns and smaller settlements. This is ameliorated somewhat by the inclusion of the work of Alun Withey whose examination of Welsh apothecaries includes smaller and more remote market towns but there is significant potential for further examination of the material culture of apothecaries more remote from the metropole and in different societal situations.

Each of these limitations presents the potential for further study of the material culture and social and medical history of apothecaries in Britain and the North Atlantic. First, pandemic, and local institutional limitations allowing, the assemblages which could not be visited should be examined and analysed for their contributions to the topics and research developed and included in this thesis. This should also extend to the discovery and examination of further



archaeological sites and coherent material collections of apothecaries' shops, especially in the colonial Atlantic of North America and the Caribbean, as well as in Ireland. These sites and collections held at museums will add significantly to the volume of data that can be brought to bear on these kinds of research and may, if there are enough further collections and assemblages found, allow broader conclusions about the position of apothecaries in these regions to be drawn within the questions that were raised throughout this thesis.

Beyond these suggestions which are simply expansions of the current research there are also several other questions prompted by this thesis. First, a more detailed examination of apothecaries' ceramics and especially the commissioning and purchasing of labelled jars would be valuable. The initial research would be exploring whether these jars were painted to order. We know that the jars themselves were not produced to order, as indicated by the sheer quantity of biscuit found on excavations of tin-glazed earthenware pothouses. Furthermore, there are examples of these kinds of jars that are initialled, connecting them to specific apothecaries which does suggest that these examples at least were decorated to order. Starting from this point it should be possible to determine whether the pothouses or individual apothecaries propagated the spread of jars labelled for newly imported North American *materia medica* and explore the implications for the acceptance of these botanical ingredients in medicine through these centuries. Were they promoted by a central authority such as the London Pharmacopoeia in a top-down process of acculturation or were individual apothecaries more important to the social acceptance of new imported materials? Secondly, there is more to be explored in the involvement of apothecaries in the development of the disciplines of Botany and Chemistry, and involvement in scholarly organisations like the Royal Society, especially where this interaction was materially constituted. There were early

members of the Royal Society who were apothecaries and an examination of their publications and other contributions to the Society would be a good place to start to explore in more detail the intersections of retail medicine, public knowledge and engagement, and intellectual history in the seventeenth and eighteenth centuries.

Finally, there is significant scope for exploring the apothecaries' shop as a space of encounter which was not only materially and visually constituted, but which was constituted through all the major senses. The relatively small scholarship on the sensory experience of shopping in the eighteenth century, which includes the work of Kate Smith (2012) and Serena Dyer (2014), has explored how customers exercised 'haptic skills', as well as scent and taste, to exercise discrimination regarding the quality of goods they were purchasing. These senses were also of central importance to shopping at an apothecary shop: patients would have visually engaged with the shop furnishings, the apothecary, and the *materia medica*. They would have engaged aurally with the sounds of the apothecary moving and opening ceramic containers, grinding powders in mortars and pestle of various materials, and other processes whilst compounding the medicines. They would have been confronted with the scent of the stored *materia medica* upon entering the shop, and the taste of their medicines as they consumed them. Importantly, patients would have seen, heard, smelled, touched, and finally tasted imported botanicals as they bought medicines, so the apothecary shop was also an arena where colonial and global goods were introduced through all the senses to a wide section of society. Exploring the additional sensory ways that the apothecary shop could be experienced in addition to the tactile and visual elements discussed in this thesis would open more opportunities to expand the questions in early modern historiography which can be examined through the frame of the apothecary's shop.

In sum, this thesis has shown that through direct engagement with material culture alongside manuscript, printed, and pictorial sources the significance of apothecaries to the social, medical, and global history of Britain and the North Atlantic in the seventeenth- and eighteenth- centuries can be established. Embedded within medical, retail, and intellectual networks, apothecaries' shops served as a site of encounter with new knowledge and materials from across the world, and whether situated in North America, Ireland, Provincial England, or London, they leveraged the material and visual culture within their shops to engender trust and cause the acculturation of these substances and systems of knowledge. Apothecaries then were fundamental to the introduction of this new globally connected and increasingly imperial world to their customers and patients, people of all social strata across the British North Atlantic, and their role in these processes have hitherto been overlooked.

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## Appendices

### Appendix 1 – Finds from 25 Milk Street and 14-18 Gresham Street, City of London (Wood Street, Structure 12, GHM05)

Feature	Ware	Form	Quantity	Decoration	Date	Notes
S12	Dutch red earthenware	frying pan	1		1650-1680	shallow frying pan with spout
		tripod pipkin	1		1650-1680	everted lid-seated rim, tripod foot
	Essex-type post-medieval fine red ware	chamber pot, type 2	1	two incised lines on shoulder	1650-1680	complete profile, flat-topped rim
		cauldron	1		c. 1600-1625	small spout on small lid-seated rim
		wide bowl	1		1650-1680	wide base from bowl / dairy pan
		rounded jug	1		1650-1680	rounded body; short thickened rim, cordon on neck
	Essex-type post-medieval red ware	-	1	black glaze	1650-1680	base
	Frechen stoneware	bartmann jug	1	face mask highlighted in cobalt blue	1650-1680	
		bartmann jug	3		1650-1680	
	Late Valencian lustreware	albarello	1		1650-1680	
	London tin-glazed ware (Orton style D)	albarello	3	blue dashes-bands diminishing	1650-1680	complete vessels
		albarello	1	bands and circular diminishing arches as a central band	1650-1680	
		albarello	1	bands / blue dashes / alternating orange and blue diminishing arcs	1650-1680	
		albarello	5	polychrome orange and blue geometric decoration	1650-1680	5 sherds from the same vessel
		cylindrical jar	1	orange and blue decoration	1650-1680	tall slim drug jar
	London-area post-medieval red ware	cauldron	1		c. 1650-1700	large cauldron, everted collar rim
	London-area post-medieval slipped red ware	colander	1	clear (yellow) glaze	1650-1680	collared rim bowl perforated all over body, loop handle
	Midlands purple ware	butter pot	1		1650-1680	
	Montelupo polychrome maiolica	vase	1	roundels with orange centre	1650-1680	
		bowl	1		1650-1680	
		albarello	1		1650-1680	
		dish	1	polychrome figure in the centre of dish	1650-1680	
	Raeren stoneware	drinking jug	1		1650-1680	frilled base
	Surrey-Hampshire border red ware	chamber pot	2		1650-1680	everted rim with handle, base
		chamber pot, type 1	1		1650-1680	rounded rolled rim
		chamber pot, type 2	2		1650-1680	rounded jar, flattened everted rim
		handled bowl	1		1650-1680	very large bowl
		-	6		1650-1680	unidentified sherds
	Surrey-Hampshire border white ware	porringer	1	brown glaze	1650-1680	
		tripod pipkin	1	brown glaze	1650-1680	
tripod pipkin		2	green glaze	1650-1680	small pipkin, hollow handle	
porringer		1	green glaze	1650-1680		
tripod pipkin		1	green glaze	1650-1680	lid-seated rim	
tripod pipkin		1	olive glaze	1650-1680	socketed handle, lid-seated rim, tripod base	
flanged bowl		1	clear yellow glaze	1650-1680	near complete profile - lid-seated flanged rim	
tripod pipkin		1	clear yellow glaze	1650-1680	flat based	
skillet	1	clear yellow glaze	1650-1680	lid-seated rim		

Data from Watson (2015), and Pearce (2015)



**Appendix 2 – Finds from No. 1 Poultry, City of London (Buildings 184, 185, and 186, Site Code: ONE94)**

Group	Context	Ware	Form	Quantity	Decoration	Date	Notes
Building 184	1000	Border ware	bowl	1	yellow glaze	1646-1700	substantial part of deep bowl
		London tin-glazed ware (Orton type A)	albarello	2		1646-1700	large albarello 13 sherds, small albarello 6 sherds
			dish, fluted	1		1646-1700	
		London tin-glazed ware (Orton type C)	ointment pot	13		1646-1700	complete profiles
		Metropolitan slipware	jug	1		1646-1700	dated 1646 with inscription [WILL GIVE HAST FOR TO NON... DES FAS'T]
		Post-medieval black glazed ware	tyg	1		1646-1700	
		Glass (blue-green clear)	case bottle	1		early - mid 17th century	small base, square
		Glass (clear)	goblet	1		17th century	vertical rim
	Glass (green clear)	case bottle	1		early - mid 17th century	small base, square	
		phial, globular	2		mid 17th century	earliest form of phial	
	16005	Frechen stoneware	bartmann jug	1	medallion	1630-1700	heraldic animal
		Frechen stoneware?	drinking jug	1		1630-1700	impressed symbol on neck
		London tin-glazed ware (Orton type A)	albarello	1		1630-1700	small vessel with blue criss/cross decoration
		London tin-glazed ware (Orton type C)	chamber pot	1		1630-1700	handle
			cup	1		1630-1700	
			dish, fluted	1		1630-1700	double tiered indented dish
ointment pot			1		1630-1700	drug jar fragments	

Data from Burch *et al.* (2010)

Group	Context	Ware	Form	Quantity	Decoration	Date	Notes
Building 185	16027	London-area early post-medieval red ware	-	1		1550-1600	
		London-area post-medieval red ware	cauldron	1		1550-1600	
		London-area post-medieval slipped red ware	industrial vessel	1		1550-1600	flat, open vessel, possibly a pharmaceutical grinding slab?
			cauldron	1	green glaze	1550-1600	cauldron with legs
		Low Countries white ware?	cauldron	1	yellow glaze	1550-1600	rod handle
			cooking pot	1	yellow glaze	1550-1600	cooking pot / cauldron with legs
		Merida-type micaceous ware	chamber pot	1		1550-1600	small strap handle, could be dutch
		Merida-type micaceous ware	jug	1	incised	1550-1600	decoration on neck
		Raeren stoneware	-	1		1550-1600	
		Surrey-Hampshire border white ware	bowl, deep	1	green glaze	1550-1600	
			-	1	yellow glaze	1550-1600	
		Glass (blue green clear)	pipkin	3		1550-1600	
			flask, oval	1		15th or 16th century	
			flask, oval	1	optic-blown wrythen ribbing	mid-16th century	
		Glass (blue green)	jar	1		16th century	
			beaker	1	rigaree base ring	c. 1550-1625	
		Glass (green clear)	flask, globular	1		16th or 17th century	
			flask, globular	2	optic-blown wrythen ribbing	16th century	
			flask, pedestal	1		16th century	
			jar	1		c. 1550-1625	albarello shaped
Glass (green)	goblet	1		c. 1550-1600			
	flask	1		16th or 17th century			
	flask, globular	3		16th century			

Data from Burch *et al.* (2010)



Group	Context	Ware	Form	Quantity	Decoration	Date	Notes	
Building 186 16004		Chinese porcelain	tea bowl	2	chinese bird design	1665-1730		
			bartmann jug	1	lion in medallion	1665-1730		
			bartmann jug	4	medallion	1665-1730	late type	
			bartmann jug	2	head	1665-1730		
			bartmann jug	3	crowned heart	c. 1650-1656		
			bartmann jug	2		1665-1730		
			London tin-glazed ware (Orton type A)	charger	1	pomegranates in green & orange	1665-1730	small charger
				plate	1	blue and white	1665-1730	small
				-	5		1665-1730	various fragments
				bowl, deep	1		1665-1730	large
		chamber pot		2		1665-1730	small ointment pots, complete	
		London tin-glazed ware (Orton type C)	dish, fluted	4		1665-1730	small ointment pots	
			ointment pot	14		1665-1730		
			ointment pot	15		1665-1730		
			pedestal base?	1		1665-1730		
			plate	6		1665-1730		
			porringer	2		1665-1730		
		London tin-glazed ware (Orton type F)	bowl	1	cattle	1665-1730		
			bowl	1	bird and ship designs	1665-1730		
		Tin-glazed ware (Orton type unspecified)	albarelo	1	purple and blue decoration	1665-1730	straight sided and enclosed	
			albarelo	1	dark blue linear decoration	1665-1730	straight sided and enclosed	
			bottle? / mug?	1	-	1665-1730		
			charger	4	wan li decoration	1665-1730		
		Westernwald stoneware	figure	1		1665-1730	shoe with heel and buckle	
			jar?	1	blue/white body sherds with a floral motif	1665-1730	possible pharmaceutical jar / albarelo?	
			mug	1	polychrome blue/yellow	1665-1730	portuguese import?	
			jug	1	applied stamped disc decoration	1665-1730		
jug	1		manganese filled peacock eyes	1665-1730				
jug	1		manganese filled peacock eyes & blue and purple applied stamped disc decoration & moulded lion pouring lip	1665-1730				
jug	1		stamped bosses	1665-1730	large tankard			
tankard	1		applied stamped disc decoration	1665-1730	large tankards			
case bottle	1			c. 1650-1700				
phial	1			late 17th century	cylindrical			
Glass (blue green clear)	roemer	1		17th century				
	beaker	1		late 16th or early 17th century	albarelo shaped?			
	dish?	1		c. 1600-1650	albarelo shaped			
	beaker	1		17th century	cylindrical			
	dish	1		c. 1600-1650	collar			
	dish?	1		c. 1600-1650	spout			
	Glass (clear tinted)	bowl?	1		late 17th century?			
		bowl?	1		late 16th or 17th century			
		dish?	1		c. 1600-1650			
		flask?	1	optic-blown vertical ribs	17th century			
goblet		1		c. 1650-1700				
goblet		1		late 16th or 17th century	albarelo shaped?			
jar?		3		c. 1600-1650	albarelo shaped			
jar		1		c. 1600-1650	albarelo shaped			
phial		1		c. 1650-1700	cylindrical			
alembic		1		c. 1600-1650	collar			
Glass (dark green clear)	alembic	2		17th century?	spout			
	bowl	2		c. 1550-1650				
	case bottle	3		c. 1600-1650				
	flask, globular	1	heavy optic-blown mesh	late 16th or early 17th century				
	flask, globular	1		16th or early 17th century	albarelo shaped			
	jar	1		c. 1550-1650	globular			
	jar	1		16th or early 17th century				
	flask, globular?	1		late 16th or early 17th century	globular			
	wine bottle	1		c. 1650-1700				
	-	1		c. 1650-1700	undiagnostic body fragment			
Glass (green)	bowl	1		c. 1650-1700				
	bowl	1	splashed blue streaks and dots	c. 1650-1700				
	bowl?	4		c. 1650-1700				
	bowl?	2		c. 1650-1700				
	domed bowl lid	1		c. 1650-1700				
	goblet	1	splashes of blue and dark red swirls on bowl, splashed dots on stem and pedestal	c. 1650-1700?				
	lid finial	1		c. 1650-1700				
	pedestal cup	1		c. 1650-1700				

Data from Burch *et al.* (2010)

**Appendix 3 – Finds from 19-31 Moorgate, City of London (Contexts [49], [61], [62], Site Code: MGA00)**

Feature	Ware	Form	Quantity	Decoration	Date	Notes
Group 3 / Subgroup 118 / Context [49]	Chinese blue and white porcelain	bowl	1		c.1745-1780	rim
		cup, tea	1		c.1745-1780	rim
		plate	1	floral	c.1745-1780	profile
		-	1		c.1745-1780	
	English Porcelain	chamber pot	1		c.1745-1780	smashed profile
	London tin-glazed ware (Orton type C)	jar, cylindrical?	5		c.1745-1780	2 complete, medium ointment pot?, 1 profile, 1 rim, 1 base
		jar, medium cylindrical?	3		c.1745-1780	3 complete profile, large ointment pot?
		ointment pot	6		c.1745-1780	3 complete, 2 profile, 1 base
		plate	1		c.1745-1780	profile
		-	1		c.1745-1780	
	London tin-glazed ware (Orton type F)	plate	1		c.1745-1780	profile
	London-area post-medieval redware	bowl	1		c.1745-1780	base
		chamber pot	1		c.1745-1780	rim
		dish, flanged	1		c.1745-1780	profile
	Surrey-Hampshire border red ware	dish, small	3	internally glazed, brown	c.1745-1780	2 complete, 1 profile
		pipkin?	1		c.1745-1780	large skilnet or ladle profile, the vessel appears to be a second
		stool pan?	1	brown glaze	c.1745-1780	complete, wide-bowl with a flared rim?
		bowl, wide	1	internally glazed, yellow	c.1745-1780	profile
	Surrey-Hampshire border white ware	tripod pipkin	1	internally glazed, yellow	c.1745-1780	rim, cross-joins with sherds of same vessel in [61]
		chamber pot	1		c.1745-1780	handle
	Tin-glazed ware (Orton type not specified)	chamber pot	3	completely glazed in blue	c.1745-1780	2 smashed profile, 1 base
		jar, cylindrical	1		c.1745-1780	
		plate	1		c.1745-1780	profile, cross-joins with sherds of same vessel in [62]
		stool pan	1		c.1745-1780	rim
		-	1		c.1745-1780	
	White salt-glazed stoneware	cup, tea	1		c.1745-1780	profile
		tankard	1		c.1745-1780	
		bead	1		-	very small, plain and globular, surface decay has resulted in original colour being lost
	Glass	stopper	1		-	tapering stem and discoid head, possibly used with a phial?
		jar	1		-	registered find <115>
	Glass (clear)	wine bottle	6		c. 1725-1750	
	Glass (dark green)	flask, globular	1		c. 1680-1750	
Glass (green)	phial, cylindrical	59		c. 1725-1750		
	phial, globular	1		c. 1725-1750		
Glass (greenish to clear)	knife	1		18th century	part of blade remains but is very corroded, the handle has a rounded terminal and a roughly diamond-shaped section	
Composite - Ivory and Iron	mount?	1		-	tapering piece of sheet with a square hole in the wider end	
Cu / Cu alloy	pin	2		-	wound wire head	
Cu / Cu alloy	knife blade?	1		-		
Fe	bowl, barbers?	1		c.1745-1780	rim	
Group 4 / Subgroup 124 / Context [61]	London tin-glazed ware (Orton type C)	chamber pot	1		c.1745-1780	profile
		ointment pot	1		c.1745-1780	rim
		albarello	1		c.1745-1780	profile
	London tin-glazed ware (Orton type D)	bowl, handled	1		c.1745-1780	profile, loop handle
	London-area post-medieval redware	bowl?	1	internally glazed, yellow	c.1745-1780	tripod base, possible second of a pipkin base
	Surrey-Hampshire border white ware	lid	1	unglazed	c.1745-1780	profile
		pipkin	1		c.1745-1780	rim
		tripod pipkin	1	internally glazed, yellow	c.1745-1780	cross-joins with sherds of same vessel in [49]
		wine bottle	1		c. 1725-1750	9 sherds, indeterminate env
	Glass (dark green)	phial, cylindrical	1		c. 1725-1750	1 sherd
	Glass (clear)	aventurina vessel	1	spots of colour, and copper powder	-	likely from a small globular flask or bottle
	Glass (opaque white)	ring	1		-	
Cu / Cu alloy	plate	1		c.1745-1780	cross-joins with sherds of same vessel in [49]	
Group 3 / Subgroup 119 / Context [62]	London tin-glazed ware (Orton type C)	jar, cylindrical	1		c.1745-1780	rim
		pipkin	1	yellow glaze	c.1745-1780	
	Surrey-Hampshire border white ware	chamber pot	1		c.1745-1780	handle
Tin-glazed ware (Orton type not specified)	Chamber Pot	1		c.1745-1780	Handle	

Data from Sygrave (2002) and Sygrave *et al.* (2009)

**Appendix 4 – Finds from 108-119 The Grove, Stratford (Contexts (15), (33), (41), (47), (70), (78), Site Code: GVE01)**

Context	Ware	Form	Quantity	Decoration	Date	Notes
Fill (15)	Glass	-	1		?17th-early 18th century	greenish body fragments
		?jar	1		?17th-early 18th century	rim fragments
		apothecary bottle	1		17th- early 18th century	kicked base
		bottle	2		late 17th-early 18th century	green glass, thin walled
		onion wine bottle	1		late 17th-early 18th century	
		window glass	1		?late 17th-early 18th century	
		wine bottle	2		late 17th-early 18th century	
Fill (33) of pit [34]	Tin-glazed earthenware (Orton type not specified)	wine glass	3		early 18th century	lead glass, baluster stems
		alberello	6		late 17th century	
		alberello	1	finely painted leaves and cherubs	late 17th century	dutch, inscribed T: HYSTERIA
		poringer	1	plain white	late 17th century	could have been used as a bleeding bowl?
	Tin-glazed earthenware (Orton type F)	wet drug jar	1	blue on white with a female face, a sun, and an animal (?goat)	late 17th century	
		bowl	1		c. 1675-1700	
		dish	1		c. 1675-1700	
Fill (41)	Glass	phial	1		?18th- early 19th century	
		wine bottle	1		18th century	
Fill (47)	Glass	apothecary bottle	1		17th-18th century	adjoining fragments from kicked base
		trumpet wine glass	1		c. 1740-50	
		-	1		19th century?	colourless sherd
		-	1		19th century?	colourless sherd flashed with white and pink layers
Fill (70)	Tin-glazed earthenware (Orton type not specified)	drug jar	1	blue on white with a dragon, human face, a cartouche and writing	late 17th century	[?L]YMON inscription
	Glass	phial	3		17th- early 18th century	1 complete, 1 rim/neck fragment, 1 body fragment
	Glass	onion wine bottle	1		late 17th- early 18th century	
Fill (78)	Glass	case bottle	1		17th- early 18th century	adjoining rim/neck and body fragments from large 'case' bottle

Data from Leary (2001) and Leary & Jarrett (2002)

**Appendix 5 – Finds from 233-246 High Street, Brentford (Feature z32, No Site Code)**

Feature	Ware	Form	Quantity	Decoration	Date	Notes
z32	Brown salt-glazed stoneware	cup	2		mid-18th century	
	Fine earthenware	-	3	white with blue decoration	mid-18th century	undiagnostic body sherd
		bowl	1		mid-18th century	base
		mug	1	band of green moulded decoration on brown background	mid-18th century	base fragment
		teapot	1	greyish tortoise shell glaze with brown and green splashes, exterior, deep cream glaze internal	mid-18th century	whieldon-type
	Glazed red ware	bowl	4		18th century	
		chamber pot	1		18th century	
		dish	3		18th century	
		dry drug jar?	1		18th century	
		jar	2		18th century	rim fragment
		mug	1		18th century	remains of strap handle on one side
	Glazed white ware	bowl	1	internal bright green glaze	1650-1700	rim fragment
		dish	1	internal green glaze	1650-1700	rim fragment
	Marble	pestle handle	1		-	matches closely carrara marble
	Porcelain	bowl	1	painted with a dragon, both internally and externally in blue on bluish-white ground, unidentified sign on base	mid-to-late-18th century	complete
		bowl	1	chinese landscape in blue on bluish-white ground	mid-to-late-18th century	almost complete
		bowl	1	blue crescent mark on underside and blue decoration	mid-to-late-18th century	
		bowl	1		mid-to-late-18th century	
		saucer	1		mid-to-late-18th century	complete?
	Tin-glazed earthenware (Orton type not specified)	"domestic vessel"	5	light blue glaze	mid-18th century	nearly complete vessel
		albarello	10	geometric, blue glaze	18th century	
		bowl	7	light blue glaze	mid-18th century	rim fragment
		bowl/dish	1		mid-18th century	rim fragment, turned down rim
		bowl/dish	1	flowers in blue	mid-18th century	body sherd, probably from a base
		cup	1	pinkish glaze with blue and gold floral decoration	mid-18th century	decoration blurred
		dish	1	very light blue glaze	mid-18th century	rim fragment
		dry drug jar	2	angel with outspread wings and a scroll with clawlike appendages, blue on pinkish-white	17th century	1 inscribed FL. TVSSILAG, 1 inscribed DI ALT...
		dry drug jar	1	tassels and flowers, blue on light blue	17th century	small vessel'
		ointment pot	25	blue to very light blue glaze	late 18th-century?	
		plate	1	basket of flowers in blue and gold on a bluish-white background	mid-18th century	marked on the underside M. G. BRANTFORD 1752
		plate	1	oriental style 'chinaman by flowering shrub; blue on bluish background and powder blue border	mid-18th century	
		plate	2	blue on very light blue background	mid-18th century	two large rim fragments
		plate	1	leaves and flowers in blue and gold	mid-18th century	part of rim
		plate	1	horizontal blue bands	mid-18th century	body sherd, possible type 1a plate
		wet drug jar	1	pipe smoking man cartouche, blue on grey-ish white	1630-1660	inscribed S. CORTICUM
		wet drug jar	1	cartouche with swags and tassels, blue on grey-ish white	1669-1680	inscribed S. DE POMPUR
	wet drug jar	1	pinkish white glaze	1650-1700	bottom half of jar only	
	Unglazed red ware	pot	2		-	
	White salt-glazed stoneware	bowl	5	scratch blue	mid-18th century	
		jug?	1		mid-18th century	hemispherical body with high tapering top
		plate	1	grey-ish white glaze with scalloped edge	mid-18th century	
		plate	2		mid-18th century	fragment of moulded rim
	Glass	plate/dish	1	grey-ish glaze	mid-18th century	
		phial	28		-	19 complete, 9 fragmentary

Data from Canham (1978)

**Appendix 6 – Ceramic Finds from Lion Walk, Colchester (Site K Feature 15, Site B Feature 14 [Stratified Group 20], Site V Feature 2 [Stratified Group 19], Site C Features 61, 42, 23, 19, and 95 fill (65), Site Code: LWC)**

Sub-Site	Feature	Ware	Form	Quantity	Decoration	Date	Notes
LWC K	F15	North Netherlands tin-glazed earthenware	albarello	2	painting label	c. 1550-1600	
			albarello	4	geometric	c. 1550-1600	
			pharmaceutical bottle	1		c. 1550-1600	
		Cologne or Frechen stoneware	bartmann jug	1		c. 1550-1575	complete
			cup	1		-	
		Post-medieval red earthenware	bowl	1		-	
			tripod pipkin	1		-	not illustrated
		Early Central Essex-type post-medieval red earthenware	pancheon	1		-	complete

Data from Cotter *et al.* (2000)

Sub-Site	Feature	Ware	Form	Quantity	Decoration	Date	Notes
LWC B	F14	'Tudor Green' ware	-	-	-	-	not illustrated, 2 sherds
		Colchester-type ware	-	-	-	-	not illustrated, 19 sherds
		Early-medieval sandy ware	-	-	-	-	not illustrated, 4 sherds
		Frechen stoneware	jug	8	c. 1575-1625		
		Guy's type ware	dish	1	c. 1575-1625		
		Langerwehe stoneware	jug	1	c. 1600-1650		
		Low Countries red earthenware	tripod cauldron	1	c. 1600-1650		
		Medieval sandy greyware	-	-	-	-	not illustrated, 3 sherds
		Pipe clay	tobacco pipe bowl	4	1640-1660		
		Post-medieval redware	-	-	c. 1600-1650		
		Post-medieval redware	-	1	c. 1600-1650	handle sherd	
		Post-medieval redware	-	1	c. 1600-1650	handle sherd?	
		Post-medieval redware	bowl	5	c. 1600-1650		
		Post-medieval redware	bowl, large	1	c. 1600-1650		
		Post-medieval redware	bowl?	1	c. 1600-1650		
		Post-medieval redware	cup?	1	c. 1600-1650		
		Post-medieval redware	dish	2	c. 1600-1650		
		Post-medieval redware	jar	1	c. 1600-1650		
		Post-medieval redware	mug	1	c. 1600-1650		
		Post-medieval redware	pitcher	1	c. 1600-1650		
		Post-medieval redware	plate or dish	2	c. 1600-1650		
		Post-medieval redware	storage jar, large	7	c. 1600-1650		
		Post-medieval redware	tripod pipkin	2	c. 1600-1650		
		Raeren stoneware	-	-	-	-	not illustrated, 3 sherds
		Siegburg stoneware	-	-	-	-	not illustrated, 1 sherd
		Spanish olive jars	olive jar	-	c. 1600-1650	not illustrated, 6 sherds	
		Surrey-Hampshire border white ware	-	-	-	-	not illustrated, 2 sherds
		Tin-glazed earthenware (general)	albarello	9	c. 1575-1625		
		Tin-glazed earthenware (general)	albarello/drug jar/wet drug jar	10	c. 1575-1625	not illustrated, minimum of 20 drug jars, maximum 25, complete or near complete	
		Tin-glazed earthenware (general)	plate	1	c. 1575-1625		
		Tin-glazed earthenware (general)	wet drug jar	1	c. 1575-1625		
		Werra slipware	-	-	-	-	not illustrated, 2 sherds
Wesser slipware	-	-	-	-	not illustrated, 1 sherd		
Westerwald stoneware	tankard	1	c. 1700	either a very early example or intrusive			

Data from Cotter *et al.* (2000)

Sub-Site	Feature	Ware	Form	Quantity	Decoration	Date	Notes
LWC V	F2	'Hessian' ware	crucible	1		c.1600-1650	found to contain droplets of mercury suggestive of pharmaceutical or alchemical practices
		Anglo-Netherlands tin-glazed earthenware	albarello	4		c.1600-1650	
		English or Netherlands tin-glazed earthenware	albarello	1	complete blue-green glaze	c.1620-1630	
		Frechen stoneware	jug	1		-	
		Guy's type ware	plate or dish	1		c.1600-1650	
		Low Countries red earthenware	-	1		-	not illustrated
		Netherlands tin-glazed earthenware	albarello	2		c.1600-1650	
		Pipe clay	tobacco pipe bowl	18		1640-1660	
			tobacco pipes	-		1600-1640	unknown number
		Post-medieval redware	dish	1		-	
			jar	2		-	
			jar, handled?	1		-	
		Surrey-Hampshire border white ware	-	-		-	
	colander	1		-			
Tin-glazed earthenware (general)	-	-		c.1600-1650	2 sherds		

Data from Cotter *et al.* (2000)

Sub-Site	Feature	Ware	Form	Quantity	Decoration	Date	Notes
LWC C	F19	Anglo-Netherlands tin-glazed earthenware	albarello	1		c. 1600-1650	
			wet drug jar	1		c. 1600-1650	
		Montelupo ware	tazza	1	polychrome	-	not illustrated
		Pipe clay	tobacco pipe	5		1600-1640	not illustrated
		Tin-glazed earthenware	drug jar	1		c. 1600-1650	
	F23	Westerwald stoneware	jug	1		-	
		Anglo-Netherlands tin-glazed earthenware	albarello	1		c. 1600-1650	
	F42	Anglo-Netherlands tin-glazed earthenware	albarello	4		c. 1600-1650	
			wet drug jar	1		c. 1600-1650	
		Dutch tin-glazed earthenware	plate	1		-	joins plate sherds from F65/95
		Tin-glazed earthenware	albarello/drug Jar	1	geometric decoration, interlaced chevrons	c. 1600-1650	not illustrated
	F61		vase	1		-	egg-shaped
		Netherlands tin-glazed earthenware	albarello	1		c. 1600-1650	
		Pipe clay	tobacco pipe	3		1600-1640	not illustrated
	F65/95	Border ware	dish	1		-	
		Dutch tin-glazed earthenware	plate	9		c. 1630-1640	4 not illustrated
		Metropolitan slipware	jug	1		c. 1640-1650	
Netherlands tin-glazed earthenware		albarello	1		c. 1600-1650	not illustrated	
Pipe clay		tobacco pipe	1		1610-1640	not illustrated	
		tobacco pipe	4		1600-1640	not illustrated	
	Westerwald stoneware	jug	1		c. 1650		

Data from Cotter *et al.* (2000)



**Appendix 7 – Finds from 13-25 London Street, Norwich (Contexts (32) and (33), No Site Code)**

Context	Ware	Form	Quantity	Decoration	Date	Notes	
(32) / (33)	Anglo-Dutch tin-glazed earthenware	Base	1	blue and yellow decoration, trivet scar	late 17th century		
	Anglo-Netherlands tin-glazed earthenware	Albarello	29	geometric blue and yellow decoration	c.1625-1650		
	Anglo-Netherlands/Dutch tin-glazed earthenware	Plate	7		late 17th century		
	Dutch lead-glazed white earthenware	Cauldron	1		16th to early 17th centuries		
	Dutch tin-glazed earthenware	Plate	5		1670-1680		
	Dutch/Netherlands tin-glazed earthenware	bottle?	1			early 17th century	
		bowl	3			1640-60	
		dish	1			-	
		Faenza-type fluted bowl	1			16th-17th century	
		mug	1			early 17th century	
		plate	4			1630-1640	
		porringer	1			early 17th century	
	Dutch-type red earthenware	bowl, collar-rimmed	2			late medieval to early post-medieval	
		bowl	1			late medieval to early post-medieval	
		skillet	1			late medieval to early post-medieval	
	English tin-glazed earthenware	base	1	white glaze, dark and light blue decoration		c.1680	
		bowl	1	off-white glaze with mid blue, dull green and brownish-orange decoration		first half 18th century	
		dish	1			-	
		jug	1			1630-1650	
		mug	3			1630-1640	
		plate	2			1750-1770	lambeth
		punch-bowl	1			1620-1630	
	tea-bowl	1			late 17th century		
	English tin-glazed earthenware (probable)	ointment pot?	7			c.1625-1650	
	Frankfurt? Dutch? tin-glazed earthenware	jug	1	thick white glaze on interior and exterior, light and mid blue decoration, blue spots on exterior base		c. 1680	
	Frechen stoneware	jug	1			17th century	
	Glazed red earthenware	base	1			16th to 18th century	
		bowl	4			16th to 18th century	
		chafing-dish	2			16th to 18th century	
		jug	1			16th to 18th century	
		lid	1			16th to 18th century	
		pancheon	2			16th to 18th century	
		skillet or pipkin	4			16th to 18th century	complete
	storage jar	3			16th to 18th century	two long thumbled lug handles	
	Grimston-type ware	jug	1			14th-15th century	handle, residual, medieval
	Local slipware	mug	1			17th century	
	Metropolitan flatware	dish	2			17th century	probably made in Essex, inscription ]EBABRA[
	Metropolitan hollowware	cup	1			17th century	
	Montelupo tin-glazed earthenware	plate	1	discoloured off-white glazed surfaces, mid and dark blue decoration, stackingscars on exterior base, trivet scars		1620-1650	
	Netherlands tin-glazed earthenware	charger	1	white glaze, mid and dark blue and pale leaf-green decoration with orange and opaque brown-ochre motifs outlined in blue, lead glazed back, trivet marks and hanging hole		c. 1640	
North Holland flatware	dish	1	sketchy white slip decoration, glazed internally with faint copper-green patches		16th/17th century		
Post-medieval iron-glazed	cup	1			16th to 17th century		
	mug	2			16th to 17th century	fulmodeston	
	tyg	1			16th to 17th century		
Speckle-glazed ware	cup	1			late 17th to 18th centuries		
	jug	2			late 17th to 18th centuries		
	mug	1			late 17th to 18th centuries		
	mug or cup	1			late 17th to 18th centuries		
Staffordshire wares	mug	1			18th century		
Stoneware	Martincamp flask (type II)	1			16th century		
	bowl	6			16th/17th century		
	carinated bowl	1			17th century		
	dish	2			17th century		
	pipkin	1			16th/17th century		
Surrey white ware	small dish	1			17th century	rolled over rim	
	jug	1	two applied face masks, one either side of the main motif, all surrounded by blue		c. 1700		

Data from Jennings *et al.* (1981) and Margeson *et al.* (1993)

Context	Ware	Form	Quantity	Decoration	Date	Notes
(32) / (33)	Glass	alembic tube?	2		post-medieval	
		beaker	1	single spiral lattimo stripes	post-medieval	
		bowl	2		post-medieval	
		bowl / dish	1		post-medieval	
		case bottle	1		post-medieval	
		drinking glass	6	folded foot decorated with vertical mould blown ribbing	post-medieval	
		flask	1	glass decorated with spiral mould-blown ribbing on second gather	16th century	
		hanging lamp	2		post-medieval	
		phial	6		post-medieval	2 complete, hexagonal
		small dish	9		post-medieval	one of at least nine small dishes
		stemmed goblet	1	honeycomb moulding	post-medieval	
wide-mouthed jar	1		post-medieval			

Data from Jennings *et al.* (1981) and Margeson *et al.* (1993)

**Appendix 8 – Finds from Kevin Street, Dublin, Ireland (Contexts 58, 60, 65, Site Code: 15E0033)**

Feature	Ware	Form	Quantity	Decoration	Date	Notes	
58	Anglo-Netherlands slipware	dish	1		17th		
	Dutch red earthenware	cooking pot	1		mid 16th to mid 17th century	small sherd	
	Frechen stoneware	jug	1	possible armorial roundel and flower motif, cobalt blue dotted	1st half 17th century	white fired	
60	Dublin-area glazed red earthenware	large bowl	3		1st half 17th century		
		ointment pot	5	internally glazed, '1639' incised into the clay	1st half 17th century	complete / near complete	
		storage jar/cooking pot	2		1st half 17th century		
	Dutch red earthenware	cockerel bowl	1			mid 16th to mid 17th century	
		colander	1			mid 16th to mid 17th century	unusually large and almost completely flat, three handles
		colander	1			mid 16th to mid 17th century	small sherd
		cooking pot	7			mid 16th to mid 17th century	tripod feet
		knob / finial	1			mid 16th to mid 17th century	possibly from a cooking pot lid
	Dutch white earthenware	pan	2			1st half 17th century	tripod feet, pouring lip but no handle
		plate	1			1st half 17th century	
	Frechen stoneware	bottle	1			1st half 17th century	
		jug	2	three large armorial stamps in relief, highlighted in blue, along with a face mask, similarly highlighted		1st half 17th century	c.600mm-tall
			jug	1	stylised face mask with hourglass mouth	early to mid 17th century	
	Glazed white earthenware	-	1			17th /18th	1 indetermiante vessel
	North Devon gravel free	jug	1			late 16th-17th century	
	Porcelain	bowl	2	painting in blue with no figures and buddhist and daoist good luck symbols		1st half 17th century	Chinese, kraak porcelain, imported via the netherlands
	Tin-glazed earthenware	albarello	8	geometric, polychrome, blue and yellow		17th century	presumed Dutch
		dish	4	possibly mirroring the kraak porcelain		17th century	
		large bowl	1	chinese style with panels, birds, flowers on the interior and cross and dots designs on the exterior		17th century	
		ointment pot	1	geometric, blue and white		17th century	possibly London made
		plate?	4	blue & white with yellows and greens		early 17th century	
	Westerwald stoneware	jug	1	grey stamps depicting stylised trees, in relief on blue		1625-1650	15 sherds
	Wood	bent-wood box	1			1640-1660s	pine, partially still intact
bent-wood box base/lid disc		42			1640-1660s	pine	
bent-wood box side		16			1640-1660s	pine	
stave-built cask		1			1640-1660s	nine staves, and disc base, oak, particularly small example	
stave-built vessel		1			1640-1660s	staves and discs representing potentially two more casks	
65	Seville coarseware	olive jar	1		17th		
58/60/65	Black glazed ware		1		16th /18th	30 sherds	
58/65	Slip trailed glazed red earthenware	bowl	1		mid 17th-18th century		
	Surey-Hampshire border ware	porringer	1		late 16th-17th century	two lug handles, considerable internal ware, 7 sherds	
60/65	Bristol/Staffordshire slipware	plate	1		mid 17th-18th century		
		tankard	2		mid 17th-18th century		

Data from McCutcheon (2018) and Moore & O'Carroll (2018), unpublished data courtesy of Archaeological Projects Ltd. (Ireland)

**Appendix 9 – Apothecary vessel finds from The Dr George Gilmer Household (1735-1757), Colonial Williamsburg Lot 164, VA, USA (Trash Pits A - F, No Site Code)**

Feature	Context / Layer 'ER'=1967 excavation '29G'=1988 excavation	Ware	Form	Quantity	Decoration	Date	Notes
'Trash Pit' A	ER1268L	Tin-glazed ware	albarello	31	painted underglaze blue	early to mid 18th century	english manufacture
		Tin-glazed ware	albarello	1		early to mid 18th century	english manufacture
		Tin-glazed ware	albarello	1	painted underglaze polychrome	early to mid 18th century	english manufacture
		Tin-glazed ware	ointment pot	59		early to mid 18th century	english manufacture
		Glass	phial / bottle	9		early to mid 18th century	pharmaceutical / toiletry function, free blown empontilled base
	ER1268N	Tin-glazed ware	albarello	21	painted underglaze blue	early to mid 18th century	english manufacture
		Tin-glazed ware	ointment pot	39		early to mid 18th century	english manufacture
		Glass	carboy / demijohn	1		early to mid 18th century	Hand finished
		Glass	case bottle	3		early to mid 18th century	
	29G-00414	Tin-glazed ware	albarello	3	painted underglaze blue	early to mid 18th century	english manufacture
		Tin-glazed ware	albarello	4	painted underglaze blue	early to mid 18th century	english manufacture
		Tin-glazed ware	ointment pot	11		early to mid 18th century	english manufacture
		Glass	phial / bottle	3		early to mid 18th century	pharmaceutical / toiletry function, free blown empontilled base
		29G-00501	NO PHARMACEUTICAL VESSELS				
29G-00503	NO PHARMACEUTICAL VESSELS						
'Trash Pit' B	ER1268Q	NO PHARMACEUTICAL VESSELS					
Trash Pit' C	ER1268M	Tin-glazed ware	albarello	8	painted underglaze blue	early to mid 18th century	english manufacture
		Tin-glazed ware	ointment pot	15		early to mid 18th century	english manufacture
		Glass	case Bottle	1		early to mid 18th century	
		Glass	phial / bottle	3		early to mid 18th century	pharmaceutical / toiletry function, free blown empontilled base
'Trash Pit' D	ER1268P	Tin-glazed ware	albarello	4	painted underglaze blue	early to mid 18th century	english manufacture
		Tin-glazed ware	ointment pot	6		early to mid 18th century	english manufacture
	29G-00422	NO PHARMACEUTICAL VESSELS					
	29G-00423	NO PHARMACEUTICAL VESSELS					
	29G-00424	NO PHARMACEUTICAL VESSELS					
	29G-00425	NO PHARMACEUTICAL VESSELS					
	29G-00426	Tin-glazed ware	albarello	2	painted underglaze blue	early to mid 18th century	english manufacture
		Tin-glazed ware	ointment pot	3		early to mid 18th century	english manufacture
		Glass	phial / bottle	2		early to mid 18th century	pharmaceutical / toiletry function, free blown empontilled base
	29G-00427	Tin-glazed ware	albarello	2	painted underglaze blue	early to mid 18th century	english manufacture
		Tin-glazed ware	ointment pot	1		early to mid 18th century	english manufacture
		Glass	phial / bottle	2		early to mid 18th century	pharmaceutical / toiletry function, free blown empontilled base
	29G-00428	Tin-glazed ware	ointment pot	2		early to mid 18th century	english manufacture
29G-00429	NO PHARMACEUTICAL VESSELS						
29G-00430	NO PHARMACEUTICAL VESSELS						
29G-00431	NO PHARMACEUTICAL VESSELS						
'Trash Pit' E	ER1265E	Tin-glazed ware	albarello	1	painted underglaze blue	early to mid 18th century	english manufacture
		Tin-glazed ware	ointment pot	3		early to mid 18th century	english manufacture
		Glass	phial / bottle	5		early to mid 18th century	pharmaceutical / toiletry function, free blown empontilled base
	ER1265F	Tin-glazed ware	albarello	2	painted underglaze blue	early to mid 18th century	english manufacture
		Tin-glazed ware	ointment pot	12		early to mid 18th century	english manufacture
29G-00448	Glass	case Bottle	1		early to mid 18th century		
	Glass	phial / bottle	5		early to mid 18th century	pharmaceutical / toiletry function, free blown empontilled base	
'Trash Pit' F	29G-00448	NO PHARMACEUTICAL VESSELS					
	29G-00661	NO PHARMACEUTICAL VESSELS					

Data from Samford *et al.* (1999)