Are assemblages from garden beds useful? A case study of the Audley End Parterre archaeological archive

Caitlin Scott

A thesis submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy

Department of Archaeology, University of Sheffield

Submitted on 30 April 2021

Abstract

This thesis aims to consider to what extent the archives and assemblages from garden archaeology projects are useful for research, using a case study: a 1985-1987 restoration-led excavation in the early-19th century parterre garden at Audley End House (Essex). Firstly, it synthesises the historiography and theoretical paradigms of archaeological research in country houses and their gardens, focusing on the methodologies and outcomes of restoration-led garden excavations in the later-20th century. The thesis then takes a chronological and thematic approach to the Audley End parterre project archive, integrating a reassessment of the structural and horticultural evidence revealed during excavation with an analysis of the domestic material culture assemblage, providing new insights into Audley End and its gardens.

This thesis collates, evaluates, and contextualises evidence for pre-garden site use that was glimpsed during the excavation of the parterre flowerbeds, thus exploring the successive development of different buildings including Walden Abbey (c.1141-1538) and the Dissolution-era courtyard house, Audley Inn (1538-c.1605). It outlines the archaeological record of the 1832 parterre, situating it within the revival of formal garden design and contemporary horticultural advice. However, it also considers how the palimpsestic nature of formal gardens and the selective removal of archaeological deposits limit the development of holistic interpretations.

The thesis also analyses the object biographies of medieval and post-medieval domestic material culture types (pottery, vessel glass, clay pipes, and small finds), providing insight into various facets of country house life including dining, drinking, and household management. It presents an original consideration of the potential depositional trajectories of artefacts into garden beds. Finally, this thesis considers other parterre garden excavations (Kirby Hall, Castle Bromwich, Hampton Court Palace, and Witley Court) to place the Audley End Parterre archaeological archive and material culture assemblage in its wider context, thus considering the opportunities and challenges in garden archaeology today.

Acknowledgements

This work was supported by the Arts & Humanities Research Council's Collaborative Doctoral Partnership Scheme (project reference 1941137). Thank you to the AHRC, the University of Sheffield, English Heritage, and WRoCAH, for facilitating and supporting this research.

I would like to thank the staff and volunteers at English Heritage's Wrest Park Collections Store and Audley End House, particularly Rachel Kitcherside, Vesna Podrzaj, Sally Johnson, Peter Moore, Dickon Whitewood, and Andrew Hann, for granting access to collections, sharing your knowledge, and ensuring my research trips were both useful and enjoyable.

I would like to thank the various material culture specialists who provided their expertise and guidance: Duncan Brown, Chris Jarrett, Berni Seddon, Helen Walker, and other attendees of the Medieval Pottery Research Group's visit to Wrest Park on 25 May 2019; David Higgins and Susie Wright of the Society for Clay Pipe Research; and the osteologist Jennifer Crangle.

I would also like to thank the garden archaeologists and curators who provided additional site reports and professional perspectives that informed the thesis corrections: Michael Klemperer and Emily Parker at English Heritage; Daniel B. Jackson at Historic Royal Palaces; and Ros Buck, Rachael Hall, Pam Smith, and Helen Wilshaw at the National Trust.

I would like to acknowledge the original 1985-1987 parterre excavation team whose hard work forms the basis of this thesis, especially Paul Drury and Andrew Harris, who answered my questions about Audley End with patience and kindness.

Thank you to my supervisory team, Wendy Monkhouse, Charlotte Newman, and Hugh Willmott, and to my SpLD tutor, Paul Barnes, for your invaluable guidance and support throughout the project - I'll always be grateful for this opportunity. Thank you to my external examiners, Harold Mytum and Jan Woudstra, for insightful viva discussion and corrections.

Thank you to my friends in the Sheffield, CDP, WRoCAH, and archaeological PGR communities, especially to Lamia Sassine, Joel Baker, Sarah Poinros, Chris Dwan, and Sam Bromage. Extra special thanks to Katie Libby for countless coffees, friendly feedback sessions, and K-dramas.

Finally, this thesis is dedicated to Mum and Pete, for your constant support and patience, and to Nathan, who always believed that I could actually finish it - I love you.

Contents

List of figures

List of tables

‘A mansion no less than a cottage derives most of its charm from those who live in it’

Audley End by William W. Addison (1951, 1)

1. Introduction

1.1. Project outline

1.1a. The archaeological record of garden reconstruction

Archaeological projects targeting the remains of British historic gardens are an under-discussed phenomenon within academia. Common in the 1980s and 1990s, the majority of these garden archaeology projects were undertaken as part of garden restoration schemes, using archaeological methodologies to reveal flowerbeds, structures, and other features that were then reconstructed. Unlike other archaeological projects, the intention with many garden excavations was not to inform a comprehensive understanding of site development and use; rather, garden archaeologists focused on uncovering the footprint of a singular garden phase, with data relating to other periods preserved in-situ or, if this was not possible, through the excavation's documentary record. As such, these projects provide a complex legacy for modern archaeologists, one that is approached within this thesis.

Some of these projects were published in specialist journals such as *Garden History*, enhancing academic understanding of historic garden design, planting schemes, and construction techniques. However, the results of excavations within smaller gardens often remained confined to 'grey literature' reports, whilst incidental discoveries including pre-garden structures and domestic material culture assemblages were overlooked. A recent reappraisal of legacy archives by heritage agencies, alongside the digitisation of unpublished excavation reports, provides an opportunity to reconsider these projects as an untapped resource for academic enquiry. This thesis explores how archaeological archives from garden reconstruction projects could be used to enhance understanding of historic sites and their material culture, focusing on a particular case study: Audley End House and its 19th-century parterre garden.

1.1b. Audley End House and its archaeological archive

Audley End House is situated to the west of the town of Saffron Walden in north-east Essex (see Figure 1.1). The house is predominantly 17th century in character, surrounded by a 19th-century garden and 18th-century designed landscape, although elements of the landscape embody its earlier history as a medieval monastery and Tudor courtyard house (Drury, 2011; Alexander, 2015). Audley End was sold in 1949 by its final private owner, Henry Seymour

Neville, to the Ministry of Works, becoming their first country house acquisition (Thurley, 2013, 186); the property is now cared for by the English Heritage Trust and remains one of their most important properties within the east of England (Alexander, 2015, 1). The biography of the house and gardens is integral to this thesis and will be elaborated upon within Chapters 3-8.

Figure 1.1: Location of Audley End House, Essex. Contains OS data © Crown copyright and database rights 2021. Ordnance Survey (100025252).

Objects from excavations and other projects at Audley End House are now stored at English Heritage's Wrest Park Collections Store (see Figure 1.2), representing a total of 4090 accession records at the beginning of this research. The archive includes archaeological objects, architectural materials, and documents. It spans a wide range of material types, including stonework, ceramics, window and vessel glass, metalwork, woodwork, animal and human bone, clay pipes, shells, and lithics. There is also a paper archive, consisting of excavation reports and on-site documentation (the contents of which are illustrated within Chapter 3), as well as ongoing heritage management information, more recent project materials including oral history recordings, and published information about the house. The integration of objects and documents into a shared collection held at the Wrest Park Collections Store allows for environmental controls and integrated pest management and has created a dedicated space for research into the house and its collections.

The majority of the archaeological archive originates from a project carried out by Chelmsford Archaeological Trust between 1985 and 1987, a three-year programme of excavation seeking to restore the 19th-century parterre garden to the east of the house. The parterre garden was originally designed with the involvement of the landscape gardener William Sawrey Gilpin and completed around 1832, before becoming overgrown by the 1950s. The excavation uncovered the precise layout of the parterre flowerbeds and acted as the first step in restoring and replanting them, as well as revealing pre-garden structures underneath the historic flowerbed fills. As with many excavations of this period, post-excavation analysis and reporting were not completed, and some attrition of the archive occurred. An assessment ten years after the original project suggested that the results should be disseminated in two stages: the revision of draft reports about structural evidence for the medieval and Tudor history of the house, with original finds research, and the production of a new report into the 19th-century garden (Hayfield, 1997). However, beyond brief references in regional newsletters and articles synthesising garden archaeology projects, the results of the excavation remained unpublished and thus under-valued.

Figure 1.2: Audley End House's archaeological archive within English Heritage's Wrest Park Collections Store (author's image).

1.1c. Project ethos

After the reorganisation of English Heritage in 2015, Audley End House and other properties within the National Heritage Collection have come under the purview of the English Heritage Trust. The trust has defined four organisational priorities, the second of which, under the branch of conservation, states that the trust will "develop our collection, increasing understanding through outstanding research" (English Heritage, 2015). The archaeological collections from Audley End have received little scholarly attention, thus presenting an opportunity for new research that increases understanding. A recent report series, titled *Museums Collecting Archaeology,* has also demonstrated that there is a crisis in the storage of archaeological archives within the UK, with many museums and heritage bodies facing space and staff shortages (see Society for Museum Archaeology, 2018); the re-evaluation of the heritage value of existing archives by external specialists may mitigate some of these issues.

This thesis is a Collaborative Doctoral Award, proposed by the original thesis supervisors, Hugh Willmott (University of Sheffield) and Charlotte Newman (English Heritage). The initial project outline sought to explore the pre-Jacobean structural history of the house as incidentally revealed by the parterre excavation and to contextualise material culture from across the house's history, although it also emphasised the adaptability of the project to follow archival leads and researcher interests (Newman and Willmott, 2017). The characterisation of the assemblage has been used as a research tool, facilitating "meaningful generative encounters" with domestic material culture and site documentation (Voss, 2012, 145); this thesis research informs and is informed by the archaeological archive, a symbiotic process of knowledge acquisition and contextualisation.

During this research, it became apparent that the structure and content of the archaeological archive were shaped not just by the palimpsestic nature of Audley End, but also by the methodologies and principles applied during the 1985-1987 excavation that were common to garden archaeology of the later-20th century. As such, this thesis critically evaluates whether the archaeological archives of garden restoration projects, which act as the material record of these interventions within historic landscapes, can be used to explore more than just the design of a singular garden phase. It acts as a reassessment of Audley End House's archaeological record, a presentation of original research into elements of its material culture, and a consideration of the legacy of garden archaeology as a discipline.

1.2. Aim and objectives

The objectives of this project developed organically as archival research progressed, becoming more refined in scope to emphasise effective methodologies and particular material types, and developing a distinctive theoretical and methodological ethos. The main aim of this thesis is to develop academic understanding of Audley End House's architecture, landscape, and material culture by reassessing and contextualising the archaeological archive from the parterre excavation. Through this, it also aims to consider the opportunities and limitations inherent in the analysis of archaeological archives from garden reconstruction, exploring how this can contribute to site-specific narratives and to the evaluation of historic archaeological practice.

This has been divided into four objectives:

1. To explore the context and methodology of the parterre excavation, situated within the practice and hermeneutic framework of garden archaeology, and how this has informed the structure and composition of the resulting archaeological archive
2. To outline the potential significance and limitations of the structural and horticultural evidence as revealed by the parterre excavation within new academic paradigms
3. To analyse the object biographies of medieval and post-medieval domestic material culture, considering socio-economic implications of its supply, use, and deposition
4. To consider the applications of this thesis to the research, guardianship, and public interpretation of country houses, historic gardens, and legacy archaeological archives from garden restoration projects

This thesis is thematic and biographic, considering diachronic social, political, and religious experiences at Audley End House. It includes original research into parts of the artefact assemblage, exploring the trajectory of domestic material culture from procurement, to use, to discard, as well as the complex taphonomy of assemblages from garden bed contexts. It emphasises the methodological and disciplinary biases specific to garden archaeology that have influenced the resulting archive, considering to what extent past excavation and recording strategies allow for the reinterpretation of features and objects. By presenting this research, the thesis also suggests a future direction for garden archaeology, encouraging informed engagement with archaeological archives from previous projects to enhance site narratives and interpretation strategies.

2. Background and Methodology

2.1. Introduction

This chapter outlines the theoretical and methodological approaches taken within this thesis. It first considers changes to archaeological and curatorial practices and their effect on the research, guardianship, and interpretation of country houses and historic gardens. This shows how the archaeological archive from the Audley End parterre was shaped by both the 'preservation by record' approach to excavation and by the development of restoration-led garden archaeology in the later-20th century. It explores the theoretical context for this thesis research, emphasising approaches that enliven architecture, object, and assemblage. This chapter then outlines the methodology used to analyse the documentary archive and domestic material culture from the parterre excavation. This explains how the thesis research allowed for the detailed analysis of the archive, exploring to what extent it enabled the reinterpretation of features and artefacts, whilst also considering the functions, uses, and meanings of domestic objects and placing them within architectural, horticultural, and socio-political contexts.

2.2. The development of archaeological practice and its application to country houses and historic gardens

2.2a. Impetus for the protection and research of post-medieval sites, 1877-1975

The first organisations aiming to preserve historic houses were formed in response to the Industrial Revolution, which instigated an intensification of urban development. The Society for the Protection of Ancient Buildings, for instance, was founded in 1877 by William Morris and Philip Webb (Schofield *et al.*, 2011, 31). The society encouraged preservation without altering the character of the building, "to put Protection in the place of Restoration" (Morris, Webb *et al.*, 1877). In contrast, the Office of Works commissioned architects to carry out elaborate restorations to emphasise a particular period, notably the redesigning of Hampton Court (Richmond upon Thames, London) as a Tudor palace (Thurley, 2013, 26). These approaches, although disparate, were both inspired by the need to protect heritage during urban development schemes and informed how country houses were protected in the 20th century.

The financial depression of the 1930s and two world wars caused further damage to historic buildings. Although country houses were rarely bombed, they were often requisitioned as

training centres or hospitals, with some buildings damaged to the extent that they were unusable (Mandler, 1997, 314). Instead of undertaking extensive repairs, country house owners, who also faced the payment of death duties and a declining land market, often considered demolishing their properties (Worsley, 2011, 7). Responding to this threat, a campaign pioneered by Philip Kerr encouraged the transfer of houses to the National Trust in lieu of death duties with endowments for their upkeep, resulting in the 1937 Country House Scheme (Mandler, 1997, 304–305; Adams, 2013, 3). The Ministry of Works, meanwhile, sought to develop their collection of national heritage assets by buying or being gifted houses, beginning with their acquisition of Audley End House in 1949 (Thurley, 2013, 186); this is discussed further in Chapter 7.2c. House protections were further codified by the creation of the listing system under the 1979 *Ancient Monuments and Archaeological Areas Act,* which brought historic buildings including country houses under the umbrella of planning legislation (Schofield *et al*., 2011).

At the same time, sites dating from the 16th to 19th centuries were of increasing interest to archaeologists. Post-medieval archaeology in Britain stemmed from post-war urban rescue excavations and associated material culture analysis (Courtney, 1999, 5). which developed as part of the professionalism of British archaeology in the 1960s and 1970s. This involved an increased interest in the vertical sequencing of urban stratigraphies, revealing and recording the physical relationships between stratigraphic layers (Lucas, 2001, 54; Greene and Moore, 2010, 93), which can be seen as steps towards the mechanisation of archaeological practice (Lucas, 2001, 55). In 1967, the Society for Post-Medieval Archaeology was founded, gathering a growing number of specialists in the field to discuss issues and projects (Mytum, 2016). In the first issue of the *Post Medieval Archaeology* journal, country houses were explicitly noted as an important part of the agenda for future research. They were described as “major domestic sites where the planning and positioning of the house is governed by the need to impress visitors with the noble or gentle state of the owner” (Hurst, 1967, 107); this focus on architectural layout and historical ownership hints at the academic motivations behind the earliest projects at country houses.

Early projects took place at ruined houses and palaces, where open-plan excavation could reveal architectural layout. A prominent example is the excavation of Nonsuch Palace (Surrey), by Martin Biddle and volunteers from the Nonsuch and Ewell Antiquarian Society, between 1959 and 1960 (Gaimster, 2001). The excavation focused on reconstructing a ground plan of

Henry VIII's palace, primarily aiming to "help the visitor…to locate the site and to see, in imagination, 'Towers and battlements…Bosom'd high in tufted trees'" (Dent, 1962, 19). Large open-plan trenches revealed a double-courtyard layout with a gatehouse to the north and showed that the upper courtyard was elaborately decorated with stucco figures (Dent, 1962; Gaimster, 2001). The recovered material culture assemblage dated from this period through to the Restoration era (Dent, 1962, 240; Biddle, 2005). However, a lengthy gap between the recovery and publication of these artefacts, and the fact that the excavation stratigraphy was not published, has limited this project's influence on the academic sphere.

The excavation at Nonsuch encouraged similar projects at other ruined country houses and palaces. Between 1963 and 1967, the demolished Elsyng Palace (Enfield, London) was excavated by the Enfield Archaeological Society, revealing five phases of building activity (Hurst, 1967, 114). Contemporary documents noted how the house was transferred to Henry VIII's possession in 1539 and expanded to incorporate new rooms including a library, hall, and chapel (National Heritage List for England, 2015). The excavation revealed a complex asymmetrical inner and outer court plan with associated water gardens (Jones and Drayton, 1984), which was integrated with pottery analysis (Hurst, 1967, 114) to inform an understanding of diachronic architectural change. Another project was the excavation of Sheffield Manor (South Yorkshire) by Museums Sheffield, the University of Sheffield, and the Hunter Archaeological Society. Initial excavations between 1968 and 1970 revealed the broad layout of the ruined 16th-century manor house (Hurst, 1969; 1970; Harlan, 2010a), whilst later excavations targeted specific rooms (Harlan, 2010a, 2010b, 2010c). As with Elsyng and Nonsuch, the primary aim was to produce an architectural chronology for the house, although decorative plasterwork and deer bones also indicated its function as a high-status hunting lodge (Harlan, 2010c, 14).

Another academic trend during this period was the excavation of monastic complexes, tracing the layout of subsurface churches and cloisters (Coppack, 1990), thus incidentally facilitating research into country house conversions. The excavation of Elstow Abbey (Bedfordshire), led by David Baker from 1965 to 1972, revealed its early-17th century conversion into a secular house, integrating monastic building materials (Hurst, 1968, 183; Baker, 1969). A similar project at Waltham Abbey (Essex), led by the abbey's Historical Society between 1967 and 1969, showed that its monastic cloister had been re-levelled in the 17th century to construct a country house (Hurst, 1968, 183; Huggins, 1972). The most well-published example, meanwhile, is the long-

term excavation of Norton Priory (Cheshire), which included analysis of the subsequent 16th-century house and associated rubbish tips (Greene, 1989; Brown and Howard-Davis, 2008).

The movement towards rescue-led archaeological projects also meant an increase in responsive projects in and around country houses. In 1968, for example, the Manor House at Great Cressingham (Norfolk) was excavated in advance of private restoration work, which included the dating of early 16th-century heraldic terracotta panels through associated building sequences in the south-west wing (Hurst, 1969, 196). At Basing House (Hampshire), excavations before the clearance of land between 1969 and 1970 led to the discovery of a backfilled Tudor cellar with associated material culture (Hurst, 1970, 180; Moorhouse, 1971, 207). These projects are indicative of the establishment of developer-led archaeology during the 1970s, as they focused on the use of excavation and recording as pre-emptive mitigation of the destruction of archaeological deposits due to construction needs.

2.2b. Developer-led archaeology and single-context recording, 1975-1990

From the 1950s, construction projects increased to the extent that universities and amateur societies could not in themselves research and protect at-risk sites and historic properties. This led to the establishment of the government-run Central Excavation Unit in 1975 which was entirely operated by paid professionals (Schofield *et al*., 2011, 36). Further local units were developed to fulfil projects, funded either by the Historic Building and Monuments Commission or the Manpower Services Commission (Everill, 2007, 159). The professionalisation of archaeological practice also saw strengthened relationships between archaeologists and developers, leading to the 'polluter pays' principle that defines commercial archaeology today (Schofield *et al*., 2011, 37). This was legislated through the policy document *Planning Policy Guidance 16* (PPG16), which advised that, as archaeological remains are a non-renewable cultural resource, their destruction needs to be 'mitigated' through the provision of archaeological excavation and recording (Thomas, 2019, 329).

The framing of PPG16, which emphasised the use of recording as a viable alternative to 'preservation in situ', reflected a broader movement in the archaeological discipline towards 'preservation by record'. This approach permitted the 'preservation' of an archaeological site through the documentary record of its excavation, thus allowing for "the authorised destruction" of material remains (Greene and Moore, 2010, 145). This was interlinked with a perceived divide in the discipline between on-site observations, focusing on the physical nature

of archaeological material, and post-excavation site interpretation, which applied temporospatial context (Hodder, 1999; Andrews *et al*, 2000, 526). 'Preservation by record' supposedly allowed for repeated processes of 'subjective' interpretation without degrading the 'objectivity' of excavation documentation (e.g., Spence, 1993, 43), aiming for what Lucas (2001, 214) termed the 'iterability', or potential for reinterpretation, of the archaeological archive.

In this period, single-context recording was developed (Lucas, 2001, 56-58; Everill, 2014). In this system, each contextual unit was given an individual record within a context sheet, associated with an individual plan and finds record (Spence, 1993, 25). A contextual unit was seen as a single event that shaped the sub-surface stratigraphy, whether an addition or subtraction from it, and was defined by its physical bounds (Lucas, 2001, 58). The contextual units were then synthesised onto a Harris matrix (see Harris, 1989), within which each context, or "unit of stratification", was plotted to show its temporal relationships with other contexts. As such, the need to define archaeological phases and discrete structures when on-site was removed, allowing for faster excavation during developer-led projects (Spence, 1993, 25), whilst the structure of the archaeological record was standardised, enabling greater consistency between site archives (Pearson and Williams, 1993, 89). This was also seen as reducing any 'subjectivity' in recording before the post-excavation process (Pearson and Williams, 1993, 93; Spence, 1993, 30). Single-context recording was first adopted commercially by London's Department of Urban Archaeology in 1975 (Spence, 1993, 25) and is used within British archaeological practice today.

The commercialisation of archaeology meant a general decline in the quantity of research-led excavations into country house estates, with projects instead seeking to enable commercial developments or heritage restoration needs. For instance, a large-scale project took place at Hill Hall (Essex), a medieval manor house rebuilt in the late 16th century. Hill Hall was gutted by fire in 1969 and abandoned until 1980, when ownership passed to the Department of the Environment (now English Heritage) who sought to display the house as a partial ruin (Drury and Simpson, 2009, 4). An excavation was carried out between 1982 and 1985 by the Chelmsford Archaeological Trust, which successfully revealed the physical form and elaborate decorative scheme of the 16th-century house, showing that it conformed to Elizabethan architectural trends (Drury and Simpson, 2009, 282). Similarly, it was during this period that the use of archaeological excavations for the restoration of historic gardens became established, of which the Audley End parterre project was an important example.

2.2c. Garden archaeology projects, 1981-1995

Garden reconstruction informed by excavation is under-discussed within archaeological scholarship. The first recognised garden archaeologist in Britain was Amelia Amherst, who noted earthwork features as representing historic gardens during the 1890s (Taylor, 1991, 1). A rare excavation also took place from 1930 to 1932 at Kirby Hall (Northamptonshire), during which the Office of Works successfully used archaeology to find and reconstruct various features within the lost Great Garden (Dix, 1991, 60); this is further discussed in Chapter 9.3. Gardens were also approached through non-invasive archaeological methodologies. This was led by Christopher Taylor in the 1960s, who defined the earthwork forms of 16th and 17th-century gardens using aerial survey, ensuring their protection as historic monuments (Taylor, 1983, cited in Malek, 2013b, 59). Before the 1980s, however, historic gardens primarily remained unexplored, were often misinterpreted, and were sometimes ignored, or even destroyed, in the pursuit of the archaeological record of earlier periods (Malek, 2013b, 61).

Garden archaeology became an established technique for research and preservation in Britain during the 1980s, reflecting earlier developments within the USA (see Brown III and Chappell, 1997; Jacques, 1997; Malek, 2013c). It was codified by the ICOMOS Florence Convention of 1981, which advocated the preservation of gardens through reconstruction led by "archaeological and historical study" (International Council on Monuments and Sites, 1981, article 9). Research interest also developed during this decade, with academics and professionals gathering at a 1981 garden archaeology conference at the University of Bristol (Jacques, 1997, 4), and at the Knuston Hall conference organised by the University of Leicester and the Council for British Archaeology in 1988 (Brown, 1991). The formal gardens of country houses were considered to be good candidates for excavation as they consisted of well-defined landscape features, such as flowerbeds and paths, and were often in place for long periods without being altered or built upon, thus had an easily recognisable stratigraphy (Dix, 2011b, 151). There were also particular impetuses for projects within these gardens: restoration and reconstruction to promote the heritage environment.

Perhaps the first heritage project using garden archaeology was the 1982-1986 restoration of the 18th-century British Landscape Movement gardens at Painshill Park (Surrey), using targeted trenches to uncover the footprints of ornamental follies that were then reconstructed (Howes, 1991; Collier and Wrightson, 1993). More comprehensive was the excavation of the gardens at

Number 4, The Circus in Bath (Somerset) between 1984 and 1986. This project sought to explore whether the Georgian town gardens could be restored with reference to their subsurface remains, rather than using a hypothetical plan (Bell, 1991, 24). The existing garden was surveyed before an open-area excavation across the garden that revealed the footprint of its 18th-century iteration; all later deposits were then removed, and the garden was recreated using the archaeological remains as a structural framework (Bell, 1991). The Audley End parterre excavation, which took place between 1985 and 1987, was another of these pioneering projects and followed similar practices, as will be discussed in Chapter 3.

In 1987-1988, following their reconstruction of Audley End's parterre, English Heritage sought to replace the anachronistic 1930s interpretation of the Great Garden at Kirby Hall. The project archaeologists used numerous small trenches to identify specific features of the 17th-century garden, namely the terraces and parterre design, which were then restored using this evidence alongside historical document survey (Dix, 1991; Dix *et al*., 1995); this will be discussed as a comparative excavation in Chapter 9. Archaeological approaches were also applied to fulfil established maintenance objectives in the gardens of Wrest Park (Bedfordshire). Rather than removing deposits and restoring the garden to a specific period, archaeologists at Wrest Park used small interventions to answer specific queries about the location of tree panels and erosion of water bodies within the established 19th-century garden, whilst also recording incidental evidence for the location and design of earlier garden features (Dawson, 2001).

Further restoration-led archaeological research was carried out at Painswick House (Gloucestershire) from 1988 to 1991. At Painswick, the restoration of the mid-18th century Rococo gardens was already underway using historic documents and visual sources; however, issues with the validity of these sources limited this restoration, so English Heritage funded a series of archaeological excavations to establish the actual location of features including paths, a pond, and a pavilion before their reconstruction (Bell, 1993). Concurrently, commercial archaeologists were hired as part of the restoration of the lost 19th-century formal garden at National Trust's Biddulph Grange (Staffordshire), where excavation revealed specific features including the Dahlia Walk, informing the restoration strategy (Jacques, 1997; Thackray, 1997, 56; Helen Wilshaw, *pers. comm.*). A similar project took place in the multi-period gardens at Chiswick House (Hounslow, London), where archaeologists sought features that were otherwise difficult to interpret and restore using the documentary record, albeit to varying degrees of success (Jacques, 1997, 5).

During the 1990s, the growing number of completed projects allowed archaeologists to be more introspective when working within garden restoration projects. A particular example of this is the Leverhulme-funded excavation of Castle Bromwich (West Midlands) by Christopher Currie and Martin Locock. Between 1989 and 1992, they sought to test the developing methodologies of formal garden archaeology through work at Bromwich, excavating 64 narrow trenches to identify various garden features dating from the 17th to 19th centuries (Currie and Locock, 1991; 1993). This project integrated soil sampling into the methodology to consider the use of different plant species throughout time, as well as the presence of minerals such as calcium that could reflect the addition of fertilisers (Currie, 1992; 2005, 103). The Bromwich project indicated the sheer quantity of information that could be obtained through garden archaeology that used test trenching and sampling strategies, revealing a comprehensive stratigraphic sequence of site development which was published alongside a full artefactual catalogue (Currie and Locock, 1993), and will be outlined further in Chapter 9.

At the same time, excavations tied to garden restoration projects continued. This included a small 1991 community excavation that instigated the restoration of a Victorian parterre at National Trust's Wimpole Hall (Thackray, 1997, 55). In 1993, two garden restoration schemes integrated archaeology as part of their methodology. The National Trust began a restoration project in the early-18th century formal gardens at Hanbury Hall (Worcestershire), which had been removed in the latter half of the century (National Trust, c.2020). During this project, geophysical survey and evaluative trenching were applied to understand the location and scale of features recovered in a 1730s garden survey, which informed the trust's restoration scheme (National Trust, 2017; c.2020). In the same year, the Royal Parks Agency decided to restore the 19th-century flower gardens, Avenue Gardens, in Regent's Park (Camden, London). During the initial stages of this project, commercial archaeologist Lesley Howes used earthwork survey to inform the restoration plan; the Royal Parks Agency itself then recorded any sub-surface remains that they encountered as the restoration was undertaken (Flenley, 1997, 96-97).

The largest garden project in this period, meanwhile, was the excavation and restoration of Hampton Court Palace's Privy Garden from 1991 to 1995. At Hampton Court, archaeologists were part of an interdisciplinary team researching and reinterpreting the 1701 iteration of the Privy Garden. Unlike the targeted trenching of other excavations, the site was fully cleared to remove post-18th century layers, before the exposed parterre beds were recorded and cleared by hand (Dix and Parry, 1995, 79). This provided a blueprint for the infilling of these beds; other

features, including statue bases and terrace steps, were also revealed and restored. The scale of Hampton Court's Privy Garden project can be seen as the culmination of restoration-led garden projects, showing the potential of archaeology to enhance knowledge of specific gardens when undertaken alongside historical analysis, and will also be compared to the Audley End project in Chapter 9.

Although this overview is not exhaustive, it demonstrates that key projects within garden archaeology followed a shared ethos and methodological framework. They were primarily led by the decision-making of heritage agencies and property owners, aiding them to understand "what must be protected and what should be promoted" within the historic landscape (Dix, 1997, 16). The balancing of oppositional needs within these projects, between the in-situ preservation of the subsurface record on one hand, and the research, recording, and recreation of chosen features to enrich public knowledge on the other, reflects broader disciplinary debates. In garden archaeology, this balance was sought through both the application of targeted trenching and single-period restoration strategies. During many projects, only specific archaeological deposits were removed; there was no attempt to get 'to natural', with archaeologists instead excavating within previously defined temporospatial parameters.

Indeed, for the majority of garden excavations, accurate and resource-efficient restoration was the ultimate aim. Although historic sources can give some information about the design schemes of former gardens, many visual representations "are not a true depiction of the garden, but a proposal or an idealisation of how the draughtsman or owner would like to see it" (Currie, 2005, 2). Archaeology provided access to the extant remains of the gardens themselves, allowing for the reciprocal interpretation of material features and their historic depiction. These excavations thus developed an approach specific to garden sites (Michael Klemperer, *pers. comm.*) with different motivations and strategies from contemporary rescue or research-focused excavations. The planning of small archaeological interventions had benefits for the management of restoration projects, as it required smaller resource allocations than more holistic, open-area excavations (Flenley, 1997; Currie, 2005). Otherwise, the process of excavation could enable the first stages of reconstruction through preparing a 3D 'blueprint' with absences for the reintroduction of flowerbeds, paths, and other features; this took place at The Circus in Bath (Bell, 1991), at Hampton Court (Dix and Parry, 1995), and at Audley End.

However, the reconstruction of gardens to a single period can be challenged as it often resulted in the destruction of the archaeological record of later periods, and the disregarding of earlier periods; as Currie (1992, 183) questioned, "should valuable evidence of the development of a site be destroyed in order to satisfy the desire for 'accurate' single-period restoration"? Unlike development-led projects, where stratigraphy was approached comprehensively, restoration-led garden archaeology had limited success in producing multi-period chronologies for site development; this was further complicated by the excavation of discrete features, which only enabled specific elements of the site to be uncovered and recorded. Such limited 'sampling' of subsurface deposits meant that the diachronic archaeological record was not always revealed to its fullest extent. In addition, as discussed below, the concept of 'preservation by record' has undergone further scrutiny; the use of single context recording strategies resulted in large bodies of documentation, seen as 'preserving' information provided by the destruction of the archaeological record, yet interpretation, synthesis, and publication were not guaranteed.

The academic impact of garden archaeology has been important in defining the spatial layout of historic gardens across time, as well as recovering environmental and material remains from garden contexts. However, unlike other forms of archaeology led by research objectives, British garden archaeology had various degrees of engagement with theoretical and historical research frameworks. In 1997, Jacques noted that garden excavations could be motivated by ''restoration purposes; for archaeological research; as an aid to interpretation; and as case examples in anthropology" (Jacques, 1997, 7). The latter of these defines 'anthropology'-motivated garden archaeology, which interrogated the relationships between gardens and their socio-political circumstances, applying post-processual theories to garden contexts. This was common to projects in the USA from the 1980s, notably research at Mount Vernon and Montpelier (Virginia), where archaeologists explored gardens within the 'cultural landscape' of slavery, political systems, and other historical metanarratives (Beaudry, 1996, 5, cited in Malek, 2013, 73-74). Despite this, in Britain, garden archaeology mostly used historical research to further restoration whilst publications primarily focused on the changing layout of specific gardens. As such, excluding brief syntheses of garden practice produced by individual practitioners (e.g., Dix, 1997, 2011b; Flenley, 1997; Jacques, 1997; West, 1997; Currie, 2005), there has been little cross-site or cross-disciplinary comparison; the results of excavations within smaller gardens, especially those led by commercial development, are often confined to 'grey literature' reports.

These opportunities and challenges are also reflected in approaches to finds from garden projects. Artefacts recovered during the excavations were sometimes valued as indices for human activity as well as dating evidence; flowerpots, in particular, were researched to develop understandings of changes in horticultural practice over time (Moorhouse, 1991; Currie, 1993a). However, domestic finds from unstratified garden contexts were often considered to be uninteresting, and archival discard policies meant that later post-medieval pottery and metalwork were sometimes disposed of before analysis (Currie, 2005, 90-91). Indeed, only one of the sites discussed above, Castle Bromwich (Currie and Locock, 1993), integrates a finds catalogue into its publication. The application of environmental archaeology was also undertaken at several sites as a means to recover soil characteristics, historic plant species, and faunal remains, but was noted in some site publications as being unsuccessful (e.g., Bell, 1991; Murphy and Scaife, 1991).

The process of garden excavation and restoration itself was transformative to the subsurface record. As seen in this overview, the removal of stratigraphic deposits took place on various scales depending on the methodology of the project. The movement of soil off-site is noted particularly in the reports of open-area excavations, where the 'stripping' of a garden for single-period reconstruction meant the removal of any material that was physically above, as well as the analysis and removal of deposits from the chosen period. At The Circus in Bath, the clay layer that made up the 19th-century garden was "taken away", before Georgian features were analysed and selectively removed (Bell, 1990, 11). In the restoration of the Privy Garden at Hampton Court, this approach was applied to a larger garden; 19th-century soil was removed mechanically, before the 1701 *plates-bandes* (narrow borders around parterre gardens, composed of flowerbeds, box hedging, and/or decorative sand; see Symes, 2006, 93) were fully excavated, leaving only the 18th-century surface layers around them (Dix and Parry, 1995; Jacques, 1997, 5). This approach can be challenged as it prioritised the wholesale removal of large stratigraphic features, preventing future research into them (Currie, 2005, 58). Indeed, even targeted trenching involved the destruction of the archaeological record, whilst the excavated soil from many projects was only partially sampled and sieved.

Reconstruction-led projects allowed for further changes to the archaeological record. As with most archaeological excavations, trenches were re-filled after the analysis was completed. However, unlike other projects, garden archaeology was motivated by the needs of planting schemes as well as the protection of the surrounding deposits. As such, modern fertilizers and

additives were sometimes added to promote plant growth. For instance, at Hampton Court, the excavated beds were refilled using "soil replenishment" strategies, as the garden was reconstructed upwards from the footprint provided by the excavation (Dix, 1997, 14). It is often unclear, at least within accessible documentation, whether features were refilled with existing spoil from the site or with newly purchased soil, and what fertilising material was added to this refilling deposit. This could have impacts on the survival of buried features due to geochemical changes (see Historic England, 2016). In addition, the physical locations of former interventions could be lost without archival stability; this was shown during the 1980s project at Kirby Hall, which found evidence for the clearance and introduction of new soil into the Great Garden during the 1930s reconstruction, which was not expected (Dix, 1997, 12). The impacts of the Audley End excavation on the garden's stratigraphy are discussed in the following chapter.

This overview demonstrates that the aims, methodologies, and influences of garden archaeology projects undertaken during the late-20th century require reconsideration. In particular, there is an absence of critique within modern heritage practice about their complex archival and academic legacy, which has been influenced by their emphasis on restoration rather than comprehensive archaeological survey, and by a lack of detailed publication. Although the focus of this thesis is placed on Audley End's parterre garden, contemporary projects provide a relevant comparison to consider how archaeological archives from garden projects could be used, whether project methodologies and recording strategies were sufficient to enable archival reinterpretation, and how more recent project methodologies could be defined to ensure both restoration and knowledge acquisition.

2.2d. The instigation of MAP2 and 'reflexive' archaeological recording

The 1990s saw changes to archaeological practice across the discipline. As a result of the application of single context recording strategies and a failure to invest in post-excavation synthesis, a notable gap developed between the excavation and publication of sites, especially relating to the post-medieval archaeology of urban areas (Courtney, 1999, 5). In response, English Heritage produced and published the *Management of Archaeological Projects* (MAP2) in 1991. This recommended an assessment phase after fieldwork had taken place, to define the post-excavation processes necessary to produce the site archive and a synthetic publication, and to advise on the allocation of funding and resources for this (English Heritage, 1991). MAP2 was adopted by commercial archaeology and reduced archival backlogs by providing an

accessible framework for post-excavation project planning; however, it also acted to exacerbate the division between excavation and post-excavation by allowing for "deferred interpretation" (Andrews *et al*., 2000, 527).

MAP2 reflected broader problems that commercial archaeology faced in the 1980s and 1990s. The Department of Urban Archaeology found that failures in single-context recording were common, particularly in the omission of data within context sheets, and that supervisors were given insufficient time to ensure data accuracy; this was mitigated by changes in the structure of the pro forma sheet (Spence, 1993). Time lapses between archive creation and publication led to attrition that affected the quality of publication; at Hill Hall, for instance, some paper records and artefacts were lost in the movement of the archive during the hall's restoration, which hindered interpretation within the project monograph (Drury and Simpson, 2009, 6). The temporal gap, and the rigid structure of site documentation, also led to the production of descriptive reports that sometimes sidestepped whole-site interpretation (Spence, 1993) and reflection on the site's relationship with the wider discipline (Carver, 1996, 50).

A potential alternative to 'preservation by record' was provided in 'reflexive' methodologies, which integrated interpretation into on-site processes. This was pioneered at the Çatalhöyük project, the excavation of a prehistoric settlement in Turkey, which changed how archaeologists collected data to promote immediate and multi-vocal understandings of the site. Site director Ian Hodder's 'reflexive' methodology included regular site visits for 'post-excavation' specialists, on-site diaries and video recordings to record processes of knowledge production, and the creation of an integrated open-access database linked across different data types and scales (Hodder, 1997; 1999). A similarly 'reflexive' approach was applied during Framework Archaeology's projects at British Airports Authority sites, including using free-text records, undertaking finds and environmental analysis during the excavation, and examining cross-period themes using an integrated site database (Andrews *et al*., 2000). Some challenges to these methodologies were raised, including the scope of the resulting archives and need for cross-site training (Chadwick, 2003); however, this approach also informed what Hodder (1997, 699) described as "archives with sufficient contextual information to make them…usable" to researchers who want to understand the specificities and nuances of excavations beyond a summary of stratigraphic layers.

Although 'reflexive' methodologies are not applied by British developer-led or research excavations, there is an increased awareness that the cultural value of archaeological material is not held within the material itself but is "realised or indeed denied in the practices of archaeology" (Andrews *et al*., 2000, 527); archaeologists create value by interpreting and synthesising archaeological materials through modern research frameworks. In this way, although the loss of deposits cannot be 'mitigated' by recording, archaeologists can instead offset this loss by using archaeological processes to contribute to cultural knowledge (Thomas, 2019). This is reflected in the 2010 alternative to PPG16, *Planning Policy Statement 5* (PPS5), which advises that developer-led projects should both record and "advance understanding" of the heritage asset being lost (DCLG, 2010). Opportunities for improved recording and dissemination practices are also provided by digital technology, including the development of the Archaeology Data Service as an open-access repository for site reports (Richards, 2008), and easier access to research frameworks (Thomas, 2019, 336). However, the limited impact of this ethos on the archaeological records of historic properties and gardens can be critiqued.

2.2e. Modern archaeological practice in historic gardens, 1990-present

Archaeological survey and recording techniques have become fundamental to the research and conservation processes carried out by heritage agencies on a day-to-day basis. Common non-invasive procedures include measured building survey and geophysical survey, informing conservation and scheduling decisions. Informed by PPG16, watching briefs and small-scale excavations are also undertaken in response to development and conservation needs (Currie, 2005; CIfA, 2014), initiated by the construction of visitor centres, car parks, and tearooms, by floorboard removal and architectural conservation, by repairs to sub-surface infrastructure, and by horticultural maintenance objectives. Watching briefs seek to enable "the preservation by record of archaeological deposits" (CIfA, 2014, 4), that would necessarily be disturbed or destroyed during non-archaeological processes, and to indicate the presence of archaeological materials that would require further excavation in advance of development. The resulting 'grey literature' reports are, at least theoretically, publicly accessible (Richards, 2008; Fulford, 2011, 38), available through the Archaeology Data Service or individual heritage agencies' webpages.

This has provided a potentially informative insight into the subsurface record of historic properties and their gardens. Indeed, responsive archaeological practices have enabled new discoveries within country houses, including early-17th century witch-marks discovered below

floorboards at Knole (Kent) during a 2015 conservation project, which were disseminated in both academic- and public-facing formats (e.g., National Trust, 2015; Cohen and Parton, 2019). Archaeological observation during non-archaeological works also enables new insight into historic gardens and estates. At Audley End, for instance, 11 watching briefs have been reported since the 1985-1987 parterre excavation, which have revealed parts of garden wall foundations, paths, and drainage culverts (see Ingham and Cooper-Reade, 2005; Anderson and Cooper-Reade, 2007; Webb, 2011). However, watching briefs at heritage sites are numerous and result in poorly indexed unpublished reports. As such, this thesis was unable to produce a full synthesis of historic gardens archaeology as incidental to developer-led projects. This is a challenge common to modern commercial archaeology, as the recovery of archaeological material has gradually "outstripped traditional mechanisms of synthesis" (Thomas, 2019, 337).

Larger excavations in this period have occasionally been motivated by urgent rescue needs. A fire at Clandon Park (Surrey) in 2015 led to archaeological investigations by the National Trust and AOC Archaeology, as the building needed clearance and recording before any restoration could be planned. This process was minimally invasive, with room-by-room clearing of debris and small-scale reactive archaeological interventions (Miller, 2016). Each room was then recorded using measured buildings survey and photography (Dommett, 2016). This process led to new understandings, such as the fact that the 18th-century building was placed directly on the footprint of a Jacobean house (National Trust, 2016a). Artefacts and building materials were also analysed for research purposes after recovery; visual study of the plaster matrix of the hall ceiling, for instance, demonstrated a decrease in quality of texture of the English stucco compared to contemporary European material (Chessum, 2016).

Archaeological excavations have also occurred within historic properties and gardens when the subsurface remains were likely to be damaged by architectural development. For instance, the 19th-century garden of the Commissioner's House at Chatham Dockyard (Kent) was excavated in 1990 before building development, providing more information about its overall layout and some evidence for construction techniques (Hall and Lear, 1992). This also encompasses a c.2015 archaeological observation of the construction of the Magic Garden children's play area at Hampton Court Palace (Richmond upon Thames, London), which revealed and removed the subsurface remains of a 16th-century tiltyard, an orchard, and tennis courts (Daniel Jackson, *pers. comm.*). However, the scale of this project, which was carried out in-house, and the

complexity of the stratigraphic record meant that the reporting of this project within Historic Royal Palace's 'grey literature' framework was not completed.

A more innovative publication followed the development-led excavation of New Place (Warwickshire) by Staffordshire University and the Shakespeare Birthplace Trust between 2010 and 2016, which sought to redefine Shakespeare's biography through archaeological analysis as part of a visitor centre renovation (Edmondson *et al*., 2016). This project enhanced understanding of the size and layout of Shakespeare's New Place (Colls and Mitchell, 2016a) and provided detailed information about the extent of Shakespeare scholar James Halliwell-Phillips' excavation of the house in the 1860s (Colls and Mitchell, 2016b; Edmondson *et al*., 2016, 2–3). The publication of this project collates a conventional archaeological report with a biographical approach, framed by loosely defined architectural periods and with historiographic study of previous excavations, a form of dissemination that has informed this thesis.

There has been a concurrent decline in excavations by academic institutions, likely due to funding restraints that limit research projects without immediate real-world applicability (Schofield *et al*., 2011, 38). Archaeology departments have instead adapted to work with commercial units. This included further excavations at Sheffield Manor between 2009 and 2011 by the University of Sheffield and Wessex Archaeology (Powell, 2010, vi). Another excavation developed as an educational opportunity was the Gawthorpe Hall (West Yorkshire) 2011-2012 project, organised collaboratively with the University of York, the York Archaeological Trust, and the Harewood House Trust. The project aimed to elucidate the transition made by the Lascelles family from Gawthorpe to Harewood House (Rayner, 2012a), integrated with a broader AHRC research network (e.g., Tatlioglu, 2010a; Rayner, 2012a) and public engagement activities (Rayner, 2012b). However, despite the production of grey literature and, for the Gawthorpe Hall project, an interim report in a student journal (Altoft, 2012), the results of these excavations were not disseminated in any large-scale academic format.

Due to financial pressures and changing research interests, garden excavations have also become less common, and are primarily instigated by preventative conservation and maintenance objectives (Currie, 2005, 6). Indeed, alternatives to excavation are often pursued, especially the application of non-intrusive techniques such as geophysical, LiDAR, and earthwork survey, continuing a late-20th century movement towards "less expensive, non-destructive" forms of garden research (Jacques, 1997, 8). Survey techniques enable a better

understanding of the broad layout of former gardens, whilst potential issues in interpreting complex multi-period stratigraphy can be mitigated through data analysis techniques and different sampling intervals (Dix, 2005; 2014a, 151). This approach has been used, for instance, to uncover the layout of the late-18th century parterre garden at Chatsworth House (Derbyshire), in association with documentary sources (Woudstra, Merrony, and Klemperer, 2004). This is an increasingly accessible resource for garden archaeologists undertaking projects today, enabling the assessment of the subsurface remains of historic gardens without their destruction, thus informing conservation and landscape management plans and enhancing knowledge of individual sites (Dix, 2014a, 150; Rachael Hall and Michael Klemperer, *pers. comm*.). The general suite of approaches available to current garden archaeologists have also been synthesised into practical guidance (Currie, 2005; Malek, ed., 2013).

A few 21st-century garden restoration projects have continued to use excavation alongside non-invasive survey as an additional research tool. This includes 2002-2008 excavations by Oxford Archaeology at Witley Court (Worcestershire) which informed the restoration of its mid-19th century parterre gardens, only partly recorded in historic documents (Dix, 2011a); this will be discussed in further detail within Chapter 9. It also encompasses a 2004-2006 project within the Elizabethan Garden at Kenilworth Castle (Warwickshire). This was part of a wider Property Development Programme that defined strategies for improving public interpretation, including a reassessment of the garden, recreating a specific iteration: the elaborate and theatrical design of 1575, constructed by Robert Dudley for the entertainment of Elizabeth I (Dix, 2011b; Dix, Parry, and Finn, 2017, 3). Documentary, geophysical, and earthwork survey informed evaluative trenching by Northamptonshire Archaeology (Dix and Prentice, 2004), which was followed by an open-area excavation removing all pre-Elizabethan soil layers. Despite some truncation to the stratigraphy caused by later changes to the garden, archaeologists were able to clarify its original dimensions and geometry (Dix, Parry, and Finn 2017, 1). The excavation thus aided what Dix (2014b, 339) termed a "part-archaeological and…part-conjectural reconstruction"; elements informed by the archaeological record, whilst other surface features were designed using historical sources. This garden was constructed above the 16th-century stratigraphy so that the garden reconstruction was ultimately 'reversible' (Dix, 2014b, 341).

Since these projects, English Heritage has used in-house archaeological excavation to assist site-specific research objectives. In 2017, small trenches were excavated within the gardens at Marble Hill House (Richmond upon Thames, London), revealing the footprint of an 18th-century

grotto, bowling alley, and icehouse seat, which have since been outlined in an interim report and associated blog post (Valdez-Tullett, 2017; Historic England, c.2017). In addition, a geophysical survey at Wrest Park (Bedfordshire) informed the placement of two trenches to research the Root House, or Rustic Hermitage, which was built in the 1740s and shown in early-19th century drawings (Alexander, 2013, 71; 271; English Heritage, 2020). Archaeologists successfully uncovered the foundations of the structure, suggesting it was more substantial than other examples (English Heritage, 2020). Both of these projects are awaiting synthesis and artefactual analysis (Emily Parker, *pers. comm.*), and have not yet informed restoration strategies for these particular features. However, they demonstrate that archaeology remains significant to the research and management of historic gardens by English Heritage today.

The National Trust has similarly continued to use archaeology as an element within garden research and restoration schemes, undertaken by its in-house archaeologists, during community excavations, and by external consultants (Pam Smith, *pers. comm*.). This is shown through several key examples, including Kedleston Hall (Derbyshire), where a potential 1720s garden scheme was recorded on a plan by Charles Bridgeman, but physically obscured by the later-18th century garden (National Trust, 2016b). In 2013, desk-based assessment and LiDAR survey suggested that elements of the 1720s design survived within the subsurface record; archaeologists then excavated four evaluative trenches to explore these remains, uncovering some horticultural features that pre-dated the late-18th century, but were unable to match these to the documented plan (Strafford, 2015; National Trust, 2016b).

Similar questions about garden sequencing were addressed through archaeology at Lyveden (Northamptonshire), a formal and highly symbolic garden designed by Thomas Tresham in the 1590s. The earthwork remains of this garden were first assessed in a pioneering landscape study by Taylor and Brown (1972; see Taylor, 1997, 20), yet this did not clarify to what extent the garden was completed. National Trust thus commissioned a 2017 survey of aerial imagery and LiDAR data, which revealed medieval field systems and a possible 16th-century viewing platform (Cox and Jarvis, 2018; National Trust, c.2018). They also opened three evaluative trenches, which were targeted to explore the possible remains of terraces that were first identified in Taylor and Brown's earthwork survey; this confirmed the location of an upper terrace, dated through pottery analysis, but found that no lower terraces were completed, thus revising the original interpretation (Prentice and Soden, 2017; National Trust, c.2018).

The reassessment of LiDAR data also proved significant at Calke Abbey (Derbyshire), where the late-18th to early-19th century gardens were built over an earlier layout depicted in a 1760s estate plan (Buck, 2019). In 2019, volunteers used publicly accessible LiDAR data to identify the subsurface remains of the 'Hanging Garden', a parterre garden with a radial design, that was directly comparable to the 1760s plan (Buck, 2019; National Trust, 2021). This overview shows that archaeological excavation is applied by the National Trust to answer specific questions posed by historic and landscape survey, assisting management and conservation decisions, which has superseded the restoration-led open-area excavations of the later-20th century. It also suggests a future direction for garden archaeology as public engagement; a National Trust archaeologist noted the enthusiasm of Calke's volunteers when reinterpreting survey data (Ros Buck, *pers. comm.*).

These more recent rescue and research projects have been well-publicised, particularly within digital content produced by heritage agencies (e.g., National Trust, 2016b; Historic England, c.2017; English Heritage, 2020), which can be seen as a manifestation of a disciplinary movement towards disseminating knowledge obtained during archaeological projects for public benefit (Thomas, 2019, 335). They are also recorded in 'grey literature' reports made digitally accessible on open-access platforms, which have sometimes led to more interpretative publications. The Kenilworth Castle project is the most comprehensively published to date, with both a garden focused interdisciplinary monograph (Keay and Watkins ed., 2013), and a published archaeological report, which collates an interpretation of multi-period stratigraphy with the analysis of associated artefactual assemblages (Dix, Parry, and Finn, 2017). However, as with earlier garden archaeology projects, the approach within most project reports remains tied to 'preservation by record' strategies and they have had little academic impact thus far. Indeed, contemporary curators note a general lack of academic interest in modern garden projects (Rachael Hall, Daniel Jackson, and Michael Klemperer, *pers. comm*.). As such, although 21st-century projects have improved curatorial understandings of individual properties and gardens, it remains unclear how they will contribute to garden history and holistic site interpretation. The research and interpretation of legacy archives from earlier projects, meanwhile, is an additional challenge to be considered.

2.2f. Curating the country house

Country houses today are centres for domestic and international tourism as well as academic research, requiring private owners and heritage bodies to balance the needs of visitors and academics with the protection of the historic landscape. Visiting country houses was first established as a pastime in the 18th century, although it was restricted to the 'polite' traveller who was invited into these spaces (Tinniswood, 1989). As the Ministry of Works and the National Trust began to purchase houses after the Second World War, they shared an ethos for preservation to benefit wider society, ensuring their public accessibility (Thurley, 2013). When the Office for Works placed a bid for the purchase of Audley End, for example, it included the justification that "one or two country houses of this supreme quality ought, we think to be available for full inspection by the public" (de Normann, 1946, cited in Thurley, 2013, 185). By the 1980s, country houses were conceptualised in the national consciousness as a unified symbol of 'Britishness' (Mandler, 1997, 401), cultural icons to be visited and enjoyed by the majority of the populace.

Country houses were primarily valued for their architectural and aesthetic qualities. This focus is seen in guidebooks of the later-20th century, which primarily described key works of art, furnishings, and buildings. The first guidebook to Audley End House was written by historian William Wilkinson Addison in 1953, emphasising the importance of the newly restored interiors; a later edition was produced by Drury and Gow (1984), who predominantly signpost visual schemes and furniture collections. The cultural capital of country houses was defined by the quality of their 'treasure', exemplified in the 1985 exhibition and television programme *The Treasure Houses of Britain* (Jackson-Stops, 1985). This approach engages with the quality of collections held within country houses, reflecting on both their aesthetic appeal and value as historic objects, but often excludes less 'picturesque' artefacts, narratives, or ideas, thus prevents a broader understanding of social history.

Another influence on country house interpretation was family history. Studies of noble lineage originated with research by aristocratic families, seeking to commemorate their ancestral past through works produced by antiquarians and the use of heraldry to adorn the walls of the homes themselves. Elite families were also the focus of the first presentations of country houses and associated guidebooks (Larsen, 2018); this can be seen in Addison's emphasis on the antiquity of the Braybrooke dynasty in his Audley End guidebook (Addison, 1953). More

recently, a shift has been made towards personalising family narratives, with curators exploring the lived experience of spaces through showcasing 'A Day in the Life' of chosen historic figures, or the re-presentation of domestic family spaces including nurseries (e.g., Boggis, 2015).

The presentation of country houses can create personal connections between the public and the past; "the veil between past and present is at its most permeable in a place where families lived and loved, thrived and died" (Cox, 2015, 114). However, this is a connection not accessible to all. Country houses are culturally defined as complete, almost untouchable units of history; they are often presented as "transcendent, intact and white" (Naidoo, 2005). Such collective nostalgia which supports the performance of an idealised Englishness, as exemplified by the television series *Downton Abbey* (Baena and Byker, 2015), can be exploited by extreme political entities. The focus on the familial ownership of country houses, which was often dictated by male primogeniture and gendered social practices, has also emphasised the masculinity and heteronormativity of these spaces to the exclusion of feminine and/or queer narratives.

Modern academia, however, has informed a more complex heritage landscape, within which country houses are problematized whilst also being celebrated as heritage assets. An alternative narrative that has proved popular in both research and presentation is the history of servants, with *Upstairs, Downstairs* and *Downton Abbey,* amongst other visualisations of working lives in country houses, accelerating an existing curatorial trend (Cox, 2015, 116). Beginning with the late-1970's restoration at Erdigg (Wales), where "the experience of being treated more like a guest's valet or lady's maid than a titled dignitary has by and large been welcomed" (Waterson, 1980, 18), the 'below stairs' experience, represented through the reconstruction of servant rooms and service areas with costumed interpreters, has become ubiquitous. However, many of these presentations fail to address the complexities and cruelties that the positions could involve, as well as the ubiquity of similar roles amongst the 'ultra-rich' today (Eales, 2017). Focusing on an individual group is also difficult within complex, multi-period architectural spaces and collections (Cox, 2015).

More recent curatorial projects aim to centre marginalised communities within the country house space. The National Trust's project on Challenging Histories was a significant opportunity for the advancement of new stories, through projects such as an artistic installation at Kingston Lacy (Dorset) exploring the persecution of the LGBTQ+ community (Lennon and Sandell, 2018). Other interpretation has engaged with the colonialism inherent within country houses, many of

which were built using economic and political power obtained from the trading of slaves and colonial imposition (see Hann and Dresser, 2013; Huxtable *et al*., 2020). A good example is the Colonial Countryside project, which facilitated young BAME historians to respond to the colonial histories of ten stately homes (University of Leicester, 2018). This, in part, led to the publication of an influential report by the National Trust detailing the myriad connections between colonialism and properties in their care (Huxtable *et al*., 2020); it is hoped that this research will inform new interpretation strategies within country houses (Orna-Ornstein, 2020).

The disciplines of historical archaeology and history work best when they act in "de-familiarising what we think is the known past" (West, 1999, 1). New research defines multiple layers of narrative, a challenge for curation which seeks to balance the presentation of ground-breaking and socially conscious research with an accessible and enjoyable visitor experience. However, country house curation is a creative act; historic properties can act as "laboratories for methods of research and interpretation" (Cox, 2018), using different methodologies to facilitate interactions between architectural space, material culture collections, and the public. In this context, archaeology is a valuable yet under-utilised curatorial methodology. This could include the dissemination of information obtained through research-led excavations, using survey and excavation as community projects to engage people with the practices of heritage-based research, and the reinterpretation of archaeological archives from past excavations. Indeed, there is a legacy of unpublished material from over 40 years of excavations within country house estates and gardens to be researched, reinterpreted, and curated using new academic and curatorial paradigms; this thesis uses the assessment of Audley End House's archaeological archive as an exemplar for how this could take place.

2.3. Theoretical context

2.3a. Dynamic architectural space

During the 20th century, there was a shift in academic perspectives on medieval and post-medieval architecture. Whereas the function of other buildings such as castles and vernacular houses was explored (Johnson, 2002; 2014), country houses were originally perceived as monolithic entities representing singular architectural styles. Within this reductionist paradigm, style was merely a 'novelty' to be revealed by the scholar (Airs, 1995, 13). The classification of houses into different style groupings also led to the neglect of certain architectural periods in

favour of those within the academic zeitgeist; Georgian houses, for instance, were only considered worthy of preservation in the early-20th century (Thurley, 2013, 179). An assumption was also made that style developed in a linear evolutionary model, obscuring the complexity of how different styles diffused through the elite landscape (Howard, 2007, 4). The perception of country houses as magnificent and timeless monuments remains somewhat pervasive within archaeological scholarship as well as popular culture (West, 1999, 104).

In contrast, post-processual archaeology considers buildings as nexuses of personal identity and social interaction (Giles, 2007, 106). The concept of identity in this context is well-defined by Bourdieu's definition of *habitus*, "the internalised structures, common schemes of perception, conception and action" which inform how people make choices within the material world (Bourdieu, 2010, 60). Architecture had a central role in expressing and creating personal meaning, dependent on the *habitus* of individuals within its sphere. Originating in the study of prehistoric structures, which were argued to be "both the medium and the outcome of social practices" (Parker Pearson and Richards, 1994, 2), this can readily be applied to post-medieval architecture. The action of constructing and living within a country house both informed, and was informed by, individual agency, which was itself shaped by socio-political circumstance.

Country house scholarship has developed in tandem with post-processualism, moving away from classifications of architectural style to explore more fundamental questions (Cooper, 1997, 115). Later 20th-century writers have engaged with Le Corbusier's framework of the house as a "machine for living in", suggesting that country houses were developed to be functional, useful, and suitable to their occupants (Howard, 1987, 13). Girouard (1980, 5) argued that country houses were social and economic 'powerhouses', acting as the engine of the socio-political machine and as showcases for wealth and refinement. This theoretical approach considers how architecture accommodated, suggested, and enhanced individual *habitus*. Adaptation is fundamental to understanding country houses; within the architectural frames of rooms and buildings, "abandoned lifestyles can be disinterred from them in much the same way as an archaeological dig" (Girouard, 1980, 12). Howard also problematized the perception of early modern stately homes as static entities by examining accounts of the Royal Works, which suggested that royal palaces in particular were undergoing constant repairs, redesigns, and movements (Howard, 2007, 5).

The architectural layouts of country houses can be considered as representing changing socio-cultural practices amongst the upper classes, as the placement of rooms delineated group movement between and within different spaces (Johnson, 1993). For instance, the development of peer-group sociability in the post-medieval period, emphasising "emulation, education and consumerism" (Cooper, 1999, 269), has been suggested as an impetus for the specialisation of social rooms like the parlour. Similarly, Thurley suggested that royalty made personal interventions in how they constructed and defined their palaces; he considered the diminishing importance of the great hall and the elaboration of inward chambers, in particular, as reflecting the increased importance of privacy within royal contexts (Thurley, 1993, 36). The structuralist paradigm, pioneered by Lévi-Strauss, also lends itself to exploring movement through architectural space, and was used by West (1999b) to identify social dichotomies within the delineation of access to different rooms in country houses.

Beyond spatial layout, other scholars have re-examined style and fashion as an active element of country house design. This includes the concept of Classicism, a Romanesque style rooted in ancient art, antiquaries, and treatises on architecture (Henderson, 2005, 19; Howard, 2015, 19); by using Classical motifs, members of the gentry were establishing a politically active system of messaging, presenting status, cultural learning, and sometimes nationalism (Girouard, 1980, 86; Cooper, 1997, 121; Cross, 2017). Style is thus seen as discursive, a kind of language to those able to comprehend its meaning. Country houses were certainly shaped by various levels of intervention, centring personal, familial, communal, and wider socio-political networks within their architecture. This can make it difficult to untangle the multiple facets of meaning inherent in form, layout, and style within each building. However, country houses are uniquely placed within the historic record; they provide a large body of evidence, encompassing architecture, material culture, and documents, documents, as well as archaeological information revealed during garden restoration projects. This evidence can be explored through various interdisciplinary methodologies, considering how elites and their families defined and used active architectural space across various scales.

2.3b. Materiality and object biography

Constructing a country house involved numerous choices when selecting materials that would structure and decorate the space. Although functional and financial considerations were important to ensure structural integrity and cost effectiveness, material choices also expressed

economic, socio-cultural, spiritual, and personal meanings, acting as both "the context and media for social practice" (Tatlioglu, 2010, 37). Materiality-led projects encourage the reconstruction of experience within architectural spaces, approaching "encompassing sensory environments" (Graves, 2007, 178). The sensory modalities of country houses merit consideration, with the aesthetics, sounds, smells, tastes, and tactility of rooms and landscapes informing how they were perceived and understood within the post-medieval worldview. The quality of preservation at country houses provides a unique opportunity to investigate the juxtapositions between material types on different levels, integrating analyses of architecture, interior decoration, visual media, and portable objects.

Another theoretical perspective that has shaped archaeological research around materiality is object biography. Alfred Gell defined object biography as the interplay between social relationships and artefacts; he argued that the interactions between people inform their intentions in the creation of 'secondary indexes', material objects like works of art, that can thus be researched as social agents (Gell, 1998, 11). Appadurai further emphasised the discursive nature of objects, suggesting that they developed biographies in their interaction with political action; thus, "we have to follow the things themselves, for their meanings are inscribed in their forms, their uses, their trajectories" (Appadurai, 1986, 5). Object biography is distinct from 'use life', as key to researching object biography is in exploring the interaction between objects and people (Gosden and Marshall, 1999, 169; Gilchrist, 2012, 11). Within this framework, objects are seen as active agents in constructing individual *habitus*, as well as representing that *habitus* through the trajectories of their production, use, and deposition.

The use of object biography in post-medieval archaeology has been led by American scholars. This was pioneered by Deetz' *In Small Things Forgotten,* first published in 1977 (second edition, 1996), which used object biographies of ceramics and cemetery headstones to explore the nuances of early American life. A more recent renewal of this approach is one more explicitly biographical rather than object-descriptive, combining the biography of people and object as an interweaving narration (Burström, 2014). Some archaeologists have challenged the 'hyper-interpretative' nature of biography (e.g., Fleming, 2006), as it is subjectively shaped by the cultural influences of the writer. However, all archaeological research, whether consciously or otherwise, is influenced by the researcher's individual *habitus.* The best approach is to be multi-vocal, allowing different voices and perspectives to inform archaeological interpretation (Tatlioglu, 2010, 46), and to follow academic reason as relates to the material evidence.

Country houses have a large historical footprint, with archaeological methodologies providing further evidence of architecture, material culture, and landscape, so present an opportunity to explore multi-scalar biography centred around the household sphere. This approach was used by Finch and Tatlioglu at Harewood House; they researched multiple biographical facets, from the management of the estate to the daily exploits of its guests, to consider how the house and landscape were defined by the actions of those within it (Finch, 2008; Tatlioglu, 2010b). Household biography also informed the recent project at New Place, which applied biography to the archaeological material to discuss how the materiality of the house influenced the lives of its occupants, including William Shakespeare (Edmondson *et al*., 2016). This place-led approach could be criticised as being too strictly delineated. However, the aim of archaeological biography is to reveal the interaction between different people, places, and objects as situated within broader trends (Tatlioglu, 2010, 43); the focus on a singular place defines a focus for the biography, allowing research to be bounded in the analysis of an individual archaeological site and its archive.

2.3c. Exploring chaîne opératoire in the archaeological archive

The work of French sociologist Leroi-Gourhan, perhaps amongst others, provides a model to approach the biography of archaeological objects. The concept of a *chaîne opératoire*, or operational sequence, lays out a general sequence for the technical production, use, and discarding of a piece of material culture (see Audouze, 2002). Although many studies of *chaîne opératoire* focus on the earlier steps, namely production, each step influences the material object. The operational sequence is by no means linear, instead providing terminology to accommodate the complex networks between people and objects, as human agents made, used, altered, and discarded materials over different geographic and temporal scales. Considering the different facets of the *chaîne opératoire* through a range of material types allows us to elucidate how society defined, and was defined by, its material record.

The initial step of the *chaîne opératoire*, the production of material, predominantly took place outside of the country house sphere and is thus outside the scope of this thesis. Instead, interpretation of the archaeological archive begins with procurement, considering how objects were brought into Audley End House. In country house studies, procurement is primarily understood through household accounts and receipted bills, which detail the processes by which items were purchased from different sources (Stobart and Rothery, 2016a). Archaeology

is a tool to explore networks of distribution through the analysis of material types and forms, providing an alternative narrative of procurement including objects that evade the conventional economic system so are invisible in the documentary record. It also grounds materiality as central to the experience of procurement (see Cook *et al*., 1996; Booth, 2020).

Exploration of procurement is interlinked with consumption, a historical meta-narrative that accommodates the different ways that materials were used within different geo-temporal spheres (Miller, 1994; Stobart and Rothery, 2016a; 2016b). Consumption studies encompass a range of interactions with the material world; this includes the use of objects as physical aids to carry out activities, to create sensory or aesthetic experiences, or the bringing of materials into the body through dining or drinking, these classifications being permeable and not mutually exclusive. The process of consumption is intertwined with *habitus*; as Stobart and Rothery (2016, 8) argue, "it allows us to think about individuals and groups; norms, behaviours and practices; relationships with goods and spaces; ideas of agency and identity; and local and global links". In country house research, scholars have explored the motivations behind consumption choices and how these choices reflected and informed identity, considering the supply, acquisition, use, and reuse of objects. These historical studies are often bounded by individual houses, as the detailed exploration of each object, individual, and household is needed to interrogate such a complex network of meaning.

Archaeological research considers similar concepts of consumption, although making use of different terminologies and approaches. Material culture recovered during excavation often relates to everyday consumption practices; the study of this material can confirm or reject historical narratives, considering how consumers "negotiate, accept, and resist goods' dominant meanings" (Mullins, 2011, 133) within their everyday lives. By integrating archaeology with other analyses of consumption, a more nuanced picture emerges that contrasts the established and actual uses of material culture within household contexts. In archaeological research, the object is placed at the foreground of study; consumption practices "do not exist outside of millions of individual actions…involving the very stuff of archaeology, material things" (Johnson, 1999, 18). This also encompasses everyday material types that are underrepresented within historical sources, such as low-cost ceramics and glass vessels.

The final step within the *chaîne opératoire* is deposition. Archaeological contexts are entangled in depositional processes; the excavation of material only occurs when the object has been

discarded within an archaeological deposit. Depositional events can be destructive, such as the 2015 fire at Clandon Park, after which material culture was recovered from within the structural remains (Miller, 2016). However, these events and resulting archaeological deposits are rare at country houses that are still standing, which have often been occupied for long periods without extensive architectural change. Instead, depositional contexts excavated from around country houses primarily relate to the everyday disposal of rubbish. Processes of deposition are understudied within country house contexts, as they are often absent within the documentary record; archaeology provides a unique opportunity to reconsider the deposition of materials as part of wider consumption practices.

Research into patterns of rubbish disposal has been applied to prehistoric features (e.g., Thomas, 1999) and urban contexts (e.g., Brown, 1999; Pearce *et al*., 2013) but has yet to inform perspectives on British country houses. Analysis of disposal patterns could demonstrate how estates were managed, with temporal changes in the conceptualisation of space within the estate informing changing notions of where rubbish could be thrown away. Depositional choices also reflect value judgements, as the process of removing an object from circulation required a cognitive transfer in the perception of an object from seeing it as meaningful to considering it to be worthless (Thompson, 2017). Practices of rubbish disposal also influenced sensory environments, as the deposition of organic materials had an impact on visual and olfactory landscapes (e.g., Dugan, 2018); exploring deposition practices as represented in the archaeological record could suggest how country house landscapes were experienced.

In summary, the *chaîne opératoire* model provides a framework by which to consider the biography of each object within the country house. However, the archaeological record is not dictated by *chaîne opératoire* alone; the 'Pompeii premise', the idea that material distribution within archaeological deposits is exactly representative of historic depositional practices, has been proven false (Schiffer, 1985). Instead, analyses of archaeological archives need to be aware of the biases caused by post-depositional processes, during which objects were re-shaped and re-distributed. Contexts are the end product of "a massive palimpsest of derivatives from many separate episodes" (Binford, 1981, 197), a collection of processes which are all important to understanding object biography and *chaîne opératoire.* This is particularly prescient when researching materials from garden archaeology, as garden-specific context formation processes and restoration-led excavation methodologies have inevitably shaped the archaeological record.

2.4. Project methodology

2.4a. Archival assessment

2.4a.i. Documentation

To understand the methodology and results of the parterre excavation, the initial stages of research required an assessment of the structure, composition, and biography of its archive. This involved the examination of all on-site and post-excavation documentation, which had been accessioned by box number and catalogued within English Heritage's Historic Object Management database. During thesis research, each document was indexed onto a Microsoft Excel database, recording the document type and quantity, its attribution including date and author when known, its location within the archive, and comments on its content. Significant documents, including draft reports, context sheets and registers, plan/section registers, and finds records, were then digitised; some were scanned at the archive, whilst others were photographed and converted into PDFs at a later stage. The resulting assessment of the indexed archive in comparison to current archival standards is presented within Chapter 3.

2.4a.ii. Material archive

The Heritage Object Management System was used as a preliminary resource to outline and locate the material archive, the artefacts and environmental samples recovered during the parterre excavation, as held within the Wrest Park Collections Store. Based on their quantity and accessibility within the archive, eight material types were then chosen for physical assessment: the pottery, vessel glass, clay pipe, registered and bulk metalwork, flowerpot, shell, and lithic assemblages. In the case of flowerpots, the majority of sherds were already separated from domestic pottery. One archival box of this material, out of eight boxes in total, was selected as representative of the quantity and quality of the flowerpot assemblage; partial information from the Heritage Object Management System was then used in association with context sheets to estimate the quantity of material within the other boxes.

For each material type, objects were identified and recorded using the following criteria:

- Location in archive
- Date of excavation
- Archaeological context

- Material type
- Object type
- Number of objects
- Weight (g)
- Additional object-specific notes

This enabled characterisation of these assemblages, showing the general composition of the parterre excavation archive and suggesting material types that could be researched. It was during this assessment that the thesis' focus on four domestic material culture types, pottery, vessel glass, clay pipes, and registered metalwork, was decided. These four assemblages appeared to be complete and physically accessible for research within the archive. The archival assessment showed that limited post-excavation research into the assemblages had taken place; their object management records also required improvement, for which specialist analysis would be invaluable. These four material types would also enable more temporally delineated research, as they can be dated with visual analysis, allowing for the consideration of material culture use within medieval and post-medieval buildings and post-depositional object biography within garden bed contexts. As such, a more comprehensive assessment of these material types was undertaken, as outlined in Chapter 2.4b. Other material types within the archive, namely building materials and organics, were too numerous to be recorded during this thesis; it is hoped that future researchers can follow this archival assessment with additional artefactual analysis.

2.4a.iii. Appraisal of research importance

The archival assessment demonstrated the research significance of the archive, showing both opportunities and limitations to academic research. After discussion with the thesis examiners, an appraisal of research importance has been defined using MAP2's post-excavation assessment guidance (English Heritage, 1991). The most significant elements of the archive are, therefore, the plans and interpretation of pre-18th century structures, information about the 19th-century parterre garden, and elements of the architectural and domestic finds assemblages; all of these are discussed within the thesis. However, as it focuses on commercial resource targeting (Andrews and Thomas, 1995, 195), MAP2 does not consider how post-excavation assessment can develop the archaeological discipline. Indeed, the archive also demonstrates the motivations and strategies inherent within restoration-led garden

archaeology, a case study for the composition of resulting archives, and their legacy for the guardianship of country houses and historic gardens today.

2.4b. Domestic material culture analysis

This thesis focuses on a more detailed examination of four types of material culture: pottery, vessel glass, clay pipes, and small finds. Each object was retrieved from the archive, identified, and recorded within a Microsoft Excel database that informs the following chapters. Artefacts that could be considered representative, unusual, or that required further identification were also photographed. Each material type has different features and associated recording standards, yet some continuity between records was built into the methodology to enable cross-material comparisons, thus providing a more holistic understanding of the material culture assemblage. The recording criteria also allowed for the objects to be categorised by form and fabric, date range, and level of fragmentation.

2.4b.i. Pottery

The pottery assemblage was recorded in line with the agreed standard for a 'Basic Record' (Prehistoric Ceramics Research Group *et al*., 2016, 16), using MOLA's reference code system for medieval and post-medieval fabric types (MOLA, 2014), the Essex post-Roman pottery codes outlined by Cotter (2000, 12-13), and the Medieval Pottery Research Group's (MPRG, 1998) classification of vessel forms. However, due to the small size of many of the sherds, the calculation of minimum vessel numbers and estimated vessel equivalents using measurements of rims and bases (see Orton *et al*., 1993, 16) proved ineffective. The domestic pottery assemblage was recorded using the following criteria:

- Location in archive
- Date of excavation
- Archaeological context
- Number of sherds
- Weight (g)
- Maximum number of vessels
- Rim and base equivalents
- Fabric
- Form

- Decoration and glaze
- Pre- and post-depositional damage
- Cross-fits with other parts of the assemblage

2.4b.ii. Vessel glass

In order to subdivide the glass assemblage from the 1985-1987 excavation, vessel glass was identified by the curve and colour of the fragment. The vessel glass was then recorded utilising Parks Canada guidelines (Jones and Sullivan, 1989) and the Society for Historical Archaeology Historic Bottle guidance (Lindsey, 2020). Although these are North American typologies, they categorise imported vessels of the 17th to 19th centuries, for which there are no well-defined British classifications. To better identify the wine bottle assemblage, further typologies were used (Jones, 1986; Banks, 1997; Willmott, 2002; Biddle, 2013). An estimated minimum and maximum vessel number were produced, based on the presence of joined fragments within each context. However, as when recording the pottery assemblage, the glass assemblage was too fragmentary to allow for meaningful rim and base measurements, thus estimated vessel equivalents were not attempted. The following information was recorded:

- Location in archive
- Date of excavation
- Archaeological context
- Number of fragments
- Weight (g)
- Minimum and maximum vessel numbers
- Rim and base equivalents
- Colour
- Form
- Decoration and glaze
- Pre- and post-depositional damage
- Cross-fits with other parts of the assemblage

2.4b.iii. Clay pipe

Each clay pipe fragment was identified and dated in line with Higgins (2017) and Ayto (1994), referencing Oswald's general typology (1975, 39) and Atkinson and Oswald's London typology

(1969, 178). Each bowl type identification was reviewed by Higgins and White (*pers. comm*.). However, as most pieces were fragmented stems, they were often unattributable to a particular type or historical period. The following criteria were then recorded:

- Location in archive
- Date of excavation
- Archaeological context
- Number of fragments
- Weight (g)
- Minimum and maximum number of pipes
- Bowl, stem, and mouthpiece counts
- Fabric
- Form and finish
- Makers marks and other decoration
- Pre- and post-depositional damage
- Cross-fits with other parts of the assemblage

2.4b.iv. Small finds

Small finds were defined as individual and identifiable objects made of metal (mostly copper alloy) or worked animal bone. Those uncovered during the 1987 excavation season had individual small finds numbers, indicating that a process for recording small finds was employed on site, and the majority of these objects had already been identified by the excavators. Additional information was obtained through various academic sources, including metalwork guides provided by the Portable Antiquities Scheme (2016, 2019a-e) and illustrated catalogues of medieval finds from York (Ottaway and Rogers, 2002) and Norwich (Margeson, 1993). Each artefact was identified, photographed, and recorded using the following criteria:

- Location in archive
- Date of excavation
- Archaeological context
- Number of objects
- Object type if known
- Weight (g)
- Material

- Condition
- Additional object-specific information

2.4b.v. Dating material culture types

Each object was dated through identification of its form and fabric, with an earliest and latest possible production date defined using material-specific standards. For the pottery assemblage, fabrics were classified into ware types which were then dated using MOLA (2014) standards; this was sometimes aided by the identification of the form of the vessel that is represented. The glass assemblage was dated primarily through the identification of typological form. Although clay pipe fragments are mostly visually homogenous, bowl fragments were dated by identification of their form. Stem bore measurements were not used to date the assemblage as they are often unreliable and insensitive to smaller temporal fluctuations (Higgins, 2017). For each object, the median of the date range was then calculated and used to assign the object to a particular century classification. This allowed the domestic material culture to be delineated by period and integrated within a more holistic site narrative.

2.4c. Contextual and spatial analysis

A comprehensive survey of context sheets from the 1985-1987 project was then undertaken using the digitised documents. The excavation used the single context recording system wherein each deposit or cut was given an individual number and recorded onto a context sheet. Information about each context was recorded onto a Microsoft Excel database. Contexts were then classified by the type of archaeological feature that they represent, integrating archaeological convention with the particular terminology used by the excavation team and the research objectives of this thesis, to create the following context type groupings:

- Topsoil – modern surface soil
- Flowerbed fills – the soil fill of the parterre beds, subdivided into upper, middle, lower, and complete fills, reflecting both excavation methodologies and changes in the soil matrix caused by parterre construction strategies
- Other fills – the fill of other archaeological cuts, including modern planting and the backfill of 1950s excavation trenches, as well as unidentified fills

- Layers – layers of archaeological material deposited over time, sometimes stratigraphically sealed by other contexts, including floors, paths, and foundations, as well as unidentified layers
- Services – deposits and cuts related to modern services, including pipes, electricity cables, and junction boxes
- Structures – built features including walls and historic services
- Cuts – a negative context, when an archaeological deposit was removed to create another feature or deposit, including the cuts of flowerbeds, postholes, burial pits, and 1950s trenches, as well as unidentified cuts
- Unknown – context numbers with insufficient information to identify context type

An easting and northing for each context was also transcribed when given in the context sheet, as well as additional information relevant to this thesis; elevations, or vertical levels, were mostly missing from the context sheets so were not recorded. This methodology allowed the exploration of context histories and the material culture within each context type, informing horizontal spatial analysis and the discussion of individual contexts, to consider depositional and post-depositional processes and their effect on the assemblage.

The inclusion of coordinates and associated flowerbed numbers within these context sheets allowed for the use of spatial distribution analysis, an innovative methodology for understanding how material culture assemblages relate to their archaeological context. This analytical tool locates artefact findspots to explore how they are spread across different kinds of contexts. Practically, this requires the recording of each findspot across a horizontal and vertical axis, as well as the identification of each artefact to allow the spatial analysis to be subdivided by chronological and object-functional taxa. Objects can be mapped both by number and by their density within contextual units, which is quantified through various statistical techniques. Spatial analysis is often applied to 'surface archaeology', where artefacts are located across large areas by fieldwalking or metal detecting techniques (e.g., Bevan, 2012; Daubney, 2015). Distribution can also be explored within the bounds of an archaeological site; this approach has been used within prehistoric studies, including mapping lithic scatters (e.g., Gallotti *et al*., 2012). Spatial distribution is also a useful tool for considering materials that have been divorced from their immediate context by processes that occur after deposition, such as ploughing (Schofield, 1991) or, in this case, gardening.

This methodology was applied to the analysis of unstratified contexts within the parterre garden to understand the distribution of artefacts within the flowerbeds. Distribution analysis was used to explore how these contexts were created, revealing whether the artefact record correlated with the location of pre-19th century architecture or was more influenced by 19th-century gardening practices. However, some limitations were encountered when applying this methodology. The excavation revealed a complex stratigraphy that was cut by later features and only partially recorded, so that calculating the surface areas and volumes of the flowerbed fills was impossible. This meant that the number of objects was only counted per context, rather than artefact density across a vertical or horizontal plane. Cutting (2003, 1) argued that a distinction can be drawn between "analysis as a quantitative methodology and as a non-quantitative tool to think with"; this thesis follows the latter approach, using spatial analysis to posit qualitative questions about how the assemblage was formed.

2.4d. Comparison and contextualisation

2.4d.i. Primary documentation

This research also draws on a range of comparative and contextual sources. A significant proportion of these were compiled in 1809 by Richard Neville, the second Lord Braybrooke, collating a series of engravings and maps from various periods. The resulting scrapbook, which is now displayed at the house, was consulted during this project with assistance from the house's curator. A chronology of additional cartographic and pictorial representations has already been summarised by Alexander (2015, 137-147), which were selectively consulted. This thesis also integrates a number of 17th-20th century drawings and photographs identified using the online Historic England Image Library and two reports, produced by Landscape Use Consultants (LUC, 1988) and Historic England (Alexander, 2015).

Primary sources also include documentation produced during everyday management of the house and estate. Most valuable to this thesis were household accounts which recorded both managed and discretionary spending within the modern country house (see Stobart and Rothery, 2016a, 25-27). The first documents listing income and expenses that survive from Audley End were produced by Sir John Griffin Griffin and his steward, Charles Higgins, between 1765 and 1797 (Williams, 1992); similar account books also survive from the 19th century. These account books are mostly held within the Essex County Council archive (see English Heritage, 2014b). However, the quantity and complexity of these documents meant that a full

analysis was beyond the scope of this thesis. Instead, this thesis references accounts previously published by historians, namely by Williams (1974; 1992; 1993), Moring (2007), Hann (2010), and Gray (2016).

This thesis also uses two gardeners' diaries from the 18th and 19th centuries. The first was produced by Thomas Challis, a junior gardener at Audley End from 1795 to 1798, which was purchased by English Heritage in 2019 (Hann, 2020) and has recently been transcribed (Peter Moore, *pers. comm.*). The second diary was written by William Cresswell, who worked in the kitchen and flower gardens during 1874, which has been published by English Heritage (Kelleher ed., 2006). This diary is more detailed than Challis', recording how and where plants were grown, managed, and propagated, as well as personal events such as church visits and his relationship with the head gardener, John Bryan. Both of these diaries were kept by junior gardeners who had little say in the development of the garden; instead, these sources record the everyday management of different plant types as they learned their craft (Hann, 2020).

2.4d.ii. Previous archaeological and historical research

In addition to primary documentation, this thesis incorporates secondary sources relating to Audley End House and gardens. The first published history of the house was produced by Richard Griffin, the third Baron Braybrooke, who lived at Audley End between 1820 and 1858. Griffin was a politician and literary editor who compiled the first published edition of Samuel Pepys' diaries and was a fellow of the Society of Antiquaries (Fisher, 2004). He was also a Jacobean revivalist, critical of Georgian changes to Audley End and interested in restoring its 17th-century interiors (Alexander, 2015, 16), notably renewing the oak screen in the Great Hall as well as commissioning the parterre garden at the heart of this thesis. Neville published *The History of Audley End* in 1836, detailing a biography of the house and its owners from the establishment of Walden Abbey to the Georgian period, as well as a description of the house's architecture and a supplementary history of Saffron Walden and the wider landscape.

With increasing academic consideration of country houses, Audley End became an object of focus for scholars in the late-19th century. In particular, it inspired the interest of architectural historian John Alfred Gotch, who produced numerous works about the Elizabethan and Jacobean architecture of south-east England (MacAlister and Elliott, 2004). In 1892, Gotch described the 17th-century house and suggested that "in the destruction of the outer court, the gallery, and the clock tower, there disappeared most of what was piquant, and quaint, and

interesting in detail" (Gotch, 1892, 294). Although perceiving the current house as unimportant, this article still drew attention to Audley End as significant for the study of Jacobean architecture and society. Descriptions of the house were also included in general surveys of the historic landscape, including the Royal Commission on Historical Monuments (1916, 234–239).

More recent research has reconsidered the architecture of the house, enabling a better understanding of Audley End House as part of a multi-faceted heritage landscape. Paul Drury carried out a full buildings survey in the late 1970s, producing a comprehensive narrative of architectural change from 1605 to the death of the tenth Earl in 1745 (Drury, 1980), whilst Ian Gow undertook an interrelated survey of the historic interiors to consider alterations from the Jacobean to the modern day (see Gow, 1997). Further information about the architectural history of Audley End, as well as the interior collections and biographies of the house's best-known occupants, is now outlined in a series of English Heritage guidebooks (Drury and Gow, 1984; Drury, 2011; 2014). Historical research into the 19th-century gardens was also undertaken during the parterre restoration project, resulting in two reports (LUC, 1988; 1992), which were consulted during thesis corrections.

Other historians have considered the house through its archival record. John Dewi Williams made use of copious 18th-century documentary sources to survey Sir John Griffin Griffin's consumption practices and labour recruitment practices (Williams, 1966; 1992; 1993). A more recent project was undertaken by Hannah Chavasse, exploring the house's 18th-century interiors through concepts of fashion and affectionate recollection (Chavasse, 2015; 2016). Andrew Hann researched the 19th-century household accounts to explore labour recruitment in this period (Hann, 2010), whilst Annie Gray has explored the same accounts through the lens of Victorian food trajectories (Gray, 2016). Ian Valentine and Jeffrey Bines have also revealed how the Polish branch of the Special Operations Executive used the house during World War II, using oral testimony and archival resources (Valentine, 2004; Bines, 2008). Each of these sources will be revisited during this thesis to contextualise parts of the archive.

This thesis also employs broader studies of medieval, Tudor, and Jacobean manor houses, as well as typological classification and synthesis of material culture types represented within the assemblage. To contextualise this research, metanarratives of the procurement, use, and discard of various material culture types have been considered. Comparisons have also been made to contemporary houses and gardens, especially those with high-quality historical and

archaeological research and associated publications. These disparate sources have allowed for Audley End to be placed within its wider chronological and socio-political context and revealed patterns and omissions within the material culture assemblage.

2.4d.iii. Comparative garden archaeology prokects

As outlined above, the parterre excavation was one of many restoration-led garden excavations during the later-20th century. To better understand the archaeological record and material culture assemblage from Audley End, several of these excavations are also considered as comparative projects, as outlined in Chapter 9: Kirby Hall's Great Garden project (Northamptonshire), the Castle Bromwich project (West Midlands), Hampton Court Palace's Privy Garden restoration (Richmond upon Thames, London), and the Witley Court East Parterre project (Worcestershire). Three key points of comparison have been considered: the methodological ethos of each project, the structure and biography of the resulting archaeological archive, and the composition of domestic material culture assemblages. This allowed the Audley End excavation to be situated within the practical and theoretical frameworks of garden archaeology, demonstrating the continuities and complexities of its material culture assemblage.

2.5. Summary

This chapter has outlined the origins, methodologies, and legacies of garden excavations that took place during the later-20th century. It demonstrated that most projects were instigated not by researcher interest but by building development or, more commonly, as part of the restoration and/or reconstruction of formal gardens managed by heritage agencies. Although approaches varied from the digging of small, targeted trenches (e.g., Kirby Hall, Wrest Park) to the clearance of large areas (e.g., Hampton Court), most projects involved the selective removal of archaeological deposits based on defined temporospatial parameters. This meant that later contexts were sometimes removed without examination, whilst earlier deposits were not excavated at all, complicating the interpretation of site narrative. The projects were also situated within the 'preservation by record' approach to practice, meaning that detailed single-context recording was employed, resulting in large bodies of site documentation. However, for many of these projects, post-excavation interpretation did not take place, limiting their ability to enhance academic and cultural knowledge. It is therefore argued that heritage practitioners

and academics should engage with the archival legacy of these projects, exploring whether they could still enhance site interpretations and inform the practice of garden archaeology today.

This thesis thus utilises an individual case study to consider the academic and cultural value of garden excavation projects, and the resulting document and material archives, for developing academic understanding and public interpretation within historic gardens. From 1985 to 1987, the Chelmsford Archaeological Trust led an excavation of Audley End House's 19th-century parterre garden as part of its restoration. Researchers interested in the house had previously focused on its owners, aided by a large body of documents, although more recent studies have considered the house and gardens through broader historical and archaeological surveys. This thesis aims to integrate the results of the parterre excavation into narratives of Audley End House, considering what analysis of the project's archive can tell us about its architecture, horticultural landscape, and the procurement, use, and deposition of its material culture. It seeks to provide an exemplar for research into legacy archives from this kind of project.

In order to approach such an extensive archive, a selective yet holistic methodology was developed. This methodology integrated the recording and characterisation of multiple forms of material culture with thematic comparative analysis, using documentary sources and secondary literature. It included the application of consistent recording criteria between artefact types, such as the assigning of objects to period classifications, that allowed the assemblages to be structured and compared. This approach allowed detailed information about the assemblage to be uncovered and given spatial and temporal context, whilst also moving beyond a categorisation of material type into consideration of its functions, uses, and meanings. Analysis of the archaeological archive was then contextualised through comparative garden projects, historic documentation, and a broad panoply of theoretical approaches. The concepts of dynamic architecture, object biography, and *chaîne opératoire* have been particularly emphasised as they influenced this thesis approach. Overreliance on a particular theory or period of study can flatten the "rich stories and complexities of the historic landscape into monolithic meta-narrative" (Tatlioglu, 2010, 34). Instead, this thesis aims to produce a holistic narrative of Audley End House and gardens across the 12th to 20th centuries within their wider architectural, horticultural, and socio-political context, beginning with the biography of the 1985-1987 parterre excavation.

3. Excavations in the Parterre Garden, 1985-1987

3.1. Introduction

This chapter outlines the excavations that took place in the parterre garden at Audley End House between 1985 and 1987. It first discusses the historiography of historical, curatorial, and archaeological research at the house, presenting gaps in academic knowledge that the excavation could fill. Using the archaeological archive, it then explores the excavation itself, considering the origins, methodologies, and outcomes of the project. This includes an assessment of the archive's physical and organisational character, providing an overview of site documentation, post-excavation research documentation, and the material archive. The chapter then quantifies domestic material culture within the archive, exploring the types, forms, and dates of the pottery, vessel glass, clay pipe, and small finds assemblages. It discusses the contextual and spatial analysis of this assemblage to examine the differences and continuities between the recovery of different material types. This chapter shows that the parterre excavation was a pioneering project within garden archaeology, albeit with a complex post-excavation legacy that includes an under-researched artefactual assemblage.

3.2. Archaeology at Audley End House

3.2a. Early interventions within the house and grounds

The first archaeological projects within the Audley End estate were carried out by Richard Cornwallis Neville (1820-1861), the fourth Baron Braybrooke. After retiring from military service in 1842, Neville developed a keen interest in natural history and antiquities, becoming a fellow of the Society of Antiquaries and president of the Essex Archaeological Society (Boase and Smail, 2008). He excavated and published pioneering projects around Essex and Cambridgeshire, notably the Roman settlement of Great Chesterford and the Anglo-Saxon cemeteries at Little Wilbraham and Linton (see Williams, 2013). He accumulated artefacts and other collections at Audley End, which were displayed in a dedicated Museum Room in the north wing (Millward and Martin, 2007). However, Cornwallis Neville carried out little study within the estate, apart from a small excavation in the 'flower garden' within which he potentially identified a Romano-British pottery kiln (Powell, 1963, 186).

After the purchase of Audley End by the Ministry of Works, emphasis has been placed on "research, repair and conservation, both to preserve Audley End and make it accessible to the public" (Drury, 2011, 56). This emphasis, although consistently motivated by the ethos of heritage management for the good of general society, has resulted in different approaches to preservation and interpretation. The first attempt to conserve the house was made in the 1950s, when the Ministry stripped the ground floor rooms at the south of the main wing to restore the mid-18th century dining parlour; although this process allowed the Georgian rooms to be presented to the public, it also destroyed the 19th-century interiors (Thurley, 2013, 242). In 1950, four trenches were also excavated at the south-east corner of the north wing to examine potential medieval wall foundations. Although the results of this excavation have been broadly defined by Drury (1982b, 97), the excavation records were mostly lost, demonstrating the need for legacy planning in post-excavation to ensure the survival of archival materials.

3.2b. Excavations during the 1970s and 1980s

In 1971, the Saffron Walden Archaeological Research Committee was formed in response to imminent redevelopment projects in the town with Stephen Bassett and Paul Drury as directors, and Carol Cunningham as assistant director, the latter two being members of the Chelmsford Excavation Committee. They proceeded to excavate five threatened sites around Saffron Walden, as well as undertaking research into Walden Castle (Bassett, 1982, 2). This led them to begin a specific programme of research into Audley End House and its estate. An opportunity was provided in 1979, when floorboards in the eastern end of the southern wing were re-laid. The Chelmsford Excavation Committee carried out limited excavation underneath the floorboards, demonstrating that archaeological deposits survived below the level of the current house. The project uncovered the foundations of Tudor and Jacobean walls and provided information about late-18th century alterations to the built fabric, including material culture from the plasterer Joseph Rose's workshop (Drury, 1984a, 198).

Small-scale archaeological evaluations took place at the house throughout the 1980s. In 1982, three trial trenches were opened to consider the archaeological impact of widening the road into the car park (Drury, 1982a), whilst in 1983, in advance of service works, limited excavations were undertaken within the east range (Ingham and Cooper-Reade, 2005). In 1984, Chelmsford Archaeological Trust observed the replacement of floorboards in the south and west bays of the dining parlour; this revealed the foundations of medieval and Jacobean walls, as well as

associated material culture (Anon., c.1984). Each of these small projects was recorded within an unpublished report, part of a disordered site archive that is spread across numerous locations including English Heritage's Cambridge office and the Wrest Park Collections Store.

3.2c. Archaeological projects after the parterre excavation

Since the parterre excavation, the focus of research has been on non-invasive landscape and buildings survey. This included the surveying of Lion Gate in 1986 before restoration to its 19th-century appearance (Sutherill, c.1986). Sutherill carried out further recording of ornamental garden buildings within the estate, demonstrating how they were constructed in the Georgian period and altered by successive owners (Sutherill, 1996; 1997). To further understand the estate, a 1994 resistivity survey of the Elysium Gardens (Linford and Payne, 2011) and a similar project at Ring Hill (Oswald, 1999) were commissioned. These projects culminated in a landscape report edited by Magnus Alexander (2015), seeking to inform English Heritage's estate management strategy. There have also been 11 watching briefs within Audley End's gardens and estate, producing reports that are accessible through the Archaeology Data Service and have been collated by Ingham and Cooper-Reade (2005).

English Heritage has commissioned further buildings survey, including of the 19th-century Museum Room (Millward and Martin, 2007), the stable block (Smith, 2008; Drury and Smith, 2010), and the Victorian nursery and coal gallery (Alexander, 2015, 18). Each of these projects has led to the development of a holistic interpretation strategy that aims to reunite the multi-temporal interiors of the house into a cohesive narrative to be presented to the visitor (Tatham, 2013). However, public interpretation of the house's pre-Jacobean history is mostly absent, as it is not an easily visible phase of the site's history to visitors (Wendy Monkhouse, *pers. comm*.), despite the wealth of information that was revealed by the 1985-1987 parterre excavation.

3.3. The parterre excavation and its archaeological archive

3.3a. Project background

The Audley End parterre excavation was undertaken by the Chelmsford Archaeological Trust (CAT), which acted as a successor to the Chelmsford Excavation Committee (Coe, 2014). The trust was registered as a charity in 1982, with the objective "to advance the education of the

public in the science of archaeology by promoting the research and excavation of archaeological sites in the county of Essex" (Chelmsford Excavation Committee, 1981). Their remit was primarily to complete the post-excavation processing and publication of previous excavations within Chelmsford, including of the town's Dominican friary, for which archaeologists including Andrew Harris, Nick Wickenden, and Carol Cunningham were hired (Andrew Harris, *pers. comm.).* The parterre excavation can be seen as somewhat tangential to this remit. However, the Trust was directed by Paul Drury who had led previous research at Audley End, and included archaeologists with research specialisms in medieval and post-medieval buildings. As such, the Chelmsford Archaeological Trust were able to fulfil the parterre excavation project.

The parterre excavation was commissioned in response to English Heritage's intention to restore the garden area immediately to the east of the house (Hayfield, 1997, 2). The instigation of this project reflects the desire within English Heritage to bring back the historic character of the estate; this project was integrated with buildings research within the domestic offices and was followed by another project restoring the kitchen garden (Alexander, 2015, 17). In 1983, the trust brought in Land Use Consultants (LUC), a landscape consultancy firm that undertook regular commissions in historic environment research and strategy during the later-20th century (Flenley, 1997, 95). Land Use Consultants produced a documentary and topographic survey into the history of the Audley End estate, including the parterre garden (see LUC, 1988, 1). English Heritage thus had a general understanding of the location and design of the 1832 parterre before the excavation, identifying the 19th-century parterre garden and Mount Garden as a potential 'restoration opportunity' (Flenley, 1997, 96).

CAT was then commissioned to undertake small-scale evaluative excavations within the parterre and Mount Garden, alongside the house's western porches (Cunningham, 1985; 1987a), to show whether subsurface stratigraphy survived for all iterations of the garden. Harris and Cunningham (1987, 1) wrote that, after this initial excavation:

> it became clear that any attempt to restore a garden would pose a threat to surviving stratigraphy…accordingly it was decided that only the latest 19th century phase of garden should be reconstructed.

This quote tellingly suggests that the focus on the parterre was only agreed upon after a pre-excavation assessment of the subsurface remains. Indeed, Andrew Harris noted that the project

originally sought to reconstruct the early-17th century gardens, but it became clear that the archaeological record of the 19th-century gardens would have to be destroyed to achieve this (Andrew Harris, *pers. comm.*). The restoration of the 1832 parterre garden was instead prioritised; this would allow for the use of existing documentary records, inform a single-period reconstruction without damaging earlier archaeological deposits, and also improve the house's offer for visitors by reconstructing an aesthetically pleasing formal garden. By using archaeologists to excavate the physical remains of the parterre, rather than digging new flowerbeds based on the historical survey alone, English Heritage sought a historically accurate restoration that would not disturb any pre-1832 stratigraphy (Harris and Cunningham, c.1987; West, 1997, 88). This shows how garden archaeology in this period was a discursive process, with decisions about excavation and restoration strategy informed by the quality of the surviving stratigraphy, the framework of single-period restoration strategies, and English Heritage's responsibility to protect the integrity of the historic landscape.

3.3b. Excavation and restoration methodologies

Three seasons of excavation by the Chelmsford Archaeological Trust (CAT) took place between 1985 and 1987, directed by Carol Cunningham and Andrew Harris with supervisors Mike Dawson, Paul Sewter, and Catherine Steane, and funded by the Historic Buildings and Monuments Commission (Harris and Cunningham, c.1987). Excavations began in 1985 in the Mount Garden, demonstrating good preservation of multi-period garden features as well as facilitating the installation of a new gas main. Further excavations occurred in the areas around the north and south porches, to test the accuracy of historic plans of the house's west elevation (Cunningham, c.1985). The team was split into two groups, with Harris focusing on the identification and interpretation of the medieval, Tudor, and Jacobean structures, as well as the re-examination of previous excavations, whilst Cunningham and Dawson prioritised the recovery and restoration of the 19th-century garden (Andrew Harris, *pers. comm.).* The different excavated areas were given area codes (see Figure 3.1), which prefix the context numbers.

As Cunningham and Harris (1987, 1) then described:

> The second and third seasons in 1986 and 1987 were devoted to the location and excavation of the features of…a parterre which had occupied the ground to the east of

> the house and the courtyard…the soil marks of the parterre pots were defined at [topsoil] level and after recording, each of the 160 pots was fully excavated by hand.

Each parterre 'pot', or the fill of each parterre flowerbed, was identified, recorded, then fully removed. This excavation methodology created a series of geometric-shaped trenches (see Figure 3.2 and Figure 3.3) that acted as keyholes into the archaeological stratigraphy without excavating it; thus there was "no damage whatever to the archaeological record described and interpreted which remains intact for posterity" (Harris and Cunningham, c.1987, 2). Examination of the sides and bases of the flowerbed cuts demonstrated that the gardeners had cut through structural features related to earlier occupation of the site; these features were recorded through plans and elevation drawings. When excavating the courtyard parterre, the archaeologists also revealed a live electricity cable, which was re-routed.

Artefacts from each context were recovered and briefly catalogued, with some finds washing taking place on-site, before being transported to Chelmsford for post-excavation processing (Andrew Harris, *pers. comm*.). Soil samples were also taken from each fill and base, although they proved useless as the soil was too well-drained for organic material to be preserved for identification, and the stratigraphic layers above were seen as intrusive (Murphy and Scaife, 1991, 97). Any post-excavation analysis as recorded in archival documentation, the retention and rationalisation of artefactual assemblages, and the limited interpretation and publication of the excavation findings, are discussed within the archival assessment below.

The parterre excavation resulted in the wholesale removal of stratigraphy relating to the 1832 garden, later interventions for the installation of services, the 1950s excavation trenches, and the garden topsoil, whilst the majority of pre-1832 stratigraphy remained in-situ. Immediately afterwards, Land Use Consultants (LUC) were commissioned to produce three further reports about the parterre garden (LUC, 1988; 1992), which gave a comprehensive historical survey of the parterre garden's layout and materials. The resulting reports were then integrated with the archaeological evidence to inform a garden design and planting scheme (LUC, c.1991-1995). The restoration was carried out from 1987 to 1991; using the 1985-1987 archaeological trenches as a blueprint, gardeners recut, backfilled, and planted the parterre flowerbeds (LUC, c.1991-1995; Flenley, 1997, 96), although it was not clear within the reports whether backfilling of the parterre beds included the addition of new material. The gravel walks were also reconstructed (LUC, c.1991-1995), whilst the central feature of the courtyard parterre was

backfilled as an additional flowerbed (LUC, 1988, 36). Ultimately, English Heritage achieved their project objectives, creating a beautifully restored 19th-century formal garden that sits on top of the in-situ archaeological record, limiting its disturbance yet making further excavation extremely difficult.

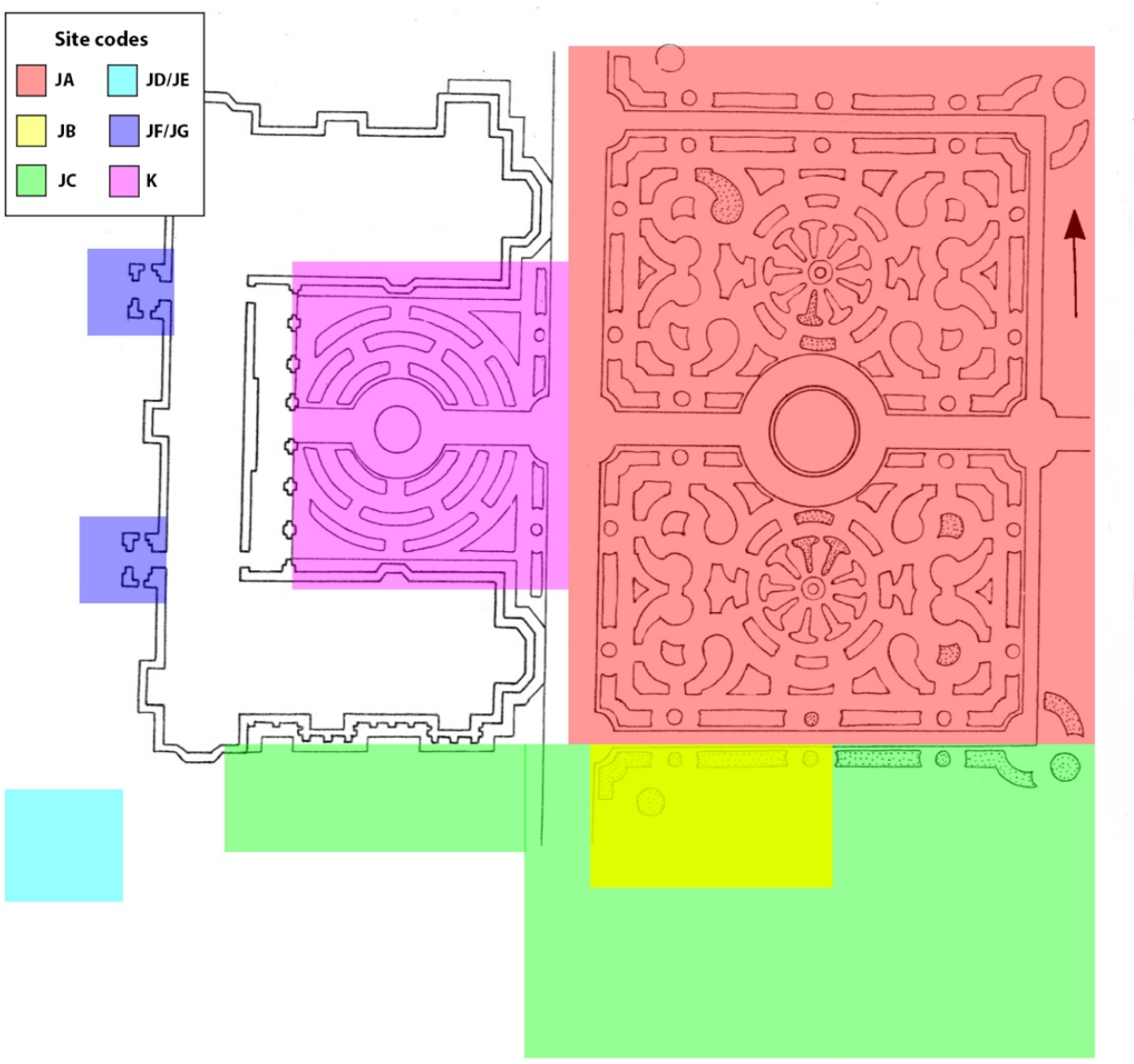


Figure 3.1: Plan of Audley End House and parterre garden (Cunningham, 1987b, 11), broadly highlighting the different areas of excavation and their site codes. © English Heritage.

Figure 3.2: Photograph of the excavated main parterre area (site code JA) looking west. Taken by the Chelmsford Archaeological Trust, c.1986. © English Heritage.

Figure 3.3: Photograph of the excavated inner courtyard parterre (site code K) looking south-west. Taken by the Chelmsford Archaeological Trust, c.1987. © English Heritage.

3.3c. Archival assessment

3.3c.i. Site archive

Data created during the 1985-1987 parterre excavation is stored in its archaeological archive, which is managed by English Heritage at their Wrest Park Collections Store. The archive primarily consists of what can be termed the 'site archive' (Museum of London, 2009), the recording documentation produced during the fieldwork process. Appendices 1 and 2 present examples of the main document types, alongside a catalogue of the different document types and quantities present in the site archive, with their current locations. The largest component is around 1200 context sheets (CAT, 1986-1987: *Context Sheets*), which are held alongside brief context registers. The sheets are pro-forma in design, similar to DUA's 1975 context sheets (Spence, 1993), delineating categories of information to be entered by the excavators. Some context sheets were repeated, mostly when a context first uncovered in 1985 was revisited in the 1986 season, whilst sheets were also produced for each flowerbed number and for some contexts that were identified within sections and flowerbed bases. Hayfield (1997, 4) noted that the context sheets were integrated into the archive in 1997 but required organisation and cataloguing; since then, they have been organised by excavation season, then numerically.

During the parterre excavation, a scaled drawing was produced of each context or group of contexts. There are therefore 45 plans and 103 section drawings within the archive (CAT, 1986-1987: *Section Drawings* and *Plans*), drawn on permatrace sheets from A1 to A4 in size. The drawings are numbered, corresponding to numbers also provided on the context sheets, and separated by excavation season; there are also handwritten plan and section registers within the archive. A bulk finds register is also included in the archive, incorporating finds excavated from 1979-1987 and divided by material type (although appearing to miss some artefacts recovered from the main parterre area), as well as a more detailed masonry catalogue and partial small finds register. There is also a record of soil samples taken, providing their context number and grid reference. Less comprehensive is the photographic record from the excavation. Only seven prints of site photographs are held at the collections store, five of which show the whole site after the clearance of the flowerbed fills, and two of which are of unknown sections; there is no photographic register or any annotations on the prints themselves.

As this overview demonstrates, the site archive is mostly complete, although it includes several omissions that are yet to be rectified. No documentation was included from the 'project planning archive' (Museum of London, 2009) that could inform an understanding of the motivations and strategies of the Chelmsford Archaeological Trust and English Heritage whilst the excavation was being instigated and planned. Although this is now a standard inclusion within fieldwork archives, the retention of this documentation was not seen as integral to the site archive during the 1970s and 1980s, so was not always preserved (Davies, 2017, 62). The restoration ethos of the Audley End project also meant that much of the planning was undertaken by English Heritage before CAT became involved, and after the excavation was complete, which was thus kept separately from the site archive.

Written information in the archive was of variable quality and readability, whilst some data had been omitted from on-site documents; the context sheets, in particular, were often incomplete. The lack of photographs or associated photographic register within the archive is also problematic, as it limits the visual analysis and reinterpretation of features, trenches, and on-site methodologies today. In addition, the archive is not indexed; to define the excavation biography presented above, a scoping assessment of all archival materials was needed to find the required information. As such, the archive from the parterre excavation presented a palaeographic and interpretative challenge. Current guidance defines a completed site archive as both structured and accessible (e.g., Brown, 2011); this thesis seeks to aid the completion of the archive through exploration of its legacy for modern research.

3.3c.ii. Post-excavation research archive

The archive also incorporates documentation from post-excavation analysis and research, which are recorded in Appendix 3. This includes some documentation produced during specialist artefactual and environmental research, although these processes were not completed. Samples of medieval and 17th-century stonework were sent to the Geologists' Association for analysis, who produced a detailed report defining the geological origins of different stonework types (Anon., 1989). Parts of a report about medieval pottery excavated from the courtyard parterre were also prepared but remained incomplete. The archive also

includes correspondence regarding the soil samples taken during the project, noting that they showed insufficient organic preservation to enable the analysis of botanical remains.

Additional research documentation is also present within the archive, incorporating scans of 18th-century accounts, interpretative drawings showing potential building phases (which form the basis for the publication drawings), and a bibliography of secondary sources including previous excavation reports and Gotch's (1892) discussion of the Jacobean building. This shows that some research into the structural remains and pottery assemblage took place after the excavation. However, the archive does not include specialist reports for most artefact types, which were likely not produced (Andrew Harris, *pers. comm*.). There is also no whole-site stratigraphic matrix or phased plan, which would be highly challenging to compile or interpret from the numerous and unusually shaped excavation trenches. The complexity of the stratigraphic record meant that it was challenging to define areas of significance or compare site documentation to the written interpretation. This demonstrates the limitations of an archive produced without an immediate, comprehensive post-excavation assessment process, hence the development of the MAP2 project management system (English Heritage, 1991).

During the project, four interim reports were produced. These present the initial results of the fieldwork, briefly periodising and interpreting key features. Each focused on an individual project season: the 1985 trial excavation of the north and south porches (Cunningham, c.1985), the 1986/1987 excavation of the main parterre (Cunningham, 1987a), the 1987 clearance of the inner parterre (Cunningham, 1987b), and a selective summary of the whole 1985-1987 parterre excavation (Harris and Cunningham, c.1987). These interim reports provide a broad overview of the main archaeological features uncovered during the project, particularly emphasising pre-garden architecture, and are thus referenced throughout this thesis. They also include several interpretative drawings that correlate with the publication drawings discussed below.

Indeed, an excavation report was partly drafted by Andrew Harris (1997) with the expectation that it would be published in a broader volume collating the projects undertaken at Audley End throughout the 1960s to 1980s (Andrew Harris, *pers. comm.*). However, this was not produced because the Chelmsford Archaeological Trust was dissolved soon after the project's end, and staff moved to other positions across the country (Andrew Harris, *pers. comm.*). During the

1980s, funding for post-excavation processes was often insufficient, with the complexity of projects and increasing quality of excavated information at odds with discipline expectations for highly detailed thus expensive 'preservation by record' monographs (Andrews and Thomas, 1995, 199; Davies, 2017, 71). In addition, as discussed in Chapter 2, many garden projects focused on the physical restoration of the historic garden; this prevented archaeologists from being granted the resources to enhance disciplinary knowledge through publication and dissemination.

Several copies of the drafted excavation report are held within the archive. The most complete copy (Harris, 1997) is typeset with handwritten notation along its margins and dated to 1997; as Hayfield noted that he reviewed the report manuscript during his post-excavation assessment, it seems likely that this copy of the report was prepared as a result. This report first introduces the excavation biography, then is divided into chapters by period, discussing the excavated structural features from the medieval and Tudor buildings. The chapter on Walden Abbey is fairly detailed, defining a suggested layout and possible functions for each room, integrating historic parallels and detailed information about medieval stonework. The Tudor chapter, in contrast, is a reproduction of the interim report produced during the excavation of the north and south porches. An incomplete chapter on the 17th-20th century history of the site is also included, which outlines a general architectural biography but does not discuss the structural or horticultural evidence revealed during the parterre excavation.

The report also includes 11 interpretative drawings relating to the medieval abbey, nine drawings that depict individual sections and trench plans, and one diagram defining the potential layout of the 16th-century house. They provide an important visual aid for the site interpretation presented by Harris, and act as the best source of interpreting the structural evidence due to the absence of a phased site plan. However, during this thesis research it became apparent that some of the drawings were erroneously scaled, and they did not include fixed points for comparison. As such, it proved too challenging during this thesis to retroactively overlay the proposed plans of the monastic, Tudor, and Jacobean structures onto a plan of the parterre trenches, so it was sometimes unclear to what extent the structural interpretations were representative of the elaborate flowerbed shapes rather than the shapes of former

buildings. This shows the importance of completing interpretative drawings, including location information, and scales (Brown, 2011, 12), so that they can be used by future researchers.

As this overview also shows, the draft report focused on the architectural remains, with no integration of associated finds or environmental samples as no analysis of them had taken place. The biggest omission within the report is the exclusion of the post-medieval garden, which is not discussed at all, despite contemporary research and reporting of historical evidence for the 1832 parterre garden (e.g., LUC, 1988; 1992), that could have been readily integrated within the archaeological interpretation. Indeed, the post-excavation assessment recommended that the draft report should be reviewed and bolstered by a full analysis of the garden and finds (Hayfield, 1997, 6). This thesis aims to fulfil these needs, building on the archive to discuss the post-medieval garden, integrate new disciplinary understandings across different periods, and undertake the analysis of chosen artefact types. It also goes beyond Hayfield's (1997) recommendations by contextualising and critiquing the methodology of the project and its resulting legacy for the archaeological discipline.

3.3c.i. Material archive

In addition to site and post-excavation documentation, the archive has a material component: the excavated finds and environmental samples. In January 1997, an inventory quantified the artefacts that were held by different public repositories in preparation to unite the assemblage. Hayfield noted that, by later in 1997, the Chelmsford and Essex Museum Service no longer held any of the artefacts, suggesting that McMichael and Cooper-Reade's report achieved one of its aims; however, pottery and small finds were still missing from the collection (Hayfield, 1997, 6). After this, artefacts that were held at Audley End House were moved to English Heritage's Wrest Park Collections Store, likely including the pottery and small finds.

All material was accessioned and recorded within Wrest Park's Heritage Object Management System (HOMS). From 2016 to 2018, the assemblage was re-boxed by volunteers, improving their storage conditions, imposing further curatorial organisation, and adding information to the collection records. As such, by the inception of this thesis, a full material archive was stored at Wrest Park and accessioned onto HOMS, which was the first point of access to the

collections during this research (see Table 3.1). The HOMS database showed that the archive included a range of material types, primarily architectural materials, flowerpots, animal remains, vessel glass, and domestic pottery, suggesting key avenues for research.

Table 3.1: Summary of records, related to archaeological material from Audley End House, on Wrest Park Collections Store's Heritage Object Management System.

Material/item type	**Number of records**	**Records with contextual information**	**Item count**
Animal bone and horn	381	370	2540
Architectural objects (alabaster, concrete, limestone, marble, plaster, sandstone, and unidentified)	751	644	2727
Architectural samples (concrete, mortar, and plaster)	140	136	219
CBM (tile, brick, and unidentified)	672	643	3030
Charcoal/coal samples	36	36	51
Fired pipe clay	124	119	148
Flowerpot	294	292	3950
Glass (window, vessel, and unidentified)	416	406	2678
Human bone	1	1	85
Lithics	17	16	17
Metal objects (iron, lead, and copper alloy)	501	491	1231
Pottery	331	313	2014
Shell	121	103	726
Slag	25	22	30
Wood samples	15	8	20

However, the HOMS records included material from projects that took place before the parterre excavation (during 1979-1984), and objects had been accessioned with different levels of detail, so that not all records included the date of excavation or associated contextual information. There were several terminology-based challenges, such as the alternating use of 'pottery' and 'potsherd', a sector-wide problem in the accessioning of archaeological material into heritage databases (Society for Museum Archaeology, 2020, 44). In addition, although most records included 'item counts', calculating the quantities of objects given a shared accession number as part of bulk accessioning processes, several were noted as inaccurate during later audits. As such, this thesis included an assessment of all accessible accessioned material before focusing on particular material types. It also considered to what extent the current material and documentary archives present future research opportunities and challenges, as the archive is maintained over 30 years after the parterre excavation began.

3.4. Domestic material culture assemblage

3.4a. Garden assemblages and their taphonomy

Before an analysis of the domestic material culture assemblage uncovered during the parterre excavation, it is important to acknowledge the largely unknown taphonomy of assemblages from garden soil contexts. Most restoration-led garden archaeology projects, as outlined in Chapter 2.2c, did not integrate a full interpretation of context formation and alteration; they instead focused on the layout of garden features as this enabled reconstruction. Some projects noted evidence for soil additions and enrichments through visual assessment and scientific analysis (e.g., Bell, 1990, 11; Currie and Locock, 1993, 195; Dix, 1997, 15), but this was rarely integrated into the site narrative. This methodological emphasis is also reflected in domestic material culture analysis which was seen as a tool for dating specific contexts and often excluded from site reports. As Davies and Weaver (2004) defined in their synthesis of the Witley Court excavation, a "typical garden assemblage" was "dominated by flowerpots with a few small fragments of domestic pottery", forming a small and fragmented assemblage therefore of limited utility. This resulted in the application of selective sampling and retention strategies during garden projects (Currie, 2005, 90-91).

However, the biography of domestic assemblages was considered during several excavations, allowing for a broad outline of the main explanations given for the presence of non-horticultural material culture in garden soil, which are presented here:

- The intrusion of garden features into earlier occupation or rubbish deposits, such as the large quantities of animal bone found during the Kirby Hall excavation in horticultural contexts that cut into medieval deposits (Dix *et al.*, 1995, 370)
- The addition of soil into the garden from other locations where material culture was already deposited through various processes, used to explain the presence of medieval pottery at Castle Bromwich (Currie and Locock, 1993, 176)
- The deposition of domestic waste into middens and manuring deposits which were then integrated into the garden as fertiliser (Currie, 2005, 85)
- The use of domestic rubbish as percolation deposits to enable better soil drainage at the base of flowerbeds, as found within Victorian flowerbeds in the gardens of Grand Arcade, Cambridge, sometimes referred to as 'crocking' (Cessford, 2014, 259)
- The dumping of domestic rubbish to provide a volume of material to fulfil horticultural needs, for example, to construct features at Kirby Hall (Dix *et al*., 1995, 347) and to infill a pond at Castle Bromwich (Currie and Locock, 1993, 181)
- The discarding, whether accidental or deliberate, of individual objects, such as the burial of a Victorian box containing children's toys at The Circus, Bath (Bell, 1990, 16), and the deposition of clay pipe fragments within garden beds at Hampton Court's Privy Garden (Dix and Parry, 1995)
- The reuse of domestic objects during horticulture, or the misinterpretation by archaeologists of horticultural objects made of material types also associated with domestic uses, such as ceramics (e.g., Moorhouse, 1991, 114-115; Currie, 2005, 88)
- The intrusion of later deposits into garden stratigraphy through various human and animal activities, therefore 'contaminating' garden deposits with non-horticultural objects, as defined during the analysis of pottery from Kirby Hall (Anon., c.1988)

These eight explanations all provide plausible interpretations of the presence of domestic objects within garden contexts and elucidate the complexities of interpreting sites where

several of the explanations could be applied concurrently. The influence of gardening on subsurface stratigraphy appears to be highly individualised, dependent on the needs of each garden and temporospatial variations in the working practices of its gardeners. Interpretations of assemblages from garden contexts thus need to combine the analyses of archaeological context, assemblage composition, and historic horticultural practices. This will be revisited through the Audley End archive, in Chapter 8, and comparisons to other gardens, in Chapter 9.

An alternative perspective to garden assemblage taphonomy is provided by recent garden test-pitting projects. This includes the 1991-1995 Shapwick project, which recovered large quantities of domestic material culture from 81 test pits, classified and interpreted to suggest patterns in the occupation and management of rubbish within the Shapwick area (Gerrard, 2007). This approach was used to a greater extent during the East Anglian CORS project, which involved the excavation of over 2000 small trenches across a 'continuously occupied rural settlement' by members of the public, often within their gardens, providing new insights into temporal changes in settlement activity (Lewis, 2014; 2015; 2020). The success of test-pit projects in uncovering features and objects from multiple periods demonstrates the wealth of information that could be found when the subsurface remains of gardens are excavated 'to natural', rather than left 'in situ' after a chosen stratigraphic layer is reached. It also provides potential insight into the taphonomy of garden soils, as seen in Chapter 8.6a.

The research applications of the excavated record from these projects can be contested due to the small sampling size of test pitting and biases in site selection caused by current occupation patterns (e.g., Wright, 2015). In addition, the project's publications rarely discuss the influence of garden formation processes in shaping the assemblages, instead using the presence of material culture as a general indicator of site occupation. However, methodologically, the test pitting projects show the benefits of 'deep mapping' through undertaking finds distribution analysis across large spatial and temporal scales, as well as uncovering the personal history of individual objects (Lewis, 2015). The application of multi-scalar analysis to objects from garden contexts enabled exploration of how they reflect the broader places from which they originated, despite challenges in interpreting their contextual narrative. This approach thus provides a useful parallel for the analysis of the Audley End material culture assemblage.

An additional perspective on the distribution of material culture within cultivated soils is provided through the analysis of ploughzone assemblages. The archaeological investigation of ploughzone deposits developed from the 1960s, instigated by awareness of the damage that agricultural ploughing was causing to the subsurface archaeological resource (Hinchcliffe, 1980; Haselgrove, Millett, and Smith, 1985), and the "complex and…destructive cycles of displacement, exposure and weathering, and reburial" that were thus occurring to artefacts within the ploughzone (Haselgrove, 1985, 5). Methodologically, this has encompassed fieldwalking, which recovers surface artefact scatters (e.g., Shennan, 1985; Caldwell and Dean, 1992; Jones, 2004), shovel pitting and topsoil sampling, which recover finds from samples of the plough soil (e.g., Gerrard, 2007), and, on occasion, comprehensive excavation of plough soil deposits (e.g., Slowikowski, 1995; Noble, Lamond, and Masson-Maclean, 2019).

Ploughzone artefactual analysis has considered three interlinked foci: the intrinsic properties of particular finds; spatial patterns in assemblages and their relationship to original depositional context; and what assemblage distribution and fragmentation implies about agricultural processes, including historic manuring practices, themselves. As with test pitting, ploughzone projects can show the benefits and challenges in using finds distribution analysis from disturbed contexts to interpret patterns in the pre-agricultural use of sites. They also demonstrate how material culture analysis could be used by archaeologists to interpret context creation, alteration, and disturbance, thus approaching historic cultivation activities. Indeed, there is likely some overlap in the ways that domestic material culture fragments were integrated within the 'cultivation horizon' of agricultural and horticultural contexts, thus creating parallels in the resulting artefactual assemblages; this will be considered within Chapter 8.6a.

3.4b. Quantifying domestic material culture

To understand the composition of the assemblage from the 1985-1987 parterre excavation, the artefacts were first counted and weighed. This showed that the archive contains:

- 1037 pottery sherds weighing 19.0kg
- 560 vessel glass fragments weighing 14.3kg
- 246 clay pipe fragments weighing 0.9kg

- 50 small finds weighing 0.3kg

These quantities are displayed in Figure 3.4 and Figure 3.5. In order to further quantify the assemblage, a minimum number of objects was calculated for each material type through the estimation of the survival of a diagnostic part of the object. A maximum number of objects was also estimated by counting all non-joined fragments individually. These calculations suggested a range for the numbers of objects represented by the assemblage, as follows:

- Pottery – a minimum vessel equivalent (here an estimated rim equivalent) of 21 vessels, and a maximum vessel equivalent of 996 vessels
- Glass – a minimum vessel equivalent (here an estimated rim equivalent) of 19 vessels, and a maximum vessel equivalent of 545 vessels
- Clay pipes – a minimum object equivalent (here the number of bowl-stem junctions) of 23 objects, and a maximum object equivalent of 244 objects

These numbers are represented in Figure 3.6. The large variation in these numbers reflects the fragmentary nature of the assemblage as many of the individual pieces represent only a small proportion of a total object. A full catalogue of the pottery, vessel glass, clay pipe, and small finds assemblages is provided within Appendices 5-8.

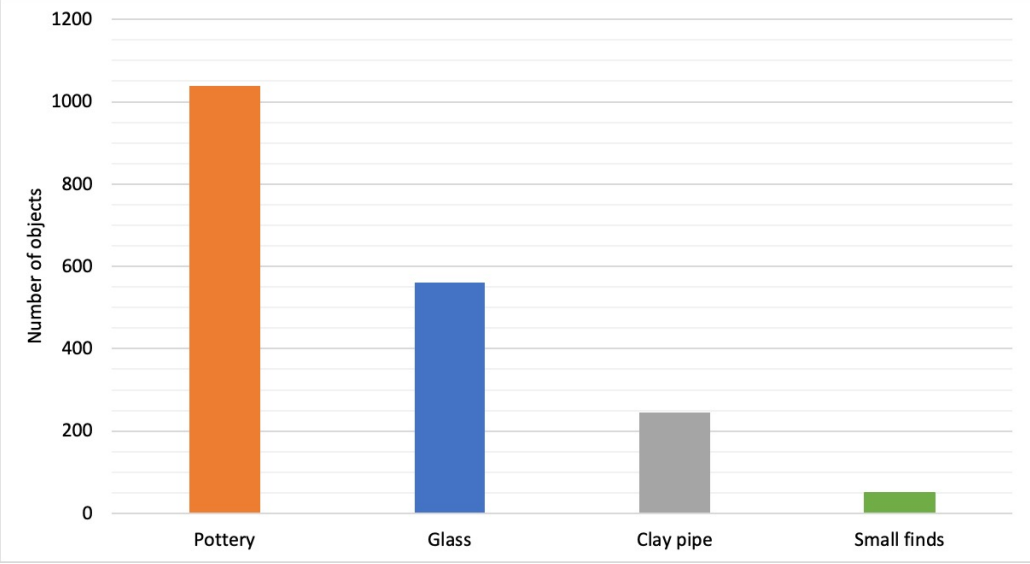


Figure 3.4: Graph showing the number of objects in the 1985-1987 excavation assemblage divided by material type.

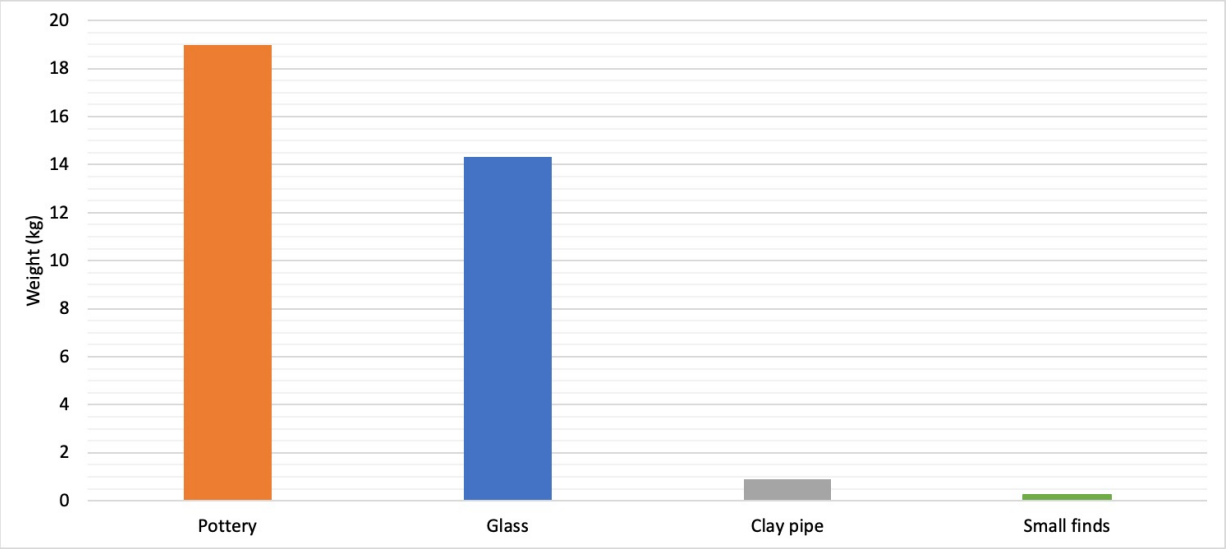


Figure 3.5: Graph showing the total weight of objects in the 1985-1987 excavation assemblage divided by material type.

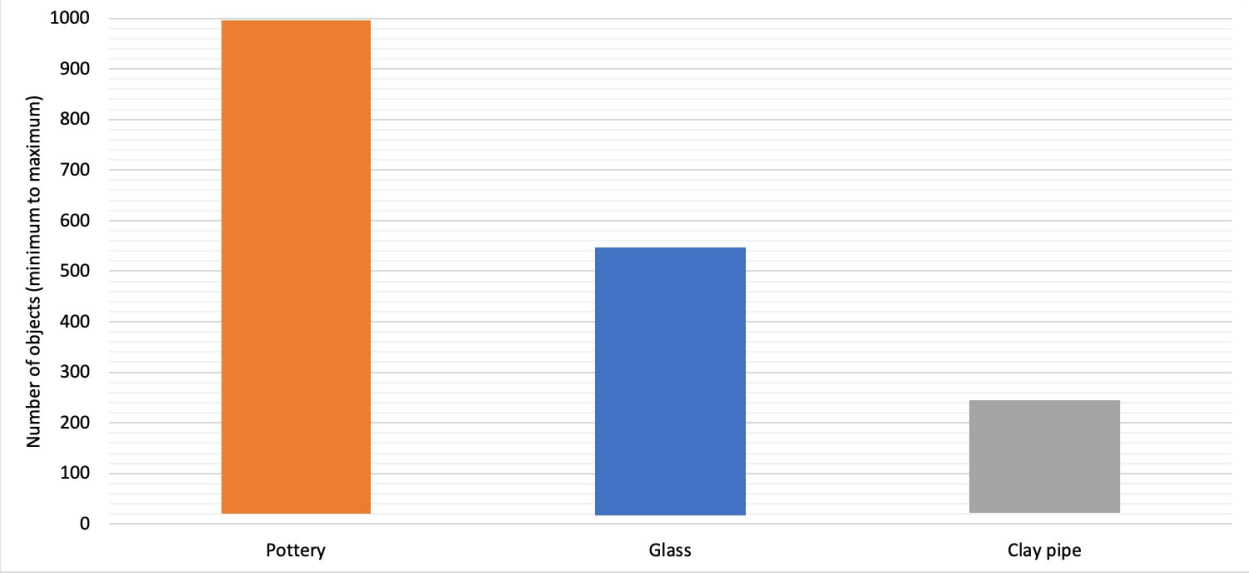


Figure 3.6: Graph showing the difference between the estimated minimum and maximum number of objects in the 1985-1987 excavation assemblage, subdivided by material type.

3.4c. Material types and dating

3.4c.i. Form and fabric

Each piece within the assemblage was characterised through the identification and recording of the material type, or fabric, and the object form. These two interlinked factors allow the interpretation of the function of the complete object that they originate from, especially the glass and pottery assemblages which could represent a broad range of vessel types. The identification of material type was less useful for understanding clay pipe fragments as they were made of visually similar clay fabrics, although the differences in bowl form allowed for broad typological dating. Similarly, the small finds assemblage consists of objects made of the same materials, mostly copper alloy, but with a wide range of forms to be considered.

When divided into open, closed, straight sided, and those that were unidentifiable, the pottery assemblage was shown to represent a range of vessel forms (see Figure 3.7). Analysis of pottery fabric types showed that there was a similarly broad variety of vessel shapes represented (see Figure 3.8). The majority of the assemblage consisted of post-medieval redwares and factory-made refined white earthenwares, with stonewares, slipwares, and tin-glazed wares also represented, as well as smaller quantities of Roman, medieval, and other post-medieval wares. The vessel glass assemblage consisted primarily of containers for the storage of liquids, with a smaller proportion of open vessels (see Figure 3.9). When divided by different glass colours, the assemblage was shown to be primarily composed of dark green glass fragments, with smaller numbers of lighter green, blue, brown, and predominantly colourless glass types (see Figure 3.10); this suggests that the majority of the assemblage was made up of fragments of dark green 'wine' bottles. The small finds assemblage had a variety of functional and chronological attributions, including some dress accessories and household items (see Figure 3.11).

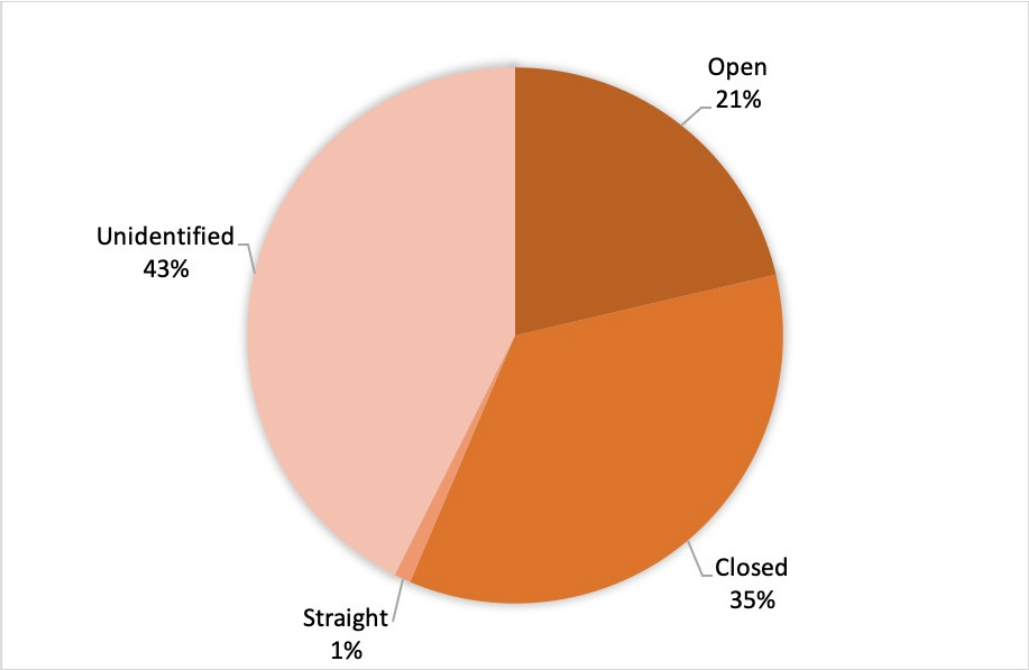


Figure 3.7: Graph showing the percentage of maximum number of pottery vessels of open, closed, straight, and unidentified forms within the 1985-1987 excavation assemblage.

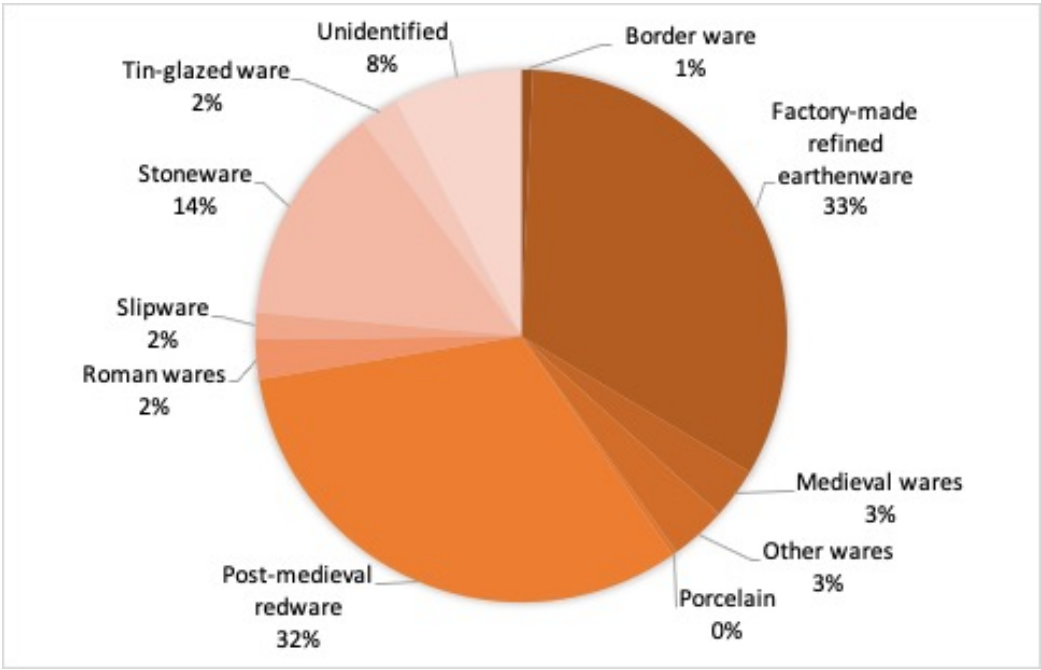


Figure 3.8: Graph showing the percentage of the maximum number of pottery vessels of different fabric types within the 1985-1987 excavation assemblage.

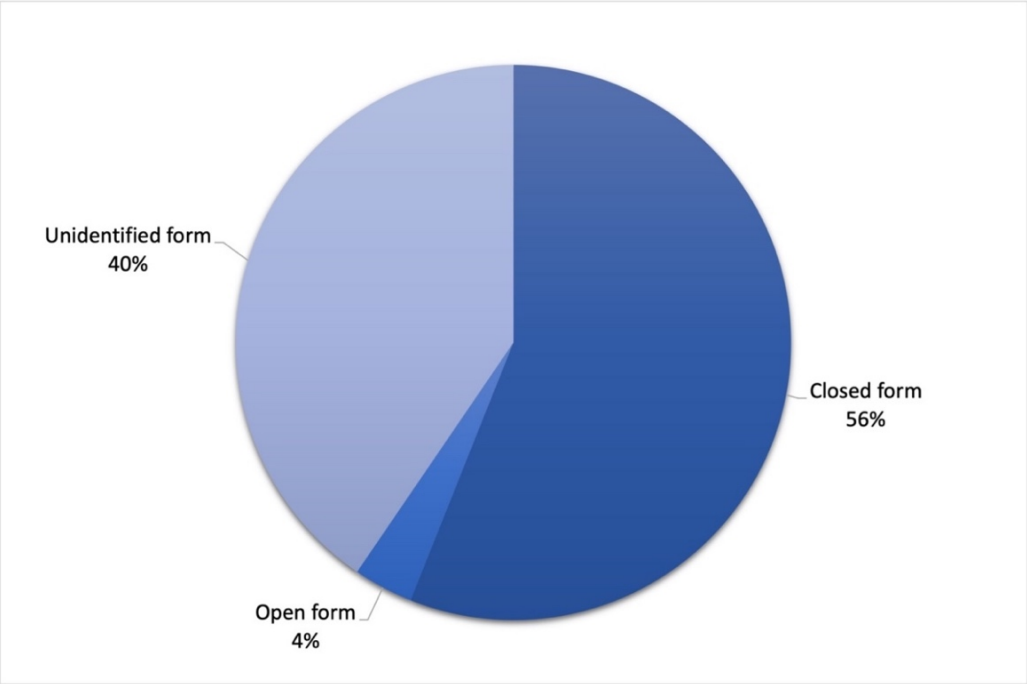


Figure 3.9: Graph showing the percentage of maximum number of glass vessels of open, closed, and unidentified forms within the 1985-1987 excavation assemblage.

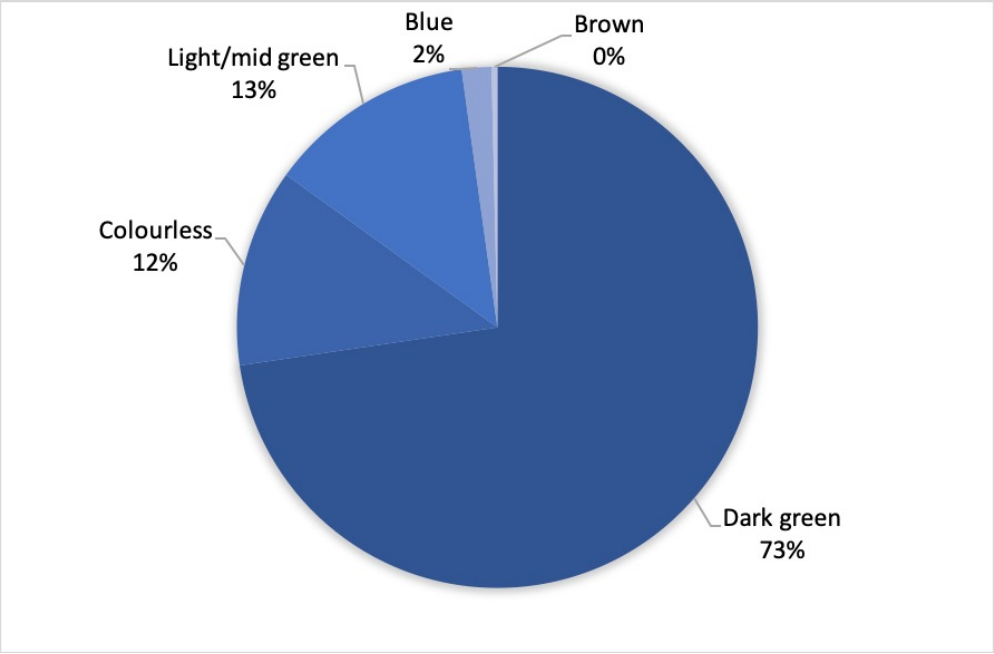


Figure 3.10: Graph showing the percentage of maximum number of glass vessels with different colour designations within the 1985-1987 excavation assemblage.

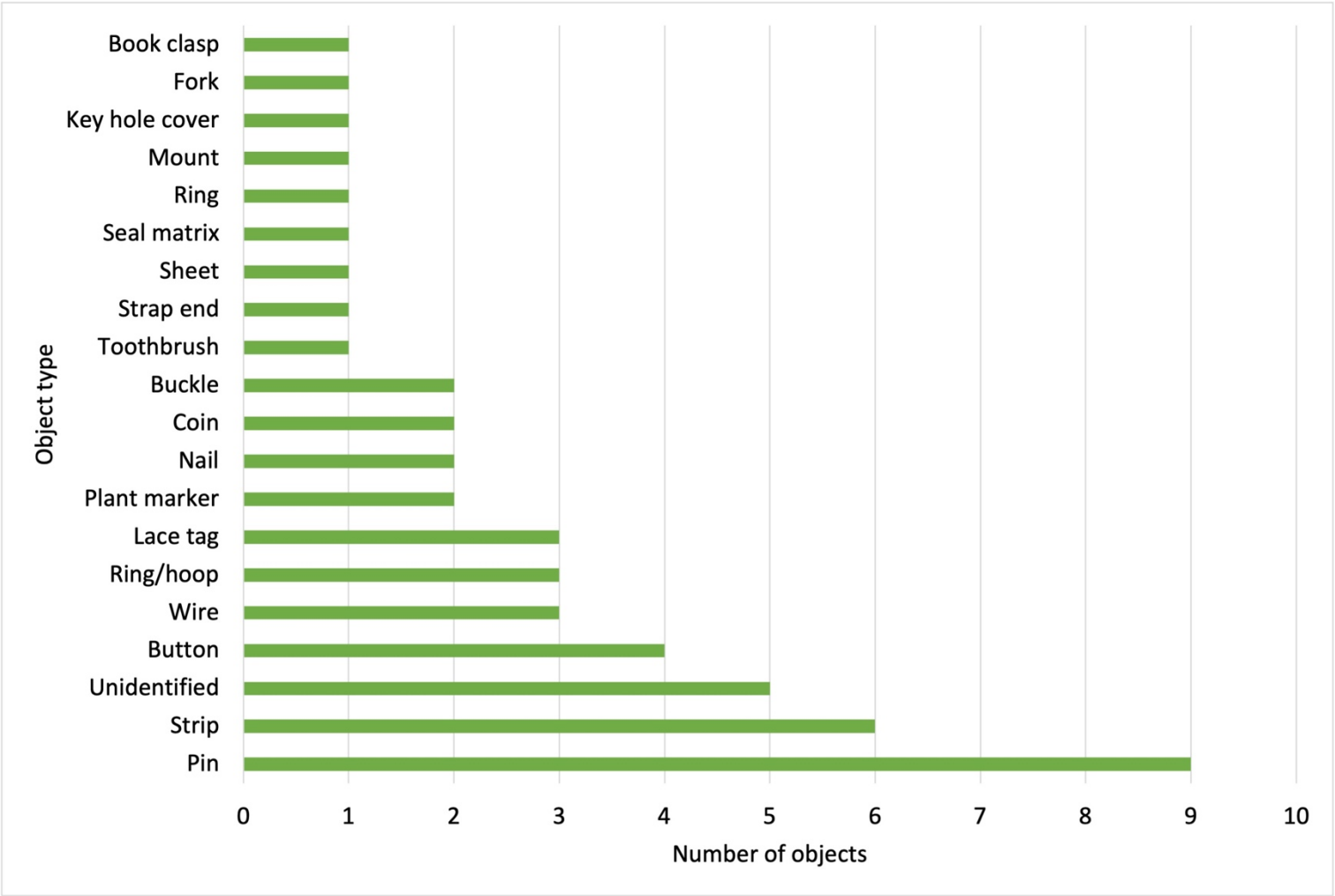


Figure 3.11: Graph showing the number of small finds within the 1985-1987 excavation assemblage, subdivided by object type.

3.4c.ii. Dating

Where possible, each object has been dated through identification of its form and fabric, with an earliest and latest possible production date defined using the material-specific standards noted in the methodology, allowing a median date to be calculated and assigned to a particular century classification (see Figure 3.12, Figure 3.13, Figure 3.14 and Figure 3.15). This demonstrated that the majority of pottery, glass, and clay pipe fragments were produced during the 17th to early-20th centuries, skewing towards the end of that period. The small finds assemblage includes both medieval and post-medieval objects, whilst the pottery assemblage also incorporates vessel fragments that can be dated from earlier eras, namely the Roman, medieval, and early modern periods. However, the bulk of the material was shown to date from the 18th, 19th, and early-20th centuries. A proportion of the assemblage also remained undated; this is because many of the pieces are highly fragmented so that it was sometimes difficult to identify chronological markers such as vessel form or decorative elements.

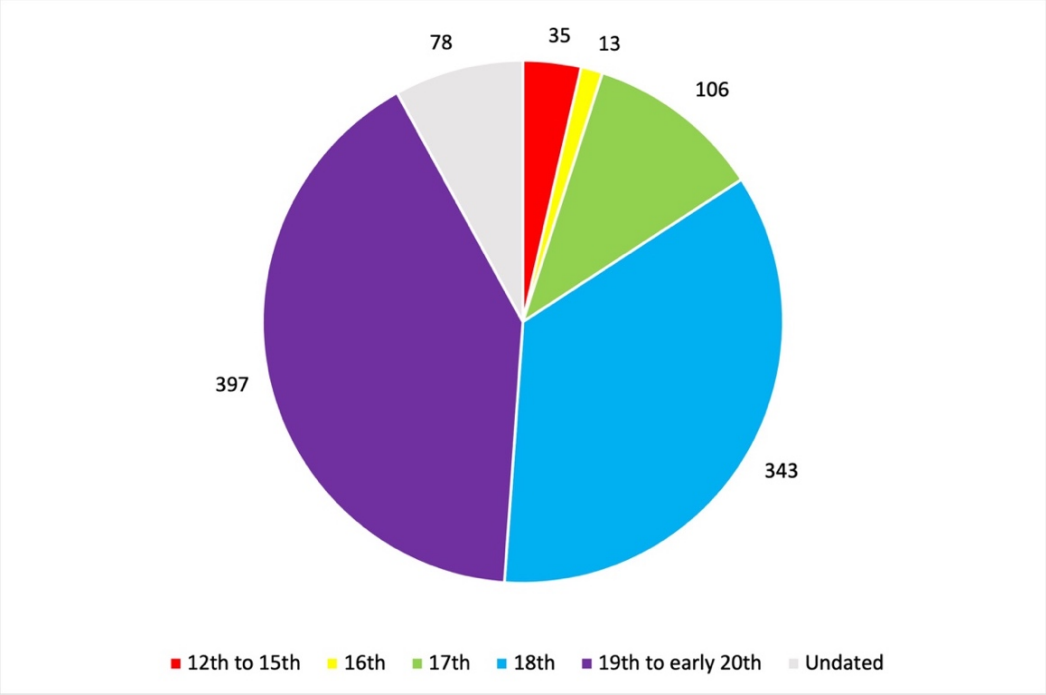


Figure 3.12: Graph showing the maximum number of pottery vessels of each century classification, excluding Roman material, within the 1985-1987 excavation assemblage.

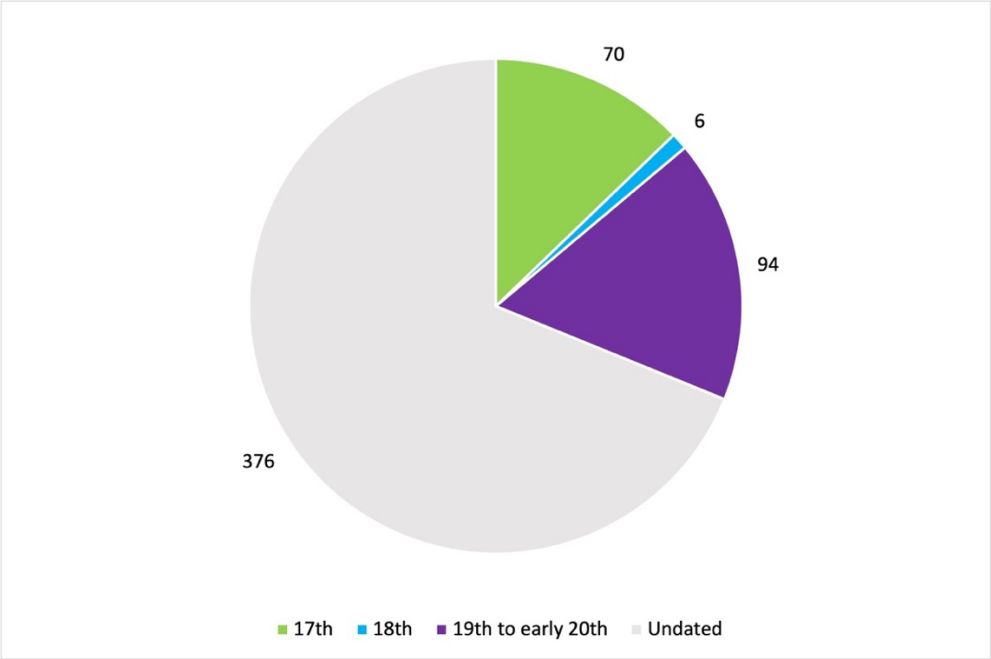


Figure 3.13: Graph showing the maximum number of glass vessels of each century classification within the 1985-1987 excavation assemblage.

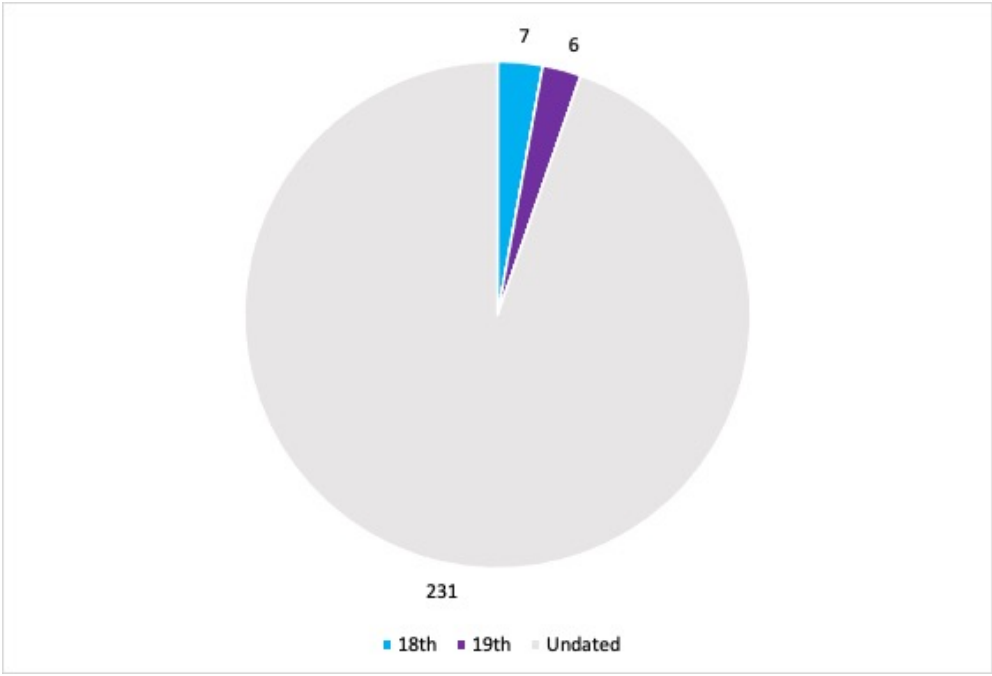


Figure 3.14: Graph showing the maximum number of clay pipes of each century classification within the 1985-1987 excavation assemblage.

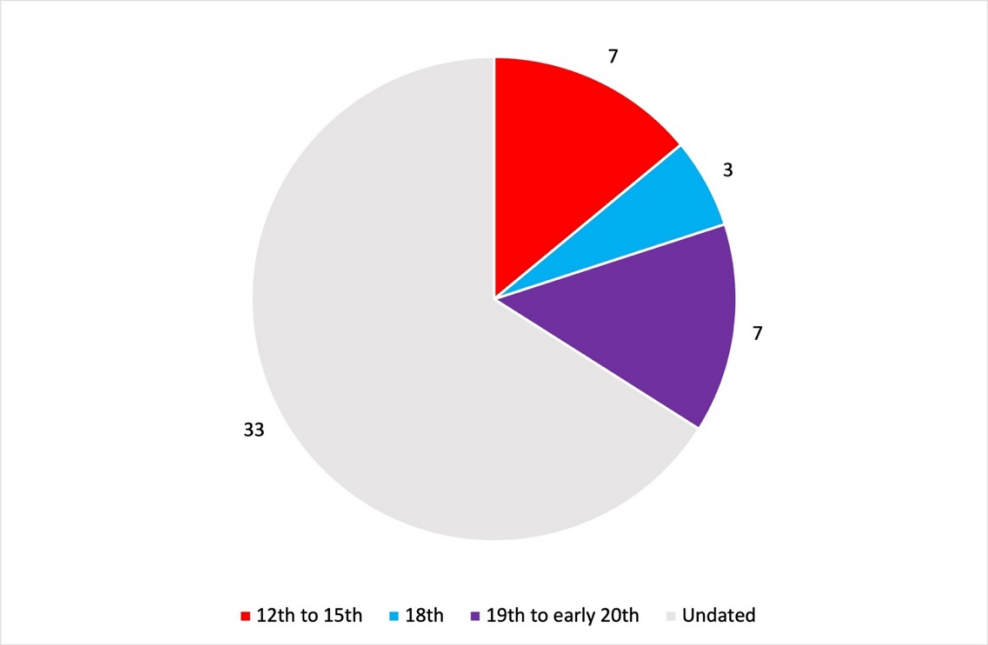


Figure 3.15: Graph showing the number of small finds of each century classification within the 1985-1987 excavation assemblage.

3.4c.iii. Other attributes

A range of other attributes have been identified and recorded for each sherd or fragment. This includes the identification of production when this has influenced the visual medium of the object, including decoration, manufacturers' markings, and incidental effects of the production process. Other markings were potentially caused when the object was used; there was some sooting represented within the pottery assemblage, for instance, suggesting that these pieces were held over an open fire, perhaps in a domestic context. The effect of post-depositional processes was also identifiable on a number of pieces, including abrasion and fresh breakage of pottery sherds. Only three cross-fits were noted across the pottery assemblage, suggesting that it is made up of fragments of different vessels rather than of complete vessels that were broken and scattered across contexts; however, the large quantity of very small fragments made cross-fit identification difficult.

3.4c.iv. Fragmentation

To further understand the composition of the assemblage, two methods have been used to quantify the fragmentation of the artefacts. An estimation of fragment size has been made, classifying each fragment by its weight (see Figure 3.16, Figure 3.17 and Figure 3.18). This was complicated by the methodology used to record the materials during the thesis research, as fragments of the same fabric and form within the same context number were grouped together and weighed within a shared record; an average fragment weight within each record has therefore been calculated, to the nearest gram, to enable the classification. This analysis shows that the majority of pottery sherds and vessel glass fragments are under 10g in weight, and the average clay pipe fragment weighs 2-4g, suggesting that they are predominantly highly fragmented.

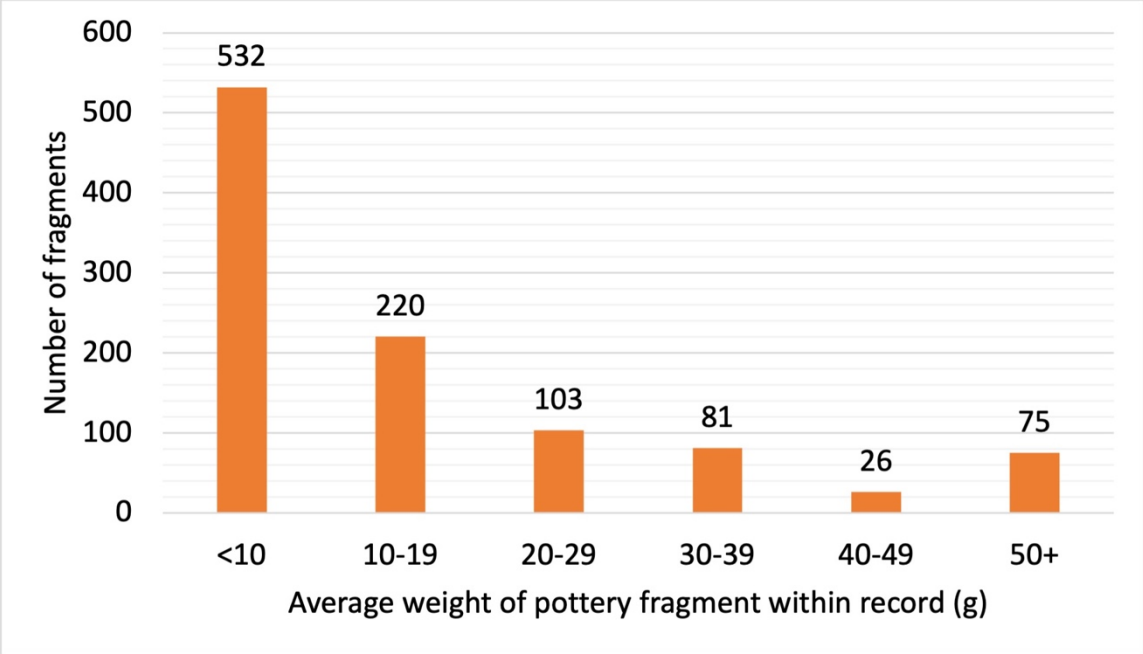


Figure 3.16: Graph showing the number of pottery fragments within the 1985-1987 excavation assemblage, classified by the average weight of each fragment within the record (rounded to the nearest gram).

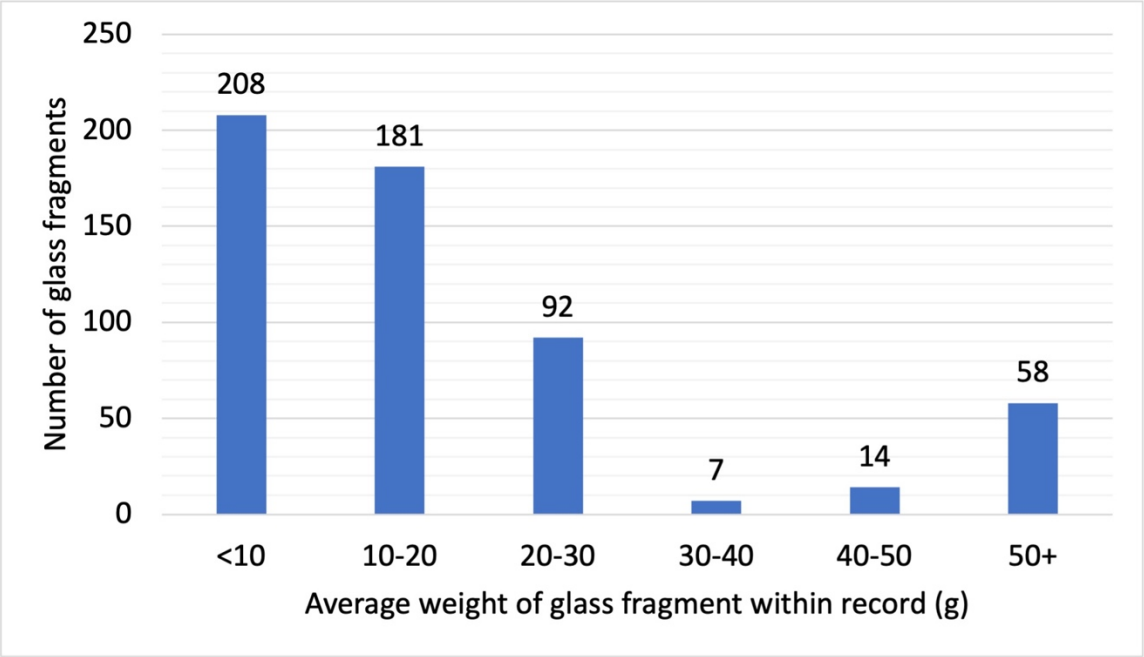


Figure 3.17: Graph showing the number of glass fragments within the 1985-1987 excavation assemblage, classified by the average weight of each fragment within the record (rounded to the nearest gram).

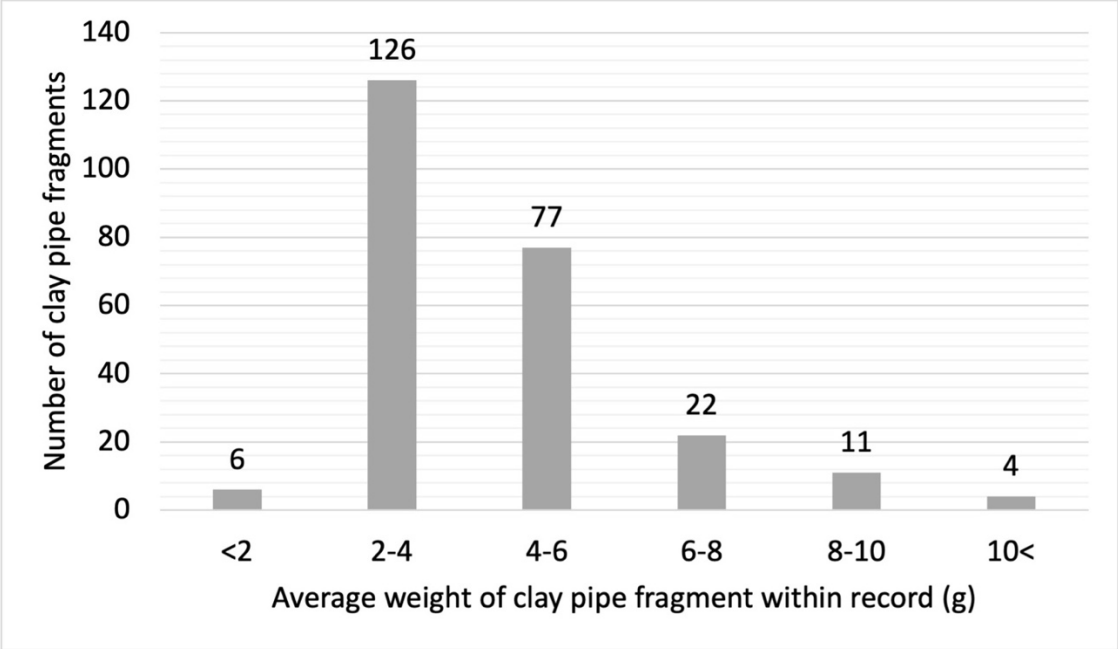


Figure 3.18: Graph showing the number of clay pipe fragments within the 1985-1987 excavation assemblage, classified by the average weight of each fragment within the record (rounded to the nearest gram).

An estimation of completeness has also been produced by averaging the percentages of rims and bases related to the maximum number of vessels that are represented in the glass and pottery assemblages (see Figure 3.19 and Figure 3.20). This approach follows the estimation methodology used by Askew (2013, 106), but excluding a calculation of body percentage as it proved impossible to estimate the total body area of ceramic or glass vessels from such small pieces. No ceramic vessels in the assemblage were estimated as being over 50% complete, and no glass vessels were estimated as over 80% complete. Indeed, the majority of excavated fragments had no base or rim at all. This method could not be used to assess the clay pipe assemblage as the fragmentary nature of the pieces prevented the production of meaningful mouth, bowl, or stem percentage estimations. The two methods of quantifying fragmentation, although limited by the nature of material culture and the nuances of the database record, affirm the highly fragmentary nature of the assemblage. This methodology does not, however, show whether this fragmentation is representative of pre-depositional, depositional, or post-depositional processes; analysis of archaeological context is thus required.

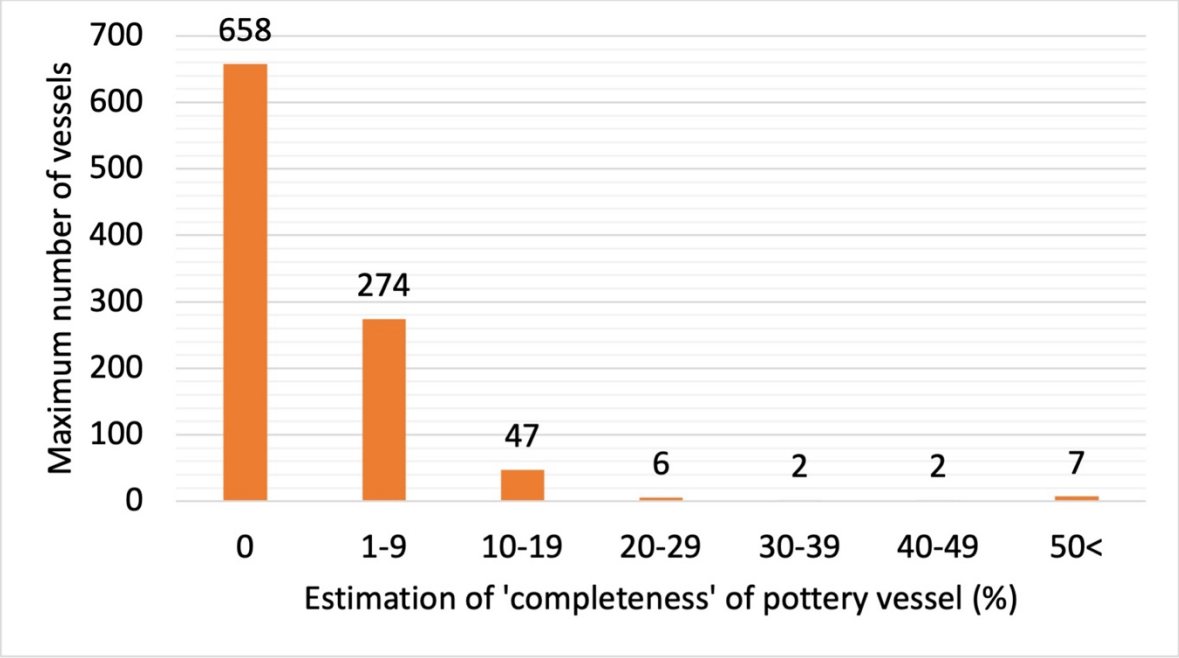


Figure 3.19: Graph showing the maximum number of pottery vessels within the 1985-1987 excavation assemblage, classified by the estimation of completeness of the vessel.

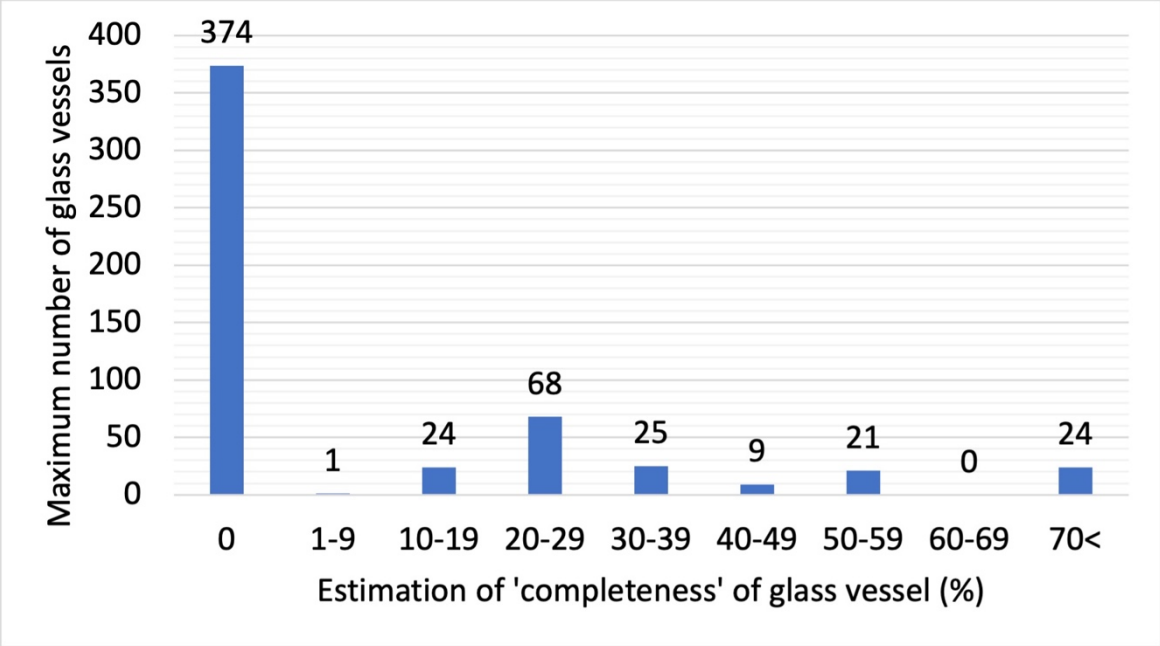


Figure 3.20: Graph showing the maximum number of glass vessels within the 1985-1987 excavation assemblage, classified by the estimation of completeness of the vessel.

3.4d. Contextual analysis

3.4d.i. Context types

Out of a total of 1205 individual contexts identified during the 1985-1987 excavation, 301 contexts contained fragments of pottery, vessel glass, clay pipes, and/or small finds. The contexts have been subdivided by context type to demonstrate the kinds of contexts that this material culture assemblage originated from (see Figure 3.21). The majority of contexts represent the fills of the parterre flowerbeds, as well as other fills, layers, modern services, and topsoil deposits. This analysis does not factor in the spatial location or size of contexts. A small number of finds were associated with context numbers relating to cuts; this should not be possible as cuts are negative features, so suggests either erroneous labelling of finds or incorrect context sheets. 15 context numbers could not be related to context sheets, including 14 which were labelled with the unattributable area code 'JH'. As a general overview, however, this analysis demonstrates that the objects were recovered from a range of contexts including topsoil and parterre bed fills, as well as in-situ layers and fills. A summary of context types, and the numbers of finds within them, can be found in Appendix 4.

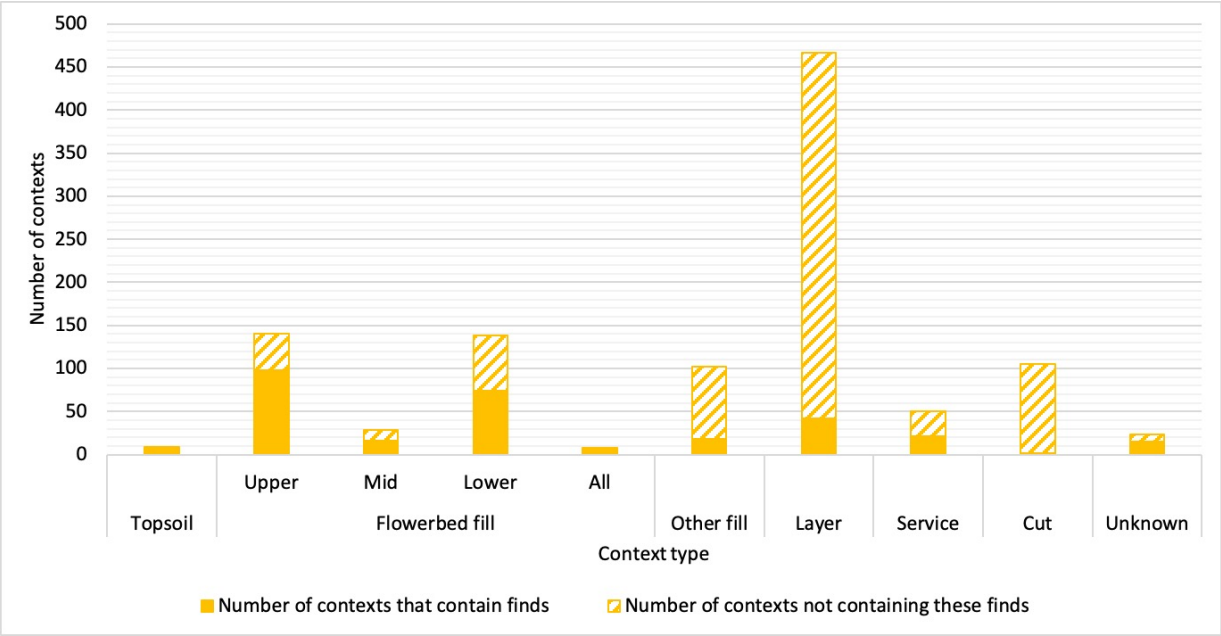


Figure 3.21: Graph showing the number of 1985-1987 excavation contexts of each type, total and those containing pottery, vessel glass, small finds, and clay pipe fragments.

3.4d.ii. Assemblage composition by context type

The pottery, clay pipes, vessel glass, and small finds were categorised by context type to show the number of objects within each context type (see Figure 3.22). There was a total of 1,893 pottery, vessel glass, and clay pipe fragments, and small finds, excavated from the 301 contexts. This analysis shows that the majority of the objects came from contexts related to the fills of parterre flowerbeds; 469 from upper fills, 354 from lower fills, 63 from middle fills, and 51 from complete fills. 391 objects came from other layers, including a particularly large proportion of the pottery assemblage, whilst 289 objects originated from topsoil layers, primarily consisting of vessel glass fragments. Smaller quantities of material were excavated from other context types. This analysis shows that flowerbed fills are an important context to understanding the material culture assemblage. However, it does not consider the limitations of the excavation documentation or the difference in the numbers of different kinds of context; for instance, there are only 9 topsoil contexts whilst 466 contexts were classified as layers.

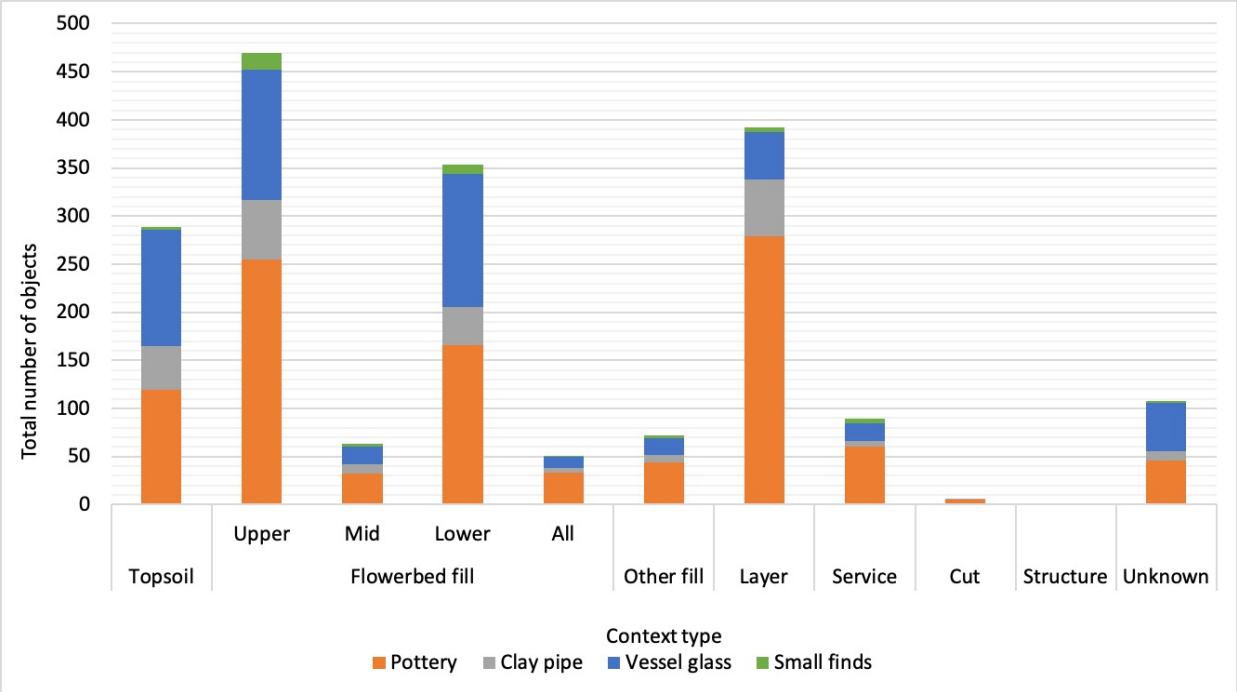


Figure 3.22: Graph showing the number of pottery, clay pipe, and vessel glass fragments, and small finds within each type of context.

The number of objects within each context type was then divided by the total number of contexts, including those not containing finds, to present an average number of finds per type of recorded context (see Figure 3.23). This shows that topsoil contexts contained the most artefacts per number of contexts, followed by flowerbed fills, then other layers, fills, and modern services. The average number of objects per number of contexts is unusually high for contexts of unknown type; this is likely because there are other unidentified contexts which had no finds of this type and for which the records are not within the archive, so they have not been counted in the total number of contexts. This analysis is also limited by the partial recording of some contexts, the fact that not all context types were excavated in full, the nature of the context type groupings which obscures differences within fill or layer contexts, and the variable spatial volumes of different kinds of context.

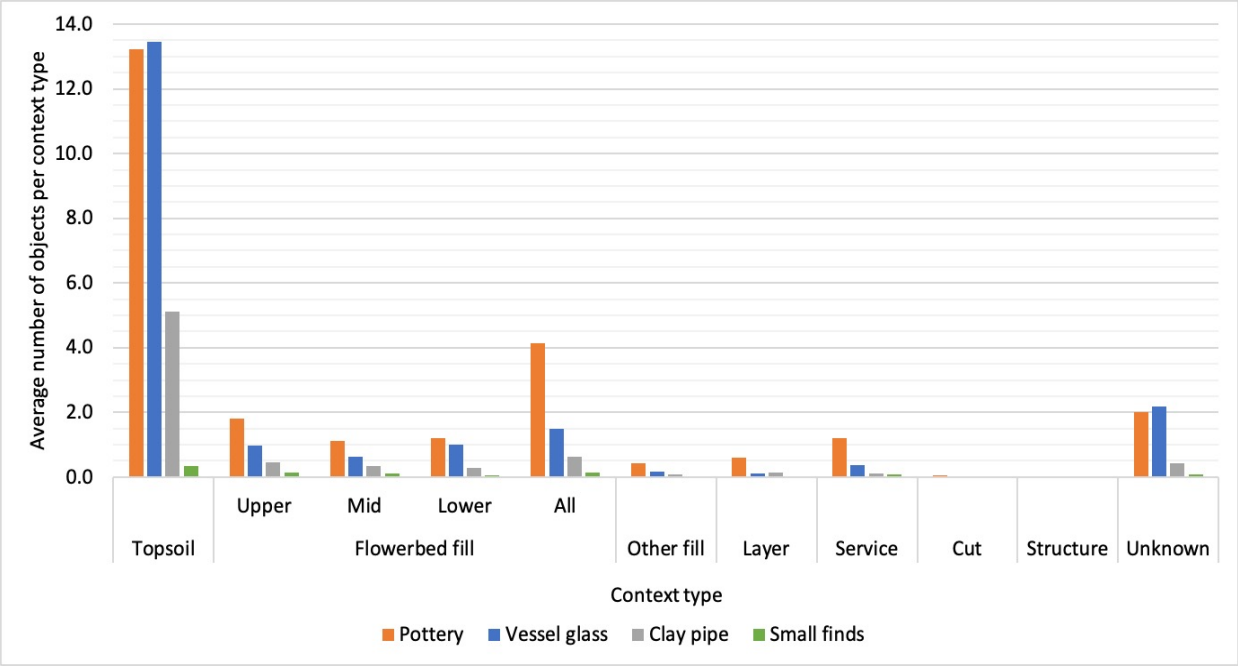


Figure 3.23: Graph showing the average number of objects within each context given a number in the 1985-1987 excavation, subdivided by material type and context type.

3.4d.iii. Fragmentation and differential artefact survival

To explore how context type influenced the levels of fragmentation of the material culture assemblage as represented within the project archive, two methodologies have been used. Firstly, the average weight per fragment of pottery, glass, and clay pipe was calculated for each context type (see Figure 3.24). This suggested broad similarities in the average weight of fragments from within the upper, middle, and lower fills of parterre flowerbeds, with greater average fragment weights in topsoil, layers, and modern service deposits. This implies that objects in the latter were more complete than those in flowerbed fills, suggesting different depositional and post-depositional processes that will be explored further within this thesis. An unusual peak in the average weight of vessel glass within fills, meanwhile, reflects fill deposits containing complete glass vessels. Small finds were excluded from this analysis due to the small assemblage.

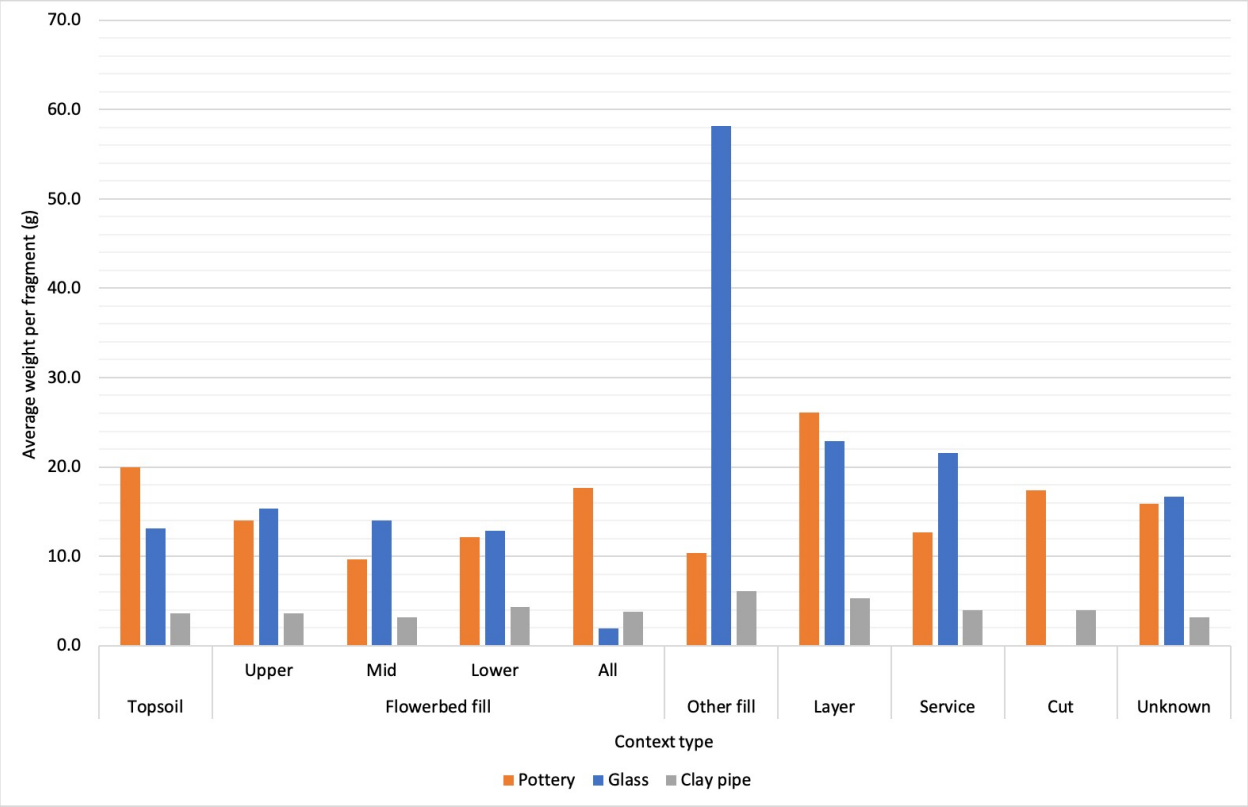


Figure 3.24: Graph showing the average weight of fragments of pottery, glass, and clay pipes within each context, subdivided by context type.

To further explore the fragmentation of the assemblage, the estimation of average 'completeness' of pottery and glass vessels approached in Chapter 3.4c.iv has been subdivided by context type (see Figure 3.25). This shows that the most 'complete' pottery fragments were excavated from within layers and topsoil deposits, with material from within the parterre beds being much more fragmented. The 'completeness' of glass vessels, although higher on average than that of ceramic vessels, follows broadly similar patterns. Material from other fills and modern services is much more 'complete', suggesting different practices of depositing material than were used to create the parterre garden. However, the difficulties in estimating the 'completeness' of such small vessel fragments also inflate patterns within the dataset, as one near-complete rim or base skews the numbers higher than is reflected in the broader assemblage. These graphs also do not reflect the size of contexts and include deposits that were given context numbers but not excavated.

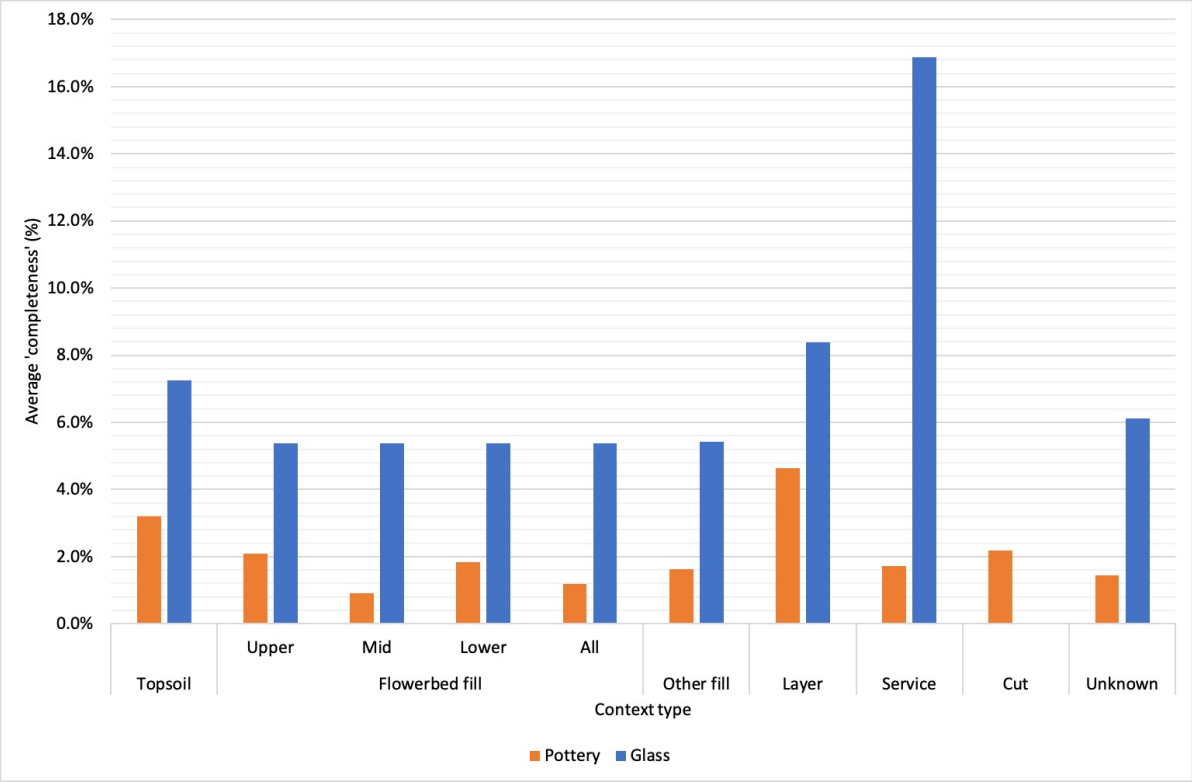


Figure 3.25: Graph showing average estimation of 'completeness' of pottery and glass vessels, subdivided by context type.

The survival of objects within archaeological contexts is also influenced by natural degradation processes, which are dictated by the composition of the soil matrix, by the presence or absence of natural agents including water and oxygen, and by the material composition of the object (see Kibblewhite *et al*., 2015). As such, the influence of soil type on the survival of the Audley End parterre assemblage needs to be considered. The analysis of context sheets allows for a general summary of the soil types from which the assemblage was recovered. The flowerbed fills are described as mostly 'sandy loam', which refers to soil composition of around 50-70% sand with smaller quantities of clay and silt (Historic England, 2015, 49). The flowerbed fill soil also contained other inclusions, mostly of architectural material types, which varied depending on their horizontal and vertical location. Topsoil is recorded as a homogenous 'sandy loam', whilst other layers and fills, mostly path foundations and modern services, had high proportions of gravel, chalk, clunch, and sand within loam soil.

These soil types would have a slight influence on the preservation of domestic material culture. This is most notable for the small finds assemblage, as metal oxidation occurs within "free-draining soils that have oxygenated water flowing through the soil profile" (Kibblewhite *et al.*, 2015, 251), which includes the 'sandy loam' found in the parterre flowerbeds. The degradation of iron objects recovered during garden excavations has been noted elsewhere (Currie, 2005, 88), and likely explains the fragmentation of the Audley End bulk metalwork assemblage, as discussed in Chapter 3.5. Copper alloy objects, however, are less susceptible to water-based degradation (Kibblewhite *et al.,* 2015). Glass objects are also at risk of surface weathering when in moist conditions (Historic England, 2018, 15), although most glass types are relatively durable (Kibblewhite *et al*., 2015, 250). Pottery and fired clay survive well across all soil types and environmental conditions (Renfrew and Bahn, 2007, 46). As such, soil type likely had little influence over non-metal domestic objects, especially during the relatively short period between object deposition and recovery. This thesis instead emphasizes the role of human agents in the fragmentation of the assemblage.

3.4d.iv. Notable individual contexts

Analysis of context type also revealed four contexts that contain over 20 fragments of a particular material type but are not topsoil or flowerbed fill deposits (see Table 3.2). Three of these represented paths and path foundation layers, which were composed of varying quantities of flint gravel, stone, sand, and material culture. The most notable of these is [JA 126], the excavated foundation of the outer path around the parterre, which included areas of material culture dumping. These contexts, and what their composition tells us about the development of the parterre garden, are further discussed within Chapter 8.7c. The other context, [JF 533], was described as a 'domestic hearth' deposit that contained 38 clay pipe fragments as well as oyster shell (CAT, 1985: *Context Record Sheet* [JF 533]), although the location of this context was not recorded.

Table 3.2: Table defining unusual contexts, including context description and number of different domestic material culture fragments recovered from them

Context number	Context type	Description	Number of ceramic sherds	Number of vessel glass fragments	Number of clay pipe fragments	Number of small finds
[JA 122]	Layer	Pathway around main parterre	21	0	0	0
[JA 126]	Layer	Foundation of pathway [JA 122]	138	18	0	0
[JC 202]	Layer	Pathways to south of main parterre	23	7	3	2
[JF 533]	Layer	'Domestic hearth' deposit	0	0	38	0

3.4e. Spatial analysis

3.4e.i. Overview

Spatial analysis of the distribution of material culture within the flowerbed fills was an opportunity to consider the depositional processes that formed these deposits. This analysis focused on the main parterre, or area code 'JA'. This area had the most detailed context sheets and, unlike the inner courtyard parterre, was not intercut by modern service trenches. Finds from the flowerbed fills of the main parterre also make up around 25-45% of the total assemblage (see Table 3.3), so provided a significant proportion for analysis. The 1985-1987 excavation gave each flowerbed a unique number; these were identified within context sheets and/or excavation plans and plotted onto a plan of the main parterre layout (see Figure 3.26). Within the site documentation, the flowerbed numbers were associated with context numbers representing the different layers of flowerbed fill, thus with the finds from each of these contexts. This meant that the quantities of finds could be mapped onto the flowerbeds using colour gradation to show increasing numbers.

As discussed in Chapter 2.4c, there were several limitations to this analysis due to the omissions within the archive. As the flowerbed trenches were recorded with a single co-

ordinate record and there was no apparent consistency between how these co-ordinates were assigned, not all flowerbeds were identifiable by flowerbed number or context number. Analysis of the density of artefacts was complicated by the unusual flowerbed shapes, limited recording of their depth, and because some were only partially excavated or were cut by later features. This meant that calculating the excavated surface area or volume of each bed, in order to present an accurate representation of artefact density between flowerbeds, was impossible. As such, the spatial distribution plans do not factor in the influence of flowerbed size or depth on distribution patterns. However, this methodology has been used cautiously to consider the depositional and post-depositional history of the four different domestic material culture types.

Table 3.3: Table showing the number of different material types within the main area of the Audley End parterre (area code JA) and the inner courtyard area (area code K)

Material type	**Number of objects in JA flowerbed fills**	**Number of objects in K flowerbed fills**	**Total number of objects in assemblage**	**Percentage excavated from JA flowerbed fills**	**Percentage excavated from K flowerbed fills**
Pottery	315	139	1039	30.3%	13.4%
Vessel glass	246	37	560	43.9%	6.6%
Clay pipes	78	30	246	31.7%	12.2%
Small finds	14	17	50	28%	34%

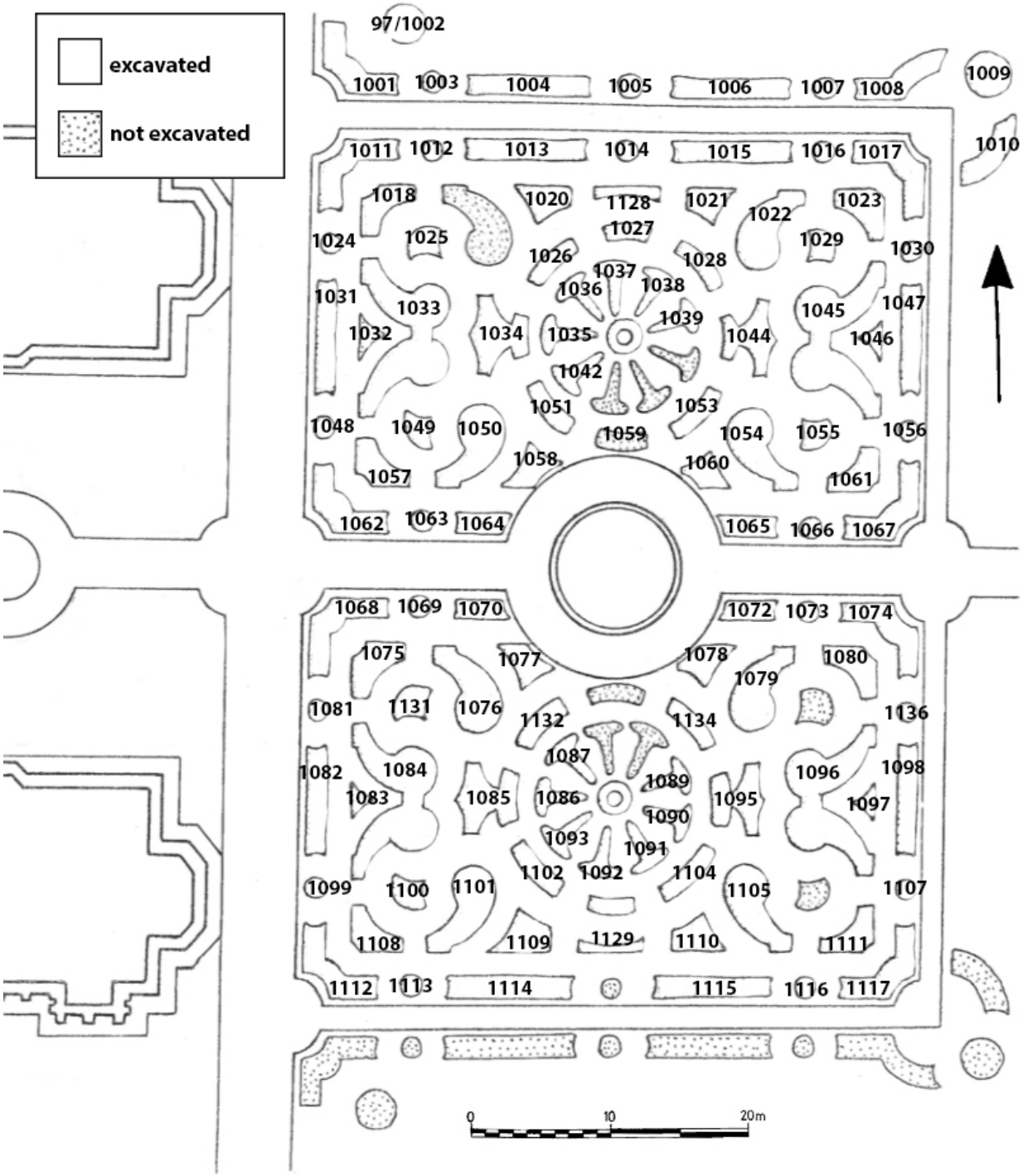


Figure 3.26: Diagram of parterre (Cunningham, 1987b, 11) labelled with identifiable flowerbed numbers as assigned during the 1985-1987 excavation. © English Heritage.

3.4e.ii. Pottery

The pottery assemblage was the most widely distributed of the different material types (see Figure 3.27). Pottery sherds were clustered towards the northern parterre, particularly to its western and northern edges, as well as within the inner courtyard area. Two less-pronounced clusters can be seen towards both the western and eastern sides of the south parterre. A small number of flowerbeds contained larger quantities of pottery sherds than the norm, notably Flowerbed 1033, which contained 19 sherds, and Flowerbed 1096, which contained 16 sherds. This could suggest that different depositional practices have occurred within these areas of the parterre; however, these are two of the largest flowerbeds so also have a large surface area and volume.

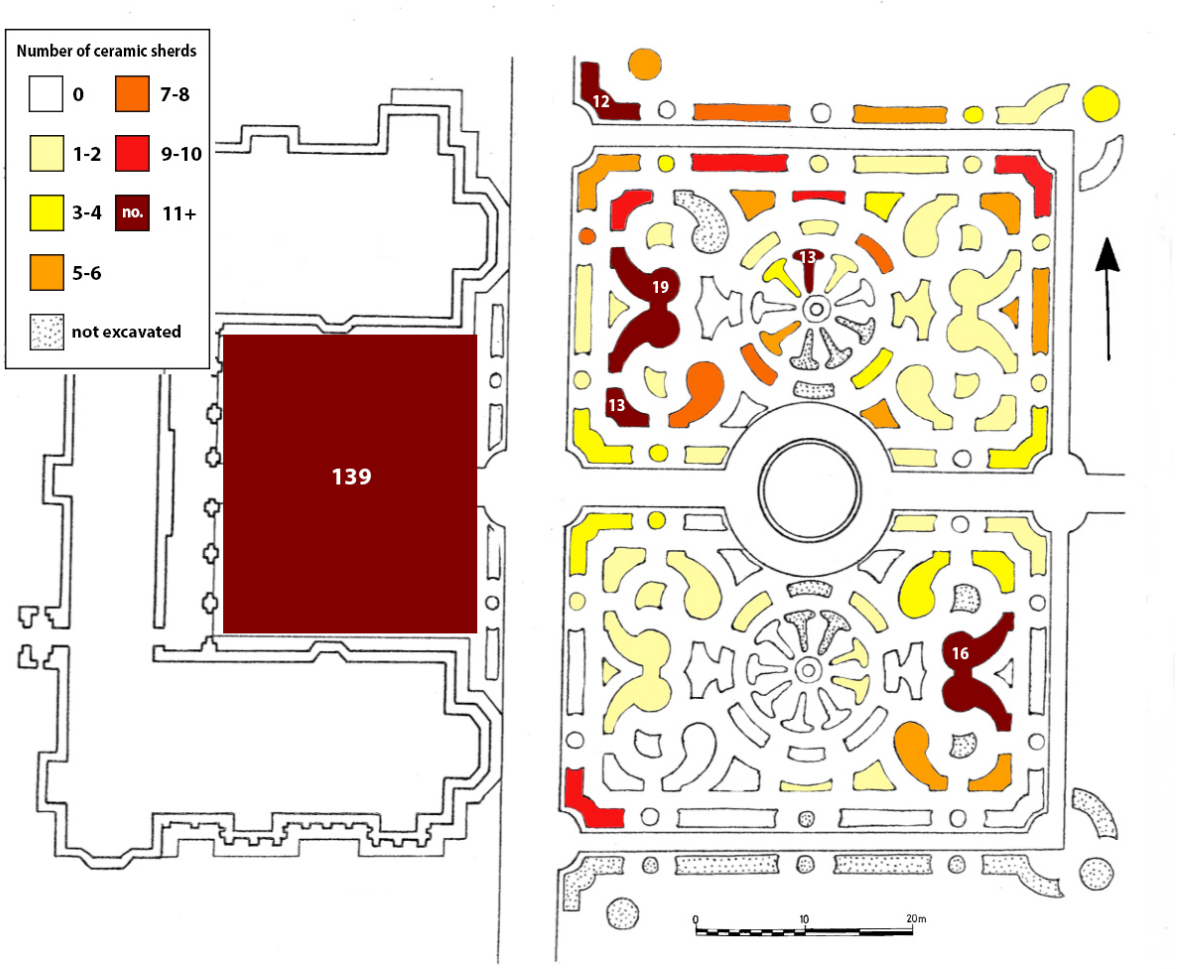


Figure 3.27: Diagram of parterre (Cunningham, 1987b, 11) showing total number of pottery sherds within each flowerbed fill. © English Heritage.

To understand the chronological distribution of the assemblage, both the earliest and latest possible dates of the pottery sherds within each flowerbed fill, as defined by MOLA's pottery classification system (MOLA, 2014), were plotted onto the parterre plan. The distribution of earliest dates (see Figure 3.28) showed that the earliest pottery was clustered towards the north parterre. This could reflect earlier artefact deposition within this area or that it contains a higher proportion of the total assemblage so is thus more likely to contain earlier sherds of pottery. Analysis of the distribution of latest dates (see Figure 3.29), meanwhile, showed that pottery from the 19th and early-20th centuries was omnipresent throughout the flowerbed fills of the main parterre.

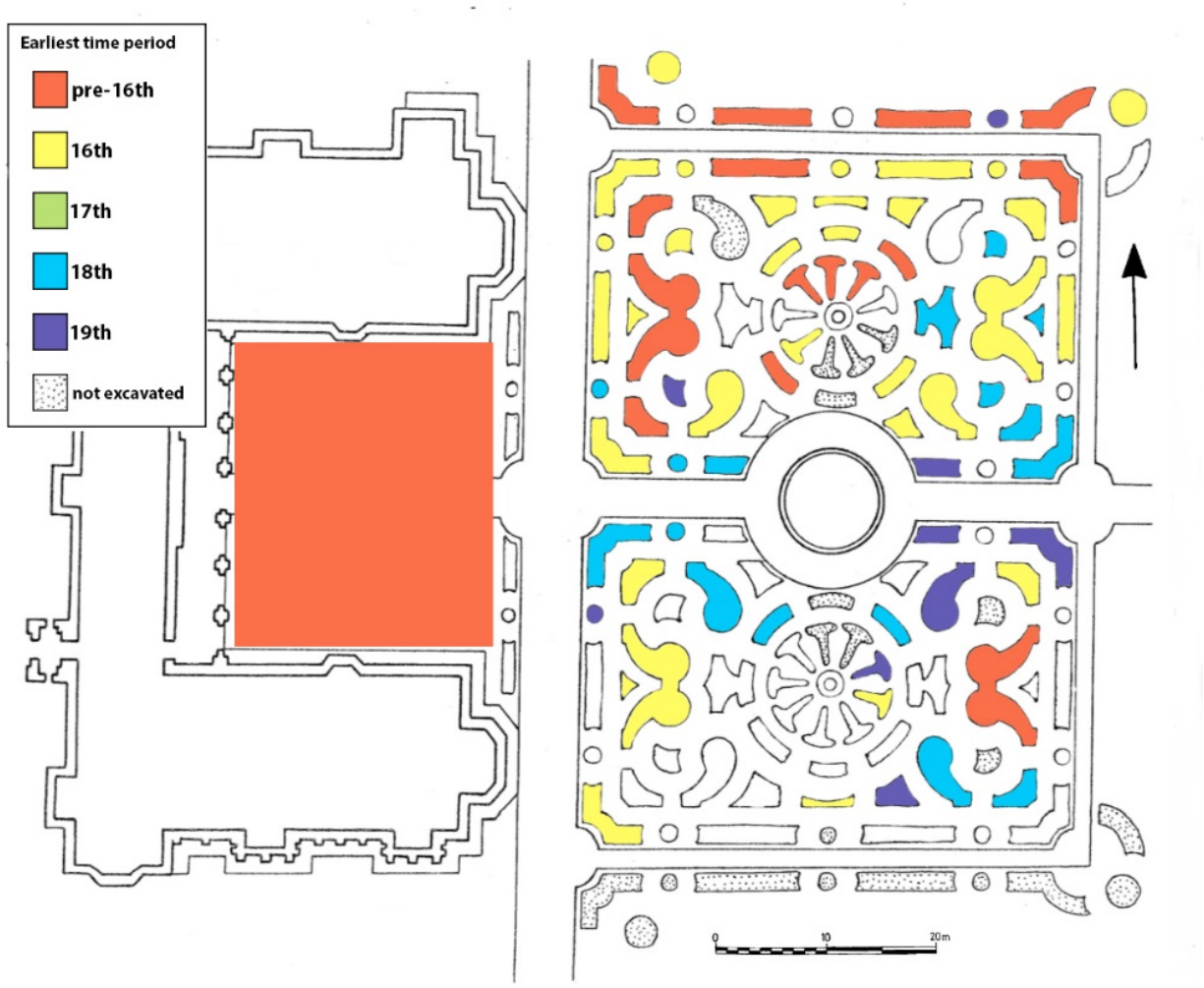


Figure 3.28: Diagram of parterre (Cunningham, 1987b, 11) showing the earliest date assigned to pottery sherds within each flowerbed fill, excluding unidentified and Roman wares. © English Heritage.

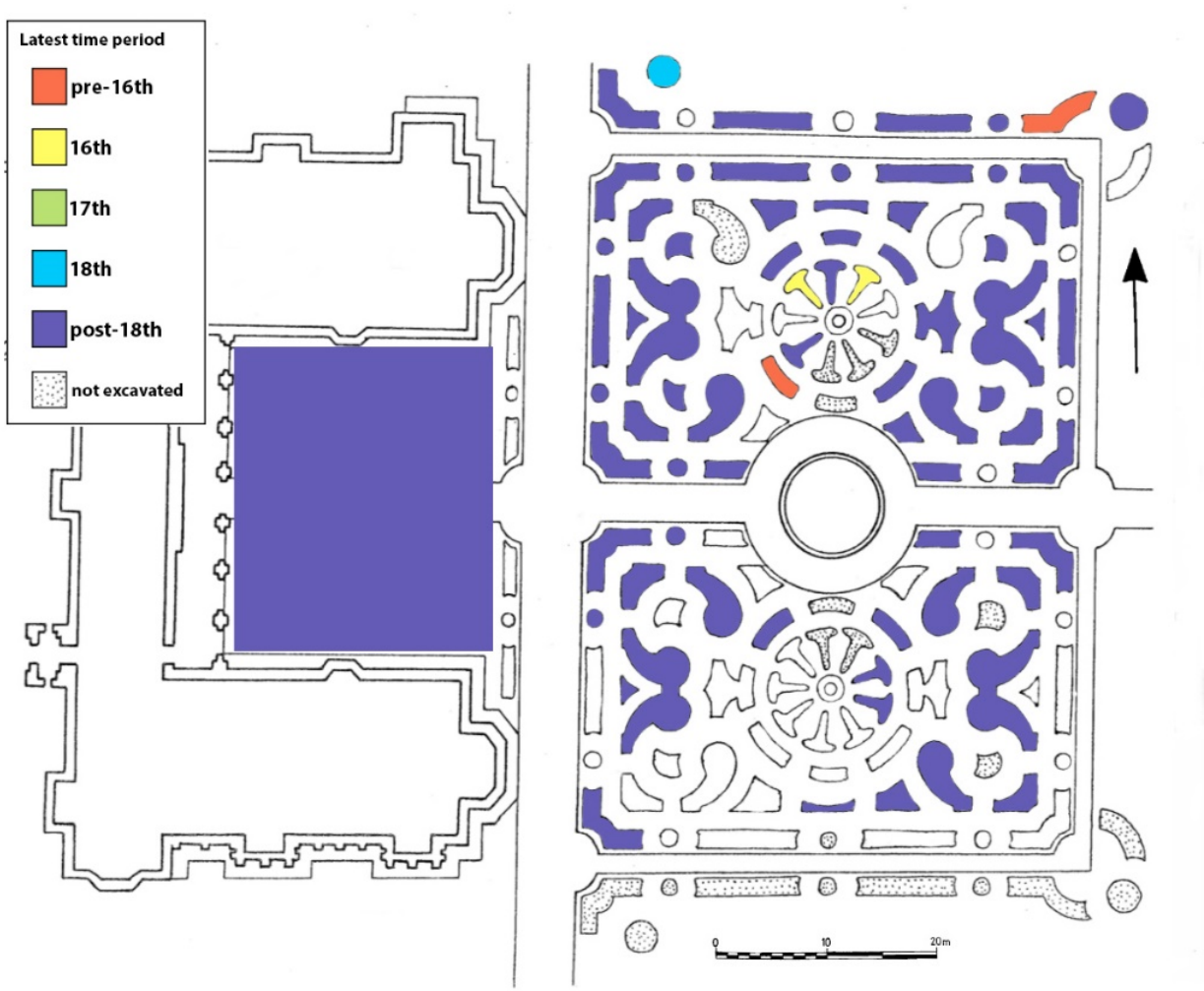


Figure 3.29: Diagram of parterre (Cunningham, 1987b, 11) showing the latest date assigned to pottery sherds within each flowerbed fill, excluding unidentified and Roman wares. © English Heritage

3.4e.iii. Glass

Spatial distribution analysis of the vessel glass assemblage (see Figure 3.30) shows a spread of fragments across the northern parterre, focused towards its northern and western sides, and within the inner courtyard area, as well as a smaller cluster at the western side of the south parterre. These patterns are broadly similar to the distribution of the pottery assemblage, implying that the two material types underwent similar deposition and post-depositional processes. The middle of the south parterre, meanwhile, is completely absent of vessel glass,

suggesting that this area was distanced from the deposition of the material. However, the flowerbeds in this area have a smaller surface area than those at the outer edges of the parterre, which could have influenced the distribution plan.

An unusually large quantity of vessel glass fragments, 79 in total, were recovered from the fill of Flowerbed 1128. A closer analysis of the assemblage (see Table 3.4) shows that 74 fragments of green vessel glass, including 17th-century wine bottle fragments, were excavated from the lower fill of this flowerbed [JA 30]. Another peak in the distribution of vessel glass can be seen in Flowerbed 1004, from which 28 fragments were excavated; 17 of these were from the lower flowerbed fill [JA 373], including the rim of a 19th-century bottle and 13 additional body sherds. This suggests that there were at least two instances when relatively large quantities of bottles, although dating to markedly different periods, ended up within the lower fills of particular flowerbeds in the north parterre.

Table 3.4: Table showing the different types of vessel glass within flowerbed 1128

Context	**Number of sherds**	**Colour**	**Vessel class**	**Date range**	**Description**
[JA 30]	2	Dark green	Wine bottle	1640-1800	Neck of Continental bottle
[JA 30]	5	Dark green	Wine bottle	1640-1680	Neck and body of 17th-century shaft and globe bottle
[JA 30]	9	Dark green	Wine bottle	1640-1740	Bases and bodies of pre-19th century wine bottles
[JA 30]	40	Dark green	Unidentified	1500-1900	Unidentified
[JA 30]	17	Light/mid green	Unidentified	1500-1900	Unidentified
[JA 30]	1	Colourless	Container	1500-1900	Rim of closed vessel
[JA 188]	5	Dark green	Unidentified	1500-1900	Unidentified

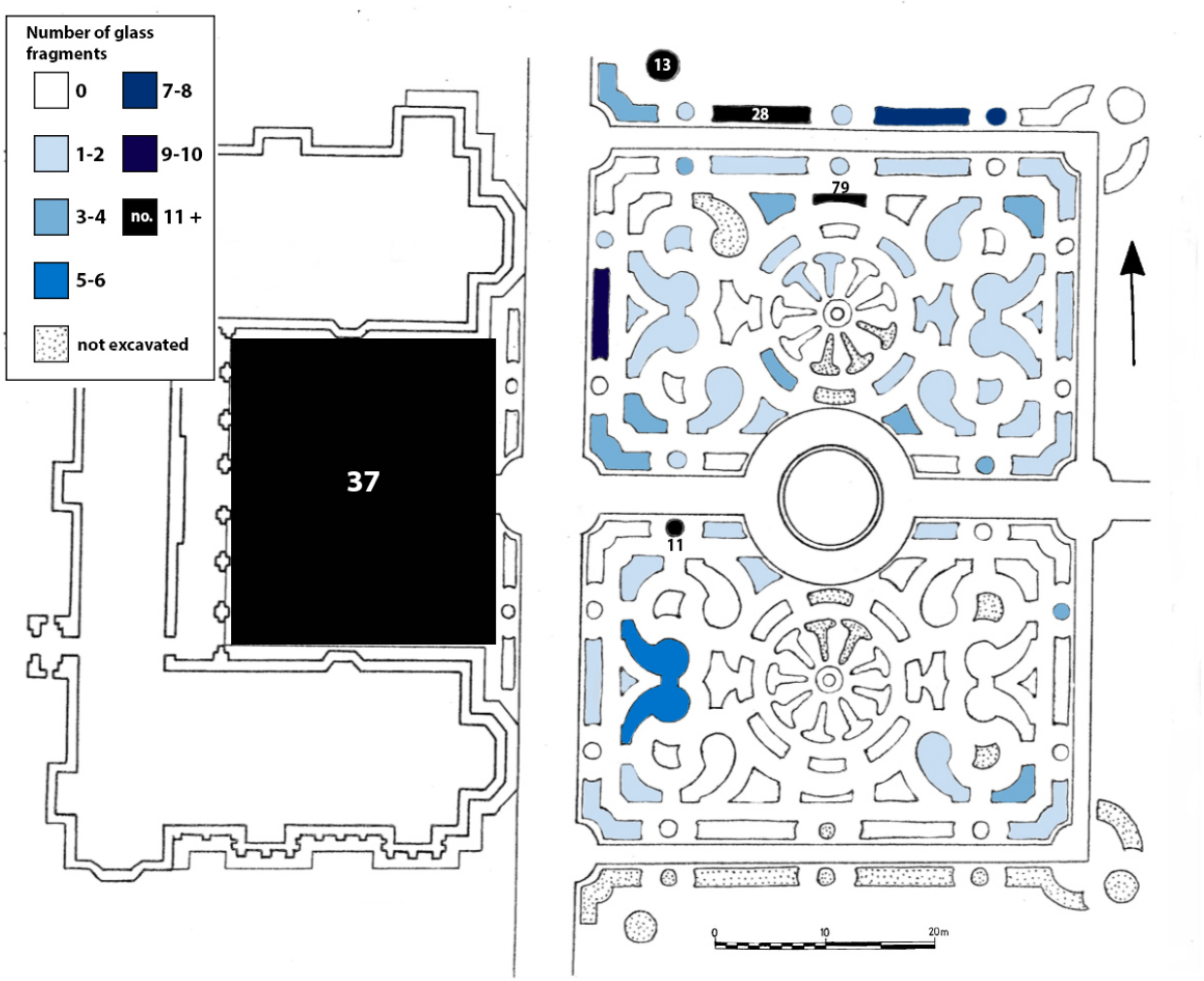


Figure 3.30: Diagram of parterre (Cunningham, 1987b, 11) showing number of vessel glass fragments within each flowerbed fill. © English Heritage.

3.4e.iv. Clay pipes

Smaller than the pottery or vessel glass assemblages, the clay pipe assemblage was broadly spread across the area of the main parterre, with primarily only one or two fragments within each flowerbed fill (see Figure 3.31). There was a general cluster towards the north-west corner of the parterre and within the inner courtyard parterre, as seen in the distribution of the other materials, as well as a smaller cluster towards the southern end. The focus towards the edges of the parterre perhaps reflects the proximity of paths from which clay pipes could have been deposited, as will be discussed in Chapter 8, although the surface area of the flowerbeds is also larger in these areas.

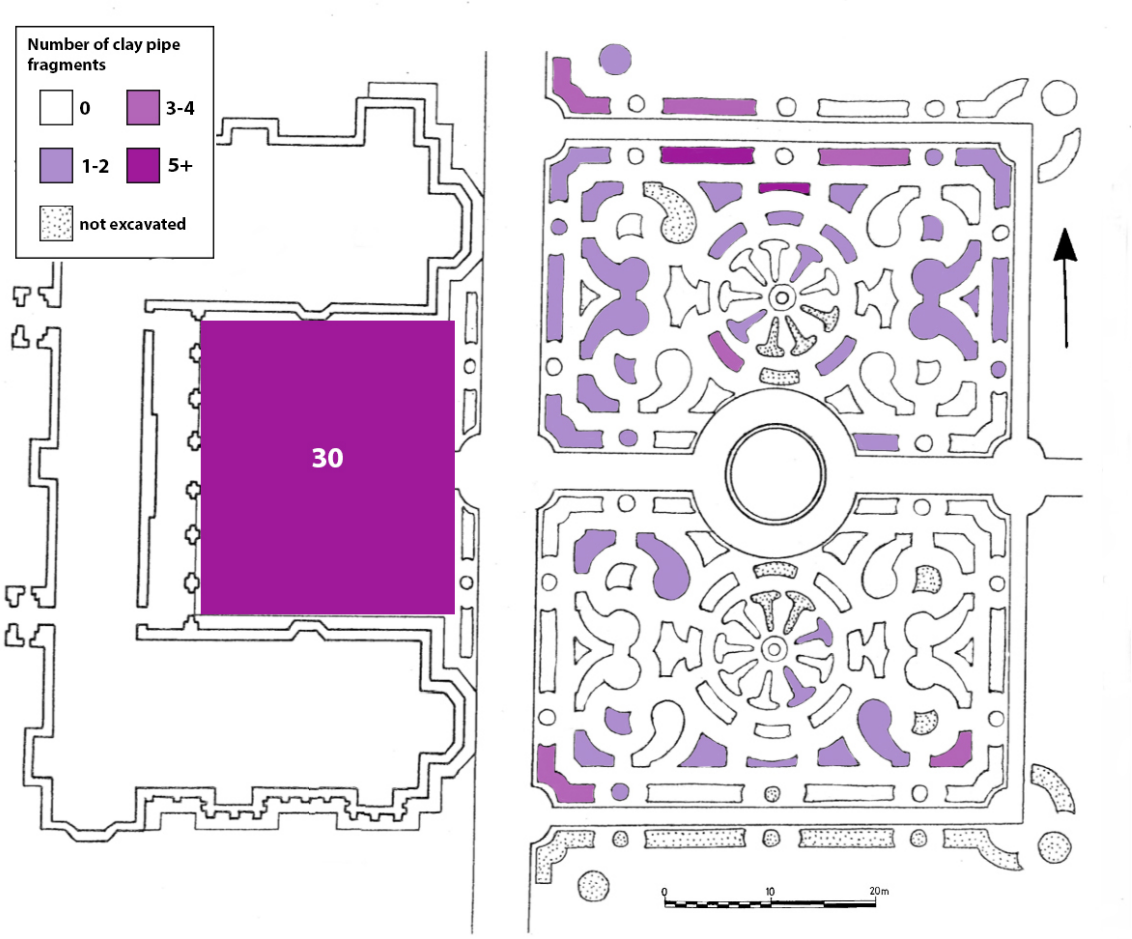


Figure 3.31: Diagram of parterre (Cunningham, 1987b, 11) showing clay pipe fragments within each flowerbed fill. © English Heritage.

3.4e.v. Small finds

The small finds assemblage from the flowerbed fills of the main parterre consists of 14 objects. Distribution analysis shows that they were spread across the northern parterre and, as with clay pipes, that they originated from flowerbeds closest to the paths around the edge of the parterre (see Figure 3.32). There was a particular focus in distribution on the inner courtyard area and the circular flowerbeds at the edges of the main parterre, suggesting a potential trend in the distribution of these materials towards these areas. However, the small number of objects limited the potential of spatial distribution analysis to further clarify these patterns.

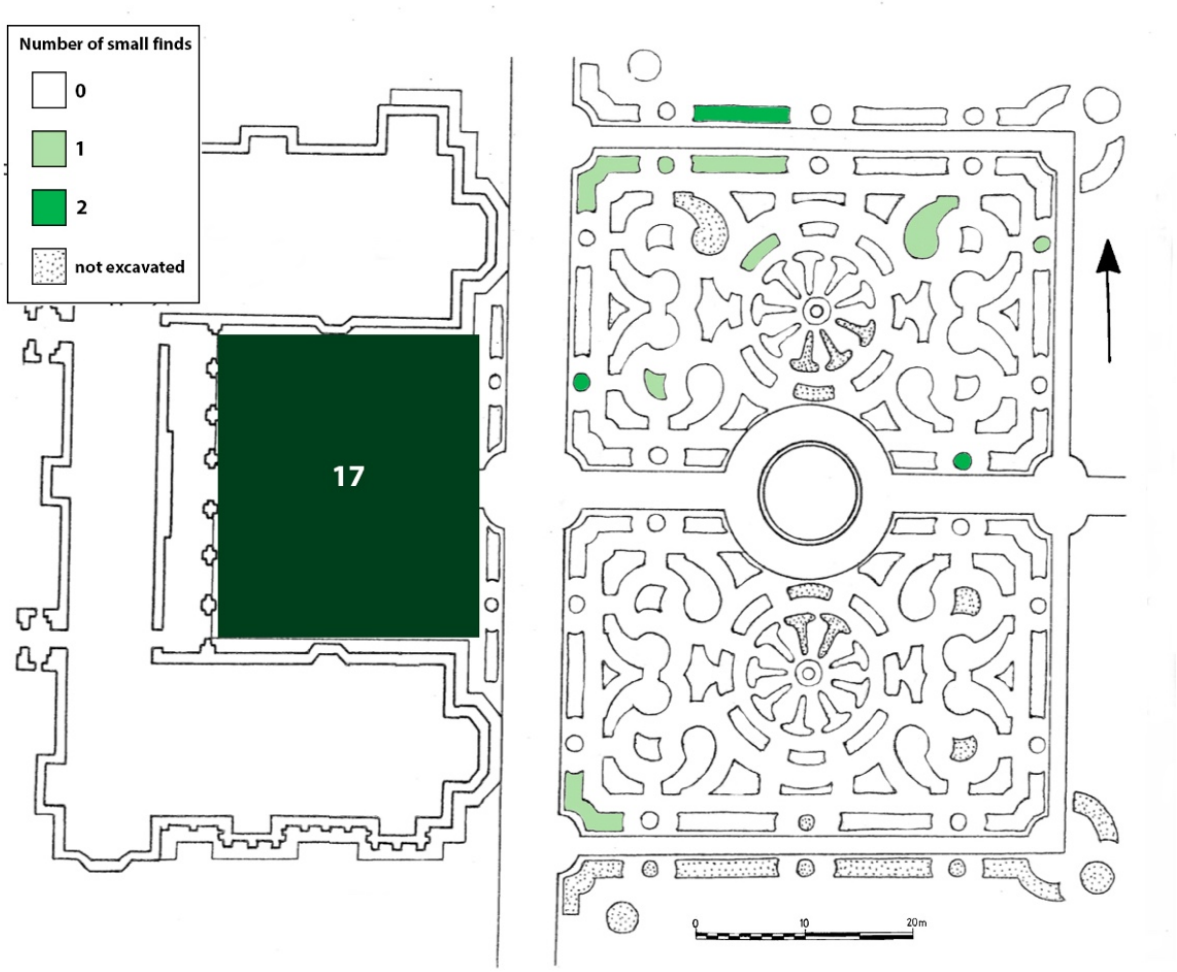


Figure 3.32: Diagram of parterre (Cunningham, 1987b, 11) showing number of small finds within each flowerbed. © English Heritage.

3.4e.vi. Summary

Spatial distribution analysis of the pottery, vessel glass, clay pipe, and small finds assemblages has shown that they were excavated from the entire parterre garden area, with many flowerbed fills containing a small number of fragments of each kind of material. All of the materials were primarily distributed towards the northern end of the parterre and within the inner courtyard area, with smaller clusters in the south parterre area: pottery to the south-east, clay pipe to the south, and glass to the south-west. The spread of different materials is thus broadly similar, suggesting some continuity in depositional practices between the different material types.

The chronological subdivision of the pottery and clay pipe assemblages shows that earlier material was distributed towards the north parterre; however, more fragments in total were excavated from this area, so that it is more likely to contain earlier materials. It also shows that material of different dates was intermixed within fills, suggesting that either material was deposited over time or post-depositional practices have led to the intermixing of chronologically distinct materials. Some flowerbeds, meanwhile, contained unusually large quantities of a specific material, seen especially in the vessel glass assemblage. This implies that different depositional and post-depositional processes affected individual flowerbeds, resulting in unusual concentrations of objects within these contexts.

There are several limitations to the use of spatial distribution analysis to understand the Audley End parterre assemblage. These plans have been gradated by the number of fragments; the surface area and volume of the flowerbed fills was not calculated, so no estimate can be made of the spatial density of finds, meaning that the scale of different flowerbeds could influence distribution patterns. Some flowerbeds also remained unexcavated, whilst others could not be identified within the parterre plan, so there are gaps within the distribution plans. However, the use of spatial distribution analysis has demonstrated some patterns within the assemblage and its distribution within flowerbed fills that require interpretation. Spatial analysis will therefore be revisited throughout this thesis to explore the distribution of materials from different periods of Audley End's history, considering the unique taphonomy of garden bed contexts and their relationship to household waste management and horticultural practice.

3.5. Other artefact types

3.5a. Roman pottery

As noted in the overview of domestic material culture types, 2% of the total pottery assemblage, 24 sherds representing a maximum of 24 vessels, could be dated to the Roman period. These were briefly characterised using the *Atlas of Roman Pottery* (Tyers, 1996). 12 sherds were identified as greyware and Black Burnished ware, three as Colour Coated ware, and one as the base of a mortarium, whilst eight remained unidentified. Analysis of context types (see Table 3.5) showed that the majority of sherds were excavated from context [JA 126], the path foundation context discussed in Chapter 8.7c. The other sherds were recovered from topsoil and from flowerbed fills in the north-west corner of the parterre. This suggests that all of the Roman material was excavated from contexts around the north parterre that contain material culture from later periods, suggesting that the original deposition of Roman material was in this area but was disturbed by later landscape change.

Table 3.5: Table showing the number of pottery sherds of Roman fabrics divided by context type

Type of context	**Context numbers**	**Number of sherds**
Topsoil	[JA 5]	5
Flowerbed fill	[JA 18], [JA 26], [JA 619]	4
Layer – path foundation	[JA 126]	15

The Roman material within this assemblage can be contextualised using previous research into the landscape around Audley End House. Bassett has argued that material culture found during prior archaeological survey around Audley End House relates to a Roman road running north-south through the estate (Bassett, 1982a, 9). Local Roman features include a settlement at Saffron Walden (Bassett, 1982a, 4), a potential ritual site approximately 2 miles south of Audley End at Sparrowsend Hill (Soutar, 2015, 31), and a large fortress at Great Chesterford (Rodwell, 1972). The proximity of contemporaneous sites and the small size of the assemblage suggest that this pottery reflects low levels of Roman activity within the Audley End estate.

3.5b. Unattributable domestic material culture

The archive also included a number of fragments of vessel glass, pottery, and clay pipes that were not labelled by year or context. There were 31 sherds of unattributable pottery, including three remarkably complete pieces: a Westerwald stoneware tankard, a green-glazed plate, and a boot-shaped porcelain ornament. A single sherd of a closed vessel made of a brown sandy ware, possibly early medieval in date, was labelled with 'PATH'. The assemblage also includes 87 unattributable glass fragments, including five fragments of post-medieval green phials, numerous fragments of shaft-and-globe or onion shaped wine bottles, and the stem of a 19th-century wine glass. Also represented was an almost complete pipe with a pointed heel, dating to 1700-1770 (David Higgins, *pers. comm*.).

The complete nature of these objects suggests that they were removed from the main assemblage for further study or display but became divorced from their original documentation. They could originate from the 1985-1987 project or previous excavations, but are not discussed in the 1979 excavation report, so are most likely from the parterre excavation. Matching each object to its specific context through analysis of each context sheet was limited by the minimal information provided on many of these sheets, whilst the finds registers did not record individual finds in sufficient detail. This demonstrates the importance of indexing practices throughout the creation and curation of an archaeological archive, which can prevent the disassociation of objects from the project assemblage.

3.5c. Other material types

3.5c.i. Flowerpots

Using the methodology outlined in Chapter 2.4a.ii, the flowerpot assemblage has been estimated to consist of at least 5357 sherds, demonstrating the deposition of horticultural material on a large scale into the parterre garden. Visual identification of the flowerpots from one archive box, and those found within the domestic pottery assemblage, suggests that they represent a broad chronological range from the 17th to 19th centuries (see Currie, 1993a). Uses for flowerpots recorded in historic diaries written by Audley End gardeners, discussed further in

Chapter 8.2d, include seeding, potting off, and transporting plants, as well as plunging, which involved planting flowerpots directly into the ground for display (Brown *et al*., 2006, 114).

An unusual form identified within the assemblage is a ring-like shape, measuring 100-110mm in radius, made of a dark red earthenware fabric with an interior brown glaze (see Figure 3.33). These vessels are examples of what the 19th century gardener John Claudius Loudon termed 'carnation-saucers', intended as pest traps, which he described (1826, 284) as "formed as much larger than the pot to be placed in it as to admit of surrounding its base with water…In the centre of the saucer is raised a basement on which to place the pot". This flowerpot form was not identified within Currie's typology of flowerpots (Currie, 1993a) or any published garden archaeology projects reviewed during this thesis research. This form, alongside the general flowerpot assemblage, thus requires further study as a significant contribution to established flowerpot studies, exploring the use and distribution of these objects within Audley End's 19th-century parterre garden.

Figure 3.33: Horticultural red earthenware 'carnation saucer', excavated from context [JA 126] (author's image).

3.5c.ii. Bulk metalwork and slag

Separately to the small finds assemblage, bulk metalwork from the 1985-1987 excavation was recorded and characterised more broadly. Each object was identified by context, weighed, and recorded. Some of these objects were in a very poor condition so were difficult to identify; iron objects, in particular, have not survived well within the assemblage, so the number of objects represented within artefact bags of highly degraded iron had to be estimated. This is common to garden archaeology, which often recovers artefacts from well-drained and disturbed horticultural soil, limiting the preservation of fragile materials (Dix, 1999, 372).

Overall, approximately 1103 metal objects weighing 26.2kg were recorded. This is a holistic post-medieval metalwork assemblage representing a range of functional and decorative objects. It includes a variety of horticultural and household materials, consisting mostly of iron nails (see Figure 3.34) as well as tools, a barrel lock, a horseshoe, and three 20th-century toothpaste tubes. The assemblage also included lead window cames, sheeting, and a window catch, part of a wider assemblage of structural materials discussed in more detail below. Possible metalworking practices within the garden, meanwhile, were implied by 28 pieces of slag, weighing 3.8kg, within the assemblage, only a sample of that excavated as the bulk finds register notes that some slag was discarded after recording, requiring further research.

Figure 3.34: Example of iron nails recovered during 1985-1987 excavation (author's image).

3.5c.iii. Organics and lithics

The 1985-1987 excavation archive also included organic materials, consisting of animal and human bones, shells, and wood samples. A brief quantification of the shell assemblage has shown that there were 707 shells recovered during the excavation, weighing a total of 5.7kg and primarily consisting of oyster shells. This suggests that oyster was amongst the foodstuffs being consumed and discarded at the house. There is also a large animal bone assemblage from the excavation, filling approximately eight archival boxes and two partial boxes. A general overview of the composition of the shell and animal bone assemblages by a zooarchaeologist would enhance understanding of consumption and refuse at Audley End House, especially when contrasted with the associated domestic material culture assemblage discussed within this thesis. However, these assemblages are stratigraphically undatable as they mostly originate from parterre bed contexts, limiting this analysis.

There is also a human bone assemblage from the excavation, representing both the recovery of monastic burial deposits and later redeposition of human bone into 'pit' features, discussed in Chapters 4.3c-d. Within the assemblage, some skeletal material remains unrecorded and mixed into artefact bags also containing animal bone, hence the partial recording of human bone within English Heritage's HOMS database. Initial visual analysis by an osteologist suggested that this material is highly degraded and requires research and repackaging to reunite skeletal groups (Jennifer Crangle, *pers. comm*.).

Soil samples were also taken from the flowerbed fills during the excavation; these samples were discussed in correspondence held in the archive and by Murphy and Scaife (1991, 97), who stated that although the fills were sealed by mid-20th century path foundations, this "had not prevented the intrusion of modern roots and other plant debris". This meant that the samples contained no organic remains that could be securely dated to the planting of the parterre in the early-19th century. The soil samples are not retained within the archive.

The archive includes an assemblage of 29 lithic objects, weighing 91.5g in total. They originate from various contexts but primarily in the site area JC, suggesting either differential artefact recovery practices between different areas of the site or unusual activity within this area. The

identification of individual contexts has shown that the lithic material is primarily associated with contexts that also contain post-medieval material, implying that the material is either post-medieval or has been redeposited during later activity at the site. Further analysis by a lithics specialist, using the finds register for lithics as well as examination of the objects themselves, may allow this material to be classified and dated.

3.5c.iv. Stonework and building materials

The largest element of the assemblage from the 1985-1987 excavation, meanwhile, consisted of structural materials, including worked stone, floor tile, roof tile, and window glass (see Figure 3.35). Some research into this assemblage has occurred, including a detailed masonry catalogue and a Geologists Association report into the monastic stonework (Anon., 1989), which informs the drafted excavation report, whilst further analysis of the medieval floor tile is ongoing (Paul Drury, *pers. comm.*). Collating this research into a united report would develop academic understanding of the construction, architectural form, and demolition of the various medieval, Tudor, and Jacobean buildings at the site.

Figure 3.35: Fragments of window glass recovered during the 1985-1987 excavation (author's image).

3.6. Summary

This chapter has shown that the 1985-1987 excavation aimed to enable the reconstruction of the garden's historic character, therefore seeking to improve English Heritage's offer for visitors. Through archival assessment and discussion with project staff, it has been revealed that the 19th-century parterre garden was selected for reconstruction after an evaluation of its sub-surface record, as this showed that its well-preserved features would be destroyed in the pursuit of earlier garden layouts, and the identification historical evidence that could be used to define a historically accurate and aesthetically pleasing garden restoration scheme. Once this focus was decided, all 19th- and 20th-century deposits across the main parterre and inner courtyard areas were removed. This primarily involved the removal of flowerbed fills, creating geometric-shaped trenches into the subsurface stratigraphy that revealed the preservation of earlier structures around and beneath them.

The historic structures were recorded without excavation, whilst finds from excavated contexts were removed before the parterre beds and pathways were refilled. Archival assessment showed that some interpretation of the archaeological record had then taken place, leading to the partial preparation of a site report (Harris, 1997) and some finds research, but that the undervaluing of post-excavation processes meant that this was not completed. This thesis is thus an opportunity to further post-excavation research, using the archive alongside comparative sources to explore evidence for changing architecture, horticultural practices, and the procurement and use of material culture at Audley End.

Compositional analysis of the four domestic material culture types researched within this thesis has shown that they are primarily post-medieval, skewing towards the 18th, 19th, and early-20th centuries. This chapter has also demonstrated that the objects are highly fragmented, especially those excavated from flowerbed fills and modern service contexts. The interpretation of domestic material culture within its temporal and spatial context is key to the following chapters. Analysis of the material archive also showed the variational influence of differential artefact survival, the project's methodology, and archival attrition in dictating the composition of the assemblage. This thesis will thus consider to what extent the biography of domestic assemblages from garden excavations can be explored despite the complexities inherent within

their archaeological records. The need for further study, particularly into the stonework, flowerpot, and human bone assemblages from Audley End, has also been suggested.

This chapter also demonstrated that the majority of the domestic material culture assemblage was recovered from flowerbed fill deposits. The unique taphonomy of these contexts has been noted, with eight possible interpretations made for the inclusion of domestic objects within them, suggesting the potential value of test pitting and ploughzone assemblages as comparative examples. Spatial distribution analysis of this assemblage showed a clustering of material towards the northern end of the main parterre, with other differences between material types. This implies that several depositional and post-depositional processes may have concurrently influenced the artefactual assemblage. The relationship between garden bed assemblages and historic horticultural practices will be further discussed in Chapters 8 and 9.

4. Walden Abbey, c.1141-1538

4.1. Introduction

This chapter outlines the archaeological evidence of Walden Abbey, which was founded in around 1141 and dissolved in 1538, as revealed by analysis of the parterre excavation archive. It first discusses the historical context for the abbey, exploring the development of the Benedictine order, the layout of medieval monasteries, and the circumstances by which this abbey was founded and developed. It then summarises and contextualises the architectural remains and burial deposits uncovered during the excavation and outlines the small quantity of recovered medieval pottery fragments and small finds, suggesting that the abbey made use of objects relating to dining, dress, and literacy. The chapter also considers to what extent academic knowledge of Walden Abbey can be enhanced by the 1985-1987 parterre project, considering the complex taphonomy of garden bed assemblages, the application of restoration-led archaeological methodologies during excavation, and its challenging archival legacy.

4.2. Historical background

4.2a. The Benedictine Order

Saint Benedict of Nunia produced his rule for monastic life in 530, which defined a series of prescriptions for an ascetic life devoted to God (Greene, 1992, 2). The establishment of Benedictine monasteries in Norman Britain was part of a wider European process, within which monastic orders seeking to reaffirm Benedict's principles flourished. Monasteries were initially established as isolated orders then sponsored by patrons to construct abbeys, a system that created a network of religious devotion across Britain (Aston, 2001). Bond estimated that from 1100 to 1540, there were approximately 420 monasteries in Britain following Benedictine rule, as well as 360 houses of regular canons, 315 houses of friars, 205 nunneries, and 115 houses of military orders (Bond, 2018, 565). The scale of monastic networks gave them substantial influence over the spiritual and socio-political landscape, ending only in 1536-1539 with the Dissolution of the Monasteries.

Monastic development was an opportunity for elites to invest in both spiritual and economic centres. To Norman feudal lords, the foundation of a monastery was a way to secure manorial control and enhance personal status through investment in the Church and an economically productive community (Crouch, 1992). Patronage was also important for the religious life of elites. Monks acted as intercessors between benefactors and God; by supporting monasteries, patrons assured the salvation of their souls through prayer, and access to consecrated ground within which to be buried (Cownie, 1998, 151–152). There were large degrees of variation in the kinds of monastic establishment, which influenced their location, structural layout, material culture use, and their effect on the wider landscape; however, each shared a general proscription of ascetic life devoted to God, balanced with the provision of hospitality towards the secular community.

4.2b. Monastic layouts and landscape context

The study of monastic buildings originally focused on the systematic analysis of those with substantial standing remains, as these were the first to be identified, researched, and maintained as heritage assets. Scholars in the 19th and early-20th centuries collated evidence from monasteries still in use, post-Dissolution survey, and topographical and pictorial representations with the extensive excavation of claustral buildings (Keevill, 2001, 1). This research often focused on the central claustral buildings, with limited attention paid to the wider landscape (Keevill, 2001, 1-2). However, rural monasteries encompassed a much larger area; in his overview of abbey landscapes, Greene (1992, 44) noted that "the core of claustral buildings…often takes up no more than 10 or 15 per cent of the whole". Subsidiary buildings became the focus of study from the 1970s, emphasising the economic activities and broader landscape context of the medieval monastery (Gilchrist, 2014, 240). More recently, standing buildings recording has been undertaken on monasteries with substantial ruins or that have been consolidated into other buildings, allowing analysis of the vertical layout of space and the phasing of different construction periods (Bond, 2018, 566), whilst post-processual approaches have considered how structures defined, and were defined by, religious practice (Keevill, 2001).

These studies have defined an expected plan for how British monasteries would have been structured (Greene, 1992, 5-9; Burton, 1994; Bond, 2018). The monastic complex was focused

on the church, usually connected on its southern side to a cloister consisting of a walk and garth. To the east of the cloister was a building range made up of, from north to south, a sacristy, chapter house, and warming room or parlour space. The upper floor of the east range held a dormitory, with stairs for the midnight service connecting its northern end to the church, and a reredorter (or latrine) projecting from the southern or eastern end. South of the cloister was the refectory and kitchen, connected to a cellarer's range to the west of the cloister. Above the cellarer's range was the abbot's quarters or, in Cistercian monasteries, a dormitory and refectory for lay brethren. This is a generalised layout that obscures individual variation but provides a useful basis for study; deviations from the norm suggest alternative religious practices, socio-economic circumstances, or geographical constraints (Greene, 1992, 5).

To medieval religious communities, hospitality was "both a Christian duty and a monastic obligation" (Kerr, 2007, 25). The practice of hospitality included the development of an infirmary, often to the south of the site, as brethren sometimes cared for the secular community (Kerr, 2007, 152; Huggon, 2018). Hospitality also included provision for guests, as the Rule proscribed that guests should be given shelter, food and drink, and spiritual care (Rowell, 2000, 29). Ranges to accommodate visitors were often placed to the western side of claustral buildings, whether the upper floor of the west range or an external building, which could incorporate chambers and kitchens (Greene, 1992, 9). The monastic complex was also bounded by a gatehouse, which acted as a physical and symbolic boundary between monastic space and the outside world, delineating the bounds of hospitality (Rowell, 2000).

This general layout was defined by the needs of ritual and practice as prescribed by the rule, so was potentially very similar between establishments of the same order. Monastic life was, however, highly varied, both within the same order over time and between different orders. There was a whole spectrum of establishments between grounded, materially wealthy houses, and peripatetic orders without possessions; each house would present a different archaeological footprint (Aston, 2001, 26). The generalised plan of medieval monastic structures and landscapes as defined above is only useful when used as a framework that accommodates individual, topographical, and temporal change. Each monastery was its own architectural expression of the social, economic, and spiritual needs of its monastic community.

4.2c. The establishment of Walden Abbey

The Benedictine priory of St James and St Mary was founded by Geoffrey (II) de Mandeville between 1139 and 1143 (Bassett, 1982, 21). Geoffrey was the first Earl of Essex and part of an important post-Conquest dynasty. He was initially biographized by Round as "the most perfect and typical presentment of the feudal and anarchic spirit" due to his two rebellions against King Stephen (Round, 1892, cited in Hollister, 1973, 19). However, this representation has been reassessed by more recent scholars, who instead suggest that he was responding to his family's complex political circumstances by seeking ownership of manorial holdings (Davis, 1964; Hollister, 1973). Walden Manor had been held by Geoffrey's dynasty since the Norman Conquest. On inheriting the manor from King Stephen by 1141 after the political exile of his father William, Geoffrey further capitalised on Walden's assets by establishing a castle, market, and a church as part of his 'seigneurial scheme' (Bassett, 1982, 21). This became the town of Saffron Walden, which sits to the east of Audley End. It seems likely that the foundation of Walden Abbey was undertaken at the same time; it must have been underway by 1143 when Geoffrey again rebelled and was forced to capitulate Walden to the Crown (Round, 1892).

The history of this foundation is outlined in the *Book of the Foundation of Walden Abbey* (Watkiss and Greenway ed., 1999), written in 1203 by a resident monk to justify its ascendency to the status of an abbey in 1190 and the legal wrangling during this transition. The book described Walden Abbey in the mid-12th century as consisting of:

> A wooden chapel of a humble nature with a cloister and outbuildings, a hall with a chamber, a bakery, a stable, with very small granaries, a garden, a shrubbery, a very small pond, a ditch all around the cemetery, new walls to the monastery, of stone indeed, but neither high nor broad, belonging to the presbytery, and wings on both sides with one altar.

This description suggests that the abbey was in the process of being rebuilt, including the construction of a presbytery and the addition of stone 'wings' or transepts to a wooden church. The book also defines later improvement schemes under the second prior Reginald in c.1166, that included the construction of a stone-built church nave, cloister, and chapter house, as well as his decision to divert roads away from the abbey (Drury, 1982b, 95; Alexander, 2015, 10).

Later documentary sources are less descriptive but suggest that there was further development in the 13th to 15th centuries. In 1237, the Archbishop of Canterbury granted indulgences in aid of the abbey fabric, and in 1258 the church and an infirmary chapel were dedicated, suggesting that their rebuilding in stone was completed around this time (Drury, 1982b, 97). The abbey was granted a market in 1295; Bassett suggested that this was the impetus for the widening of the southern road to form a market street with house plots, creating the village of Brookwalden (Bassett, 1982, 21). There are other documentary references to Brookwalden, including a survey carried out in 1400 that described 51 houses distributed around two streets (Bassett, 1982, 21). This settlement became the current Audley End Village, which retains some of its medieval character in the layout of its roads and buildings (Carmichael, 2015, 101).

By the mid-14th century, the patronage of Walden was held by the de Bohun dynasty. They were given a license to crenellate in order to build a new cloister, and in 1365 gave financial aid after a storm to construct a new belfry, sculptural scheme, and lead roof (Drury, 1982b, 97). The abbey was also chosen as the burial place of many of the de Bohun family during the 13th and 14th centuries, although details of their placement and memorialisation within the abbey are mostly lost. References are also made in 1190, 1258, 1421, and 1427 to the presence of a Lady Chapel at the abbey (Drury, 1982b, 98). The documentary record shows that Walden Abbey further developed in the 14th and 15th centuries through the patronage system, a development that could be explored through archaeological research.

4.3. Archaeological evidence

4.3a. Previous research

Previous excavations around the monastic church have been limited to the south transept and east end of the nave's south aisle. The excavation in 1950 uncovered a 14th-century glazed tile floor to the north east of the current house's inner courtyard. Although it was unclear from incomplete excavation records whether this was in-situ or re-laid material, Paul Drury suggested that this could represent part of the monastic nave (Drury, 1982b, 98). The project also revealed the north-east corner and two bays of a 12th-14th century cloister walk. Using the dimensions of these excavated bays, Drury suggested that a square cloister with eight bays

would match the footprint of the later house (Drury, 1982b, 98). His proposed plan did not reflect the 16th-century map of Audley Inn, which shows the eastern cloister with only five bays but, as Drury suggested, this could be due to cartographic license. His research suggested that the inner court of Audley End House was therefore situated directly above the ruined cloister.

Drury also suggested that Walden Abbey had an east range, consisting of a dormitory, reredorter, and chapter house, with the church to the north of the cloister, frater to the south, and cellarer's range to the west (Drury, 1982b). This estimation of the layout of the east claustral range was hypothetical, as no archaeological investigations had taken place in this area. However, in the third Lord Braybooke's history of Audley End he wrote that, before the parterre garden was redesigned in 1832, "extensive foundations were to be distinguished during a dry season" (Griffin, 1836, 66). Within the Braybrooke archives, Drury also discovered a plan of a large wall at the base of a six-foot-deep hole sunk into the garden "in making the flower garden in 1832", which he suggested was the east wall of the monastic east range (Drury, 1982b, 99). These two sources implied that Walden Abbey had a substantial east range, the remains of which may have survived underneath the 19th-century parterre garden.

The historical evidence for burials at Walden Abbey was also summarised by Drury using historic documentation and antiquarian studies. The *Book of the Foundation* stated that the original monastery included "a ditch all around the cemetery", with Prior William, who died in 1164, being buried "in the common cemetery where they thought the chapter house would be erected at a subsequent date" (Watkiss and Greenway, 1999). This suggested that the monastery included a demarcated cemetery space, possibly to the east of the house, which was perhaps moved when the eastern claustral range was extended. The first reference to the disinterment of burials within the Audley End estate was made in the 18th century, when the Essex historian Philip Morant noted "foundations and bones…dug up near the great pond by the bowling green" (Morant, 1768, 548, cited in Drury, 1982b, 99). In 1887, two circular bronze brooches dating from the 13th or 14th centuries were found in the proximity of the garden, associated with human remains (Drury, 1982b, 99). Drury suggested that these two sources implied the presence of a lay cemetery to the north of the church area, which would therefore sit outside of the scope of the 1985-1987 excavation.

In the traditional Benedictine abbey layout, the monks' cemetery was located to the east of the church and connected by a passage to the cloister (Greene, 1992, 7). If the layout for Walden Abbey outlined above is correct, this would mean that burials would also be found within and beyond the north-eastern corner of the parterre garden, which would probably be uncovered during landscape change in these areas. Griffin (1836, 66) noted that during the construction of the parterre garden:

> nearer to the sunk fence [ha-ha], and parallel to the spot in which two leaden coffins had been disinterred upwards of thirty years before…many skeletons were discovered, about two feet below the surface, apparently in the graves in which they had been originally deposited, but no vestige of wood, or any metallic substance, was discernible, excepting some large iron nails…with which the coffins had been secured.

As discussed by Drury (1982a), this would suggest that a cemetery associated with the eastern side of the monastic complex, consisting of unfurnished inhumations, was preserved at the eastern end of the garden. He also referenced further disturbance of monastic burials, writing that disarticulated material was found, associated with refuse deposits, "close to the north western extremity of the flower garden" (Griffin, 1836). This was the proposed location for the monastic presbytery, leading Drury to suggest that Griffin was discussing burials that were originally uncovered and redeposited during the dissolution of the monastery's religious buildings (Drury, 1982b, 99). Excavation of the parterre area thus provided a further opportunity for archaeologists to explore the buildings and burials of Walden Abbey.

4.3b. Monastic architecture

4.3b.i. Defining and dating construction

As discussed in Chapter 3, the structural evidence for Walden Abbey revealed during Chelmsford Archaeological Trust's 1985-1987 excavation was outlined in two interim reports (Cunningham, 1987a; 1987b) and a drafted site report (Harris, 1997). The interim reports provide a summary of the medieval wall foundations, both extant and robbed, that were exposed within the sides and bases of parterre pots (Cunningham, 1987, 1). This is then built upon in the site report, which provides an interpretation of the layout of the monastery based on the location of the medieval foundations, discusses the design and geological origins of the

stonework, and suggests possible functions for each building. The site report also included nine reproductions of site plans relating to medieval foundations and 11 interpretative drawings, including one depicting a potential layout for the whole monastery (see Figures 4.1 to 4.4). Archival analysis therefore showed that research into monastic architecture was the most complete element of the post-excavation archive and was thus the easiest evidence to reinterpret within this thesis.

As interpreted by Drury and Cunningham, the excavated structures supported Drury's plan for how the abbey was laid out, with a central cloister, church at the northern end, and eastern, southern, and western building ranges (see Figures 4.1 to 4.3) albeit damaged by the garden development and installation of modern services. Structural features were dated through analysis of stone type, mortar type, construction form, associated documentary records, and contemporary examples from other monasteries. Harris and Cunningham suggested five periods of architectural change at Walden Abbey:

1. Initial foundation by Prior William, 1139 to 1164 – no structural evidence
2. Development from 1164 to 1258 – yellow mortar, hoggin, chalk, and rubble foundations
3. Later-13th century – no structural evidence
4. Alterations in 14th century – white mortar, rubble foundations of hoggin and chalk with sand inclusions, re-use of earlier materials
5. 15th century to 1538 – bright yellow mortar, gravel and hoggin foundations

The dating of structures suggested that Walden Abbey was gradually expanded and redesigned to accommodate its community's changing needs. The detailed evidence presented by Harris and Cunningham for each building is outlined below, alongside a critical perspective of their interpretation which is developed further in Chapter 4.5a. This integrates more recent academic perspectives on monastic architecture, including consideration of the lived experience of built space, and considers how the palimpsestic nature of the site affects the survival of the medieval archaeological record. This chapter also considers the influence of garden restoration-led methodologies on the interpretation of pre-garden remains. Interpreting structures revealed during the removal of flowerbed fills, which are such unusually shaped excavation interventions (see Figure 4.3), is a challenging process.

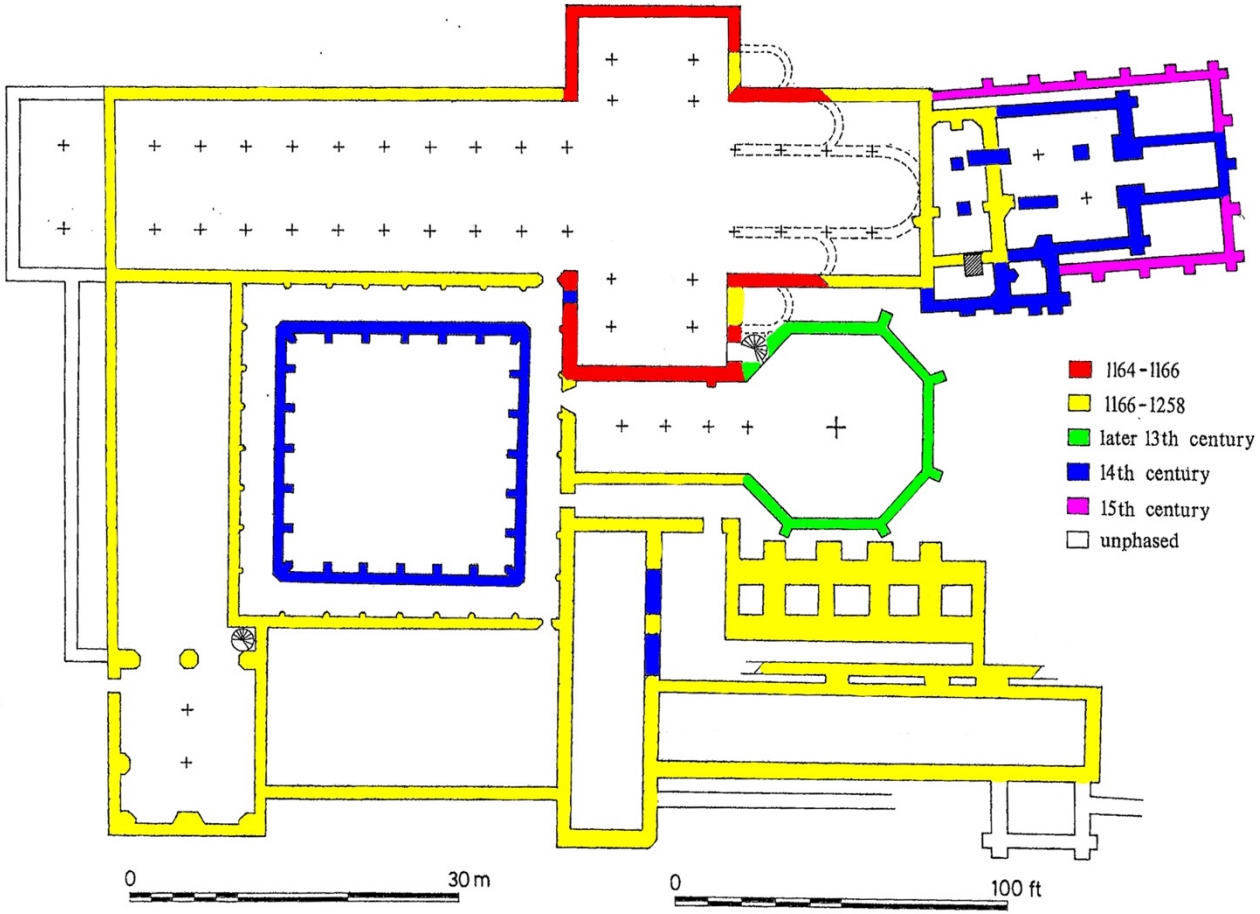


Figure 4.1: Proposed plan with dimensions of Walden Abbey, with periods of construction highlighted (Harris, 1997, 40). © English Heritage.

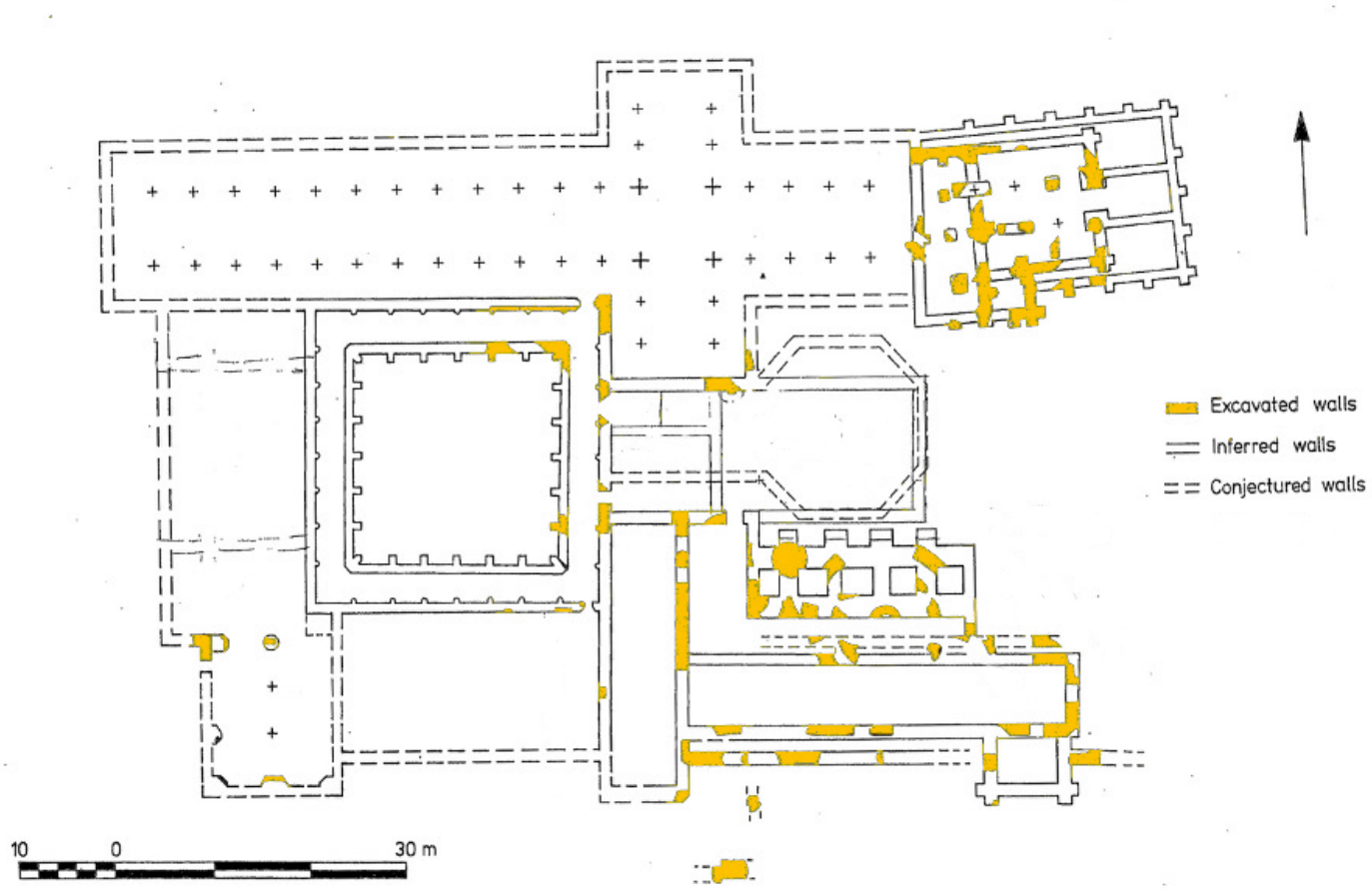


Figure 4.2: Proposed plan of the abbey showing a potential plan of the east range (Harris, 1997, 9), with excavated walls highlighted. © English Heritage.

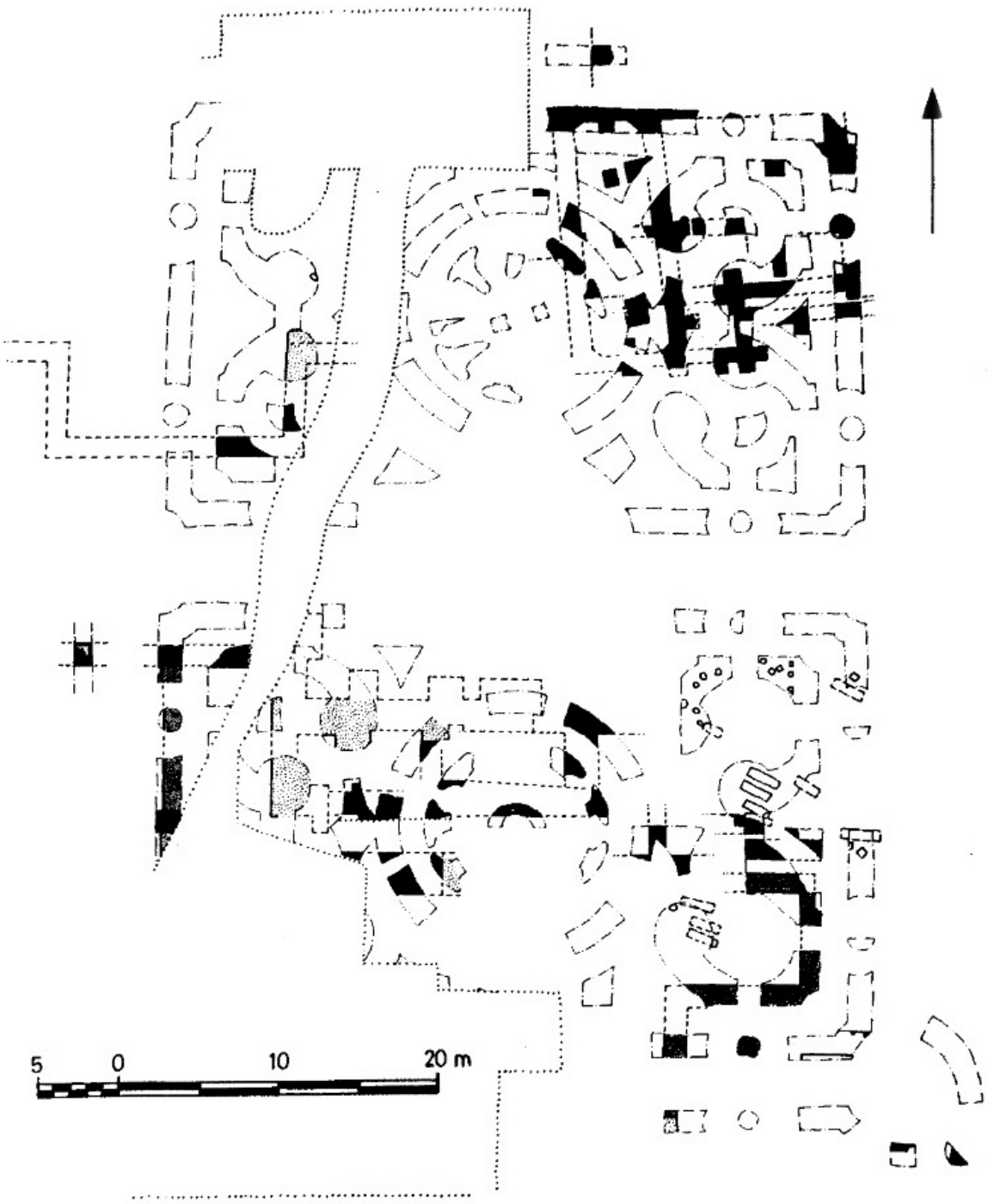


Figure 4.3: Plan of excavated wall foundations (shown in black) and robbed foundations (shown in dotted fill) revealed during removal of flowerbed fills in the main parterre, the trenches of which are outlined in dashed-and-dotted lines, overlaid with an interpretation of Walden Abbey's layout in dashed lines (Harris, 1997, 10). © English Heritage.

4.3b.ii. Chancel, nave, and southern transept

The 1986 excavation season uncovered foundations of the chancel, or eastern end, of the abbey church. The project revealed walls dating to more than one construction period, showing alterations in the shape of the chancel over time. No evidence of the original foundation was uncovered, which Harris (1997) suggested could reflect the partial nature of the excavation, particularly in this area of the site. Historic sources also imply that the first structure was more ephemeral; *The Book of the Foundation* describes "new walls to the monastery, of stone indeed, but neither high nor broad, belonging to the presbytery" (Watkiss and Greenway, 1999), which suggests that the chancel was originally constructed to a small scale. The earliest excavated walls were instead from Period 2 (1164-1258). In the site report, these were interpreted as representing an eastern end placed 17 metres from the transept, possibly enclosing an ambulatory chapel, and piers to divide the chancel into three aisles.

Harris suggested that this was then developed in Period Four (14th century) into a misaligned chancel with an additional ambulatory chapel and two small chambers against the southern wall. In an interim report, the reconstructed chancel is described as 28 metres long with a narrower end of eight metres long (Cunningham, 1987a, 1), a marked increase in scale. The foundations of the easternmost smaller chamber are substantial, which Harris (1997) suggests could represent the construction of a small tower. Drury noted that there is documentation of financial aid given to Walden in 1365 so that the community could construct a new bell tower (Drury, 1982b, 97), which suggests a potential function for this space. Two additional walls of Period Five (15th-16th century) style were uncovered, suggesting further expansion eastwards and northwards. However, the eastern end of the final construction was beyond the limits of the excavation. The increasing shallowness of the foundations towards the south also suggested that the chancel was built on a slope that was levelled after the monastery was demolished (Cunningham, 1987a, 4).

Beyond the chancel, excavations around the church were limited to the south transept and east end of the southern aisle. Excavation in the 1950s uncovered a 14th-century glazed tile floor to the north-east of the house's inner parterre, which Drury suggested could represent part of the monastic nave (Drury, 1982b, 98). The 1985-1987 project re-opened this excavation,

uncovering and dating the floor tiles to the mid-14th century and, as a later screening wall at the eastern end of the tiles had damaged them, showing that they represented the in-situ nave floor. A 14th-century doorway was uncovered in this area to connect it to the cloister; below the doorway were two steps, showing that the church was raised approximately 0.5 metres above the cloister level. The 1985-1987 excavation also uncovered revealed some of the foundations of the south transept, suggesting that its final iteration measured around 14 metres east-west and eight metres north-south. The walls were of the style defined as Period 2 (1164-1258), supported by the *Book of the Foundation* which suggested that stone 'wings' or transepts were one of the first elements of the church to be constructed (Watkiss and Greenway, 1999). A doorway in the western wall of the transept was blocked with 14th-century stonework, perhaps when an opening in the east end of the south aisle was added.

The 1985-1987 excavation thus confirmed Drury's expectation that the monastic church was placed to the north of the cloister by revealing additional walls of the south transept and nave, as well as the foundations of the chancel. It also showed that this chancel was expanded over time to accommodate further divisions of space, including a possible tower along the southern side. The excavation also confirmed that the church had a 14th-century tiled floor and was connected to the cloister by a stepped opening. Although the site report is comprehensive in its description of the built remains, some areas remained unclear, including the proposed misalignment of the chancel. Other elements of the church, including the nave and crossing, were hypothesised by Harris and Drury but were not uncovered due to the spatial limits of the excavation. CAT's decision to preserve medieval deposits in-situ, their focus on the parterre area, and damage to the subsurface record caused by later development of the house and garden, all prevented a full excavation of the monastic church.

4.3b.iii. Cloister

The 1987 season further uncovered a proportion of the north and east walls of the cloister walkway and garth (Cunningham, 1987b; Harris, 1997). This confirmed Drury's assertion that the cloister was made up of eight bays on each side, measuring 30 by 30 metres across, with a paved walkway. The ceiling of the cloister was vaulted, carried on clustered piers which rested on plinths projecting from the lower wall and were buttressed externally. Arcading that looked

out over the garth started 0.5 metres up from the floor, possibly with three lights. Internally, the wall foundation continued behind the piers, suggesting that there could have been a higher sill to support tracery. Fragments of vaulting, some of which were painted red and white, were also recovered from service trenches in the garth area (Cunningham, 1987b, 3).

Documentary sources discuss the rebuilding of the cloister in the mid-14th century (Drury, 1982b, 97). However, the site report noted that, although the garth walls date from this period, the foundation of the east wall that connects the cloister to the eastern range was of the Period 2 (1164 to 1258) construction style. This suggested that the cloister was partially reconstructed and roofed in the 14th century but was based on an earlier 12th-13th century layout. Using the dimensions of the north and east sides of the cloister, the site report confirmed that the west side of the cloister would be under the gallery of the current house, and the south side would be partially covered by the house's south wing. In this way, the parterre excavation further illustrated Drury's (1982b) established plan for the layout of the monastic cloister and provided more information about its development. The interventions made into the parterre garden were well-placed in uncovering various aspects of the cloister's construction, although the excavation methodology and the placement of the Jacobean house also limited the evidence.

4.3b.iv. East claustral range

Excavation of the main parterre also uncovered evidence for the east claustral range. Harris and Cunningham produced a plan that integrated the foundations revealed in the base of parterre pots with Drury's estimation of the monastic layout to demonstrate how the east range could have been structured (see Figure 4.2). This suggested that the range stretched southwards from the eastern end of the abbey church, past the cloister, to a point roughly equivalent with the southern wing of the current house. To the south of the transept, a splayed entrance linked the eastern wall of the cloister walkway to a building, estimated to be nine metres in length and raised above the cloister floor. Harris reconstructed this as a chapter house with a rectangular vestibule, library, and sacristy, and polygonal chapter house, although no walls were excavated; he noted that this plan was "totally hypothetical" (Harris, 1997).

To the south of this building, the excavation uncovered fragments of a 3-metre-wide slype or covered walkway. The slype walls were altered in the 14th century, leaving a singular doorway into a buttressed structure. Although the walls appeared to have been robbed, possibly during the parterre construction, this structure could represent a dorter undercroft with a dormitory above (Cunningham, 1987a, 3). Parts of the north, south, and eastern walls of a structure projecting eastward were also uncovered. This measured approximately seven metres north-south and 18.5 metres east-west with open drains in the north and south side, supporting Drury's assertion that this was the location of the monastic reredorter. The 1986 excavation season also uncovered the location of a two-metre-deep hole, most likely the one recorded by Braybrooke during the construction of the parterre garden, as noted in Chapter 4.3a. This was interpreted as evidence for the foundations of the eastern wall of the reredorter, which were then robbed during the construction of the 1832 parterre.

As such, the 1985-1987 excavation supported Drury's original supposition that Walden Abbey conformed to the conventional layout of a Benedictine monastery. This was particularly convincing in locating the reredorter and dormitory, for which a substantial proportion of the foundations were identified, showing that they matched contemporary plans for east claustral ranges. However, evidence for other buildings was more piecemeal, particularly for the proposed chapterhouse which was interpreted despite the absence of structural remains. The depth of the flowerbeds increased to the eastern side of the main parterre (Andrew Harris, *pers. comm*.); medieval foundations were therefore more likely to be damaged in this area when the flowerbeds were constructed, as shown by the robbing of what may have been the eastern wall of the reredorter. In addition, focus on the parterre flowerbeds meant that medieval buildings were not targeted for excavation; as such, the full scope of each building, the limits of the east range, and any occupational deposits were not uncovered.

4.3b.v. South and west claustral range

The north-east corner of the monastic south range was uncovered within the inner parterre area (Harris, 1987). This showed that there was an opening in the south-east corner of the cloister walkway, matching one in the north-east corner, that connected the cloister walkway to the south range. No additional evidence was revealed, due both to the limitations of the

excavation and the fact that much of this area is covered by the south wing of the current house. There was also a small watching brief in 1984 during the removal of floorboards within the dining parlour that revealed fragments of medieval walls to the south and west (Anon., c.1984). These walls were 1.4 metres wide, which suggested that they could support more than one storey. However, the connection between the cloister and western range would sit underneath the house's main range, so is not ready accessible to researchers; this demonstrates the challenges inherent when excavating an earlier structure that bears such continuity with the standing architecture that superseded it.

4.3c. Articulated burials

During the excavation, at least 11 inhumations were uncovered from the monastic east range (see Figure 4.4). These burials were close to the ground surface but were capped by Jacobean levelling deposits; the burials therefore predated the reconstruction of the house and gardens in the early-17th century. No complete skeleton was revealed, as the excavation methodology meant that in-situ burial deposits were left undisturbed unless they impeded garden restoration; however, a small quantity of human bone was lifted when its removal was necessary to clear the flowerbed fill. Three of these burials were found within the reredorter, whilst the others were found to the north-east of this building (Harris, 1997). These burials were aligned on a broadly north-west to south-east axis, and appeared to be unfurnished; an interim report stated that "many more, shallow and disturbed, were suspected in the sides of the flower beds" (Cunningham, 1987a, 5), but were not excavated.

Although the burial contexts were not fully excavated, the project did show that each of these contexts did not cut into another burial, implying that those undertaking the burials had an awareness of their location, which was used to suggest a short period of burial activity (Harris, 1997). Each burial is broadly aligned on an east-west axis and appeared to be unfurnished (Cunningham, 1987a, 5). No inhumations were found within 25 metres of the church; Cunningham argued that this was due to the rising ground level northwards, which was levelled during the construction of the Jacobean house, disturbing any burials to the north of the site (Harris, 1997). However, the location of several burials within the reredorter also suggested that these burials pre-date the expansion of the eastern range (Cunningham, 1987a, 5).

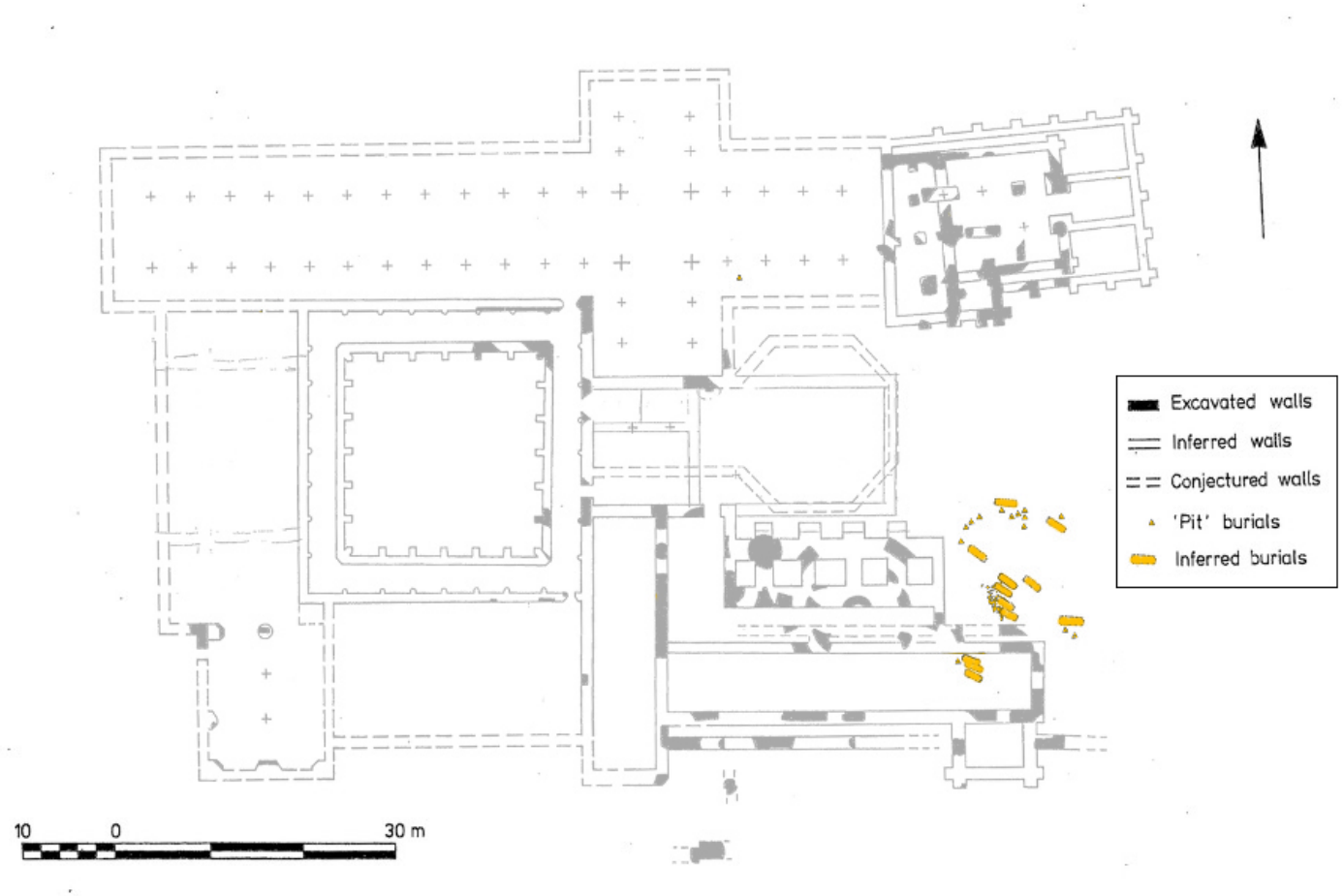


Figure 4.4: Proposed layout of Walden Abbey (Harris, 1997, 9), with articulated burials highlighted in yellow; this plan shows 12 inhumations, whilst Cunningham (1987a) stated that there were at least 11. Disarticulated burials are represented by yellow triangles. © English Heritage.

4.3d. Disarticulated pit burials

The excavation also revealed 15 disarticulated skeletal assemblages from within unusual pit features (see Figure 4.5). Each assemblage likely represented one individual "as one skull was normally included" (Cunningham, 1987a, 15). The assemblages were composed of a mixture of long bones capped with a skull and placed at the bottom of a narrow pit between a half-metre and one metre in depth. The pits were clustered around the medieval east claustral range, in the same area as the inhumation contexts, although one was also found within the church building (Harris, 1997). One pit feature was cut into an inhumation deposit, suggesting that these burials post-dated the articulated burials (Harris, 1997), and they were also sealed by the Jacobean levelling deposits. As such, Cunningham inferred that these pit features resulted from the disturbance and redeposition of burials during the post-Dissolution clearance of Walden Abbey (Cunningham, 1987a, 6); the location of one pit within the church was seen as representing the redeposition of skeletal material originally buried within the monastic nave.

4.4. Material culture

4.4a. Assemblage composition

The 1985-1987 excavation uncovered 36 fragments of medieval pottery (see Figure 4.5), representing an estimated maximum of 35 vessels and weighing 627g. This assemblage primarily consisted of coarsewares, of which there were 17 fragments, including one sherd with red external surfaces and a splashed green glaze (see Figure 4.6) that could represent Mill Green fabric (Helen Walker, *pers. comm.*). An additional ten fragments were of unidentified grey and brown fabrics with small sandy or shelly inclusions (see Figure 4.7). There was also one fragment of a dark red fabric with incised decoration and a splashed green glaze, that appears to be medieval (see Figure 4.8). One sherd of coarseware also had some evidence for sooting on its external face (see Figure 4.9).

The assemblage also included two pottery fabrics that bridge the transition between the medieval and early modern periods. There are five sherds of 'Tudor Green' ware, a fine fabric made from white-firing clay with a green splashed glaze. Although this is a contested fabric type, Pearce argued convincingly that the terminology could be used to refer to this particular

fabric type and dated to 1380-1550 (Pearce, 1992, 1–2), whilst MOLA's pottery coding system dates it to 1350-1500 (MOLA, 2014). Three of these sherds (see Figure 4.10), excavated from the lower fill of Flowerbed 1033, represented part of the rim and two body sherds of a small drinking vessel, akin to other 'Tudor Green' vessels (Pearce, 1992). Three sherds of Dutch redware, of a dark orange fabric with a clear glaze (Baart, 1994; Duncan Brown, *pers. comm*.), were excavated from three different contexts; MOLA classifies this fabric as dating to between 1300 and 1650, bridging the medieval and early modern periods. These sherds represent the rim of a closed vessel and two vessel bases but were too fragmentary to be compared to Baart's (1994) typology of Dutch redware forms. One base (see Figure 4.11) also showed evidence for sooting on its external surface.

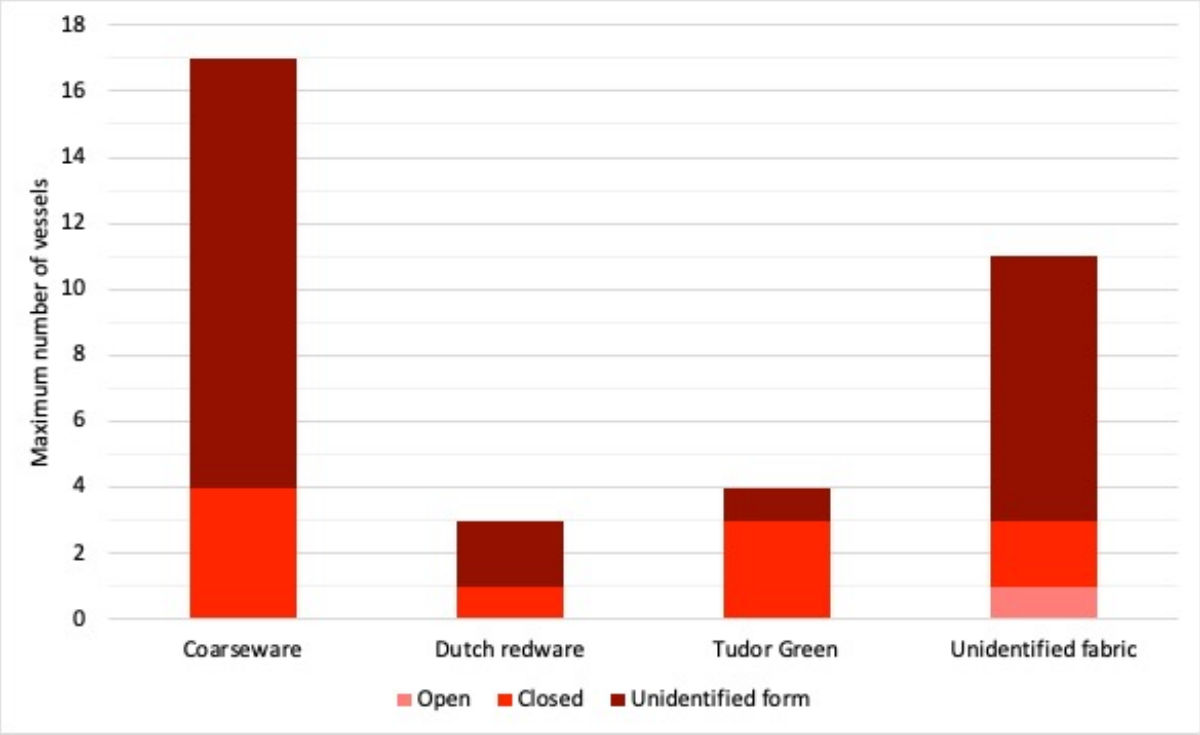


Figure 4.5: Graph showing the medieval pottery assemblage subdivided by form and fabric

Figure 4.6: Sherd of medieval Mill Green coarseware with an internal green splashed glaze, excavated from modern service context [K 12] (author's image).

Figure 4.7: Squared rim sherd of a sandy brown/grey fabric, excavated from fill context [K 32] (author's image).

Figure 4.8: Sherd of possible medieval ware, excavated from flowerbed fill context [JA 166] (author's image).

Figure 4.9: Large sherd of a closed vessel made of brown sandy coarseware with evidence for sooting on the external surface, excavated from flowerbed fill context [JA 158] (author's image).

Figure 4.10: Three sherds of Tudor Green ware, excavated from flowerbed fill context [JA 139] (author's image).

Figure 4.11: Base of a Dutch redware vessel with a clear internal glaze and sooting on its outer surface, excavated from flowerbed fill context [JA 373] (author's image).

There were also seven small finds from the excavation that could be dated to the occupation of Walden Abbey. A book fastening or clasp (see Figure 4.12) was excavated from context [JA 187]. The clasp consists of an integral forked spacer, made of copper alloy, conforming to Howsam's typology Type A.2 (Howsam, 2016, 11) and similar to other examples from ecclesiastical contexts (Ottaway and Rogers, 2002, 2937; Portable Antiquities Scheme, 2019a). The book clasp was part of the outer furniture of a book, acting as a fastening at the end of a leather strap attached to one cover that slotted into a pin fitting attached to the other (Howsam, 2016, 26). The form of this clasp has been identified in composite strap ends that date to the 14th and early 15th centuries (Portable Antiquities Scheme, 2019a). A seal matrix (see Figure 4.13) was also excavated from inner courtyard context [K 21]. This matrix is conical, made from copper alloy, and consists of a handle with a single ridged collar and an oval-shaped die (Portable Antiquities Scheme, 2019b), although the design is unintelligible.

The other five medieval small finds are personal accessories. This includes a copper-alloy buckle (see Figure 4.14), consisting of an oval frame with pointed and grooved pin rest and a short integral rectangular plate, very similar to an example from medieval York (Ottaway and Rogers, 2002, 2888). The form suggests that it is a spur buckle, a common type dating at its earliest to the 13th century (Portable Antiquities Scheme, 2019c). A small copper alloy strap end terminal (see Figure 4.15), which has a broadly triangular form, was excavated from context [K 19] but is of an unattributable date (Hugh Willmott, *pers. comm.*). Three undecorated copper alloy lace tags or aiglets were also found, all of which were excavated from flowerbed fills within the main parterre area. Lace tags were terminals encasing the ends of clothing laces to enable them to be tied more easily; the three tags within this assemblage are made of rolled tubes with butted seams, matching Margeson's typology Type 2 (1993, 22) and Ottoway and Rogers typology Type E (2002, 2913). They date from the 14th to the early-17th centuries (Portable Antiquities Scheme, 2019d), skewing towards the latter half of this period (Margeson, 1993).

Figure 4.12: Medieval book clasp, excavated from context [JA 187] (author's image).

Figure 4.13: Seal matrix, excavated from context [K 21] (author's image).

Figure 4.14: Medieval buckle, excavated from context [JC 202] (author's image).

Figure 4.15: Strap end, excavated from [K 19] (author's image).

4.4b. Archaeological and spatial context

Analysis of the context type groupings from which the medieval assemblage originated (see Table 4.1) demonstrated that the majority of the pottery was excavated from within the fills of parterre flowerbeds. The spatial distribution analysis of this pottery as it was recovered (see Figure 4.16) shows that medieval material was exclusively excavated from the north end of the main parterre. An unusual peak in the number of vessels can also be seen in the spatial analysis, as flowerbed fill context [JA 431] contained ten sherds, all of a brown sandy fabric. This could represent the post-depositional disturbance of a medieval deposit originally located below this flowerbed. Other contexts containing medieval pottery include topsoil layers, the fills of modern service trenches, and the backfill of the 1950 excavation.

Four of the seven medieval small finds came from the fills of parterre flowerbeds, as well as one each from [JC 202], a pathway foundation to the south of the site, [K 19], a modern service trench within the inner courtyard, and [K 21], the backfill of a 1950's excavation trench. Spatial distribution analysis of these contexts has shown that the small finds were distributed mostly within the north main parterre, concurrent with the pottery assemblage, suggesting that medieval deposits were particularly disturbed within this area. However, the small number of objects limits the potential for further interpretation of spatial distribution, as does the complex sequence of post-depositional activity at Audley End; this will be discussed further in Chapter 4.5e.

Table 4.1: Table showing the number of medieval pottery sherds divided by context type.

Type of context	**Context numbers**	**Number of sherds**
Topsoil	[JA 5]	2
Flowerbed fill	[JA 32], [JA 139], [JA 147], [JA 158], [JA 166], [JA 199], [JA 373], [JA 431], [JA 619], [JA 647], [K 52], [K 127], [K 140], [K 218]	25
Layer	[JA 33], [JA 126], [JA 163], [JC 202], [JE 408]	6
Modern services and trenches	[JC 209], [K 12], [K 32]	3

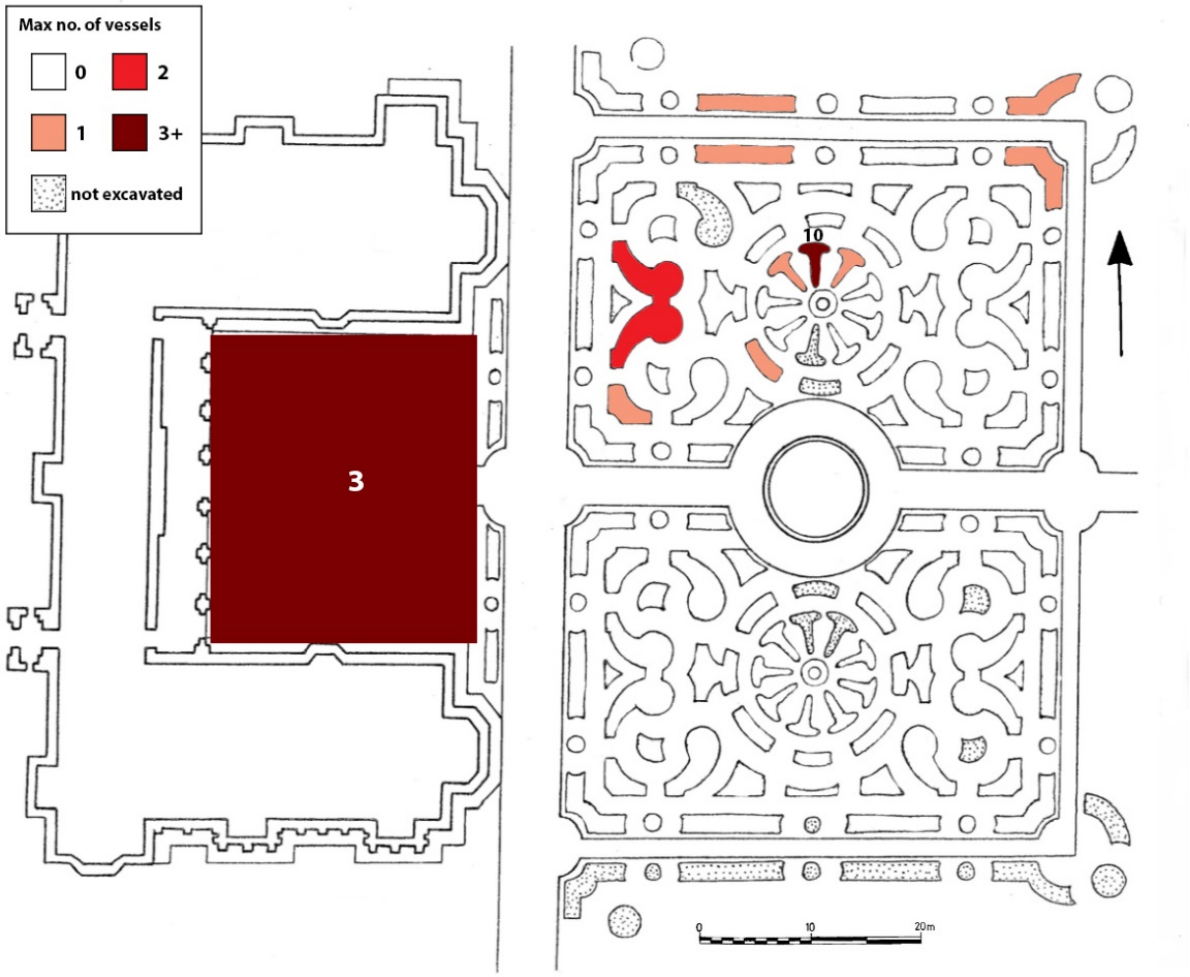


Figure 4.16: Diagram of parterre (Cunningham, 1987b, 11) showing number of pottery fragments of medieval fabric types within each flowerbed fill. © English Heritage.

4.5. Discussion

4.5a. The layout of Walden Abbey

Archival analysis allowed for a re-exploration of the archaeological evidence for Walden Abbey uncovered during the 1985-1987 excavation. A potential blueprint for the abbey was previously established, using historical documents and small archaeological interventions, by Paul Drury (1982b). The parterre excavation further illustrated this blueprint, revealing more of the church and monastic cloister. It also uncovered buildings that formed an eastern claustral range,

including a possible dormitory, reredorter, and chapter house vestibule. As such, the excavation emphasised Drury's interpretation that Walden Abbey followed a conventional Benedictine layout. More originally, the 1985-1987 excavation showed how the structures could have developed over time, suggesting phases of expansion in the late 12th-early 13th and the 14th century. However, the methodology of the parterre excavation meant that medieval features were revealed in the sides and bases of keyhole-like trenches which were not targeted to the monastic buildings. As such, both opportunities and limitations inherent within the excavated record need to be evaluated.

In the interim reports and drafted site report, Harris and Cunningham presented compelling evidence for the placement of the church to the north, which was expanded at its eastern end to accommodate changing religious activity, and a central cloister made up of eight vaulted and arcaded bays that corresponds to the footprint of the later house. Additional evidence was provided for an eastern range, which included a reredorter and a two-storied building that could be the refectory, as well as the doorway into a potential chapter house. They also showed that, although the medieval site sloped upwards to the north, this was mitigated through differing foundation depths so that the abbey could be laid out conventionally, unlike at other Benedictine sites such as Battle Abbey where buildings were laid out differently in response to topographical challenges (see Greene, 1992, 12).

The parterre excavation combined different foundation styles with documentary sources to demonstrate three key periods of architectural development at Walden Abbey: an initial stone foundation in the late-12th to early-13th century, additions in the 14th century, and smaller changes in the 15th to early-16th century. This suggests that the monastery was gradually expanded across the medieval period, a common occurrence within abbeys across England (Coppack, 1990, 46). The expansion could have been inspired by a growth in the size of the community, the investment of financial support from benefactors including the de Bohun family in the 14th century (Drury, 1982b, 97), and by increased income enabled by the ownership of agricultural and commercial assets such as Brookwalden market. The size of monastic buildings, in particular the church and chapter house, was also symbolic of the dedication of the establishment to God (Greene, 1992, 6), providing additional spiritual

motivations for particular financial endowments. The financial health of the monastic community also hints at an economic motivation in Thomas Audley's seizing of Walden Abbey after the Dissolution of the Monasteries.

Alterations to the monastic fabric could also reflect changes to liturgical practice which are under-discussed within the site report. In particular, Harris and Cunningham found that the chancel of the monastic church had been developed in four stages. They uncovered 13th-century foundations representing a rectangular chancel with an enclosed chapel space at the eastern end, which was then expanded in the 14th century into a much larger chancel with two enclosed areas in the southern aisle. The chancel with the high altar and choir stalls was the most spiritually important space in the church, key to the seven daily services dictated by Benedictine rule (Greene, 1992, 6); its expansion could reflect changing liturgical practices, especially in the 13th and 14th centuries, when developments in the liturgy of mass "demanded a richer and more spacious setting" (Burton, 1994, 140). Another alteration was found in the screening of the tiled area of the south transept and the blocking of the doorway in the transept's western wall, perhaps delineating the space as a subsidiary chapel.

Harris and Cunningham convincingly showed that later iterations of the chancel were misaligned, with the east end angled further northward than the main body of the church. In the drafted site report, Harris argued that the misalignment originated in parts of a Period Two (1164-1258) retrochoir wall, which was reused during the chancel expansion. In their analysis of rural medieval churches, Hinton (2010, 156) estimated that around 20% of them had misaligned chancels, varying in severity and direction, thus suggesting that an orientation towards true east was difficult to obtain during building construction and expansion. This supports Harris' perspective that the misalignment of the chancel was unintentional. However, an alternative explanation can be presented when considering the potential location of a monastic cemetery to the south of the church, as defined in Chapter 4.5b; the chancel was perhaps reoriented to avoid notable burials.

Other elements of Walden Abbey's layout were less securely defined. In particular, Harris and Cunningham's plan of the monastic chapter house was entirely reliant on hypothesis, as only a shallow trench was excavated in this area to reveal the central feature of the 19th-century

parterre garden. The placement of a chapter house here conforms to other Benedictine monasteries (Burton, 1994; Bond, 2018) and would fit between the better-defined buildings. Harris (1997) also hypothesised that its final iteration was built in the later-13th century, as fragments of stonework estimated to date from this period were found within flowerbed fills but did not match the construction of the other buildings. With no foundations being uncovered to the east of the 19th-century central feature, the chapter house was therefore planned as a polygonal building within the negative space, using parallels at Westminster, York, Southwell, and West Dereham (Harris, 1997). However, the dating and layout of this building remains unproven; the majority of monastic chapter houses were rectangular (Bond, 2018, 573), the later-13th century date is only conjectural, whilst the chapter house's eastern end could have been removed by landscape change thus not identified during excavation. This shows that the 1985-1987 excavation, although revealing parts of the monastic foundations, was far from comprehensive.

Beyond the construction-phase analysis of the monastic buildings, the parterre excavation was an under-utilized opportunity to reinterpret the materiality of the structures themselves, suggesting how monastic space was defined and decorated. The excavation of the 14th-century tile floor within the south transept shows that parts of the church were paved with green-glazed tiles, some of which have decorative elements; ongoing research will enable a better understanding of the motifs and meanings of this decoration (Paul Drury, *pers. comm.*). Although the medieval walls were not excavated, large quantities of monastic stonework were recovered from flowerbed fills, especially in the inner courtyard, and from the foundations of 19th-century paths. This showed that cloister vaulting and other stonework fragments were decoratively carved and painted in red and white patterns, showing how parts of Walden Abbey were decorated throughout different mediums. This suggests that the church and cloister were constructed and shaped to be visually impactful, engaging the senses holistically as part of religious practice. A further evaluation of the monastic stonework assemblage would aid this reinterpretation of Walden Abbey's built remains.

4.5b. Interpreting monastic burials

The 1985 to 1987 excavation also uncovered a group of at least 11 articulated inhumations and 15 disturbed burials to the eastern end of the site, some of which were underneath the possible reredorter. As outlined in Chapter 4.3a, burials were uncovered to the east of the parterre garden during its construction in the early-19th century (Griffin, 1836, 66). Taken together, this suggested that a cemetery was situated to the south and east of the monastic church and chapter house, which was then disturbed by the cutting of the parterre flowerbeds. The 1985-1987 excavation revealed parts of the burial deposits, allowing their placement and orientation to be defined, albeit with limited interpretation. This is due to both the Chelmsford Archaeological Trust's focus on the structural remains of the abbey and their methodology in excavating only 19th-century garden contexts, which limited the analysis of the archaeological record as a whole. As such, the burials at Walden Abbey require further evaluation within the limits of the extant archive.

Historical research into Walden Abbey suggests that, during the 12th to 15th centuries, patrons of the abbey chose to be buried at the site (Drury, 1982b, 97). In this period, monasteries had a spiritual and social duty to provide a burial place for their founders (Greene, 1992, 4), although this could be complicated by practical and political concerns (see Daniell, 2005, 79). At Walden, some benefactors explicitly defined their burial location within the church; Humphrey de Bohun, for instance, was buried in 1258 on the north side of the Lady Chapel (Drury, 1982b, 97). Elite secular burials within the church building became more common from the 13th century onward (Coppack, 1990, 59) and acted to assert the social identity and religious piety of elite families, as well as enabling intercessory prayer for the souls of the dead (Mays, 2012, 181). However, only one burial was found within the church building, which was a disarticulated 'pit' burial without any dress accessories or coffin furniture that could allow for further interpretation.

Indeed, the majority of burials found during the 1985-1987 excavation were placed outside of the religious buildings, suggesting that they represented inhumations within a cemetery. Lay communities were sometimes buried in a demarcated cemetery area within the monastic precinct (Mays, 2012, 181); Walden Abbey may have been used in this way by the Brookwalden

community, although they were also served by the manorial church in Saffron Walden which was founded in the mid-12th century (Bassett, 1982, 21). In contemporary Benedictine monasteries, however, lay burials were placed on the opposite side of the church to the claustral buildings, thus mostly to the north of the church (Greene, 2005, 159; Bond, 2018, 575). Gilchrist and Sloane (2005, 32) also noted that lay cemeteries were sited close to the precinct gateway, which at Walden Abbey probably sat at the north-west corner (Drury, 1982b). As such, it seems likely that if there was a lay cemetery at Walden Abbey, it would have been situated to the north of the parterre garden; historic references to burials being recovered from this area with 13th-14th century dress accessories (Drury, 1982b, 99) further supports this perspective.

In contrast, a cemetery for the monastic community was often placed to the east of the inner precinct (Gilchrist and Sloane, 2005, 60; Greene, 2005, 7; Bond, 2018, 575), which matches the location of the recovered inhumations. Harris and Cunningham found that the grave cuts did not disturb other burials, suggesting that they were managed; the central burials appear to form a row, further implying that they were broadly contemporary with each other (Gilchrist and Sloane, 2005, 47-51). The graves' orientation, on a north-west/south-east rather than north/south alignment, could reflect a misalignment in the earliest abbey buildings or precinct boundaries, which were used to orientate burials in other cemeteries (Gilchrist and Sloane, 2005, 47). Bassett (1982, 6) suggested that the southern precinct boundary was originally on a north-west/south-east slant, correlating with the burial orientation, before being straightened in the later-13th century. The placement of several inhumations within the possible Period Two (1164-1258) reredorter also suggests that they predate this building. As such, the most plausible interpretation is that the articulated burials represent a monastic cemetery in use before the 13th century, which was then moved, possibly further to the east, as the eastern claustral range was expanded.

The disarticulated skeletal assemblages also require further interpretation. These were likely individual burials, as each had a skull placed at the top, placed within a narrow pit feature. The majority were situated in the same area as the inhumations discussed above, excluding one that was plotted as being within the south aisle of the church's chancel (Harris, 1997). The

interim and site reports suggest that they represent the reburial of medieval remains which were exhumed during post-Dissolution building and landscape clearance. It seems likely that burials would have been disturbed whilst Walden Abbey was being transformed into a gentry house; as Greene (2005, 32) stated, "when adapting a complex of monastic buildings as a gentleman's residence, the presence of burials…did not prevent the digging of foundations, laying of drains or creation of gardens". The disarticulated burials may therefore represent the disturbance of medieval graves, possibly from within the church, chapter house, or cloister, which were then reburied outside of the converted house, in an area where other medieval burials were still situated.

An alternative interpretation is that the disarticulated burials are charnel pits, containing skeletal material that was collected during grave-digging or building activity whilst the monastery was in use (Gilchrist and Sloane, 2005, 195; Crangle, 2016). This would explain the deliberate placement of individual skulls within the pit deposit, perhaps reflecting some level of reverence or care in the treatment of disarticulated remains (see Crangle, 2016). However, this would not explain why the material was placed within the reredorter, as charnel pits were usually placed within religiously significant buildings, or why one was cut into an inhumation deposit. Understanding the creation of the disarticulated 'pit' burials is made challenging by the partial recovery and recording of the skeletal remains, and associated stratigraphy, due to the restoration-led excavation methodology applied. As such, the interpretation of medieval burials and reburials at Walden Abbey presented here is subject to reevaluation if further osteological research or archaeological excavation occurs.

4.5c. The procurement and use of ceramic vessels

Pottery is a common find during the excavation of medieval monasteries as ceramic vessels were used for a range of different activities, including food and drink procurement, storage, preparation, and dining, as well as horticultural activities, for sanitation and medical treatments, and in religious contexts (Moorhouse, 1991; 1993, 129). The uses of pottery were numerous, regionally variable, and integrated with other kinds of material culture. Analysis of the fabric types, forms, and functions of this assemblage is therefore an opportunity to consider how pottery was obtained and used by the monks of Walden Abbey. The procurement

of resources into Walden Abbey has been difficult to explore due to a lack of documentation. Most notable is the absence of obedientiary accounts, which have informed scholars about the income and expenditure at other monastic establishments, including the purchasing of pottery vessels and some of the materials held within them (Moorhouse, 1993, 127). Most of the vessels were made of local courseware fabric types, suggesting that they were probably obtained from the surrounding area. However, it is also likely that economic and administrative travel would facilitate the movement of pottery and goods from wider geographical areas (Moorhouse, 1993, 130); the Dutch redware sherds, for instance, were imported to England, through ports on the east coast. Further analysis of the other fabric types by a medieval pottery specialist would enhance our understanding of ceramic procurement at Walden Abbey.

The various uses of pottery vessels at Walden Abbey can also be considered. The highly proscribed nature of monastic life included the provision of standardised cooking at a large scale, to accommodate regular meals for the community. Pottery vessels were used to store, prepare, and to serve food and drink; everyday pottery has been uncovered from monastic kitchen and refectory complexes, consisting mostly of drinking vessels as well as specialist cooking and serving implements (Greene, 1992, 149). Within the assemblage, several coarseware cooking jars or pots are represented. These had a generalised purpose within a monastic context and would have been used for both cooking and storage (Moorhouse, 1993, 128); evidence of sooting demonstrates that at least one of these vessels was held over an open flame during food preparation. The three Dutch redware sherds are likely from storage jars or bowls as they lack the thumbed base common to handled cooking pots in this fabric (Baart, 1994, 24–26), part of the domestic food preparation and serving assemblage.

Five sherds of ‘Tudor Green’ ware were also uncovered during the excavation, a pottery type produced from the 14th until the 16th century, when it was overtaken by other fine tableware types (Pearce, 1992). Three of these pieces originated from a small, closed vessel, perhaps representing a drinking vessel or another form of specialised tableware. This material could have been used by high-status visitors to Walden Abbey or could instead be a part of the tableware of the Tudor house, which was more likely to integrate high-quality pottery types. This demonstrates the difficulties inherent when assigning unstratified pottery sherds to date

groupings and thus to historical structures or events; nuance is required when analysing an uncontextualized material culture assemblage.

4.5d. Dress accessories and literary items

The medieval material culture assemblage also includes a small collection of metal small finds. Monasteries made use of metal objects for a range of functions including window and door furniture, kitchen equipment, writing instruments, book furniture, liturgical objects, and leisure items (Greene, 1992, 54). However, material culture studies relating to monasteries are relatively rare, with few holistic surveys encompassing the assemblages of different sites across geographical and temporal boundaries. Instead, the analysis of metalwork items from medieval monasteries is reliant on comparisons to corpora of items recovered from large-scale urban excavations (e.g., Margeson, 1993; Griffiths *et al*., 2007; Liddy, 2015) and metal-detected finds recorded through the Portable Antiquities Scheme.

Two of these small finds, the book clasp and seal matrix, relate to reading and writing practices. This kind of material culture assemblage, which could integrate various items of book furniture as well as pigments and writing implements (Breeden, 2018, 222), is unique to monasteries during this period; materials relating to literacy were rare outside of ecclesiastical contexts. Reading, in particular, was uniquely situated at the heart of monastic life. The interpretation of and meditation upon holy texts, termed *lectio divina* or divine reading, was prescribed within daily life (Kerr, 2009, 21), and monasteries increasingly became centres of intellectual knowledge through both public and private reading practices (Howsam, 2016, 227).

This is represented within the assemblage through the presence of the book clasp. The type of clasp is mostly found within the assemblages of excavations at wealthier houses under Benedictine as well as Augustinian orders (Howsam, 2016, 292); the example from Walden Abbey, a Benedictine establishment, fits this pattern. The production and procurement of book furnishings was first summarised by Howsam (2016, 137) who found that, by the mid-13th century, “secular and commercial book production in urban centres” replaced monastic production. This furnishing, dating to the 14th-15th centuries, was therefore likely imported as part of the book it belonged to. However, the chain of production and procurement that led to

this book being at Walden Abbey, whether donated by a patron or purchased from an urban centre, remains obscure.

Correspondence with other establishments was also important to the monastic community, represented within the assemblage by a singular seal matrix. Seal matrices were used to make impressions on wax seals, both to authenticate correspondence and legal documentation, and to keep documents closed whilst travelling (Portable Antiquities Scheme, 2019b). Medieval monasteries had institutional seals, which were divided by Ellis into common seals used by the general community, abbots' seals, and seals of jurisdiction (Ellis, 1986); some of these seals represented the monastic establishment whilst others displayed religious motifs (see Ellis, 1986; New, 2002). Seal matrices are a common find within material culture assemblages in monastic contexts (Greene, 1992, 54), so it is possible that this object was used by Walden Abbey's community. However, the illegible inscription means that it is difficult to assign to a particular date period; seal matrices were also used in the early modern period.

The remaining assemblage of copper alloy items consisted of personal items relating to dress and accessories, namely a buckle, a possible strap end, and three lace tags. Dress accessories are common to monastic sites, reflecting the utility of everyday dress but also how social status was expressed by abbots and secular visitors (Cassels, 2013). However, this assemblage also lacks a stable date range assignation, and dress accessories remained common throughout the medieval and early modern transition. This again demonstrates the complexities in analysing a small assemblage that is divorced from its original archaeological context, limiting the potential of object biographical approaches.

4.5e. Depositional and post-depositional processes

As noted above, the material culture assemblage from Walden Abbey was not recovered from its original depositional context. The discovery of residual medieval materials within later deposits is common during the excavation of monasteries that were occupied after the Dissolution, especially when significant architectural and horticultural changes have taken place (Moorhouse, 1993, 129). No medieval rubbish deposits or occupation layers were excavated during the 1985-1987 project, so it is difficult to explore the differences between what was

originally thrown away and the assemblage discussed here. Spatial analysis of these redeposited objects within the flowerbed fills of the main parterre did, however, reveal interesting patterns for discussion.

The pottery assemblage was clustered towards the north parterre rather than being evenly spread throughout the whole area, suggesting the particular disturbance of materials in this area. The north parterre sits above the central religious complex of church, cloister, and chapter house, which is at odds with the domestic nature of the assemblage. As the material is not directly correlated with medieval deposits, this does not disprove Harris and Cunningham's plan for the layout of the abbey. Instead, it suggests that domestic material migrated from other areas. This could represent the disturbance of medieval deposits, potentially during the Dissolution, which scattered historic domestic refuse across the site. Another, perhaps concurrent, explanation is the levelling of the site during the Jacobean period that brought the north side of this area downwards (Cunningham, 1987a, 4); this meant that the parterre flowerbeds in this area were cut further into medieval and Tudor deposits.

The small finds assemblage was similarly residual. Spatial distribution analysis has shown that they were recovered from the northern half of the parterre area, supporting the interpretation that medieval and Dissolution-era deposits were more disturbed in this area. Personal items were often discarded casually through accidental loss or damage, hence their recovery across different medieval sites; they may have also been deposited while attached to organic materials, namely leather or fabric, that have degraded within oxygenated garden soil. Strap ends are sometimes found within monastic grave contexts (Gilchrist and Sloane, 2005) so this object could also have originated from disturbed burial deposits, but it is difficult to correlate the two. Howsam's (2016) overview of the deposition of monastic book fittings showed that books were sometimes deposited as they became damaged, whilst an alternative explanation for the presence of the book clasp is the on-site destruction of books during the Dissolution.

More generally, although the quantification of average material culture use is difficult to estimate on monastic sites (Moorhouse, 1993, 137), the medieval assemblage is surprisingly small for around 400 years of site occupation. There are two main reasons for this. First, the material culture record of monasteries is sometimes sparse. Greene (1992, 150) suggested that

"most pottery was doubtless removed from site, along with other rubbish, and spread on gardens or fields"; kitchen rubbish was composted to be used in gardens, and monasteries had advanced sewage systems that prevented the build-up of organic waste (Bond, 2001a, 54). Some areas of a monastic complex were unlikely to produce much waste, including the church, and dormitory range (Greene, 1992, 150). Preservation bias also leads to the underrepresentation of the certain objects, including metal cooking pots, pewter plates, and specialised brass vessels, which were recycled rather than discarded (Roebuck *et al*., 1987; Breeden, 2018, 206–207). Wooden objects including trenchers and handles, would also degrade quickly in well-drained garden soil (Greene, 1992, 150). As such, the material culture excavated from medieval monasteries can represent a small proportion of the objects used within them.

Secondly, the methodology of this excavation meant that sealed medieval deposits were left in-situ without being explored. Excavations at other monasteries have shown that material was thrown into disused features or discarded casually within buildings. In monasteries with enclosed and restricted spaces, such as the cells of a Carthusian monastery, archaeological material was unlikely to migrate across the site, providing invaluable information about the uses of these spaces (Breeden, 2018, 197). The 1985-1987 excavation did not access these archaeological deposits so did not recover material culture from them. The assemblage consists entirely of material disturbed from its original depositional context, which presents its own interpretative challenges; there is likely further medieval material culture underneath the parterre garden that remains unexcavated.

4.6. Summary

This chapter has outlined evidence for the medieval monastery revealed during the 1985-1987 excavation that was incidental to the aims of garden restoration. In reports held within the post-excavation archive, Harris and Cunningham built upon previous research to further illustrate that the abbey was situated around a central cloister with a church to the north, providing a more detailed blueprint of the eastern claustral range. They also suggested that the abbey was expanded in several phases, with the bulk of structures dated to the late-12th and

early-13th centuries. Additionally, the excavation found a series of burials that could represent the location of the first monastic cemetery, alongside disarticulated 'pit' burials with a more obscure provenance. As such, the parterre excavation enhanced understanding of the temporospatial development of Walden Abbey, reflecting the actions of patrons, a growing monastic community, and changes to liturgical practices. However, the excavation trenches were not targeted to the medieval structures, which were instead glimpsed within the unusually shaped parterre beds; this thesis thus suggests that some interpretations made in the post-excavation reports were overly assumptive. The restoration-led methodology also meant that occupation layers, burials, and associated artefacts were kept in-situ rather than being excavated, limiting research into the dating, functions, and materiality of medieval features.

This chapter also presents the first analysis of the medieval assemblage excavated from the Audley End parterre garden, which was not undertaken during post-excavation processes. Pottery analysis has revealed a mixture of everyday coarsewares and imported Dutch redwares used for food preparation and storage, as well as a small quantity of tableware in 'Tudor Green' fabric that could have been used at the abbot's dining table, by secular guests, or within the post-Dissolution house. The small finds assemblage predominantly consists of dress accessories, which are common finds within medieval contexts. More unusual is the discovery of a medieval book clasp which reflects the importance of divine reading within monastic orders. The assemblage, however, reflects a small quantity of material and is only part of a much broader material culture package recovered from more thorough excavations of monastic complexes elsewhere.

Indeed, this chapter suggests the influence of garden bed assemblage taphonomy and restoration-led excavation methodology on the pre-garden material culture assemblage. It revealed the presence of an uneven distribution of fragmentary medieval material within the parterre soil, which can be interpreted as being disturbed from its post-depositional context when the flowerbed fills were excavated, as discussed further in Chapter 8. The ceramic vessel assemblage was fragmentary and scattered across the north of the site, towards the monastic church, cloister, and chapter house. The distribution of the assemblage is perhaps surprising as the central religious complex is usually found to be aceramic, yet can be explained in the post-

depositional disturbance of archaeological deposits, both during the destruction of the abbey in 1538 and by landscape levelling in the construction of Audley End House. However, no sealed medieval contexts were excavated during the 1985-1987 project, so it is impossible to explore the biography of the medieval assemblage in comparison to in-situ deposits. In this way, the analysis of structural features and artefacts from the 12th to 15th centuries found within and underneath the 19th-century parterre garden has shown the challenges of interpreting pre-garden material found within horticultural contexts.

5. Audley Inn, 1538-c.1605

5.1. Introduction

This chapter evaluates archaeological evidence for Audley Inn, the gentry house built out of the ruins of Walden Abbey by Thomas Audley, that was revealed during the 1985-1987 excavation. Firstly, it situates Audley Inn within the context of the Dissolution of the Monasteries, the development of Tudor gentry houses, and the biography of the house's successive owners. It then outlines the structural evidence for Audley Inn's construction, which was glimpsed within the bases and sides of the parterre beds, confirming that some monastic buildings were demolished whilst others were transformed into a courtyard house with parallels to contemporary buildings, as well as discussing the recovery of disarticulated burials that may have been redeposited during the Dissolution. This chapter then outlines research into the composition, spatial context, and biography of the domestic material culture from this period as excavated from within the parterre garden. This shows that the recovered domestic material culture primarily related to drinking practices but was only a partial representation of the types of objects that could have been used within the house. The chapter thus emphasises how research into Audley Inn using the parterre excavation archive is limited by later changes to the house and gardens, and by the garden restoration-led excavation and recording methodologies.

5.2. Historical background

5.2a. The Dissolution of the Monasteries

The Dissolution was part of an ongoing process of religious reform in western Europe, dismantling the devotional Catholic practices that underpinned late medieval society, thus considered by historians to be "responsible for the rupture of the medieval order and the foundation of modern society" (Gaimster and Gilchrist, 2003, 1). Monastic dissolution was part of reformist policy, ensuring obedience to the new church and removing potentially corrupt institutions from the religious landscape. The Reformation had additional political benefits for Henry VIII. The 'King's Great Matter', the annulment of his marriage to Catherine of Aragon and successive marriage to Anne Boleyn, was achieved through the 1534 Act of Supremacy which declared Henry to be Supreme Head of the English Church (Gaimster and Gilchrist, 2003, 1). The process also had financial benefits; the seizing of monastic assets massively increased crown

income to fund military campaigns and created a system of the gifting of monastic lands to favoured courtiers. Surveys undertaken in 1535 and 1536 by the Court of Augmentations, which produced the *Valor Ecclesiasticus* and other documents, outline the material wealth of monasteries when these surrendered (Greene, 1992, 179).

The Dissolution of the Monasteries was completed by 1540 with far-reaching religious, social, cultural, and material implications. The dominating academic paradigm of the 19th and 20th centuries was that it led to the wholesale demolition of monastic buildings, leaving the stone shells of once-thriving religious communities dotted across the landscape, the visual power of which stimulated a "consciousness of the past" within contemporaries (Aston, 1973, 231). Archaeologists have often argued that religious reform would render medieval religious structures obsolete; Steane, for instance, stated that "not many complete cloisters survive because after the Dissolution they served no useful purpose and were nearly always destroyed" (Steane, 1985, 71). Certainly, commissioners of the Dissolution were instructed to make monastic buildings uninhabitable, sometimes using gunpowder and professional demolition gangs (Greene, 1992, 182). The perception of 'bare ruin'd choirs' can also be connected to the clearance of rural monastic ruins by archaeologists in the 19th and early-20th centuries (Keevill, 2001); monasteries were presented as desolate, abandoned features within the landscape.

However, as early as 1937, Baskerville noted that the Dissolution "lends itself to more misrepresentation than any other event in our annals" (1937, cited in Willmott, 2020, 1). The idea that monasteries were completely demolished has since been proven false (Gaimster and Gilchrist, 2003; Willmott and Bryson, 2013; Willmott, 2020). Buildings and their materials were economically valuable, so were likely to have been preserved in some form rather than fully destroyed (Courtney and Gray, 1991, 145). In his study of Tudor gentry houses, Howard (2003, 221) noted that "as many as half of the dissolved buildings" may have been reused, whilst built landscape survey has shown how monastic structures were sometimes adopted and adapted by civil actors to fulfil community needs (Giles, 2003; Bromage, 2019). As Willmott (2020, 161) stated, "we should not underestimate the extent to which aspects of the monastic world were saved and curated", including architectural materials as well as books and portable furnishings. Some monasteries were also converted into Tudor gentry houses, which included Walden Abbey, dissolved in 1538.

5.2b. Tudor gentry houses

The demography of the gentry was also undergoing major changes during the Tudor period. Moving away from the medieval class system, which was a militaristic hierarchy of dukes, barons, and knights, the complex administration of the Tudor government and increased secular education encouraged the social aspirations of lawyers, politicians, and bureaucrats (Cooper, 1999, 8). This was further instigated by the movement towards a centrally administered legal system, including the strengthening of state courts and the establishment of new ones including the Star Chamber (Girouard, 1980, 84). Within this socially mobile group, country houses were a means to establish economic and social legitimacy for non-hereditary nobility (Airs, 1995, 16). The Dissolution created a large land market for those with the wealth and power to apply for the purchase of former monastic estates that could be used for the construction of these manor houses (Airs, 1995, 26). Archaeological research has now shown that most ex-monastic establishments were re-purposed for secular occupation at some scale (Willmott, 2020, 162); the expediency of many conversions also suggests that these buildings were both a representation of the architectural ideals of the gentry in the 1530s and that they reflect innovative individualised adaptations (Howard, 2003, 221).

The most noted example of a post-Dissolution house is Lacock Abbey (Wiltshire), where Sir William Sharington used building materials from the demolished abbey church to construct two storeys of accommodation around the former medieval cloister, much of which is still standing (Clark-Maxwell, 1913; Greene, 1992, 188). Documentary research has demonstrated that a similar process of conversion occurred at Titchfield (Hampshire); letters between Thomas Wriothesley and his agents show the frenetic speed with which the cloister was transformed into a domestic residence with a southern entrance range (Howard, 2003, 223). Conversions have also been explored through archaeological projects including at Norton Priory (Greene, 1989), whilst Willmott has provided a new perspective on the creation of more modest houses such as Kington (Wiltshire) and Burnham (Buckinghamshire) priories (Willmott, 2020, 163). These examples have suggested that, rather than the wholesale demolition of monasteries, cloisters and abbots' lodgings sometimes formed the basis for Tudor gentry residences, whilst associated churches and religious buildings were demolished and re-used as building materials or as landscape features. Howard (2003) noted that houses built by the gentry using monasteries obtained through the Dissolution were often constructed as courtyard houses over the blueprint of the medieval cloister. However, these studies rarely consider how the process

of conversion was influenced by, and itself influenced, the socio-political and religious values of their creators; did this process invoke a sense of loss (Aston, 1973), triumph, or of indifference?

The development of converted Tudor houses also intersected with broader architectural trends. Medieval elite residences were outward displays of vertical social hierarchy; upstairs areas were reserved for the upper classes, castellated gate towers depicted militaristic control of the local area, whilst the layout of halls reflected the segregation of dining between nobility and their peasantry (Cooper, 1997, 116). The change in the Tudor world toward peer-group sociability led to architectural change; buildings no longer represented class hierarchy, instead representing individualistic status as this was a more useful motif within a lateral social network. The development of the Tudor gentry also initiated the development of rooms specifically for social activities; household staff were increasingly distanced, whilst central and upper spaces were shared by peer groups. The great chamber evolved from the medieval hall, providing a space for the ritual of dining activities (Cooper 1999, 293), whilst Girouard (1980, 88) drew attention to the use of these spaces in masques, plays, musical performances, and family prayers. Another consideration in the delineation of rooms was changing attitudes to private contemplation and devotion. Although the prevailing expectation of early modern houses is of the destruction of religious space, many houses included chapels for domestic worship with the father of the household acting as 'priest' (Howard, 2015, 18). The development of galleries and studies, meanwhile, provided a space for contemplation and scholarship, as well as conversation and visual display (Cooper, 1999, 300).

5.2c. Sir Thomas Audley, Lord Chancellor

Sir Thomas Audley (1487-1544) was the son of the administrator of Berechurch in Essex (Ford, 2004). He studied at Cambridge and was admitted to the Inner Temple in 1510, becoming a lawyer and politician, part of the aspiring secular gentry. Audley was an influential yet under-researched figure, perhaps because his extensive career created a large body of legal

documentation (Prall, 1973, 130). The most extensive biography was collated by Ford (2004) which outlines his political ascendency. Audley achieved the position of Lord Chancellor in 1533 after the downfall of Thomas More (Coros and Davidson, 1982); in 1538, he was made Baron Audley of Walden and was knighted two years after, in recognition of his status within the royal court (Ford, 2004). Outside of his political career, he is best known for re-founding his alma mater, Buckingham College in Cambridge, as Magdalene College in 1542 (Roach, 1959, 450).

Figure 5.1: Thomas Lord Audley of Walden, holding the 'Grant of the Abbey Walden', painted by Biagio Rebecca in c.1774 (English Heritage, c.2020a). This painting is incorporated into the panelling in Audley End's saloon (Drury, 2014, 7). © Historic England Archive (J900316).

Audley has traditionally been seen as a political opportunist. Working with the chief minister, Thomas Cromwell, Audley led the House of Commons to approve the break with Rome and the Dissolution of the Monasteries, as well as suppressing the Pilgrimage of Grace (Ford, 2004). In response, Audley obtained various monastic landholdings; the 17th-century historian Thomas Fuller (1607/8-1661; see Patterson, 2008) wrote that "in the feast of abbey lands, King Henry the Eighth carved unto [Audley] the first cut" (Fuller, 1665, cited Nuttall, 1840, 508). However, this conservative perspective of Audley as a self-serving secularist was in contrast to Fuller's contemporary David Lloyd (1635-1692; see Cooper and Lacey, 2004), who argued that Audley was "quick, solid, apprehensive and judicious" (1670, cited Ford, 2004). The latter has informed a later reappraisal of Audley; both Lehmberg (1972) and Ford (2004) perceive him to be an astute statesman, interested primarily in legal mechanisms and processes.

The Augustinian priory of Holy Trinity in Aldgate (City of London) was one of the first monasteries to be dissolved in 1532. The estate was given to Thomas Audley, who constructed Duke's Place, a large two-courtyard house created from the chancel and ruined nave, with "tenements on two levels around them" (Phillpotts, 2003, 300). These tenements were rented to lesser nobility, both providing financial benefits and invoking the impression of a cultured, courtly, society with Audley at the centre (Rosenfield, 1961); Ford (2004) noted that this became both a meeting place and an informal gaol. Through archaeological excavation within the former Duke's Place, Lea and Schofield (2005) showed that the windows of the first-floor banqueting house created a viewpoint across the ruined nave to those within the space, suggesting that monastic architecture was used to signify the success of the Dissolution to those who visited the house (Schofield and Lea, 2005; Stocker, 2005, 354).

By the end of the Dissolution, Audley had obtained further monastic holdings including St Botolph's, Prittlewell, Colchester, Tilty, and Rye in Essex, Gosbeck in Suffolk, and Holywell in Hertfordshire (Ford, 2004). Tilty Abbey was also converted into a house, with the ruined church again retained as part of the post-Dissolution landscape (Willmott, 2020, 141–142). Some of these were re-founded as religious institutions, whilst others were retained without conversion. These holdings represented a substantial property portfolio; by 1540, Audley estimated his income as being around £800 per annum (Ford, 2004).

Thomas Audley's most valuable asset was his main country house, Audley Inn. On 22nd March 1538, Walden Abbey surrendered to the crown (Drury, 1982b, 97). Audley was keen to obtain Walden as recompense for his actions in legislating the Dissolution, shown by a letter he wrote to Thomas Cromwell requesting him to petition the king on Audley's behalf (Audley, 1538, ed. Wright, 1843). Audley gained the holding on 27th March and began to convert the abbey into a gentry residence which he called Audley Inn (Drury, 1982b, 97). The construction process was likely completed by his death in 1544; in Audley's will, he termed the property to be his "chiefe and capital mansion house" (Drury, 2011, 37). This shows how Audley Inn was important to his property portfolio and acted as an architectural representation of his status as a key political figure within Henry VIII's court.

5.2d. Post-construction history

The later history of Audley Inn is complicated by political scandal. Audley's death in 1544, not long after the house was constructed, meant the estate passed to his sole heir Margaret

Audley, and, through her second marriage in 1558, to his son-in-law Thomas Howard (1538-1572), the fourth Duke of Norfolk (Graves, 2008; Alexander, 2015, 11). Margaret died in 1564 so the estate was inherited by their three-year-old son, also called Thomas Howard (Croft, 2004). The elder Thomas was executed in 1572 for conspiring in the Ridolfi plot with Mary Queen of Scots, whom he had sought to marry (Graves, 2008). Howard's brother Henry (1540-1614), the 1st Earl of Northampton, thus assumed the guardianship of his children, including the younger Thomas Howard; he lived at Audley Inn with the family until around 1582, when he was arrested for Catholic worship (Drury and Gow, 1984, 41; Croft, 2008). By this date, the younger Thomas Howard was able to take ownership of the property of Audley Inn.

A full survey of 16th-century documentation was beyond the scope of this thesis. However, John Nichols' *The Processes and Public Processions of Queen Elizabeth* noted that, on the 26th of July 1578, Elizabeth visited Audley Inn (Nichols, 1823, 109). The royal visit was led by the University of Cambridge's Vice-Chancellor, who presented the Queen with gifts and an oration. She then retired to her chamber within the house, suggesting that Audley Inn had sufficient accommodation to facilitate a royal visit. The guests, including both members of the royal court and the heads of each Cambridge college, "went into a gallerie" for beverages then into the rooms of Robert Dudley, the Earl of Leicester, for discussion; the scholars then returned to Cambridge as "in Walden they could get no lodging" (Nichols, 1823, 113). It is unclear how Henry Howard, who owned Audley Inn at this time, was involved in accommodating the royal progress, although Nichols does record that he participated in the gift exchange.

In the Braybrooke scrapbook, there is a reproduction of a map of the estate dating to around 1600 (Alexander, 2015, 137; see Figure 5.2), correlating with how it would have been seen during the royal visit. The map depicts Audley Inn as a courtyard house, with three storeys rising from the northern range, and two storeys on the western, southern, and eastern ranges. It shows internal arcading within the courtyard that is very similar to the architecture of the medieval cloister, whilst a porch on the northern corner of the western side suggests that the monastic entrance was retained (Jeffrey, 2002, 28). It also shows an additional service range attached to the north-west corner of the house. More broadly, the map depicts a series of fishponds at the northern limits of the estate, which were found during modern landscape survey (Soutar, 2015, 34). Willmott discusses the retaining of monastic watercourses at Audley Inn as key to the Tudor landscape, both enabling practical access to water and informing garden design (Willmott, 2020, 142). The c.1600 map also shows the flourishing village of

Brookwalden to the south of the house, connected to the main property through a gatehouse. Although representative of a singular period in the house's history and beholden to artistic licence, this map is invaluable as a representation of the layout of Audley Inn within the estate.

Figure 5.2: Copy of a lost c.1600 map of Audley Inn and the estate, in the Braybrooke scrapbook, with north to the left (Alexander, 2015, 137, figure 49). DP111178 © Historic England Archive.

5.3. Archaeological evidence

5.3a. Previous research

The small quantity of archaeological evidence for Audley Inn found prior to the parterre excavation was uncovered within small exploratory trenches excavated in 1950 and 1979, summarised by Drury (1982a). In the north-east corner of the medieval cloister, archaeologists excavated two flights of steps and a wall placed to the west of the medieval tiled areas; these features were unrelated to either the medieval or Jacobean construction layers, suggesting that they were part of Audley Inn (Drury, 1982b, 99). The change in level which required steps downwards from the courtyard suggested that there was a cellar space in the north-east corner of the house. The lowest step of the flight, meanwhile, appeared to be a re-used medieval stair. Another wall projecting from the western side of the medieval cloister, uncovered during the

1979 excavation, showed the widening of the western range to accommodate a secular space, possibly a hall (Drury, 1982b, 100; 1984a). The excavations confirmed that Audley Inn's courtyard was based on the architectural form and materials of Walden Abbey; this suggested that the c.1600 map of Audley Inn was accurate and that more of the Tudor house would be uncovered during the 1985-1987 excavation season.

5.3b. Courtyard house

The excavation of the main and courtyard parterres revealed more of the conversion of Walden Abbey into Audley Inn (see Figure 5.3 and Figure 5.4), with some interpretation given in the post-excavation reports. The project's restoration-led excavation methodology primarily focused on the northern sections of the site with the monastic cloister at the centre. When the cloister foundations were uncovered, this confirmed that the architecture of the cloister had been retained into the Tudor period, although this had been superficially altered. A processional doorway built into the north-east angle of the cloister, which had connected the cloister walkway to the nave, was blocked; the walkway was then filled with medieval rubble and capped with boulder clay, raising the level of the floors (Harris, 1997). The vaulting shafts were kept in place, suggesting that the internal arcading was kept, although the rear sill was replaced with brick and the tracery was removed (Cunningham, 1987b, 5). The excavation therefore confirmed that the medieval cloister was retained by Thomas Audley as a partially open walkway, refaced in parts and connecting to other rooms within the house.

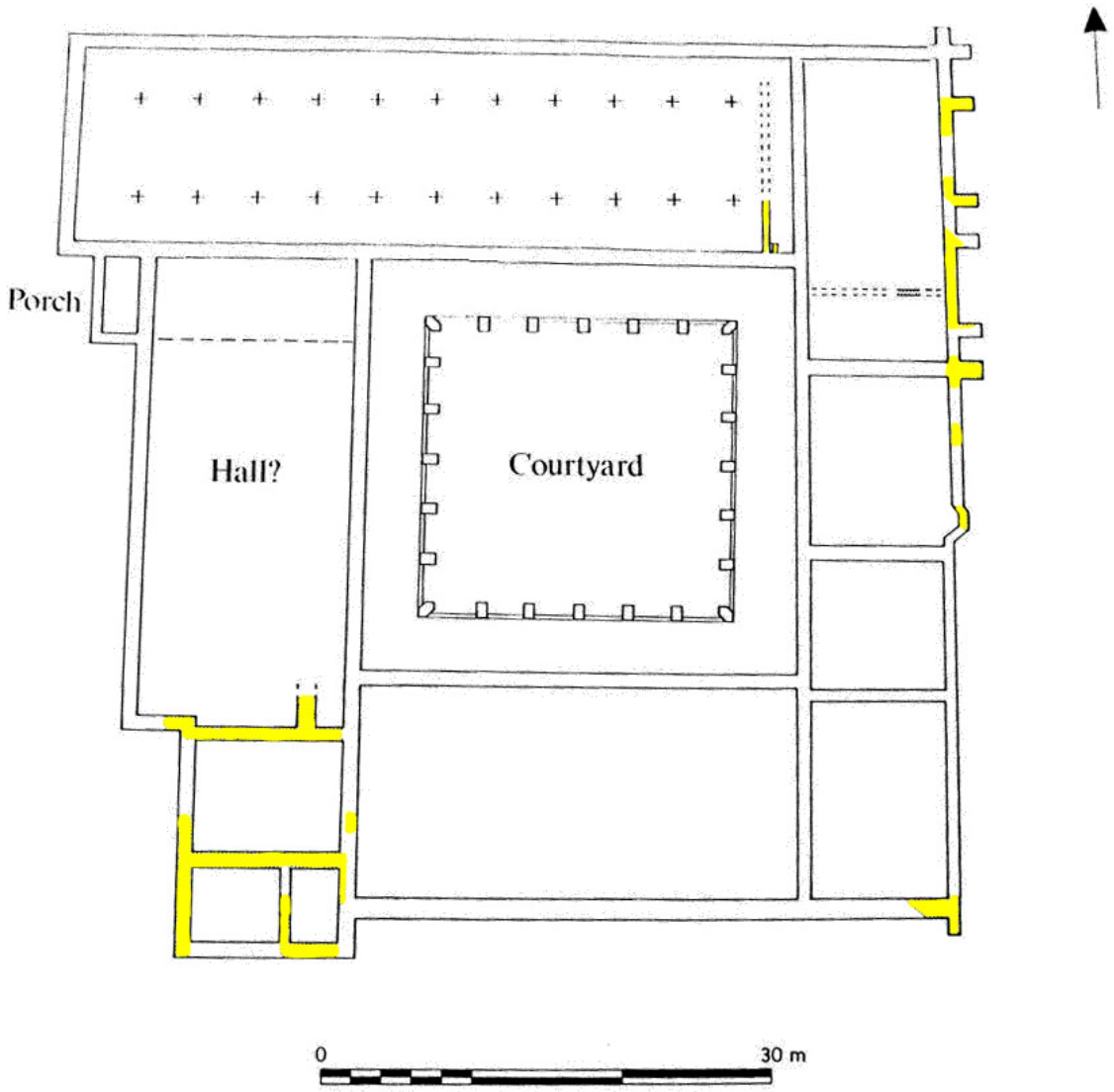


Figure 5.3: Proposed plan of Audley Inn (Harris, 1987, 87), with excavated wall foundations highlighted in yellow. © English Heritage.

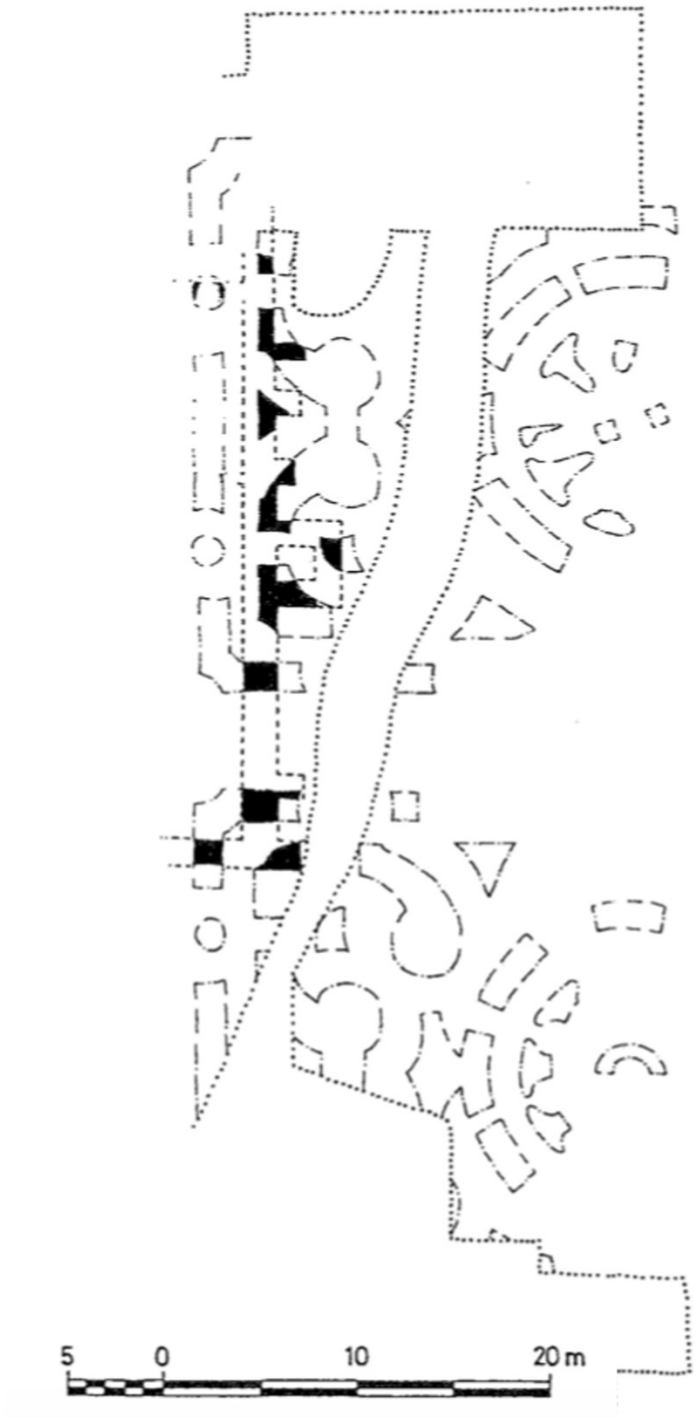


Figure 5.4: Plan of excavated wall foundations (shown in black) revealed during removal of flowerbed fills in main parterre, the trenches of which are outlined in dashed-and-dotted lines, overlaid with an interpretation of Audley Inn's potential layout in dashed lines (Cunningham, 1987a, 11). © English Heritage.

The 1986 excavation season also uncovered additional structures to the north-east of the current house, formerly the eastern end of the monastic church. This showed that the tower and presbytery were entirely demolished during the conversion, removing any standing material east of the crossing piers (Cunningham, 1987a, 6; Harris, 1997). The medieval nave and southern transept were shown to be altered as part of the construction of the Tudor northern range, the possible form which is recorded in the c.1600 estate map as having three storeys and an adjoining service range. The 1986 season revealed that the south-east corner of the south transept was enclosed as a space measuring 3.5 metres by 1.75 metres with a brick vault at the bottom, which was potentially used as a staircase or garderobe tower (Cunningham, 1987a, 7). Parts of the south aisle of the nave were also retained, with some of the 14th-century floor tiles left in situ (Harris, 1997).

The main parterre excavation in 1986 showed that the eastern claustral range was demolished as part of the process of conversion (Cunningham, 1987a, 6). Instead, a new buttressed wall was built on a north-south axis along the eastern edge of the site, truncating the medieval remains to create an eastern range approximately 11 metres in diameter (Cunningham, 1987b, 6; Harris, 1997). This wall was constructed with rubble from Walden Abbey and a similar white mortar to the 14th-century structures (Harris, 1997), which suggested that a visual continuity was deliberately created between converted medieval buildings and newly constructed walls. The demolition of the eastern monastic range beyond this wall again reflects the c.1600 map, which shows an open area to the east of the main house; however, the increased depth of flowerbeds towards the east of the parterre may have also demolished Tudor walls in this area. The excavation confirmed another feature presented in the map, with a break along the façade of the eastern range matching the topographical depiction of an interruption in the roofline, thus suggesting that the range was broken into two sections.

The strategy of the 1985-1987 excavation and the placement of the current house limited research into the southern and western ranges of Audley Inn. The 1986 season did show that the outer wall of the monastic southern range was demolished in places whilst the internal one was strengthened, reverting to the line of the medieval outer wall by the southeast corner (Cunningham, 1987a, 7). The southern side of the western range was also partially uncovered during limited excavations in 1979 and 1984; this showed that there was a chamber in the south-west corner of the Tudor house, separated into three different rooms and with a stair in its north-east corner (Harris, 1997). However, the functions of each of the four ranges of the

courtyard house remained unclear. There are also no traceable documentary records of the process of conversion at Walden Abbey and no occupation or demolition deposits were excavated, due to both the limitations of the project methodology and later landscape change.

5.4. Material culture

5.4a. Assemblage composition

The assemblage from the 1985-1987 parterre excavation included a small quantity of pottery with fabrics broadly attributable to the 16th century. This pottery assemblage contains 13 sherds weighing 187.5g, including one rim sherd and two base sherds. The fragments represent various fabric types, forms, and functions, encompassing a range of vessels expected within a Tudor gentry house made of both local and imported fabric types (see Table 5.1 and Figure 5.5). However, there are only a small quantity of pottery sherds and no other objects that can be dated to the 16th century, suggesting that the assemblage is a very partial representation of the materials consumed and deposited during this period.

Table 5.1: Table showing different Tudor pottery fabric types, MOLA codes and date ranges, and quantities within assemblage.

Pottery fabric	**MOLA code**	**MOLA date range**	**Number of sherds**	**Maximum number of vessels**
Beauvais sgraffito ware	BEAU	1500-1630	1	1
Cistercian ware	CSTN	1480-1600	4	4
Martincamp-type ware type 1 flask (buff earthenware)	MART1	1480-1550	2	2
Midlands purple ware	MPUR	1400-1750	4	4
Raeren stoneware	RAER	1480-1610	2	2

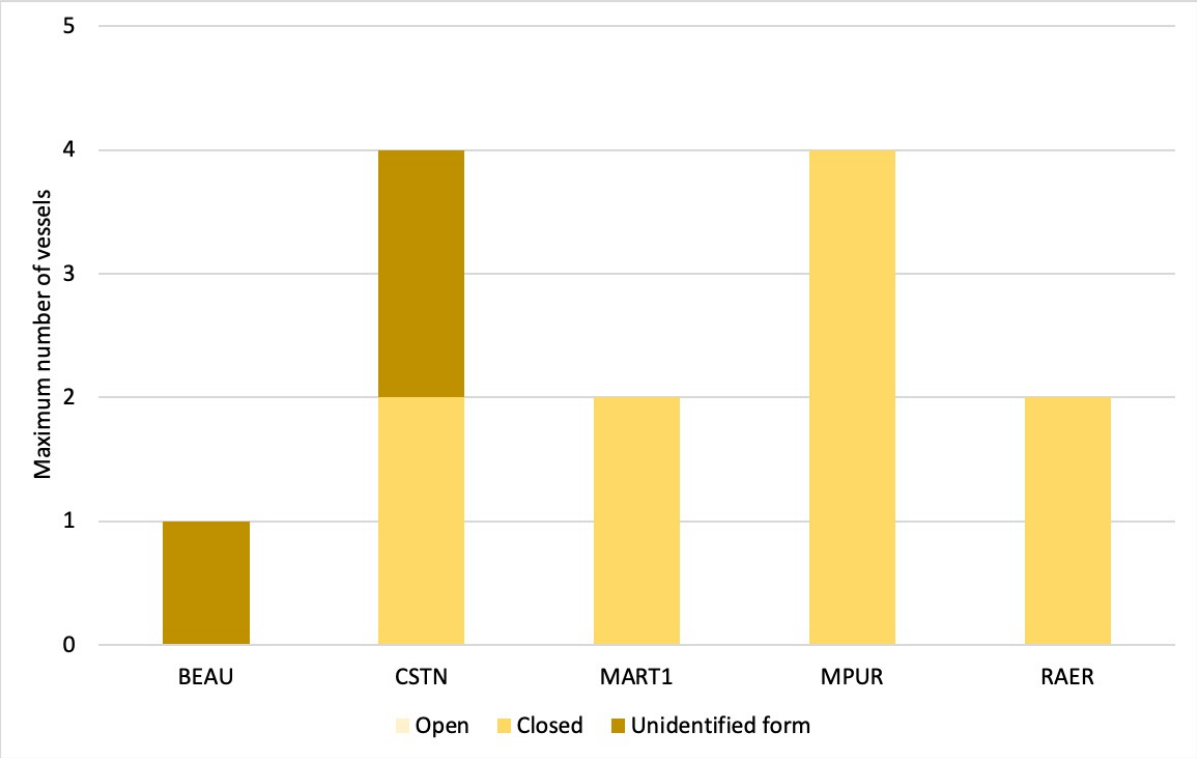


Figure 5.5: Graph showing the Tudor pottery assemblage subdivided by form and fabric

The assemblage includes four sherds of a highly fired dark purple fabric with a metallic appearance and infrequent white inclusions, defined as Midlands Purple ware (Wright and Hurst, 2010, 7), which includes one rim fragment of a closed vessel (see Figure 5.6). There are also four sherds of Cistercian ware, a finer dark red to brown fabric with a black glaze on both the interior and exterior surfaces (Wright and Hurst, 2010). This includes the bases of two closed vessels (see Figure 5.7), potentially small drinking vessels that are commonly found in this fabric type. These pottery types have some crossover between them due to their shared manufacturing locations; similar fragments with a redder fabric and smoother glaze have been categorised as post-medieval black-glazed redware and are discussed in Chapter 6.4.

Other fabric types imported to England throughout the 16th century were also represented within the Tudor assemblage. Two sherds (see Figure 5.8) appear to be of Martincamp type one ware (Helen Walker, *pers. comm*.), a thin buff earthenware fabric that was produced in France for export (Ickowicz, 1993; Straube, 2013, 27). This fabric dates to the transition period between Walden Abbey and Audley Inn; however, copies of Martincamp ware were also made in England and are dated later, so further analysis is required. There are also two sherds of Raeren stoneware, one of which is a drinking jug form (see Figure 5.9) similar to others excavated from domestic sites in London and dating from the late-15th to early-16th centuries

(Gaimster, 1997, 228). A yellow-glazed Beauvais ware handle (see Figure 5.10) with red slip and a wavy sgraffito design was also recovered during the excavation (Cotter, 2000, 252; Longworth, 2004).

In summary, 13 pottery sherds that could be dated to the 16th century were excavated from the parterre garden, consisting of both local and imported fabric types. However, these sherds are highly fragmentary so are difficult to identify. This assemblage is also very small, limiting the potential for discussion of the use and discard of Tudor materials. One reason for this is that early post-medieval redware, which was an "unglazed or partially glazed ware of 16th-century date" (Nenk, 1999), was not differentiated from either the later post-medieval redwares or flowerpot assemblage, so that more domestic pottery from this period has potentially been omitted from this analysis. Other explanations relate to the excavation methodology and to depositional and post-depositional context, discussed in more detail in Chapter 5.5c.

Figure 5.6: External (left) and internal surfaces of Midlands Purple ware sherd, excavated from topsoil context [JA 5] (author's image).

Figure 5.7: Cistercian ware base sherd with internal black glaze, excavated from flowerbed fill context [JA 130] (author's image).

Figure 5.8: External surface of two Martincamp ware type 1 flask sherds, excavated from unidentified layer context [K 409] (author's image).

Figure 5.9: External (left) and internal surfaces of Raeren stoneware body sherd, excavated from flowerbed fill context [JA 130] (author's image).

Figure 5.10: Beauvais sgraffito ware handle, excavated from flowerbed fill context [K 96] (author's image).

5.4b. Archaeological and spatial context

Analysis of the context type groupings from which the Tudor assemblage was recovered (see Table 5.2) shows that the greatest proportion of sherds, six in total, were excavated from the fills of parterre flowerbeds. Spatial analysis of these flowerbed fill contexts (see Figure 5.11) demonstrates that, as with the medieval assemblage, the Tudor material was broadly concentrated towards the northern end of the garden. A single sherd, the Beauvais sgraffito ware handle, originated from a flowerbed fill within the inner courtyard parterre. There are no particular peaks in individual flowerbeds, suggesting that the pottery represented residual material rather than the disturbance of in-situ rubbish deposits, although the general pattern in spatial distribution requires further interpretation.

The rest of the 16th-century pottery sherds were excavated from other context type groupings. Two sherds. both Midlands Purple ware, were recovered from topsoil context [JA 5] which sat over the main parterre area. The remaining sherds were recovered from different archaeological layers, which are more likely to represent contexts contemporary to the material. This included the path foundation context [JA 126], and context [JD 308], a gravel spread to the south of the current house (CAT, 1986: *Context Record Sheet [JD308])*. However, the small number of objects within this assemblage limits the accuracy of further spatial interpretation. Instead, this chapter discusses object biography more broadly, considering how vessels may have been obtained, used, and discarded by the various occupants of 16th-century Audley Inn.

Table 5.2: Table showing the number of pottery sherds of Tudor fabrics divided by context type.

Type of context	**Context numbers**	**Number of sherds**	**Fabric types**
Topsoil	[JA 5]	2	MPUR
Flowerbed fill	[JA 130], [JA 373], [JA 387], [JA 646], [JB 111], [K 96]	6	BEAU, CSTN, MPUR, PMSRY, RAER
Layer	[JA 126], [JD 308], [JE 411], [K 409]	5	CSTN, MART1, MPUR, RAER

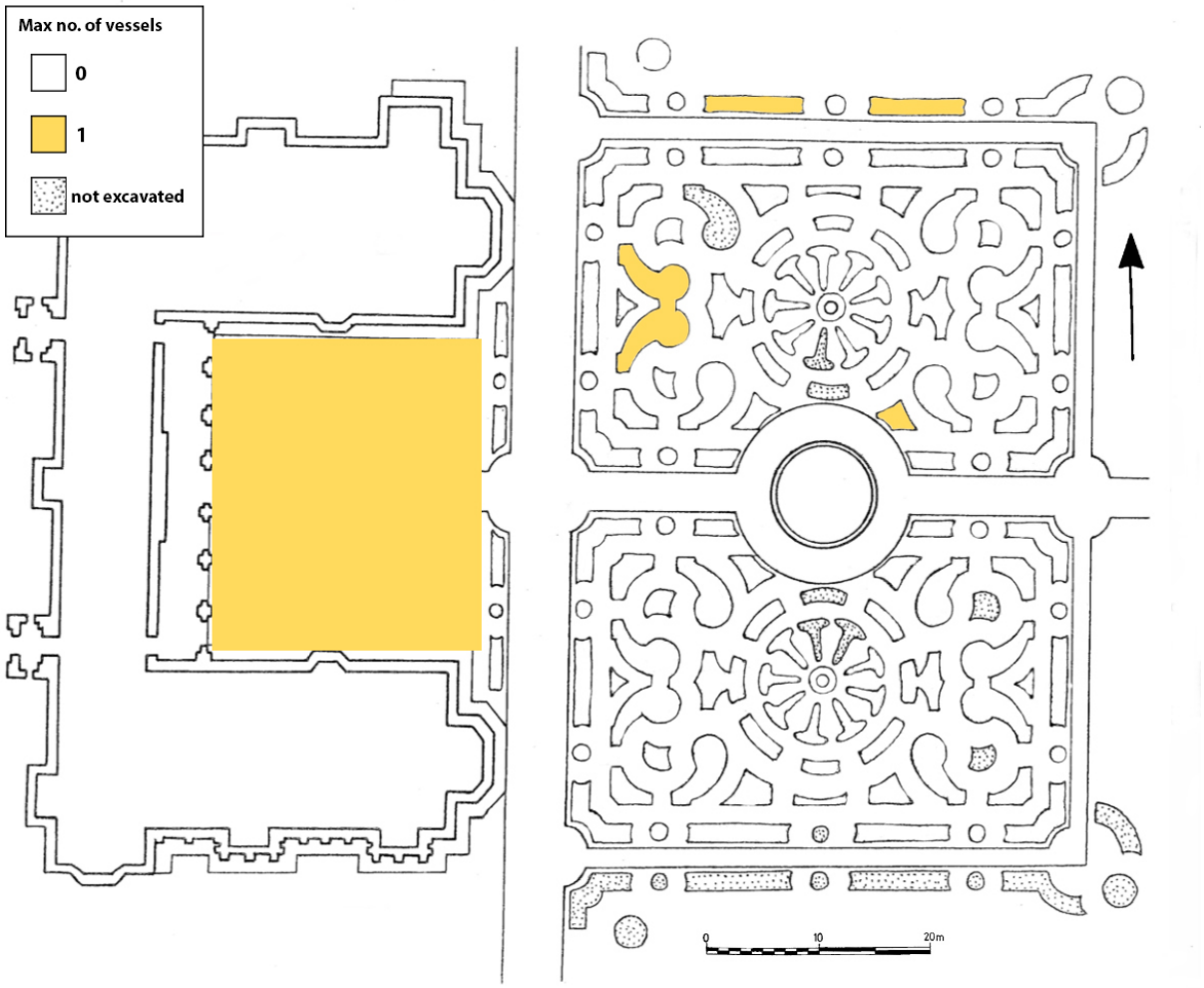


Figure 5.11: Diagram of parterre (Cunningham, 1987b, 11) showing number of pottery fragments of Tudor fabric types within each flowerbed fill. © English Heritage.

5.5. Discussion

5.5a. The dissolution of Walden Abbey and construction of a courtyard house

The 1985-1987 excavation supported historic evidence that Walden Abbey was converted into a two-storey single courtyard house with the former monastic cloister at its centre, which was refashioned as a walkway to connect different rooms. The altered nave and south transept formed the northern wing of the house, which incorporated the enclosure of a small room to form a staircase or garderobe tower, whilst the southern range of the Tudor house was altered to create three different rooms with a staircase in the north-east corner. The rationale behind conversion rather than demolition has been discussed in studies of other post-Dissolution

buildings (Doggett, 1999; Howard, 2003; Willmott, 2020). There was certainly an economic purpose behind the use of monastic stonework as a ready source of building material, which also sped up the process of building a gentry house. The cloister shape was an invaluable blueprint for the quick construction of a fashionable courtyard home. This highlights the complex process of redesigning historic buildings; architectural changes were not made in a vacuum but referenced the buildings, landscapes, and occupants that came before.

Indeed, the courtyard house was an established architectural form in this period, allowing for the practical distribution of rooms around a central axis, easy conversion of monastic space, and creating an open courtyard space for activities and movement between rooms. From the analysis of the c.1600 map combined with excavated evidence for the buttressing of substantial walls, it seems likely that Audley Inn had a suite of rooms on the upper floors, congruent with a general trend towards the multiplication and specialisation of rooms in gentry houses (Cooper, 1997, 123). As Audley was an elite member of the Tudor gentry, his house would provide both an arena for political activity and an architectural statement of his power. However, unlike Duke's Place in Aldgate, there were no tenements created for rentals to lesser nobility; this house appears to have been more exclusive, reflecting its rural locale and smaller size.

Some parts of Walden Abbey, including the church tower, presbytery, and eastern claustral range, were not incorporated within the Tudor or Jacobean houses, whilst layers of medieval stonework were used as build-up levels during the construction of the new gardens, especially in the inner courtyard garden (Cunningham, 1987, 12). Other stonework was reused within the building, such as a medieval step going from the cloister into a Tudor cellar space (Drury, 1982b, 99). The 15 disarticulated 'pit' burials appear to represent the redeposition of medieval burials, perhaps disturbed during the demolition of the monastic church or cemetery, which were then redeposited in pit features. This creates an interesting comparison with Audley's house at Aldgate, where the demolished nave was made visible to guests; did those visiting Audley Inn perceive the loss of Walden Abbey in the same way?

5.5b. The procurement, consumption, and display of pottery

Identification of pottery fabrics allows for the exploration of "commodity trajectory" (Richardson *et al*., 2017, 6), the practical, economic, and socio-political processes by which materials were purchased, brought into, and used within the early modern household. The identification of the medieval assemblage showed that the occupants of Audley Inn made use

of both local and imported fabric types. Cistercian and Midlands Purple wares were "produced at several centres across the historic counties of Derbyshire, Staffordshire, and Warwickshire, and possibly Shropshire" (Wright and Hurst, 2010, 1). Both Martincamp flasks and Beauvais sgraffito ware were similarly produced in France for export to England and other national markets (Longworth, 2004; Straube, 2013), whilst Raeren stoneware originated from present-day Belgium and was produced on a massive scale for international export (Gaimster, 1997, 224; 1999, 216).

The 16th century is seen as a period of revolution within the pottery market, as a range of new wares from local, regional, and foreign producers became available (Gaimster, 1999, 215). Analysis of the pottery fabric types within this assemblage has shown that the occupants of Audley Inn obtained material from both national and international contexts, including France and Germany as well as producers in the West Midlands, aided by its proximity to urban centres and ports on the east and south-east coasts. Several factors dictated the procurement of pottery by the 16th-century elite, including increased diversity in vessel types, an expansion in cross-Channel trade (Gaimster, 1999, 216), and an increase in disposable income and social mobility across the gentry (Cooper, 1999b). Regional markets were also developing to accommodate a demand for drinking vessels (Gaimster, 1999, 217–219), represented in this assemblage by the two bases of Cistercian ware drinking cups.

The analysis of pottery fabrics and forms also enables discussion of the potential functions of each vessel represented within the assemblage. This has shown that they primarily had domestic functions associated with food storage, eating, and drinking, revealing foodways that are otherwise lost to the material record (Pennell, 2017). Martincamp flasks were storage vessels with wicker coverings enabling them to stand upright, used to transport wine and other potables (Straube, 2013, 27). Both the Beauvais sgraffito and Raeren stoneware jugs were used to serve liquids, whilst the Cistercian ware bases are potentially from drinking cups which would hold individual servings of beverages at the table. Contextually, there was an increased diversification of ceramic vessel types throughout the 16th century, centring vessels within both private and public spheres including at the dining table (Gaimster, 1999; Willmott, 2005b). Ceramic vessels were also used as display items to indicate both vertical and horizontal social hierarchies as what Gaimster (1999, 214) termed an "active cultural medium", allowing the owner to create and express concepts of wealth and social grouping. This included vessels that were at once functional and decorative, including the sgraffito-decorated Beauvais ware jug.

Elaborate dining rituals using decorative material culture were particularly central to the Tudor royal court (Willmott, 2005b); when Henry Howard hosted Queen Elizabeth in 1578, he likely made use of ceramic vessels to display his status as a member of the political elite. The movement of guests into the gallery for discussion and drinking, as described in the account of the visit (Nichols, 1823, 113) and perhaps using jugs akin to those within the excavation assemblage, emphasises the interplay between material object and political activities at the heart of the gentry home. However, the exclusivity of Audley Inn as a smaller country home suggests that dining practices were often on a smaller scale. This is perhaps represented in the general absence of pottery within the assemblage that date to the 16th century; however, this absence is also dependent on various depositional and post-depositional processes that have altered the archaeological record of Audley Inn.

5.5c. Depositional and post-depositional processes

Spatial distribution analysis has shown that the 16th-century assemblage excavated from flowerbed fills was focused on the north parterre, suggesting that the creation of the parterre flowerbeds disturbed an existing pattern in the deposition of Tudor material, rather than the deliberate placement of pottery into flowerbed fills. This could reflect the original discarding of the pottery; the northern end of the parterre sits to the north-east of Audley Inn, an area that could have been closer to the location of rubbish deposits. It could also relate to later activities in this area; in an interim report, Cunningham (1987a, 4) suggests that the levelling of the site during the Jacobean period brought the north side of this area downwards (Cunningham, 1987a, 4), which means that the parterres in this area were cut further into earlier deposits so that Tudor stratigraphy was more likely to be disturbed. However, the archaeological record of Audley Inn, and its demolition during the construction of the bowling green, were difficult to parse within the bases and sides of the excavated flowerbeds from which no pre-1832 stratigraphy was removed. As such, it remains unclear whether the distribution of material culture reflects its original location.

More notable is the general absence of material, with the Tudor assemblage representing a maximum of 13 pottery vessels from over 60 years of occupation. In particular, there is a lack of so-called ‘luxury’ pottery types, including fabrics like maiolica, Spanish lustreware, and Continental innovations in tin-glazed earthenware and slipware, that could be expected to be found on a high-status site from this period (Gaimster, 1999, 217). Other material types dating

to the Tudor period, notably metal objects and glass vessels, were not recovered or identified within the assemblage. Possible explanations relate to the Tudor occupants of the house. Thomas Audley's role as Lord Chancellor meant that he spent much of his time in London, reducing the quantity of material culture needed for everyday activities at Audley Inn. Successive occupants also spent significant time at the royal court, although their status was limited by political scandal; the resulting loss of social standing perhaps resulted in diminishing economic capital, so reducing the quantity of high-status goods that the family could purchase.

The absence of 16th-century objects within the assemblage could also relate to depositional processes. Controlled practices for the disposal of waste materials including broken pottery vessels and associated organic remains would be visible in the archaeological record through focal points in the dispersal of material culture, bounded within pits or in midden structures. By the 14th century, towns had already organised systems of rubbish collection and street cleaning (Evans, 2010, 269); it seems likely that gentry houses were similarly co-ordinated in the discard of materials. Excavation at Audley's other gentry house, Duke's Place (City of London), recovered pottery fragments of various fabric types including Metropolitan slipware, German stoneware, and delftware from within a wood-lined rubbish pit in sealed stratigraphy dating to the late-16th or early-17th century (Cherry, 1978, 112). Audley Inn's rubbish could have been disposed of into similar features, explaining the general lack of contemporary material culture in this area. The Tudor household also made use of metal objects for dining, which were often recycled, as well as wooden implements that degrade in well-drained soil (Willmott, 2005b), so limiting the opportunity to recover these objects archaeologically.

Yet, as with the analysis of medieval material culture, the concurrent influence of post-depositional history, excavation biography, and thesis methodology complicate this discussion. The majority of 17th-century material culture was recovered not from contemporary occupational or rubbish deposits, but from 19th-century flowerbed fills. This means that the objects have been moved by horticultural activities after their deposition; indeed, the high levels of fragmentation within the recovered material emphasise the extent to which post-depositional processes have dictated the recovered assemblage. As such, the interpretation of the 17th-century assemblage requires consideration of 19th-century horticultural activities and the taphonomy of garden contexts, which will be presented in Chapter 8.7. The fragmentary nature of the assemblage also meant that some material was not attributed to a particular period, whilst the use of MOLA pottery attributions to date material obscured the permeable

boundaries between different periods. This means that pottery fabrics that could originate from the Tudor house, including post-medieval redware, Frechen-type stoneware, Border wares, and tin-glazed wares, are discussed elsewhere within the thesis.

5.6. Summary

The 1985-1987 excavation, although aiming to reconstruct a 19th-century garden, was also the most comprehensive archaeological study of Audley Inn to date. It allowed the exploration of the conversion of Walden Abbey into a gentry house, showing that the cloister, southern nave, and south transept were transformed into secular spaces whilst the eastern claustral range and the main body of the church were demolished. The structural evidence has thus suggested that the monastic buildings were either rebuilt or completely demolished to create Audley Inn; this is in contrast to Audley's other properties, which sometimes incorporated monastic ruins as garden features. Excavated structures could be correlated with the c.1600 estate map, demonstrating the value of historic topography in understanding built space. This project thus confirmed that Audley Inn was a single courtyard house with the former cloister at its centre, although little insight was given into the function and occupation of each of the rooms within the house as the excavation interventions were small, no structures were targeted, and Tudor deposits were kept in-situ rather than being recovered and assessed by the archaeologists.

The domestic material assemblage does provide some insight into the lived experience of Audley Inn, in particular the range of different pottery types used to serve beverages. This showed that the Tudor occupants made use of what Gaimster (1999) termed the "ceramics revolution" to purchase new, international wares, displaying personal status through tableware; a comparative analysis of material culture from better excavated Tudor gentry houses is a future avenue for research. However, there was a general absence of 17th-century material culture within the assemblage. This has been discussed through the exclusivity of the country house and controlled deposition practices, but also through biases in object recovery and identification inherent within the archive. As seen in the previous chapter, the analysis of the 17th-century evidence shows the difficulties in interpreting the archaeological record of earlier periods when they are overlaid by historic gardens, especially when it is found incidentally during a restoration-led project and held within an archaeological archive which has its own nuances and limitations.

6. “A palace in all but name”, c.1605-1701

6.1. Introduction

This chapter explores evidence recovered during the parterre excavation for the palatial double-courtyard house that was constructed by Thomas Howard, the first Earl of Suffolk, around 1605. It first outlines the historical context for the house, including the ‘Great Rebuilding’ narrative and contemporary country houses, alongside the biography of Thomas Howard and successive occupants of the property. This chapter then discusses the 17th-century structures and landscape features uncovered during the parterre excavation, namely parts of the foundations of the inner court and evidence for the development of the bowling green. It also explores the domestic material culture assemblage from this period, revealing the potential *chaîne opératoire* of the pottery and vessel glass assemblages, as well as notable absences within this assemblage. This chapter shows that the parterre excavation revealed little evidence for the 17th-century house and gardens, due to the garden-restoration led excavation methodology and limited post-excavation processes, but that some additional information about the first iteration of Audley End could still be gained through the assessment of the project archive.

6.2. Historical background

6.2a. Jacobean country houses

The period between 1570 and 1640 has been termed the ‘Great Rebuilding’ as it saw increased investment in vernacular architecture including country houses. This was traditionally seen as an economic process, resulting from a growth in disposable income amongst the middling classes (Hoskins, 1953). More recently, Johnson has argued that architectural development in the late-16th and early-17th centuries should also be perceived as part of a cultural process interlinked with concepts of gender, status, and popular belief (Johnson, 1993). In this framework, the Great Rebuilding was a culturally defined transition away from the medieval layout, a central hall with attached rooms, towards a range of different building types. For the upper echelons of Elizabethan and Jacobean society, who had the financial and political power to be at the vanguard of architectural change, buildings were constructed in dialogue with socio-cultural shifts.

In Elizabethan and Jacobean country houses, the need for privacy and isolation within the domestic sphere was juxtaposed against increased peer-group socialization amongst fellow nobility. This heightened the post-Reformation emphasis on defining the self, as elites sought to explore how they expressed themselves within their new social sphere. This is exemplified through the development of Classicism as an architectural style. The Classical form of a symmetrical house, with the manipulation of proportion to present an ordered and heavily fenestrated façade, was informed by architectural treatises from Italy, France, and the Netherlands (Howard, 2015, 17). In English buildings, Classical motifs were used to express Renaissance ideals of learning, wit, and device, which fellow nobility would be able to understand (Girouard, 1980, 86; Cooper, 1997, 121).

Architectural development also occurred in dialogue with more traditional cultural requirements. Heraldry acted to connect their house to ancestral, dynastic, and royal institutions, legitimising the claim of the owner over the house and acting to advertise status and affinities (Cooper, 1999a, 320). It was often complex, with layers of meaning around rank, intermarriage, and local identities, so would be understandable only within a peer-group setting. Airs (1995, 14) argued that heraldry also represented the desire for eternal remembrance, part of a tradition towards the adornment of buildings including parish churches. However, heraldry would be seen most often by the nobility, so probably related more to fashion and social display. As Johnson (1993, 183) stated, “old houses are part of a continually re-invented tradition”, as Elizabethan and Jacobean elites re-framed the architecture of those who came before them to suit their own functional, socio-political, and spiritual needs.

The late-16th and early-17th centuries also saw the apotheosis of the royal procession. Progresses by Elizabethan and James during summer allowed the court to escape the heat of London and to take part in entertainments including hunting and dramatic performances. They provided an opportunity for house owners to reinforce their social standing within the court, whilst refusing an invitation or mishandling a royal visit could lead to social ridicule and even financial penalties (Girouard, 1980, 110). A small circle of ambitious men within the court, dependent fully on the crown for status, developed so-called ‘prodigy houses’ as visually compelling, highly fashionable residences with suites of rooms for royal accommodation. This included Thomas Howard’s reconstruction of Audley End House in the early-17th century.

6.2b. Thomas Howard, 1st Earl of Suffolk

In 1582, upon the arrest of his uncle Henry, Thomas Howard (1561-1626) inherited Audley Inn and the connected estate. He then captained the *Golden Lion* during the Spanish Armada, so was knighted by Elizabeth, and in 1597 became the Baron Howard of Walden (Croft, 2004). However, it was with the coronation of James I that Howard became a court favourite. In 1603, he was made the first Earl of Suffolk and Lord Chamberlain (Alexander, 2015, 11); James referred to him as 'honest Thomas' and 'honest big Suffolk' (Croft, 2004; Thrush, 2018). He inherited the bulk of his father's property, including Howard House, formerly the converted Charterhouse in Smithfield (City of London), whilst his wife Catherine inherited Charlton Park (Wiltshire), which the Howards rebuilt in the early-17th century (National Heritage List for England, 1951).

Figure 6.1: Thomas Howard, 1st Earl of Suffolk, with Audley End House (shown from the west) to his right in the distance, painted by Biagio Rebecca in c.1774 (English Heritage, c.2020b). This painting is incorporated into the panelling in Audley End's saloon (Drury, 2014, 7). © Historic England Archive (*J900318).*

To further consolidate his political position, Howard began constructing a country house to replace Audley Inn, both as a symbol of his increasing status and a means of providing suitably lavish accommodation for King James during royal progresses. Howard employed his uncle, Henry Howard, and the architect John Thorpe to design a property that could be considered "the most palatial house of its day" (Cooper, 1999a, 206). Construction began around 1605 with the conversion of Audley Inn's courtyard, then a larger outer court was added to the west front. Howard purportedly spent £200 000 to build the house, possibly an exaggeration but reflecting the unusually large quantity of personal debt that Howard accrued during the project (Airs, 1995, 95). This house, which he called Audley End, can be seen as the culmination of the Jacobean 'prodigy house'; it was concerned with outward aspect, architectural flair, and royal approval.

6.2c. Post-construction history

Howard's house was completed by 1614 in readiness for James I's visit in the same year. The King and Queen were accommodated in twin ground-floor apartments on each side of the inner court, separated by a shared chamber and gallery with two entrances, which appear to have been built for this purpose (Girouard, 1980, 114). Howard certainly expressed his financial and social stature; James reportedly remarked that the house was "too grand for a king but might suit a Lord Treasurer" (Drury, 2011, 42). However, the expense of construction was not without consequence; to pay for Audley End House, as well as the lavish outgoings of a large extended family, Howard embezzled money and goods from the crown to an estimated value of between £17,000 and £51,000 (Thrush, 2018, 202). He was prosecuted in 1619 and given nine days of imprisonment before agreeing to pay £30,000 and retiring to Audley End (Alexander, 2015, 13). Such a dramatic downfall, aided by problematic family ties, involvement in a failed marital connection with Spain, and the oppositional rise of King James' favourite George Villiers (Thrush, 2018), meant that Howard never regained political power.

When Howard died in 1626, his eldest son Theophilus (1584-1640) was encumbered with large debts in addition to Audley End's maintenance costs, not helped by his own financial extravagancies (Stater, 2004; Alexander, 2015, 13). Documents from the Jacobean court reveal the professional biographies of Theophilus and his son James (1619-1689; see Dunn, 2004), yet we have little evidence for their living situation; whether they were occupying Audley End with any regularity is unclear. It does seem likely that they were unable to afford repairs to the house or grounds; both Drury (1980a) and Alexander (2015, 13) suggest that little building work took place between the completion of the house in 1614 and its sale in 1666, although James' political canniness meant that he was able to retain the Howard estates throughout the Interregnum (Dunn, 2004).

In contrast to the royal progress at the house's inception, documented visits during the mid-17th century were instead made by diarists, part of an increasing trend of affluent tourists exploring country houses as a cultural leisure activity (Towner, 1996, cited in Connell, 2005, 186). Around September 1654, the diarist John Evelyn wrote that he visited Audley End House and "spent some time in seeing that goodly place" (Bray, 1901, 301). He toured the primary rooms and noted their architectural importance, although he also wrote that "the gardens are

not in order". Six years later, Samuel Pepys (Wheatley ed., 1893) travelled to the house, where he stated that:

> the housekeeper shewed us all the house, in which the stateliness of the ceilings, chimney-pieces, and form of the whole was exceedingly worth seeing. He took us into the cellar, where we drank most admirable drink, a health to the King.

Throughout both of these accounts, there is an admiration for the architectural quality of the house, the designed grounds, and the quality of the house's wine cellar. They also show that the housekeeper was responsible for facilitating visits as well as the day-to-day management of servants and food purchases (Cliffe, 1999, 86). However, these accounts also hint at some level of decline within the estate, and no mention is made of the occupants of the house.

This period of the house's history, which Alexander (2015, 13) termed a "period of stagnation", ended in 1666 when Charles II agreed to purchase the property for £50,000, with James Howard remaining on the estate as 'Keeper of the Palace' (Drury, 2011, 44). Audley End's location was to its advantage; the house is within a short distance of Newmarket races (Alexander, 2015, 13). In 1668, Catherine of Braganza held her court at the house, suggesting that it was sufficiently grand for royal occupation. However, the house was old-fashioned and ill-equipped compared to newer properties such as Clarendon House, and thus fell out of favour as a royal palace (Drury, 1980, 4).

As a royal property, Audley End House came under the purview of the King's Works, led at the time by Christopher Wren. Documents from the King's Works related to the house are scant, although a survey was carried out by Henry Winstanley in 1688, suggesting that it underwent some repairs. By 1695, Henry Howard wrote that "it is dangerous to walke either in the courtyard or the garden, great stones falling from them daily" (Alexander, 2015, 13). When corresponding with William III six years later, Wren stated that the property was "out of Repaire & gone to Decay", urging him to return it to Henry Howard (Drury, 1980, 5; Alexander, 2015, 13-14). With such expansive structural problems and as it was not being used as a royal palace, William thus returned Audley End in 1701, in discharge of £20 000 on mortgage that the crown had yet to pay (Drury, 2011, 44).

6.2d. Map and plans

The first visual representation of Audley End House is an undated plan of the outer court, attributed to the architect John Thorpe, which probably acted as a blueprint for the construction of this part of the house (Alexander, 2015, 52). A broad survey of the estate was then made by Sargeant in 1666, detailing the different aspects of the house and grounds as part of Charles II's purchase of the property (Alexander, 2015, 137). The best-known depictions of Audley End were produced by Henry Winstanley, a printmaker, inventor, and the architect of the Eddystone Lighthouse. Winstanley was employed in the house's estate office, before becoming Royal Clerk of Works for both Audley End and Newmarket in 1679 (Taylor, 2014). His engravings (see Figure 6.2 and Figure 6.3) are invaluable for understanding the history of Audley End as they demonstrate the extent of the Jacobean construction and its survival in the later-17th century (Drury, 1980, 14). The view from the west is particularly important to this thesis as it shows the connectivity between the inner and outer courts. This engraving depicts a three-storied inner court with a clocktower over the eastern range, with a two-storied outer court attached to the western end. Winstanley's plans also suggest that the area that became the parterre garden was used as a bowling green (Alexander, 2015a, 139).

Figure 6.2: Henry Winstanley's Prospect of Audley End from the west, etched around 1676 (Cole and Morrison, 2015, 53, figure 27). DP111161 © Historic England Archive.

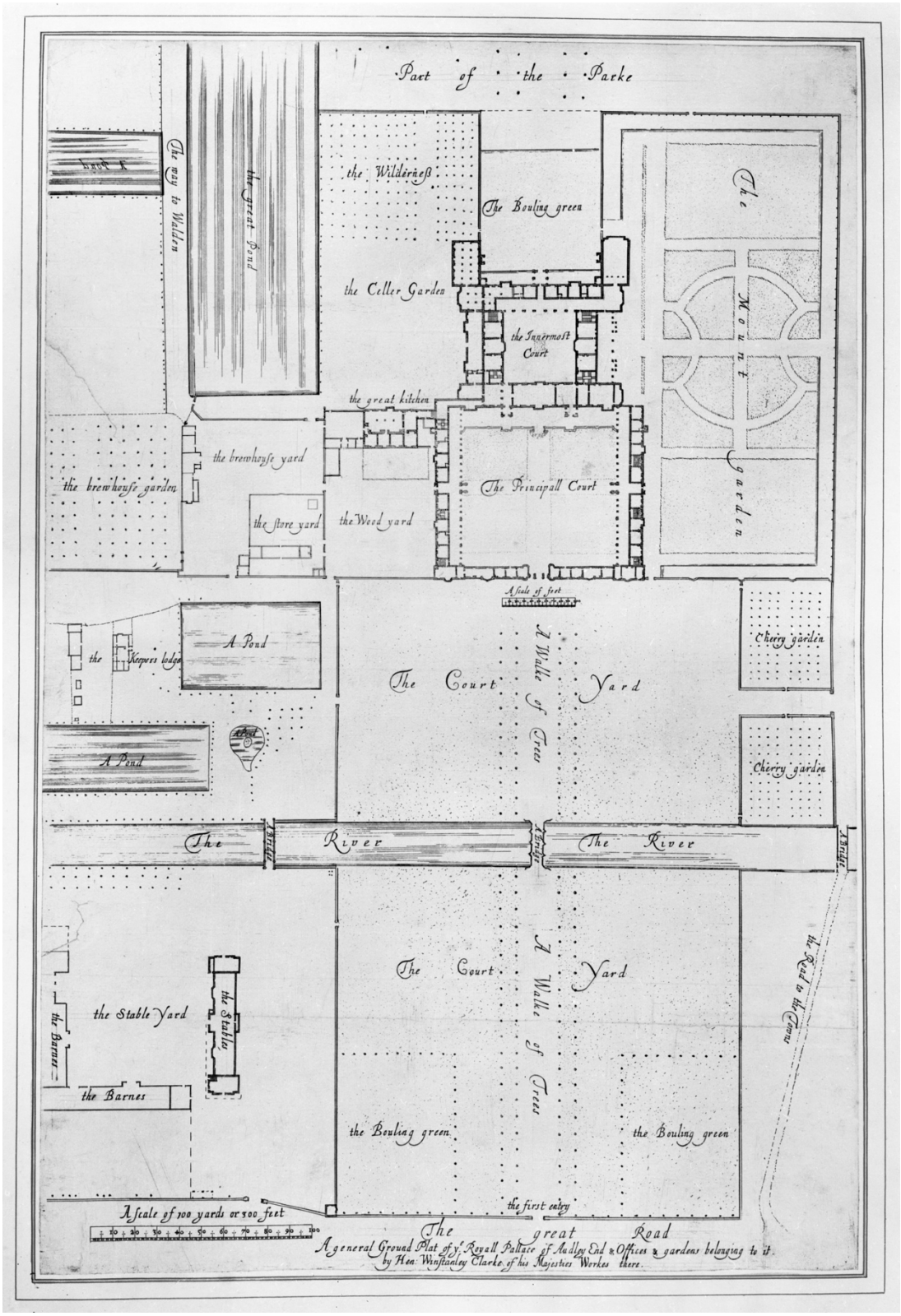


Figure 6.3: Copy of general ground plan of house and grounds by Henry Winstanley in the Braybrooke scrapbook, north to left. Source: Historic England Archive (P/Y02117/003).

6.3. Archaeological evidence

6.3a. Previous research

Following Gotch's (1892) pioneering study, which was discussed in Chapter 2.4d.ii, a complete survey of the Jacobean architectural fabric was undertaken by Paul Drury (1980b). This showed the influence of two architectural compositions on Audley End: the collaboration between Henry Howard and Bernard Jansson, which produced the restrained inner court, and Thorpe's more flamboyant design of the outer court. Drury also convincingly argued for construction beginning in 1605, rather than in 1603 as was previously surmised. However, standing buildings analysis focused on this period is challenging, as much of the Jacobean house and estate, including the whole of the outer court, the east range of the inner court, most service buildings, and much of the garden features, are no longer standing (Alexander, 2015, 113).

Small-scale archaeological excavations also took place before the 1985-1987 project. They were synthesised by Drury in two papers: a summary of the house's architecture in the 17th century (Drury, 1980) and a discussion of the transition between the Tudor and Jacobean houses (Drury, 1982b). Exploratory trenches excavated in 1950 in the south-east corner of the north wing showed that Jacobean wall foundations were built directly above the south wall of the medieval church (Drury, 1982b, 97). Further excavations in 1979 at the east end of the south wing revealed that the foundations of the inner court similarly rested on two sections of medieval wall, suggesting that the layout of this building originated in the form of the medieval cloister (Drury, 1982b, 98; 1984a). These excavations suggested some continuity between the Jacobean house and earlier buildings, arguing against the common perception that Howard's building project involved the sweeping demolition of existing structures.

In summary, documentary sources and limited excavation suggested that Howard's house had symmetrical state apartments on the first floor, with family apartments below and servants' quarters above, linked by a long gallery to the east and a grand hall to the west (Alexander, 2015, 11). This was then surrounded by an elaborate outer court, creating two enclosed courtyard spaces, and external wings for kitchens, a chapel, and other service buildings (Drury and Gow, 1984). Topographical surveys also depicted a lawn area, labelled as a 'bowling green', to the east of the inner court within the area that became the parterre garden. The 1985-1987 excavation was thus an opportunity to discover foundations of the inner court, including its lost east wing, and the archaeological record of the bowling green. This could confirm or challenge

the theorised layout of the Jacobean house and reveal continuities between this and earlier buildings. It also provided an opportunity to recover material culture from this period, exploring whether the status of the palatial Audley End was reflected in portable objects.

6.3b. Inner court

The excavation season in 1986, which focused on the main parterre, revealed parts of the east range of the inner court, its annexes, and the bowling green, "conforming very closely to the Thorpe/Winstanley plan" (Cunningham, 1987a, 7). The demolished east range sat at the interface of this and the 1987 excavation season which focused on the inner parterre, complicating the analysis of the archaeological archive. However, the interim reports summarised the key findings from both seasons. Cunningham showed that the Jacobean east range's eastern foundations were placed on top of the Tudor eastern wall, strengthened to create a more regular façade (Cunningham, 1987a, 8). The west wall of the east range was built along the line of a pre-existing wall and had regular arcaded loggia of six bays (Cunningham, 1987b, 6), as can be seen in the Winstanley etching. The interim reports also noted that some evidence was found for internal room arrangements, although these are not discussed in detail and were not readily visible within the excavation plans.

The demolition of the east range was represented in rubble to the east of the site; Cunningham noted that underground drainage in this area could be dated to the early-18th century, probably replacing roof drains from the demolished range (Cunningham, 1987b, 8). The 1987 excavation of the central courtyard parterre revealed another layer of demolition consisting of medieval and Tudor stonework, up to 0.75 metres deep, making up the surface of the Jacobean inner courtyard (Cunningham, 1987b, 5). This shows that the construction of the inner court included the demolition of medieval and Tudor masonry which was used within build-up levels to construct the inner courtyard. At the centre of the inner courtyard, the project found a sunken brick square approximately 0.9 metres wide and connected by a culvert to the main drain in the south-east corner (Cunningham, 1987b, 6). The trial excavations at the west side of the west range, meanwhile, showed that the foundations and lower plinths of the standing porches were constructed in brick, with moulded stone above, and a gravelled terrace in front (Cunningham, c.1985).

6.3c. Bowling green

This project also explored the redevelopment of the estate landscape which was concurrent with the manor house construction. The excavation archive included the description of a levelling context, [JA 567], in the north-east corner of the parterre, underneath the flowerbed fills and covering monastic foundations; this was interpreted as Jacobean levelling for the bowling green (see Figure 6.4). There was also evidence that the medieval and Tudor buildings were placed on higher ground towards the northern extremes of the parterre, as discussed in Chapter 4.3b, which was then levelled before the Jacobean buildings were constructed. To the east of the inner court, the 1986 excavation also revealed the shallow foundations of a wall along the north of the bowling green and deeper foundations of a wall along its south, related to a bank between this area and the Mount Garden below (Cunningham, 1987a, 7). However, the Jacobean landscape is predominantly ignored within the interim reports from the excavation; the focus is placed on structural features rather than garden history. The excavation methodology also meant that few in-situ Jacobean contexts were explored, which is also reflected in the material culture assemblage.

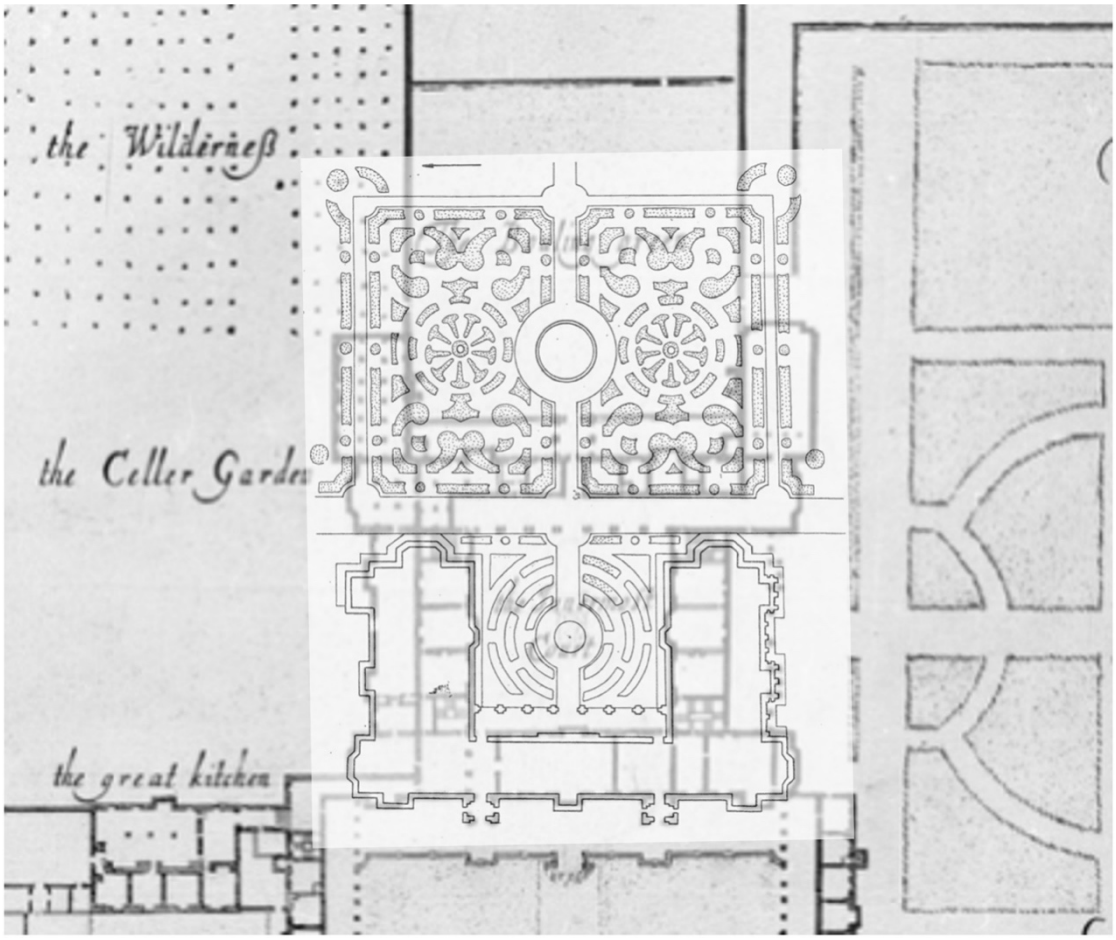


Figure 6.4: Part of ground plan of house and grounds by Henry Winstanley, north to left, overlaid by plan of the 1832 parterre garden (although not to exact scale due to challenges in reconciling the parterre drawing with other plans). Sources: Historic England Archive (P/Y02117/003), and (Cunningham, 1987b, 11) © English Heritage.

6.4. Material culture

6.4a. Assemblage composition

This section explores the Jacobean material culture assemblage, considering the fabrics, forms, and functions of pottery and glass vessels recovered during the 1985-1987 excavation. There are 107 sherds of pottery in this assemblage that can be dated to the 17th century, weighing 1793g and representing a maximum of 106 vessels, including 12 rim sherds and ten base sherds. This assemblage represents five different pottery fabric types and a range of vessel forms (see Table 6.1 and Figure 6.5). This period is also the first from which datable vessel glass was recovered, consisting of 70 sherds weighing 2787g, all originating from thick-walled green

wine bottles. The forms, materials, and functions of these pottery and glass vessels are defined below, allowing exploration of the biography of objects as they were obtained, used, and discarded during the 17th century.

Table 6.1: Table showing different 17th-century pottery fabric types, MOLA codes and date ranges, and quantities within assemblage.

Pottery fabric	**MOLA code**	**MOLA date range**	**Number of sherds**	**Maximum number of vessels**
Surrey-Hampshire border white ware	BORD	1550-1700	3	3
Frechen stoneware	FREC	1550-1700	77	76
Metropolitan slipware	METS	1630-1700	14	14
Spanish olive jar	OLIV	1550-1750	1	1
Essex-type post-medieval black-glazed red ware	PMBL	1580-1700	11	11
Staffordshire-type combed slipware	STSL	1660-1730	1	1

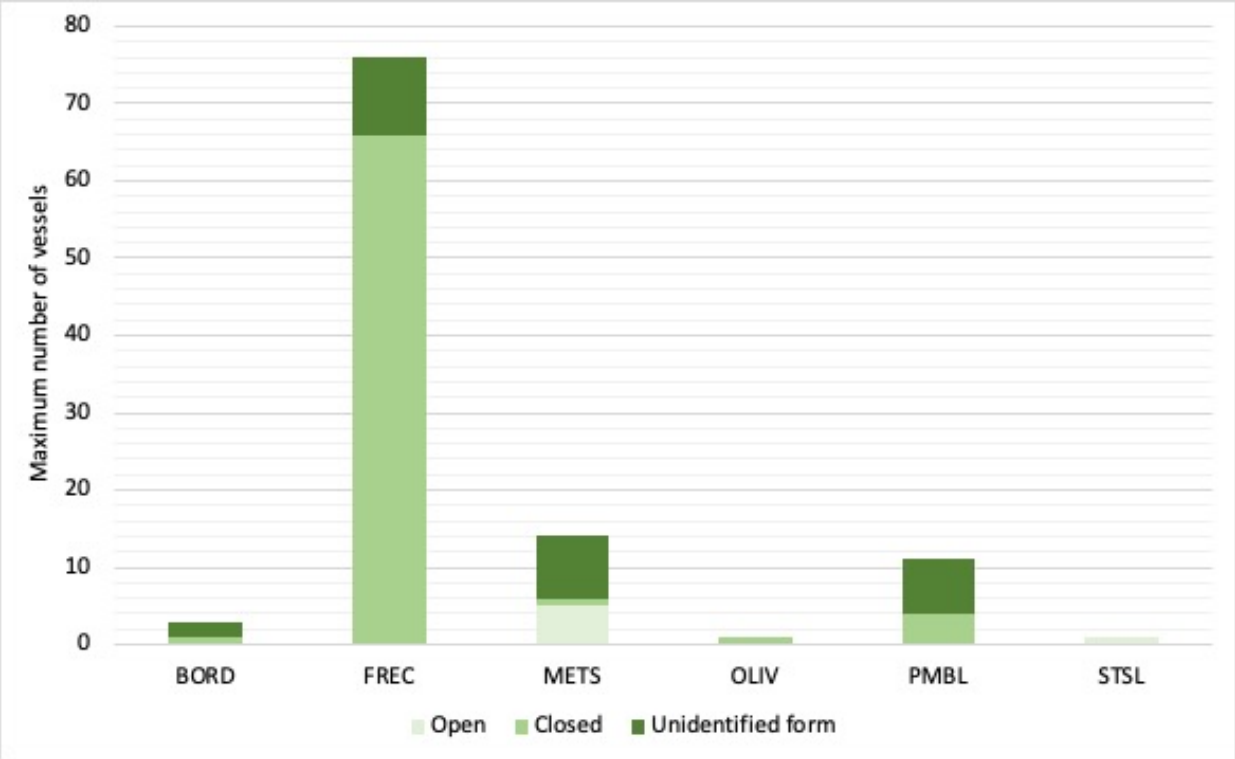


Figure 6.5: Graph showing the 17th-century pottery assemblage subdivided by form and fabric.

The largest proportion of pottery is Frechen-type stoneware, of which there were 77 sherds, representing a maximum of 76 vessels. Each sherd is made of a grey, buff, or pale orange stoneware, and has a grey external surface with a brown iron wash under speckled salt glaze, creating a 'pitted' surface. 29 sherds are large enough for them to be identified as Bartmann jugs (e.g., Figure 6.6 and Figure 6.7), globular bottles with long necks that were embellished with an applied facemask on the neck and an oval medallion on the body (Gaimster, 1997, 164). The assemblage includes six fragments with facemasks and seven with parts of medallions, including a complete medallion representing an unidentified crowned armorial, with a crossed coat of arms showing rampant lions in each corner (see Figure 6.8). The range of different fabric colours and decorative facemasks represented in this assemblage suggests that it includes Frechen-type stoneware from different periods and production centres.

The 17th-century pottery assemblage also includes two different slipware types. 14 sherds can be defined as Metropolitan slipware, a type of redware with white slip-trailed decoration underneath a clear or brown glaze (Barker, 1993, 11; Nenk, 1999, 240). The most complete of these are two rim sherds of a dish with geometric designs (see Figure 6.9), one of the few cross-fits identified within the assemblage, with decorative similarities to other Metropolitan slipware rims excavated within Essex (Cooper, 1968, 15). The assemblage also incorporated a scalloped rim sherd of a Staffordshire-type combed slipware dish (see Figure 6.10). Although this sherd has been assigned a date range of between 1660 and 1730 (MOLA, 2014), thus a period categorisation of the 17th century, it is very similar to early-18th century examples made in Stoke-on-Trent (Barker, 1993, 18). This demonstrates the permeable border between the different period categorisations used within this thesis.

The assemblage also includes a small number of other fabrics dating broadly to the 17th century. 11 sherds of redware with a glossy black glaze have been defined as post-medieval black glazed redware (Nenk, 1999, 240), including a reconstructed mug with a footed base and handle terminal (see Figure 6.11). This fabric type has some crossover with Cistercian ware, discussed in Chapter 5.4a, but has been differentiated as it has a redder fabric without inclusions. Three sherds of Surrey-Hampshire Border whiteware, as defined by Pearce (1992), have also been identified. One is the rim of a brown-glazed dish with a single groove on the outer edge; one is a ribbed cylinder with a splashed yellow glaze (see Figure 6.12), which is possibly the neck of a costrel (Duncan Brown, *pers. comm*.) or the hollow handle of a large vessel. The other is a sherd of pink fabric with a splashed green glaze. There is also a single

rim sherd of a Spanish olive jar (see Figure 6.13), which has white external surfaces and a pale pink fabric, similar to contemporary examples found within North America (e.g., Krueger, 2016).

The 17th-century assemblage also incorporates 70 fragments of wine bottles (see Table 6.2). These are all of a thick-walled dark green fabric, 62 of which have an iridescent patina on the surface that represents substantial post-depositional degradation. 65 of these fragments are of broadly 17th to early-18th century wine bottle forms, with bulbous bodies, bases with domed kick-ups, and tapering necks with a jutting string rim (Jones, 1986; Banks, 1997, 25; Willmott, 2002). The other five fragments are sufficiently complete to be specifically identified as shaft and globe bottles, as they have longer necks and more rounded bodies than the onion bottles that superseded them. Shaft and globe bottle forms have been dated through typology to between 1640 and 1680. However, the assemblage is lacking any bottle seals, which would otherwise reveal more about their date and origin (Jeffries and Major, 2015).

Table 6.2: Table showing different 17th-century glass vessel types, date ranges defined in Banks (1997), and quantities within assemblage

Glass vessel type	**Banks (1997) date range**	**Number of fragments**	**Maximum number of vessels**
Shaft and globe wine bottle	1640-1680	5	5
Shaft and globe or onion wine bottle	1640-1740	65	65

Figure 6.6: Fragment of Frechen stoneware Bartmann bottle with medallion, excavated from context [JC 201] (author's image).

Figure 6.7: Rim, neck, and part of handle of Frechen stoneware Bartmann jug with applied facemask, excavated from context [K 178] (author's image).

Figure 6.8: Medallion of a Frechen stoneware Bartmann jug, excavated from context [JA 126] (author's image).

Figure 6.9: Rim fragments of Metropolitan slipware dish with trailed geometric decoration, excavated from contexts [K 177] (left) and [K 178] (author's image).

Figure 6.10: Rim of Staffordshire slipware with combed decoration and press-moulded scalloped rim, excavated from context [JA 25] (author's image).

Figure 6.11: Reconstructed black-glazed redware drinking cup, excavated from [JC 267] (author's image).

Figure 6.12: Yellow-glazed Border ware fragment, excavated from context [JA 126] (author's image).

Figure 6.13: Rim sherd of Spanish olive jar, excavated from context [JA 25] (author's image).

6.4b. Archaeological and spatial context

Analysis of context type groupings from which the 17th-century assemblage originated has demonstrated that the majority of the pottery and glass fragments were recovered from flowerbed fills (see Table 6.3). The rest of the 17th-century pottery and glass was recovered from other context type groupings. This includes topsoil contexts, from which 22 pottery sherds and 18 glass fragments were excavated, suggesting some post-depositional disturbance of material from this period. Other objects were recovered from layers, fills, and from modern service trenches, including the path foundation context [JA 126].

Table 6.3: Table showing the number of 17th-century pottery and glass sherds within each context type grouping

Type of context	Number of contexts	Number of pottery sherds	Pottery fabric types	Number of glass sherds	Wine bottle types
Topsoil	3	22	FREC, METS, PMBL	18	Shaft and globe or onion
Flowerbed fill	27	39	BORD, FREC, METS, OLIV, PMBL, STSL	36	Shaft and globe, shaft and globe or onion
Layer	14	16	BORD, FREC, PMBL	2	Shaft and globe or onion
Other fill	5	12	BORD, FREC	1	Shaft and globe or onion
Modern service	7	6	FREC, METS, PMBL	3	Shaft and globe or onion
Unknown	6	12	FREC, METS	10	Shaft and globe or onion

Spatial analysis of the flowerbed fills within the main parterre reveals further patterns in the distribution of both material types (see Figure 6.14 and Figure 6.15). As with the medieval and Tudor assemblages, both the pottery and glass were broadly concentrated towards the northern end of the parterre, suggesting that the assemblage represents the disturbance of a pre-existing pattern in the archaeological distribution of deposits. However, there were some notable differences between the pottery and glass assemblages. The pottery was predominantly recovered from flowerbed fills within the inner courtyard parterre, from which 25 fragments were recovered, with smaller quantities of pottery fragments spread across the north parterre. In contrast, the glass assemblage was recovered entirely from flowerbed fills in

the north parterre, with large quantities of material being recovered from individual beds in the north-west corner. There was no intermixing of 17th-century glass and pottery fragments within the flowerbed fills. Identification of archaeological contexts has demonstrated some patterns that relate to deposition and post-depositional processes, allowing for the exploration of how objects were procured, used, and discarded within the 17th-century house.

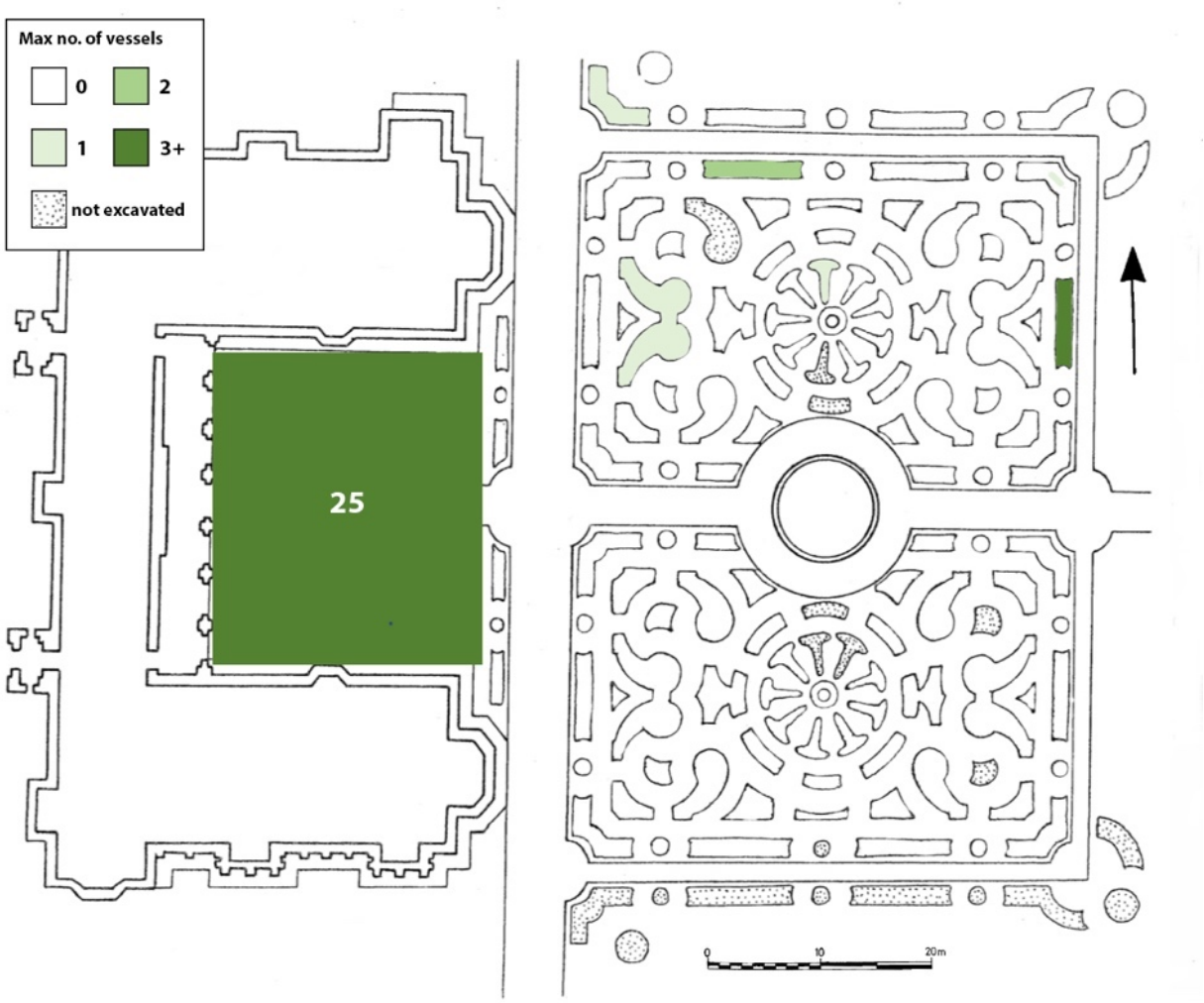


Figure 6.14: Diagram of parterre (Cunningham, 1987b, 11) showing number of pottery fragments of 17th-century fabric types within each flowerbed fill. © English Heritage.

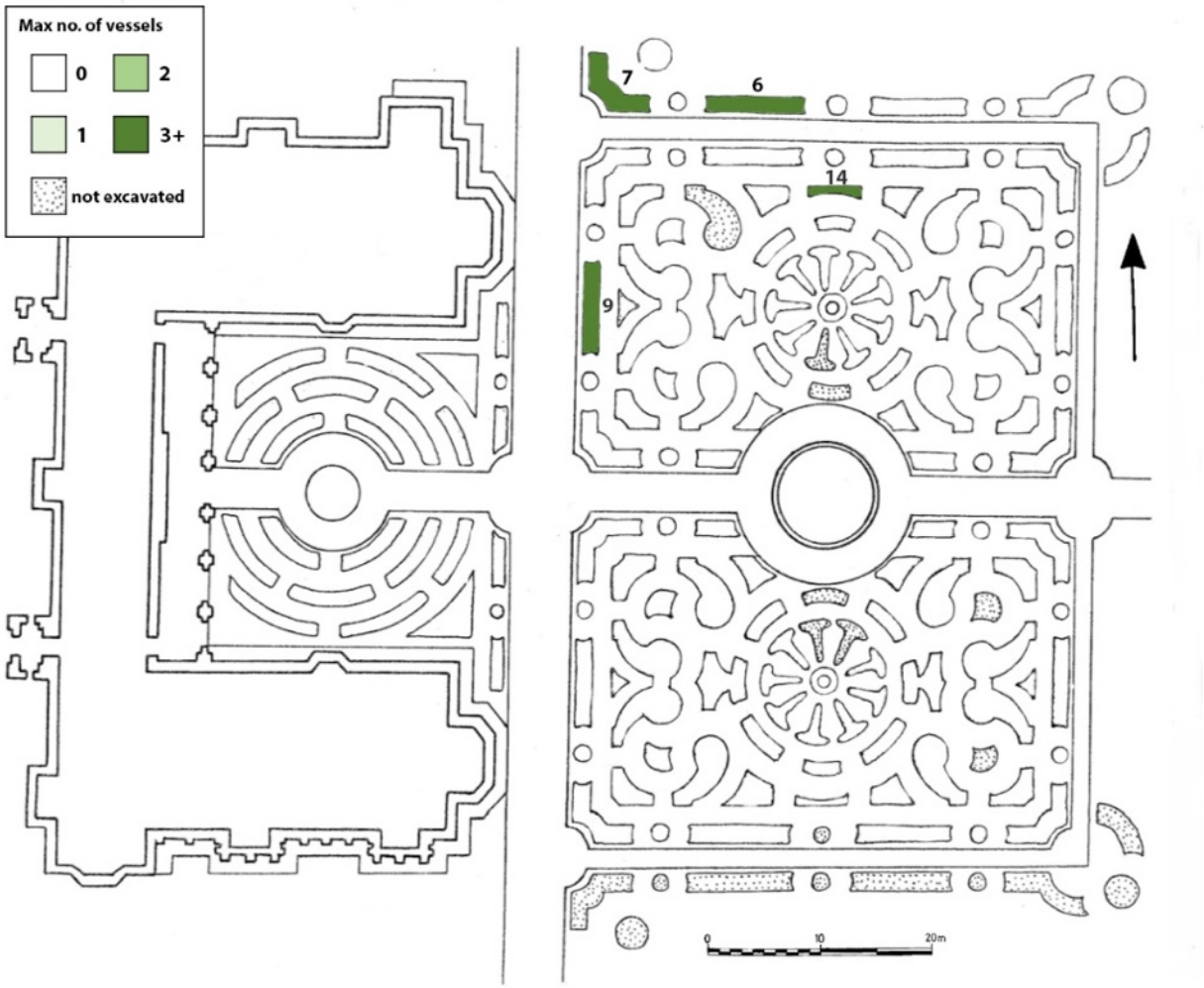


Figure 6.15: Diagram of parterre (Cunningham, 1987b, 11) showing number of glass fragments of 17th-century vessel forms within each flowerbed fill. © English Heritage.

6.5. Discussion

6.5a. A Jacobean palace and landscape

The Jacobean Audley End House is the most well-researched of the three buildings, yet archaeology has provided an additional perspective to prove the accuracy of Winstanley's engravings and other primary sources. The 1985-1987 excavation revealed parts of the east range of the inner court, its annexes, and the bowling green to the east of the house. These constructions had some continuity with the medieval and Tudor buildings; the east side of the east range, for instance, was placed on top of the Tudor eastern wall. It also showed where earlier structures were demolished, namely a wholesale demolition of the upper storeys of the

courtyard house, the remains of which were used as hardcore when the courtyard was laid out. The parterre excavation thus reinforces the accuracy of Winstanley's plans and etchings of the 17th-century Audley End (Linford and Payne, 2015, 52).

Audley End was an incredibly large gentry house at its inception, with royal apartments to host King James as well as specialised rooms for the daily activities of courtly life. Excavated stonework and architectural analysis of Winstanley's depictions of the house (Drury, 1980; Cole and Morrison, 2015) show that Audley End was built to reflect fashionable designs, with architects Howard, Jansson, and Thorpe using Classical and French Mannerist principles; it is telling that the house was both practically and stylistically appropriate to become a royal palace. The construction of such an elaborate house required the demolition of much of its predecessor, represented in the layer of demolished materials used as part of build-up deposits within the inner courtyard (Cunningham, 1987b, 5). However, the excavation also showed that medieval wall foundations were re-used, as was the name of Audley; the Jacobean house was a historic construction that looked behind as well as forward.

The development of the estate also included the delineation of pleasure gardens for the family and guests to enjoy. During the 17th century, as seen in the Winstanley estate plan and supported by the excavation findings, the area to the east of the inner court was levelled and used as a bowling green. Bowling was an elite pastime, with a statute legislated under Henry VIII making it illegal for commoners to participate (Lewis, 1998, 128). In 1618, James I issued the Declaration of Sports which was written to permit certain sports being played on Sunday as a rebuttal to Puritanism, yet it again dictated that bowling was prohibited amongst "the meaner sort of people" (Cestren and Tait, 1917, 564). Establishing bowing greens within the estate was thus a statement of status and wealth, as well as creating a pleasurable landscape.

6.5b. Procurement of ceramic and glass vessels

Analysis of the glass and pottery assemblages has demonstrated that the house was supplied through developing markets, represented by the large proportion of German stoneware, as well as local slipwares and Border ware pottery types. The 17th-century saw a marked expansion of the German stoneware industry; it has been estimated that between 1600 and 1640, ten million stoneware vessels were imported to London from the country (Gaimster, 1999, 223). This included pottery vessels from Frechen, especially Bartmann jugs, which were used as storage and drinking vessels for potables including beer and wine. Bartmann jugs are

depicted as drinking vessels in 17th-century European paintings (Gaimster, 2012, 306) and are often found in large numbers within urban domestic and drinking establishment contexts (Gaimster, 1997, 209; Jeffries *et al*., 2014; Pearce, 2016). They were occasionally used as ritual housing deposits, filled with urine and other materials that were believed to act as a cure for bewitchment (Thwaite, 2017); Frechen stoneware in the quantity that was recovered from the parterre gardens, however, suggests a more conventional use as storage and drinking vessels.

The assemblage also includes two slipware types, representing the development of an English slipware industry during this period (Gaimster, 1999, 220). The majority of slipware is of Metropolitan type, so-called because of its ubiquity within 17th-century assemblages in urban London. It was produced at Harlow, only 20 miles south of Audley End, throughout the middle of the century (Gaimster, 1999, 221; Davey and Walker, 2009). One sherd of Staffordshire combed slipware was also uncovered, a pottery type that was developed in the mid-17th century and distributed across southern Britain (Gaimster, 1999, 221). Slipwares of this period, both Metropolitan and Staffordshire types, were relatively inexpensive and decorative tablewares; Barker (1993, 3) termed them "useful and novelty wares of the majority of the population". The decorative framework of slipware enabled producers to evoke and emulate Continental vessel styles for consumers who could not afford imported wares (Nenk, 1999, 243). Indeed, it has been suggested that local slipware types were "largely confined to the lower end of the social spectrum" (Gaimster, 1999, 221); their presence at the palatial Audley End House thus requires further discussion.

A smaller proportion of the assemblage reflects other pottery types obtained from local and international contexts. Post-medieval black glazed redware was manufactured within Essex, so was likely obtained through local markets; the drinking cup is a common form in this kind of fabric, used to serve beverages at the table (Nenk, 1999, 240). Border whitewares were produced on the border of Surrey and Hampshire and were popular throughout the 17th century; the Border ware industry was a major supplier of everyday domestic pottery across southern England (Pearce, 1992; 1999). One of the sherds represents the rim of a dish with a single groove around the interior edge, comparable to flanged dishes recovered from mid-to-late 17th-century contexts (Pearce, 1992, 10). Dishes were used both to warm and serve food, demonstrating the multi-functionality of some pottery types during this period. Finally, the assemblage also includes the rim of a Spanish olive jar; this vessel form was used to import and store a range of Spanish goods including olive oil and wine (Krueger, 2016).

Another technological advance represented in the assemblage was the development of thick-walled green glass wine bottles, which were first produced around 1650 (Biddle, 2013, 121). Glass bottles grew in popularity throughout the latter half of the century, until English makers were producing approximately three million bottles per year (Jones, 1986, 11). They were traded across different geographic and social spheres, meaning that they are common finds within domestic deposits dating to the late-17th century, used to transport, mature, and serve potables at the table (Jones, 1986, 17). Wine bottles of shaft and globe and onion forms make up the entire glass assemblage from this period; no Jacobean glass tablewares were identified.

Exploration of the 17th-century assemblage has shown that the occupants of Audley End made use of a range of new consumer goods. This included the procurement of pottery from local and international producers, utilising an expanding and diversifying ceramics market which was developing across different geographical scales (Barker, 1999; Gaimster, 1999). There was also a new market in the later 17th century for London-made glassware, supported by the post-Restoration development of the Worshipful Company of Glass Sellers (Willmott, 2005a, 109). Opportunities for purchasing goods were plentiful for 17th-century gentry, including urban centres such as London and Cambridge, as well as local markets (Whittle, 2016, 25). Some of the vessels from the Audley End assemblage may have been incidental to the purchasing of the goods held within them, namely intoxicants and other consumables, which have been lost to the archaeological record. The purchasing of wine is particularly interesting; wine of different provenances was imported into England in large quantities, then sometimes decanted into bottles by taverns and wholesalers (Banks, 1997). Imported goods like this would have co-existed with the self-provision of other goods from the estate itself (Whittle, 2016, 29).

Historical accounts of consumption in this period often focus on furnishings and collectable goods, speaking to the traditionalism of the early modern gentry (Weatherill, 1996; de Vries, 2008). In contrast, archaeological objects reflect the obtainment of more innovative everyday goods. However, the lack of documents including probate inventories and household accounts from 17th-century Audley End limits the quantification of different scales of consumption; domestic material culture can only suggest what could have been purchased and used. This analysis perhaps underestimates the total quantity of 17th-century material culture within the excavated assemblage, as the date categorisation methodology means that post-medieval redwares, tin glazed wares, and Westerwald stonewares are discussed elsewhere. Despite this,

there is a notable lack of high-quality Jacobean materials such as imported slipwares, maiolica, or glass tableware types.

6.5c. Using and displaying material culture

Analysis of the forms and fabrics of the 17th-century assemblage has shown that it consists of everyday, low-cost objects used in food management, drinking, and dining contexts. Some materials, such as the Bartmann jugs and wine bottles, were likely used both in the storage of consumables and to serve them at the table, demonstrating the multiplicity of different functions that objects may have had. Beyond the proscribed function of these objects, they also acted as discursive and sensorial indexes, representing different meanings to those who interacted with them (Mullins, 2011). Ceramics, in particular, acted as a practical and decorative medium, an opportunity for visual display within everyday contexts. Decorative slipwares seen in the assemblage used designs comparable to fashionable Continental wares (Gaimster, 1999), whilst Metropolitan slipware also incorporated textual messages relating to religious or social morality (Cooper, 1968). The decoration of Bartmann jugs had a myriad of potential cultural meanings, from masculinity, to Protestantism, to popular mythology (Gaimster, 1997, 209; Demuth, 2015; Orser, 2019). Although the assemblage is not unique or high-quality compared to other 17th-century material owned by elites or the middling sort, it was still part of the complex interplay of objects, contexts, and people within the country house

Central to the biography of archaeological objects is how they interacted with people (Gosden and Marshall, 1999, 169). In the Jacobean world, social contact reinforced status, through practiced hospitality as well as other forms of physical and material display (Whittle, 2016, 31). To the gentry of Audley End, no guest was more important than King James in 1614, or the hosting of Catherine of Braganza's royal court in 1668. At these times, material culture was given a royal context, heightening its importance in creating and reinforcing gentry identity. Wine drinking in particular was both a social and political act; the practice of 'loyal healthing', drinking on behalf of the health of Charles II, was a means of displaying support to the Restoration monarchy (McShane, 2014, 248). This is represented in Pepys' account of his visit to Audley End House, when he made use of the house's stocked cellar in order to drink "a health to the King" (Wheatley, 1893). Whether carried out by the royal family, other visitors, or the house's occupants, the bottles represented within the assemblage are material remains of important social drinking practices within the 17th century. However, our ability to suggest

particular uses of these objects is limited by the influence of depositional and post-depositional processes, which have removed the objects from their original context.

6.5d. Depositional and post-depositional context

Spatial distribution analysis has shown that, like the earlier assemblages, the 17th-century assemblage was distributed towards the northern area of the parterre, but with differences between the glass and pottery assemblages. The 17th-century wine bottle fragments were only recovered from flowerbed fills within the northern parterre, focused on the north-east corner, and were grouped in particular flowerbeds rather than being evenly spread across the site. This could reflect the disturbance of glass dumps within this side of the bowling green during the parterre garden's construction, or the dumping of recovered 17th-century material into particular beds. The assemblage of wine bottles consists of less fragmented examples when contrasted with the pottery assemblage, suggesting that they underwent less damage before and/or after deposition. If these contexts represent the disturbance of 17th-century dumping contexts, this raises the question of why the occupants were disposing of bottles within the bowling green. However, the increased depth of the flowerbeds towards the eastern side of the parterre and individual variations in flowerbed size could also explain these patterns.

Spatial analysis of the distribution of pottery within flowerbed fills shows different patterns. The forms and fabrics of these sherds suggest that they originate from domestic refuse, connected to food storage, preparation, and serving. They were spread across flowerbed fills within the inner courtyard parterre and north parterre. The small quantities of material spread across a larger area suggest that they are residual rather than dumping deposits, supported by the fragmentary nature of the assemblage. Indeed, there is no crossover between the flowerbed fills containing glass and those containing pottery, further implying that the two material types underwent different depositional processes. However, both assemblages were similarly distributed towards the north of the main parterre. Winstanley's plan of the estate showed that the Great Kitchen was attached as an extension to the northern range of the outer court, to the east of which were the formal kitchen gardens (Alexander, 2015, 139). The material could thus represent the migration of domestic rubbish deposits from this area.

A feature shared between the glass and pottery assemblages is the generally low quantity of material culture, especially high-quality tablewares, for such a large elite house. This could reflect small-scale consumption of goods, perhaps due to Audley End's turbulent political

history throughout the 17th century. However, it seems more likely that depositional and post-depositional processes have caused this absence. Rubbish from the 17th-century house was likely deposited elsewhere and has only partially migrated to the excavation area through later landscape changes. Archaeological biases further reduce the quantity of material that could be excavated, both in the degradation of organic material and the different treatment of material types like metalwork. This interlinks with the context from which the material culture was recovered: the assemblage was excavated mostly from 19th-century parterre flowerbed fills, whilst the project did not recover any sealed Jacobean deposits that could contain undisturbed material culture. As such, this assemblage reflects the later history of the garden and the taphonomy of the later horticultural contexts that were excavated during the restoration-led project, more than it represents the use of material culture within the 17th-century house.

6.6. Summary

Audley End House was certainly 'a palace in all but name'. Howard's architects levelled the medieval and Tudor structural remains to construct an elaborate double-courtyard house with delineated gardens, although the name of Audley and parts of the medieval foundations were retained. The parterre excavation proved the Winstanley estate plan to be accurate in defining the location of the east wall of the inner court and the bowling green, which has been discussed through the social role of pleasure gardens in this period. However, the 1985-1987 excavation provided little evidence overall for the 17th-century house and gardens, as the interventions were not targeted to explore these features and the project did not incorporate a full excavation or interpretation of the pre-1832 stratigraphy. Instead, archaeological evidence from this period was only glimpsed within the sides and bases of excavated garden features. As such, this thesis shows that the 1985-1987 parterre excavation confirmed historically informed interpretations of the 17th-century Audley Inn but had limited access to its physical remains.

This chapter also analysed and contextualised the 17th-century domestic material culture excavated from the parterre garden. It showed that the assemblage consisted of everyday material culture relating to dining and drinking, material culture types that thus had some socio-political importance in the context of the household. It was primarily excavated from flowerbed fills within the north parterre, suggesting that it originated from discard practices around the Great Kitchen. Some of the glass assemblage may also represent the dumping of 17th-century wine bottles that were either disturbed by, or deposited into, particular

flowerbed fills. This assemblage, however, was a very limited representation of the use of material culture within the 17th-century house, especially considering its important social status. The relative absence of high-status material culture could have resulted from various factors, including partial occupation of the household in the later-17th century and archaeological biases in the recovery of materials. Most of all, it reflects the complex trajectory of pre-garden material culture into 19th-century flowerbed fills. As with other periods, post-depositional changes to the material and the unique excavation methodology have altered the assemblage composition and obscured the original depositional context, which will be discussed further through the analysis of parterre garden formation processes in Chapter 8.

7. Audley End House and its material culture, 1701-1985

7.1. Introduction

This chapter explores evidence recovered during the parterre excavation that relates to the modern Audley End House of the 18th, 19th, and 20th centuries. It draws on a range of academic and historical paradigms which consider modern country houses through the lenses of architecture and landscape, socio-political experience, and consumption practices. It outlines the biography of the house in this period and the small quantity of architectural information about the modern house obtained during the 1985-1987 parterre project, noting that limited structural evidence for the modern house was revealed during excavation. It then analyses the supply and use of the domestic material culture assemblage from this period, exploring the socio-economic implications of ceramics, glass, and other material types within and around Audley End. This chapter demonstrates that, although restoration-led excavations in formal gardens provide little information about the buildings around them, there is some academic potential in researching objects recovered from garden contexts to understand the everyday materiality of the country house. It thus presents an original analysis of a garden bed assemblage to develop wider site narratives, albeit an analysis that is limited by the nature of horticultural contexts and the restoration-led excavation methodology.

7.2. Historical background

7.2a. The 18th century: retrenchment and revival

Henry Howard's son, the sixth Earl of Suffolk (also called Henry, 1670-1718), inherited Audley End in 1709 and began a process of retrenchment, cutting back parts of the property to consolidate the house into a smaller, more financially viable form (Drury, 2014; Alexander, 2015, 14). This included the demolition of subsidiary ranges, namely the north and south ranges of the outer court and the Great Kitchen, as well as modernising the house's interior, all under the purview of Sir John Vanbrugh as architect (Drury, 1980, 24). There was further demolition at the house throughout the early 18th century, as successive owners removed the west wing of the outer court, the chapel, and council chamber (Alexander, 2015, 14). The family also achieved solvency through the tenth Earl, also Henry Howard (1706-1745), who married the daughter of a wealthy brewer; he remained childless, however, so at his death the contents of

the house were dispersed, and it stood empty until divided between four co-heirs (Drury, 2014). One of these co-heirs, Elizabeth Grey (née Griffin, 1691-1762), the Countess of Portsmouth, purchased the rest of the house and estate in 1751 (Martin, 2019). She finalised the demolition of the outer court by removing the east range and began a progress of improvements to be continued by her nephew (Drury, 1980, 27).

Her nephew, Sir John Griffin Griffin (1719-1797), inherited the house in 1762 and commissioned Robert Adam and Lancelot 'Capability' Brown to redesign its interiors and estate respectively (Alexander, 2015, 14; Rapson and Spain, 2019). Griffin played an active role in planning the transformation, overseeing the addition of a corridor between the wings and a kitchen and a new service block to the north (Williams, 1966; Alexander, 2015, 15). He also commissioned the development of the reception rooms on the ground floor, exemplifying Adam's developing Neoclassical style that made use of antique motifs (Christie, 2000, 55; Drury, 2014, 23). In 1784, Griffin was elevated to the Barony of Walden, and in celebration designed an elaborate state apartment with the expectation of a royal visit (Drury, 2011, 50). This visit was anticipated in 1786; Addison noted that, within the Braybrooke archives, there are three letters from Lady Griffin's peer, Lady Harcourt, informing her how best to arrange for the dining and entertainment of the King and Queen (Addison, 1953, 135-139). However, this visit did not take place, although Griffin's Audley End remained an important Georgian country house until his death in 1797.

7.2b. The 19th century: the Victorian house and parterre garden

After Griffin's death, the house and estate were left to his distant relation, Richard Aldworth Neville (1750-1825), who was also the owner of Billingbear in Berkshire (Drury, 2011, 51; Thorne, 2021). A royal visit to Audley End finally occurred in 1819 when the Duke of Gloucester, his wife Princess Mary, and sister Princess Sophia, dined with the Neville family and numerous guests, a total of 37 people seated within the redesigned dining parlour (Drury, 2014, 54). Aldworth Neville then retired to Billingbear in 1820, after his son Richard Neville (later Griffin, 1783-1858), who became the third Baron Braybrooke, married (Fisher, 2004). The latter then took over the house and estate (Drury, 2011, 53), carrying out extensive alterations to the house. Neville was the first owner to explore the history of Audley End; in 1836, he published a book titled *The History of Audley End and Saffron Walden,* an invaluable resource both for its original research and antiquarian perspective.

In this period, Audley End also became the principal seat of the Nevilles, with much of Billingbear's furniture moved to the house and forming the bulk of its current furniture and art collections (Drury, 2011, 53). Neville sought to recreate the Jacobean elements of Audley End; he commissioned the architect Henry Harrison to alter the interiors to promote their Jacobean character as well as changing the room layout to reflect new fashions, moving the reception rooms upstairs and creating a library on the first floor of the south wing, which overlooked the inner courtyard to the east of the house (Alexander, 2015, 16). This is also when the parterre garden was commissioned, perhaps to improve the view from the new library; this is discussed in Chapter 8.2b.

The fourth Baron Braybrooke, Richard Cornwallis Neville (1820-1861), inherited the house and estate in 1858 (Boase and Smail, 2008). He was a keen natural scientist and antiquarian, as noted in Chapter 3.2a, who created a Museum Room within the house to display his collections of archaeological and scientific objects (Millward and Martin, 2007), although he died only three years after taking ownership of Audley End (Alexander, 2015, 16). The fifth Baron Braybrooke, Charles Neville (1823-1902), prioritised his passions for sports and agriculture, laying out a cricket pitch at the front of the house and undertaking repairs to the property and estate (Drury, 2014, 51; 57). This overview has shown that, during the 19th century, there was a further series of alterations to Audley End that reflected the personal values and tastes of successive owners, informing the character of the house and estate today.

7.2c. The 20th century: from a home to a heritage asset

When Charles died in 1902, he was succeeded by his brother Latimer Neville (1827-1904), who was the master of Thomas Audley's foundation, Magdalene College in Cambridge (Drury, 2014). However, he died only two years later, and the house passed to his son and seventh Baron, Henry Neville (Alexander, 2015, 17). The seventh Baron Braybrooke, Henry Neville (1955-1941), let the house to his contemporary, Lord Howard de Walden (1880-1946), that title having been separated from the estate at the death of Sir John Griffin Griffin over a hundred years prior. Lord Howard "set about creating a life immersed, as practitioner and patron, in the arts, sport, and science" (Drury, 2014, 58); he used the house as a backdrop for parties and artistic events, dressing the Great Hall in medieval-style furnishings. Within established narratives of Audley End, this period is seen as an "Edwardian swansong during the great age of the country house party" (Alexander, 2015, 17). This terminology reflects the extravagance of early-20th century

country house entertaining but also draws on mythicised perceptions informed by post-war nostalgia (Edwards, 2017). Indeed, this period has been termed 'the crisis of the aristocracy'; increased debate about the role of landowners led to increased taxation on country houses during this period (Mandler, 1997, 173-176).

In 1912, after his marriage to singer Margherita van Raalte, Lord Howard left Audley End and the Neville family returned to live at the house (Drury, 2014, 58). Agricultural depressions and mounting expenses meant that the family's finances suffered during this period. In response, Neville sold Billingbear in 1923, which was then demolished in 1926, with the remaining interior furnishings and collections moving to Audley End (Drury, 2014, 58; Alexander, 2015, 17). During World War Two, country house landscapes were further altered. Mandler (1997, 312) stated that, at the onset of war, "it was widely acknowledged…that any large buildings in the countryside, unexposed to urban bombing, would be requisitioned to accommodate evacuees and army operations"; this led to the process of requisition, by which country houses, gardens, and estates passed into government control to be used for various services.

At Audley End, alterations for the war effort were initially focused on the estate. It was designated as a Stop Line Defence area, created to prevent attack over land from the east; this included the construction of a series of pillboxes, the widening and deepening of the river Cam, and the mining of bridges (Alexander, 2015, 17). The house itself was requisitioned after the death of the seventh Lord Braybrooke in 1941 and was used from 1942 to 1944 as the headquarters of the Polish section of the Special Operations Executive. The SOE was responsible for training agents from different armed forces to undertake subversive operations within enemy-occupied countries; this branch mostly sought to support the resistance army within Poland (Valentine, 2004; Bines, 2006). Audley End acted as a training centre, with the agents being instructed in fitness, weaponry, and survival skills (Valentine, 2004), and was also used for pre-mission activities (Bines, 2006, 128). Interior furnishings were protected, barring a single broken stained-glass window in the chapel (Valentine, 2004, 168); this is markedly different to other country houses where requisition-related damage was much more substantial (Mandler, 1997, 314).

Although the property remained intact, both of the seventh Baron's sons died during the war so that the title passed to his cousin, Henry Seymour Neville (1897-1990), the 9th Baron Braybrooke (Drury, 2011, 51; 56). Country houses were financially draining and increasingly out

of fashion, so post-war owners often sought to sell or gift their properties to heritage agencies (Mandler, 1997, 314-316). Seymour Neville entered discussions with the National Trust about the sale of Audley End under their Country Houses scheme; however, he could not pay an endowment for its upkeep, and the Trust's plan to purchase the house on behalf of Cambridge University failed (Thurley, 2013, 184-186). The Ministry of Works instead entered a successful bid, acquiring the property and its immediate grounds in 1949. The Ministry of Works' original plan was to maintain the house temporarily until the Ministry of Education could make alterations to use the property for residential education activities; however, funds were not released for these alterations, so the Ministry of Works retained ownership (Thurley, 2013, 185).

Since the purchase of Audley End by the Ministry, the focus of its custodians has been on "research, repair and conservation, both to preserve Audley End and make it accessible to the public" (Drury, 2011, 56); this quote implies the delicate balance inherent to the maintenance of historic properties, where the need to protect the historic character is sometimes at odds with making that historic character accessible to visitors. The Ministry of Works first stripped and redisplayed the ground floor rooms to reveal Adam's dining parlour, which showed this room to the public but also destroyed the 19th-century interior (Thurley, 2013, 242). After this controversial restoration, the focus of heritage management has shifted to archaeological and rescue-led projects, seeking to preserve the historic character of the property through research into and recording of architectural fabric. The parterre excavation was part of this preservation and research strategy, both allowing new research and restoring the historic character of the former parterre garden for visitors.

7.2d. Account books

Account books and other documentation can be used to consider how many people occupied the house during the 18th to early 20th centuries. An overview of these documents (see Table 7.1) has shown that the gentry family remained small throughout the late-18th and 19th centuries, barring an increase in the number of children within the house during the third Baron Braybrooke's early-19th century occupancy. It is overly simplistic to presume that this stayed temporally static; the numbers of 'above stairs' occupants in Audley End would have fluctuated regularly. It was common throughout this period for country houses to be owned alongside town houses, as elites often decamped to London during the summer months (see

Wilkins, 2011; Greig, 2013); all of the families who occupied Audley End had additional properties within London. The nobility also travelled with some regularity; the second Baron Braybrooke undertook a three-year Grand Tour to Italy, informing a recent exhibition at the house (Pelling, 2019), whilst the Griffins visited various family and friends across England (Williams, 1992, 74). Others stayed at Audley End House for different periods and purposes, including friends, acquaintances, and higher-status employees, such as the artist Biagio Rebecca (Salisbury, 2013) and specialist bookbinders (Williams, 1992, 75) in the late-18th century. However, the quantification of occupancy, with some caveats, suggests the quantities of material culture that could have been needed to maintain the household across different periods.

Table 7.1: Table showing the number of occupants within Audley End House and the wider estate, including other properties owned by the family and sources of information used to calculate occupants, and excluding domestic or estate staff who occupied other properties.

Year	**Family**	**Domestic staff**	**Estate staff**	**Sources**
1766	2 adults	12-16	5-9 (excludes gardeners and estate staff)	Williams (1974, 423; 1992, 117; 1993, 164) Drury (2014)
1791	2 adults	19-20	7 (excludes gardeners and estate staff)	Williams (1974, 423; 1992, 117) Drury (2014)
1832	2 adults, 8 children	27	5 (excludes gardeners and estate staff)	Neville (1827-1832) Drury (2014)
1871 to 1881	2 adults 1 child	24	3 stable staff 27 estate staff 29 Home Farm staff	Moring (2007) Hann (2010) Drury (2014)
1942 to 1944	No family	Approximately 100 Polish and British soldiers	2 former estate staff (excludes gardeners and estate staff)	Valentine (2014)

The quantification of 'below stairs' occupants at Audley End shows a disparity between the numbers of family and the servants working for them, with the latter making up a much larger group. Indeed, Audley End had a notably large establishment of servants compared to contemporary gentry houses, reflecting the economic prosperity of the house and estate throughout this period (Moring, 2007, 7). The number of domestic staff also increased during

the late-18th century, before decreasing in the late-19th century, in tandem with the number of estate staff. However, this quantification obscures the permeable boundary between servants living in the house, the wider estate, and other properties owned by the family. Indeed, when the 19th-century family were staying in London, some servants would have travelled with them, whilst the laundry maids continued to work in the larger service wing at Audley End (Gray, 2016).

Gardeners, although divided from domestic staff, also lived close to the main house; William Cresswell, for instance, lived in the kitchen garden during 1874 (Brown *et al*., 2006, 21). Once the house was requisitioned in 1941, meanwhile, both the family and servants were replaced by soldiers. Valentine estimates that, with 30 to 40 Polish trainees, around 20 instructors, and additional British troops stationed at the property, the occupation of the house during this period could have exceeded 100 in total (Valentine, 2014). However, this was only for two years in total and few documents are accessible from this period, limiting the comparison of 20th-century documentation and material culture within this thesis.

Analysis of historic accounts also provides an opportunity to elaborate upon and contextualise the procurement of different goods within the modern country house. Audley End's account books, which listed the income and expenditure of the household, show the procurement of different quantities and types of goods and their suppliers. An analysis by Williams (1974; 1992) considered the types of goods procured in the late-18th century (see Table 7.2), which spanned dining, entertainment, fuel, hygiene, and household goods, emphasising the importance of multi-faceted procurement to facilitate daily life. Williams' research included the partial transcription of Griffin's account books into tabular form, allowing for detailed analysis within this thesis considering how household consumption could be reflected within the archaeological record, specifically in the domestic material culture assemblage. It should be noted, however, that these accounts include expenses incurred not just at Audley End House, but also at the Griffin's London residence, so this is not a direct correlation.

When subdivided into sections, the account books demonstrate that Griffin's household's expenditures were dominated by housekeeping, mostly the procurement of food and drink. This encompassed the family and their domestic staff, as procurement strategies considered the household as a singular unit. Williams' research was also supplemented by a 1769 household book, which noted food acquired by the house during the year, subdivided into

meat, bread, and sundries, the latter including dairy, game, seafood, and vegetables. He also mentions a contingent book dating from 1793 to 1796, which listed regular purchases of tea, coffee, salt, and yeast (Williams, 1992, 68). It was common for elite households in this period to buy groceries in different quantities and timescales, "reflecting the rhythms of consumption and the stocks held in storerooms and larders" (Stobart and Rothery, 2016a, 87-88). Housekeeping also included cleaning products, both soap for personal use and household cleaning stores, and contingencies, encompassing a range of household goods from toothpicks to playing cards, services including chimney sweeps and 'musick men', and gifts for others (Williams, 1992, 68).

Table 7.2: Table showing household expenditure during Sir John Griffin Griffin's occupation of Audley End (1762-1794) by accounts section, recording average annual expenditure, types of goods and services within each section, and whether this expense could be visible within the archaeological domestic material culture assemblage (columns 1-3 after Williams, 1992, 78).

Section	**Projected annual expenditure**	**Proportion of annual expenditure**	**Types of goods and services**	**Visible in domestic material culture?**
Housekeeping	£956	28.9%	Food, cleaning products, other contingencies	**Yes**
Stables	£552	16.8%	Horses, supplies, stable staff, carriages	No
Servants' wages	£533	16.0%	Domestic staff	No
Travel	£230	7.0%	Travel expenses	No
Fuel	£185	5.5%	Coal, charcoal, wood	No
Wine	£162	4.9%	Wine, spirits	**Yes**
Game	£143	4.2%	Shooting and hunting, estate staff, menagerie	No
Beer	£130	3.9%	Beer, cider	**Yes**
Apparel	£118	3.4%	Family's clothing	No
Liveries	£112	3.2%	Servant's clothing	No
Lighting	£85	2.5%	Candles, oil	No
Books	£55	1.6%	Books, newspapers, stationery	**Yes**
Health	£32	0.9%	Doctors, apothecaries	**Yes**

Within the accounts, wine and beer were given separate categorisations, reflecting their different procurement strategies and uses within the household. The types of wine and spirits bought into Audley End included "port, sherry, brandy, rum, claret, hermitage, Madeira, champagne, hock, Cape and Cyprus wines" (Williams, 1992, 70). Unlike wine, which was primarily an elite drink, beer and cider were staple commodities across the household (Sambrook, 1996a, 197-200); at Audley End, large quantities of beer were purchased for the large cohort of domestic and estate servants (Williams, 1992, 71). The procurement of both housekeeping goods and beverages could be reflected in the archaeological assemblage through the organic remains of animals and plants, storage vessels, and tools for the preparation and use of these goods. Another subsection was outlined for books and stationery, needed for the administration of the estate as well as learning and entertainment, and health, the recruitment of doctors and apothecaries (Williams, 1992, 72-75); these could be represented in the domestic material culture assemblage through inkwells, medicine bottles, and other incidental objects.

Williams also noted Griffin's expenditure on "furniture, plate, china and stoneware", as they were grouped within the accounts. Between 1766 and 1797, a total of £12 572 was spent on these items (Williams, 1974, 418), an annual average of £406 which places the expense just below that of servants' wages. 'Plate' referred to silver tableware, which was generally obtained through specialist silversmiths for considerable sums (Stobart and Rothery, 2016a, 202). However, Williams did not discuss the chinaware and stoneware within the accounts, which could be represented within the domestic material culture assemblage. Further analysis of household inventories in future may suggest what kinds of positional and functional ceramics were purchased and displayed at Audley End House, as shown in Stobart and Rothery's (2016a, 95) characterisation of chinaware types at Stoneleigh Abbey.

Later research by Gray (2016) explored the trajectory of foodstuffs into the Victorian Audley End House. Gray showed that the estate supplied much of Audley End's food, including fruit, vegetables, herbs, and flowers from the kitchen gardens, as well as meat, fish, and dairy from the wider estate (Gray, 2016, 168). These were supplemented by consumable goods purchased from local suppliers, including from a grocer, miller, and butcher in Audley End Village, Littlebury, and Saffron Walden, respectively. Gray also discussed how food was distributed and consumed, including the division between the family and their servants; for instance, domestic staff had half as much meat allocated per head as their masters. Williams and Gray both

showed that historic document analysis could inform understanding of the procurement and use of domestic material culture within the modern household; these two sources will be used within the discussion of archaeological objects below.

7.3. Archaeological research

The most thorough research into the modern architecture of the house was undertaken by Paul Drury. Using buildings survey and historic documentation, Drury defined three phases of architectural alteration between 1701 and 1745 (see Figure 7.1), including the demolition of subsidiary buildings and the modernisation of the house's interior (Drury, 1980, 24). His analysis illustrated that the chapel and court buildings to the north and south of the parterre area were removed in 1725, and that the east range was demolished by 1765, connecting the inner courtyard and main garden. Drury also defined a final alteration phase between 1826 and 1831, involving the redesigning of interiors and offices (Drury, 1980, 27), that provides further context for the construction of the parterre garden.

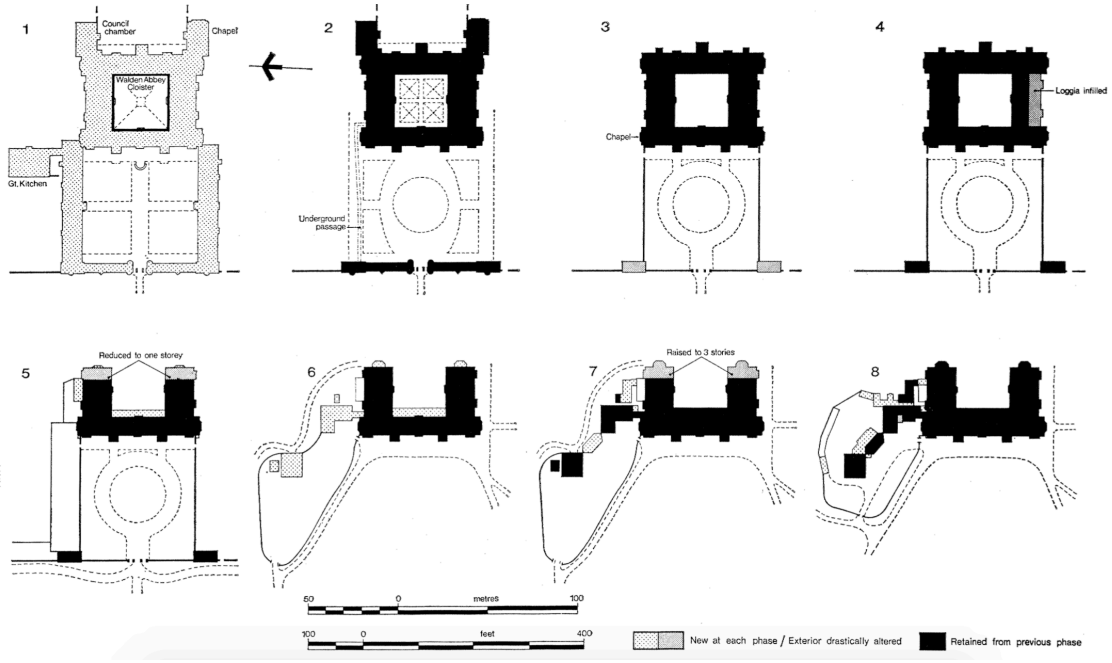


Figure 7.1: The evolution of the layout of Audley End House and subsidiary buildings between 1605 and 1835, including 2. c.1708-1725, 3. c.1725-1740, 4. c.1740-1752, 5. c.1752-1763, and 6. by c.1765 (Drury, 1980, 26, figure 1). © Society of Architectural Historians of Great Britain 1980.

Concurrent with the architectural survey, Drury also interrogated the archaeological record of the house in advance of the restoration of floors at the east end of the south wing (Drury, 1982c; 1984a; 1984b). This project involved the excavation and recording of the floor of the former library, revealing debris from the construction of decorative plasterwork by Joseph Rose in 1764 to 1766, as well as the structure of the 18th-century timber floors. The artefacts recovered from this excavation are also held within the Wrest Park Collections Store, including an English salt-glazed stoneware mug that was used during the plastering process, a decorative tin-glazed ware plate (see Figure 7.2), and a white salt-glazed stoneware teapot lid (Cunningham, 1984). This excavation revealed the kinds of material culture used at the house during the 18th century, as well as how architectural redesigns influenced the building fabric.

Figure 7.2: Fragments of a salt-glazed stoneware mug (left) and tin-glazed ware plate (right) recovered during the 1979 floorboard excavation (author's image).

The 1985-1987 parterre excavation provided little additional information about the architecture of the modern Audley End House. This is due to several reasons: the focus of the project was on the parterre area which contained no structural features dating to this phase, the excavation methodology did not include the removal of in-situ deposits unless necessary for garden reconstruction, and most of the building fabric dating to the 18th and 19th centuries is still standing. The only architectural information revealed by the project was found during the 1985 excavation of the bases of the two western porches, which revealed three postholes related to scaffolding used in the construction of the balustrade around the north and south wings of the house in the mid-18th century (Cunningham, c.1985, 3). However, a large quantity

of domestic material culture from this period was also recovered during the excavation, requiring further research.

7.4. Material culture

7.4a. Pottery

7.4a.i. Assemblage composition

The modern pottery assemblage is the largest proportion of the domestic material culture recovered during the parterre excavation. This section outlines the general composition of the assemblage (see Figure 7.3). A total of 779 sherds of pottery were dated to the 18th, 19th, and early-20th centuries, representing a maximum of 742 vessels, and including 179 rims and 97 bases. The majority of the pottery sherds were made of post-medieval redware, factory-made refined white earthenware, and English-made stoneware. The broad interpretation of vessel forms suggested that the assemblage was used for multiple functions, encompassing open, closed, and straight sided vessels. However, the fragmentary nature of the pottery assemblage meant that the majority of the modern sherds were non-diagnostic.

The largest proportion of the modern pottery assemblage consisted of post-medieval redware fabrics, with a total of 318 sherds and an estimated maximum of 310 vessels, including 64 rims and 30 base sherds. Post-medieval redware originated in the 16th century and was produced in London and Essex, with vessels diversifying in form and usage throughout the 17th century before developing a primarily utilitarian function until the 19th century (Nenk, 1999). The assignation of post-medieval redware is broad, encompassing dark orange fabrics with clear, brown, and green lead glazes, some of which are speckled with black due to inclusions in the clay (Jamestown Rediscovery Foundation, 2021), and a range of different rim types.

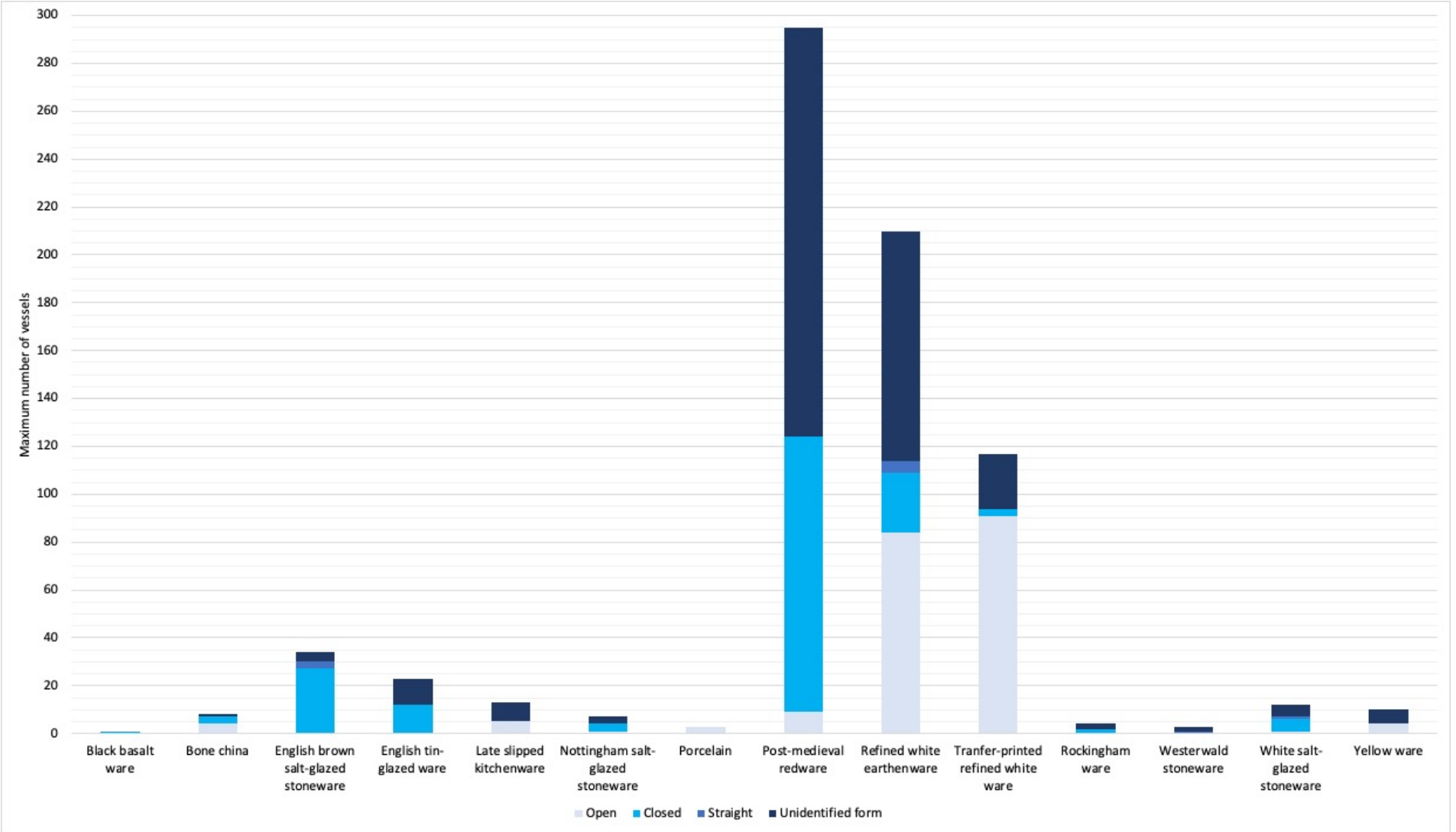


Figure 7.3: Graph showing the 18th, 19th, and 20th-century pottery assemblage subdivided by vessel form and pottery fabric type.

The sherds perhaps represent domestic household functions as they are mostly coarse and thick-walled, and a few sherds have sooting on their external surfaces. However, there is some cross-over with the flowerpot assemblage, as the fragmentary nature of many pieces makes them difficult to identify; all glazed redware sherds have been categorised as domestic redware unless they were obviously identifiable as flowerpots, meaning that some vessels could have had horticultural uses. There were also 15 redware sherds of a thick reddish-brown fabric with an off-white internal and brown external glaze, including rim and base fragments of large basins (see Figure 7.5); these can be categorised as late slipped kitchenware, the "major locally used coarseware" of the 19th and early-20th centuries within Essex (Cotter, 2000, 254).

To allow for further discussion, each rim fragment of post-medieval redware has been categorised by estimated radius (see Table 7.3), allowing for some exploration of the size and thus potential form of both open and closed vessels. This has shown that the openings of the closed vessels are mostly 10 to 30 centimetres in diameter, thus representing larger jars and jug forms. There was a smaller quantity of open vessels, including the large basins discussed above, as well as smaller bowls and perhaps more specialised vessels. This assemblage therefore represents a range of vessel types, dates, and provenances. The further typological categorisation of diagnostic fragments by a redware specialist, utilising domestic and horticultural parallels from other collections, would heighten understanding of the forms and functions of the vessels from which the sherds originated.

Table 7.3: Table showing the number of post-medieval redware (including late slipped kitchenware) rim sherds, divided by radius of vessel (mm) and vessel form class (open, closed, or unidentified).

Radius (mm)	**>50**	**50-95**	**100-145**	**150-195**	**200<**
Open	0	3	4	0	3
Closed	6	24	18	2	1
Unidentified	1	2	0	1	0

Within this thesis, factory-made refined white earthenwares dating from the late-18th to early-20th centuries have been divided into transfer-printed wares and other refined whitewares. There were 138 sherds of the former, representing a maximum of 117 vessels, and including 40 rim fragments and 31 base fragments. Transfer printing was a decorative technique developed around 1750, so-called because it involved the transference of an engraved design onto a ceramic vessel via a tissue paper transfer (Samford, 1997, 2). Designs in cobalt blue on white earthenware became common for tableware vessels in the later-18th century, in parallel with the popularity of under-glaze painting on refined earthenware, before other colours were introduced in the early-19th century (Barker, 1999, 228–229). This assemblage represents a range of forms, primarily open bowls, plates, and dishes.

Transfer-printed wares were the first decorative wares to have highly standardised designs, providing an opportunity to date the assemblage and to consider what these designs could have represented in domestic contexts. Five key pattern categories can be identified within the assemblage (see Figure 7.4). The biggest proportion is of Chinese and chinoiserie designs, which were identified through design markers including fish roe, lozenges, honeycomb, and key motifs (Copeland, 1980, cited in Samford, 1997, 8), that were produced within Britain and popular through the later-18th and early-19th centuries. This includes a large dish (see Figure 7.8) that can be identified as Spode's Willow III pattern (Copeland, 2000, 18). The second-most represented category was floral designs, which were often placed around the borders of vessels (see Figure 7.9); some of these are in green and mulberry dye colours, thus dating to the 1820s at the earliest (Samford, 1997; Copeland, 2000, 9).

Other patterns are represented in the assemblage, including a blue feathered or shell-edged pattern (see Figure 7.10) common to early-19th century sites (e.g., Saint Mary's University, 2014) and a flow blue floral design that was first produced in the early 1830s (Samford, 1997, 24). There is also a small quantity of landscape-patterned vessels (see Figure 7.11), although the fragmentary nature of the assemblage means that it is difficult to identify individual landscape designs. Two fragments of a large dish, or perhaps a tile, shows part of a transfer-printed blue letter 'K' (see Figure 7.12). In an analysis of ceramic finds from an early-20th century navy victualling yard, Jarrett and Thompson note a similar design on a transfer-printed dish, which they suggest could refer to the vessel's intended use within officers' mess galleys (Jarrett and Thompson, 2012, 104). Although it was a different military branch with its own

internal classification systems, these fragments could perhaps represent the use of this dish by the Special Operations Executive, although this design could have a range of other meanings.

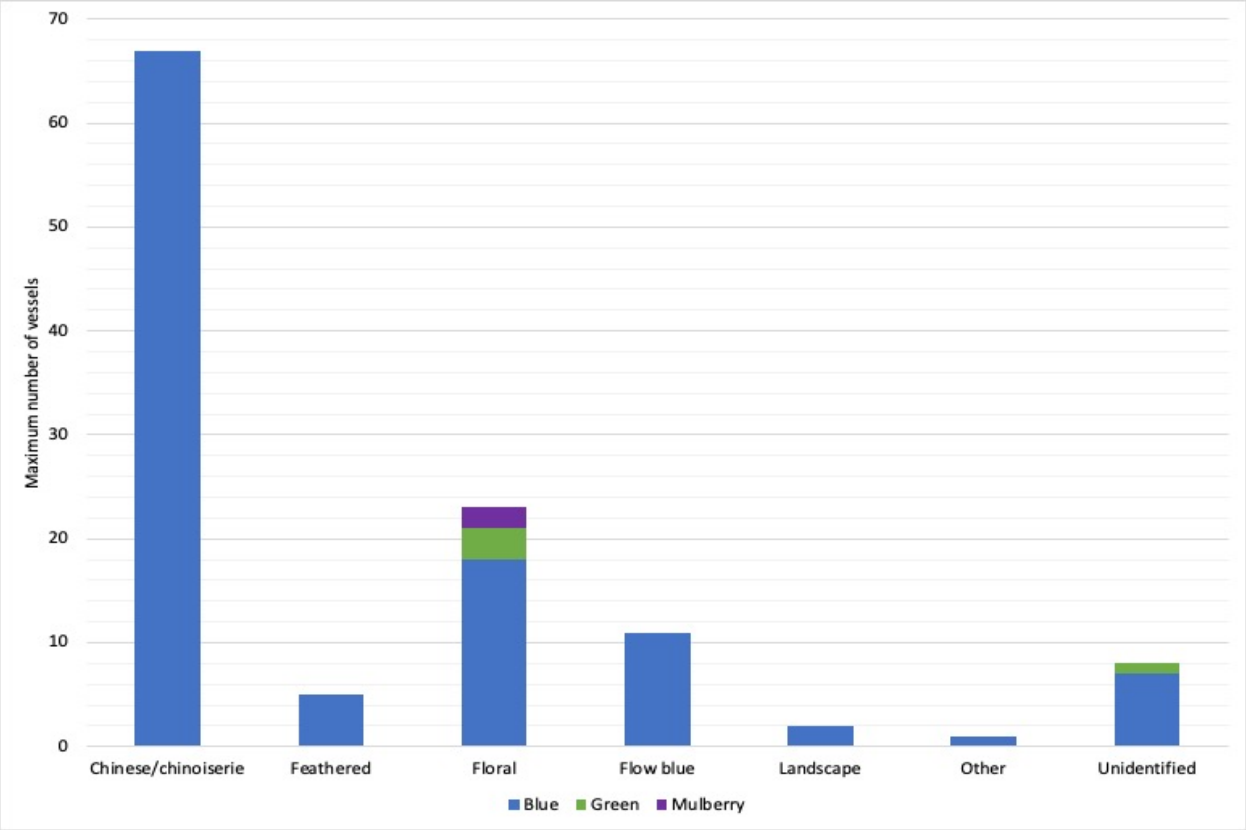


Figure 7.4: Graph showing the maximum number of transfer-print ware vessels, divided by pattern categorisation (after Samford, 1997; MOLA, 2014), and colour of design.

The assemblage also included 215 sherds, representing a maximum of 210 vessels, of non-printed factory-made refined white earthenware. These sherds were often too fragmentary to be identified but represented mostly open vessels, primarily plates and dishes, as well as a smaller quantity of closed vessels. Some of the finer pieces may be other forms of earlier whiteware such as creamware, queensware, and pearlware, which were developed as less expensive alternatives to porcelain (Barker, 1999, 228) but are difficult to differentiate from modern whiteware more generally (Cotter, 2000, 253). This identification could also include fragments that were transfer-printed on other parts of the vessel which were not recovered. However, many of the pieces are thicker walled than could be expected of high-quality tableware, perhaps representative of vessels with more utilitarian functions.

Analysis of the estimated rim radius of both kinds of whiteware (see Table 7.4) demonstrates that the assemblage consists of mostly open vessels, primarily plates and dishes, with a smaller quantity of straight-sided or closed vessels. Some of these sherds were decorated with green and black under-glaze painting, although these have not been fully categorised as they are highly fragmented. Only one manufacturer's mark was found: the base of a whiteware plate printed with the words 'G VI R' and 'WOOD' (see Figure 7.13), which showed that it came from the Wedgewood factory during the reign of George VI (1936-1952).

Table 7.4: Table showing the number of refined white earthenware and transfer printed ware rim sherds, divided by radius of vessel (mm) and vessel form class (open, closed, straight sided, or unidentified).

Radius (mm)	**>50**	**50-95**	**100-145**	**150-195**	**200<**
Open	6	21	51	11	2
Straight sided	1	3	0	0	0
Closed	4	5	2	0	0
Unidentified	2	1	3	0	0

Also represented in the assemblage were 18th and 19th-century stoneware types. This included seven sherds of Nottingham stoneware (see Figure 7.14), a brown fabric with a distinctive brown salt glaze "with a burnished metallic appearance produced by the use of a lustrous brown slip" (Hoffman, 2018). Despite its name, this fabric type was manufactured across central and northern England (Noël Hume, 2001, 180); all seven sherds had incised decoration on their outer surfaces, a style used throughout the 18th century (Hoffman, 2018). There were also 12 sherds of English white salt-glazed stoneware (D'Elia, 2015) within the assemblage, again dating to the 18th century and including open and closed vessels. There was a notable division in this ware type between highly fragmented sherds with a fine pale grey fabric (see Figure 7.15), likely representing thin-walled tableware, and a thicker off-white fabric used for the bases of mugs and jars (see Figure 7.16). Both Nottingham and white salt-glazed stoneware types were popular in the 18th century, before being superseded by factory-made earthenware vessels (Barker, 1999, 226).

The assemblage also included three sherds of Westerwald stoneware, a German stoneware type with a light grey fabric and geometric cobalt-blue decorations under a clear salt glaze; this included the base of a decorated tankard with early-18th century parallels (Gaimster, 1997,

267; Noël Hume, 2001, 108). From the 19th century, meanwhile, there were 35 sherds of English brown salt-glazed stoneware within the assemblage. This included three rims and two bases of straight-sided bottles (see Figure 7.17), which often contained blacking, used to polish shoes (Cotter, 2000, 254). Two sherds of brown stoneware also had embossed letters which perhaps named the manufacturer of their contents, reflecting the adoption of stoneware vessels as commercialised product packaging in this period (Basford, 2012).

The assemblage also included 25 sherds of English tin-glazed ware, representing a maximum of 23 vessels, including three rims and seven base fragments. All of the diagnostic pieces of this fabric type originated from blue-and-white striped or light blue glazed ointment pots (see Figure 7.18), similar to pieces found across London apothecary and domestic assemblages (Sygrave, 2010; Booth, 2019). The non-diagnostic tin-glazed ware sherds had a range of glaze colours, encompassing white, pale blue, and pink glazes, so originated from numerous vessels. English tin-glazed wares reached the apex of their popularity in the early-18th century, hence their inclusion in this section of the thesis, before declining by the start of the 19th century (Barker, 1999, 226).

The assemblage also included smaller quantities of other modern pottery fabric types. Four fragments with a pinkish-orange fabric and a distinctive brown mottled glaze, including the handle of a tankard (see Figure 7.19), were uncovered, which have been cautiously identified as Rockingham ware (see Claney, 2004). Another ten sherds were of the 19th-century decorative earthenware type known as ‘mocha ware’ or ‘mocha-dipped’ wares (Rickard, 2006), with a slipped decoration in yellow, blue, and white; three of these sherds originated from a large bowl (see Figure 7.20). There were also eight sherds of 19th to 20th-century bone china, recognisable due to their black-flecked vitrified white fabric, consisting of both open and closed wares with moulded and painted decorative elements. Only four fragments of porcelain were recovered during the 1985-1987 excavation, with a very fine, translucent fabric (Copeland, 2000, 6), all of which were identified as bowls with blue-painted Chinese or chinoiserie motifs (see Figure 7.21). The assemblage also included the shoulder of a small decorative black basalt ware vase (see Figure 7.22).

Figure 7.5: Sherds of redware basin, excavated from context [JA 126] (author's image).

Figure 7.6: Rim of shouldered closed redware vessel, excavated from context [JA 329] (author's image).

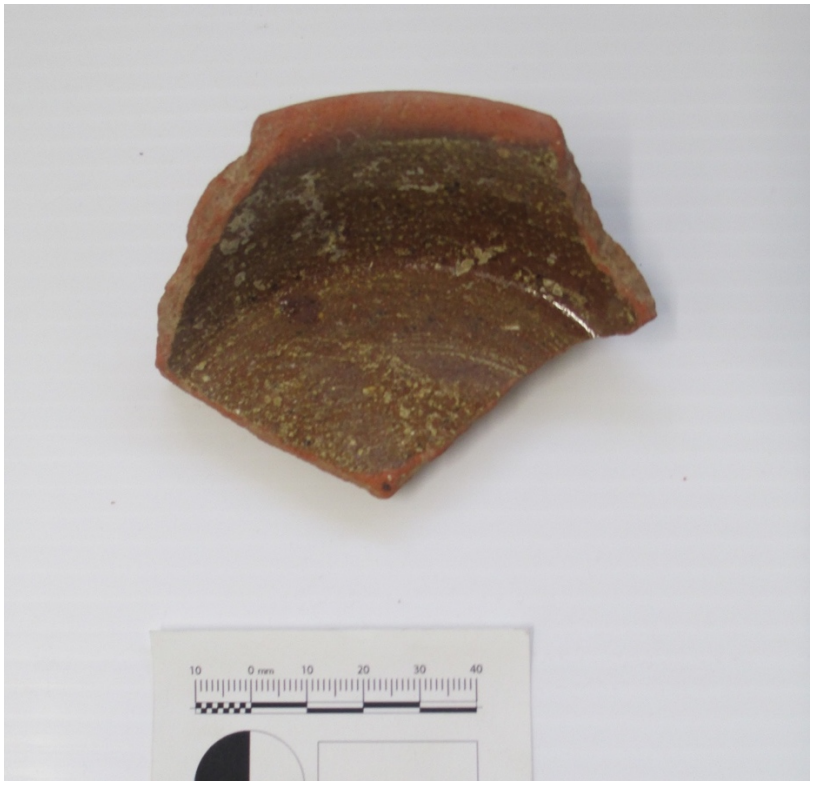


Figure 7.7: Brown-glazed redware bowl, excavated from context [JA 126] (author's image).

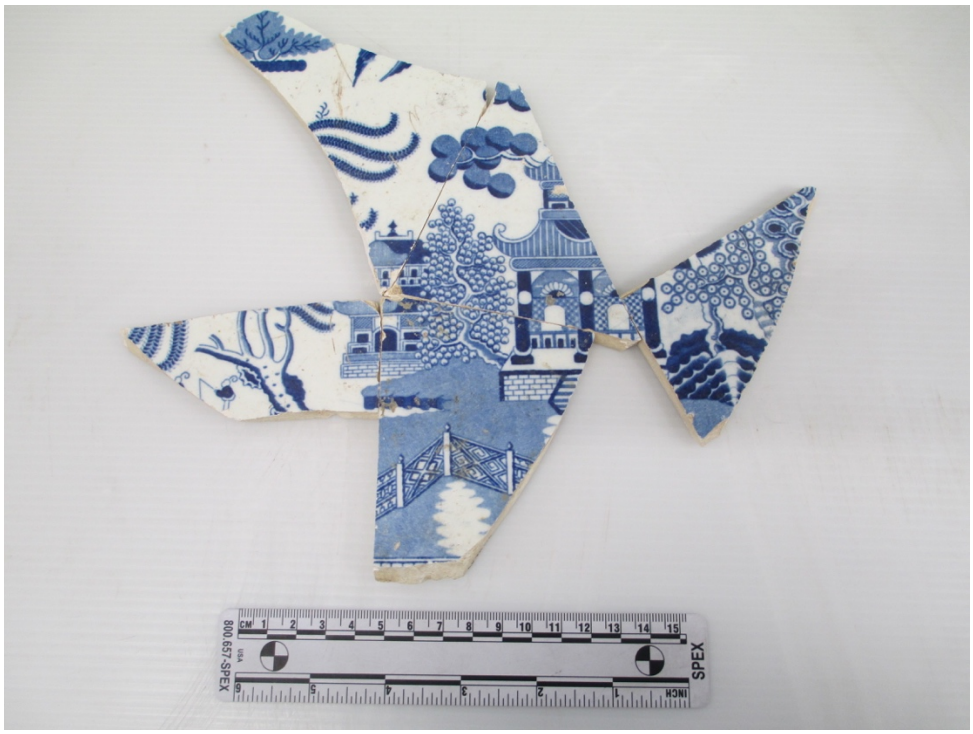


Figure 7.8: Base of willow-patterned transfer print ware dish, excavated from context [JA 126] (author's image).

Figure 7.9: Rim of transfer printed ware with blue floral pattern, excavated from [JB 111] (author's image).

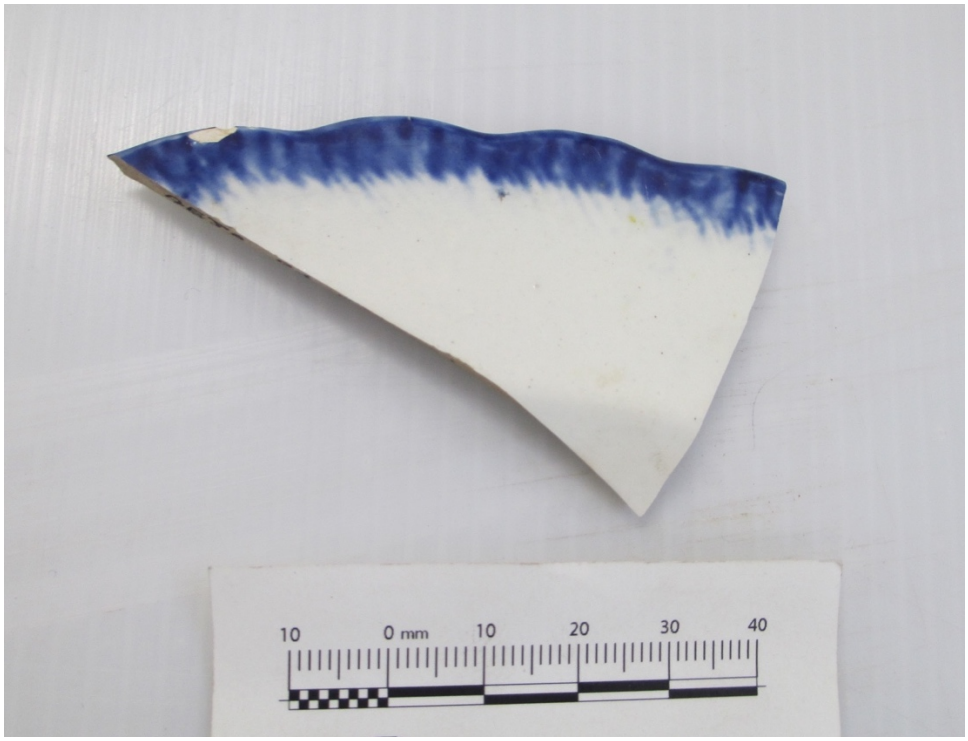


Figure 7.10: Rim of dish with blue shell-edged rim, excavated from context [JA 622] (author's image).

Figure 7.11: Rim of transfer-printed plate with blue landscape print, excavated from [K 2] (author's image).

Figure 7.12: Refined white earthenware vessel with 'K' pattern, excavated from context [JA 126] (author's image).

Figure 7.13: Base of 20th-century refined white earthenware plate, excavated from context [K 21] (author's image).

Figure 7.14: Rim of Nottingham stoneware closed vessel with incised decoration, excavated from context [JA 384] (author's image).

Figure 7.15: Rim of white salt-glazed stoneware vessel, excavated from context [JC 299] (author's image).

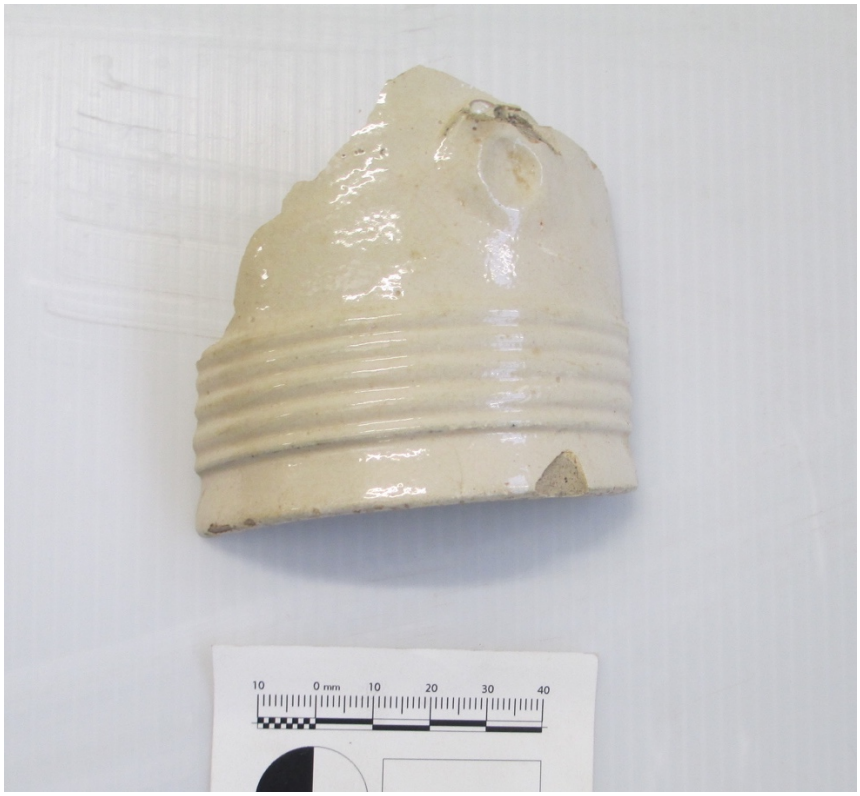


Figure 7.16: Base of white salt-glazed stoneware straight sided jar with lost handle, excavated from context [JA 372] (author's image).

Figure 7.17: Rim and base of English brown salt-glazed stoneware bottle, excavated from context [JA 126] (author's image).

Figure 7.18: Base of tin-glazed ware ointment pot with blue and white stripes, excavated from context [K 12] (author's image).

Figure 7.19: Brown-glazed tankard handle, excavated from context [JA 69] (author's image).

Figure 7.20: Base and rim sherds of mocha decorated bowl, excavated from context [JA 126] (author's image).

Figure 7.21: Footed base of porcelain bowl, excavated from context [K 90] (author's image).

Figure 7.22: Sherd of black basalt ware, excavated from context [JA 143] (author's image).

7.4a.ii. Archaeological context

A total of 208 contexts contained 18th, 19th, and early-20th-century pottery types. Division by context type grouping (see Table 7.5) shows that the majority of this assemblage, representing a maximum of 371 vessels, was excavated from flowerbed fills. The spatial distribution of this assemblage is outlined in Chapter 8.4c. A large proportion of the assemblage, representing a maximum of 192 vessels, was excavated from layers. A particular layer that requires discussion is [JA 126], the foundation of the pathway around the main parterre area, as defined in Chapter 8.7c. This context (see Table 7.6) contained 109 sherds of modern pottery types, a maximum of 92 vessels, consisting predominantly of refined white earthenware as well as redware, 18th-century stonewares, and mocha-dipped yellowware. Smaller quantities of modern pottery were also excavated from unstratified fills, modern services, and topsoil contexts.

Table 7.5: Table showing the maximum number of 18th and 19th-century pottery vessels, divided by context type.

Type of context	**Number of contexts**	**Maximum number of vessels**	**Average maximum number of vessels per context**
Topsoil	5	70	14
Flowerbed fills	137	371	2.7
Layers	28	192	6.9
Modern services	17	48	2.8
Other fills	11	29	2.6
Unknown	10	32	3.2

Table 7.6: Table showing the number of modern pottery fragments within [JA 126], subdivided by fabric type.

Pottery type	**Number of fragments**	**Identified vessel forms**
English salt-glazed stoneware	4	Blacking bottle
Late slipped kitchenware	13	Basin
Nottingham stoneware	1	Bowl
Post-medieval red earthenware	3	Bowl
Refined white earthenware	44	Basin, jar, bottle, plate
Transfer-printed white earthenware	40	Plate, dish, bowl
Yellow ware	4	Basin

7.4b. Vessel glass

7.4b.i. Assemblage composition

The 1985 to 1987 excavation assemblage included 108 fragments of vessel glass that could be dated to the 18th, 19th, and early-20th centuries, representing a minimum of 73 and a maximum of 100 vessels, and including 22 rims and 48 bases (see Figure 7.23). The dateable assemblage primarily consisted of wine bottles, as well as other bottle types including phials, and a smaller quantity of drinking glasses and plates. The rest of the vessel glass assemblage was too fragmented to be identified, although, as discussed in Chapter 3.4c.i, the remaining undated fragments probably represent wine bottles similar in date to the examples discussed here.

Some of the glass assemblage can be dated broadly to the 18th century. This includes the base of a mallet-shaped wine bottle, a typological form consisting of a straight-sided, squat body and broad tapered neck, that dates to between 1720 and 1760 (Banks, 1997, 25). Seven fragments represent either mallet or cylindrical bottles, which had bases with rounded cone push-ups leading into a straight-sided body, dating to the later-18th or 19th centuries. Another two fragments make up the thin neck of a dark green bottle, possibly from the 18th century, which could originate from a Continental-style wine bottle or mineral water bottle (Hugh Willmott, *pers. comm.*); however, this was too fragmentary for further identification.

Other forms of 18th-century glass vessel were also present within the assemblage. Two necks of small light green phials with everted rims were excavated from two different contexts (see Figure 7.24); these likely date to the 17th or 18th centuries, and acted as medicine bottles, or potentially sand glasses (Willmott, 2002, 90–91). Three sherds of colourless bottles with hexagonal bodies were also recovered, possibly representing case bottles, although further research into this form is needed. This assemblage also included a complete mucilage storage vessel or inkwell, with a circular cylindrical neck, square body, and domed base (see Figure 7.25), with parallels dating to the late-18th or early-19th centuries (Jones and Smith, 1985, 107). A ball knop from the stem of a clear wine glass represented stemware also dating to the late-18th century (Jones and Smith, 1985, 47; Jones and Sullivan, 1989, 140).

Moving into the 19th and early-20th centuries, the assemblage included 50 fragments of cylindrical bottles, with narrow bases, straight-sided bodies, and straight necks with double-

string rims (see Figure 7.26 and Figure 7.27); the latter feature allowed the necks to be dated more specifically to between 1820 and 1840 (after Banks, 1997, 32). Other kinds of bottles were also represented in the assemblage, encompassing 15 fragments of different colourless, pale green, and blue bottles. This included two body fragments of a colourless glass bottle with raised embossing reading '[SAF]FRON WALDEN' (see Figure 7.28), and a fragment from the body of a rectangular dark blue bottle embossed with 'TAK'.

A small quantity of late-18th and 19th-century tableware was also recovered during the excavation. This consisted of the bases of three tumblers with cut panels and tapered bodies (see Figure 7.29), similar to examples from Fort Louisbourg, which was a settlement in late-18th century French-occupied Canada (Smith, 1981, 225). The project also recovered four fragments of 19th-century blue press-decorated commemorative plates (Figure 7.30). Two of these appeared to originate from a late-19th century Queen Victoria jubilee plate, one example of the numerous souvenirs produced to commemorate this occasion (see Smith, 1996); the date of this post-dates the construction of the parterre by around 50 years, thus requiring further discussion. This assemblage also represents a small quantity of tableware comparative to the site's status as high-status country house, providing a further avenue of analysis.

In summary, the modern glass assemblage consisted of domestic storage vessels and a smaller quantity of tableware, similar to the contemporary pottery assemblage. Identified forms mostly dated to the 19th century, reflecting the date of the parterre; however, they are difficult to date more specifically within such complex contexts. It is also important to note that some glass vessels, such as wine bottles, could be used and reused over long periods; the date of their deposition could be well after their initial procurement, as seen at contemporary sites within North America (see Busch, 1987). The fragmentary nature of the rest of the glass assemblage also limited the identification and analysis of this material, as only a small proportion of the assemblage could be dated to a particular period in the house's history.

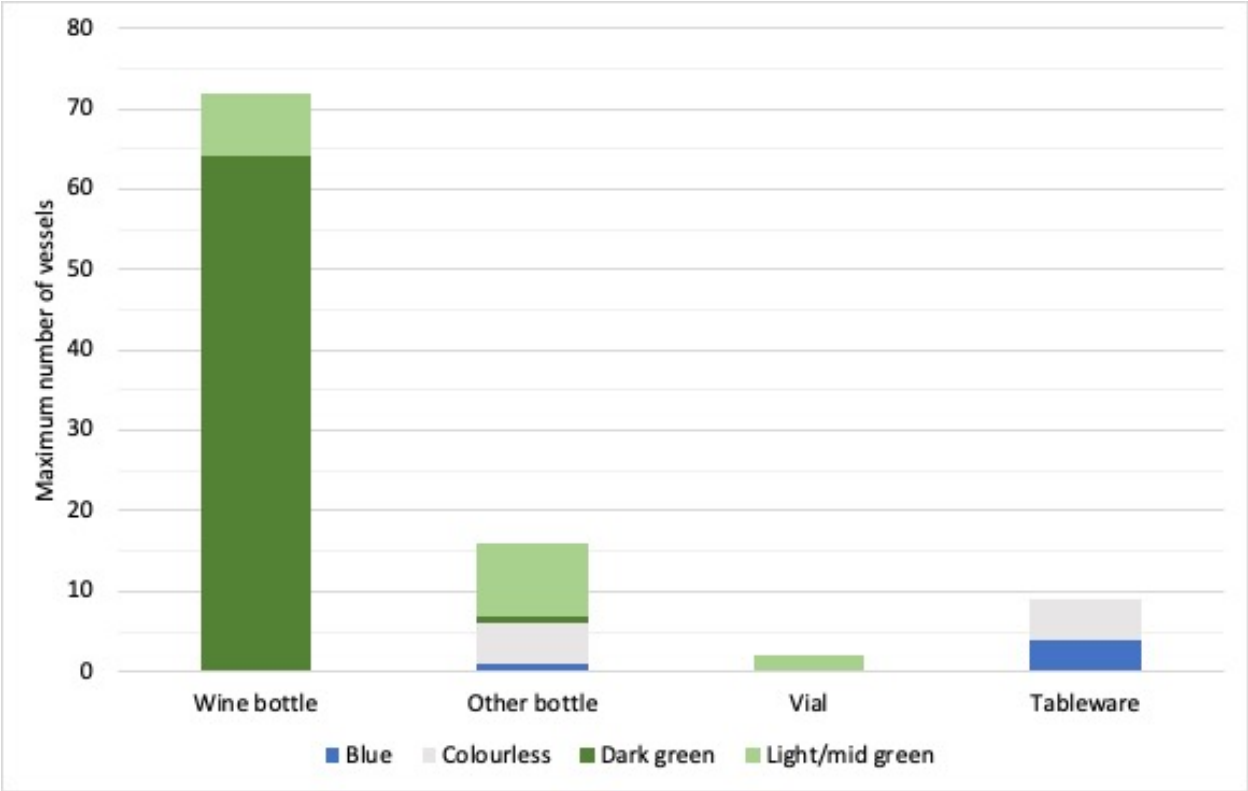


Figure 7.23: Graph showing the 18th and 19th-century glass assemblage subdivided by form and glass colour.

Figure 7.24: Two neck fragments of vials, excavated from contexts [K 13] on left and [JA 5] on right (author's image).

Figure 7.25: Complete mucilage storage bottle or inkwell, excavated from context [JA 160] (author's image).

Figure 7.26: Bases of cylindrical bottles, excavated from context [JA 138] (author's image).

Figure 7.27: Necks of cylindrical bottles with double rims, excavated from context [JA 138] (author's image).

Figure 7.28: Two fragments of bottle, excavated from context [JC 262] (author's image).

Figure 7.29: Base of tumbler, excavated from context [JA 56] (author's image).

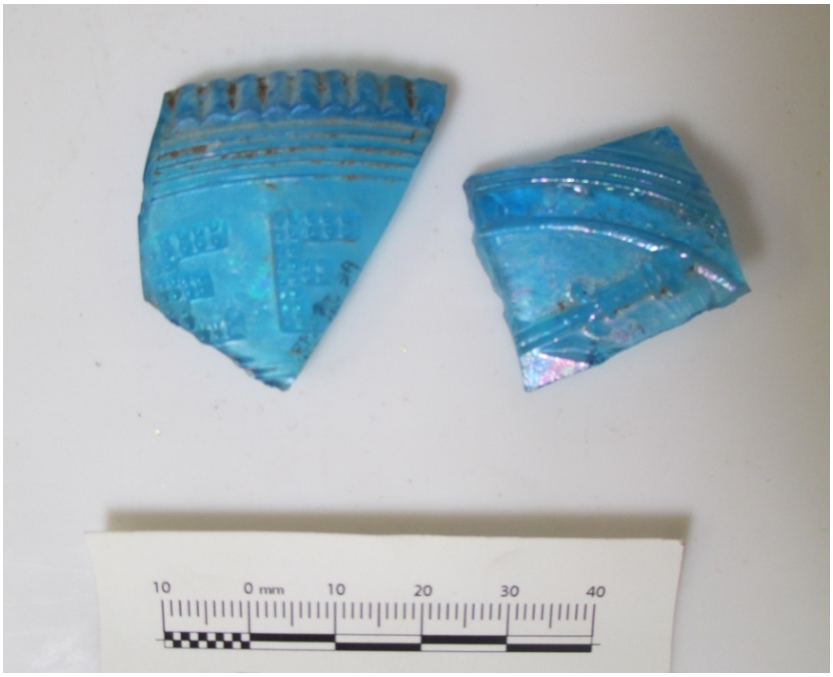


Figure 7.30: Fragments of glass plate, excavated from [JA 193] on left and [JA 192] on right (author's image).

7.4b.ii. Archaeological context

The division of this assemblage by context type grouping (see Table 7.7) demonstrates that most of the material was excavated from flowerbed fills. The spatial distribution of this assemblage is discussed in Chapter 8.4c. The rest of the modern glass assemblage was recovered from topsoil, modern services, and layers, including 18 fragments of 19th-century wine bottles within the unusual dump context [JA 126]. The other fill context grouping represents a foundation trench for the construction of a brick culvert within the inner parterre (CAT, 1987; *Context Record Sheet* [K300]). The presence of modern glass fragments within unstratified contexts further demonstrated that the assemblage underwent disturbance throughout the 18th and 19th centuries.

Table 7.7: Table showing the maximum number of modern glass vessels, divided by context type.

Type of context	Number of contexts	Maximum number of vessels	Average per context	Vessel types
Topsoil	2	34	17	Wine bottle, vial
Flowerbed fill	20	38	1.9	Wine bottle, other bottle, tableware
Layer	4	22	5.5	Wine bottle, other bottle
Modern service	3	5	1.7	Wine bottle, vial
Other fill	1	1	1	Wine bottle

7.4c. Clay pipes

7.4c.i. Assemblage composition

The assemblage from the 1985-1987 excavation encompassed 246 fragments of clay pipes, including 22 bowls and 12 mouthpieces. All of the clay pipe fragments were made of a fine white clay, although the stems have different stem bore diameters, suggesting that the assemblage includes pipes from different periods. 14 of the fragments, representing a maximum of 13 clay pipes, were then dated through typological analysis. The two classifications used were Oswald's general typology (1975, 39, from here OS) and Atkinson and Oswald's London typology (1969, 178, from here AO). Although clay pipes were used from the mid-17th

century into the 20th century, the examples dated using typology were all from the 18th and 19th centuries (see Figure 7.31).

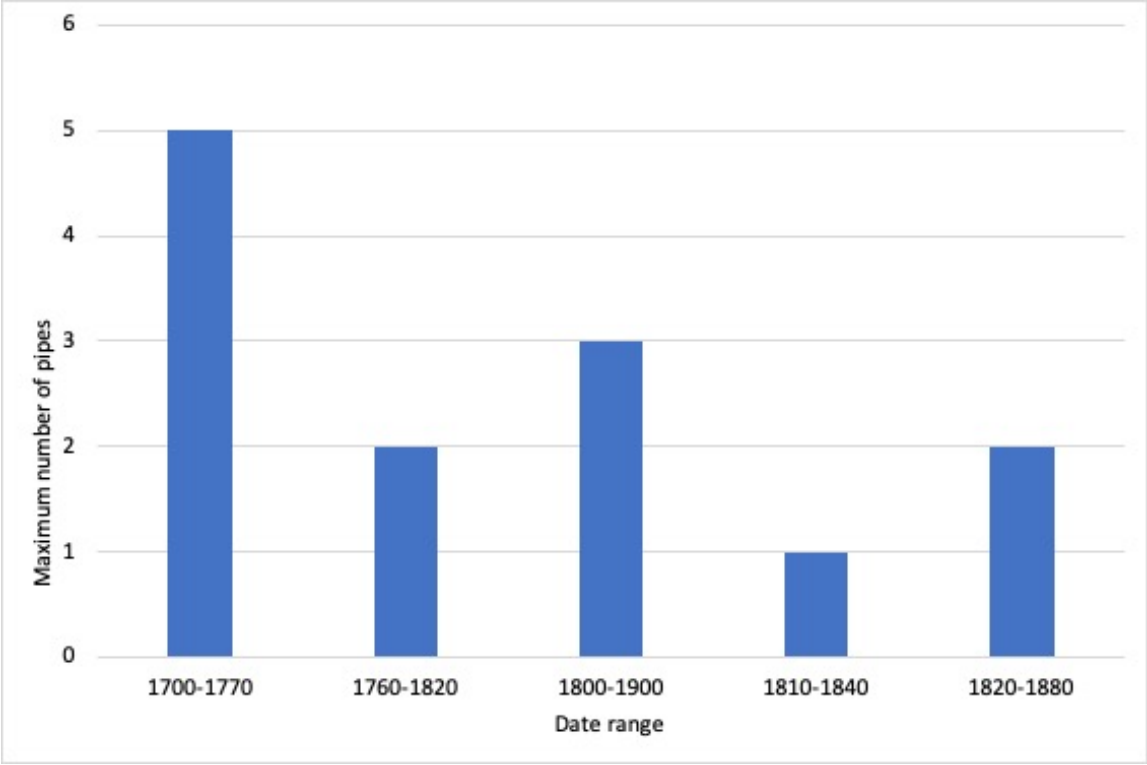


Figure 7.31: Graph showing the dated clay pipe assemblage subdivided by assigned date range.

Five fragments had typological parallels dating to the 18th century. Three of these were of typological form AO25, with long, upright heeled bowls (see Figure 7.32, Figure 7.33, and Figure 7.34), dated to between 1700 and 1770. One example had a maker's mark, a stamped SH, in relief on the heel. Two fragments had a curved bowl with a pointed spur (see Figure 7.35 and Figure 7.36), closely aligning with typological form OS23, which was therefore dated to between 1760 and 1820. They were also similar to an example described by Higgins (2004, 252), which he dated from 1780 to 1820. One included moulded maker's marks on the spur, reading 'T' on the left-hand side and 'C' or 'G' on the right-hand side, probably the initials of the pipe manufacturer (David Higgins, *pers. comm.*).

The other nine fragments dated to the 19th century. A small bowl fragment with fluted decoration and a pointed spur (see Figure 7.37), represented by typological form OS24, dated from 1810 to 1840; it also matched an example from the Tower of London moat assemblage, which Higgins dated from 1820 to 1840 (Higgins, 2004, 252, fig. 7). Another moulded bowl with

a small spur had leaf-decorated seams (see Figure 7.38) which was common in the early-19th century (Susie White, *pers. comm.*); the typological form was similar to AO29, dating from 1820 to 1860. There was also a 19th-century decorative spur representing an acorn (see Figure 7.39). Two stem fragments had moulded marks identifying their place of manufacture as London and Cambridge; Higgins (2017) noted that this is a marking style common to 19th-century pipes.

Figure 7.32: 18th-century clay pipe fragment, excavated from [JA 30] (author's image).

Figure 7.33: 18th-century clay pipe fragment, excavated from [JA 373] (author's image).

Figure 7.34: 18th-century clay pipe fragment, excavated from [K 355] (author's image).

Figure 7.35: 18th-century clay pipe fragment, excavated from [JA 25] (author's image).

Figure 7.36: 18th-century clay pipe fragment, excavated from [K2], with 'T' makers mark on left-hand side and 'C' or 'G'' makers mark on right-hand side of spur (author's image).

Figure 7.37: 19th-century clay pipe fragment with fluted decoration, excavated from [JA 130] (author's image).

Figure 7.38: 19th-century clay pipe fragment with leaf-decorated seams, excavated from [JA 188] (author's image).

Figure 7.39: 19th-century clay pipe fragment with acorn spur, excavated from [JA 147] (author's image).

7.4c.ii. Archaeological context

An analysis of the context type groupings from the excavation has demonstrated that the majority of clay pipe fragments were recovered from within flowerbed fills (see Table 7.8), the spatial distribution of which are outlined in Chapter 8.4c. The rest of the clay pipe assemblage was excavated from other context groupings. This included contexts defined as layers; particularly interesting is the context [JF 533], which was described as a 'domestic rubbish deposit' and contained 38 non-dated clay pipe fragments, although the record of this context is only partially complete. Other context types containing clay pipe fragments included topsoil, modern service fills, and other fills, primarily unstratified deposits.

Table 7.8: Table showing the number of clay pipe fragments divided by context type.

Type of context	**Number of contexts**	**Number of fragments**	**Contains diagnostic fragments?**	**Dates from typology**
Topsoil	5	46	No	N/A
Flowerbed fill	83	117	Yes	1700-1900
Layer	12	59	Yes	1760-1820
Modern service	6	6	No	N/A
Other fill	5	8	No	N/A
Unknown	4	10	No	N/A

7.4d. Small finds

7.4d.i. Assemblage composition

Ten small finds dating from the 18th to 20th centuries were recovered during the 1985-1987 excavation. This encompassed a range of objects made of metalwork and bone, including personal dress, household, and horticultural items. This included a two-pronged iron fork with a bone pistol-grip handle (see Figure 7.40), similar to an example recorded from London and dated to the early-18th century (Portable Antiquities Scheme, 2019e); the iron has degraded, causing the fork to split in half. The other object that could be dated to the 18th century is a plant label (see Figure 7.41), which is broadly similar in shape to examples recorded by Cessford (2014, 260), although there are limited typological parallels for this object type.

The rest of the assemblage consisted of 19th-century domestic objects. This includes the head of a bone toothbrush (see Figure 7.42), a standardised toothbrush form that was invented by William Addis in 1780 and which became ubiquitous in the 19th century (Mattick, 1993; Cubitt, 2019, 298). Four buttons were also dated to this period. One is a flat button with a gilded external surface, a style common in the 18th and 19th centuries (Portable Antiquities Scheme, 2016); the other three are 19th to 20th-century four-holed buttons. The assemblage also included a copper alloy keyhole cover and a second plant marker (see Figure 7.43), both dating broadly to this period. A 1961 sixpence was also recovered during the excavation.

Figure 7.40: 18th-century fork handle, excavated from context [JH 712] (author's image).

Figure 7.41: Plant marker, excavated from context [K 44] (author's image).

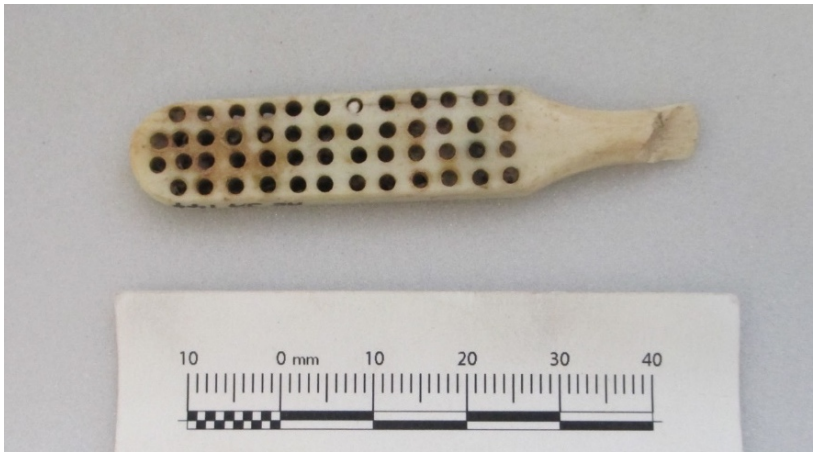


Figure 7.42: 19th-century toothbrush head, excavated from context [JA 144] (author's image).

Figure 7.43: Plant marker, excavated from context [JA 50] (author's image).

7.4d.ii. Archaeological context

Analysis of the context type groupings from which the modern small finds originated has demonstrated that the majority were excavated from flowerbed fills (see Table 7.9). The rest of the assemblage was uncovered from the topsoil over the main parterre, whilst the 1961 sixpence was found within the foundation of a garden pathway. The 18th-century fork originated from a context within the side code JH, for which the records have been lost. In summary, this small assemblage of modern small finds was mostly recovered from unstratified deposits and represents a small proportion of the everyday domestic material culture from Audley End House. However, this assemblage has been integrated with other material types to explore the procurement and use of domestic objects throughout the 18th to 20th centuries.

Table 7.9: Table showing the number of modern small finds, divided by context type.

Type of context	Number of contexts	Number of objects	Object types	Date classification
Topsoil	1	2	Buttons	19th -20th
Flowerbed fill	5	5	Buttons, plant marker, toothbrush, keyhole cover	18th-20th
Layer	1	1	Coin	20th
Unknown	1	1	Fork	18th

7.5. Procurement of material culture

7.5a. Geographies of procurement

Geographies of procurement were hard to explore within such a fragmentary assemblage. The main types of pottery represented within the collection have a range of possible provenances, whilst the origins of vessel glass, clay pipes, and small finds are often invisible without scientific analysis. However, the identification of fabric and typological form has shown that the majority of domestic material culture within the assemblage originated from Britain. The redware, refined earthenware, and stoneware pottery fabric types can be connected to production centres across the country, whilst the wine bottles and clay pipes are mirrored within typologies of English examples. This analysis has therefore suggested that the material culture was obtained through regional and national networks, rather than international ones. The

geographical range of goods was also shown by a few objects marked with their place of production: clay pipes and bottles stamped with London, Cambridge, and Saffron Walden.

Documentary research at other country houses has shown that there was a considerable turnover in suppliers, as the gentry required a wide range of goods and choices made in procurement changed across time (Stobart and Rothery, 2016a, 198). The 18th century saw a consumer revolution, which widened systems of supply for those with the financial capital to participate in them (Weatherill, 1996; Stobart, 2011). At Audley End House, places from which to obtain goods included London, which was a rapidly expanding shopping metropolis throughout the 18th to early 20th centuries (Stobart and Rothery, 2016a, 229). There were also neighbouring urban centres as well as the smaller villages of Audley End and Littlebury. The 18th-century accounts (Williams, 1992) showed that some goods were obtained from local suppliers, including butchers, bakers, and tailors. More distant suppliers fulfilled irregular orders, including tripe ordered from Norwich, tea and coffee from London, sea coal from Kings Lynn, and wine from merchants in London and France. The occupants of Audley End therefore drew from different spheres of procurement which are probably represented within the assemblage, although it was impossible to track the individual trajectory of these objects.

7.5b. Types of goods

There were a variety of goods represented within the excavation assemblage. This included functional objects, such as storage vessels, clay pipes, and metal tools, that were purchased to fulfil practical objectives within the home across social strata. There were also positional goods, as termed by Stobart and Rothery (2016a), that were displayed in defined spaces within the house. These two categories are permeable, with some display objects being given actual or performative functions; this will be discussed further below. The Audley End assemblage mostly represents functional or utilitarian items, likely those procured by stewards and housekeepers as part of the everyday working of the house (Christie, 2000; Stobart and Rothery, 2016a).

The analysis of fabric and form has shown that the pottery assemblage predominantly consists of locally accessible types, primarily English-made redware, stoneware, and refined earthenware, akin to those found on other archaeological sites within Essex (Cotter, 2000). Beyond the visual identification of fabric types, it is difficult to pin modern ceramics to more specific production centres without stratigraphically sealed contexts or scientific analysis. Some pottery types were only made in a few locations, such as Nottingham stoneware which was

produced in Nottingham and Derbyshire (Pearce *et al*., 2013, 297); the seven Nottingham stoneware vessels thus followed a trajectory southward to Audley End in the 18th century. However, ceramic production was widespread in the 18th, 19th, and early-20th centuries, accelerated by the Industrial Revolution and the development of factory-made whiteware and stoneware types (Burrison, 1997, 27). The identification of the pattern of transfer printed dining sets can also show where that pattern was produced, but the printed wares in the assemblage have common designs, including Willow III, which were copied by numerous makers (Copeland, 2000, 18).

The retail revolution of the mid-18th century meant that shops in urban and rural centres bought consumers into contact with a wider range of goods, including everyday objects in ceramic, metal, and glass (Stobart *et al*., 2007; Pennell, 2016; Stobart, 2017). In smaller towns and villages, general shopkeepers stocked basic kitchen goods including earthenwares and metal tools, which could also be obtained through household sales and exchanges (Pennell, 2016, 90-94). Kitchen wares would have been purchased by the house steward or kitchen clerk, who was responsible for items needed for food preparation (Wilson, 1996, 77). Ceramic vessels were often obtained through merchants who sold at a retail price (Miller, 1980, 5), whilst others were purchased from suppliers as packaging for the goods within them, including blacking and soda bottles. Higher-quality ceramics, meanwhile, were obtained through more specialist suppliers; in the late-18th and 19th centuries, dining sets were purchased from 'chinamen' such as Wedgewood, who were responsible for the retail of their own goods (Stobart and Rothery, 2016a, 48). Some vessels in the assemblage were likely bought in bulk; this can be seen in the matched patterns of different transfer-printed whiteware vessels.

Within the glass assemblage, stemware and other glass vessels used in dining contexts are mostly absent, excluding three tumblers and the ball-knop of a stem which have been tentatively dated to the late-18th century. Instead, the assemblage primarily represents the packaging and storage of liquids, mostly consisting of dark green wine bottles. In the 18th and 19th centuries, these were purchased and used as refillable storage vessels, both for wine and potentially for a range of other drinks (Willmott, 2002, 86-87). Stobart and Rothery (2016a, 206) suggested that wine purchasing was more a personal endeavour than the procurement of other consumable goods. Griffin purchased a range of wine through dealers in London and France, which was shipped first to Burlington Street then onward to Audley End, as well as through friends and family members, showing a significant investment of time and money in

stocking the wine cellar (Williams, 1992, 70). Later procurement at Audley End is more difficult to define, although historical analysis has shown that most wine consumed in the late-19th and early-20th centuries was imported from France, Spain, and Portugal through secondary retailers (see Regan-Lefebvre, 2017). As shown by the household accounts, beer was mostly brewed on the estate, so the bottles could also represent the storage of this within the household. However, without identifying markers on most of the glass bottles, it is impossible to track their object trajectory.

Within archaeology, clay pipes are mostly discussed in the context of production techniques or as dating markers (Beaudry and Mehler, 2016, 113); research into the procurement and use of these objects remains "under-theorised, fetishizing and decontextualizing a class of artefact" (Cessford, 2001). Historic analysis has shown that they were everyday goods, so-called 'populuxe' or inexpensive luxury items, that could be afforded across the social spectrum (Fairchilds, 1993); Higgins (1995, 47) termed them "the first truly disposable commodity". At Audley End, Williams' analysis of the 18th-century account books notes that tobacco was purchased on behalf of the gardeners, but apparently to be burned as insect prevention rather than to be used in clay pipes (Williams, 1992). Documents from other late-18th century houses also omit tobacco and clay pipes (Stobart and Rothery, 2016a), suggesting that they were obtained separately by estate workers and domestic staff; the presence of clay pipes in the assemblage shows that they were being used, but their procurement remains obscure.

7.5c. Quantifying procurement

The original intention when planning this discussion was to quantify the modern ceramic and glass vessels, subdivided by date and their intended function within the household, and to directly compare this to the household expenditure recorded in the modern account books and the contemporary retail cost of different goods. However, the vessels were often too fragmented to be identified and the archaeological context meant that they could not be specifically dated. In addition, the household accounts are only partially published, and did not record every transaction; staff managed some of their personal expenditure, such as gardener William Cresswell, who noted that in April 1874 he "received from [the head gardener] Mr Bryan, knives and forks, tablespoons, quart saucepan &c" (Kelleher ed., 2006, 66). Instead, a more qualitative comparison has been made in this thesis between the character of the assemblage and the proportions of household spending in different areas.

A large proportion of the domestic assemblage consists of vessels used in the preparation and storage of food and drink. This categorisation includes glazed redware vessels which were used in kitchen contexts until the 19th century (Nenk, 1999), when they were displaced by refined white earthenware, yellow ware, and late slipped kitchenware vessels, which fulfilled similar functions in storing goods and facilitating food preparation (Cotter, 2000, 254). The assemblage also included glass and stoneware bottles used to purchase and store wine, beer, and other drinks. The late-18th century accounts showed that the largest proportion of expenditure was on household goods (Williams, 1992); it follows that the largest quantities of material culture would be brought to Audley End as part of this expenditure. Although the size of the family remained relatively small, there were larger numbers of domestic staff occupying the house; the assemblage emphasises the quantity of goods needed to feed this quantity of people. In the accounts, wine represented 4.9% of total annual expenditure, whilst wine bottles represented 66 out of a maximum of 100 modern glass vessels, supporting the assertion that this was also a significant area of expense within the house.

The other element of food and drink consumption is in dining, represented within the assemblage by ceramic and glass tablewares. This function is primarily visible in the large proportion of factory-made whiteware plates, dishes, and bowls. They functioned as low-cost tablewares for the middling and lower classes; Pennell (2016, 103) noted that transfer-printed whitewares were employed in everyday kitchen contexts as both functional and display objects. It is unclear within the late-18th century accounts as published by Williams whether lower quality ceramic tablewares were included in housekeeping expenditures. However, the accounts do show that the food served using these items was a large proportion of everyday costs, as domestic and estate staff required regular meals (Grey, 2016). The provision of meals to the lower social strata is the best explanation for the large quantity of transfer-printed whiteware within the assemblage.

The smaller quantity of higher quality tableware reflects a lower proportion of expenditure on these items as part of “furniture, china, and plate” (Williams, 1974, 418), and emphasises the disparity in number between the family and their much larger cohort of domestic and estate staff. Other tableware forms that could have been used by the family include three glass tumblers, Westerwald stoneware tankards, and the bone-handled metal fork, although these made up a small proportion of the assemblage. The categorisation of tableware also obscures

both the importance of other material types such as silverware, which are not represented with the assemblage, and the use of storage vessels, such as wine bottles, within the dining sphere.

Finally, the assemblage incorporated goods with other household functions. This included stoneware and glassware bottles which may have contained cleaning products, as well as a 19th-century bone toothbrush; Williams noted that in the later-18th century, cleaning products and other contingencies were encompassed within housekeeping costs, purchased in small quantities in response to individual needs (Williams, 1992, 68). Medicines are represented within the assemblage through six ointment pots and two glass vials, both forms crossing the divide between the 17th and 18th centuries. During Griffin's later occupancy of the house, the services of apothecaries and doctors made up nearly 1% of annual expenditure (Williams, 1974), reflecting the quantities of medicinal material culture within the assemblage. The everyday composition of the modern assemblage may seem incongruous with other studies of Audley End. which have focused on positional collections such as furniture and artwork and on the biography of various owners, presenting the country house as a high-status residence. However, the account books kept by the household showed that there was a broad spectrum of procurement at a country house, including locally produced and low-cost materials.

7.6. Use, consumption, and display

7.6a. Consuming food and drink in the country house

Food preparation was one of the key functions of the country house service wing. These buildings, whether adjunctive to or part of the main house, encompassed kitchens, larders, dairies, bakehouses, and other auxiliary spaces, which have been explored through historical documentation and buildings survey (e.g., Sambrook and Brears, 1996; Pennell, 2016). The material culture assemblage from the 1985-1987 excavation suggests how food was prepared and managed within these spaces. This included stoneware and post-medieval redware storage jars as well as large basins in yellowware and redware fabrics. Glazed kitchen wares had a culinary advantage as they were impermeable and could thus be used across long periods, as well as acting as a decorative medium within the kitchen space (Pennell, 2016, 103); the quantity of decorative glazed wares in the assemblage supports this. The archaeological record obscures the importance of metalwork in food preparation, however, providing a future

opportunity for the analysis of inventories which outlined the contents of country house service wings (Stobart and Rothery, 2016, 89).

The assemblage also included items related to the consumption of drink. The vessel glass assemblage included a large proportion of wine bottles that were used to store wine and other liquids within the household. In urban archaeological contexts, which reveal the drinking strategies of the middling classes within private households, inns, and collages, there is evidence for the reusability of glass bottles that were refilled from barrels held by inns and other suppliers (Banks, 1997; Pearce *et al*., 2000). Williams noted that Griffin procured alcohol in various quantities, including large numbers of bottles but also pipes of port, butts of sherry, and casks of Burgundy (Williams, 1992, 70). This demonstrates that bottles were one of a number of containers for the storage of wine and spirits. Bottles may have also been served directly at the elite table, sometimes placed into cellarets or wine coolers (Christie, 2000, 256); the boundaries between storage and consumption contexts were permeable.

Other kinds of beverages and cooking liquids were bottled, stored, and served in personal, familial, and wider social contexts. The late 18th-century cellar was arranged into wines, spirits, cider, and verjuice (Stobart and Rothery, 2016a, 86), the latter of which was an acidic juice used in cooking; Williams' analysis of the household accounts also noted the purchase of two bottles of Seltzer water (Williams, 1992, 69). The 1790s gardener's diary is suffixed by a recipe for gooseberry vinegar, which was matured in the garden before being bottled for storage (Challis, 1792-1798). These sources reflect the use of glass and stoneware bottles to store different liquids other than wine during this period; this continued into the 19th and early-20th centuries, as shown by the 'Saffron Walden' soda bottle. Beer also merits discussion within this analysis, drunk across social strata in both personal and social contexts. Williams' analysis of Sir Griffin's household accounts showed that beer was sometimes procured for a particular event, such as in 1794 to celebrate a British naval victory against the French (1992, 71). Cresswell noted that on April 6th, 1874, beer was provided from London for the estate workers (Kelleher ed., 2006, 66); this was a sufficiently interesting event to be included within his diary. These accounts, although sparse, allow us to glimpse the use of glass and stoneware bottles within Audley End House.

Evidence for drinking within the assemblage also incorporates drinking vessels, including fragments of stoneware tankards, bone china teacups, glass tumblers, and stemware. In

particular, the assemblage suggests how tea drinking developed in this period. Historians have analysed the consumption of caffeinated beverages, emphasising their physiological effects and role in providing comfort (Stobart and Rothery, 2016a, 94). Tea drinking became a popular activity from the early-18th century, seen in the vast increase in tea imports during this period (Schivelbusch, 1993, 79); this was a social practice, an opportunity to showcase wealth through the obtainment of expensive consumable goods, which could be served on elite ceramics.

At Audley End, the later-18th century accounts include an annual purchase of tea, showing that the Griffins were drinking the beverage regularly (Williams, 1992, 68). This had an impact on material culture in objects used for tea preparation and serving; the Audley End assemblage includes four porcelain bowls, the most complete of which matches the profile of tea bowls found within other late-18th century contexts, which were used as cups for the beverage (Cessford *et al*., 2017, 386). A variety of porcelain and other chinaware types would allow choices to be made in which to use for particular tea-drinking occasions, thus acting as a means of social messaging (Stobart and Rothery, 2016a, 94). However, the development of a tea drinking material culture package at Audley End is hard to explore within a temporally fluid and fragmentary assemblage.

The assemblage contained a larger quantity of tablewares that can be related to dining practices, incorporating plates, dishes, and bowls, as well as glass drinking vessels and the 18th-century bone-handled fork. There was a dramatic change in elite dining styles in the early-19th century, moving from *service à la Française*, which involved at least five dishes being laid on the table for guests to be served from, to *service à la Russe*, where food was served as individual portions across multiple courses (Gray, 2016, 170). The effect of this on the domestic material culture is not easily discernible due to the fragmentary assemblage, however, especially as the ceramic tablewares are mostly transfer-printed wares which were used by domestic and estate staff. More visible in the assemblage is the sheer range of ceramics that were used in dining across social strata, as there is a wide variety in the radii of open and closed vessels and in their designs; this shows that different dining sets were used across the 18th to early 20th centuries, fulfilling different functions and perhaps representing new styles and fashions.

In summary, the majority of the domestic culture assemblage from the 18th to early-20th centuries represents the management and consumption of food. Material culture was integral to storage and dining practices, in personal, social, and household contexts, part of the

everyday interplay of objects and people within the country house. This presents further avenues for research into the 1985-1987 assemblage. Analysis of the animal bone assemblage, although not datable from the flowerbed contexts, could suggest the quantities and types of animal goods being processed and consumed, as could the interpretation of Audley End's 19th-century consumption books which recorded the quantities and types of food prepared in the house (see Gray, 2016, 171). However, the assemblage is also defined by its depositional context, which limits direct comparison between objects and documents and prevents the analysis of diachronic food-related practices.

7.6b. Other household goods

Other goods unrelated to food and drink were used within the country house sphere, some of which are represented in the domestic material culture assemblage. One of the four material types analysed within this thesis was clay pipes. They formed part of a bigger material culture package used for tobacco consumption, of which they are often the only object to survive within the archaeological record (Cessford, 2001). Documentary sources discussing the use of clay pipes in country houses are scarce, suggesting that they were considered as objects unworthy of discussion, or that they were used not by the occupants of the houses but by other groups underrepresented within the written record. Indeed, snuff appeared to be more common within late-18th century elite circles, before the increased popularity of cigars in the early-19th century; clay pipes were seen as the purview of the urban middle and working classes (Schivelbusch, 1993).

The best representation of clay pipe use within country house gardens is one of a series of six landscape paintings by the Flemish artist Rysbrack, depicting the grounds of Chiswick House (Hounslow, London) in the early-18th century, which shows an estate gardener smoking a clay pipe (see Figure 7.44). Although beholden to artistic license, this painting suggests that clay pipes were used by gardeners

Figure 7.44: Detail from 'A View of Chiswick House Gardens from the West towards the Bagnio' by Pieter Rysbrack, c.1729. © Historic England Archive (J950300).

and estate labourers in this period. A full survey of tobacco smoking in country house contexts is beyond the scope of this thesis, whilst less conventional uses of clay pipes, including to smoke substances such as herbs and tea, are even less visible within the historical record (Cessford, 2001). The clay pipe assemblage discussed here is also highly fragmentary, thus difficult to date to a particular period of the garden's history.

Other objects within the assemblage represent everyday activities within the household sphere, including medicinal and hygiene practices. This includes the tin-glazed ointment pots and small glass phials, which were used to transport medicine from 18th-century apothecaries into the home (Sygrave, 2010). The accounts of Griffin's household at Audley End include records of payments to doctors and apothecaries (Williams, 1992, 72), showing that the household used medicinal goods during the late-18th century. Wine bottles could also be used for storing medicinal mixtures in this period (Sygrave, 2010, 100), suggesting an alternative use for some of the bottles found during the excavation. The assemblage from Audley End also demonstrates that the household made use of preventative healthcare, represented by the 19th-century toothbrush (Cubitt, 2019). It also includes a large quantity of factory-made whiteware of unidentified forms, some of which could represent sanitary applications such as chamber pots (Cotter, 2000, 256).

The assemblage also hints at more generalised household activities. One of the few complete vessels from the excavation was an inkwell, used for the storage of ink or mucilage for writing. Williams noted that ink formed a part of the stationery purchases of the late-18th century house, usually obtained by the quart (Williams, 1992, 75), which may have then been decanted into this vessel for use. Ink may have also been produced on the estate; Challis' garden diary includes a recipe for the production of black ink (Challis, 1792-1798). The presence of stoneware blacking or polish bottles within the assemblage, a homogenous type of packaging used for cleaning products in the 19th century (Basford, 2012, 196), reflects cleaning practices within the home. The archaeological assemblage thus demonstrates the everyday nature of the country house; this was a place where people across the social spectrum lived and worked.

7.6c. Taste, fashion, and display

The excavation recovered small quantities of elite ceramic types, high-status pottery vessels purchased by the upper classes to be displayed within their homes (Young, 1999), mostly represented in the porcelain assemblage. The international porcelain market of the early-18th

century was overtaken by British makers later in the century, especially when the East India Company prevented the export of Chinese porcelain within their cargoes in 1791 (Pearce *et al.,* 2013, 297-302), yet the designs of Chinese-made porcelain still informed chinoiserie patterns on English ceramics well into the 19th century. The popularity of this style paralleled a general fashion for 'Oriental' materials, also seen in furnishings and wallpapers (Impey, 2002; de Bruijn, 2016). By the late-18th century, the style represented notions of expense, refinement, and good taste, with the "cultural capital of imported porcelain helping to fix country house dining into transnational frameworks of taste and global systems of supply" (Stobart and Rothery, 2016, 94). Although porcelain was mostly absent within the assemblage, the porcelain tea bowls would have reflected these concepts to those seeing and using them in the 18th century.

The other form of positional ceramics within the assemblage is a fragment of black basalt, or basalte, ware. This was a product of the Wedgewood factory in the late-18th and early-19th century that sought to invoke Classical styles (Draper, 2001, 43) and was an ornamental ware "beyond the reach of other consumers" (Stobart and Rothery, 2016a, 50). The presence of the basalt ware jar, concurrently with the antiquarian activities of Richard Neville and Richard Cornwallis Neville, perhaps suggests that their appreciation for historical thought led them to purchase objects that displayed Classical motifs within their household. However, elite ceramics were rare within the excavation assemblage. They may have been replaced by transfer-printed wares and bone china, which fulfilled some of the functional and decorative attributes of more expensive porcelain. This disparity could also reflect the differential depositional history of positional ceramics, which is discussed further in Chapter 8.

This assemblage also provides the opportunity to consider concepts of taste, fashion, and social display through more mundane material culture types. Transfer printed wares, with their varying patterns and ubiquity within the assemblage, are a useful example of this. Printed ceramic vessels were purchased not by fabric type but by design, with certain patterns becoming popular to the consumer at different times (Samford, 1997). This assemblage consists mostly of blue-and-white vessels with patterns repeated throughout the assemblage, suggesting deliberate co-ordination in colour and design across different materials; similar visual conformity in china types has been seen at other country houses (Stobart and Rothery, 2016, 94). The majority of patterns also have Chinese design motifs such as Willow print (Samford, 1997), representing similar ideals as the porcelain assemblage, but for a lower cost.

A smaller quantity of the transfer-printed wares integrated landscape and pastoralist designs, styles common to the 19th century (Samford, 1997) that, when situated on the servant's table or kitchen dresser, may have invoked the house's pastoral landscape. These colourful designs are also in contrast to two fragments of whiteware that may date to the occupation of the household by the Special Operations Executive, one of which is plain and the other with a printed 'K' that could designate its purpose within the training camp (Jarrett and Thompson, 2012). However, without being sure of date or household context, it is difficult to reconstruct the social environment in which these objects were used, a limitation of artefact assemblages recovered from horticultural contexts.

7.7. Summary

This chapter has considered the 18th-20th century history of Audley End House and its domestic material culture, the assemblage of which consisted primarily of locally produced, everyday types with a variety of household uses, ranging from food storage and dining to drinking, smoking, and cleaning practices. It first considered the procurement of different kinds of goods, exploring the "commodity trajectories" (Richardson *et al*., 2017, 6) by which materials of different types were bought into Audley End House. The assemblage was compared to the household accounts which showed that domestic staff significantly outnumbered the family throughout this period and that food, drink, and other household needs were the biggest expense, obtained from a range of local and national suppliers. Stamped clay pipe fragments and glass vessels also showed that geographies of procurement encompassed both local and urban centres, including London, Cambridge, and Saffron Walden. All of the pottery fabrics identified within the assemblage had been found at contemporary archaeological sites elsewhere in Essex (Cotter, 2000), implying that the house's occupants used similar procurement strategies to others within the local area.

Most of the material culture analysed within the modern assemblage was shown to relate to the procurement, management, preparation, and consumption of food and drink. There was little evidence for equipment used directly in cooking and food preparation, excluding several 19th-century basins in utilitarian redwares and yellowwares. Instead, much of the pottery and vessel glass assemblages related to the storage and serving of consumable goods, seen in the high frequency of jars and wine bottles. There was also a range of tableware forms present in the assemblage, including plates, bowls, a small quantity of glass drinking vessels, and a fork, as

well as items used in tea drinking practices, alongside other household goods. This included a collection of clay pipe fragments, smaller than that at the comparative sites but still representative of the everyday consumption of tobacco by those working within Audley End's gardens. A range of vessels that contained other domestic goods were also recovered, including medicine pots and phials as well as bottles to store cleaning products and mucilage. The excavated material culture thus emphasised the everyday procurement and use of low-cost materials within a country house despite its elaborate architectural context, providing insight into the lower social strata of the household.

This chapter then suggested that all material culture was imbued with some form of social messaging, whether this was implicit or explicit to those using them. Glimpses of taste and fashion have been contextualised in reference to Audley End House's unique history, demonstrating the constant interplay of material culture with architectural and social spheres. An example was given in the analysis of transfer-print ware patterns, demonstrating a predominance of Chinese and chinoiserie-style designs which reflected contemporary fashions and the exoticism of luxury products from Eastern markets (Samford, 1997; Impey, 2002). However, this analysis is also limited by the composition of the excavated assemblage, which is a selective representation of goods used within the modern country house. Indeed, the assemblage from the 1985-1987 excavation was not recovered from domestic occupational or refuse contexts, but from 19th-century flowerbed fills and other horticultural deposits; its composition was thus dictated by gardening practices, as will be discussed in the following chapter.

8. Audley End's parterre garden (1701-1985) and the taphonomy of post-medieval garden bed assemblages

8.1. Introduction

This chapter first explores the historical context for the 1832 parterre garden, discussing the 18th-century landscape on which it was constructed, the reinvention of formal parterres by William Sawrey Gilpin and other landscape gardeners in the early-19th century, and documentary evidence for the maintenance of Audley End's parterre into the 20th century. It then outlines the archaeological evidence for this garden that was uncovered during the 1985-1987 excavation. Although the excavation was led by restoration objectives, as the flowerbeds, paths, and central features were identified and removed, 19th-century parterre construction and management strategies were incidentally revealed and are discussed here. This chapter then elucidates the presence of domestic material culture within the parterre garden through an exploration of horticultural and refuse management practices alongside comparative assemblage types, demonstrating the complex depositional trajectory of artefacts recovered during the parterre excavation.

8.2. Historical background

8.2a. Audley End's gardens in the 18th century

Landscape design in the 18th century saw a gradual movement from formal to natural, although this overgeneralises a historical shift that was "as serpentine as some of its paths and lakes, covering several different movements and detours" (Ford, 1992, 261, cited in Gardner, 2000, 129). The century began with the popularity of French and Dutch models, which were uniform and ordered, emphasising geometric forms and straight lines. These were then superseded by more informal English designs which used curved paths and features including waterways and ornamental buildings (Gardner, 2000, 134-137). The best known and most celebrated architect of 'naturalisation' was Lancelot 'Capability' Brown (1716-1783; see Symes, 2006, 154; Woudstra and Finch, 2020, 199). Brown and his associates created over 200 landscape parks, removing the divides between gardens and parkland (Gardner, 2000, 146); they "swept away walled gardens and geometric planting …creating in their place compositions of studied natural beauty" (Brown and Williamson, 2016, 7). However, garden design remained

individualised, as the owners of country houses bought their own personal tastes and circumstances to these designs. The concept of 'naturalisation', which itself required contrivances in planning and planting (Symes, 2006, 84), has also led some garden historians to neglect the theatrically bright and multilayered planting schemes that were also popular during the 18th century (Laird, 1999).

At Audley End, the first 18th-century developments to the garden involved the re-planting of the Mount Garden, the removal of the Jacobean wilderness and cellar gardens, and the development of the kitchen gardens to the north-west of the house (Sutherill, 1995, 23). Originally, the parterre area was maintained as a bowling green; an estate map dating to 1725 shows the east range still in place and lawned areas in both the inner courtyard and to the east of the house. It is unclear whether this map was a preparatory plan used to construct the garden or a design proposal, although Alexander argues convincingly for the former (Alexander, 2015, 140). By the end of the 1750s, the east range of the house had been demolished, opening up the inner courtyard area. A map from this period (see Figure 8.1) shows that the inner courtyard and main parterre area were connected; it also shows a raised or hedge-bounded area to the east of the house, which perhaps delineated the presence of the bowling green.

The second half of the century saw the biggest changes to Audley End's gardens, as Griffin embarked on a comprehensive redesign of the estate parallel to his work on the house. He hired Capability Brown to 'naturalise' the parkland, recutting the river and integrating ornamental buildings and trees, much of which took place before the two entered a dispute that ended their partnership (Sutherill, 1995, 28-31). A survey of the garden dating to 1780 (see Figure 8.2) suggests that the inner courtyard and parterre area remained empty, separated from the wider parkland by a ha-ha that would prevent livestock from grazing close to the house. This interpretation is supported by a contemporary painting by Tomkins (see Figure 8.3), one of six commissioned by Griffin in 1788 to commemorate his finished estate redesign (Laird, 1999, 341), which shows open lawn across the east of the house. A pathway also connected this area to Lady Griffin's garden, which was an informal pleasure ground that replaced the Mount Garden (Laird, 2000, 342). These sources show that, in the 18th century, the area that became the parterre garden was maintained as an open lawn, so had few features that could be identified during the 1985-1987 excavation.

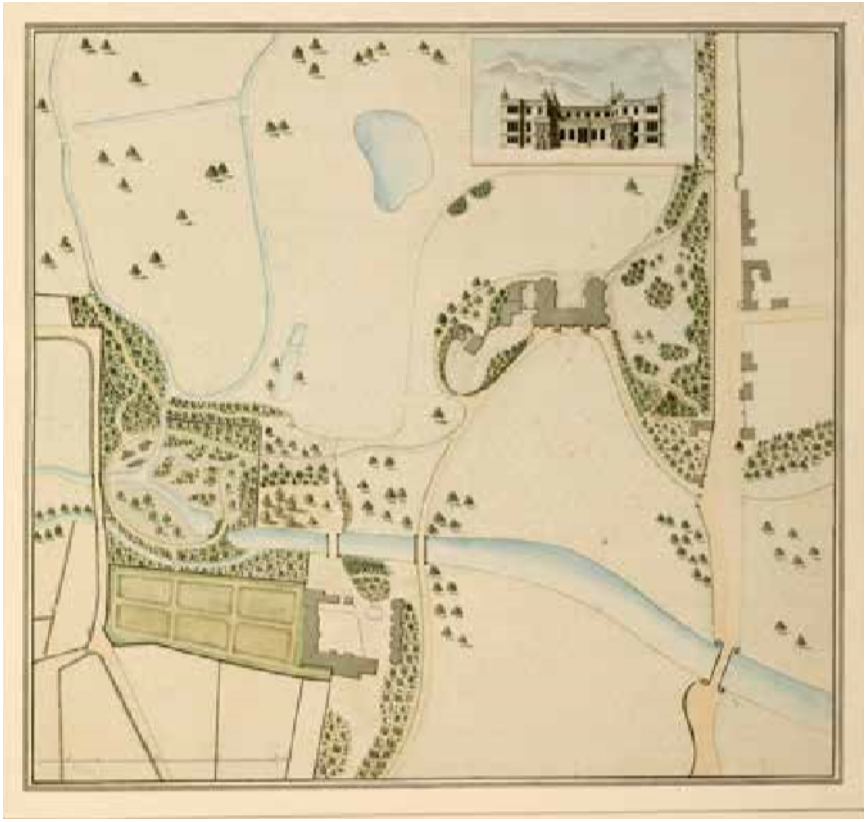


Figure 8.1: Copy of an 18th-century map, likely from 1757, in Audley End Scrapbook, with north to the left (Alexander, 2015, 141, figure 53). © Historic England Archive (DP111180).

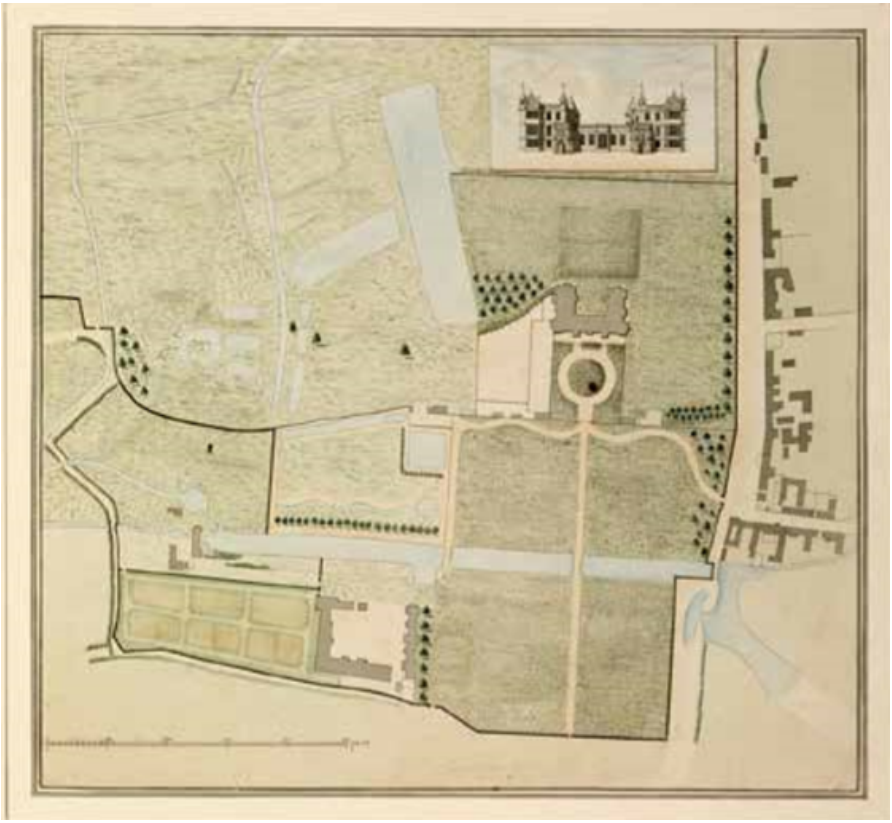


Figure 8.2: Copy of a 1780 map in Audley End Scrapbook, with north to the left (Alexander, 2015, 143, figure 55). © Historic England Archive (DP111181).

Figure 8.3: 'Audley End from the South East' by William Tomkins, painted around 1788 (English Heritage, 2014a). © Historic England Archive (J020021)

8.2b. The 1832 parterre garden

8.2b.i. William Sawrey Gilpin, a 'Picturesque' gardener

The early-19th century saw a general movement away from the Brownian landscape garden and towards more formalised, ordered approaches to garden design (Elliott, 1986, 32-33; Symes, 2006). This shift was instigated by a new generation of landscape gardeners, including William Sawrey Gilpin (1762-1843; see Piebenga, 1994; 2004; Symes, 2006, 145), who was involved in the designing of Audley End's parterre garden. Sawrey Gilpin was originally a landscape painter who became a gardener out of financial necessity, carving out a successful career in the 1820s and 1830s. Historians have found it difficult to explore his influence as he left few written records; Piebenga (1994, 178) noted 62 gardens which were designed by Sawrey Gilpin but potentially out of hundreds. Sawrey Gilpin also produced *Practical Hints upon landscape gardening* in 1832, with a second edition published in 1835 (Tait, 1980, 70), that outlined his ethos in designing gardens. *Practical Hints* demonstrates that Sawrey Gilpin was firmly embedded within the 'Picturesque' tradition, which stemmed from the work of his uncle, William Gilpin (1724-1804), alongside the authors Uvedale Price (1747-1829) and Richard Payne Knight (1751-1824), and Humphry Repton (1752-1818), a prominent landscape designer (Piebenga, 1994, 176; Symes, 2006; Rutherford, 2018). The 'Picturesque' sensibility explored the artistic value of natural landscapes, emphasising the ideals of 'wildness' and intricacy in landscape painting and their application to landscape design (Elliott, 1986, 23; Batey, 1994).

Sawrey Gilpin was particularly influenced by Uvedale Price's aesthetic interpretation of the 'Picturesque', which emphasised visual values within landscapes (Elliott, 1986, 23; Piebenga, 1994, 177); in *Practical Hints,* he stated his desire to "concentrate, and to render practically useful" Price's ethos into garden design (Gilpin, 1832, vi). Indeed, Sawrey Gilpin can be seen as a 'picturesque gardener' (Piebenga, 1994, 181); he viewed gardening as an artistic endeavour, applying the principles of landscape painting to the landscape itself (Gilpin, 1832, viii). Key to this approach was a rejection of the 18th-century estates designed by Brown and others, which had open lawns butting against the house. Instead, Uvedale Price encouraged the delineation of formal features closer to buildings, thus a gradation between formal architecture and the informal parkland (Elliott, 1986, 61). Sawrey Gilpin applied this ideal by designing 'dress grounds' (Gilpin, 1832, 33-34), which created a liminal space aesthetically between the architecture and parkland. 'Dress grounds' foregrounded views across the garden from "leading points of view (usually the

windows of the library or drawing room)" (Gilpin, 1832, 55), with their windows framing the landscape as a work of art for the house's owners and their guests to enjoy (Piebenga, 1994, 181).

Sawrey Gilpin's designs within this architectural foreground sought to combine historic and modern styles of garden design (Piebenga, 1994, 181), imbuing formal garden features with 'Picturesque' ideals. When working in country house gardens, his approach was especially influenced by architectural form, as he aimed to create "harmony…between the mansion and its accompaniments" (Gilpin, 1832, 37). This was part of a movement in the 19th century towards a 'relativity of styles', with different historical styles applied relative to the individual garden, its architectural surroundings, and the values of its designer (Elliott, 1986, 55). As such, Sawrey Gilpin's designs at country houses often accommodated formal, historically inspired features, including parterre gardens, terraces with gravel walks, and balustrades (Piebenga, 1994; 2004). This was not simply a return to pre-18th century design, however, but instead brought new floral schemes and cultivation strategies into a geometric medium (Laird, 1999). Sawrey Gilpin was also inspired by "richness, variety, and intricacy" (Gilpin, 1832, x); he sought to design plantations that applied formal regularity to bold and intricate shapes. This integration of formal architectural style with 'Picturesque' principles can be seen in his work at Audley End, which is outlined in Chapter 8.2b.iv below.

8.2b.ii. The revival of parterre gardens in the early-19th century

As discussed, the early-19th century saw the revival of garden styles that drew on historical precedents, including the placement of formal parterres in the immediate surrounds of country houses (Elliott, 1986, 61). A parterre was an area of garden "laid out with flower beds or other decorative patterns in regular formation" (Symes, 2006, 91), creating a geometric design to be seen from above. European gardeners of the 17th to early 18th centuries made regular use of parterres, the principles of which were defined and discussed in contemporary texts (see Verey, 1974). These original parterres were broadly categorised into five main types: embroidered parterres or *parterres de broderie*, parterres of *compartiment*, orangery parterres, English parterres or *parterres à l'anglaise*, and cut-work parterres (Ridgway, 1993, 71, after d'Argenville, 1728). The first three types formed the 'French' parterre style, consisting of box hedging in patterns and bordered by coloured gravel and fencing. In contrast, an 'English' parterre had geometric shapes cut directly into turf (Symes, 2006, 91), whilst a cutwork parterre integrated flowerbeds within the design (Woodbridge and Goode, 2001, 423-424).

These styles were revived and adapted within early-19th century Britain. John Claudius Loudon (1783-1843; see Symes, 2006, 146) wrote that parterre gardeners of this period sought "variety and brilliancy of colouring by means of flowers…[whilst] the forms of the beds…ought to be such as to produce a symmetrical whole" (Loudon, 1837a, 602), summarising a joint emphasis on ornamental parterre designs and on varied planting strategies. There was considerable variation, however, in the formation of parterre flowerbeds during this period. Repton is often considered the main pioneer of the parterre revival in the Regency period, proposing floral displays within circular or oval flowerbeds as an integral part of formal 'dress grounds' (Woodbridge and Goode, 2001, 228; Rutherford, 2018). This can be seen as interlinking with the revival of Rococo architectural forms, with landscape gardeners combining ordered, symmetrical shapes and the fashion for gradual, 'Picturesque' curves (Elliott, 1986, 43-44). By the 1830s, when the parterre at Audley End was constructed, a range of formal parterre patterns were reproduced within horticultural advice, classified into different stylistic trends (Elliott, 1983, 61; LUC, 1988). William Andrews Nesfield (1793-1881), who can be seen as Sawrey Gilpin's successor in reviving parterre gardens (Symes, 2006, 147; Antonetti, 2012), then engaged with formality and stylism to an even greater extent by recreating the classic French parterre, applying patterns from late-17th and early-18th century texts to create elaborate *parterres de broderie* with scroll and feather designs in box hedging and coloured gravels (Ridgway, 1993, 71-73; Woodbridge and Goode, 2001, 424).

Syntheses of plans and extant gardens that are attributable to Sawrey Gilpin suggest that he utilised geometric *parterre à l'anglaise* and cutwork parterre styles, seen in his proposals for Wolterton Hall (Norfolk), Sudbury Hall (Derbyshire), and Clumber Park (Nottinghamshire), amongst others (Elliott, 1986, 62; Jackson-Stops, 1992, 193; Piebenga, 1994). Sawrey Gilpin's approach to geometric form thus appears less rigid than Nesfield's, with his parterre designs instead influenced by the specific garden's circumstances and stylistic preferences of its owner. His general ethos, as stated in *Practical Hints,* was that "at the manorial building, where the straight walks and appropriate accompaniments are retained, the flower-beds should…be characterised by the same precision and regularity' (Gilpin, 1832, 60-61); he thus applied parterre designs that he saw as congruent with the architectural form of houses and their estates, using geometrically informed patterns to enhance historical character. However, there is little documentary evidence for Sawrey Gilpin's parterres; he likely left informal notes that were handed over to his clients unsigned, so only 11 of his design proposals have been identified

(Piebenga, 1994, 179). Audley End thus remains a significant example of his influence on the 19th-century parterre revival, as discussed in Chapter 8.2b.iv below.

8.2b.iii. Horticultural advice for constructing parterre gardens

Contemporary horticultural advice provides some glimpses of how 19th-century revival parterres were actually constructed. Particularly useful is Loudon's *Encyclopaedia of Gardening* (1822; fourth edition, 1826) which can be seen as "the main gardening reference work of the age" (Elliott, 1986, 12), alongside his *Gardener's Magazine*, both sources providing information about garden construction and management. The first stage in creating a parterre garden was planning out the intricate geometric features onto the ground. Piebenga presents compelling evidence that Sawrey Gilpin was known for planning gardens by placing stakes to mark features, with one contemporary writing that, when laying out his own garden, he was "carting around stakes *à la* Gilpin" (1835, cited Piebenga, 1994, 179). Whether this required recourse to documents is unclear; Loudon recommended that stakes could be placed to create a referential grid system that could then be matched to a drawn plan (Loudon, 1826, 364), but also noted that during staking out, "no plan, writing, or drawing is at all necessary" (1839, cited Piebenga, 1994, 179). It does seem likely that, for more intricate parterre designs, a measured plan would first be made that would dictate the parterre design on the ground, ensuring its symmetry in practice. Gardeners then used "the measuring-line or chain, the measuring-rod, and occasionally the theodolite" (Loudon, 1826, 369), taking accurate measurements of the garden surface in reference to the plan, thus laying out symmetrical shapes for the different parterre features. The use of instrument survey to create Nesfield's parterres has been clearly proven (Dix, 2011a), but it is less clear whether this took place at gardens designed by Sawrey Gilpin, as this is not recorded historically.

The parterre's flowerbeds, gravel walks, and box hedging trenches would then require cutting out, excavating, and filling. This element of garden construction is little discussed within contemporary horticultural texts, likely considered as too simple for landscape gardeners to concern themselves with; indeed, Nesfield defined excavation as an exercise of the 'mechanical arts' that was thus unworthy of intellectual consideration (Ridgway, 1993, 82). John Claudius Loudon did suggest the ideal soil type for a flowerbed, stating that most planting schemes required "soil of common good qualities, moderately light and mellow…broken fine, to the depth of a foot" (Loudon, 1826, 991), suggesting that the soil within flowerbed fills should be aerated and perhaps enhanced. The construction of parterre gardens also required the construction of gravel walks, which Sawrey

Gilpin saw as fundamental to formal parterres (Gilpin, 1832, 60-61). Loudon stated that this required the excavation of a narrower channel for drainage, filled with stones alongside "the rubbish of old buildings, flints, or any other similar materials" (Loudon, 1826, 641), which was then covered with a wider expanse of gravel and rolled to create a flat surface for walking. These construction processes, although under-discussed in documents, shaped the subsurface stratigraphy of gardens; this provides an opportunity for archaeologists to inform garden history.

The final step in constructing a parterre was the planting of the flowerbeds and any box hedging. As an aesthetic theorist, Sawrey Gilpin discussed the application of colourful planting within architectural foregrounds, arguing that they should integrate a shading from darker to lighter green (Elliott, 1986, 50). However, he described himself as overall "very little conversant with flowers…their variety, culture etc" (Gilpin, 1832, 222, cited Batey, 1994, 130). His focus on design rather than planting was critiqued by others; gardener Joshua Major (1786-1866) complained that contemporaries "followed Landscape Gardeners…whose practice has been merely to give rough sketches of their projected improvements, and then to leave their execution to others" (Major, 1852, vi), whilst Loudon (1832, 701) criticised Sawrey Gilpin for knowing "but a part of his profession". The planting of Sawrey Gilpin's parterres was instead dictated by head gardeners, which was an increasingly influential profession during the early-19th century (Elliott, 1986, 13). Although Sawrey Gilpin and his contemporaries dictated the layout of their parterre gardens, it was often the practical expertise of professional gardeners that enabled their construction. However, this also meant that the planting scheme used within the Audley End parterre at its inception was not recorded in any detailed proposal notes, as discussed in the following section.

8.2b.iv. Audley End's parterre garden

At Audley End, an increased formalisation of the garden was already taking place before Sawrey Gilpin was commissioned. This can be seen in the Elysian Garden, which was redesigned in the early-19th century as a series of somewhat informal plantations (Drury, 2014, 55); groupings of shrubbery and flowers were placed together within each flowerbed to create a 'picturesque' scheme that was restrained within the formality of the garden design (Batey, 1994, 204). In the early 1830s, the third Baron Braybrooke, Richard Neville, then sought Sawrey Gilpin as an advisor to design an additional parterre garden (Alexander, 2015, 16). Piebenga noted that Sawrey Gilpin worked with architect Henry Harrison on a number of occasions, who perhaps brought him to the third Lord Braybrooke's attention (Piebenga, 1994, 180). He was also a popular landscape

gardener by the early 1830s, and had visited Audley End around ten years prior, staying for almost a month (LUC, 1992, 6; Batey, 1994, 203). For Sawrey Gilpin, the Audley End project provided an opportunity to engage with Neville's architectural ethos. As discussed in Chapter 7.2b, Neville was a keen antiquarian, which led him to pursue a Jacobean revival scheme within Audley End (Drury, 2014, 52). Sawrey Gilpin would be able to compliment the internal changes, designing a garden fit to be viewed from the new library's first-floor windows (Sutherill, 1995, 34). Indeed, Neville's appreciation of 17th-century landscape design was congruent with Sawrey Gilpin's passion for 'architectural foregrounds' and with the prevailing fashion for historically-inspired formal terracing; this was a well-matched professional partnership.

Sawrey Gilpin's role as a landscape gardener primarily involved designing the geometric pattern that was then used to create the parterre (Elliott, 1986, 61). Research into the historical context of the Audley End parterre was undertaken by Land Use Consultants (LUC, 1988), who noted that the design of the main parterre area had a parallel in the work of Antoine-Joseph Dezallier d'Argenville (1680-1765). His *Theory and Practice of Gardening* (trans. James, 1728) codified the school of French ornamental gardening and was internationally regarded, with eleven editions produced (Woodbridge, 2001, 142). This work was certainly known by Sawrey Gilpin's contemporaries, as Loudon notes its significance in his *Encyclopaedia* (1826, 1164) and in the Gardener's Magazine (e.g., 1829, 606; 1837b, 604), whilst Nesfield used d'Argenville's designs to inform his *parterres de broderie* (Elliott, 2001a, 390). The design at Audley End shows some similarities with d'Argenville's 'parterre of cutwork with flowers' (see Figure 8.4); both include a pattern of rectangular and circular beds along the parterre border, with internal semi-circles and double volutes. As such, it is likely that the Audley End parterre was a simplified version of d'Argenville's published designs.

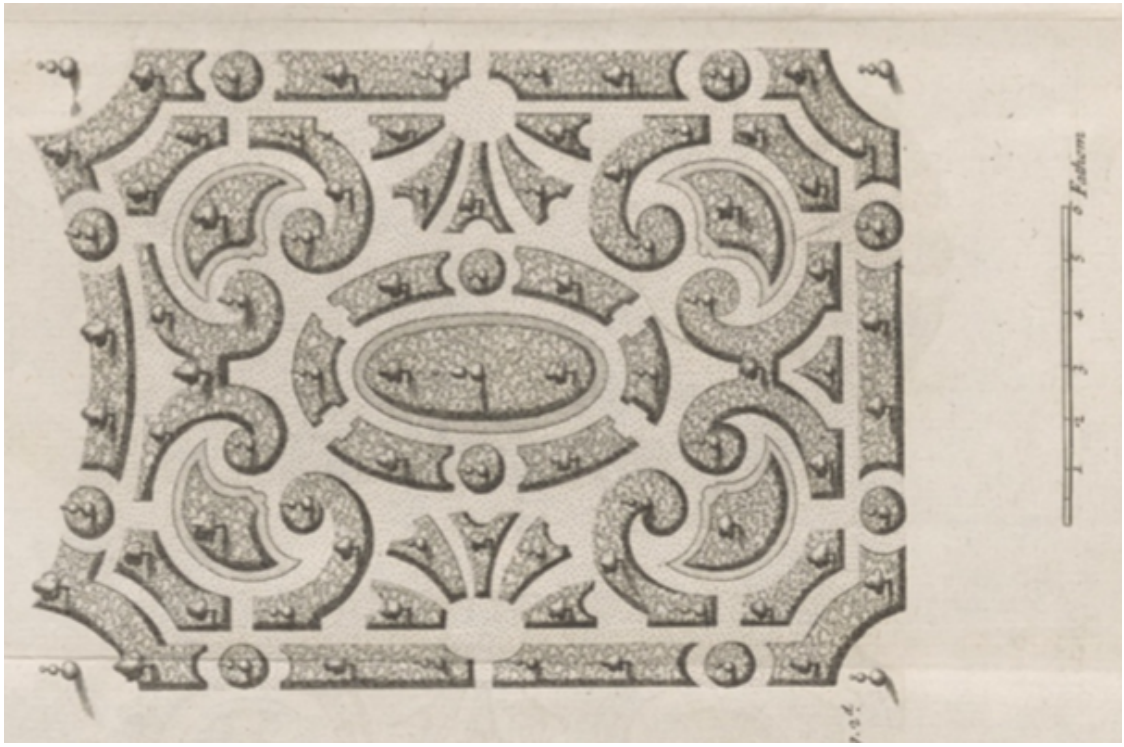


Figure 8.4: Plan of a 'parterre of cutwork with flowers' by Dezallier d'Argenville, erroneously attributed to Le Blond, from Theory and Practice of Gardening (trans. James, 1728, plate 6b).

As seen for the majority of gardens designed by Sawrey Gilpin (Piebenga, 1994; 2004), there are few historical records for the extent and nature of his work at Audley End. The best evidence for his involvement in the parterre garden is in Richard Neville's *History of Audley End and Saffron Walden,* where he describes "a new flower-garden…immediately adjoining to the House, with terraces, the design of which was principally made by Mr William Gilpin" (Neville, 1836, 134). There are also three extant plans drawn by a William Press, dating to c.1832-1833, which show two different proposals for the inner courtyard parterre and a complete plan of the main parterre (LUC, 1988, 10). It remains unclear to what extent these plans were informed by Sawrey Gilpin, Neville, or Press, of whom little is currently known. They proved more useful to English Heritage in clarifying the potential form of the garden, showing that the Audley End parterre likely had two sections: a main parterre, placed on a rectangular terrace to the east of the house, and an inner courtyard parterre, which was surrounded by the house on three sides. Within each section, decoratively shaped flowerbeds were depicted as being cut directly into the turf, with the parterre then bordered by a gravel walk. There was also an unidentified circular feature within the centre

of each parterre area. These plans therefore suggested how the parterre could have appeared at its inception, although the extent to which they were executed was not proven.

Other documentation provided some information about the chronology of the parterre's construction. An 1828 topographical survey depicted the gravel walks and two central features, suggesting they were placed before the parterre beds (LUC, 1988, 7). The planting scheme was likely being prepared by 1831, when the estate accounts show that the purchasing of plants and seed doubled, and was completed around 1832 (LUC, 1988, 7-10; Sutherill, 1995, 34). Land Use Consultants (LUC) also recovered a c.1833 plan of the main parterre with a partial plant list, showing annuals and herbaceous plants within specific beds, that remains the best evidence recovered for the pre-1877 planting scheme (LUC, 1988, 13). The documentary record was not comprehensive, however, and was sometimes contradictory. The 1828 survey showed a central feature within the main parterre; however, the William Press drawings had this feature in pencil, overlaying an ink plan of the parterre beds, which suggested that it could have been added at a later stage (Cunningham, 1987a, 2; LUC, 1988, 7). Household accounts suggested that a fountain within the main parterre was constructed or repaired in 1847 (LUC, 1988, 6; Alexander, 2015, 151), whilst a watercolour painting by MJ Neville of the same date (English Heritage, 2014b; Historic England, 2021) depicted this fountain in-situ (see Figure 8.5). The excavation thus aimed to uncover and date any subsurface deposits from features that could have predated the fountain, a cast-iron version of which remains in place today (Drury, 2014), to clarify the original design of the garden in 1832 and the chronological sequencing of post-1832 changes.

Figure 8.5: Copy of a watercolour painting depicting Audley End's parterre garden from the perspective of the gallery windows, painted by MJ Neville in 1847 (Historic England, 2021). Source: Historic England Archive (AA060734).

8.2c. Maintaining the garden in the 19th and 20th centuries

As discussed by Sutherill (1995), Drury (2010; 2014), and Alexander (2015), several additions were made to Audley End's garden during the 19th century. Under the fifth Lord Braybrooke, Charles Neville (1823-1902; Drury, 2014), the Pond Garden was laid out to the north-east of the house, which was inspired by rugged Alpine landscapes (Sutherill, 1995, 35). The productive gardens to the north-west of the house were also expanded, making use of advances in technology and botany that occurred during this period (Elliott, 1986). This included the increasing use of glass houses, due in part to reductions in the taxation of glass and metal (Bilson, 2008, 1); a vine house and orchard house were both added to Audley End's kitchen garden (Sutherill, 1995, 35). However, there were few projects in the gardens during the 19th century; instead, the occupants of Audley End mostly preserved the character of the earlier landscape, which included the maintenance of the 1832 parterre.

Historical survey showed that the central feature within the courtyard parterre was removed between 1853 and 1877, possibly at the same time as the inner parterre flowerbeds were removed or cleared (LUC, 1988, 18). Otherwise, initial alterations recorded in the household accounts were superficial, mostly involving changes to the planting scheme. The development of bedding systems in the 1830s meant that plants were moved outside seasonally, thus changing the appearance of gardens regularly (Elliott, 1986, 13-14); Audley End's annual beds were planted using this system (Drury, 2014, 33). From the 1840s, increased plant hybridisation meant that a greater variety of specimens were available to gardeners (LUC, 1988, 35). Changes to the planting scheme also reflected new garden fashions, namely a shift from herbaceous beds and roses to carpet bedding (Sutherill, 1995, 14). Carpet bedding schemes were developed in the 1870s and consisted of dwarf or creeping foliage plants which were closely spaced to create mosaic-like patterns at floor level (Elliott, 1986, 155-156; 2001b, 94). By 1884, as described in a *Gardener's Chronicle* report, carpet bedding was established within the Audley End parterre which required 50000 plants every year (LUC, 1988, 22; Sutherill, 1995, 14).

The 19th and 20th centuries saw the development of photography, providing insight into how Audley End's parterre declined over this period. A photograph of this area (see Figure 8.6) taken in 1891 shows that the patterning of the main parterre beds remained the same throughout the 19th century, although the inner courtyard beds had been removed. The planting scheme differs from its 1830s iteration; some beds appear to be mounded, which may have enabled carpet bedding

designs to be seen more easily (Elliott, 1986, 156), although the plants are not easily visible. Photographs from 1913 demonstrate that the parterre beds were maintained into the early-20th century (LUC, 1988, 23-24), whilst an aerial photograph from 1949 shows that the paths within the parterre remained in place (Soutar, 2015, 42). However, other mid-20th century photographs collated by Land Use Consultants showed that the flowerbeds had been grassed over by the 1940s (LUC, 1988, 24; Sutherill, 1995, 35), likely during the Second World War when attentions were diverted towards using the estate for crops and training exercises (Alexander, 2015). As such, the documentary evidence indicated that the 1832 parterre was maintained with few alterations for over a century, although the planting strategies changed considerably during this time.

The quantity and quality of the historical record, as collated within research reports (see LUC, 1988; 1992), meant that English Heritage had a good understanding of the design and chronology of the parterre garden before any archaeological intervention. In this case, archaeology provided an additional methodology to supplement historical analysis, seeking to confirm the expected layout and chronological sequencing of specific features. Ultimately, as discussed in Chapter 3, the 1985-1987 excavation was primarily aimed towards informing and enabling the restoration of the 1832 garden (Flenley, 1997, 96). Although Sawrey Gilpin was a prolific landscape gardener, many of his gardens were later altered (Goode, 2001, 227-228); as such, the Audley End project was a rare opportunity to restore one of his designs, making the visual impact of Sawrey Gilpin's parterre clear to modern visitors (see Figure 8.7). Documentary analysis also showed that the garden's history made it a good candidate for excavation and restoration; unlike at other garden sites, where the later redesigning of gardens decimated earlier features (Michael Klemperer, *pers. comm*.), Audley End's parterre had been maintained without major alterations before being gradually overgrown, so its subsurface remains were well preserved for analysis.

Figure 8.6: Photograph of Audley End and parterre from the south-east, 1891, part of the Bedford Lemere Collection. Source: Historic England Archive (BL 10623).

Figure 8.7: Photograph of the main parterre, from the north-west, in 2019 (author's image).

8.2d. Gardeners' diaries

Alongside the photographic record, the most valuable documentary sources are the two gardeners' diaries, first noted in Chapter 2.4d.i, which were written by Thomas Challis in 1795-1798 and William Cresswell in 1874. These diaries were acquired by English Heritage after the parterre project, so were not included within the interim excavation or Land Use Consultants reports. Both Challis and Cresswell worked within the kitchen gardens; their diaries therefore provide insight into the growing of plants for consumption within the household. Challis noted the planting and care of a range of fruits and vegetables, including some exotic fruits such as melons, grapes, and apricots (Challis, 1792-1798); by 1874, the variety had further expanded (Brown *et al*., 2006, 164-166). Cresswell also provided for the Nevilles' London townhouse; he "packed up basket of plants in bloom for London" and was once "up early to gather Strawberries to be sent with other fruit to London by 1st train" (Kelleher, 2006, 77-80). These two diaries demonstrated the importance of country house gardens in facilitating food consumption within the elite household (Grey, 2016, 168). However, as both of the diaries focus on the kitchen gardens, they provide little information about the management of the formal gardens, within which the 1832 parterre was placed.

An exploration of the diaries through the lens of material culture emphasises the different kinds of objects used in horticultural practice. Flowerpots were used for a range of plant species by both Challis and Cresswell, concurrent with the development of utilitarian flowerpot types from the early-18th century onward (Currie, 1993a); these are discussed in Chapter 3.5c.i. The diaries also mention metal objects, including nails, zinc trays, and other tools, whilst bell glasses were used by both Challis and Cresswell to grow cucumbers (Challis, 1792-1798; Cresswell, 1874, Kelleher ed., 2006). The diaries therefore suggested the kinds of artefacts related to everyday garden management that could be recovered during the excavation and recovery of horticultural deposits. Although not a focus of this thesis, horticultural objects will be glimpsed through the discussion of domestic material culture types and their role within horticultural practice, whilst horticultural object types remain an area for further study.

8.3. Archaeological evidence for the parterre garden

8.3a. Executing and altering the parterre layout

As the 1985-1987 excavation team recorded and removed all stratigraphic deposits from 1832 and later, the remains of the parterre garden were fully excavated. This confirmed that the layout of the parterre garden, including the location and shape of the flowerbeds and gravel walks, mostly correlated with the William Press drawings. Cunningham also noted that it was unlikely that the gardeners were using templates for flowerbeds, as the more unusually shaped beds had some variety between them, yet they were regularly spaced and had good symmetrical congruence, showing that the original design was mostly well-executed (Cunningham, 1987b, 2). Excavation of the main parterre, however, showed that the distance between the flowerbeds to the north and south of the northernmost parterre path was originally three metres at the eastern end, increasing to approximately three-and-a-half metres at the western end, so that these flowerbeds had to be re-cut to correct the error (Cunningham, 1987b, 3; see Figure 8.8); this was not recorded within historic documentation. It is unclear why this mistake occurred, a discrepancy of around 1.5 feet, but it likely resulted from an inaccuracy in measurement. This could suggest that instrument survey was not used to lay out the parterre. The archaeological evidence for this rectification was not stratigraphically datable, but, as the original beds appeared to have been dug over several times, causing a slight change to the upper layer of the original flowerbed fill (Cunningham, 1987a), it likely occurred after the parterre had been in place for several years.

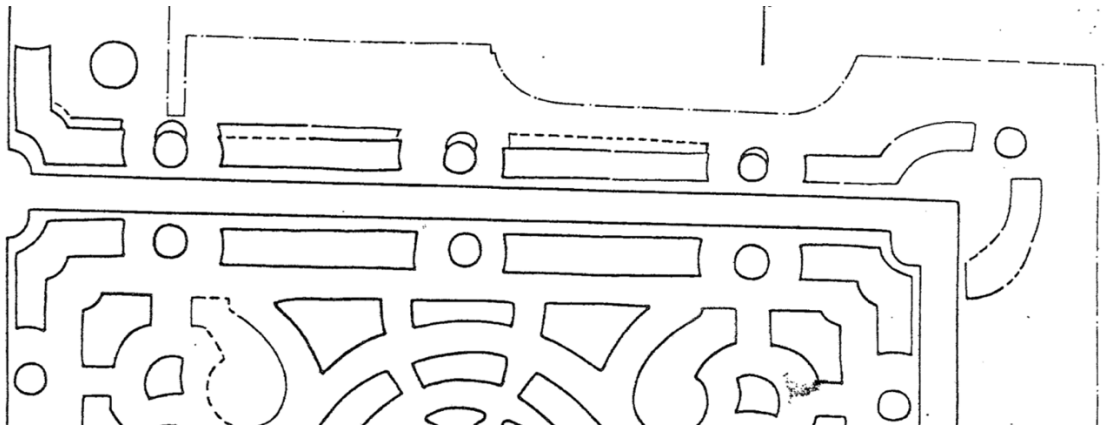


Figure 8.8: Drawing showing the north side of the main parterre, with the original flowerbed cuts in dashed lines and the final cuts in solid lines, prepared for publication but not to scale (Cunningham, 1987b, 9). © English Heritage.

The 1985-1987 excavation also showed that the parterre layout was altered again in the later-19th century. Clearance of the parterre's gravel walks revealed that the peripheral beds to the north and south of the main parterre were supplanted by two large circular beds, with the gravel walks widened over the defunct beds, thus sealing the flowerbed fill contexts (Cunningham, 1987b). This later iteration of the parterre design is depicted in the 1891 photograph, showing that the change to the peripheral beds had occurred by this date. Further small changes to the inner courtyard parterre flowerbeds were also caused by the addition of subsurface services but were impossible to disentangle using the excavation documentation. In this way, the excavation provided some additional information about the layout of the parterre flowerbeds, which had small differences to the design that was recorded in the c.1832-1833 Press drawings, thus allowing the earliest iteration of the garden to be better understood and more accurately reconstructed.

8.3b. Locating and dating other garden features

As well as the parterre flowerbeds, the 1985-1987 excavation recovered the gravel walks and parts of the two central features. The interim reports note that the location of the original paths as found during excavation conformed to the Press drawings and that they were made of a uniform, light-coloured gravel (Cunningham, 1987a, 8). An overview of the context sheets and section drawings adds to this, showing that the original paths were constructed by creating a shallow depression that was filled with two layers. The foundations consisted of a sandy loam, mixed with clunch, brick, flint, and rubble (CAT, 1986: *Context Record Sheet* [JA125]; 1987: *Context Record Sheet* [K317]). The foundations were then topped with a thin layer of light-coloured hoggin, a mix of gravel and sand (CAT, 1986: *Context Record Sheet* [JA122]; 1987: *Context Record Sheet* [K320]). This composition conforms to Loudon's (1826, 641) recommendation for gravel walks, with a foundation of rubble and other materials overlaid by a walking surface of gravel. The context sheets also suggest that, when observed in the walls of a modern service trench, the gravel of the outer parterre path consisted of several layers with weathered surfaces, indicating that the path had been revitalised with additional gravel over time (CAT, 1985: *Context Record Sheet* [JC201]).

The excavation also revealed changes to the gravel walks that occurred during the later-19th and 20th centuries. At some date, the paths to the north and south of the main parterre were widened, sealing the defunct flowerbeds that were next to them, and a longitudinal path was laid across the centre of the parterre (Cunningham, 1987b). Context sheets and section drawings

within the archive show that the foundations of these paths cut into the original paths, and that they consisted of a more reddish, sandy loam with inclusions of gravel, clunch, flint, mortar, and tile (CAT, 1985: *Context Record Sheet* [JC201]; 1986, *Context Record Sheet* [JA126]). The context sheet for the outer path around the main parterre also notes that the site's JCB driver remembered how this path was widened further in the 1970s, resulting in a foundational deposit of household and horticultural waste (CAT, 1986: *Context Record Sheet* [JA126]). Land Use Consultants noted that the paths had been altered in the mid-1960s (LUC, 1988, 24), providing an alternative date for this change. During restoration, the parterre's gravel walks were thus reconstructed to their early-19th century dimensions (LUC, c.1991-1995). The significant presence of material culture within the original and altered path foundation deposits, meanwhile, was unreported within the interim reports, requiring further discussion.

The interim reports also discuss the archaeological evidence for the construction of the fountain at the centre of the main parterre, suggesting that as there were no subsurface deposits immediately around it, it was an original inclusion within the garden design (Cunningham, 1987b, 2). This contradicted English Heritage's initial hypothesis, based on the Press drawings and 1847 household accounts, that the fountain was a later addition to the garden (LUC, 1988, 7; Sutherill, 1995, 14). As such, the project archaeologists and Land Use Consultants reinterpreted the historical record, suggesting that a fountain or still pond was added to the original parterre design before it was constructed, that was then repaired or replaced in 1847 (Cunningham, 1987b, 2; LUC, 1988, 16). The central feature within the courtyard parterre was also excavated, but this did not confirm whether the feature was a structure, statue, or water feature, as it was fairly shallow and had no obvious water supply (Cunningham, 1987a; LUC, 1988, 7). The excavation did show that this feature had been lost when the coal cellar was extended in the 1860s; at this point, the circular depression was infilled with rubble before a longitudinal path was placed above it (Cunningham, 1987a, 7–8). When restoring the garden after the 1985-1987 excavation, this central feature was therefore planted as a shallow flowerbed (LUC, 1988; c.1991-1995). This example demonstrates that the archaeological record of formal gardens can be challenging to interpret, especially when exploring changes that left little impact on the subsurface stratigraphy and were not recorded in contemporary documents.

8.3c. Flowerbed construction and maintenance

The 1985-1987 excavation involved the complete clearance of each of the parterre flowerbeds, allowing their full size and depth to be revealed. The flowerbeds had vertical sides and flat bases, and those within the main parterre varied from 0.25 to one metre in depth (Harris and Cunningham, c.1987, 1). The variations in depth could have reflected the planting scheme for each bed, with "shallow-rooted bedding plants especially in the rectangular beds; and deeper shrubs especially in the triangular beds" (Cunningham, 1987b, 2). As we have seen in the preceding chapters, the gardeners were willing to remove historic structures and burials to fully excavate the flowerbed fills; the different depths are thus more likely to represent contemporary garden strategies than the avoidance of any subsurface deposits; however, as there were few historic references to the original planting scheme (LUC, 1988, 25), this was impossible to confirm. In contrast, the courtyard flowerbeds were more uniform in depth, dug to a depth of approximately one metre throughout (Cunningham, 1987a, 7). This suggested that a more uniform planting scheme could have been followed in this area. The only differences in flowerbed depth were found to occur when flowerbeds were placed over Jacobean pier bases, which were left in-situ, as they were perhaps too difficult for the gardeners to remove.

During the excavation, the fills of the flowerbeds were easy to define because "the beds, filled with rich dark topsoil, had been cut deeply into the contrasting subsoil" (Drury, 2010, 33). This subsoil, as shown in the vertical walls of the flowerbeds, represented the historic use of Audley End's gardens as outlined in Chapters 4-7; it included 12th to 16th-century structural, occupational, and demolition deposits, Jacobean bowling green deposits, and 18th-century garden soil, forming a complex stratigraphic sequence that varied across the parterre area. For instance, Flowerbed 1024 at the north-west of the main parterre was cut into several layers, consisting of clayey loam, over rubble from the demolition of the Jacobean east range, over orange sand, over a layer of clunch (CAT, 1986: *Section Drawing* 32). In contrast, Flowerbed 1115 at the parterre's southern edge was cut into mostly black sandy loam over a layer of reddish brickearth (CAT, 1986: *Section Drawing* 130). In the inner courtyard, the flowerbeds imposed into demolition rubble from multiple periods, with medieval and Tudor stonework visible within the flowerbed walls (e.g., CAT, 1987: *Section Drawing* 54). All flowerbeds were thus shown to be cut deeply into historic stratigraphy, revealing the multiperiod features that are discussed in the preceding chapters.

By excavating and recording the flowerbeds, the 1985-1987 project also revealed that the flowerbed fills had two different compositional profiles depending on their location within the parterre garden. In the main parterre, the flowerbeds had a thicker soil 'trample' layer at their bases (Cunningham, 1987b, 2), which is described variously as a grey/yellow sand or loam (CAT, 1986: *Context Record Sheet* [JA184]; *Context Record Sheet* [JA187]). Above this layer was a fill of "well-prepared homogenous soil" (Cunningham, 1987b, 2), described on context sheets as a black or dark grey loam, with few other inclusions (CAT, 1986: *Context Record Sheet* [JA119]; *Context Record Sheet* [JA181]). The interface between these layers is represented on section drawings, such as the section of Flowerbed 1024, which is shown to have two fills: loam with pebbles and bricks underneath and "humic loam topsoil" above (CAT, 1986: *Section Drawing* 32). The beds had also been cultivated "to no more than a spade's depth below the surface" (Cunningham, 1987b, 2), involving the movement of soil and possible imposition of fertilisers, which was visible in the subsurface stratigraphy as a disturbed upper layer and a blurring of the flowerbed edges.

In contrast, the courtyard parterre flowerbeds had an upper fill of black loamy soil, but the bottom two-thirds were instead made up of a "loose sterile mortary gravelly backfill" (Cunningham, 1987a, 7), one example described as a reddish-brown soil "heavily flecked with chalk and mortar" (CAT, 1987: *Context Record Sheet* [K123]). This gravelly backfill was markedly different from the parterre flowerbed fills, which had a much loamier composition. Cunningham suggested that, as these beds were cut through the demolition layers of the inner courtyard, larger fragments of stonework were removed from this soil before it was returned to the flowerbeds, allowing smaller fragments of structural debris to be re-deposited within the beds. This could have been related to drainage; as discussed in Chapter 6.3, the inner courtyard needed Jacobean drainage channels, suggesting that it retained water from the rooves above which would be able to percolate better through the 'backfill' layer. It could also reflect the 19th-century planting strategy, with the gardeners using deeper flowerbed fills and gravelly soil to cultivate different plant varieties.

In this analysis, the changing location and composition of flowerbeds and gravel walks have been discussed through an original analysis of interim excavation reports and on-site documentation from the 1985-1987 excavation. This has enabled a consideration of 19th-century horticultural processes which were unreported within the historic record, although the lack of standardisation within the context sheets when describing soil composition and the complexities of the site stratigraphy prevented a full analysis of individual flowerbed fills. Both the on-site and

interpretative records also omitted the presence of material culture as part of soil taphonomy, perhaps inevitably due to the division of finds processing from excavations as discussed in Chapter 3. The analysis of finds from flowerbed fills could, however, enhance understanding of how the parterre flowerbeds were created and maintained by Audley End's gardeners, as well as revealing the final stages of object biography for the domestic material culture discussed within this thesis.

8.4. Material culture distribution within the parterre garden

8.4a. Material culture distribution within flowerbed fill layers

Exploring the domestic material culture assemblage through the contextual narrative outlined above allows for exploration of how the deposition of material culture intersected with horticultural practice in the 19th and 20th centuries, and how this has shaped the archaeological record. As discussed above, the flowerbed fills had three distinct soil compositions: in the upper fills of the main and courtyard parterres, a dark homogenous loam; in the main parterre's lower fills, a lighter coloured loamy sand with some stone and brick inclusions; and the lower fills of the courtyard parterre, which had a gravelly composition intermixed with chalky material. Although, due to changing excavation methodology, the division of lower and upper context numbers does not always correlate with the composition of the flowerbed fill, the two can be broadly compared to reveal the general distribution of material culture within the different fill types (see Figure 8.9).

This shows some variation in the assemblage, demonstrating that the upper fills contained more pottery than lower fill types, whilst the lower fills of the main parterre contained the most vessel glass fragments. The lower fills of the courtyard parterre, meanwhile, contained fewer objects overall. General trends in the assemblage composition have also been outlined in the preceding chapters. This showed that the artefacts within flowerbed fills were heavily fragmented, whilst periodisation of the assemblage revealed a wide range of object production dates from the Roman period to the early-20th century. The artefact analysis has also characterised much of the assemblage as relating to food storage and management, as well as lower status drinking and dining practices. The artefactual analysis thus enables the assessment of assemblage composition as part of the taphonomy of garden contexts, considering how material characteristics both inform and reflect the depositional trajectory of objects into the flowerbed fills.

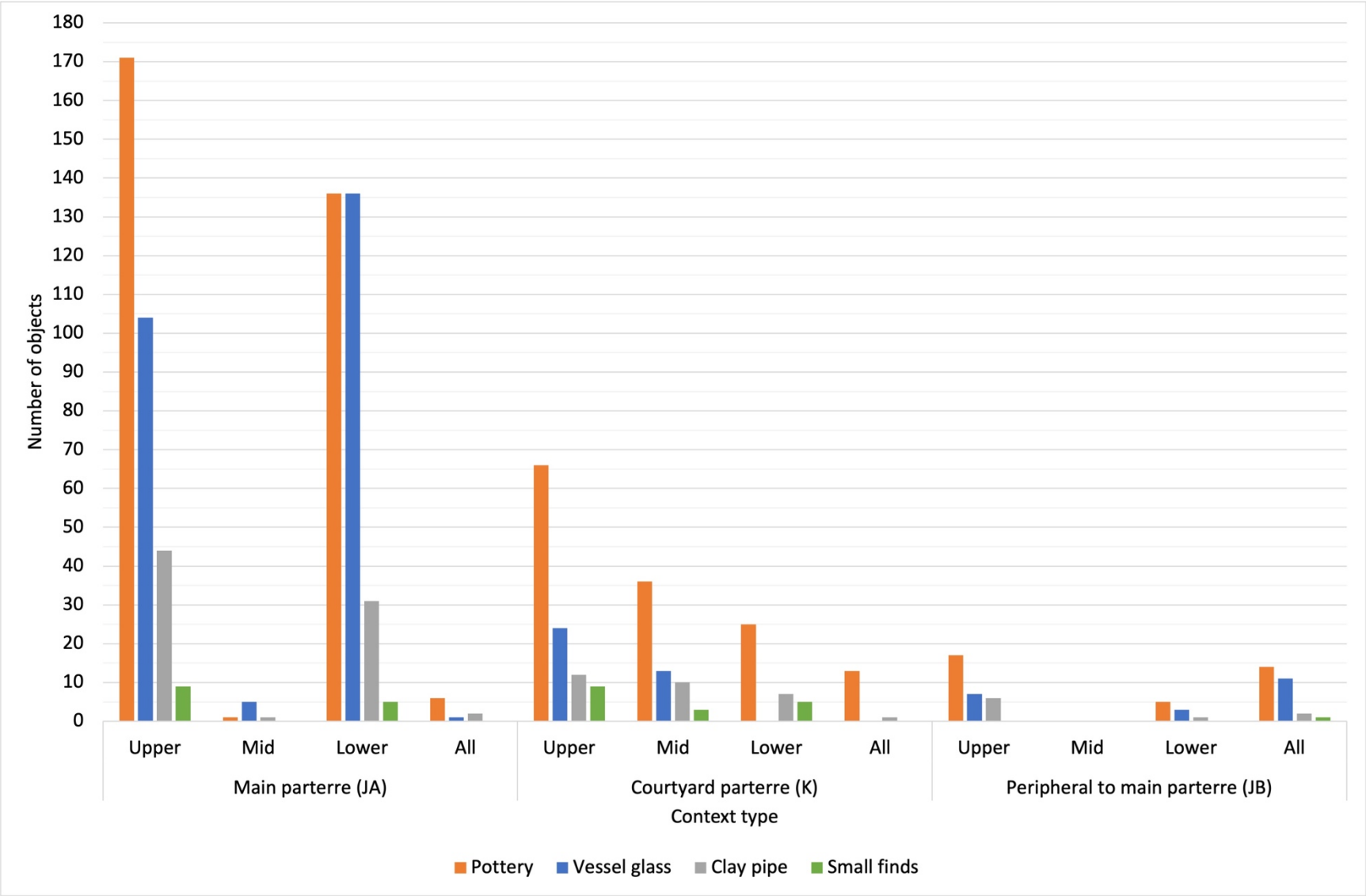


Figure 8.9: Graph showing the number of pottery, vessel glass, and clay pipe fragments, and small finds, within each flowerbed fill type.

8.4b. Spatial context and distribution of the pre-modern assemblage

Within this thesis, each object of domestic material culture within the assemblage was assigned to a century classification, illustrating the presence of material culture from various pre-modern (12th-17th century) periods within later garden contexts. Dividing the dated pottery fragments by contextual origin, as the most temporally sensitive assemblage, reveals patterns in the vertical distribution of this material (see Figure 8.10). The majority of medieval pottery was recovered from the lower fills of the main parterre, those described as a grey/yellow loamy sand, with smaller quantities of medieval pottery in other fill types. In contrast, the 17th-century pottery was mostly recovered from flowerbed fills in the courtyard parterre; this is consistent with the general composition of the fills, which contained architectural material dating to the same period.

The application of spatial analysis to the pottery and vessel glass recovered from flowerbed fills, which was outlined in Chapters 4-6, demonstrates further patterns in the horizontal distribution of the assemblage. This showed that medieval and 16th-century pottery was found almost exclusively in the northern flowerbeds of the main parterre, with one containing ten sherds that could represent the fragmentation of a single vessel, whilst all medieval metalwork recovered from flowerbed fills was found in this area. This pattern was also present in the 17th-century assemblage, with both pottery and glass fragments recovered mostly from the northern end of the parterre; however, this assemblage was more divided, as the majority of the pottery was recovered from flowerbed fills within the inner courtyard, whilst none of the contemporary glass assemblage was found in those beds.

As such, patterns in object distribution on both vertical and horizontal planes suggest temporally fluid trends in the deposition of pre-modern material culture. Overall, this is a small assemblage that does not reflect the quantities of material culture that would have been produced through continuous occupation of the site; although this limited the spatial analysis, this is also a significant characteristic of the assemblage that can be explored through contextual narratives. The small quantities of domestic material culture, pre-dating the parterre garden yet found within its flowerbed fills, will thus be contrasted to the modern assemblage, contemporary horticultural guidance, and other disturbed archaeological context types, to explore the horticultural trajectory of domestic objects at Audley End.

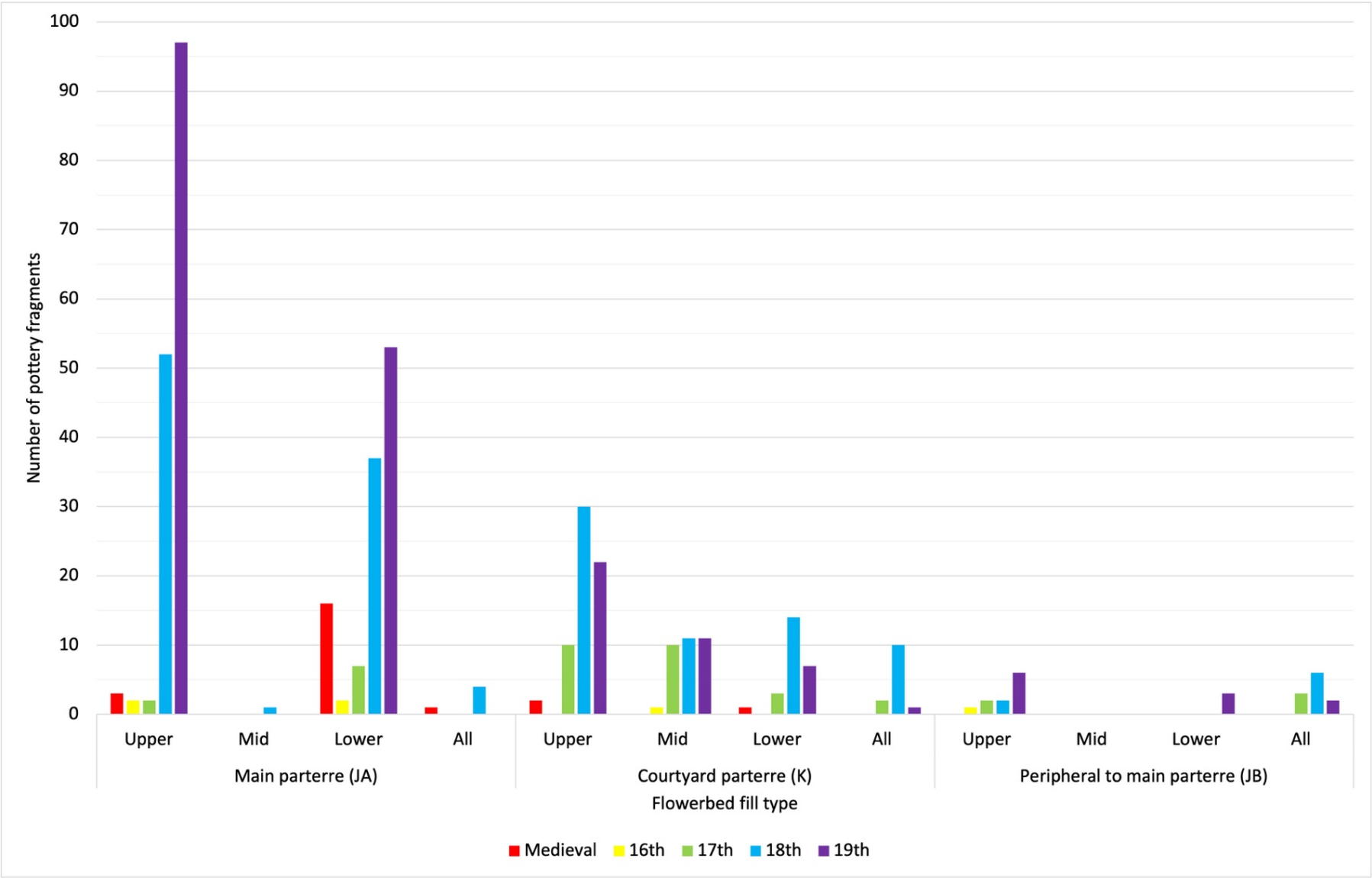


Figure 8.10: Graph showing the number of pottery fragments, subdivided by date classification, within each flowerbed fill type.

8.4c. Spatial context and distribution of the modern assemblage

The composition of the pottery, vessel glass, clay pipe, and small finds assemblages that could be dated to the 18th-early 20th centuries, which represented the majority of the domestic material culture recovered during the excavation, was outlined in Chapter 7.4. This section applies spatial analysis to the assemblage, exploring its distribution within the flowerbed fills of the main and inner parterres. This shows that the distribution of modern pottery types (see Figure 8.11) was centred towards the inner courtyard parterre and the north end and south east corner of the main parterre. Two flowerbeds contained larger quantities of ceramics, with 12 fragments and 16 fragments excavated from Beds 1033 and 1096 respectively; this could reflect individual depositional events or the fact that these flowerbeds are larger than others.

The scale of the modern pottery assemblage also enabled the spatial analysis to be subdivided by pottery fabric type. The distribution of post-medieval redware vessels (see Figure 8.12) was broadly clustered to the north end of the parterre and the inner courtyard, without any unusual peaks in particular areas. Spatial analysis of the factory-made refined earthenware assemblage, in contrast, showed more defined clusters to the north-west and south-east corners of the main parterre (see Figure 8.13). This could support the assertion that earlier ceramic material was clustered to the north of the parterre, with later material to the south, as some of the redware assemblage likely predated the development of whiteware fabrics. It could also reflect different vessel functions, with more of the redware representing food management and horticulture whilst more of the refined white earthenware was used as tableware, or the post-depositional fragmentation of specific vessels within the flowerbeds that have been counted individually within this thesis; these suggestions will be explored further in this chapter.

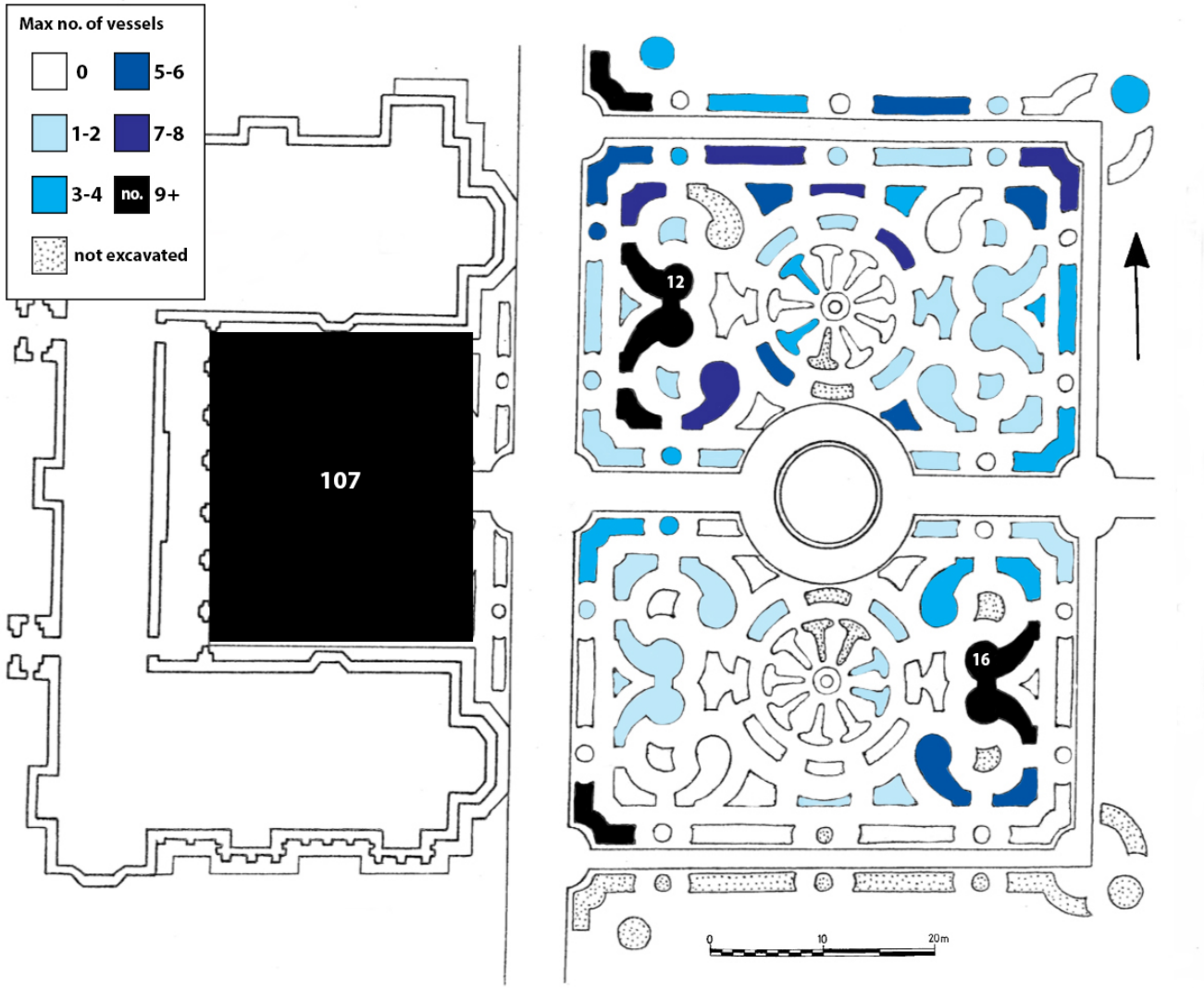


Figure 8.11: Diagram of parterre (Cunningham, 1987b, 11) showing maximum number of 18th and 19th-century ceramic vessels within each flowerbed fill. © English Heritage.

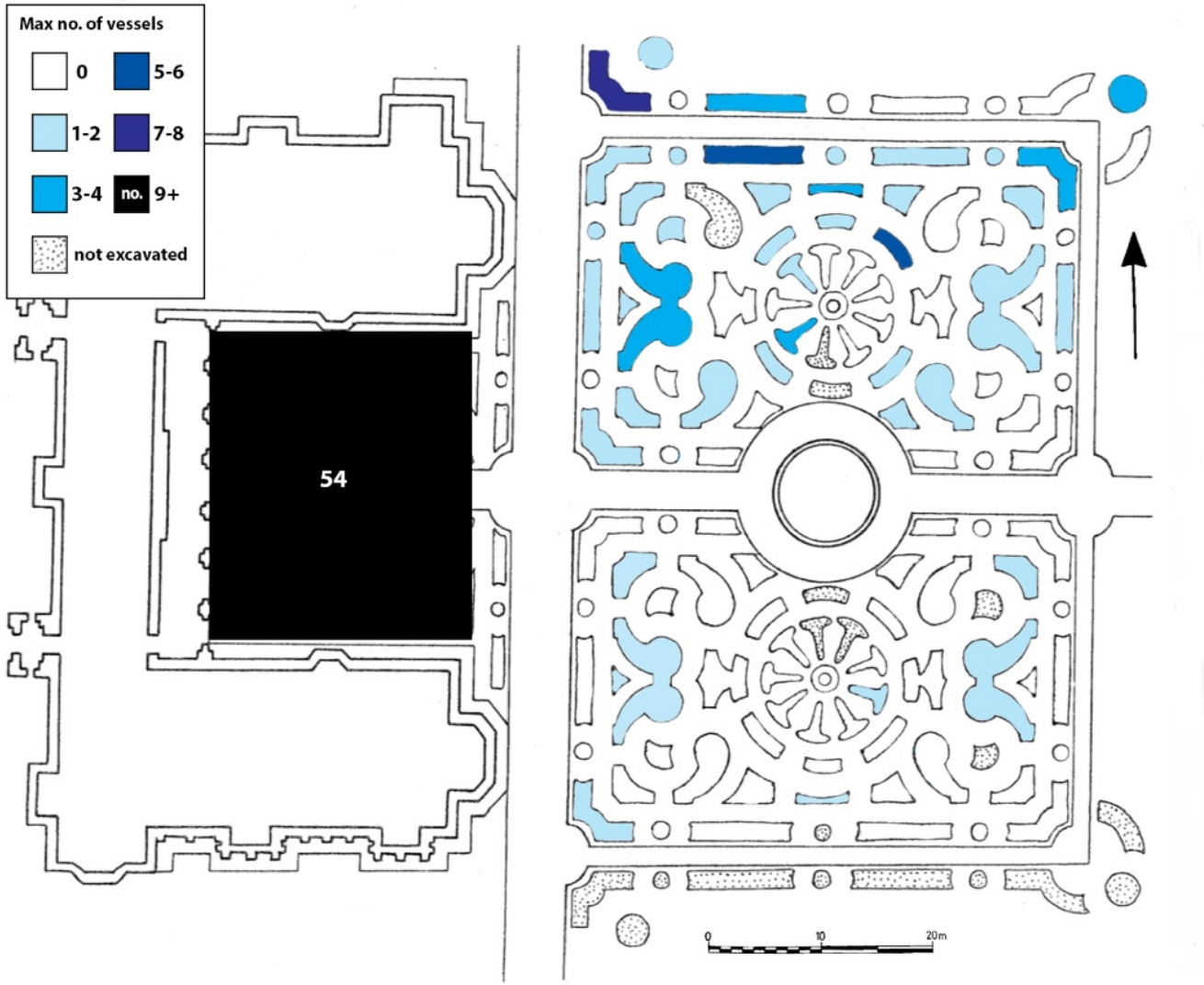


Figure 8.12: Diagram of parterre (Cunningham, 1987b, 11) showing number of post-medieval redware vessel forms within each flowerbed fill. © English Heritage.

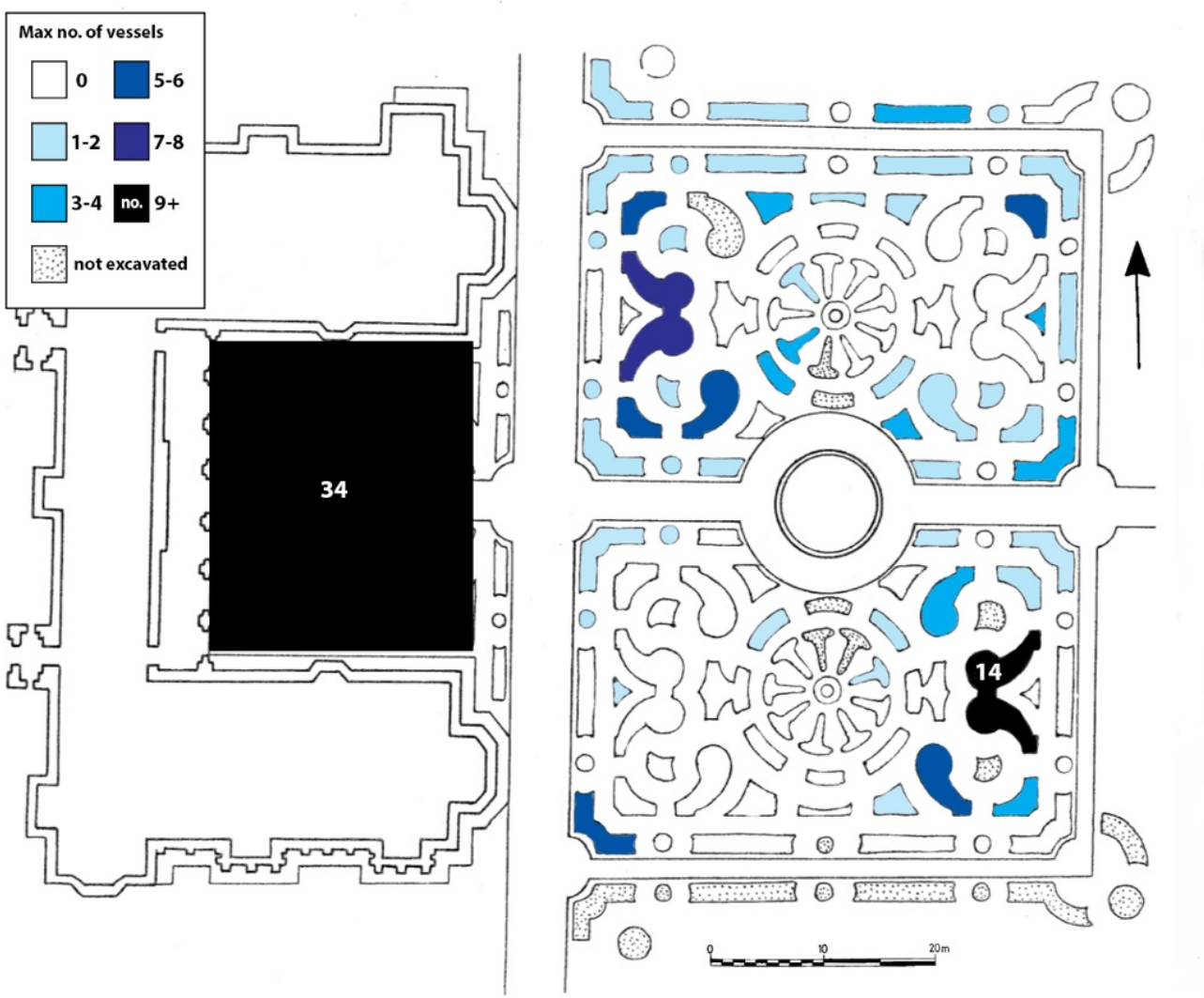


Figure 8.13: Diagram of parterre (Cunningham, 1987b, 11) showing number of factory-made refined earthenware vessel forms (transfer printed whiteware and refined white earthenware) within each flowerbed fill. © English Heritage.

Spatial distribution analysis of the modern glass assemblage within the flowerbed fills (see Figure 8.14) shows a general spread in materials across the main parterre, with a slight focus on the north and east sides. One flowerbed contained 11 fragments of vessel glass, including a tumbler and fragments of 19th-century cylindrical bottles, suggesting either the disturbance of dumped materials in this area or the deliberate deposition of material into this particular fill during the construction of the parterre. Another interesting pattern can be seen in the distribution of two fragments of the same late-19th century commemorative plate, which were found in two different flowerbed fills in the south-east corner of the north parterre. As the plate post-dates the construction of the parterre, it showed that material was integrated into the flowerbed fills after they were created, requiring further discussion.

The overall clay pipe assemblage has already been plotted onto the plan of the main parterre, showing a general cluster towards the north-west corner of the main parterre and within the inner courtyard parterre, as well as a smaller cluster towards the south of the south parterre (see Chapter 3.4e.iv, Figure 3.31). Additional spatial analysis of only the datable fragments within these contexts (see Figure 8.15) shows that distribution was temporally mixed; for instance, Flowerbed 1128 contained both the earliest and latest examples of clay pipe bowls. This suggests either that clay pipes were deposited into flowerbed fills over a long period or that post-depositional practices led to the intermixing of material from different chronological contexts within the fills. Spatial analysis of the small finds (see Figure 8.16), meanwhile, has shown that the assemblage was spread across the parterre flowerbeds, with distribution broadly focused on its west side, although the quantity of material was too small to explore these patterns

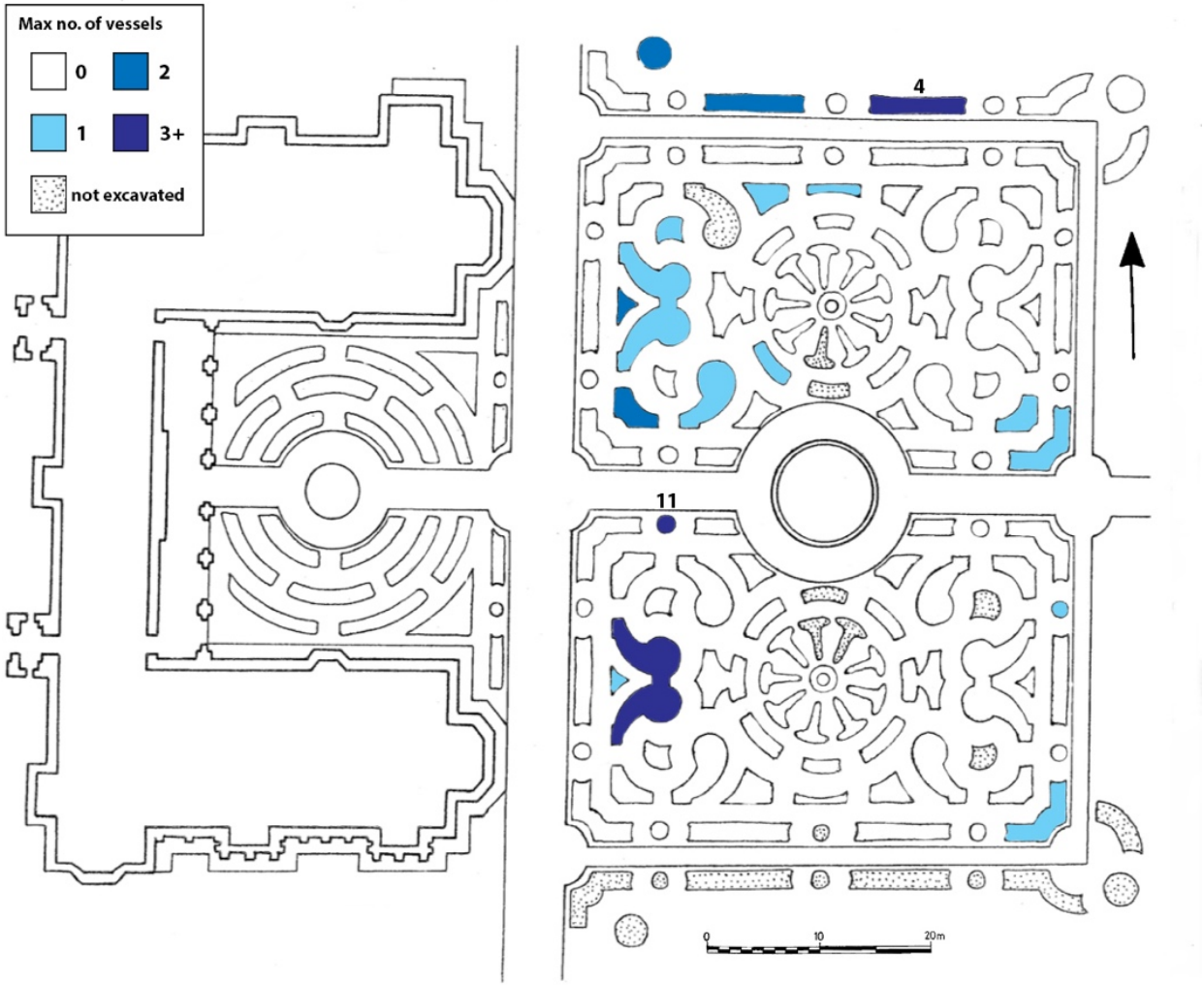


Figure 8.14: Diagram of parterre (Cunningham, 1987b, 11) showing number of glass fragments of modern vessel forms within each flowerbed fill.

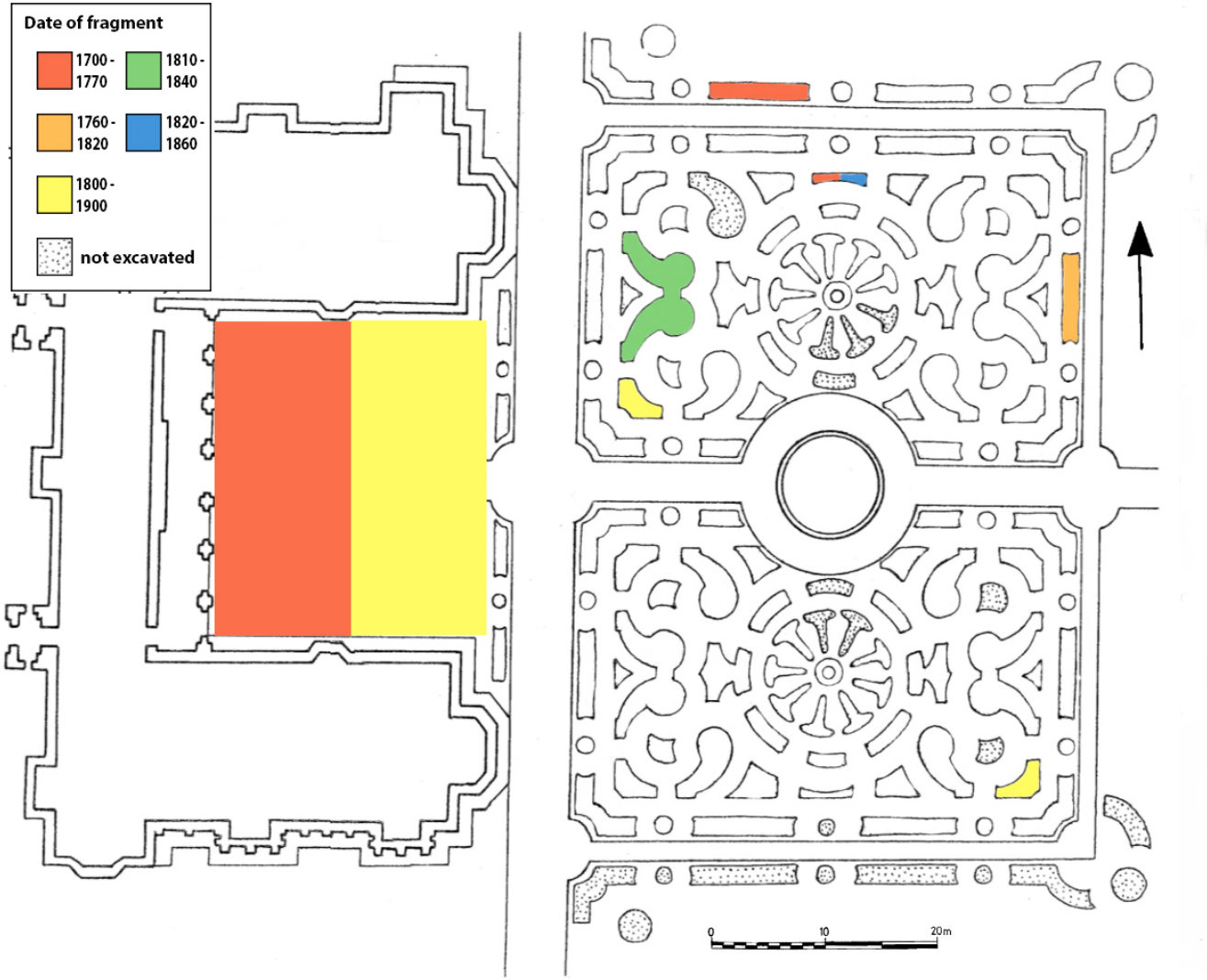


Figure 8.15: Diagram of parterre (Cunningham, 1987b, 11) showing clay pipe fragments that were dated through typology, distributed within each flowerbed fill. © English Heritage.

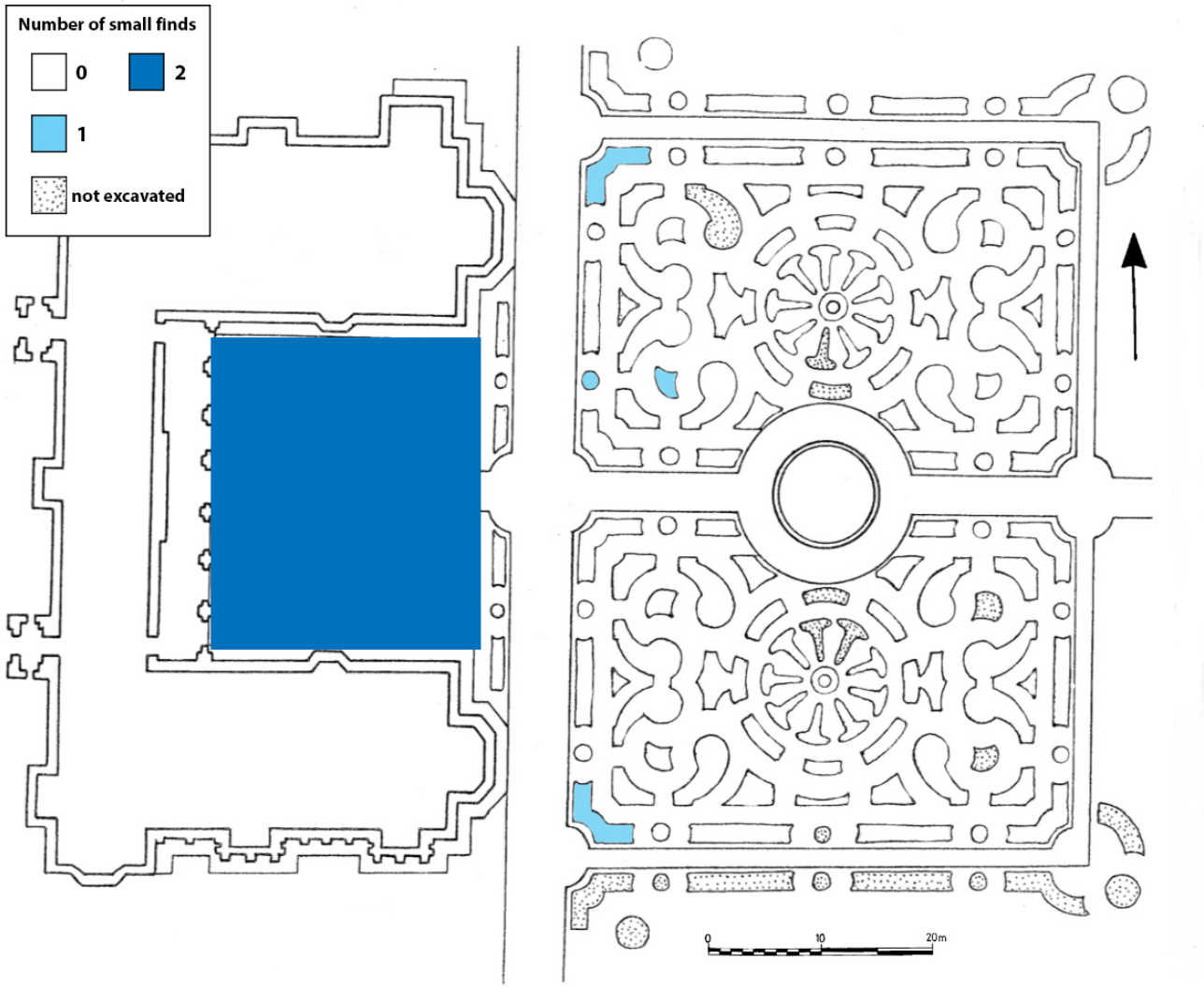


Figure 8.16: Diagram of parterre (Cunningham, 1987b, 11) showing number of modern small finds within each flowerbed fill. © English Heritage.

The spatial analysis of the modern assemblage found different distributional patterns depending on the material type and associated date, suggesting a complex depositional narrative with material taking different trajectories as it entered flowerbed fills. As seen in previous chapters, chronologically earlier materials were found in greater quantities towards the north end of the parterre, suggesting that the patterns could reflect temporal differences in distribution. Alternatively, the distribution patterns could reflect differential deposition of material depending on its function; redwares and stonewares used for food storage and preparation were focused on the north half of the main parterre, whilst refined whitewares, often used in dining contexts, were also distributed in clusters to the south. However, this interpretation would not explain the variation between ceramics and glass vessel distribution, both of which were used predominantly for domestic storage, and does not recognise the value attributions applied to different pottery and glass types. Instead, patterns in spatial analysis suggest a more complex narrative of deposition and post-deposition to be explored.

Patterns in spatial distribution are somewhat shaped by methodological biases within this thesis. The spatial analysis did not consider the surface area or volume of the flowerbeds, so distribution is likely overstated in some areas, particularly towards the outer edges of the main parterre. The levels of fragmentation, as outlined in Chapter 3.4c.iv, differed between material type and differentially limited the identification of certain objects. This especially influenced the recording of vessel glass fragments, of which many were left undated; this could explain their apparent absence within the inner parterre area. In addition, many of the redware sherds were undiagnostic and could thus reflect horticultural rather than domestic uses; indeed, glazed domestic redware vessels were perhaps used within post-medieval gardens (Currie, 1993a, 240).

These biases do not, however, explain the differences in the distribution of the assemblage across spatiotemporal planes. If the modern assemblage represented a single depositional event, such as a singular inclusion of material as the flowerbed fills were constructed, these differentiations would not be as readily visible; instead, the assemblage has been shaped by a more complex depositional narrative. The analysis of horticultural context has also shown that the parterre flowerbeds contained different fill types, yet 18th and 19th-century material was present in differing quantities within all of them (as shown in flowerbed fill type.As such, the assemblage needs to be contextualised through a consideration of various rubbish management and horticultural practices in this period, alongside comparatively disturbed

assemblages from different site types, providing new information about the parterre garden and the presence of domestic material culture within its stratigraphy.

8.5. The management of rubbish in the 18th and 19th centuries

To begin their trajectory from use within the household to deposition within the parterre garden, the objects were first removed from domestic circulation and classified as 'rubbish' (Thompson, 2017). Historical scholarship about how rubbish management was organised in elite country houses often focuses on high-status materials, such as furniture and high-quality tableware. Positional goods were sometimes returned to the commodity market through auctions, creating the financial capital to replace them with newer items (Stobart and Rothery, 2016a, 103). Larger furnishings were often reused, engendering notions of comfort and ancestry, as Chavasse argues convincingly in the context of Griffin's Audley End (Chavasse, 2016). Other goods may have been lost in more ignominious ways; when producing an inventory of goods at Canons Ashby, Northamptonshire, Elizabeth Dryden wrote that "as to the Plate, many of the small Tea Spoons…have been stolen by the Servants" (Stobart and Rothery, 2016a, 102–103). This demonstrates that some objects in the country house, primarily high-status materials, were reused or lost without entering archaeological contexts.

However, the domestic material culture assemblage explored within this thesis is primarily related to food and drink consumption, with smaller quantities of other household items, representing the deposition of material by domestic and estate staff which was not discussed within contemporary documents. It seems likely that the bulk of domestic refuse was deposited into a selected rubbish area or midden within the gardens, likely in the proximity of the service wing and associated productive gardens. Audley End's service range was reconstructed in the mid-18th century, extending from the north of the main house, and integrating the kitchen, scullery and larders, laundry rooms, dairy and brewhouse (Hann, 2007; Drury, 2014, 61). The service area's rubbish deposits are therefore the most likely origin for the glass and ceramics assemblage that was excavated from within the flowerbeds.

In 18th and 19th-century households, the breakage and deposition of low-cost objects was a common occurrence, resulting in large numbers of pottery and glass fragments being excavated from rubbish deposits. As Pennell (2016, 104) stated, the large quantities of ceramics excavated from post-medieval household sites "bear material witness to the hubbub of the working

kitchen"; pottery and glass objects within kitchen contexts were more commonly used than delicate tablewares, so were more likely to break and be discarded, thus are well represented within associated archaeological assemblages. This is congruent with the composition of the Audley End assemblage, as much of the pottery and vessel glass excavated from flowerbed fills represented kitchen and other household functions and was heavily fragmented.

Other archaeological sites contemporary to Audley End reveal choices made in the deposition of objects within elite households. 18th and 19th-century household deposits in urban centres showed an organised system of dumping, sorting, and redistribution or recycling of rubbish (e.g., Pearce *et al*., 2013; Cessford, 2017, 188), the origin of modern waste disposal practices (Velis *et al*., 2009). Interestingly, post-depositional sorting of rubbish from Duke Street, London, meant that glass was underrepresented within the assemblage as it was separated for recycling, whilst ceramic vessels were used as consolidation deposits for waterlogged ground (Pearce *et al*., 2013, 313). Similar recycling processes could explain the predominance of ceramics over vessel glass within the Audley End assemblage, although this difference is less marked than at Duke Street. The absence of objects relating to the Special Operations Executive training camp could also reflect rubbish management strategies, as the development of a national salvage scheme in this period meant that many material types were recycled, including metal items (see Irving, 2019).

However, there are a number of differences between the Audley End assemblage and contemporary refuse deposits. The excavation of household rubbish from Duke Street, London, has shown that significant quantities of domestic refuse could be produced by affluent households over short periods, deposited as large sherds of vessels that could be re-joined by the archaeologist (Pearce *et al*., 2013). The Duke Street assemblage also included a range of ceramic and glass types including middle-quality tablewares, such as 18th-century English-made porcelain and tin-glazed wares, and examples of elite tablewares. This contrasts with the highly fragmented Audley End assemblage, from which few middle-quality or high-quality wares were identified; the assemblage is different from the composition of rubbish deposits within the affluent modern household. Indeed, this assemblage did not originate from rubbish deposits, but was instead formed through horticultural activities that led to its deposition within garden beds. To better understand the unique composition of the Audley End assemblage, the management of domestic rubbish within gardens needs to be interrogated.

8.6. Comparative assemblages from horticultural and agricultural contexts

8.6a.i. 19th and 20th-century garden flowerbeds

The analysis of assemblages excavated from different horticultural contexts acts as a qualitative exploration of how assemblage composition was dictated by, and thus reflects, post-depositional practices. The most directly comparable assemblages to the Audley End assemblage were recovered from flowerbeds within other 19th-century formal gardens although, as discussed in Chapter 3, these assemblages are rarely recovered, analysed, or published. An assessment of a formal garden bed assemblage was undertaken during the 1989-1991 Castle Bromwich (West Midlands) excavation (Currie and Locock, 1991; 1993). The latest iteration of the hall's Best Garden was found to be an 1850s parterre with Maltese cross-shaped quadrants split into a radial pattern of dark loam flowerbeds and gravel paths (Currie and Locock, 1993, 141). The published site report noted two pottery sherds and two registered metalwork finds with context numbers corresponding to the flowerbed fills: 12% of a white-glazed earthenware dish, 7% of a straight-sided jar of the same material, and two copper alloy pins (Currie and Locock, 1993, 171; 182).

The excavation at Castle Bromwich thus uncovered a very small assemblage from 19th-century flowerbed fills, all contemporary to its construction, with no noted vessel glass or diagnostic clay pipe fragments. This could reflect the partial nature of the excavation; the flowerbed deposits were not fully removed, instead being partially cleared within two narrow cross-site trenches and two small scoping trenches, which trialled garden excavation methodologies (Currie and Locock, 1991; 1993); this will be discussed in Chapter 9.4. The beds were also shallow compared to those at Audley End, only 0.3 metres in depth on average (Currie and Locock, 1993, 141). This meant that only a small quantity of soil and any associated material culture would be needed to fill the flowerbeds, thus that the excavated deposits would contain lower overall quantities of artefacts when compared to deeper flowerbeds. The small assemblage could also, however, reflect deliberate choices in the preparation of garden soil. The flowerbed fills contained charcoal "similar to enhanced planting soils" found elsewhere within the garden (Currie and Locock, 1993, 145), suggesting that the soil was improved without integrating much domestic material culture.

A contemporary parterre was also excavated at Witley Court (Worcestershire) as part of a 2006-2008 garden reconstruction project. This was a *parterre de broderie* designed by William

Andrews Nesfield in 1854-1860, consisting of coloured gravel, box hedging, and small flowerbeds, creating a highly elaborate design also based on d'Argenville (Matthews and Foreman, 2009; Dix, 2011). The partial excavation of thirteen circular border flowerbeds found no domestic material culture (Ainsworth, 2007, 7). Beds in the southwest quadrant of the parterre were then sampled, with 50% of each fill removed, alongside trenches for the box hedging and gravel (Matthews and Foreman, 2009, 10). During this excavation, small quantities of pottery, clay pipe, and vessel glass were uncovered within and/or around the gravel fills, thus seen as being "introduced to the garden along with the crushed ceramic material used as red [gravel] colouring" (Matthews and Foreman, 2009, 18). This was an inherently small and fragmented assemblage, so was not fully reported, but does suggest that domestic objects were incidentally residual from the use of aggregate materials. Indeed, the flowerbeds were filled with homogenous sandy silt that appeared to have been sieved (Matthews and Foreman, 2009, 14-16), an action that would have removed any larger artefacts.

Domestic material culture assemblages from flowerbeds within contemporary urban gardens provide a counterpoint to formal parterres. A notable example is the gardens of the Grand Arcade, Cambridge, excavated during a larger developer-funded project (Cessford, 2014; 2017; Cessford and Dickens, 2019). This excavation found that the bases of two planting beds dating to 1770-1790 and 1832-1845 incorporated "a layer of domestic refuse" (Cessford, 2014, 259). This refuse included large fragments of refined whiteware and stoneware dining vessels, as well as tin-glazed ware ointment pots, redware jars, and glass bottles (Cessford, 2017, 178). Cessford (2017, 182) also noted that the flowerbeds contained vessels from the same dining sets, including "two matching teacups and saucers from different services", suggesting deposition from the same source over a short period. These deposits were thus interpreted as crocking/percolation fills (Cessford, 2014), the integration of objects within flowerbeds to promote drainage, as the gaps that they formed within the soil matrix would allow water to percolate downwards. The Grand Arcade beds differed from the composition of the Castle Bromwich and Witley Court flowerbeds, which contained no percolation fills; this could reflect different drainage needs, the growing of different plant types in urban 'working' gardens, or the different socio-economic positions of the garden's owners, all areas for further discussion.

An alternative perspective is provided by the Shapwick Project, a multidisciplinary landscape analysis of rural Shapwick (Somerset), which included a 1995-1997 collection project within 37 village gardens (Gerrard, 2007, 261-265). This involved the collection and recording of visible

artefacts from the surface of current flowerbeds. The resulting assemblage consisted of 1232 pottery fragments, mostly dating to the 19th century, alongside a broad range of other artefact types (Gerrard, 2007, 262; 264). The concurrent excavation of test pits in Shapwick, as discussed in the following section, allowed for the comparison of surface flowerbed and topsoil assemblages; this showed "good correspondence between the frequencies of pottery" in both context types (Gerrard, 2007, 262). The biggest difference was in the addition of plain pearlware and bone china within the flowerbeds, which were interpreted as "occasional but inevitable breakages in the Victorian household" (Gerrard, 2007, 265); these fragmented tablewares potentially represent the use of broken ceramics to facilitate drainage, or part of household waste that was added to the upper layers of flowerbeds as compost to enrich the soil, thus impacting the composition of the pottery surface scatters. This provides an additional explanation for the presence of domestic material culture fragments within garden beds, although in a different socio-economic context to a formal country house garden.

In this way, the archaeological analysis of flowerbed contexts has enabled consideration of depositional processes within beds contemporary to the Audley End parterre, assisting the interpretation of its domestic material culture assemblage. This shows that beds could contain domestic objects used as part of soil enhancement activities, giving a horticultural application to 19th-century domestic waste. This included the deposition of large domestic vessel fragments to enable drainage in flowerbed bases, as was found at the Grand Arcade (Cambridge), representing ceramic and glass vessel types also prominent in the Audley End assemblage but in a much less fragmentary form. Domestic vessel fragments may have also entered garden contexts through the use of household waste to enrich and improve flowerbed soils, as seen in the Shapwick project, forming abraded assemblages of ceramic kitchen vessels on the bed surface. The general dearth of material culture within the flowerbeds at Witley Court and Castle Bromwich, however, suggests that flowerbeds within 19th-century formal parterres were sometimes created and maintained without any material culture being added to them. Indeed, this emphasises that the preparation and maintenance of flowerbeds was a site-specific process within historic horticultural practice, that could be informed by the nature of the soil, the needs of specific planting schemes, and the techniques of different gardeners.

8.6a.ii. Garden test-pitting projects

Test-pitting projects were first discussed in Chapter 3.4a as a methodological parallel for approaching garden bed taphonomy, suggesting that earlier features could be uncovered during garden excavations and that spatial distribution analysis could be applied to them. Test pit projects based in community gardens have indeed uncovered finds assemblages from garden stratigraphy, allowing for the exploration of domestic material culture deposition within different horticultural contexts. The first large-scale test pitting project was at Shapwick (Somerset) in 1991-1995, when 81 one-metre square test pits were excavated to explore pre-existing settlement patterns beneath the modern village (Aston and Gerrard, 1999; Gerrard, 2007). Most of the Shapwick test pits recovered medieval and post-medieval pottery from within loamy garden topsoil which overlaid pre-19th century features. In the test pits located in historic walled gardens, this stratigraphy was shown to be intermixed, "churning prehistoric artefacts with 19th-century ceramics" (Gerrard, 2007, 260). One test pit also encountered a 19th-century garden bed within a farmyard; when compared to excavated rubbish deposits from the same site, this showed that the same post-medieval pottery types found within the rubbish deposits were present in the flowerbed, just in smaller quantities (Gerrard, 2007, 253).

The Shapwick methodology was applied on a much greater scale for the East Anglia CORS project (2005-2018), when 2384 test pits were excavated across the region (Lewis, 2013; 2020, 26) to explore broad patterns in settlement and demography (Lewis, 2015; 2020). Audley End sits within the project catchment area, enabling an incidental understanding of object trajectories within temporally and spatially proximate sites. This research used the principle, based on excavation data, that "the recovery from any one test pit of five or more sherds of pottery…is very likely to indicate contemporary settlement", whilst two to four sherds reflected more general activity (Lewis, 2020, 28). This provides a quantitative estimation of the potential pottery distribution within village gardens, suggesting that pre-garden activity resulted in the deposition of small quantities of ceramics which could therefore be found residually in garden soils. The project also demonstrated the ubiquity of post-medieval ceramics in garden stratigraphy, with the majority of test pits containing at least two sherds and dominated by post-medieval redwares and refined earthenware fabric types (Lewis, 2020, 35; 43).

Further information about assemblage composition was provided for each village project, such as for 32 test pits excavated in Meldreth, Cambridgeshire (Lewis and Pryor, 2013). In this

report, pottery fabrics were classified to give a date range for each context, showing the frequent admixing of medieval and post-medieval pottery within garden stratigraphy (e.g., Lewis and Pryor, 2013, 25-26: *Test Pit 2*). However, the categorisation of all 19th-20th century pottery as 'Victorian+' meant that the object biographies of this assemblage remained mostly unexplored. Smaller test-pitting projects, often connected to the CORs research programme, revealed similarly broad trends in finds distribution (e.g., Cooper and Score, 2006; Craven, 2013; Parker and Lewis, 2018). A project in Great Easton (Leicestershire), for instance, suggested that medieval pottery was scattered during the manuring of open fields alongside occasional disposal in rear garden plots, which was then disturbed into garden soils, whilst post-medieval wares were found across the village but mostly within Victorian rubbish deposits (Cooper and Score, 2006, 213-214). In this example, most post-medieval domestic material culture types had remained within an organised depositional context, with subsidiary disposal within and/or movement towards garden contexts, a viable biography for garden assemblages.

Test pitting projects have thus enabled exploration of garden stratigraphy and associated artefactual assemblages through small subsurface interventions, revealing both horticultural deposits and what lies beneath them. This has shown how pre-garden deposits could be heavily disturbed within intensively cultivated gardens, such as Shapwick's walled gardens, whilst many household garden contexts were sufficiently disturbed to enable the diffusion of small medieval assemblages into garden soils. Medieval pottery has remained the focus of research for these projects, with the presence of multiple sherds suggesting pre-garden activity, even if found within disturbed contexts (Lewis, 2020). The projects have also demonstrated the ubiquity of post-medieval ceramics, primarily redwares and other everyday tableware fabrics, within horticultural soils, suggesting that domestic waste was readily distributed within gardens. The trends outlined above are inevitably broad, obscuring any socio-economic differences between garden locations and material types, whilst their publications mostly fail to interrogate post-medieval horticulture beyond categorising deposits as disturbed 'garden soils'. However, they also suggest the informative potential of finds analysis from excavated garden contexts.

8.6a.iii. Manuring and the ploughzone

An alternative perspective into disturbed assemblages from cultivation soils can be identified in archaeological projects that recover and record material culture within agricultural plough soil. The majority of ploughzone projects focus on the disturbance of pre-agricultural features and

the resulting movement of material into the ploughzone. Most early projects assumed that ploughzone assemblages had "little significant lateral displacement" (Haselgrove, 1985, 6), thus continuity between assemblage distribution and the location of original depositional context. This has since been tested through the excavation of plough soil above known sites, interrogating the distribution of finds and whether it reflects in-situ deposits. This includes excavation at the medieval Hillam Burchard (West Yorkshire), which recovered numerous pottery sherds, including basins used in dairying activities, above an individual building before it was excavated; cross-context joins also showed that pottery sherds in the plough soil remained within 10 metres of their in-situ depositional location (Slowikowski, 1995). This can be contrasted to ploughzone excavation at Rhynie (Aberdeenshire), an early medieval royal site, which recovered a disparate assemblage of highly fragmented metalworking objects, very different from objects within the in-situ deposits below (Noble, Lamond, and Masson-Maclean, 2019). As such, the use of ploughzone assemblages for understanding buried deposits remains complex, a cautionary note for the interpretation of horticulturally disturbed assemblages.

Some ploughzone projects consider low-density artefact scatters to be 'background noise', not representative of sub-surface 'sites' thus unworthy of study (Schofield, 1991, 4). However, through the assessment of small ploughzone scatters alongside historical documentation, scholars have also explored medieval farming practices (Jones, 2004; 2012; Van der Veen *et al.*, 2013). This has shown an organised soil improvement process, with household and farmyard waste, which contained organic matter to enrich soils (Jones, 2004, 161), mixed into other fertilisers such as animal and 'green' manure, marl, peat, and sand (Rippon *et al*., 2006, 55; Jones, 2012, 145), which were then scattered across arable land before ploughing. Non-organic objects within medieval household waste, mostly pottery sherds from kitchen contexts, thus entered the ploughzone to be recovered by archaeologists (Hayes, 1991, 82; Jones, 2004, 162; 2012). This process formed highly fragmented assemblages, as objects were broken when deposited in rubbish, moved into agricultural contexts, then churned up during ploughing, resulting in "sparse scatters of abraded sherds" (Hayes, 1991, 82). Using assemblages from parts of south-east England, Jones outlined the main medieval fabric types integrated within these manuring deposits: late medieval reduced and oxidised wares, Midlands Purple, Cistercian, and Border wares (Jones, 2004). These represent pottery types accessible across the social spectrum, thus implying the use of the rubbish from lower-status households within agricultural practice.

Research into post-medieval manuring is less common, yet there is historical evidence for continuity with medieval practices, as agricultural treatises still recommended the application of household waste as part of compost creation for arable land (Kirkham, 2013). This would thus present a similar archaeological imprint to medieval manuring, resulting in scattered and abraded sherds of the everyday post-medieval pottery types defined in Chapter 7.5; indeed, manuring could explain the ubiquity of redwares and refined whitewares within fieldwalking assemblages (e.g., Brooks, 2002). However, exploring manuring through ploughzone artefacts is challenging. Manuring was a socially fluid practice; it was common to medieval peasant farms, for instance, but was likely not used on seigneurial farms (Jones, 2011; 2012, 152). The manuring of areas "which were also cultivated in earlier periods" (Hazelgrove, 1985, 14), common when fields were used continuously for arable, results in the admixing of different assemblages; it is therefore difficult to disentangle temporal differences in manuring practices. Soil itself was also moved to enhance agricultural land, accidentally redistributing artefacts into the ploughzone from other, sometimes actively archaeological, contexts (Kirkham, 2013).

Ploughzone assemblages thus broadly demonstrate the ubiquity of low-cost domestic pottery vessels within medieval and post-medieval rubbish, with redware and refined white earthenware fabrics well-represented in the assemblages, whilst also suggesting that this domestic rubbish entered cultivation soils as a component of soil enrichment strategies. They show how the preparation of soil to enable plant growth could disturb material culture from earlier contexts, resulting in its presence within upper soil horizons. Ploughzone research has also demonstrated, however, the complexities in interpreting material that is removed by horticultural processes from its depositional context. Multiple events could concurrently shape the composition of the ploughzone assemblage; agricultural disturbance removed distinctions between material that was already in subsurface deposits and material added during cultivation, as well as temporal changes in these processes (Hazelgrove, 1985). As such, ploughzone archaeology emphasises the complexities of horticultural and agricultural assemblages, whilst also suggesting their value as evidence for depositional practices.

8.7. The deposition of domestic material culture within the parterre garden

8.7a. Disturbance of material culture pre-dating the parterre

As outlined in Chapter 3.4a and emphasised above, there are several possible interpretations for the presence of material culture within flowerbed stratigraphy. One explanation is the disturbance of pre-deposited material when the beds were cut, and/or when soil was taken from elsewhere to be added to the bed, that was therefore integrated into the flowerbed fill. This is a viable interpretation for the presence of small quantities of medieval, Tudor, and Jacobean objects within Audley End's flowerbeds. Sawrey Gilpin's parterre design was executed using beds 0.25m to one metre in depth, which cut into historic stratigraphy; objects disturbed from this stratigraphy during the garden's creation may have been left within the flowerbed fill. The general dating and composition of the pre-modern material culture certainly fit with the historical use of the site as a domestic residence, allowing for the exploration of material culture supply and use as outlined in Chapters 4-7. The assemblage was also heavily fragmented and intermixed within flowerbed fills, showing that it had been affected by post-depositional activities thus echoing the assemblages recovered from test pits in actively used gardens and from the ploughzone above historic sites.

As with ploughzone assemblages, the extent of horizontal continuity between the pre-garden stratigraphy and garden beds remained unclear. In terms of soil composition, the lower levels of the flowerbeds had some geological and built material inclusions that could reflect the original stratigraphy, suggesting that some of the original soil may have been returned to the flowerbed fills; this was particularly notable within the lower fills of the courtyard parterre beds, which included fragments of Jacobean stonework and building materials, and also contained the most 17th-century pottery sherds. In addition, the lower fills of some flowerbeds in the main parterre contained multiple sherds of the same pre-modern vessel types, including medieval pottery and 17th-century glass bottles; these could have been disturbed from their depositional contexts during the cutting of individual beds and thus remained within them.

However, the distribution of most medieval pottery to the north of the main parterre did not correlate with the built remains below them; this was the location of the proposed religious complex, which have been shown to be mostly aceramic (Greene, 1992). Throughout the 17th century until the creation of the parterre, this area was maintained as an open lawn; it thus seems unlikely that household rubbish would be deposited here during this period. The

levelling of the site during the Jacobean period also had a dramatic effect on the stratigraphy of the site (Cunningham, 1987a, 4); it is likely that the medieval and Tudor material underwent some post-depositional movement before the parterre was even constructed. Also, as discussed throughout this thesis, the assemblage is very different in size and composition from other excavated rubbish deposits associated with monasteries or with affluent households of the 16th to 18th centuries. The pottery and glass assemblages consisted of almost uniformly low-cost and functionally limited wares, not the kinds of vessels purchased and used by the elite occupants of Audley End. This was also a very small assemblage, representing only a fraction of rubbish that would have been produced through continuous occupation of the site.

The best explanation for the presence, distribution, and composition of pre-modern material culture within the parterre flowerbeds is thus the multiplicity of different post-depositional processes that could be taking place within the garden. The flowerbeds were cut into occupational, demolition, and horticultural deposits from previous iterations of Audley End, all of which could have contained small quantities of material culture that were replaced within the flowerbed fills. Some of the objects could also be individually residual, moving from pre-garden stratigraphy into the flowerbed fills through natural processes, animal disturbance, and/or horticultural activity after the parterre was created. As will be discussed below, soil enhancement strategies also influenced the composition of flowerbed fills, which could have resulted in pre-modern objects being incidentally integrated from other depositional contexts.

8.7b. Soil alteration during parterre creation

An alternative explanation for the presence of domestic material culture within the parterre flowerbeds is the deliberate integration of this material into the flowerbeds as they were filled. This is supported by the composition of the excavated fills, which had upper layers consisting of a dark homogenous loam and lower layers of lighter sandy or gravelly loam, different from the subsoil thus allowing the flowerbed cuts to be recognised by the archaeologists (Drury, 2010, 33). The fragments of pottery and glass excavated from the fills were small, abraded, and rarely connected, suggesting that they were disturbed after their original deposition. The dating of the assemblage as outlined in Chapter 3 has also situated the majority of the assemblage within the 18th and 19th centuries, representing objects potentially in use around 1832; more detailed analysis of particular materials placed them more firmly within the early-19th century, such as the identification of transfer-print patterns on refined white earthenware (see Chapter

7.4a.i, Figure 7.4), which demonstrated the dominance of Chinese and chinoiserie designs that were popular through the later-18th and early-19th centuries (Samford, 1997).

Motivations for the deposition of this material can also be explored through trends in the assemblage composition and distribution as compared to other sites. One reason for domestic material culture deposition within flowerbed fills was 'crocking' or percolation, the use of domestic waste to promote drainage, as found in early-19th century flowerbed fills at the Grand Arcade, Cambridge (Cessford, 2014; 2017), outlined in Chapter 8.6a. However, the composition of the assemblage from the Audley End flowerbed fills is markedly different to the Grand Arcade assemblage. The glass and pottery objects from Audley End are highly fragmentary and chronologically diverse with few joining sherds within beds, unlike the near-complete pieces that were deposited in the Grand Arcade flowerbeds. If objects were deposited for drainage, one could also expect that they would be placed in the bottom of the beds then fragmented into the upper sections as the bed was turned over, creating two distinctive assemblages. There is, however, no obvious change in material fragmentation between the lower and upper fills of both bed types. There was also no discussion of percolation deposits in any contemporary horticultural guidance consulted for this thesis; it seems that the Grand Arcade flowerbeds represent an individualised horticultural activity, suited to the specific needs of the garden and perhaps not replicated in formal garden contexts.

A more feasible interpretation for this material is the presence of domestic waste within manure, compost, and/or enriched garden soils, that was brought into the flowerbed fills to enhance plant growth. Contemporary documents encourage the integration of domestic, garden, and stable waste into garden soil; Loudon (1826, 235-241), for instance, wrote that "decaying animal and vegetable substances constitute by far the most important class of manures", including "street and road dung and the sweepings of houses". The use of manure in 18th and 19th-century gardens has also been seen through environmental analysis, namely at Castle Bromwich, where high phosphate levels from soil samples suggested that flowerbed soil in kitchen gardens had been enhanced with manure (Currie and Locock, 1991, 87). Household waste could also be thrown onto manuring and compositing deposits, resulting in the inclusion of domestic material culture fragments within them; indeed, this was theorised by Currie (2015, 85) as the most common way for domestic material culture to enter garden soils.

This interpretation is supported by the composition of the modern domestic material culture assemblage from both upper and lower flowerbed fill layers. The forms of pottery and glass vessels represented lower-status household functions, primarily connected to preparing, storing, and serving food and drink, and used by domestic and estate staff, thus the kinds of vessels that would be deposited within kitchen compost. The chronological disparity between materials within the same flowerbeds, notably in the admixing of 18th and 19th-century pottery types, could reflect a gradual build-up of kitchen waste before its redeposition as the flowerbeds were created. Concurrently, this would also explain the clustering of materials within individual fills as representative of depositional clusters within manuring deposits. This interpretation again correlates with the focus of the pottery and glass assemblages towards the north of the main parterre, which was in closer proximity to any "middens between the house and kitchen gardens" (Phibbs, 2010, 27) that could provide an origin for manuring material.

Overall, the 18th-20th domestic material culture assemblage was disparate, fragmented, and quantifiably small, forming only a small part of the composition of the loamy flowerbed fills, and was distributed fairly evenly across horizontal and vertical planes. As such, it seems likely that the majority of objects were incidental to the addition of manure and compost by gardeners to improve the garden soil. This interpretation is unusual within formal parterre gardens, specifically when compared to excavated beds at Castle Bromwich and Witley Court, which did not include any material culture as part of soil enrichment. Instead, this interpretation draws on contemporary horticultural advice, village garden test pitting, and agricultural assemblages to define a trajectory for household objects from manuring deposits into the flowerbed fills, a potential interpretation for some of the Audley End assemblage.

8.7c. Deposition during garden alterations, maintenance, and use

There is also no evidence that manuring and other depositional processes stopped once the parterre flowerbeds were constructed. As outlined in Chapter 8.2c, Loudon recommended that soil was regularly 'broken fine, to the depth of a foot' (Loudon, 1826, 991) to aerate the soil; this process was visible in the parterre flowerbed stratigraphy as a more disturbed upper layer and expansion of the flowerbed cut at its ground surface (Cunningham, 1987b, 2), which would result in further disturbance to any material culture within the uppermost bed layers. Loudon also encouraged gardeners to regularly improve soils, noting that the addition of "enriching compost or manure completely rotted" improved plant growth within flowerbeds (Loudon,

1826, 1016). The later enrichment of flowerbed soil using manuring deposits that incidentally contained household waste is therefore a possible explanation for the presence of pottery and glass fragments within the flowerbed fills that post-date their 1832 construction.

In particular, this would explain the proportionally larger quantities of 19th-century pottery types within the upper flowerbed fills compared to lower fills (see Figure 8.11), representing the integration of everyday household pottery including brown salt-glazed stonewares, 'mocha ware', and bone china, into the upper fills of beds. This correlates with the Shapwick flowerbed collection project, which showed that the distribution of 19th-century pottery on bed surfaces was greater than that within topsoil, thus interpreted as household composting (Gerrard, 2007, 265); the Audley End assemblage reflects this trend on a greater scale. The historical evidence for the closure of the courtyard parterre beds in the later-19th century noted above would thus explain the comparatively smaller quantities of 19th-century pottery recovered from within their upper layers, as they were maintained for a shorter time than the main parterre beds. Later manuring practices would also explain the recovery of two fragments of the same late-19th century glass commemorative plate within different flowerbed fills, as manuring activities would encompass multiple beds at the same time. As such, the Audley End assemblage suggests that flowerbed fills cannot be approached as temporally fixed contexts; their subsurface composition remained in flux.

The other material types analysed within the modern assemblage, clay pipes and small finds, provide another avenue for research into post-depositional practices. The spatial analysis of the clay pipe assemblage showed that it was distributed towards the north end of the main parterre, similar to the pottery and glass assemblages; this could result from the integration of clay pipes into composting deposits alongside other domestic material culture, or the throwing of clay pipes directly into the flowerbeds by gardeners who were smoking their pipes around the service wing area. In contrast, the small finds assemblage from the flowerbed fills was clustered towards the west side of the main parterre. Small personal items, namely buttons and coins, were likely dropped accidentally within the garden; this could have resulted in more objects being lost alongside the main path between the two parterre areas. These may have been integrated into flowerbed fills as the soil was disturbed, or accidentally discarded within or around the manuring deposits that were then moved into the flowerbeds. As such, the casual discarding of individual objects is yet another depositional event that may have shaped the archaeological record of the parterre flowerbeds.

The 1985-1987 excavation also recovered domestic material culture from other garden contexts, demonstrating that domestic waste could be used as build-up material in the construction of specific features. Loudon (1826, 641) recommended the use of "the rubbish of old buildings" within the foundations of gravel walks; the practical application of this advice was seen at Audley End, with large assemblages recovered from path foundations, although this was complicated by post-1832 alterations. The most prominent representation was context [JA 126], an extension to the outer path perhaps dating to the 1960s-1970s, from which a large assemblage of relatively complete pottery and glass vessels was recovered (see Chapter 7.4a.ii, Table 7.6). This demonstrates that domestic material culture could function as build-up material in horticultural contexts and shows the kinds of domestic waste that were accessible to the estate gardeners during the 19th and 20th centuries, with refined white earthenware, redware, stoneware, and mocha-dipped pottery types predominating. However, the presence of Roman, Tudor, and Jacobean pottery within this context remains unexplained within site documentation, whilst not all pottery from it was retained for further study. As such, the analysis of this context aptly demonstrates the opportunities and challenges in interpreting the trajectory of domestic objects into the parterre garden through the 1985-1987 project archive.

8.8. Summary

This chapter has outlined historical evidence for the layout, planting, and chronology of the 1832 parterre garden, which was first collated as part of the restoration project. It shows that the excavation provided a supplementary perspective for the parterre restoration by comprehensively recovering and recording the garden's subsurface remains, which mostly confirmed the accuracy of contemporary plans. The chapter then considered the archaeological evidence through the working practices of parterre construction and maintenance. This suggested that estate gardeners were reactive to the garden's situation when executing the parterre design, enabling the flowerbed planting strategy through the digging of variable bed depths and the reintegration of older soil to promote drainage, alongside alterations to the composition of the flowerbed fills. The creation of the parterre garden also superseded the antiquity of the garden; although Sutherill (1995, 34) stated that "great care was taken to cause minimal disturbance to the buried remains of the abbey which lay below", the flowerbeds were seemingly excavated regardless of the presence of structures or burials. This shows that, although the 1985-1987 excavation was primarily aimed at enabling the garden's restoration,

successfully re-situating the historically significant parterre within the landscape of Audley End, it can also be informative when interpreted through 19th-century horticultural practice.

This chapter discussed how domestic objects were redeposited within garden contexts, suggesting that multiple post-depositional processes resulted in the formation of a highly fragmented multi-period domestic material culture assemblage. This acts as a uniquely detailed exploration of material culture as integral to flowerbed taphonomy, using assemblage analysis to define bed formation and alteration. In this way, garden beds are explored as the subject and context for artefactual analysis (Gleason, 2013, 200). Ultimately, the assemblage recovered from the Audley End parterre was shown to be a good example of archaeological contexts representing "a massive palimpsest of derivatives from many separate episodes" (Binford, 1981, 197). This chapter has emphasised three coetaneous depositional trajectories for domestic material culture entering the parterre: the disturbance of pre-garden deposits, the use of domestic and horticultural waste for soil enhancement, and the dropping of individual objects. Taken together, these trajectories would explain the absence of high-status materials within the assemblage, the wide temporal span and fragmentation of material, and the differential patterning in the distribution of artefacts between material types.

As with ploughzone research, this analysis approaches depositional activities without the assurance of context, "based solely on properties of the artefacts and their patterns of association" (Hazelgrove, 1985, 16). This means that the biography of individual objects could not be absolutely stated, especially without comparison to associated 'in-situ' deposits, which were not excavated due to the project's restoration ethos. Any interpretation of archaeological assemblages so far removed from their stratigraphic origin requires the assemblage to be 'filtered', mitigating the influence of post-depositional processes on any compositional trends. For the pre-modern flowerbed assemblage, this included the influence of 1985-1987 excavation methodologies, post-garden alterations, garden construction techniques, and pre-garden landscape change, all of which could have shaped the assemblage as recovered from the parterre garden. As such, the thesis has approached the assemblage as an inherently limited representation of domestic material culture in circulation at Audley End House.

9. Comparative projects within country house gardens

9.1. Introduction

This chapter situates Audley End's 1985-1987 excavation within the context of restoration-led excavations in English formal gardens, outlining and comparing four other garden archaeology projects' aims, methodologies, and impacts on garden history, archaeology, and restoration. It discusses to what extent these projects revealed the layout, construction, and maintenance of different garden iterations, as well as earlier uses of garden sites, through the recovery and interpretation of their subsurface remains. It then explores the retrieval and analysis of material culture assemblages during the projects, considering how artefacts have been used to bolster and develop site narratives. This enables an assessment of archival and intellectual legacy, considering established approaches in the interpretation and dissemination of stratigraphic narratives and artefactual assemblages from garden restoration-led excavations, and suggesting whether they could be improved by new frameworks of research and practice.

9.2. Defining comparative excavations

As outlined in Chapter 3, there was a wide range of garden restoration projects in the late-20th and early-21st centuries, accommodating gardens of different types, dates, and forms of ownership. This chapter focuses on four excavations undertaken as part of garden restoration programmes, all in parterre gardens attached to elite residences in south and central England (see Figure 9.1). Two of these gardens, the late-17th century Great Garden at Kirby Hall and the 1701 Privy Garden at Hampton Court, were constructed when parterres were first fashionable; the 1854-1860 East Garden at Witley Court and the c.1860 parterre in Castle Bromwich Hall's Best Garden represent stages in the revival of formal parterres during the 19th century. This enables an analysis of the quality of archaeological preservation between different parterre types, as well as the various strategies used in their excavation and restoration.

These four gardens also represent a cross-section of heritage management strategies. Kirby Hall, Witley Court, and Audley End are all cared for by the English Heritage Trust, whilst Hampton Court Palace is managed by Historic Royal Palaces and Castle Bromwich Hall remains in private ownership and was excavated under an academic research grant. The excavations took place from 1985 to 2008, when the strategies of these organisations were changing,

alongside concurrent shifts in archaeological methodologies and research interests. As such, the garden restorations were organised within a framework of changing archaeological approaches, preservation paradigms, public access and interpretation requirements, and budget considerations. This chapter can thus illustrate how the aims, methodologies, and results of garden excavations were shaped by the heritage circumstances of each project.

These four comparisons were also chosen due to the accessibility of their archives. The Kirby Hall project archive is situated alongside the 1985-1987 Audley End archive in English Heritage's Wrest Park Collections Store, so full archival access was readily obtained. For the analysis of the garden restorations at Hampton Court Palace and Witley Court, information was gathered from both published and digital grey literature sources, facilitated by curatorial staff within each organisation. The Castle Bromwich excavation report was comprehensive and publicly accessible. This allows a consideration of the benefits and challenges of approaching garden archaeology using sources accessible to the current researcher, exploring whether the recording and interpretation of garden sites could be improved. This chapter thus informs a reconsideration of the archival, academic, and curatorial legacy of garden archaeology that will be revisited, alongside other restoration-led projects, in the thesis conclusion.

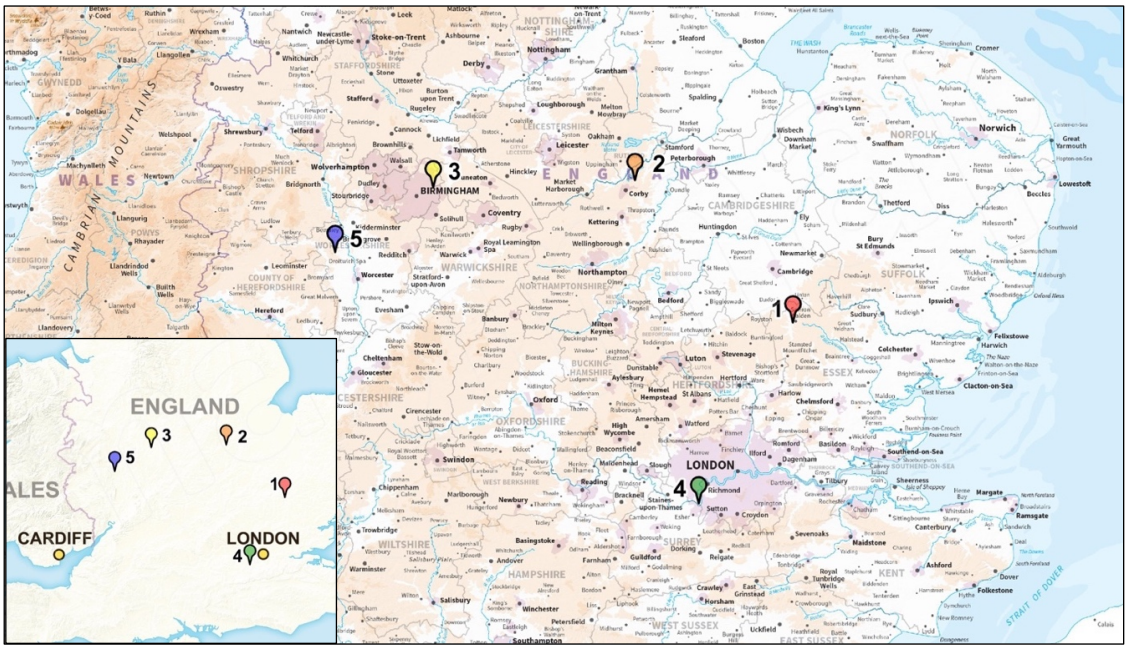


Figure 9.1: Locations of: 1. Audley End House (red), 2. Kirby Hall (orange), 3. Castle Bromwich Hall (yellow), 4. Hampton Court Palace (green), and 5. Witley Court (blue). Contains OS data © Crown copyright and database rights 2021. Ordnance Survey (100025252).

9.3. Kirby Hall's Great Garden project, 1987-1988

9.3a. Project background and methodology

Kirby Hall, Northamptonshire, is a partially ruined property under the care of English Heritage. The house consists of four two-storey ranges built by Humphrey Stafford in the 1570s after the demolition of a medieval village on the site. It was purchased by Sir Christopher Hatton, later the Lord Chancellor for Queen Elizabeth, in 1576 (Cady, 2013, 162; Jamieson, 2013). Surviving correspondence shows that the Hatton family took a particular interest in horticulture, carrying out major alterations to the gardens in the late-17th century, including the placement of a cutwork parterre, called the 'Great Garden', to the southwest of the house (Sladen, 1984; Dix, 1991, 1). Kirby Hall was owned by the Hatton family until 1930, by which time it was mostly unoccupied and in disrepair. The 17th-century gardens were also neglected, visible only as earthworks (Dix, 1991, 2). In 1930, the house and grounds were purchased by the Ministry for Works and remain under English Heritage guardianship, with small-scale alterations to the standing fabric for consolidation, conservation, and interpretation (Hill, 2004; Cady, 2013, 177; Thurley, in progress, 55–56).

The first excavation at Kirby Hall was a pioneering garden archaeology project, led by George Chettle under the auspices of the Ancient Monuments branch of the Office for Works, seeking to recover and recreate the Great Garden (Dix *et al*., 1995, 296). This garden was located through surface topography and landscape research to the south west of the house (Sladen, 1984; Dix, 1991, 2) and reconstructed as an English parterre surrounded by paths, obscuring any detail or diachronic alterations (Dix *et al*., 1995, 296). The majority of records from this excavation were also lost, so it was impossible to assess the quality of this restoration through documentation alone (Dix, 1991, 3). English Heritage thus sought to re-interpret the Great Garden, assessing the validity of the first restoration and improving on its results by recreating the parterre and terraces more accurately to its 17th-century iteration. Smaller projects and watching briefs, notably a 1984-1985 project around the west garden terrace (Crump, 1986), had also demonstrated the survival of garden stratigraphy that could be excavated further.

Figure 9.2: Kirby Hall's Great Garden, looking north east, in 2006. © Mr Roger Ashley. Source: Historic England Archive (IOE01/15994/10).

9.3b. Project methodologies

Northamptonshire County Council Archaeology Unit (NCCAU) was subsequently hired to carry out a season of excavation within the Great Garden to reveal specific details of garden features and identify potential restraints to the garden reconstruction (Dix, 1988). To the excavation director Brian Dix, archaeological approaches were significant sources of information, not just corroborating historic plans or acting as "the by-product of other earthmoving" (Dix, 1991, 1); he approached excavation as an original insight into the temporal development and management of historic gardens. This ethos influenced the Kirby Hall project, as the excavation explored how archaeology could aid recovery of historic gardens at a larger scale than previous projects had attempted, seeking to demonstrate its value to the wider discipline (Dix *et al*., 1995, 291).

The main excavation took place between 1987 and 1988. During this, NCCAU followed a 'preservation in-situ' approach, which they saw as necessary to "preserve the integrity of the guardianship monument" (Dix *et al*., 1995, 296) and to allow future archaeologists to examine

the stratigraphy (Dix, 1991, 3). With this in mind, they excavated multiple small trenches that were targeted to explore particular features, as well as reopening the 1930s project trenches that had already affected the subsurface stratigraphy. As such, a limited volume of pre-garden deposits was removed; most features that predated the late-17th century were incidentally glimpsed when proximate to post-medieval contexts. When garden stratigraphy was excavated, NCCAU also took a detailed approach that dictated the "careful hand-excavation of all deposits" (Dix, 1992, 2), including topsoil, which were then recorded using single context recording forms. In total, 1388 contexts were recorded with descriptions and photographs (Dix, 1992), and the team kept a daily site diary to detail their progress.

Figure 9.3: Photograph of Kirby Hall excavation trench with the south front of the hall in the background. Taken 1987-1988. © English Heritage.

The restoration of the Great Garden was facilitated by Land Use Consultants, who recommended that it was restored to its late-17th century design (Dix, 2008, 2). However, due to limited archaeological preservation of the subsurface stratigraphy, as will be discussed below, the details of the late-17th century parterre cutwork could not be reconstructed based on archaeological evidence. Instead, it was decided by the Ancient Monuments Advisory Committee that a different 17th-century design should be recreated using non-invasive methodologies "that could be reversed in the future" (Dix, 2008, 2). The garden was therefore based on a design by George London, who had acted as an advisor to the Hattons in 1693, that was created for the contemporary parterre garden at Longleat (Dix *et al*., 1995, 328; Dix, 2008, 2). The Great Garden was thus reconstructed in the 1990s, raising the soil level by 10-15cm then laying out the cutwork in turf and gravel (Mawrey and Groves, 2010, 25), with features such as statues and urns brought into the garden in the following decade (Hill, 2003; Dix, 2008),

whilst detailed notes produced by Christopher Hatton IV in the late-17th century informed the restoration's historically accurate planting strategy (Sladen, 1984),

9.3c. Excavation and publication of stratigraphic narrative

9.3c.i. Pre-garden stratigraphy

Although the excavation was targeted to explore particular horticultural features, incidental discoveries were also made. The bases of some trenches contained the footprints of earlier buildings, defined as service buildings for the Elizabethan house, although NCCAU decided to leave the occupation levels of these buildings in-situ (Dix *et al*., 1995, 306). Kirby Hall also sits in the location of a medieval village, as reflected in the finds assemblage discussed below. The excavation did reveal some information about Kirby's demolished medieval church, as human remains, likely from the graveyard, were disturbed and redeposited during the construction and backfill of the subterranean passage noted below (Dix *et al*., 1995, 311). Osteological analysis demonstrated that this redeposition may have taken place with care, rather than as a simple process of disturbance and dumping (Crangle, 2019, 24). However, the construction of the gardens in the 17th century involved the wholesale demolition of the village buildings, mostly removing it from the archaeological record (Dix, 1991, 5; 1992, 1). As such, due to both 17th-century landscape change and the 'preservation by situ' approach that was employed during the project, very little pre-garden stratigraphy was revealed or excavated at Kirby Hall.

9.3c.ii. Garden design and management

The 1987-1988 excavation achieved its primary aim, revealing a chronology for developments in the Great Garden. This stratigraphy is the focus of two published articles about the excavation (Dix, 1991; Dix *et al*., 1995), as well as additional unpublished reports (Dix, 1988; 2008; Hill, 2003) held at English Heritage's Wrest Park collections store. These sources confirm that there were two stages of garden construction: initial development in the 1640s and extensive remodelling in the late-17th century. The first Great Garden was shown to be rectangular, bordered by two terraces and a wall, quartered into four plats outlined with *plates-bandes*, and potentially including a statue on a limestone setting at its centre (Dix, 1991, 71; 1992, 1; 2011b, 174-175). During the late-17th century, the garden was expanded, its level was raised, the West Terrace became a grass-covered bank, and the plats were re-laid with cutwork designs (Dix, 1992, 1; Dix, 2011b, 176). The project also revealed the precise location

and form of structural elements including steps in the centre of the terrace and alcove seats (Dix *et al*., 1995; Hill, 2003). Additional small-scale excavation in 1988-1991 was then required to explore a subterranean passage running under the west terrace, likely a stream culvert contemporary to the original garden (Dix, 1991, 65).

The excavation also uncovered the extent of the 1930s interventions, showing that the Office for Works uncovered the outline of the four grass plats which enabled their reconstruction, but also that they cleared the archaeological deposits of the late-17th century *parterre de broderie* in pursuit of the earlier-17th century garden design (Dix, 1991, 70; Currie, 2005, 57; Mawrey and Groves, 2010, 25). This meant that most of the parterre turf-and-gravel cutwork had been destroyed so could not be restored (Dix, 2008, 2); as Jacques (1997) later described, "any hope…for an accurate reinstatement of the parterre evaporated". 20 soil samples were also taken from sealed garden deposits, but they indicated only general land use rather than specific planting choices made during the late-17th century (Dix, 1992). In this way, the 1987-1988 excavation provided some information about the design of two iterations of the Great Garden, yet was limited by the differential preservation of the subsurface stratigraphy caused by later changes to the gardens.

9.3d. Recovery, analysis, and interpretation of archaeological artefacts

Large quantities of finds were recovered during the excavation. This assemblage dated from the late Iron Age to the 20th century and consisted of architectural materials, domestic and garden ceramics, glass, and metalwork, and human and animal bone (Dix, 1992, 2; Dix *et al*., 1995). Much of the domestic material culture, in particular, was fragmentary and recovered from disturbed or redeposited contexts; as Dix *et al*. (1995, 357) wrote about glass from the site, "residuality and intrusion have resulted in an assemblage of little intrinsic value". NCCAU undertook a general characterisation of the material within an unpublished finds assessment (Anon., c.1988). This was framed by the excavation methodology: "given that the purpose…was to investigate certain aspects of garden archaeology and not to examine the domestic arrangements" (Anon., c.1988, 1), finds were selected for discussion based on their importance to the chronology of garden development. A MAP2 post-excavation assessment (Dix, 1992) was then produced, suggesting that the assemblage should be further assessed for artefacts with intrinsic interest, although any later assessment was not included in the archive.

When garden features included stratigraphically sealed contexts, they were firmly dated by the material culture within these contexts, which is therefore discussed in the published reports; a wine bottle seal with Christopher Hatton III's baronial arms dated to 1643-1683, for instance, provided a *terminus post quem* for the alteration of the West Terrace (Dix, 1991, 70; Dix *et al*., 1995, 300). The constitution of assemblages from undisturbed contexts was used to explore the pattern of rubbish disposal" within the garden (Dix, 1992, 2). In particular, the articles note that large quantities of post-medieval ceramic within specific features were used as "make-up imported in bulk" (Dix *et al*., 1995, 347), suggesting that domestic material culture had been used to add volume to individual deposits. The unpublished finds assessment has since been supplemented by specialist reports (Blinkhorn, 2019; Crangle, 2019), which take an artefact-led approach to characterising the ceramics and osteological assemblages respectively.

These analyses showed that some of the recovered material culture related to everyday occupation of Kirby from the late Saxon to late medieval periods, namely local forms of pottery (Blinkhorn, 2019, 3) and small finds (Anon., c.1988). Blinkhorn noted that the assemblage included high-status glazed medieval tile that could relate to a manorial manor house of the 13th to 15th centuries (Blinkhorn, 2019, 4); the remains of this building are still embedded within Kirby Hall's south-east stair tower (Thurley, in progress, 37). Some of the assemblage was also dated to the construction and occupation of the Elizabethan house. A significant proportion of this was architectural material, consisting of worked stone, decorative plasterwork, bricks, window glass, and lead window cames. As with other garden sites, much of the excavated material culture assemblage reflected its horticultural context. This included a series of six, mostly complete, late-17th century flowerpots (see Figure 9.4), representing three forms pivotal to Currie's typology of flowerpots that show the transition from medieval to modern forms (Currie, 1993a; Dix *et al*., 1995, 348). 874 fragments of clay pipes were also recovered during the excavation, the majority of typologically datable examples dating to between 1600 and 1680 (Anon., c.1988), whilst fragments of iron objects, mostly nails as well as a pair of gardening shears, were also recovered (Dix *et al*., 1995, 368).

The rest of the assemblage consisted of post-medieval domestic wares and vessel glass. Blinkhorn's analysis showed that the majority of these pieces date to the 18th and 19th centuries (Blinkhorn, 2019). There were a few near-complete pieces within the assemblage, including a 17th-century Border ware candlestick (see Figure 9.5) and Frechen-type stoneware

Bartmann jug (Dix *et al*., 1995). In the first pottery report, it was stated that overall, "kitchen wares and table wares predominate" within the assemblage, with smaller quantities of other domestic vessel types including chamber pots and distilling equipment (Anon., c.1988); this was supported by Blinkhorn (2019). The assemblage also contained post-medieval decorative metal dress fittings, reflecting the use of the garden for activities including royal progresses and elite entertainments (Thurley, in progress, 23).

Figure 9.4: 18th century flowerpot excavated from Kirby Hall's Great Garden. © Historic England Archive (DP247631).

Figure 9.5: 16th century green-glazed Border ware candlestick excavated from Kirby Hall's Great Garden. © Historic England Archive (DP247608).

9.4. Castle Bromwich Hall's Best Garden, 1989-1991

9.4a. Project background

Castle Bromwich Hall, in the West Midlands, was built in approximately 1599 to replace a medieval castle that had been adapted into a manor house (Currie, 1990, 95; Roseff, 1993). It was purchased by the Bridgeman family who carried out the first major development of the gardens, beginning with John Bridgeman in 1685-1703 and continuing into the mid-18th century, when they let the hall to tenants (Currie, 1990, 96). In 1820, Castle Bromwich was returned to the Bridgemans, who undertook further garden alterations until the later-19th century (Currie and Locock, 1993, 180). The garden was divided into three terraces, sloping downwards to the west: the hall and formal gardens, including the Best Garden, were situated on the upper terrace; the middle terrace accommodated the Upper Wilderness, archery lawn, Rose Garden, and Melon Ground; whilst the Lower Wilderness, kitchen gardens, and maze were within the lower terrace (Currie and Locock, 1993, 112).

After the Bridgemans sold Castle Bromwich in the 1930s, the hall remained in private ownership and unoccupied, with the gardens becoming overgrown (Currie, 1990, 96). In 1982, planning permission was sought to redevelop the parkland around the gardens. West Midlands County Council commissioned a survey into its historic value, which led them to reject the planning proposal and instead establish the Castle Bromwich Historic Gardens Trust (Currie and Locock, 1991, 77). The first archaeological interventions into the gardens took place in 1985-1988, sponsored by the Manpower Service Commission (Currie and Locock, 1993, 115); however, this excavation had limited results and was "poorly recorded" (Roseff, 1993, 2). Seeking more information about the gardens in advance of a potential restoration project, the trust brought in Martin Locock and Christopher Currie in 1989 to lead further excavation across the three terraces. They developed a research project to reveal the subsurface stratigraphy of the historic garden and to test various archaeological methodologies within a formal garden context, which was funded by a Leverhulme Foundation grant (Currie and Locock, 1991, 77).

9.4b. Project methodologies

Developed for methodological experimentation, the Castle Bromwich project incorporated several stages of research. Firstly, resistivity and magnetometry survey were used to identify potential subsurface features that could be targeted during excavation, although this was

complicated by the overlaying of multiple periods of garden design, particularly in the Best Garden (Currie and Locock, 1991, 83). 64 interventions of various shapes and sizes were then excavated across the gardens, 11 of these within the upper terrace (Currie and Locock, 1993, 113), as well as three additional trenches over the former ornamental pond to the west of the lower terrace (Currie, 1990). These were planned systematically: a long, narrow trench was used to obtain a cross-section of the garden, then smaller sample trenches were situated to explore features found within the cross-sections, historic documents, and/or the geophysical survey. In the Best Garden, for instance, a long trench was excavated on a north-south alignment, alongside six smaller trenches to obtain information about elements of the garden design, and one larger trench over one of the parterre beds (Currie and Locock, 1993, 136). Currie (2005, 62) estimated that under 20% of the garden stratigraphy was removed during the excavation and suggested that this was sufficient to broadly interpret the subsurface remains.

Figure 9.6: Photograph of the excavated c.1860 parterre at Castle Bromwich, showing the removal of its stratigraphy and later topsoil within trenches placed in the north-east quadrant, looking west (Currie and Locock, 1991, 80, figure 2). Permission for use given by Castle Bromwich Hall and Gardens Trust, to be redacted for open access digital copy.

This methodology was chosen, at least in part, due to the small size of the excavation team. As such, Currie and Locock "decided to adopt the strategy of narrow trenches as critical points" (1991, 91), limiting the amount of excavation and recording needed. This was also justified through the 'preservation in situ' paradigm; as Currie and Locock (1991, 80) stated, "archaeologists are opposed to the excessive destruction of the below-ground record", hence the use of smaller trenches. Each of these interventions was excavated 'to natural', rather than to a particular period, with the contexts recorded individually with written notes, plan and section drawings, and photography (Currie and Locock, 1991, 80). All finds were retained, and comprehensive soil samples were taken for analysis, part of the project's evaluation of post-excavation methodologies; the samples were tested using various analytical methods, including phosphate percolation analysis, pH testing, chemical analysis, and environmental sampling, to varying degrees of success (Currie and Locock, 1991, 84-87).

A synthesised excavation report was then published as an article in *Post-Medieval Archaeology* (Currie and Locock, 1993), outlining 'contexts of importance' for discussion, reproducing some plans and photographs, and establishing a new chronology for changes to the gardens based on the archaeological record. Currie and Locock's funding specifically emphasised archaeological methodologies, so they were unable to carry out original documentary research (Currie, 1993b, 203). Instead, they applied and sometimes contradicted established understandings of the garden's design and sequencing within their interpretation of the subsurface record; this led to some disagreement with the historians responsible for the original research, specifically regarding the chronology of particular features (Hayden, 1993; Currie, 1993b). It also appears that they were not involved in the restoration of the gardens, which was led by the Castle Bromwich Historic Gardens Trust, whose aim was, and remains, to "restore the gardens as near as possible to the period 1680 – 1762" (CBHG, c.2021a). In the Best Garden, the 19th-century parterre was recreated using box hedging (Hitchcock, 2013), perhaps more in keeping with the early-18th century ethos than the actual gravel and bed pattern revealed during the excavation.

9.4c. Excavation and publication of stratigraphic narrative

9.4c.i. Pre-garden stratigraphy

The excavation methodology included the removal of all deposits 'to natural' within the sample trenches, including any pre-garden stratigraphy. In the Best Garden, for instance, the eastern half of a pit was excavated, the fill of which contained loam with a high organic content and

fragments of medieval coarseware pottery dating from the 12th to 14th centuries (Currie and Locock, 1993, 136). When collated with environmental analysis of the fill soil, which contained seeds from agricultural plant types, this was interpreted as a cess pit serving a collecting point for field crops (Currie and Locock, 1991; 1993, 141). Medieval ceramics were also found within soil applied to build up the lower and middle terraces, suggesting that this soil was obtained "where quantities of medieval ceramic had been dumped in the past" (Currie and Locock, 1993, 176). However, in the upper terrace, the ground had been levelled when the house was built, removing all but the deepest medieval stratigraphy from this part of the garden (Currie and Locock, 1993, 158). The interventions were also small and not targeted to pre-garden features.

Instead, the focus of the excavation was on exploring the diachronic layout of Castle Bromwich's gardens, including the formal Best Garden. Its archaeological record was a "complex series of overlaying phases" of garden stratigraphy (Currie and Locock, 1993, 158), which were divided into phase groups through historical research and diagnostic objects. The first phase was dated to c.1600-1620, consisting of a planted border surrounded by a banded pattern of gravel and sand, possibly part of a 'knot garden' that was broadly contemporary to the construction of the hall (Currie and Locock, 1993, 150; 158). The second phase was dated to the early-18th century, when the garden level was raised with additional earth. This was interpreted by Currie and Locock (1993, 145) as a rectilinear *parterre à l'anglaise*, represented by the imprints of east-west and north-south walkways between beds filled with loam, which appeared to be a simplified form of the design shown within a c.1726 print of the gardens. The quality of preservation also demonstrated that this garden was mostly unaltered until the early-19th century, thus that the Castle Bromwich gardens were a rare survival "at a time when such gardens were being replaced by…informal landscape gardens" (Currie and Locock, 1993, 159).

The third phase was interpreted as an early example of a formal revival garden, dating to c.1820. This date was reached due to the recovery of early-19th century pottery in deposits formed in the alteration of steps from this garden to the terraces below (Currie and Locock, 1993, 177). The garden was mostly visible as demolition layers, consisting of mixed sandy loam and gravel. Garden stratigraphy at Castle Bromwich was generally recovered because the terrace heights were increased, preserving earlier stratigraphy under added soil. However, this was only partially applicable to the Best Garden: to the west, the terrace had been built up, but to the east, levelling downwards had removed earlier layers as new gardens were created.

Overall, the Best Garden was shown to have three pre-1850 iterations, yet "the complexity of the overall picture" meant their designs could not be proven (Currie and Locock, 1993, 158).

9.4c.ii. 1850s garden: design, construction, and management

As noted in Chapter 8, the most recent iteration of Castle Bromwich's Best Garden was a formal parterre dating to the 1850s, with four Maltese cross-shaped plats, each 15 metres across, situated within a wider lawned area. This had previously been identified in an 1868 photograph and was physically located in the geophysical survey, so the excavation was targeted to explore their subsurface remains. A narrow scoping trench was placed across the two eastern beds, showing that they were cut into the Phase 3 (c.1820) demolition layers and had shallow internal cuts which were filled alternately with dark loam and gravel (Currie and Locock, 1993, 140-141). An additional seven smaller trenches were then excavated, before a larger trench was placed across the north-east parterre bed to recover evidence for the internal design of the beds. Taken together, these interventions showed that each parterre quarter was split into a radial pattern of dark loam flowerbeds and gravel paths, extending outwards from a central circular flowerbed (Currie and Locock, 1993, 150).

The excavation also revealed some information about the construction of this parterre. It showed that a layer of imported soil, a brown sandy loam, had first been deposited to level the garden area (Currie and Locock, 1993, 145). The flowerbeds were then cut into this, with depths varying from 0.25 to 0.4 metres and variably sloping sides, before being filled with a "grey sandy loam enhanced with charcoal flecks" (Currie and Locock, 1993, 150). This soil composition suggested that it had been enriched before being placed in the fills, supported by chemical and environmental analysis of soil samples (Currie and Locock, 1991, 89). The 1868 photograph showed that a planting scheme of intersecting green foliage plants and flowers was used (Currie and Locock, 1993, 160), and that the original parterre design was later simplified, with four beds in each quadrant being covered (Currie and Locock, 1993, 151), although this change was not identified within the archaeological record. The parterre remains were well-preserved under topsoil, which enabled an interpretation of their design, although the stratigraphic narrative was sometimes difficult to parse within the small evaluative trenches.

9.4d. Recovery, analysis, and interpretation of archaeological artefacts

The post-excavation analysis of archaeological artefacts was completed 'in house' (Currie and Locock, 1991, 95) and published as an appendix to the final article (Currie and Locock, 1993). The assemblage was composed of medieval and post-medieval objects, skewing towards the 17th and 18th centuries, and was fairly wide-ranging. It included structural stonework, brick and tile, window glass, mortar, animal remains, shell, horticultural ceramics, and domestic material culture types (Currie and Locock, 1993). At the outset of the Castle Bromwich project, Currie and Locock sought to consider artefacts across multiple spectra, exploring their intrinsic interest, the supply and use of material culture within the hall, and depositional behaviours, "following artefacts from domestic refuse to final location" (Currie and Locock, 1991, 92). In actuality, the final artefact reports included some contextual narrative, with animal bone and pottery given the most comprehensive assessment, but this was reported in varying levels of detail between the different material types and focused on contexts relating to the construction of the garden terraces, to the exclusion of more holistic depositional narratives.

In total, 73 sherds of pottery were illustrated within the report. The horticultural ceramics were analysed in some detail, enabling Currie to produce a typology of post-medieval flowerpots (Currie and Locock, 1993, 177; Currie, 1993a). Domestic pottery types were much more fragmentary so only briefly noted, encompassing medieval coarseware, Blackwares, Cistercian ware, post-medieval redwares, and refined white earthenware fabric types. 324 vessel glass fragments were also recorded, 318 of which originated from late-18th century cylindrical wine bottles, alongside several fragments of possible perfume bottles (Currie and Locock, 1993, 181). The excavation team recovered 88 fragments of clay pipes; these were dated to mostly the late-17th and early-18th century through stem bore analysis, although, as noted in Chapter 2.4b.v, this has since been critiqued as an unreliable methodology for dating clay pipes (Higgins, 2017). The assemblage also encompassed 103 metalwork objects, including plant labels and personal items (Currie and Locock, 1993, 180-183).

The excavation report also included some interpretation of assemblage context. In particular, Currie and Locock (1993, 176) suggested that the majority of medieval pottery originated from the terrace levels, alongside some of the post-medieval pottery and vessel glass, suggesting that the building up of the terraces required the integration of imported soil and/or domestic refuse from the hall as additional material. When recovered from levelling deposits or other

stratigraphically sealed contexts, the post-medieval pottery was also used to suggest a *terminus post quem* for them. For instance, the second phase of the Best Garden incorporated Blackware and Midland yellow pottery sherds dating from the 17th to early 18th centuries (Currie and Locock, 1993, 145). The third phase of the garden, meanwhile, was dated to the early-19th century from pottery used as build-up material during the alteration of terrace steps, matching pottery used to infill the ornamental pond around 1820 (Currie, 1990; Currie and Locock, 1993, 177). As noted in Chapter 8.6a.i, very little material culture was recovered from the 1850s parterre, so it could not be dated through artefactual analysis. However, this absence also showed that had been constructed without the application of domestic rubbish, giving a comparative example of parterre construction to the Audley End 1832 parterre.

9.5. Hampton Court Palace's Privy Garden project, 1991-1995

9.5a. Project background and methodology

Hampton Court Palace (Richmond upon Thames, London) is a brick-built Tudor and Baroque royal palace managed by Historic Royal Palaces on behalf of the Crown. Originally a medieval manor, it was developed by Cardinal Thomas Wolsey, Lord Chancellor, in 1514, before being seized by Henry VIII in 1529 (Thurley, 1993). Henry's extensive alterations included the construction of the Privy Garden, an outdoor space between the south side of the palace and the River Thames, which was designed as a checkerboard grid of square enclosures with Tudor emblems and heraldry (Batey, 1995, 5; Jacques, 1995, 23). When William III ascended to the throne in 1689, he sought Sir Christopher Wren to modify Hampton Court and its gardens in line with Baroque fashions (Anon., 1994); the Privy Garden was redesigned in the 1690s, then again in 1701. William's final Privy Garden was a large rectangular plot divided into quarters with terraces on the eastern and western sides (Woudstra, 1995b, 23). Each quarter contained an elaborate *parterre à l'anglaise* with *gazon coupé* (patterns cut out of turf and filled with decorative gravels), that were then outlined by *plates-bandes* (Batey, 1995, 12; Woudstra, 1995a; Symes, 2006, 37).

The garden was completed around 1702, when William III died, and was little altered before Hampton Court was abandoned as a royal residence in 1737. At this point, the clipping of evergreens was stopped, and the statuary was mostly removed, beginning the garden's decline (Jacques, 1995, 35). In 1838, Queen Victoria opened the palace to the public, but the palace

was presented as an attraction rather than an authentic historical space; it lost "that sense of living history that makes visiting a historic site so special" (Thurley, 1995, 3). Garden planting had been differentially modernised, and accommodations made for public access, whilst the overgrown planting obscured the parterre design and the intended aesthetic relationship between the geometry of the formal garden and the palace's architecture (Batey, 1995, 18). In March 1986, a fire broke out in Christopher Wren's Baroque-style staterooms on the south side of the palace, leading to a restoration of the interiors to reflect William's occupation. Historic Royal Palaces decided to reconstruct the Privy Garden to the same period, restoring the relationship between the 18th-century palace and its formal gardens (Thurley, 1995, 3). An interdisciplinary restoration project thus took place between 1991 and 1995, summarised in a project monograph, *The King's Privy Garden at Hampton Court Palace* (Thurley ed., 1995).

This project was led by a singular chair, the curator Simon Thurley, on an unprecedentedly ambitious scale, with a large project team and £1.2 million budget. As a royal palace, the site had a uniquely historical record, including accounts for the garden construction from 1699 to 1702, topographical surveys, plans, and some plant lists, which all contributed to the restoration (Thurley, 1995; Woudstra, 1995a). This meant that the garden design and planting scheme was already well understood without any subsurface interventions. However, Thurley's 'philosophy of restoration' valued the interpretation of physical evidence alongside documentary survey (Thurley, 1995, 5), whilst some removal of subsurface stratigraphy would be required for the restoration. To confirm the general layout of the garden as expected through historic survey and assess the quality of archaeological preservation, a small resistivity survey and trial excavation was carried out in 1992 (Dix and Parry, 1995, 79; Thurley, 1995, 6; Dix, 2011b, 178). This demonstrated that the garden features were well preserved; unlike at Kirby Hall, the small number of alterations that took place within the Privy Garden after 1701 had not truncated the subsurface remains. It was thus decided to proceed with excavation.

9.5b. Project methodology

As such, between 1993 and 1994, 11 months of excavation took place within the garden, led by Brian Dix, alongside Daphne Ford, Hampton Court Palace's archaeologist (Dix and Parry, 1995, 79). The methodology for this project was influenced both by Dix's experience at Kirby Hall and other garden sites, and by the 1974-1984 restoration of William III's Netherlandish palace, Het Loo (Thurley, 1995, 7). Firstly, the Victorian topsoil was removed mechanically until a layer of

red loam dating to the early-18th century was revealed, before exposed features were identified, cleaned, and recorded (Dix and Parry, 1995, 79). The first season, in 1993, targeted complex elements so that restoration of them could begin sooner, revealing parts of the terraces, tree pits, and boundary walls (Dix and Parry, 1995, 82), whilst the second season in 1994 encompassed the systematic excavation of the parterres (Thurley, 1995, 9; see Figure 9.7). The original shapes of the parterre beds, which had easily identifiable interfaces with the gravelly soil, were sampled then emptied with a small mechanical digger, with the edges cleaned by hand and recorded (Dix and Parry, 1995, 79; Dix, 1997, 14). As Thurley (1995, 9) described, archaeologists "wiped the slate clean by stripping almost two hectares of the site" (1995, 9), creating a topographic blueprint for the reconstitution of the 1701 parterre. In consequence, the majority of post-17th century stratigraphy was removed. This project has since been critiqued for removing so much archaeological material to enable restoration; Currie (1996) asked, "is this the sort of message archaeologists want to give the gardens world"?

Figure 9.7: Excavation from the south showing clearance of upper and lower gardens, as well as targeted terrace trenches (Dix and Parry, 1995, 95, figure 126). © Historic Royal Palaces, to be redacted for open access digital copy.

The Privy Garden was restored and opened in 1995, utilising evidence from the archaeological excavation as well as horticultural and archival research. The archaeologists laid out the new parterre using a theodolite, aided by the shapes of pre-excavated parterres and identification of the geometric framework used for their design, which were then infilled by gardeners (Thurley, 1995, 18). A watching brief was also maintained during the restoration, recording additional stratigraphic deposits removed when reconstructing the terrace steps and planting new trees (Dix, 1995, 79). Tijou's original iron screen was conserved using historically accurate paint and gilding techniques, whilst some statues were returned to the garden and others, too eroded to be re-erected safely, were reproduced using their original designs (Thurley, 1995). Work had been undertaken throughout the project to protect and propagate the original plant stock (Thurley, 1995; Woudstra, 1995b, 23); other planting decisions utilised historical precedent alongside considerations of plant availability, performance, and aesthetic appeal (Thurley, 1995, 19-22; Woudstra, 1995a; 1995b). Visitors to the palace are thus able to view the Privy Garden from the royal apartments, much as it would have appeared in 1701.

9.5c. Excavation and publication of stratigraphic narrative

9.5c.i. Pre-garden stratigraphy

Although subsidiary to the excavation objectives, stratigraphic evidence for the pre-1701 history of the Privy Garden was also revealed and summarised within the project monograph (Dix and Parry, 1995). In a small trench sunk into the West Terrace, archaeologists reached the natural subsoil, which sat below a layer of possibly medieval "plough soil colluvium" (Dix and Parry, 1995, 79). However, this could not be firmly dated as the excavated sample contained no diagnostic material culture. Instead, the earliest datable features were related to the early-16th century garden. This included the foundations of two towers projecting from the eastern boundary wall, viewing pavilions over the gardens and parkland (Batey, 1995, 5), which were identified during the restoration watching brief; this intervention was extended to reveal their full plan (Dix and Parry, 1995, 80-81). Small sections of the Tudor western boundary wall were also identified underneath the western terrace (Dix and Parry, 1995, 82), whilst a pre-1701 foundation deposit was uncovered at the garden's southern end, which was mapped onto topographic representations of the Tudor gardens to suggest that it was part of the Water Gallery (Dix and Parry, 1995, 83; Jacques, 1995, 24).

Similar glimpses were obtained into the 17th-century iterations of the garden. This included wall boundaries, terraces, and drainage systems, which correlated with documentary sources (Dix and Parry, 1995; Jacques, 1995). In addition, a series of pits, possibly for gravel extraction, were also found and recorded from within the bases and sides of *plates-bandes* trenches to the northeast corner of the parterre. A sample area of the pits' stonework backfill was excavated; 58 Tudor moulded terracotta fragments were recovered, both providing a *terminus post quem* for the infilling of the pits and revealing architectural materials used within the 16th-century Hampton Court (Dix and Parry, 1995, 86-87). The corner of a small building was also exposed under the east terrace, which was interpreted as a temporary materials store used during the construction of William's apartments (Dix and Parry, 1995, 88; Thurley, 1995, 27).

Overall, small trenches around the outer edges of the Privy Garden accommodating specific restoration needs incidentally revealed 'keyholes' of pre-garden stratigraphy, alongside occasional discoveries in the bases and sides of the parterre's *plates-bandes* trenches. Interventions were sometimes expanded to enhance understanding of the pre-garden features, including the analysis of the Tudor boundary towers. However, during the 1701 garden construction, the ground level of different areas had been lowered by up to eight feet to allow the River Thames to be visible through the Tijou screen (Batey, 1995, 17; Jacques, 1995, 31). This lowering of the ground level removed any pre-1701 garden surfaces, leaving only structural foundations and deeper features (Dix and Parry, 1995, 80; 94). This meant, unlike at Audley End, the parterre trenches did not often cut into pre-1701 stratigraphy, so this could not be identified within their sections.

9.5c.ii. Garden design and management

The 1701 garden design as revealed during the excavation was comprehensively published (Thurley ed., 1995), with only a brief overview given here. A full sequence of symmetrically designed parterre beds was defined within the upper and lower gardens, as well as how they intersected with paths and statuary, exceeding all expectations of their survival (Batey, 1995, 21; Dix and Parry, 1995, 79). The excavation confirmed that this was an elaborate *parterre à l'anglaise*, formed through the cutting of decorative *plates-bandes* trenches and a *gazon coupé* design of decorative gravels into turf (Batey, 1995, 12). The *plates-bandes* trenches were crisp and symmetrical, suggesting a "high quality of workmanship" (Dix and Parry, 1995, 92). There was no evidence for box hedging borders (Woudstra, 1995a, 52); instead, the beds were

outlined with decorative sand, found within the topsoil above (Dix and Parry, 1995, 102). The design as excavated also matched contemporary depictions of Hampton Court, confirming the accuracy of a c.1703 painting by Leonard Knyff (Thurley, 1995, 4-6).

The archaeological record of the terraces was more complex, although excavators successfully revealed their origin and development, as well as the position of steps down into the garden, the foundations of the Tudor boundary wall, the location of ornamental tree pits, and the construction of the bower along the west terrace (Dix and Parry, 1995, 79; Dix, 1997, 15). The quality of structural features including the Tijou screen foundations and central terrace steps was also noted by Dix and Parry (1995, 92), who saw this as representative of the craftsmanship available in the construction of a royal garden. In some areas, modernisation had damaged 1701 features; for instance, slope regrading had obscured the 18th-century steps at the ends of the terraces (Thurley, 1995, 9–11). However, the subsurface remains were mostly preserved in-situ, with only small planting holes cut into the topsoil and red loam below (Dix and Parry, 1995, 109). This meant that the project was successful in revealing the layout of William III's garden for reconstruction (Dix and Parry, 1995, 92).

The excavation also provided additional information about horticultural practice within the Privy Garden, including the movement and enhancement of soil, the construction of paths and walls, and the laying out of drainage systems, some of which was replicated during the restoration. The *plates-bandes* had been cut 0.8-0.9 metres deep with flat bases, although they shallower above the gravel pits and in the south-east corner (Dix and Parry, 1995, 100). The fills of the *plates-bandes* consisted of three layers of soil, with an upper and lower red loam sandwiching a dark brown sandy loam (Dix and Parry, 1995, 102). Samples of soil were taken for scientific analysis, demonstrating that the central layer of soil had been enhanced by the gardeners through the addition of both organic and inorganic materials (Dix and Parry, 1995, 115; Dix, 1997, 15). This has been termed "good garden soil enriched with waste" (Woudstra, 1995b, 28); Dix (2011b, 178) later noted that the bed fills were enhanced with clay to retain water, bricks and mortar to increase the soil's calcium contents, and organic manure, which was potentially from kitchen rubbish deposits (Dix and Parry, 1995, 115).

9.5d. Recovery, analysis, and interpretation of archaeological artefacts

Although originating from an excavation within the grounds of a royal palace, the artefactual assemblage was relatively small and utilitarian. A brief appendix of finds was published within

Dix and Parry (1995); this broadly characterises the assemblage and notes individual artefacts for their intrinsic value. Elsewhere, artefacts were noted as evidence for site chronology and stratigraphic narrative. The assemblage consisted of pottery, dating from prehistory to the 20th century; vessel glass; clay pipe fragments; metalwork; architectural materials, including masonry, tiles, and window glass; and organic remains (Dix and Parry, 1995). The finds are now stored at Hampton Court Palace, alongside the excavation documentation, as part of the site's collections and conservation policy (Frame, 2014); it appears that no comprehensive finds report was produced or retained in Hampton Court's archive (Daniel Jackson, *pers. comm*.).

Approximately 14kg of domestic pottery was recovered during the excavation, primarily from within the parterre beds (Dix and Parry, 1995, 110). This included a small proportion of prehistoric, Roman, and medieval fabric types, although these were all found within later garden deposits, as very few contexts from these earlier periods were excavated (Dix and Parry, 1995, 112). The majority was instead post-medieval wares, with a predominance of low-status tableware dating to around the late-17th century, including English and Continental stoneware, tin-glazed wares, and redwares; "vessel forms usually associated with high-status sites are not much in evidence" (Dix and Parry, 1995, 110-112). The majority of sherds were recovered from the *plates-bandes* trenches and 78% were under 3cm in diameter. Dix and Parry suggested that they did not represent rubbish from the palace itself, but were either incidentally within in imported soil added to the garden or used as part of 'crocking' to improve soil drainage (Dix and Parry, 1995, 110). Soil analysis confirmed that the bed fills contained domestic waste used to enhance the quality of the soil; although not explicitly stated in the article, this was the implied trajectory of the pottery found within the parterre.

The rest of the assemblage, recovered from various depositional contexts, represented the use and maintenance of the 1701 Privy Garden. A small quantity was structural material, mostly poor-quality window glass and worked stone, although two sherds of painted glass and 58 pieces of architectural terracotta mouldings were also uncovered (Dix and Parry, 1995, 112); the terracotta mouldings, as noted above, having been used as rubble in the backfilling of the gravel pits (Dix and Parry, 1995, 86-87). A large quantity of garden ceramics were recovered during the excavation, including some flowerpots dating to the late-17th century and similar in form to examples from Kirby Hall (Dix and Parry, 1995, 110). Residual post-medieval metal objects were also recovered from surface layers, including coins, jettons, and fastenings, likely

relating to accidental deposition whilst the garden was being used; the absence of horticultural metalwork was also noted in the finds report (Dix and Parry, 1995, 115).

In addition, 1758 clay pipe fragments dating from 1600 to 1900 were recovered from the garden, the majority of diagnostic examples dating to the early-18th century. Stem bore analysis was used to date pipe fragments within the individual fills of the *plates-bandes* trenches, giving a median date of 1701 for the middle fill and 1707 for the upper fill (Dix and Parry, 1995, 114). This further confirmed the stratigraphic narrative presented in the report and also suggested that the upper layer had been 'contaminated' by later activity. As noted in Chapter 8, this 'contamination' could reflect the casual discarding of clay pipe fragments by gardeners into open flowerbeds. However, as noted in the thesis methodology, stem bore measurements have since been shown to have limited value for identifying small temporal differences in this way (see Higgins, 2017). Overall, the artefactual assemblage provided additional evidence to enhance the site narrative, giving chronological markers for sealed deposits and informing an understanding of the taphonomy of some horticultural contexts, namely the *plates-bandes* trenches. However, this was a limited assemblage that remained supplementary to site interpretation, whilst the choice to excavate the topsoil by machine limited the potential to uncover artefacts from the 18th and 19th-century garden.

9.6. Witley Court's South and East Parterre, 2001-2008

9.6a. Project background

Witley Court, Worcestershire, was originally a medieval manor that was sold in 1655 and expanded by the Foley family (Davies and Weaver, 2004, 3). Its gardens were first designed by Humphry Repton in the 18th century, recorded in topographical surveys as a series of broad terraces descending from the east and southern sides of the house (Dix, 2011a, 54). In 1837, William Humble Ward acquired the property and transformed it into a palatial Italianate mansion (Heald and McGee, 1996, 1; Dix, 2011a, 51). Ward sought a redesigned garden to match this new architectural style and thus hired William Andrews Nesfield, who defined an expansive scheme of formal parterres and fountains for the East and South Gardens which he described as his 'monster work' (Elliott, 1986, 144; Mawrey and Groves, 2010, 137). The East Garden was a particularly elaborate expression of French Renaissance revivalism, including a formal *parterre de broderie* made from box, decorative coloured gravel, and flowerbeds,

seeking continuity with the Louis XIV-style ballroom at its end (Dix, 2011a, 52). The two gardens were constructed and planted between 1854 and 1860 (Matthews and Foreman, 2009, 3).

However, the house and estate were sold after a fire in 1937, stripped for materials, and, by the 1970s, had deteriorated to the extent that English Heritage obtained a compulsory guardianship order (Heald and McGee, 1996, 1; Dix, 2011a, 52). After carrying out consolidation and repair works to ensure the building's stability, English Heritage sought to restore the character of the gardens, planning a "multi-million pound programme" of site improvement that included archaeological research (Heald and McGee, 1996, 1). The first excavation was undertaken by Nottingham University in 1996-1997, targeted to explore garden walls, balustrades, steps, and specific design elements of the East Garden parterre (Heald and McGee, 1996). When topsoil was removed from a trench over the western end of the *parterre de broderie*, there was a clear outline of parterre design within the exposed surface (Dix, 2011a, 53). This project demonstrated that the parterre stratigraphy was sufficiently preserved to inform further excavation and reconstruction, yet this did not take place until the following decade, whilst the records from this first project were lost (Matthews and Foreman, 2009, 18).

9.6b. Project methodology

In 2001, English Heritage hired Oxford Archaeology to carry out a second programme of research into Witley Court's gardens. Preliminary investigations to assess the site's archaeological potential were undertaken, leading to the development of the Parterre Garden Project Design, outlining key areas for potential research (Davies and Weaver, 2004, 2; Ainsworth, 2007, 2). A 2002-2004 Heritage Lottery Fund scoping project was then undertaken, combining field survey, building fabric analysis, sample excavations, and a watching brief during the addition of new paths, trees, and services (Davies and Weaver, 2004). This included the excavation of a trench and two test pits to examine the parterres in both gardens; they revealed some evidence for the framework of the parterres, but also that the internal design of the South Garden parterre had not survived (Davies and Weaver, 2004, 23). The project facilitated an archaeologically and historically inspired restoration of the South Garden.

This project was then expanded into a successful application for the Wolfson Challenge fund, which allowed for research and restoration within the East Garden (Mawrey and Groves, 2010, 142; Dix, 2011a, 52-53). English Heritage's brief for Oxford Archaeology was comprehensive: to assess the 1996 and 2002-2004 excavation results; to identify, define, and record any evidence

for the initial construction of the East Garden; to reveal the design, construction, and potential modification of Nesfield's *parterre de broderie*, including the box hedging, coloured gravels, and flowerbeds; then, to produce a site chronology and AutoCAD plan which would form the basis for restoration (Ainsworth, 2007, 4-5; Matthews and Foreman, 2009, 7-8). The project began in 2006, opening the backfilled 1996 parterre trench and removing the topsoil, before rectified photography was used to explore whether the remains of the south side parterre were still in situ (Dix, 2011a, 53). This showed that the quality of preservation was good, but that rectified photography would provide insufficient evidence to confirm the design and its construction history. Instead, the 13 circular flowerbeds were partially excavated to obtain sections (Ainsworth, 2007, 1), which informed the excavation and restoration approach.

In 2008, two months of excavation then took place within the main parterre area, consisting of rectified photography, the removal of approximately 50% of features to provide sections, and the creation of measured plans and single-context records (Matthews and Foreman, 2009, 9; Dix, 2011a, 60). The project focused on the south-west quadrant of the main parterre (Dix, 2011a, 60, see Figure 9.8); the eastern quadrants had been mostly excavated in 1997, whilst the north-west quadrant was symmetrical to the south-west but had more root disturbance (Matthews and Foreman, 2009, 9). During the project, it was also decided to excavate the western end of the northern side parterre, as this would provide further access to parterre stratigraphy (Matthews and Foreman, 2009, 16). Soil samples were also taken from the bed fills, although no chemical analysis of them was planned (Matthews and Foreman, 2009, 17).

For the final stages of the project, an AutoCAD plan was created using the excavation records. This was enhanced by analysis of historic photographs of Witley Court and contemporary gardens also designed by Nesfield to produce an interpretative drawing of the 1850s parterre, including the original faults with the design shown during excavation and integrating a historically informed planting scheme (Dix, 2011a, 61). As Matthews and Foreman (2009, 11) stated, "all of these resources have been required to arrive at a satisfactory reconstruction"; the interdisciplinary nature of the project enabled its success in producing a historically and mostly stratigraphically accurate reinterpretation of the parterre design. The actual process of restoration was not defined in the archaeological reports but, as the features were not fully excavated, the interventions were likely backfilled before the parterre as defined in the AutoCAD plan was recreated above, which would thus preserve the stratigraphy of the garden .

Figure 9.8: Photograph showing the excavation of Witley Court's East Parterre, showing excavation in the central area (Matthews and Foreman, 2009, plate 4). © Oxford Archaeology.

9.6c. Excavation and publication of stratigraphic narrative

9.6c.i. Pre-garden stratigraphy

The best insight into pre-1850s garden stratigraphy was enabled by the 2002-2004 project when specific trenches, including test pits in the South Garden parterre, were excavated 'to natural', revealing a "humic soil horizon" that was interpreted as the surface of the pre-Nesfield garden (Davies and Weaver, 2004, 6). In addition, the excavation uncovered the foundations of a structural feature, possibly a balustrade designed by Humphry Repton, and a potential garden pavilion (Davies and Weaver, 2004, 33-34). This provided glimpses into earlier iterations of the garden, although limited by the size of the trenches and the lack of comparative documentary sources. The 2002-2004 report also noted the presence of medieval pottery within the South Garden terraces (Brown, 2004, 28). During the East Garden parterre project, however, no pre-1850s features or artefacts were revealed. The excavation showed that the garden had been levelled by Nesfield, building up the lower areas with a "finely sifted, homogeneous orange-brown silty sand and sandy loam", above which was a sandy loam that had been imported to fill the flowerbeds (Dix, 2011a, 55-56). As such, the parterre design had been cut into imported

1850s soil rather than the stratigraphy below them; any medieval deposits would thus remain undisturbed unless excavated below the bases of the 1850s parterre beds, which did not take place during the restoration project.

9.6c.ii. Garden design and management

Instead, the design, construction, and maintenance of the Nesfield's 1850s East Garden was the focus of the 2006-2008 project. The parterre was proven to be a rectangular plot centred on a floral motif in gravel and box, which included a pair of large circular beds representing flower heads and was framed by two decorative gravel walks separated by 13 additional circular flowerbeds (Matthews and Foreman, 2009, 14). The design and its stratigraphic chronology were first outlined in the *Post-Excavation Assessment* (Matthews and Foreman, 2009); this was then elaborated upon in an article by Brian Dix, which emphasises the significance of the project in both proving the design of the parterre for restoration and as "rare and important first-hand evidence of Nesfield's methods of garden-making", illustrating the actual practice of parterre construction in the mid-19th century (Dix, 2011a, 54).

Indeed, the excavation enabled a detailed narrative of the construction of the East Garden parterre to be outlined. This showed that the ground had first been levelled and a drainage system laid, before the plot was laid out, slightly larger than its finished size to allow for adjustments (Matthews and Foreman, 2009, 15). Kerbstones were placed along the sides and turf laid before additional soil was introduced elsewhere, "filling the deeper scoops of future flowerbeds as well as creating a flat surface" (Dix, 2011a, 56). The design was then marked out using geometric principles; the excavation revealed brick plinths and two small, rectangular gravel features that may have acted as platforms for theodolites, showing that instruments were probably used alongside a grid or line system (Matthews and Foreman, 2009, 11-12; Dix, 2011a, 56). The parterre design had several small errors, likely introduced when it was laid out but not readily visible once the parterre was planted (Ainsworth, 2007, 14; Dix, 2011a, 57).

The next stages of the parterre construction were the excavation of features and the placement of gravel, aggregates, and planting within them (Dix, 2011a, 57-58). A layer of charcoal and cinder ash was laid across the bottom of the shallow trenches that were used for gravel features, which were suggested to have prevented any worm activity from disturbing the elaborate design (Matthews and Foreman, 2009, 17; Dix, 2011a, 58). The gravel was also sampled and provenanced, revealing its origins, composition, and the resultant appearance of

the parterre's gravel designs (Matthews and Foreman, 2009). As such, the excavation provided a detailed assessment of the construction and composition of Nesfield's parterre, including the flowerbeds, gravel, and box hedging designs. It also demonstrated that the design had been little modified and thus survived within subsurface stratigraphy, although historic sources suggested that "the planting scheme was subject to frequent change" (Matthews and Foreman, 2009, 18), which was too ephemeral to be seen. The topsoil was removed by machine, meanwhile, so little information about this final stage of the garden's history was obtained during the project.

9.6d. Recovery, analysis, and interpretation of archaeological artefacts

The 2002-2004 project included the recovery of material culture, the analysis and reporting of which was included within the unpublished excavation report (Davies and Walker, 2004). No artefacts were recovered from within the South Garden flowerbeds; instead, the majority originated from deposits relating to household clearance after the 1937 fire, as well as smaller quantities from topsoil and other garden features (Davies and Walker, 2004, 37). The resultant assemblage consisted mostly of architectural materials, including window glass, ceramic building material, plaster, and metalwork. There were also 89 sherds of pottery, mostly post-medieval, which were analysed by fabric and form when identifiable. This assemblage was heavily fragmented and originated from refined white earthenware and bone china vessels, mocha-dipped yellowware basins, and stoneware bottles, alongside a small quantity of medieval vessels (Brown, 2004). Several fragments of post-medieval wine bottles were also recovered (Allen and Munby, 2004, 29-30).

The 2006-2008 excavation report did not include any artefactual analysis. As discussed in Chapter 8.6a.i, the East Garden parterre flowerbeds were filled with a homogenous cultivation soil that did not contain significant quantities of material culture. The report does state that occasional flowerpot fragments were found within the flowerbed fills, which were interpreted as representing the "casual discarding of broken pots during planting" (Matthews and Foreman, 2009, 16). Other artefacts, namely domestic pottery, clay pipe stems, and glass fragments, were found in proximity to the gravel features, interpreted as part of "crushed ceramic material used as red colouring" (Matthews and Foreman, 2009, 18). These material types were seen as very fragmentary so were not analysed or discussed, whilst the finds retention strategy was also not recorded. As such, it was impossible to reanalyse this assemblage using the reports.

9.7. Discussion

9.7a. Archaeological methodologies within garden restoration projects

As this overview has illustrated, there were some similarities between each of these projects and the Audley End parterre excavation. All took place within the formal parterre gardens of country houses, thus had some documentary records, much of which had already been located and synthesised as part of academic or curatorial projects. This was most significant at Hampton Court, which was represented in numerous maps, plans, and artistic renderings, including a 1703 Knyff painting that proved accurate to the Privy Garden of the period (Thurley, 1995, 4-6). In contrast, the design of the contemporary parterre at Kirby Hall had not been recorded, although its owner, Christopher Hatton IV, had left detailed records about the different plant varieties with the garden that were used in restoration (Sladen, 1984). At Audley End, as noted in Chapters 3 and 8, English Heritage applied 19th-century plans, photographs, and partial planting lists to define an expected design for the 1832 parterre that was proven to be mostly accurate. During the Castle Bromwich and Witley Court projects, plans and photographs were used to interpret and assess individual garden features.

The projects also all applied exploratory research methods to assess the viability of excavation and restoration. At Castle Bromwich and Hampton Court, comprehensive geophysical survey of the formal gardens was used to evaluate the survival of subsurface remains, although the results were sometimes limited due to the multiplicity of shallow features from different iterations of the gardens; during the Castle Bromwich project, areas of high resistivity identified during survey were disproved as features during the excavation (Currie and Locock, 1981, 83). Smaller-scale excavations had already occurred at all five sites before the main excavation, whether historically or as a precursor to the project, and all were also used to inform excavation strategy. For some of the projects, notably at Audley End and Kirby Hall, the reopening of former trenches also enabled the analysis and reinterpretation of previous interventions that were badly recorded. Overall, before the five gardens were excavated, their location, chronology, and general layout were mostly known; all of the projects used excavation to confirm and enhance established knowledge, rather than to find unidentified gardens.

The excavation methodologies were more varied, and were dependent on each project's aims, circumstances, and restoration frameworks. The Audley End and Hampton Court projects shared similar approaches to defining trench location and scale. As outlined in Chapter 3.3b,

the Audley End excavation team mechanically removed the topsoil across the main and inner parterre area to create one large open-area trench, with further small interventions as required for the imposition of modern services. The Hampton Court project excavated a similarly comprehensive swathe across the parterre, whilst smaller trenches were also opened to explore the surrounding features. The other projects took more targeted approaches. For the Kirby Hall project, small-scale trenches were opened across the site to reveal key elements of the garden that were to be reconstructed, including the parterre design (Dix *et al*., 1995, 296); the Witley Court excavation quantified this 'sampling' of the archaeological record by removing 50% of features in one quarter of the parterre. At Castle Bromwich, narrow trenches were first sited to obtain a cross-section of the garden, then smaller trenches were opened to explore specific features identified in the cross-section, including one quadrant of the parterre design.

The projects also demonstrate different perspectives around what to excavate and what to leave 'in situ'. This included varying approaches to the removal and recording of 'topsoil' layers, or the layers above the surface deposits of the garden iteration being reconstructed. At Kirby Hall and Castle Bromwich, the topsoil was hand-excavated; at Audley End, Hampton Court, and Witley Court, this layer was removed by machine under the archaeologists' observation. This was most significant for the Hampton Court project, when all post-1701 layers were considered to be 'topsoil' and thus machine excavated. The biggest similarity between the projects, meanwhile, was that they rarely included the removal of deposits predating, and/or underneath, the iteration of the garden being reconstructed. At Audley End, the parterre restoration sought not to "pose a threat to surviving stratigraphy" (Harris and Cunningham, 1987, 1); as such, pre-1828 features identified in the bases and sides of flowerbed fills were left in-situ. The Kirby Hall, Hampton Court, and Witley Court projects shared this 'preservation in situ' ethos, although the construction of all three gardens had removed much of the pre-garden stratigraphy anyway; the methodology was also more flexible at Hampton Court, where trenches were sometimes extended to reveal more of pre-garden features, such as the Tudor boundary towers (Dix and Parry, 1995, 80-81). The Castle Bromwich excavation methodology, which was led by methodological research rather than restoration need, took a different approach, removing and recording all deposits identified within the trenches 'to natural'.

All five projects led ultimately to the restoration of the parterre gardens to a specific period of their history, informed by the archaeological record, although these restorations took place using different approaches and across varying time scales. At Audley End and Hampton Court,

the removal of all post-garden deposits from within and above the parterre flowerbeds formed a physical blueprint for the restoration of the parterre design; the excavated parterre beds became the flowerbeds in place today (Harris and Cunningham, c.1987; Dix and Parry, 1995). For the other projects, as the parterres had not been comprehensively excavated, the trenches were first backfilled before the parterre garden was re-created. This was challenging at Kirby Hall, as details of the late-17th century cutwork design were not identified during excavation; instead, the parterre was re-created using a contemporary design that was scaled to fit the Great Garden (Dix *et al*., 1995, 328). At Castle Bromwich, the design was recreated using materials at odds with the archaeological record; a more harmonious approach was applied at Witley Court, where the archaeologists produced an AutoCAD design of the 1850s parterre which was used to dictate its recreation. These projects have thus led to recreations of historic garden design and thus visitor attractions, whilst their success also makes further excavation into the in-situ deposits unlikely. As such, researchers are now reliant on the records of these projects to reinterpret the archaeological record of the gardens.

9.7b. Parterre garden design, construction, and maintenance

All five projects and their publications focused on enhancing understanding of single-period gardens, providing additional details of specific design elements including terracing, statuary, and seating, construction techniques and materials, and planting strategies, that informed their restoration. The parterres at Kirby Hall and Hampton Court were significant examples of the adoption of French and Dutch parterre styles within 17th-century English gardens (Ridgway, 1993). The Kirby Hall project allowed a broad chronology for the late-17th century Great Garden to be defined, with the area first being raised and levelled, before the grass plats and cutwork designs were laid out. However, alterations made to the Great Garden during the 1930s meant that the subsurface remains of the cutwork design were compromised so were not recovered (Dix *et al*., 1995). In contrast, the 1701 *parterre à l'anglaise* at Hampton Court was much more readily identified in the subsurface stratigraphy and was comprehensively excavated. This enabled a detailed understanding of its construction, demonstrating a "high quality of workmanship" (Dix and Parry, 1995, 92) in the crispness of the *plates-bandes* trenches, soil enhancement within the beds, and the complexities of the drainage system.

The other three projects, at Audley End, Castle Bromwich, and Witley Court, all focused on the excavation and analysis of 19th-century gardens, representing the revival of formal parterres by

several Victorian gardeners (Elliott, 1986, 61). Audley End's 1828 parterre was the earliest of these examples and the first to be excavated. As outlined in Chapter 8, the comprehensive excavation of its subsurface deposits allowed for some analysis of horticultural practice. This demonstrated that the gardeners accurately executed the planned design, altering bed depths and soil composition to enable the planting strategy to be successful, although an initial error in the spacing was later corrected. At Witley Court, the excavation uncovered the physical remains of Andrew Nesfield's 1854-1860 *parterre de broderie,* revealing the floral motif design and enabling a comprehensive chronology of its construction to be published (Dix, 2011a). The 1850s parterre in Castle Bromwich's Best Garden was also defined through its subsurface remains, consisting of Maltese-cross shaped quadrants containing a geometric gravel and flowerbed design, although historic document survey, that could have placed this garden within the context of 19th-century parterre-making, did not form part of the project. Each of these gardens was thus shown to be a unique expression of formal parterre revival, constructed with varying techniques and materials, thus demonstrating the value in interpreting 19th-century revival parterres through their archaeological footprints. Garden layout and chronology was also found to be the focus of grey literature and publications completed during the projects.

For several of the projects, information about diachronic garden use and management was also obtained. In two gardens, changes to the parterres had occurred after it was first constructed, simplifying the original design. At Audley End, the side flowerbeds had become defunct and were overlain by gravel walks; at Castle Bromwich, four of the inner flowerbeds within each quadrant had been covered over by gravel (Currie and Locock, 1993, 151). All gardens had then become overgrown without any other significant alterations, excepting the 1930s restoration at Kirby Hall, meaning that their remains were well-preserved underneath a topsoil layer. The topsoil was mostly overlooked during the projects, including at Hampton Court, where later interventions have shown the presence of material culture relating to horticultural practice and tourism within this layer (Daniel Jackson, *pers. comm*.). The focus of all five projects was on a specific iteration of the garden, yet country house gardens were not static entities after their construction but were used and changed in the same way as their buildings; machining away the upper layers of stratigraphy, although economically and practically efficient, limited the potential to explore some of this context. By restoring the gardens to a single period, the heritage landscape was inevitably altered to obscure parts of its history.

9.7c. Pre-garden stratigraphy as revealed through garden archaeology

Most of the excavations revealed features that pre-dated the development of the gardens being excavated. The earliest datable stratigraphy uncovered during the projects was medieval. As outlined in Chapter 4, the Audley End excavation uncovered walls, tiled floors, and burials from the monastic foundation of Walden Abbey, which were identified within the walls and bases of the parterre flowerbeds. . The excavation methodology at Castle Bromwich allowed for the partial excavation of a 12th to 14th-century cess pit, possibly connected to a building used during the collection of crops (Currie and Locock, 1993, 136). Medieval stratigraphy underneath the other gardens were more ephemeral: at Hampton Court, archaeologists recognised a layer of plough soil that corresponded to the use of the site before the palace was constructed in the 16th century (Dix and Parry, 1995, 79), whilst reburied human remains from the demolished medieval church were found within later deposits at Kirby Hall (Dix *et al*., 1995, 311). This demonstrates that some medieval stratigraphy, even if disturbed, could be identified within the archaeological record of gardens that were built over the foundations of previous buildings; Audley End was a converted monastic complex, whilst Kirby Hall and Castle Bromwich were both situated on top of demolished medieval settlements.

The majority of identifiable pre-garden stratigraphy dated from the 16th to 19th centuries, representing previous iterations of the houses and their formal gardens. As outlined in Chapters 5 and 6, the Audley End parterre excavation identified structural foundations from a Tudor single-courtyard house, Audley Inn, and the east range and annexes of the early-17th century inner court. The project at Kirby similarly revealed the foundations of service buildings for the Elizabethan iteration of the hall (Dix *et al*., 1995, 306), At Hampton Court, the 1701 Privy Garden was situated in the same area as its early-16th century iteration; the excavation thus revealed two boundary towers from this garden, as well as gravel pits containing 16th-century architectural materials that were created during 17th-century alterations. The Castle Bromwich project revealed a full stratigraphic profile of the Upper Terrace, showing several pre-19th century iterations including a possible c.1600-1620 knot garden. Indeed, the only project that did not uncover any pre-garden stratigraphy was the Witley Court parterre restoration.

This comparison illustrates both the potential for pre-garden discoveries during garden restoration projects, and the complexities inherent in their identification and interpretation. For each project, their identification was dictated by their location, as pre-garden features

needed to survive below the garden being restored in order to be seen archaeologically. The projects demonstrated how much horticultural practice could influence subsurface stratigraphy, as pre-garden features could be destroyed or buried when new gardens were constructed. At Hampton Court, large quantities of soil were removed to create the 1701 garden, meaning that only the lower parts of features remained within the stratigraphy. In other gardens, soil had been imported to provide a new surface for the parterre; this was seen at Kirby Hall, Hampton Court, and Witley Court. These two processes could shape the archaeological record of gardens concurrently: at Castle Bromwich, repeated levelling practices removed soil from the Upper Terrace, whilst adding material to the lower and middle gardens, whilst at Audley End, levelling for the Jacobean bowling green had resulted in the differential survival of pre-17th century remains between the north and south areas of the main parterre.

The identification of pre-garden features was also dictated by the excavation methodology. More open-area excavations removed more of the garden stratigraphy, thus providing a greater opportunity to uncover earlier deposits; this meant that the Witley Court and Kirby Hall projects revealed fewer pre-garden features when compared to the excavations at Audley End and Hampton Court. All of the projects' methodologies, apart from Castle Bromwich, also dictated the preservation of pre-garden stratigraphy 'in situ'. This meant that features were mostly identified in flowerbed sides and bases, without being excavated. Thus, in order for pre-garden features to be found, not only did pre-garden stratigraphy have to be preserved during garden construction, it needed to be intercut by the specific garden features being excavated by archaeologists. Such 'keyhole' access into earlier stratigraphy presented a challenge when interpreting features, especially as they were not fully excavated. In addition, the shared focus on single-period garden restoration meant that the interpretation and publication of earlier stratigraphy was not prioritised during most of the projects; Audley End's interim reports, which focus on medieval remains, appear exceptional for a restoration-led garden excavation.

9.7d. Domestic material culture assemblages: composition and interpretation

9.7d.i. Approaches to the analysis and interpretation of artefactual assemblages

The material culture assemblages recovered during the garden excavations underwent different levels of research dependent on each project's methodology, specialisms, and research objectives. By the later-20th century, as discussed in Chapter 2.2, archaeological projects were structured with a divide between excavation and post-excavation analysis; this

meant that finds analysis was differentially completed and reported alongside stratigraphic interpretation. The impact of this can be seen in the projects' archival legacy. The Audley End assemblage was mostly unresearched before the inception of this thesis, excluding a stonework report and ongoing analysis of the medieval floor tiles (Paul Drury, *pers. comm.*). In contrast, at Kirby Hall, a finds report was produced by NAACU outlining the different material types and typological parallels (Anon., c.1988). This informed a MAP2 post-excavation assessment, recommending areas of interest within the assemblage, and two published articles; specialist osteological and pottery analyses have since been commissioned (Blinkhorn, 2019; Crangle, 2019).

For the Castle Bromwich project, which was undertaken on a research rather than commercial basis, the finds analysis was carried out 'in house' and published as an appendix to the excavation report, albeit with some omissions, which informed the corresponding site interpretation. The Hampton Court Privy Garden excavation methodology also accommodated post-excavation artefactual analysis, and the project's monograph states that full catalogues for some material types were completed and retained within Historic Royal Palace's archaeological archive (Dix and Parry, 1995). However, these are not readily identifiable within the current archive holdings (Daniel Jackson, *pers. comm.*); the excavation monograph thus represents the only accessible information for current research. By the 2002-2008 restoration projects at Witley Court, post-excavation assessments were a standardised element of archaeological archives, providing an overview of assemblage composition, its potential significance, and recommendations for specialist analysis (English Heritage, 1991). Otherwise, the reporting of finds differs markedly between the two Witley Court post-excavation assessments. For the 2006-2008 East Parterre excavation, 'miscellaneous' finds were noted but not quantified (Matthews and Foreman, 2009); they are also absent from the published article which synthesised site chronology (Dix, 2011a). As such, this section utilises the 2002-2004 South Garden project, which included a more thorough finds assessment in the report appendix.

Each of these sources further demonstrates how artefacts were used to enhance site interpretation within garden restoration projects, confirming the paradigms noted in Chapter 2.2. The primary application of finds analysis was to provide chronological markers for specific features, acting as terminus post quem for their construction or demolition, thus dating elements of the stratigraphic sequence. This was especially important for gardens with less substantial historical records: at Castle Bromwich, early-19th century pottery provided a

terminus post quem for the infilling of features; whilst at Kirby Hall, a 17th-century wine bottle seal was used to date changes to the West Terrace. However, artefact-based dating was applicable only when contexts were sealed and 'in situ', not altered or disturbed by horticultural practices; as shown in this thesis, such contexts were rarely recovered during garden restoration projects. It also required datable artefacts, namely large fragments of domestic material culture types, to have been deposited into these 'in situ' horticultural contexts, which was uncommon; as Currie and Locock (1991, 91) stated, garden archaeologists mostly encountered "levels lacking in good dating materials".

A more holistic interpretation of artefactual assemblages is sometimes glimpsed within the documentation. This includes analysis of the intrinsic value of horticultural objects; flowerpots recovered from Kirby Hall and Castle Bromwich informed Currie's (1993a) typology, which developed academic understanding of diachronic horticultural practice, whilst copper alloy plant labels from Castle Bromwich have been used to explore classification and management of 19th-century plant stock (Cessford, 2014, 260). Domestic material culture is rarely approached in the same way; as discussed below, the assemblages were primarily fragmentary, lower-status objects, perhaps perceived as subsidiary to the collections held within their properties (Daniel Jackson and Peter Moore, *pers. comm*.). Assemblage analysis is also sometimes used to explore the taphonomy of specific contexts, considering the trajectories of domestic objects as indicative of horticultural practices. At Kirby Hall and Castle Bromwich, in particular, large assemblages of post-medieval ceramics were identified as aggregate materials (Currie and Locock, 1993; Dix *et al*., 1995), which suggested that domestic rubbish was used in garden construction. However, the published site interpretations rarely consider the biography of material culture from disturbed contexts, whilst no comparisons to artefacts from other gardens have been made. This chapter thus aims to comparatively characterise the assemblages, exploring what was recovered from horticultural contexts and whether new insights could be gained by analysing this material alongside the Audley End assemblage.

9.7d.ii. Characterising the domestic material culture assemblage

Despite the sometimes-partial recording of finds within accessible project documentation, the composition of the material cultures assemblages was sufficiently recorded for a broad comparison, showing some similarities and differences that can be discussed. All of the domestic material culture assemblages consisted primarily of post-medieval artefacts

recovered from horticultural contexts. These contexts included features relating to the specific iteration of the garden being reconstructed: from the late-17th century Kirby Hall, the 1701 Hampton Court Privy Garden, Audley End's 1828 parterre, and the mid-19th century parterres at Witley Court and Castle Bromwich. Other artefacts were recovered incidentally during excavation, mostly from later stratigraphy and topsoil contexts, as well as earlier garden features when they were removed. The composition of the pottery, vessel glass, and clay pipe assemblages was also generally similar, consisting of small and heavily abraded fragments from a fairly limited range of objects.

The biggest difference between the assemblages was their scale. For most projects, pottery was the most significant assemblage, but with large variability in number and weight between different sites (see Table 9.1 and Figure 9.9). The vessel glass assemblages were similarly variable, with Audley End having the largest recorded assemblage of this material type. The comparison shows even larger discrepancies between the clay pipe assemblages, from six fragments found in Witley Court's South Garden to 1758 recovered at Hampton Court. There are several possible explanations for such expansive variation in the quantities of material recovered during the projects, including the different scales and methodologies of the excavations, the various dates of the gardens' constructions, and differences in the use of each property and garden. However, this comparison is complicated by some omissions within the publication of each assemblage, which give a partial picture of finds recovery and composition.

Table 9.1: Table showing the number of fragments of each material type recovered during each excavation (Kirby Hall after Anon., c.1988 and Blinkhorn, 2019; Castle Bromwich after Currie and Locock, 1993; Hampton Court after Dix and Parry, 1995; and Witley Court's South Garden after Davies and Walker, 2004); the pottery fragment number excludes horticultural ceramics.

Project	**Pottery**	**Vessel glass**	**Clay pipe**	**Small finds**
Audley End	1037	560	246	50
Kirby Hall	7846	Not recorded	874	94
Castle Bromwich	64 illustrated	324	88	9
Hampton Court	Not recorded	Not recorded	1758	More than 20
Witley Court South Garden	25	26	6	2
Witley Court East Garden	Not recorded	Not recorded	Not recorded	Not recorded

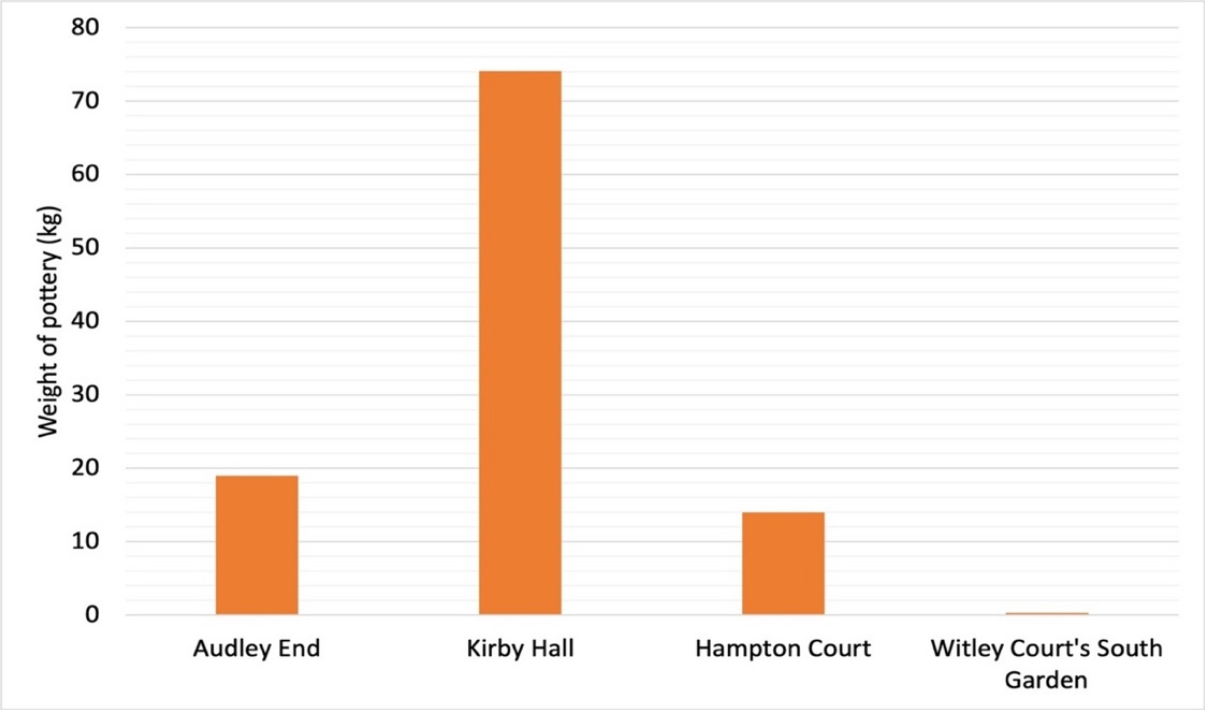


Figure 9.9: Graph showing the weight of the domestic pottery assemblage from each excavation, calculated using Dix and Parry (1995), Brown (2004), and Blinkhorn (2019).

9.7d.iii. Pre-garden domestic material culture

All of the excavations recovered domestic material culture that pre-dated the first formal gardens on each site, thus pre-dating the 1530s at Hampton Court, c.1600 at Castle Bromwich, 1614 at Audley End, the 1640s at Kirby Hall, and the mid-17th century at Witley Court. The presence of pre-garden material was particularly notable for the Kirby Hall excavation, during which 1036 sherds of pre-16th century pottery and 141 sherds of 16th-century pottery were recovered (Blinkhorn, 2019). The other pre-garden assemblages were less substantial but still represented a proportion of the artefactual assemblage. This included the pottery from Audley End; 49 sherds with medieval and 16th-century fabrics have been identified during this thesis research, alongside the small Roman assemblage noted in Chapter 3.5a. Dix and Parry (1995, 111) stated that the Hampton Court excavation also uncovered small quantities of medieval pottery, with additional prehistoric and Roman examples. At Castle Bromwich, medieval coarseware sherds, mostly fragments of cooking pots, were recovered (Currie and Locock, 1993, 176); this was similar at Witley Court, where three sherds of medieval coarseware were found (Brown, 2004). This demonstrates the ubiquity of pre-garden artefacts within assemblages from garden excavations, even when pre-garden stratigraphy was left unexcavated.

The assemblages were mostly small, fragmented, and limited in range, which was dictated by the nature of the stratigraphy being excavated. Occasionally, assemblages were recovered from in-situ domestic deposits; this was seen at Castle Bromwich, where the research-led methodology enabled the excavation of a cess pit containing pottery from the 12th to 14th centuries (Currie and Locock, 1993, 141). The majority of medieval material culture, however, was recovered from garden deposits. This included the fills of parterre flowerbeds, from which pre-garden material was recovered at both Hampton Court and Audley End. This thesis has already explored the trajectories of 12th-16th century pottery into the Audley End parterre beds, suggesting that they could represent the disturbance of earlier stratigraphy but that this cannot be absolutely stated; in the Hampton Court publication, they were described as 'residual' (Dix and Parry, 1995, 112). Medieval pottery was also recovered from infilling deposits, when large quantities of soil were added to build up certain features. This was identified in 19th-century terraces at Castle Bromwich and Witley Court, whilst some of the Kirby Hall material was defined as build-up materials (Dix *et al*., 1995, 347), suggesting the integration of material into the garden from a different depositional location. Indeed, like ploughzone assemblages, these sites demonstrate that it is impossible to presume a horizontal relationship between in-situ stratigraphy and artefacts within the horticultural contexts above, without excavating the former, which rarely occurred during restoration-led projects.

A more comprehensive comparison of the assemblages remains challenging, particularly considering omissions in the reporting of artefactual assemblages from these sites. However, the Audley End pottery assemblage as analysed in this thesis can be contrasted with Blinkhorn's (2019) analysis of the Kirby Hall assemblage by classifying each pottery fabric by the median century in which it was produced (see Figure 9.10). This demonstrates the general character of the two assemblages, thus suggesting whether they reflect site narratives. Both excavations recovered medieval pottery from post-medieval garden contexts. Although it is unclear where Kirby's medieval assemblage was found without a more detailed assessment of the on-site documentation, it is noted in Blinkhorn (2019, 2), that, as seen at Audley End, a large proportion was recovered from the same contexts as 18th and 19th-century pottery. The same fabric types were also represented in both assemblages, including coarseware, Tudor Green wares, and Cistercian wares.

The biggest difference in the assemblages, meanwhile, was their scale: 1000 more medieval pottery sherds were recovered during the Kirby Hall excavation and represented a much larger

range of pottery fabrics. This difference could reflect the nature of medieval occupation at the two sites. Kirby Hall was a medieval village, which likely used more pottery than a monastic foundation, and perhaps had less controlled refuse practices. However, it also shows that the chronology and construction of different gardens shaped the recovery of material culture. The Kirby Hall parterre was constructed in the 17th century, so medieval deposits were likely to be more extensively disturbed than during the construction of the 19th-century parterre at Audley End, whilst its longevity resulted in more disturbance to pre-garden deposits over time. In addition, the archaeological projects applied different methodologies; the Audley End excavation involved a more comprehensive removal of post-medieval deposits but within a specific area, whilst the Kirby Hall project explored stratigraphy across the garden. This analysis, therefore, shows that there were some potential correlations between pre-garden site use and the associated material culture recovered during garden restoration projects. However, as these assemblages were rarely recovered from in-situ deposits, it is difficult to reconstruct object biographies; material culture assemblages from horticultural contexts remain an inevitably partial glimpse into pre-garden history.

9.7d.iv. Domestic material culture from garden contexts

Pottery analysis as reported in the site documentation also gives chronological context to the post-medieval assemblages recovered during the garden restoration projects. The majority of the Hampton Court assemblage was dated to no later than the early-18th century, when the Privy Garden was redesigned and used (Dix and Parry, 1995). The Castle Bromwich pottery could be split into two chronological groups that reflected periods of horticultural change: the 16th-early 18th centuries, represented by Cistercian and black glazed redware vessels; and the early-19th century, seen in tableware assemblages (Currie and Locock, 1993, 177). Witley Court's South Garden assemblage was much smaller but dated exclusively to the late-18th and 19th centuries, when the garden was constructed. In contrast, both the Kirby Hall and Audley End assemblages consisted primarily of wares dating to the 18th and 19th centuries, with smaller proportions of 16th and 17th-century fabrics, despite the fact that the gardens were constructed at different times. As such, the majority of recovered material culture was contemporary to the garden iteration being reconstructed, but as some excavation methodologies integrated the recovery of pottery from later garden features and disturbed deposits, the assemblages were not always chronologically bounded.

The analysis of pottery fabrics and vessel types through a sociocultural lens enables further interpretation of their trajectory into horticultural contexts, thus explaining their presence within the archaeological record of the different gardens. This demonstrates a continuity between the Audley End assemblage, as defined in this thesis, and other sites, as the majority of sherds represent low-cost wares used in everyday dining and drinking contexts. Kirby Hall's 16th-18th-century material is described as "what one might expect in a reasonably well-to-do middle-class household" (Blinkhorn, 2019), rather than material used by its elite occupants, whilst Dix and Parry state that, at Hampton Court, "vessel forms usually associated with high-status sites are not much in evidence" (1995, 110). These assemblages also included similar vessel forms related to storage and tableware; the Hampton Court assemblage incorporated "tygs, tankards, jugs, plates, bowls, and dishes" (Dix and Parry, 1995, 111), whilst Blinkhorn (2019) noted fragments of jugs, mugs, and plates within the Kirby Hall assemblage. At Witley Court, the 19th-century pottery assemblage encompassed refined whiteware fabrics, with smaller quantities of bone china, mocha dipped ware, and English salt-glazed stoneware sherds, all wares identified at Audley End (Brown, 2004); the early-19th century material from Castle Bromwich similarly included creamware and pearlware bowls, dishes, and plates, alongside mocha dipped wares (Currie and Locock, 1993). This implies that the pottery assemblages, regardless of date, originated from kitchen and service contexts, thus potentially following the same depositional trajectories into garden contexts as the Audley End assemblage.

The clay pipe assemblages were well-recorded within the majority of the site reports, as diagnostic examples are datable through typological classification to relatively small date ranges, thus allowing the contexts from which they were recovered to be better defined. A comparative analysis of the assemblages from the different projects (see Figure 9.11) demonstrates that there are some differences in scale and chronology. The Hampton Court excavation recovered markedly more clay pipe fragments than the other sites with the majority of diagnostic fragments dated to the early-18th century, including 164 fragments dating to between 1680 and 1740 (Dix and Parry, 1995). Within Kirby Hall's Great Garden, more clay pipe fragments were recovered than were found at Audley End, with the majority of typologically classified examples dating to the 17th century. The assemblages from the other sites were much smaller; 88 fragments were found at Castle Bromwich, seven of which were dated to the late-17th and early-18th centuries (Currie and Bromwich, 1993, 179), whilst only six, all undiagnostic, fragments were recovered during the Witley Court South Garden excavation.

The clay pipe assemblages are more chronologically limited than the pottery, suggesting that they were deposited contemporaneously to the garden construction. As discussed in Chapter 7.6b, there is some historical evidence for gardeners using clay pipes, which is the most viable reason for the recovery of large quantities of clay pipe fragments in horticultural contexts. The chronological distribution of the assemblages reflects the different periods in which the gardens were constructed, suggesting that many of the clay pipes were deposited by gardeners who were laying out and filling the parterre flowerbeds. Higgins (2017) noted that "pipes from prisons have been found….in a broken condition, while fine quality long-stemmed pipes can occur as large fragments from high status rubbish deposits". The three project assemblages, which consist mostly of undatable stem fragments, speak more to the former; this suggests that the clay pipes were used by those who had more limited access to material than the high-status occupants of the properties. The differences in number between sites could also reflect the different sizes of the gardens, as there were likely more gardeners working within the larger gardens of Hampton Court. However, the scope of the assemblages was also dependent on excavation strategy. The assemblage from Hampton Court was recovered during the clearance of parterre deposits and further targeted trenching, which removed large proportions of the 1701 garden stratigraphy; the Kirby Hall and Audley End projects were somewhat smaller, with only the former including topsoil analysis, whilst the Castle Bromwich and Witley Court projects only sampled garden stratigraphy.

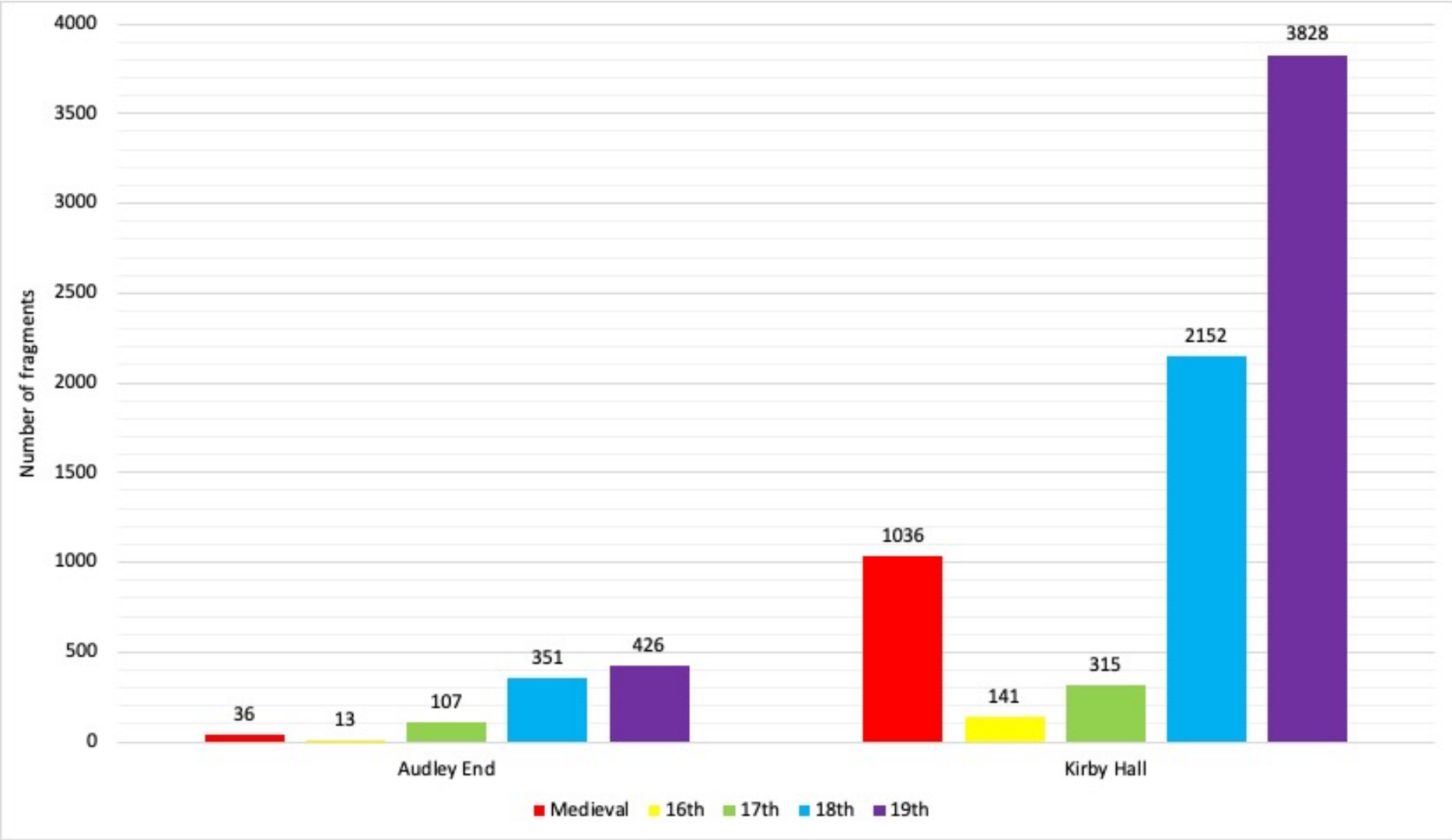


Figure 9.10: Graph showing the number of fragments of pottery (excluding horticultural) within the Kirby Hall (after Blinkhorn, 2019) and Audley End assemblages, divided by date classification.

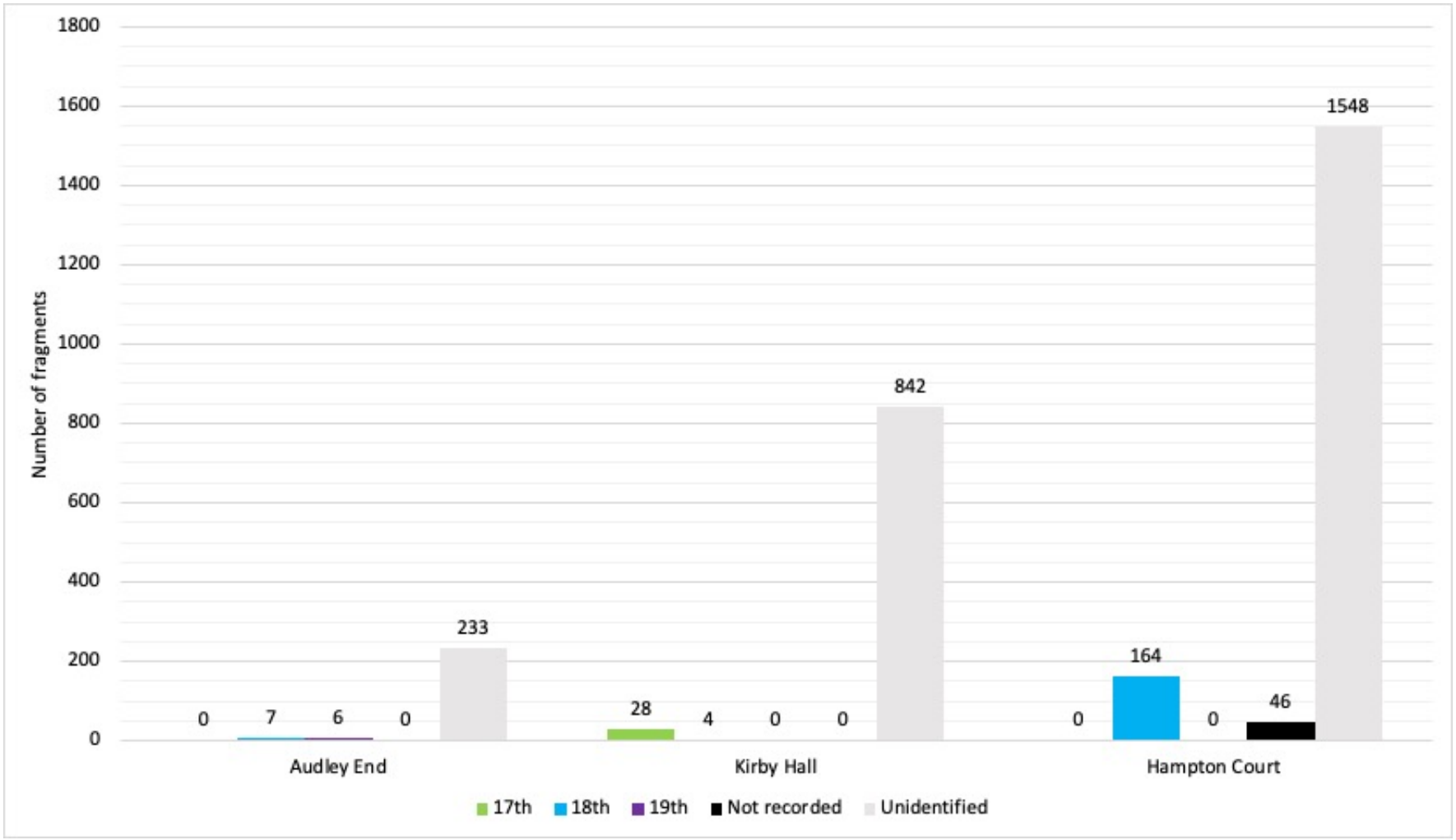


Figure 9.11: Graph showing the number of clay pipe fragments within the Kirby Hall (after Blinkhorn, 2019), Hampton Court (after Dix and Parry, 1995), and Audley End assemblages, divided by date classification using typological analysis.

The other material types, vessel glass and small finds, are less discussed within project documentation. Indeed, the post-medieval vessel glass assemblages are not quantified within the Kirby Hall reports or the Hampton Court monograph, likely because they were small and abraded fragments that were not easily datable. The scale of the recorded vessel glass assemblages ranged from 26 fragments at Witley Court to 560 at Audley End, yet they were uniformly low quality and consisted mainly of wine bottles. At Kirby Hall, the wine bottles dated to the 17th and early-18th centuries (Anon., c.1988), whilst the Audley End assemblage also included 19th-century cylindrical bottles. At Castle Bromwich, 318 fragments of wine bottles were generally dated to the late-18th and early-19th century, almost exclusively recovered from a single terrace levelling context (Currie and Locock, 1993, 181); one early-19th century and two 19th-20th century bottles were also recovered in the Witley Court South Garden (Allen and Munby, 2004, 116). As outlined in Chapter 7, this further suggests that wine bottles were incorporated into the garden alongside kitchen waste, both incidentally within composting and manuring deposits, and as deliberate inclusions for percolation or 'infilling' of specific features.

The small finds assemblages, meanwhile, consisted primarily of dress accessories and horticultural objects dating to a range of periods. More small finds were recovered from Kirby Hall and Hampton Court than from Audley End's parterre, likely due to the different garden sizes and perhaps the different histories of the properties themselves, whilst the Castle Bromwich and Witley Court projects recovered much smaller assemblages. This conforms to patterns already identified in the analysis of clay pipes, reflecting both the respective sizes of the gardens and the differential scope of the excavations. Overall, this comparison shows a general congruence in the composition of post-medieval material culture assemblages recovered during all five projects. Overall, this comparison shows a general congruence in the composition of post-medieval material culture assemblages recovered during all five projects. The pottery and vessel assemblages were highly fragmented and consisted mostly of everyday goods, rather than the high-status material culture seen in contemporary house collections or wholesale clearance deposits. As such, they were suggested to originate from kitchen, service, and other low-status household settings, implying that everyday domestic refuse was being reused and redeposited within formal gardens. Chronological analysis of the clay pipe assemblages also suggested that the majority were deposited by gardeners during garden construction. However, it was difficult to explore depositional practices without a

comprehensive compositional and spatial analysis of all five project assemblages, which would require further artefactual and archival analysis beyond the scope of this thesis.

9.8. Summary

This chapter has considered the similarities and differences between the Audley End project and contemporary excavations within Kirby Hall's Great Garden, Castle Bromwich's Best Garden, Hampton Court Palace's Privy Garden, and Witley Court's East and South Parterres. The projects all assessed the subsurface remains of formal parterres, from both their 17th-century apotheosis and revival in the 19th century. In all cases, the general location and chronology of the garden was known before excavation; the interventions sought to confirm specific design elements and/or facilitate earthmoving and soil replenishment as part of garden research and restoration schemes. The parterres were mostly well preserved, showing that parterres are readily recognisable as "ordered and identifiable features" (Dix, 2011b, 151) within garden stratigraphy. The excavations provided new information about the structural materials and construction techniques used to create formal parterre gardens, including ground levelling, the placement of drainage systems, and excavating and filling the trenches that contained planting and decorative gravels. However, a 1930s restoration had destroyed the original parterre cutwork at Kirby Hall; in restoring the garden to a single period, archaeologists irrevocably altered the heritage landscape to obscure later iterations, a perhaps uneasy parallel to some restoration-led projects discussed here.

Four of the projects also revealed features that pre-dated the gardens being restored, enabling incidental glimpses into pre-garden site use. These features varied in scale and significance from the medieval cess pit found at Castle Bromwich to the viewing pavilions at Hampton Court and service buildings for the Elizabethan Kirby Hall, although no other projects found structural foundations as substantial as at Audley End. However, pre-garden features were not always well-preserved within the subsurface stratigraphy of the parterre gardens, due to repeated horticultural activities that added, altered, or removed earth to create different iterations of the gardens. Whether any pre-garden features were identified or excavated was also dependent on the excavation methodology being applied. The majority of projects did not excavate 'to natural', instead removing selected deposits within specific temporospatial parameters. Thus, for pre-garden features to be found, not only did pre-garden stratigraphy have to be preserved, it needed to be intercut by the specific garden features being excavated.

In this context, the locations and depths of Audley End's parterre beds provided a uniquely good opportunity for the identification of pre-garden features.

Other incidental discoveries during the projects were structural, horticultural, and domestic artefacts. A comparison between the domestic material culture assemblages has shown continuities in the types of artefact recovered from horticultural contexts and shared approaches taken in their recovery, analysis, and interpretation. They were often disappointingly limited assemblages, encompassing small quantities of everyday pottery and vessel glass, highly fragmented clay pipes, and occasional copper alloy dress accessories or household objects. The majority of artefacts could not be used as chronological markers, so were not previously considered as significant to site narrative. However, when the context taphonomy, function, and socio-economic status of the assemblages were considered, potential depositional trajectories for objects into horticultural deposits were revealed. Most relevant to the Audley End assemblage was the recovery of finds from garden beds, which were mostly described as 'residual'. This thesis enables further interpretation, arguing that finds were deposited into beds during soil enrichment, including pottery from kitchen and service contexts, as well as being discarded during garden construction and use and disturbed from the pre-garden stratigraphy below. This was not universal, however, with material culture absent from 19th-century parterre beds; the Audley End assemblage was an exception to this.

This chapter has also approached the archival, academic, and curatorial legacy of these projects, showing opportunities and challenges for current research. This showed MAP2 post-excavation assessments (English Heritage, 1991) to be useful in outlining project methodologies and areas of significance within the stratigraphic narrative and finds assemblages, particularly when they were supplemented by artefactual characterisation. It also showed that most projects successfully culminated in publication within academic journals, whilst the Kirby Hall project has also informed a public exhibition (Dickon Whitewood, *pers. comm.*). However, focuses on the specific iteration of the garden often limited the written interpretation of pre-garden or post-garden stratigraphy, with reports sometimes sidestepping holistic interpretation (Spence, 1993). There was also no standardisation when reporting artefactual assemblages, which complicated the comparison between them. Comparative analysis has thus provided new insights into the nuances of the Audley End archive, showing the opportunities and complexities in approaching garden restoration-led projects for new research.

10. Conclusion

10.1. Archaeology within the parterre garden

This thesis achieved its main aim, assessing the archaeological record of one of English Heritage's most significant properties through the archive of a 1985-1987 excavation. Archaeological interventions at Audley End before this excavation, as at other country houses, had either sought specific architectural features or acted as small-scale 'rescue' projects responsive to conservation or development needs. This thesis showed that the 1985-1987 project was instead an early example of a garden excavation in advance of restoration, with a distinctive methodology aimed towards recovering the subsurface remains of a formal parterre garden so that it could be reconstructed. This thesis has thus considered how the project's archaeological archive was defined and structured by methodological and hermeneutic approaches within the developing field of restoration-led garden archaeology. It has explored the opportunities and limitations in using archives of this kind to address more holistic research questions, exploring horticultural practice, pre-garden architectural development, and domestic material culture. By using Audley End as a case study, the thesis has assessed the extent to which legacy archives that include garden bed assemblages can be used in current research and site interpretation, recommending MAP2-informed archival assessments for other unpublished garden archaeology projects, and emphasising the value of comprehensive, consistent artefactual recording strategies, and the application of archival standards, during future excavations within such archaeologically, historically, and culturally significant sites.

The 1985-1987 excavation focused on recovering evidence for the early-19th century parterre garden to the east of the house. As discussed in Chapter 8.2b, formal parterre gardens were first popular in England during the 17th to early-18th centuries, before being revived in the early-19th century. Audley End's parterre design was informed by the landscape gardener William Sawrey Gilpin, a less well-known figure than many of his contemporaries (Piebenga, 1994); the excavation was an important opportunity to explore the physical remains of a formal 'dress ground' that he had some influence in designing. The parterre project sought to apply archaeological evaluation to confirm the accuracy of three c.1832-1833 plans that illustrated a proposed layout for the parterre flowerbeds; as Dix (1991, 60) defined, garden archaeology in this period was primarily used as a "means of corroborating" historical evidence. The excavation also sought to answer questions posed by historical survey about the location and

chronology of particular garden features, including the central fountain, thus providing information for the garden restoration scheme.

In Chapter 8, this thesis outlined and expanded upon the contents of three interim reports produced during the excavation (Cunningham, 1987a; 1987b; Harris and Cunningham, c.1987), showing that Chelmsford Archaeological Trust provided additional information about the design of the original parterre garden. The project effectively revealed and excavated the shapes of each of the flowerbeds, which were very clear within the soil matrix, showing that they conformed to the historical record. It clarified that the central feature in the main parterre was part of the design executed in the 1830s. The subsurface stratigraphy also showed that an initial mistake in the planning of beds was rectified within a few years of construction, demonstrating that the production of a symmetrical parterre design was a somewhat difficult process. The excavation provided additional insights into the chronology of the parterre garden, showing that the design was maintained without major alterations until the 1940s, excluding a simplification in the mid-19th century that had obscured the presence of beds along the north and south sides of the main parterre. Overall, the excavation meant that the flowerbeds could be restored as originally situated, providing physical evidence that corroborated the historical record.

This thesis also used site documentation held within the project archive (CAT, 1986-1987: *Section Drawings* and *Context Sheets*), alongside the interim reports, to consider the excavation's utility for understanding horticultural practices within the parterre garden. As the archaeologists fully excavated each parterre bed, their vertical stratigraphy was revealed, showing that the depths of each flowerbed and their soil composition varied depending on their location within the parterre. This allowed for a discussion in Chapter 8, sections 3c and 7, of how flowerbeds were constructed in the early-19th century, suggesting that estate gardeners accommodated planting strategy through the digging of variable bed depths and the mixing of established soil and imported materials to form the parterre fills. A horizon between the upper and lower fills of some flowerbeds also reflected historical evidence that the beds were maintained and cultivated from their construction in 1832 to approximately the 1940s, resulting in the presence of post-1832 material culture. This thesis has thus provided some additional interpretation of the construction and maintenance of Audley End's parterre garden using its archaeological record. However, it was unable to make significant arguments about the 1832 garden; it proved too challenging to produce a detailed chronology of the garden's

construction, due to the complex, intersecting nature of the site's stratigraphy, limited historical documentation about parterre construction, and omissions in the archival record.

This thesis has instead acted as an evaluation of later-20th century garden archaeology, considering how the Audley End parterre excavation and contemporary projects balanced restoration and landscape improvement objectives against the guardianship and protection of the archaeological record. Restoration-led archaeology sought the recovery of structural features and planting pits dating to specifically defined periods, which could be compared with archival evidence, thus seeking to inform more historically accurate garden restoration schemes (e.g., Dix *et al*, 1995, 385; Dix and Parry, 1995). The process of excavation could also be used to create a physical framework for the restoration of formal gardens, with emptied flowerbeds, gravel walks, and other features being replenished with new materials. In this sense, the Audley End excavation was successful, as it directly informed the restoration of the parterre to its 1832 layout. This means that modern visitors can experience the garden as a relatively accurate recreation of the past, thus can "more readily enter into the time and the spirit" (Dix, 2011b, 82) of its former owners and gardeners. However, this thesis acts as a critical evaluation of the parterre project from an archaeological perspective, considering the resultant opportunities, but also challenges, in approaching the excavation and its archive to obtain more holistic site narratives.

10.2. The physical and archival legacy of garden archaeology projects

Indeed, the archaeological legacy of garden restoration remains contentious. In Chapter 2, the thesis outlined the historiography of key projects, showing that restoration strategies informed unique excavation methodologies, as deposits were accessed and recovered within specific temporospatial parameters. At Audley End, the Chelmsford Archaeological Trust fully uncovered the footprint of the 19th-century parterre, clearing the post-garden topsoil before excavating all of the parterre flowerbeds, whilst keeping other stratigraphy in situ. This meant that, rather than removing earth to create new flowerbeds, English Heritage restored the garden without damaging its pre-1832 stratigraphy; "little, if any, evidence was destroyed" of pre-garden site use (West, 1997, 88). The comparative analysis of other excavations in Chapters 2 and 9 has shown that this was a common approach; later contexts were often removed with limited study, whilst earlier deposits were left unexcavated. These projects have thus been critiqued for allowing the comprehensive destruction of later stratigraphy for single-period

restoration (see Currie, 1992, 183; 1996; Jacques, 1997, 8). The Audley End parterre project has not been immune from this criticism; Taylor (1996, 60), for instance, argued that by seeking to restore Sawrey Gilpin's parterre, English Heritage "not only destroyed the evidence for the 1830s garden…but also removed the evidence for the later gardens" that was itself a valuable part of the archaeological record. More recent projects, noted in Chapter 2.2e, show that this has informed new approaches; smaller evaluative trenches, targeted to specific features after comprehensive historical and landscape survey, are now established practice. However, all excavations are inherently destructive; as the critiques show, it remains equivocal whether single-period restoration constitutes sufficient motivation for the loss of the archaeological record.

However, this thesis also suggests that such critiques have not engaged with the archival legacy of former projects. Whether appropriately or not, single-period restorations did take place, and their archives remain held within heritage trusts. The thesis thus considers whether the reassessment of archival materials from restoration-led garden projects can be informative to modern research and curatorial practice. The structure and composition of the Audley End parterre project archive were first assessed in Chapter 3, showing that it was informed by the practical and interpretative frameworks used within garden archaeology, the development of 'preservation by record' approaches to on-site documentation, and the division between excavation and post-excavation processes. The application of single context recording during the 1985-1987 project proved helpful to the thesis research, as each context was given a description, plan, and section drawing, which enabled specific contexts to be explored. However, they included varying amounts of information; the project supervisors were perhaps given insufficient resources to ensure consistency in 'objective' data entry was upheld, which was a known problem during the later-20th century (see Spence, 1993). Archival attrition proved another barrier to research, as most of the photographic record had been lost, whilst the archive contents were not indexed; a full scoping and cataloguing of the archive was thus required. The Audley End parterre project also had very little post-excavation interpretation, even when compared to other garden restoration projects. The interim and draft reports acted as an accessible point of entry for the archive by providing an overview of the main features, including several interpretative drawings that have been used within this thesis, yet were brief and mostly incomplete.

This thesis shows that the archives of garden archaeology projects presented several challenges for reinterpretation. To define and mitigate methodological, structural, and cultural frameworks that had been imposed on the archive, an in-depth understanding of excavation and post-excavation biography was required, yet garden archaeology has been little synthesised within archaeological historiography; contextualising the specific approaches taken during the 1985-1987 excavation required discussion with the excavators and other specialists, beyond the scope of smaller research projects. The archive contained a range of material types dating to different periods, each with unique post-depositional, recovery, and curatorial biases; this thesis showed the value in analysing multiple material types but also the challenges inherent in identifying and comparing them. Most of all, this thesis demonstrates the difficulties in reinterpreting legacy archives as a modern researcher, supporting the statement that "the time lapse between field recovery and analysis, and…the loss of field records and other contextual documentation, pose monumental challenges" to interpretation (Voss, 2012, 148). On reflection, an initial assessment of the archive using MAP2 criteria would have revealed areas of significance and limitation within the archive, thus informing more developed thesis objectives at an earlier stage; this could assist future research projects that utilise garden archaeology archives.

10.3. Pre-garden stratigraphy revealed during the parterre excavation

This thesis, following the Collaborative Doctoral Award proposal, originally sought to develop academic and curatorial understandings of the former buildings at Audley End that were revealed during the parterre excavation. Archival research showed that some interpretation of the architectural evidence had already been made by the Chelmsford Archaeological Trust, which built on previous research to develop potential blueprints for Walden Abbey, Audley Inn, and the demolished wing of the 17th-century house (Cunningham, 1987a; 1987b; Harris and Cunningham, c.1987; Harris, 1997). In Chapters 4-7, the thesis collated, evaluated, and contextualised this interpretation alongside new research paradigms, providing some new insights into the diachronic development, use, and materiality of these earlier phases, thus enhancing established site narratives. However, this element of the thesis was more constrained by excavation methodology and archival omissions than was expected at the outset of the project. This thesis thus moved towards a more critical evaluation of the strengths and weaknesses of using garden archaeology for research beyond the singular garden phase,

comparing the 1985-1987 excavation results to the site reports and publications of other garden restoration-led excavations.

The post-excavation interpretation found within the archive focused on the medieval Walden Abbey, both because the parterre excavation provided thus-far unprecedented access to these remains, and as this was a specialism of the excavation directors. This interpretation, notably the drafted final report (Harris, 1997), combined a 2D plan of the foundations uncovered during the excavation, historic parallels, and stonework analysis to suggest the design and possible function of each building. It presented compelling evidence that the abbey was situated around a central cloister with a church to the north and eastern claustral range, thus that the abbey followed a conventional Benedictine layout despite being placed upon sloping land. It also showed that the monastery was expanded across several periods, which can be connected to the influence of land ownership and local benefactors, especially the de Bohun dynasty who owned the manor during the 14th century (Drury, 1982b, 97). In Chapter 4.5, this thesis has suggested additional liturgical motivations for monastic expansion and made some critiques of the proposed layout, especially the hypothesised blueprint for the chapter house. It also presented a more developed interpretation for inhumations found during the excavation, suggesting that they originate from a pre-13th century cemetery used to bury the monastic community and thus correlated with the misalignment of the church's chancel.

This thesis also discussed evidence revealed during the parterre excavation for the 16th-century house, Audley Inn, and elements of the 17th-century Audley End House. Audley Inn was suggested to be a single-courtyard house with a partially covered inner walkway and internal room divisions, which concurred with a c.1600 depiction of the house and estate, representing an architectural style common to the post-Dissolution conversion of monastic foundations. The post-excavation interpretation also noted that parts of the east range of the Jacobean inner court and annexes were located during the excavation, confirming the accuracy of Winstanley's surveys and thus emphasising the scale of the original house. In Chapters 5.5 and 6.5, this thesis enhanced the excavation results by providing further historical context, helping to confirm the architectural hypotheses that were presented by the Chelmsford Archaeological Trust. However, this perspective was limited by the complexities of the archaeological record; the thesis also demonstrates the difficulty in using small, partially excavated archaeological interventions within historic gardens to develop potential blueprints for the demolished building remains that pre-dated them.

More compellingly, this thesis emphasised that the parterre excavation enabled new insight into how the buildings were constructed. Walden Abbey was completely transformed after the Dissolution; the cloister, southern nave, and south transept of the church were altered to form the courtyard house, whilst the eastern range and other parts of the church were demolished. The Tudor walls were shown to have been created with similar materials to the monastery, perhaps allowing their foundations to blend with the new building. This has been contextualised through the biography of Thomas Audley, who legislated much of the Dissolution; the excavation demonstrated that, unlike at other properties owned by political figures that were completely remodelled (Willmott, 2020, 127-129), the adoption and conversion of Walden Abbey was fundamentally practical. The excavation also revealed how the Tudor Audley Inn became the Jacobean Audley End House. A layer of stonework was also excavated within the inner courtyard, suggesting that the upper storeys of the 16th-century house were demolished and used as hardcore, whilst other foundations were retained and reused. The three properties thus shared some foundations, and the general layout of the medieval cloister was retained, whilst the name of Audley remained tied to the building. Through the analysis of structural evidence from the parterre excavation, it has therefore become apparent that the Jacobean Audley End House did not represent a complete rejection of its historical context. This contrasts with the established perception of country houses, which Naidoo defined as “transcendent, intact and white” (2005); instead, archaeology emphasises that country house architecture was dynamic and discursive.

This thesis has shown opportunities and challenges in approaching the archaeological record revealed by garden restoration-led projects as indicative of pre-garden activity. The Audley End parterre excavation is perhaps exceptional within garden archaeology as the Chelmsford Archaeological Trust actively engaged with earlier stratigraphy in their site interpretation, giving chronological phasing and suggested architectural plans that have informed English Heritage’s site interpretation (see Drury, 2011; 2014). However, the quality of information was limited by the excavation methodology, which prevented the recovery of pre-19th century stratigraphy. Each of these building phases was instead revealed within the bases or sides of the parterre beds, creating a complicated, keyhole-like archaeological record. This meant that it was difficult to consider concepts of construction, design, and style on a vertical plane; interpretations of building layout and sequencing remained reliant on historic maps and plans. The excavation also did not recover any occupational layers or levelling deposits from the

Jacobean bowling green, thus limiting understanding of how building use, demolition, and garden construction shaped the pre-garden stratigraphy.

As discussed in Chapter 9.7c, the 1985-1987 project was not the only restoration-led excavation where features pre-dating the garden were uncovered. This thesis suggests that garden restoration-led projects could enable some insight into the pre-garden stratigraphy of historically significant sites, the accessibility of which is otherwise limited by listing decisions, conservation frameworks, and managerial priorities (Daniel Jackson, *pers. comm*.), yet this remains little discussed within the resulting project publications. This thesis thus suggests the research potential in assessing and reinterpreting garden excavation archives to develop multi-temporal site narratives. However, gardens are inherently palimpsestic; as different designs were constructed and altered, this could have a profoundly negative effect on the survival of earlier stratigraphy. The extent to which features were found, identified, and excavated was also dependent on the project methodology; when pre-garden stratigraphy was left in in-situ, as at Audley End, it was only glimpsed when intercut by later garden features, whilst other projects only recovered pre-garden features within small evaluative trenches. This 'keyhole' access into stratigraphy inevitably limits the holistic interpretation of the chronology of country houses and their gardens; the reassessment of garden restoration archives needs to be framed accordingly.

10.4. Socio-economic narratives within garden bed assemblages

This thesis focused on four types of material culture, ceramics, vessel glass, clay pipes, and registered metal finds, that were recovered during the parterre excavation. The archival analysis presented in Chapter 3.3c demonstrated that little finds analysis had occurred during the project, presenting an opportunity for original research. This proved to be common within restoration-led garden archaeology of the later-20th century, as post-excavation processes were divided from on-site processes and thus underfunded in commercial contexts (Courtney, 1999, 5), whilst artefacts were sometimes dismissed as 'residual' when found in horticultural deposits (e.g., Dix *et al*., 1995, 357). Indeed, it became apparent during the thesis research that the artefactual assemblage from the 1985-1987 parterre project was not prioritised for analysis as it was recovered from flowerbeds, other garden features, and topsoil contexts, rather than 'in-situ' occupation or refuse deposits. As such, this thesis has adopted a methodological significance by exploring to what extent the assessment of assemblages recovered from

horticultural deposits could enhance established site narratives. It applied the framework of object biography, considering the procurement and use of material culture across temporospatial scales, whilst also approaching a more nuanced interpretation of object deposition within formal gardens.

The artefactual analysis began with the quantification and dating of each object type, showing that a small number of objects dated to between the 12th and 17th centuries. This pre-garden assemblage was discussed alongside the different structural iterations of Audley End in Chapters 4-6, considering whether the analysis of domestic material culture from each period reflected, or enhanced, their biography. Analysis of the pottery showed a mixture of locally, nationally, and internationally produced vessels; all of the pottery fabrics identified within the assemblage had been found at contemporary sites elsewhere in Essex (Cotter, 2000), implying that the occupants of Audley End used similar procurement strategies to others within the local area. Individual objects were also noted during the thesis, including a medieval book clasp, which reflected the use of books and their furniture within monastic foundations, and 17th-century wine bottles, which were contextualised through a consideration of social drinking practices at the Jacobean Audley End.

However, this thesis demonstrated that the small pre-18th century assemblage did not correlate with the known history of Audley End. Some potential parallels were suggested between particular material absences and what object types were being circulated. In the Tudor and Jacobean periods, for instance, materials such as metal and wood were used to accommodate a large proportion of domestic functions; the house also underwent periods of economic decline and was partially occupied, perhaps resulting in a lower rate of consumption of material culture. However, the assemblage composition better reflected the sampling of the archaeological record during garden excavation. The consumption and deposition of goods were more likely to occur outside of the area upon which the parterre was built; monastic orders used ceramics in contexts outside of the religious buildings, whilst large quantities of rubbish were not deposited within the 17th-century bowling green. The excavation also did not recover any pre-garden deposits, so pre-garden material culture was only found if it had been redeposited into horticultural contexts. This thesis thus demonstrates the limited research potential in the analysis of pre-garden objects from garden restoration projects.

The majority of the analysed material culture dated from the 18th to early-20th centuries, contemporary with the construction, use, and decline of the parterre garden. As outlined in Chapter 7, most related to the procurement, management, preparation, and consumption of food and drink, as well as other household functions, including cleaning and smoking. The thesis successfully reconstructed elements of the assemblage's biography using the framework of *chaîne opératoire*, the sequence of obtaining, using, and discarding material culture, thus exploring the "commodity trajectories" (Richardson *et al*., 2017, 6) by which materials of different types were bought into and used within Audley End House. This was further contextualised through historic document surveys at Audley End and contemporary properties (Williams, 1992; Grey, 2016; Stobart and Rothery, 2016), emphasising the frequent expenditure on locally sourced objects to fulfil everyday household needs. This assemblage demonstrated that material culture was used not just by the family but by domestic and estate staff, who had some agency in the materials that they used, providing an original object-led perspective into the everyday lives of those 'below stairs'.

In Chapter 7.6c, the thesis explored the socio-cultural capital of the domestic material culture assemblage, suggesting that lower-cost objects also had a role in presenting and defining concepts of taste, fashion, and display. This provided a new perspective to country house studies, in which garden archaeology was previously absent, by demonstrating the potential socio-cultural meanings within material culture used by domestic and estate staff. The country house context integrated the kinds of objects represented within the assemblage alongside consumables, furnishings, and visual arts, in what Stobart termed the "diversity and layering of material forms" (Stobart, 2016, 7). As such, this thesis presents an interdisciplinary analysis that is uncommon within garden archaeology, drawing out the intrinsic significance of the excavated assemblage to its fullest extent. However, it primarily showed that material culture recovered within formal gardens was an inevitably limited representation of the range of goods used within the associated household. The assemblage was fragmented and unstratified, limiting chronological classification or the identification of vessel forms and functions. As such, this thesis suggests that such intensive analysis and interpretation of material culture would better serve other site types, such as domestic residences or rubbish deposits, rather than restoration-led formal garden excavations.

10.5. Exploring material culture as part of garden bed taphonomy

A more fruitful avenue for research was the interrogation of the latter stages of object biography, considering the depositional and post-depositional trajectory of domestic material culture into formal gardens. The approach taken by other restoration-led excavations was to consider assemblages as 'unstratified', thus encouraging the limited collection, quantification, and retention of artefacts. This thesis instead considers horticultural deposits within the Audley End parterre as stratified 'contexts', thus using artefactual and documentary analysis to explore the taphonomy of parterre features. This was first approached in Chapter 3.4d through the classification of material and context types, enabling the identification and discussion of horticultural deposits which had notably large assemblages, particular levels of object 'completeness' or 'fragmentation', and specific types of objects. It was then furthered in Chapter 8.6 through the spatial analysis of material culture distribution within parterre fills and the identification of soil composition within site documentation, thus suggesting potential context formation processes. The comparison to other formal gardens, 19th-century horticultural guidance (Loudon, 1826), and other forms of 'cultivation' stratigraphy, including urban gardens and plough soil, aided a more holistic interpretation of how domestic material culture fragments were integrated within horticultural contexts.

In Chapter 8.7, this thesis suggested that three concurrent trajectories could explain the presence of domestic material culture within Audley End's 1832 parterre flowerbeds. The first was the disturbance of pre-garden deposits when the parterre was created, hence the recovery of fragmented objects that predate the garden. Comparison to other garden restoration projects in Chapter 9.7d, including Hampton Court Palace and Kirby Hall, has shown the presence of residual material culture from earlier periods within other parterre bed fills (Dix and Parry, 1995; Blinkhorn, 2019). Spatial analysis of the Audley End assemblage also showed a general distribution of all material types across the parterre that proved unrelated to the structural remains below. However, no pre-garden contexts were excavated during the project, so it was impossible to explore the redistribution of pre-garden deposits and associated material culture within the garden stratigraphy; this material was interpreted "based solely on properties of the artefacts and…patterns of association" (Hazelgrove, 1985, 16), akin to plough soil assemblages. Secondly, this thesis suggests that some objects were discarded within the garden whilst it was being constructed and used. This provided a viable interpretation for clay

pipe fragments recovered within the garden that were broadly contemporary with its construction.

Thirdly, this thesis has also considered the use of domestic waste from kitchens and service areas for soil enhancement, resulting in the distribution of pottery and vessel glass fragments for soil drainage and/or incidental to composting material. This was outlined in Chapter 8.7b through the interpretation of soil composition, and the low-status types, wide temporal span, and fragmented nature of the material. Spatial analysis showed that the distribution of pottery and glass was focused to the northern end of the main parterre area, in closer proximity to the service areas and working gardens, where any composting middens were most likely placed. Later post-depositional activity was also suggested through the presence of objects post-dating the construction of the parterre within the flowerbed fills. As such, this thesis demonstrated that the country house was not 'intact' but produced large quantities of rubbish that altered the material and sensory landscape around the house. This thesis also informed symbiotic insights into horticultural practices and domestic material culture trajectories, suggesting that domestic objects were reused within Audley End's gardens. This presented an interesting contrast to the subsurface stratigraphy of other 19th-century parterres, suggesting that the deposition of objects was dependent on parterre type, planting strategy, and specific drainage or soil needs, which provides a potential avenue for further study.

Overall, this analysis showed that, with a complex sequence of depositional and post-depositional processes altering the archaeological record, garden contexts are far removed from the expectations of the 'Pompeii premise' (Schaffer, 1985). There were multiple influences on the artefactual assemblage from the Audley End parterre excavation, including finds recovery strategy, post-garden alterations, horticultural practices, and pre-garden landscape change. With so many processes dictating the archaeological record, it was thus impossible to give irrefutable conclusions about how material culture was integrated within the 1832 parterre. In Chapter 9.7d, this thesis also approached material culture excavated from other parterre gardens, yet the limited assessment and publication of assemblages, particularly omitting contextual information, prevented a cross-site comparison of horticultural practice. As such, this thesis demonstrates that domestic material culture could somewhat assist the stratigraphic interpretation of formal gardens, yet this was inevitably limited, and required the recording and assessment of artefacts beyond the practices of garden archaeologists in the later-20th century.

10.6. Recommendations for archaeological and curatorial practice

By situating formal gardens as a significant aspect of Britain's post-medieval heritage, garden archaeology emphasised their importance as assets within the historic landscape (Malek, 2013b, 61), provided new insights into landscape design and horticultural practice, and sometimes enabled the restoration of gardens which enhanced the cultural value of heritage sites. However, they sat at the interface of a dissonance between the fields of archaeology and garden restoration; as Currie stated in his critique of the Hampton Court Privy Garden project, "archaeological attitudes to restoration…are yet to be fully resolved" (Currie, 1996, 3333). Archaeology sought a multi-site chronology through the interrogation of stratigraphic relationships, yet restoration projects were focused on singular periods, sometimes leaving other deposits in-situ or removing them to access a specific garden phase. Later-20th century restorations also sat within the 'preservation by record' approach to excavation, which perhaps legitimised the comprehensive removal of post-garden deposits, yet this was contested by other archaeologists who decried the resultant loss of the archaeological record (e.g., Currie, 1992, 183; 1996; Taylor, 1996; Jacques, 1997, 8).

This thesis has explored the complex interplay of archaeological inquiry and restoration objectives through the Audley End parterre project, showing how they dictated excavation and recording strategies, thus evaluating the quality of the resulting evidence for the reinterpretation of multi-period features and assemblages. This has inspired recommendations within this section, considering both the current practice of garden archaeology and the archive-based reassessment and interpretative application of former projects. Broadly, the thesis suggests that projects should continue to apply archaeological excavation to improve the accuracy of restoration schemes, but without the wholesale destruction of subsurface stratigraphy, especially when the thorough assessment, interpretation, and publication of the lost archaeological record is not guaranteed. The research undertaken within this thesis has demonstrated that post-excavation archival assessment cannot retroactively offset the loss of archaeological deposits; at Audley End, post-1832 stratigraphy was irrevocably removed and could not be interpreted through the assessment of excavation documentation, thus reducing the value of the parterre garden as a heritage asset. As such, it emphasises the importance of good management and recording standards for archaeological projects within such culturally significant heritage sites.

As noted in Chapter 2, the increased refinement and accessibility of non-invasive survey techniques have better enabled the analysis and restoration of gardens without such an extensive physical impact on subsurface stratigraphy. This thesis has demonstrated the utility of desk-based assessment of historic documents, including plans and photographs, for researching garden design; at Audley End, the expectations of the parterre design that were informed by the Land Use Consultants historic survey were proved mostly accurate when the excavation took place. Non-intrusive survey, including geophysics and LiDAR, has proved invaluable in revealing the design of other parterre gardens (e.g., Dix, 2014a; Woudstra, Merrony, and Klemperer, 2014; Buck, 2019), so may enable additional gardens to be identified and researched. Non-invasive survey should also continue to inform the placement of trenches, thus better justifying the removal of subsurface stratigraphy. During excavation, a full stratigraphic profile should be sought to further the interpretation of pre-garden history and garden development; this would have enabled a better interpretation, for instance, of the construction of the Audley End parterre garden. There is also potential for survey and excavation beyond the formal garden; more recent work in allotments, public parks, and urban gardens (e.g., Cessford and Dickens, 2019; Connelly, Maddra, and Wilkinson, 2019) is presenting its own opportunities and challenges for 21st-century archaeologists.

This thesis research was dictated by the structure and composition of the Audley End archaeological archive, revealing opportunities and limitations that should inform the production of archives during future garden archaeology projects. It recommends the consideration of archival 'completeness', stability, and longevity before garden restoration archives are accessioned, as archival omissions presented significant challenges to the thesis research; newly produced standards for archaeological archiving (e.g., Brown, 2011) would provide a useful framework. By focusing on the material culture recovered during the excavation, it also evaluated the research potential of artefactual assemblages from garden beds. This suggested that the detailed analysis of domestic material culture types from these features had limited application to reassess object procurement or use, yet also demonstrated some significance in analysing material culture to interpret horticultural stratigraphy. In this way, the thesis shows that finds analysis could itself assist the interpretation of site narrative, thus recommending a 'reflexive' approach to artefactual assessment as part of projects (see Hodder, 1999). The thesis emphasises the need for consistent on-site recovery, recording, and post-excavation analysis; rather than discarding some material types (Currie, 2005, 90-91),

archaeologists should, at minimum, quantify and briefly describe all recovered artefacts. Such improvements would require resources to be made available for post-excavation processing and archival management (Michael Klemperer, *pers. comm.*), but would better offset the destruction to the archaeological record caused by restoration-led excavation.

Overall, this thesis shows that garden archaeology of the later-20th century provides a valuable legacy for new research, demonstrating the potential of their 'forgotten' archaeological archives held by national heritage bodies; if country houses and their gardens are "laboratories for methods of research and interpretation" (Cox, 2016), archives can act as the equipment and subject for experimentation. However, this thesis also demonstrated the complexities in approaching legacy archives from restoration-led garden excavations, thus informing recommendations for future reassessments. In particular, this thesis has demonstrated the need for the evaluation of previous project archives using MAP2-inspired assessment strategies, which would enable a more holistic reappraisal of the significance and limitations of garden restoration projects for current research paradigms. This evaluation could reveal incidental pre-garden narratives within the records of other projects that, unlike at Audley End, may be obscured within current interpretation that focuses on the singular garden phase. It could allow for the reassessment and rationalisation of artefactual assemblages, reducing the storage requirements of garden restoration archives without limiting their iterability for modern research. This evaluation would also provide a framework for new publication and site interpretation strategies, allowing the results of these projects to be shared with the wider community.

The reassessment and synthesis of legacy archives for publication could combine an assessment of horticultural practice alongside incidental pre- or post-garden discoveries, more detailed finds assessment and contextualisation, and the results of later interventions. In particular, Audley End's 1985-1987 parterre excavation had a much smaller imprint than other garden-restoration projects; rectifying this difference should be an academic and curatorial priority. More generally, it is suggested that garden archaeology should apply research and publication frameworks that consider the relationships between gardens, horticultural and domestic material culture, and their socio-cultural circumstances. Finally, this thesis suggests that garden archaeology could further enhance the public interpretation of historic gardens, as is proving successful for newer projects (Ros Buck and Rachael Hall, *pers. comm.*). At Audley End, where the pre-Jacobean history is mostly invisible, domestic material culture from the

parterre excavation could provide a more accessible insight into earlier uses of the site. It is therefore hoped that this thesis enables future archaeologists and heritage professionals to engage with the 1985-1987 archaeological archive as a tool for the research and interpretation of Audley End House and its gardens, and that it forms an exemplar for further reassessments of archives and assemblages from garden archaeology projects.

11. Bibliography

NB: Due to the Covid-19 pandemic, some resources were unavailable during this thesis project

11.1. Archival documents

11.1a. Audley End House

Anon., (1989). *Audley End: Geologists' Association Report.* Wrest Park (WP) inner store, box XDE1933.

Anon., (c.1984). *Excavations in the south and west bays of the dining parlour, Audley End House 1984.* Chelmsford: Chelmsford Archaeological Trust. WP inner store, box XDE1932.

Challis, T., (1792-1798*). Thos. Challis. His Book. 1792.* Unpublished diary transcribed by English Heritage. Audley End House collection.

Chelmsford Archaeological Trust (CAT), (1985-1987). *Context Record Sheets*. WP inner store, boxes XDE1101, XDE1102, and XDE1103.

Chelmsford Archaeological Trust (CAT), (1985-1987). *Excavation photographs*. WP inner store, box XDE1111.

Chelmsford Archaeological Trust (CAT), (1985-1987). *Section Drawings*. WP inner store, boxes XD1105, XDE1108, XDE1110, and shelves AD;1;5, AD;2;1, AD;2;3, and AD;2;4.

Cunningham, C., (1984). Ceramics, In: P. J. Drury, ed. *Level III Report: Excavations in the East End of the South Wing of Audley End House, 1979*. Chelmsford: Chelmsford Archaeological Trust. pp. 69-70. WP inner store, box XDE1933.

Cunningham, C.M., (1987a). *Excavations in Audley End Gardens 1986/87 Interim Report.* Chelmsford; Chelmsford Archaeological Trust. WP inner store, box XDE1933.

Cunningham, C.M., (1987b). *Audley End: Excavations in the Courtyard 1987 Interim Report.* Chelmsford: Chelmsford Archaeological Trust. WP inner store, box XDE1933.

Cunningham, C.M., (c.1985). *Excavations around the north and south porches, AE JF, AE JG.* Chelmsford: Chelmsford Archaeological Trust. WP inner store, box XDE1933.

Drury, P.J., (1982a). *Level III Report: Trial Excavations to the West of the Kitchen court*. Chelmsford: Chelmsford Archaeological Trust. WP inner store, box XDE1932.

Drury, P.J., (1984a). *Level III Report: Excavations in the East End of the South Wing of Audley End House, 1979*. Chelmsford: Chelmsford Archaeological Trust. WP inner store, box XDE1933.

Hann, A., (2007). *The Service Wing at Audley End House: Properties Historians' Research Report.* Unpublished digital report held by English Heritage.

Harris, A.P., (1997). *Walden Abbey and the Development of Audley End House: Excavations 1985-1987*. Chelmsford: Chelmsford Archaeological Trust. WP inner store, box XDE1111.

Harris, A.P., and Cunningham, C.M., (c.1987). *Excavations at Audley End, 1985-87*. Chelmsford: Chelmsford Archaeological Trust. WP inner store, box XDE1933.

Hayfield, C., (1997). *Audley End Gardens: Excavations 1985-1987. A post-excavation assessment.* Swindon: English Heritage. WP inner store, box XDE1111.

Land Use Consultants (LUC), (1988). *The Restoration of the Flower Garden at Audley End.* London: Historic Buildings and Monuments Commission. Unpublished report, digital copy held by English Heritage.

Land Use Consultants (LUC), (1992). *Audley End Flower Garden: Parterre 'Cloud' Beds*. London: English Heritage. Unpublished report, digital copy held by English Heritage.

Land Use Consultants (LUC), (c.1991-1995). *Copy of an annotated labelled topographic survey plan of the Formal Garden at Audley End, showing the Parterre flower borders*. Digital copy of unpublished measured drawing held by Historic England Archive. [Accessed 1 November 2021]. Available from: https://historicengland.org.uk/images-books/photos/item/MP/AEH1141

Moring, B., (2007). *Audley End House: Social History and Domestic Servants. A Preliminary Archive Report.* Unpublished digital report held by English Heritage.

Neville, J., (1827-1832). *Audley End House Accounts January 1827.* Essex Record Office, archival reference D/DBy A361.

Sutherill, M., (c.1986). *Lion Gate, Audley End*. London: English Heritage. WP inner store, box XDE1933.

11.1b. Kirby Hall

Anon., (c.1988). *Kirby Hall: The Finds (Level IV).* Northampton: Northamptonshire County Council. WP inner store, box XDE1077.

Blinkhorn, P., (2019). *Pottery from Kirby Hall, Northants*. London: English Heritage. Unpublished digital report held by English Heritage.

Crangle, J., (2019). *Kirby Hall Osteological Analysis: The Disarticulated Skeletal Remains*. London: English Heritage. Unpublished digital report held by English Heritage.

Crump, T.J., (1986). *Kirby Hall: Summary of Archaeological Excavations of the western garden terrace in 1985.* Northampton: Northamptonshire County Council. WP inner store, box XDE1266.

Dix, B., (1988). *Archaeological investigation at Kirby Hall, Gretton, Northants., 1987-8.* Northampton: Northamptonshire County Council. WP inner store, box XDE1266.

Dix, B., (1992). *Kirby Hall: Proposals for post-excavation (i) assessment.* Northampton: Northamptonshire County Council. WP inner store, box XDE1266.

Dix, B., (2008). *The Reconstruction of the Great Garden at Kirby Hall, Northamptonshire*. WP inner store, box XDE1958.

Hill, N., (2003). *Kirby Hall: The Great Garden Project Definition*. Swindon: English Heritage. WP inner store, box XDE1958.

Jones, S., (1991). *Techniques in Garden Archaeology: with close reference to investigations at Kirby Hall and other garden sites in North East Northants.* WP inner store, box XDE1266.

NCCAU, (1987-1988). *Excavation photographs*. WP inner store, box XDE1345.

Thurley, S., in progress. *Kirby Hall*. London: English Heritage. Unpublished guidebook.

11.1c. Other sites

Cox, C., and Jarvis, A., (2018). *Lyveden. 498200, 285400. Heritage Assessment of Aerial Imagery. Report APS 216 11 01/2.* Swindon: Air Photo Services. Unpublished report, digital copy held by National Trust.

Dix, B., and Prentice, J., (2004). *Archaeological evaluation in The Elizabethan Garden, Kenilworth Castle, Warwickshire*. Northampton: Northamptonshire Archaeology. Unpublished report, digital copy held by English Heritage.

Prentice, J., and Soden, I., (2017). *Archaeological investigation of the putative lower garden terraces at Lyveden, Northamptonshire 2017*. Long Buckby: Iain Soden Heritage Services. Unpublished report, digital copy held by National Trust.

11.2. Conference papers and podcasts

Booth, C., (2019). An Archaeological Assessment of the Post-Medieval Apothecary. Presented at: *Post Medieval Archaeology Congress.* University of Glasgow, 23 March 2019.

Bromage, S., (2019). Conversion and Continuation: Examining the religious re-use of former monastic churches in sixteenth-century Lincolnshire. Presented at: *Post Medieval Archaeology Congress.* University of Glasgow, 24 March 2019.

Cox, O., (2018). Country House Communities Past, Present and Future. Presented at: *Powering the Power House: New Perspectives on Country House Communities*. University of Sheffield, 25 June 2018.

Eales, S., (2017). Just like family? Blurred boundaries in British contemporary domestic service. Presented at: *WRoCAH Conference.* University of York, 19 October 2017.

English Heritage, (2020). Episode 45 - Unearthing Wrest Park's Mithraic Glade and Root House [Podcast]. *English Heritage Podcast*, 6 February 2020. [Accessed 29 December 2021]. Available from: https://soundcloud.com/englishheritage/episode-45-unearthing-wrest-parks-mithraic-glade-and-root-house

Larsen, R., (2018). Re-empowering the Country House Family? Domestic Life in the Country House Guidebook 1945-2010. Presented at: *Powering the Power House: New Perspectives on Country House Communities*. University of Sheffield, 25 June 2018.

Lennon, R., and Sandell, R., (2018). Challenging Histories at the National Trust. Presented at: *Powering the Power House: New Perspectives on Country House Communities*. University of Sheffield, 25 June 2018.

11.3. Primary published sources (pre-1900)

Bray, W. ed., (1901). *The Diary of John Evelyn* [online]. Volume 1. New York and London: M. Walter Dunne. [Accessed 25 February 2021]. Reproduction of copy in University of California libraries. Available from: https://archive.org/details/diaryofjohnevely01eveliala/

Dezallier d'Argenville, A., (1728). *Theory and Practice of Gardening.* Translated by J. James, second edition (authorship misattributed to J. Le Blonde). London: Bernard Lintot. [Accessed 12 October 2021]. Reproduction of copy in the University of California Library. Available from: https://hdl.handle.net/2027/ucbk.ark:/28722/h2d755

Gilpin, W.S., (1832). *Practical hints upon landscape gardening: with some remarks on domestic architecture as connected with scenery.* Reproduction of copy in the Smithsonian Libraries. [Accessed 10 March 2021]. Available from: https://archive.org/details/Practicalhintsu00Gilp

Gotch, J.A., (1892). Audley End. *Archaeological Journal* [online]. **49**, pp. 293–300. [Accessed 10 March 2021]. Available from: https://doi.org/10.1080/00665983.1892.10852527

Griffin, R., (1836). *The history of Audley End. To which are appended notices of the town and parish of Saffron Walden in the county of Essex*. London: S. Bentley. Reproduction of copy in the Getty Research Institute library. [Accessed 25 February 2021]. Available from: https://archive.org/details/historyofaudleye00bray

Kelleher, S., ed. (2006). *Diary of a Victorian Gardener: William Cresswell and Audley End.* Original diary by William Cresswell (1874). Swindon: English Heritage.

Loudon, J.C., (1826). *An Encyclopædia of Gardening*. Fourth edition. London: Longman, Rees, Orme, Brown, and Green. Reproduction of copy in the Library of Congress. [Accessed 27 April 2021]. Available from: https://archive.org/details/encyclopdiaofgar00loud/

Loudon, J.C., (1829). Art. V. The Improvements at Windsor Castle. *Gardener's Magazine*. **5**, pp. 604-607. [Accessed 12 October 2021]. Reproduction of copy in the UMass Amherst Libraries. Available from: https://www.biodiversitylibrary.org/page/20601917

Loudon, J.C., (1832). Gilpin, S., Esq.: Practical Hints on Landscape-Gardening. 8vo. London, 1832. *Gardener's Magazine*. **8**, pp. 700-702. [Accessed 12 October 2021]. Reproduction of copy

in the UMass Amherst Libraries. Available from: https://www.biodiversitylibrary.org/page/20555971

Loudon, J.C., (1837a). Art. V. The parterre; or, whole Art of forming Flower-Gardens. By C.F. Ferris, Esq. *Gardener's Magazine*. **13**, pp. 600-602. [Accessed 12 October 2021]. Reproduction of copy in the UMass Amherst Libraries. Available from: https://www.biodiversitylibrary.org/page/20554503

Loudon, J.C., (1837b). Art. VI. The Flower-Garden: including Directions for the Arrangement and Cultivation of all Garden Flowers; the Management of the Green-house, Hot-house, and Stove; with selected Lists of the most beautiful annual, biennial, perennial, and exotic Flowering plants. Parts I. to VI. *Gardener's Magazine*. **13**, pp. 602-606. [Accessed 12 October 2021]. Reproduction of copy in the UMass Amherst Libraries. Available from: https://www.biodiversitylibrary.org/page/20554503

Major, J., (1852). *The Theory and Practice of Landscape Gardening*. London: Longman, Brown, Green, and Longmans. [Accessed 12 October 2021]. Reproduction of copy in the University of Michigan Library. Available from: https://www.google.co.uk/books/edition/The_Theory_and_Practice_of_Landscape_Gar/qyHmAAAAMAAJ?hl=en&gbpv=0&kptab=overview

Morant, P., (1768). *The history and antiquities of the county of Essex*. Volume II. London: T. Osborne. Reproduction of copy in the Wellcome Library. [Accessed 10 March 2021]. Available from: https://archive.org/details/b30455583

Morris, W., Webb, P., *et al*., (1877). The Manifesto [online]. *Society for the Protection of Buildings.* [Accessed 25 February 2021]. Available from: https://www.spab.org.uk/about-us/spab-manifesto

Nichols, J., (1823). *The progresses and public processions of Queen Elizabeth*. Volume II. London: John Nichols and Son. Reproduction of copy in the Boston Public Library. [Accessed 25 February 2021]. Available from: https://archive.org/details/progressespublic02nich

Nuttall, P.A., ed., (1840) *The History of the Worthies of England by Thomas Fuller*. London: Thomas Tegg. Reproduction of copy in the Oxford University collections. [Accessed 27 April 2021]. Available from: https://archive.org/details/historyworthies06fullgoog/

Round, J.H., (1892). *Geoffrey de Mandeville: a study of the anarchy.* London: Longmans, Green, & Co. Reproduction of copy in the University of Toronto collections. [Accessed 27 April 2021]. Available from: https://archive.org/details/geoffreydemande00rounuoft

Watkiss, L., and Greenway, D. eds., (1999). *The book of the foundation of Walden Monastery*. Oxford: Oxford University Press.

Wheatley, H.B. ed., (1893). *The Diary of Samuel Pepys.* Volume 1. New York: Random House. [Accessed 25 February 2021]. Available from: https://archive.org/details/in.ernet.dli.2015.65709/

Wright, T. ed., (1843). *Three Chapters of Letters Relating to the Suppression of Monasteries*. Volume 26. Cambridge: Cambridge University Press.

11.4. Secondary published sources (1900-present)

Adams, R., (2013). The V&A, The Destruction of the Country House and the Creation of 'English Heritage'. *Museum & Society* [online]. **11**(1), pp. 1–18. [Accessed 25 February 2021]. Available from: https://www108.lamp.le.ac.uk/ojs1/index.php/mas/article/view/219

Addison, W.W., (1953). *Audley End*. London: J.M. Dent & Sons.

Ainsworth, A., (2007). *East Parterre Gardens Investigation, Witley Court, Interim Report.* Oxford: Oxford Archaeology. [Accessed 15 November 2021]. Available from: https://doi.org/10.5284/1030737

Ainsworth, A., (2007). *East Parterre Gardens Investigation, Witley Court, Interim Report. Oxford: Oxford Archaeology.* [Accessed 15 November 2021]. Available from: https://doi.org/10.5284/1030737

Airs, M., (1995). *The Tudor & Jacobean country house: a building history*. Stroud: Sutton.

Alexander, M. ed., (2013). *Wrest Park, Silsoe, Bedfordshire: Archaeological Landscape Investigations*. Research Report Series 6-2013. Fort Cumberland: Historic England. [Accessed 29 December 2021]. Available from: https://historicengland.org.uk/research/results/reports/6-2013

Alexander, M. ed., (2015). *Audley End, Essex: Historic Landscape Investigations*. Investigation and Analysis Research Report No. 46. Fort Cumberland: Historic England.

Allen, L., and Munby, J., (2004) Glass. In: T. Davies and S. Weaver, eds. *Parterre Gardens, Witley Court, Great Witley, Worcestershire. Volume II: Technical Report. Appendix 5: Post-excavation Assessment.* Oxford: Oxford Archaeology. pp. 4-6.

Altoft, D., (2012). Gawthorpe Manor: A Modern Estate in the Making. *The Posthole* [online]*.* **21,** pp. 32-35. [Accessed 25 February 2021]. Available from: https://www.theposthole.org/read/article/147

Anderson, L., and Cooper-Reade, H., (2007). *Audley End House, Saffron Walden, Essex: Archaeological Investigation Flood Alleviation Scheme*. Bedford: Albion Archaeology. [Accessed 29 December 2021]. Available from: https://doi.org/10.5284/1019872

Andrews, G., and Thomas, R., (1995). The management of archaeological projects: theory and practice in the UK. In: M.A. Cooper, A. Firth, J. Carman, and D. Wheatley, eds. *Managing Archaeology.* London: Routledge. pp. 189-207.

Andrews, G., Barrett, J.C., and Lewis, J.S., (2000). Interpretation not record: the practice of archaeology. *Antiquity* [online]. **74**(285), pp. 525-530. [Accessed 16 September 2021]. Available from: https://doi.org/10.1017/S0003598X00059871

Anon., (1994). The Archaeology of Hampton Court. *Current Archaeology* [online]. [Accessed 25 February 2021]. Available from: https://www.archaeology.co.uk/articles/features/the-archaeology-of-hampton-court.htm

Antonetti, N., (2012). William Andrews Nesfield and the origins of the landscape architect. *Landscape History* [online]. **33**(1), pp. 69-86. [Accessed 12 October 2021]. Available from: doi.org/10.1080/01433768.2012.671037

Appadurai, A., (1986). Introduction: commodities and the politics of value. In: A. Appadurai, ed. *The Social Life of Things: Commodities in Cultural Perspective*. Cambridge: Cambridge University Press. pp. 3–63.

Askew, R.M.C., (2013). *'The house of every one': the consumption of material culture in castles during the English Civil War.* Ph.D. thesis, University of Sheffield. [Accessed 25 February 2021]. Available from http://etheses.whiterose.ac.uk/4748/

Aston, M., (1973). English Ruins and English History: The Dissolution and the Sense of the Past. *Journal of the Warburg and Courtauld Institutes*. **36**, pp. 231–255.

Aston, M., (2001). The Expansion of the Monastic and Religious Orders in Europe from the Eleventh Century. In: M. Aston, T.A. Hall, and G.D. Keevill, eds. *Monastic Archaeology: Papers on the Study of Medieval Monasteries*. Oxford: Oxbow. pp. 9–36.

Aston, M., and Gerrard, C., (1999). 'Unique, Traditional and Charming'. The Shapwick Project, Somerset. *The Antiquaries Journal*. **79**, pp. 1-58.

Atkinson, D. and Oswald, A., (1969). London clay tobacco pipes. *Journal of the British Archaeological Association*. **32**, pp. 171–227.

Audouze, F., (2002). Leroi-Gourhan, a Philosopher of Technique and Evolution. *Journal of Archaeological Research.* **10**, pp. 277–306. [Accessed 25 February 2021]. Available from https://doi.org/10.1023/A:1020599009172.

Ayto, E.G., (1994). *Clay Tobacco Pipes.* Third edition. London: Shire Publications.

Baart, J.M., (1994). Dutch redwares. *Medieval Ceramics.* **18**, pp. 19-28.

Baena, R. and Byker, C., (2015). Dialects of nostalgia: Downton Abbey and English identity. *National Identities* [online]. **17**, pp. 259–269. [Accessed 25 February 2021]. Available from: https://doi.org/10.1080/14608944.2014.942262

Baker, D., (1969). Excavations at Elstow Abbey 1966-68. *Bedfordshire Archaeological Journal*. **4**, pp. 31–35.

Banks, F., (1997). *Wine drinking in Oxford 1640-1850: a story revealed by tavern, inn, college and other bottles: with a catalogue of bottles and seals from the collection in the Ashmolean Museum*. Oxford: Archaeopress.

Barker, D., (1993). *Slipware*. Princes Risborough: Shire Publications.

Barker, D., (1999). The Ceramic Revolution 1650-1850. In: G. Egan and R.L. Michael, eds. *Old and New Worlds: Historical/Post-Medieval Archaeology Papers from the Societies' Joint Conferences at Williamsburg and London 1997 to Mark Thirty Years of Work and Achievement*. Oxford: Oxbow Books. pp. 226–234.

Basford, J.L., (2012). *"A commodity of good names": the branding of products, c.1650-1900.* Ph.D. thesis, University of York. [Accessed 25 February 2021]. Available from: http://etheses.whiterose.ac.uk/2754/

Baskerville, G., (1937). *English Monks and the Suppression of the Monasteries.* London: Jonathan Cape.

Bassett, S.R. ed., (1982). *Saffron Walden: excavations and research, 1972-80*. Chelmsford: Council for British Archaeology.

Batey, M., (1994). Two Romantic Picturesque Flower Gardens. *Garden History* [online]. **22**, pp. 197–205. [Accessed 25 February 2021]. Available from: https://doi.org/10.2307/1587027

Batey, M., (1995). The History of the Privy Garden. In: M. Batey and J. Woudstra, eds. *The Story of the Privy Garden at Hampton Court.* London: Barn Elms. pp. 5-21.

Beaudry, M.C. and Mehler, N., (2016). The material culture of the modern world. *Post-Medieval Archaeology* [online]. **50**(1), pp. 108-120. [Accessed 25 February 2021]. Available from: https://doi-org.sheffield.idm.oclc.org/10.1080/00794236.2016.1169811

Bell, R.D., (1990). The Discovery of a Buried Georgian Garden in Bath. *Garden History* [online]. **18**(1), pp. 1-21. [Accessed 16 September 2021]. Available from: doi.org/10.2307/1586977

Bell, R.D., (1993). Archaeology and the Rococo Garden: The Restoration at Painswick House, Gloucestershire. *Garden History* [online]. **21**, pp. 24–45. [Accessed 25 February 2021]. Available from: https://doi.org/10.2307/1587052

Bevan, A.H., (2012). Spatial methods for analysing large-scale artefact inventories. *Antiquity* [online]. **86**(332), pp. 492–506. [Accessed 25 February 2021]. Available from: https://doi.org/10.1017/S0003598X0006289X

Biddle, M., (2005). *Nonsuch Palace: the material culture of a noble Restoration household*. Oxford: Oxbow Books.

Biddle, M., (2013). Oenology and the English: glass wine bottles 1650-1700. In: E.C. Klingelhöfer, ed. *A Glorious Empire: Archaeology and the Tudor-Stuart Atlantic World: Essays in Honor of Ivor Noël Hume*. Oxford: Oxbow Books. pp. 119–151.

Bilston, S., (2008). Queens of the garden: Victorian women gardeners and the rise of the gardening advice text. *Victorian Literature and Culture* [online]. **36**(1), pp. 1-19. [Accessed 30 March 2021]. Available from: https://www.jstor.org/stable/40347590

Bines, J., (2008). *The Polish country section of the Special Operations Executive 1940-1946: a British perspective.* Ph.D. thesis, University of Stirling. [Accessed 25 February 2021]. Available from: https://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.513758

Binford, L.R., (1981). Behavioral Archaeology and the "Pompeii Premise". *Journal of Anthropological Research* [online]. **37**(3), pp. 195–208. [Accessed 25 February 2021]. Available from: https://www.jstor.org/stable/3629723

Boase, G.C. and Smail, R., (2008). Neville, Richard Cornwallis, fourth Baron Braybrooke (1820–1861), archaeologist. *Oxford Dictionary of National Biography* [online]. [Accessed 25 February 2021]. Available from: https://doi.org/10.1093/ref:odnb/19958

Boggis, T., (2015). Re-creating childhood: the nursery at Audley End, Essex, a property of English Heritage. *Country Life.* **209**, pp. 60–64.

Bond, J., (2001a). Monastic Water Management in Great Britain. In: T. Hall, M. Aston, and G. Keevill, eds. *Monastic Archaeology* [online]. Oxford: Oxbow Books. pp. 88–136. [Accessed 25 February 2021]. Available from: https://ebookcentral.proquest.com/lib/sheffield/detail.action?docID=4831237

Bond, J., (2001b). Production and consumption of food and drink in the medieval monastery. In: T. Hall, M. Aston, and G. Keevill, eds. *Monastic Archaeology* [online]. Oxford: Oxbow Books. pp. 54–87. [Accessed 25 February 2021]. Available from: https://ebookcentral.proquest.com/lib/sheffield/detail.action?docID=4831237

Bond, J., (2018). The Medieval Monastery and Its Landscape. In: C.M. Gerrard and A. Gutiérrez, eds. *The Oxford Handbook of Later Medieval Archaeology in Britain* [online]. Oxford: Oxford University Press. pp. 565–580. [Accessed 25 February 2021]. Available from: https://doi.org/10.1093/oxfordhb/9780198744719.001.0001

Bourdieu, P., (2010). *The logic of practice.* Second edition, translated by Richard Nice. Cambridge: Polity.

Breeden, F., (2018). *Communal solitude: the archaeology of the Carthusian houses of Great Britain and Ireland, 1178-1569*. Ph.D. thesis, University of Sheffield. [Accessed 25 February 2021]. Available from: http://etheses.whiterose.ac.uk/21565/

Brooks, H., (2002). *An archaeological fieldwalking evaluation at Fordham Hall Farm, Fordham, Essex, December 2002*. CAT Report 218. Colchester: Colchester Archaeological Trust. [Accessed 15 November 2021]. Available from: http://pixel.essex.ac.uk/cat/reports/CAT-report-0218.pdf

Brown III, M.R. and Chappell, E.A., (1997). Archaeology and garden restoration at Colonial Williamsburg. *The Journal of Garden History* [online]. **17**(1), pp. 70–77. [Accessed 17 March 2021]. Available from: https://doi.org/10.1080/01445170.1997.10412537

Brown, A.E., (1991). Editorial note. In: A.E. Brown, ed. *Garden Archaeology.* CBA Research Report No. 78. London: Council for British Archaeology. p. ix.

Brown, D., and Williamson, T., (2016). *Lancelot Brown and the Capability Men: Landscape Revolution in Eighteenth-Century England* [online]. London: Reaktion Books. [Accessed 25 February 2021]. Available from: https://ebookcentral.proquest.com/lib/sheffield/detail.action?docID=4571558

Brown, D.H., (1999). Class and rubbish. In: P.P.A. Funari, M. Hall and S. Jones, eds. *Historical Archaeology: Back from the Edge*. London: Taylor & Francis. pp. 151–163.

Brown, D.H., (2004). Pottery. In: T. Davies and S. Weaver, eds. *Parterre Gardens, Witley Court, Great Witley, Worcestershire. Volume II: Technical Report. Appendix 5: Post-excavation Assessment.* Oxford: Oxford Archaeology. pp. 1-3.

Brown, D.H., (2011). *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation*. London: Archaeological Archives Forum, IfA. [Accessed 16 September

2021]. Available from: https://archives.archaeologyuk.org/aaf_archaeological_archives_2011.pdf

Brown, F. and Howard-Davis, C., (2008). *Norton Priory: monastery to museum: excavations 1970-87*. Lancaster: Oxford Archaeology North.

Brown, J.W., Jennings, C., Kelleher, S., and Rabôt, S.P., (2006). Commentary. In: S. Kelleher, ed. *Diary of a Victorian Gardener: William Cresswell and Audley End.* Swindon: English Heritage. pp. 111-139.

Buck, R., (2019). Calke Abbey's lost garden rediscovered [online]. *National Trust.* [Accessed 12 January 2022]. Available from: https://www.nationaltrust.org.uk/features/calke-abbeys-lost-garden-rediscovered

Burrison, J.A., (1997). The living tradition of English country pottery. *Folk Life* [online]. **36**(1), pp. 25-39. [Accessed 24 March 2021]. Available from: https://doi.org/10.1179/043087797798238198

Burström, N.M., (2014). Things in the Eye of the Beholder: A Humanistic Perspective on Archaeological Object Biographies. *Norwegian Archaeological Review* [online]. **47**, pp. 65–82. [Accessed 25 February 2021] Available from: https://doi-org.sheffield.idm.oclc.org/10.1080/00293652.2014.909877

Burton, J.E., (1994). *Monastic and religious orders in Britain 1000-1300*. Cambridge: Cambridge University Press.

Busch, J., (1987). Second time around: A look at bottle reuse. *Historical Archaeology* [online]. **21**, pp. 67–80. [Accessed 27 April 2021]. Available from: https://doi.org/10.1007/BF03374080

Cady, M., (2013). *The Conservation of country house ruins*. Ph.D. thesis, University of Leicester. [Accessed 25 February 2021]. Available from: https://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.593776

Caldwell, D.H., and Dean, V.E., (1992). The pottery industry at Throsk, Stirlingshire, in the 17th and early 18th century. *Post-Medieval Archaeology* [online]. **26**(1), pp. 1–46. [Accessed 15 November 2021]. Available from: doi.org/10.1179/pma.1992.002

Carmichael, K., (2015). An Overview of the Buildings of the Audley End Estate. In: M. Alexander, ed. *Audley End, Essex: Historic Landscape Investigations*. Swindon: Historic England. pp. 101–103.

Carver, M., (1996). On archaeological value. *Antiquity* [online]. **70**(267), pp. 45–56. [Accessed 16 September 2021]. Available from: doi.org/10.1017/S0003598X00082879.

Cassels, A.K., (2013). *The social significance of late medieval dress accessories.* Ph.D. thesis, University of Sheffield. [Accessed 25 February 2021]. Available from: http://etheses.whiterose.ac.uk/6390/

Castle Bromwich Historic Gardens, (c.2021a). *Corporate information*. [Accessed 30 November 2021]. Available from: https://www.castlebromwichhallgardens.org.uk/corporate-information/

Castle Bromwich Historic Gardens, (c.2021b). *History.* [Accessed 30 November 2021]. Available from: https://www.castlebromwichhallgardens.org.uk/history/

Cessford, C., (2001). The archaeology of the clay pipe and the study of smoking. *Assemblage* [online]. **6**, pp. 84–112. [Accessed 25 February 2021]. Available from: https://archaeologydataservice.ac.uk/archives/view/assemblage/html/6/Cessford_text_web.html

Cessford, C., (2014). The archaeology of garden-related material culture: a case study from Grand Arcade, Cambridge, 1760-1940. *Garden History* [online]. **42**, pp. 257–265. [Accessed 25 February 2021]. Available from: https://www.jstor.org/stable/24636214

Cessford, C., and Dickens, A., (2019). *Medieval to Modern Suburban Culture and Sequence at Grand Arcade, Cambridge. Archaeological Investigations of an Eleventh to Twentieth-Century Suburb and Town Ditch*. Cambridge: McDonald Institute for Archaeological Research.

Cestren, T. and Tait, J., (1917). The Declaration of Sports for Lancashire (1617). *The English Historical Review* [online]. **32**(128), pp. 561–568. [Accessed 4 March 2021]. Available from: https://www.jstor.org/stable/550860

Chadwick, A., (2003). Post-processualism, professionalization and archaeological methodologies: towards reflective and radical practice. *Archaeological Dialogues* [online].

10(1), pp. 97-117. [Accessed 16 September 2021]. Available from: doi:10.1017/S1380203803001107

Chavasse, H., (2015). *Material culture and the country house: fashion, comfort and lineage.* Ph.D. thesis, University of Northampton.

Chavasse, H., (2016). Fashion and "affectionate recollection": material culture at Audley End, 1762-1773. In: J. Stobart and A. Hann, eds. *The Country House: Material Culture and Consumption*. Swindon: Historic England. pp. 63–73.

Chelmsford Archaeological Trust, (1981). Memorandum and Articles of Association incorporated 23 September 1981. *Charities Commission* [online]. [Accessed 25 April 2021]. Available from: https://register-of-charities.charitycommission.gov.uk/charity-search/-/charity-details/283538/governing-document

Cherry, J., (1978). Post-medieval Britain in 1977. *Post-Medieval Archaeology* [online]. **12**(1), pp. 109–121. [Accessed 4 March 2021]. Available from: https://doi.org/10.1179/pma.1978.005

Chessum, S., (2016). Clandon Park's Marble Hall ceiling [online]. *National Trust*. [Accessed 4 March 2021]. Available from: https://www.nationaltrust.org.uk/clandon-park/features/clandon-parks-marble-hall-ceiling

Christie, C., (2000). *The British country house in the eighteenth century.* Manchester: Manchester University Press.

CIfA, (2014). *Standard and guidance for an archaeological watching brief* [online]. Reading: CiFA. [Accessed 27 April 2021]. Available from: https://www.archaeologists.net/sites/default/files/CIfAS&GWatchingbrief_2.pdf

Clancey, J.P., (2004). *Rockingham Ware in American Culture, 1830-1930: Reading Historical Artifacts*. Hanover: University Press of New England.

Clark-Maxwell, R.W.G., (1913). Sir William Sharington's Work at Lacock, Sudeley and Dudley. *Archaeological Journal* [online]. **70**, pp. 175–182. [Accessed 4 March 2021]. Available from: https://doi.org/10.1080/00665983.1913.10853227

Cliffe, J.T., (1999). *The world of the country house in seventeenth-century England.* New Haven and London: Yale University Press.

Coe, M., (2014). *The History of Archaeological Investigations in the borough of Chelmsford - Nick Wickendon, Museums Manager for Chelmsford City Council, 25 November 2013* [online]. Colchester: Colchester Archaeological Group. [Accessed 4 March 2021]. Available from: http://caguk.net/wp-content/uploads/2014/01/The-History-of-Archaeological-Investigations-in-the-Borough-of-Chelmsford.pdf

Cohen, N. and Parton, F., (2019). *Knole revealed: archaeology and discovery at a great country house.* London: MOLA.

Cole, E., and Morrison, K., (2015). Architectural analysis of the outer court geophysics. In M. Alexander, ed. *Audley End, Essex: Historic Landscape Investigations*. Swindon: Historic England. pp. 52–57.

Collier, M., and Wrightson, D., (1993). The Re-Creation of the Turkish Tent at Painshill. *Garden History* [online]. **21**, pp. 46–59. [Accessed 4 March 2021]. Available from: https://doi.org/10.2307/1587053

Colls, K., and Mitchell, W.I., (2016a). The archaeologies of New Place. In: P. Edmondson, K. Colls, and W.I. Mitchell, eds. *Finding Shakespeare's New Place: An Archaeological Biography.* Manchester: Manchester University Press. pp. 199–221.

Colls, K., and Mitchell, W.I., (2016b). After Shakespeare: New Place, 1677-1759. In: P. Edmondson, K. Colls, and W.I. Mitchell, eds. *Finding Shakespeare's New Place: An Archaeological Biography.* Manchester: Manchester University Press. pp. 178–198.

Connell, J., (2005). Managing gardens for visitors in Great Britain: a story of continuity and change. *Tourism Management* [online]. **26**(2), pp. 285-201. [Accessed 25 February 2021]. Available from: https://doi.org/10.1016/j.tourman.2003.10.002

Connelly, H., Maddra, S., and Wilkinson, J., (2019). Growing an archive: Reflections on working together on the history of the Scottish allotment movement. *Journal of Community Archaeology & Heritage* [online]. **6**(4), pp. 283-285. [Accessed 23 December 2021]. Available from: doi.org/10.1080/20518196.2019.1643125

Cook, L.J., Yamin, R., and McCarthy, J.P., (1996). Shopping as Meaningful Action: Toward a Redefinition of Consumption in Historical Archaeology. *Historical Archaeology* [online]. **30**, pp. 50–65. [Accessed 4 March 2021]. Available from: https://doi.org/10.1007/BF03373596

Cooper, N., (1997). The Gentry House in the Age of Transition. In: D.R.M. Gaimster and P. Stamper, eds. *The Age of Transition: The Archaeology of English Culture, 1400-1600*. Oxford: Oxbow Books. pp. 115–126.

Cooper, N., (1999). *Houses of the gentry, 1480-1680*. New Haven: Yale University Press.

Cooper, N.J., and Score, V., (2006). Investigating the Origins of Great Easton, Leicestershire. *Transactions of the Leicestershire Archaeological and Historical Society* [online]. **80**, pp. 209-214. [Accessed 15 November 2021]. Available from: https://www.le.ac.uk/lahs/publications/vol71_80.html

Cooper, R.G., (1968). *English slipware dishes, 1650-1850*. London: Alec Tiranti.

Cooper, T., and Lacey, A., (2004). Lloyd, David [pseud. Oliver Foulis] (1635–1692). *Oxford Dictionary of National Biography* [online]. [Accessed 21 October 2021]. Available from: https://doi-org.sheffield.idm.oclc.org/10.1093/ref:odnb/16826

Copeland, R., (1980). *Spode's Willow Pattern and Other Designs After the Chinese*. London: Cassell.

Copeland, R., (2000). *Blue and White Transfer-Printed Pottery*. Second edition. Oxford: Shire Publications.

Coppack, G., (1990). *English Heritage Book of abbeys and priories*. London: Batsford.

Coros, D.F. and Davidson, A., (1982). AUDLEY, Thomas I (1487/88-1544), of Berechurch and Audley End, Saffron Walden, Essex [online]. *The History of Parliament: British Political, Social & Local History.* [Accessed 4 March 2021]. Available from: http://www.historyofparliamentonline.org/volume/1509-1558/member/audley-thomas-i-148788-1544

Cotter, J.P., (2000). *Post-Roman pottery from excavations in Colchester, 1971-85*. Colchester: Colchester Archaeological Trust.

Courtney, P. and Gray, M., (1991). Tintern Abbey After the Dissolution. *Bulletin of the Board of Celtic Studies.* **38**, pp. 145–158.

Courtney, P., (1999). "Different Strokes for Different Folks": The Transatlantic Development of Historical and Post Medieval Archaeology. In: G. Egan and R.L. Michael, eds. *Old and New Worlds: Historical/Post-Medieval Archaeology Papers from the Societies' Joint Conferences at Williamsburg and London 1997 to Mark Thirty Years of Work and Achievement*. Oxford: Oxbow Books. pp. 1–9.

Cownie, E., (1998). *Religious Patronage in Anglo-Norman England, 1066-1135*. London: Boydell & Brewer.

Cox, O., (2015). The "Downton Boom": Country Houses, Popular Culture, and Curatorial Culture. *The Public Historian* [online]. **37**, pp. 112–119. [Accessed 4 March 2021]. Available from: https://doi.org/10.1525/tph.2015.37.2.112

Crangle, J., (2019). *Kirby Hall Osteological Analysis: The Disarticulated Skeletal Remains*. Silsoe: English Heritage. [Unpublished item].

Crangle, J.N., (2016). *A study of post-depositional funerary practices in medieval England.* Ph.D. thesis, University of Sheffield. [Accessed 30 September 2021]. Available from: https://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.695998

Craven, J.A., (2013). *The Story of Hoxne*. SCCAS Report 2013/126. Ipswich: Suffolk County Council Archaeological Service. [Accessed 15 November 2021]. Available from: https://doi.org/10.5284/1033311

Croft, P., (2004). Howard, Thomas, first earl of Suffolk (1561–1626) [online]. *Oxford Dictionary of National Biography*. [Accessed 4 March 2021]. Available from: https://doi.org/10.1093/ref:odnb/13942

Croft, P., (2008). Howard, Henry, earl of Northampton (1540–1614). *Oxford Dictionary of National Biography* [online]. [Accessed 21 October 2021]. Available from: https://doi-org.sheffield.idm.oclc.org/10.1093/ref:odnb/13906

Cross, S., (2017). The country house is just like a flag. In: D. Arnold, ed. *Cultural Identities and the Aesthetics of Britishness* [online]. Second (online) edition. Manchester: Manchester

University Press. pp. 53-66. [Accessed 4 March 2021]. Available from: https://www-manchesterhive-com.sheffield.idm.oclc.org/view/9781526117519/9781526117519.xml

Crouch, D., (1992). *The image of aristocracy in Britain, 1000-1300*. London: Routledge.

Cubitt, R.S., (2019). An early type of post-medieval toothbrush? *Post-Medieval Archaeology* [online]. **53**(3), pp. 298–301. [Accessed 4 March 2021]. Available from: https://doi.org/10.1080/00794236.2019.1659585

Currie, C.K. and Locock, M., (1991). An Evaluation of Archaeological Techniques Used at Castle Bromwich Hall, 1989-90. *Garden History* [online]. **19**, pp. 77–99. [Accessed 4 March 2021]. Available from: https://doi.org/10.2307/1586994

Currie, C.K. and Locock, M., (1993). Excavations at Castle Bromwich Hall gardens 1989–91. *Post-Medieval Archaeology* [online]. **27**, pp. 111–199. [Accessed 4 March 2021]. Available from: https://doi.org/10.1179/pma.1993.006

Currie, C.K., (1990). Excavation of an early eighteenth-century garden pond: the West Pond, Castle Bromwich Hall, West Midlands. *Post-Medieval Archaeology* [online]. **24**, pp. 93-123. [Accessed 30 November 2021]. Available from: doi.org/10.1179/pma.1990.004

Currie, C.K., (1992). The restoration of historic gardens: the role of archaeology. In: L. Macinnes and C.R. Wickham-Jones, eds. *All Natural Things: Archaeology and the Green Debate.* Oxford: Oxbow Books. pp. 181–189.

Currie, C.K., (1993a). The Archaeology of Flower Pots in England and Wales, circa 1650-1950. *Garden History* [online]. **21**, pp. 227–246. [Accessed 4 March 2021]. Available from: https://doi.org/10.2307/1587068

Currie, C.K., (1993b). Castle Bromwich Hall gardens: an alternative date: C. K. Currie replies. *Post-Medieval Archaeology* [online]. **27**, pp. 203-204. [Accessed 30 November 2021]. Available from: doi.org/10.1179/pma.1993.007

Currie, C.K., (1996). S. Thurley (ed.), "The King's Privy Garden at Hampton Court Palace, 1689-1995" (Book Review). *Post-Medieval Archaeology* [online]. **30**, pp. 3333. [Accessed 30 November 2021]. Available from: doi.org/10.1179/pma.1996.009

Currie, C.K., (2005). *Garden archaeology*. York: Council for British Archaeology.

Cutting, M., (2003). The Use of Spatial Analysis to Study Prehistoric Settlement Architecture. *Oxford Journal of Archaeology* [online]. **22**, pp. 1–21. [Accessed 4 March 2021]. Available from: https://doi.org/10.1111/1468-0092.00001

D'Elia, E., (2015). Identifying Artifacts: White Salt-Glazed Stoneware [online]. *C.A.R.T. Archaeology*. [Accessed 4 March 2021]. Available from: https://cartarchaeology.wordpress.com/2015/10/02/identifying-artifacts-white-salt-glazed-stoneware/

Daniell, C., (2005). *Death and burial in medieval England, 1066-1550*. London: Routledge.

Daubney, A.J., (2015). *Portable Antiquities, Palimpsests and Persistent Places in Lincolnshire, with particular reference to three Middle Saxon case studies*. Ph.D. thesis, University of Leicester. [Accessed 4 March 2021]. Available from: https://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.668358

Davey, W. and Walker, H., (2009). *The Harlow pottery industries*. London: Medieval Pottery Research Group.

Davies, D., (2017). *The development of archaeological post-excavation within British professional archaeology* [online]. Swansea: BAJR. [Accessed 24 March 2021]. Available from: http://www.bajr.org/BAJRGuides/46_PostEx_Theory_Application/46%20Archaeological%20PostExcavation.pdf

Davies, T., and Weaver, S., (2004). *Parterre Gardens, Witley Court, Great Witley, Worcestershire. Volume I: Archaeological Investigation Report.* Oxford: Oxford Archaeology. https://eprints.oxfordarchaeology.com/3818/

Davis, R.H.C., (1964). Geoffrey de Mandeville Reconsidered. *The English Historical Review* [online]. **79**(311), pp. 299–307. [Accessed 4 March 2021]. Available from: https://www.jstor.org/stable/560648

Dawson, M., (2001). A brief introduction to the archaeology of Wrest Park, Bedfordshire. *Bedfordshire Archaeology.* **24**, pp. 81-96. [Accessed 16 September 2021]. Available from: http://www.baalhs.org.uk/vol19to24.htm

de Bruijn, E., (2016). Consuming East Asia: continuity and change in the development of chinoiserie. In: J. Stobart and A. Hann, eds. *The Country House: Material Culture and Consumption*. Swindon: Historic England. pp. 95–104.

de Vries, J., (2008). *The industrious revolution: consumer behavior and the household economy, 1650 to the present*. Cambridge: Cambridge University Press.

Deetz, J., (1996). *In Small Things Forgotten: the archaeology of early American life*. Second edition. New York: Anchor Books.

Demuth, V., (2015). Faces and Figures - Myth and Mentality in the Motives of Highly Decorated Pottery from Bergen. In: I. Baug, J.K Larsen and S.S. Mygland, eds. *Nordic Middle Ages-Artefacts, Landscapes and Society: Essays in Honour of Ingvild Øye on Her 70th Birthday*. Bergen: University of Bergen. pp. 119–131.

Dent, J., (1962). *The quest for Nonsuch*. London: Hutchinson & Co.

Department for Communities and Local Government (DCLG), (2010). *Planning Policy Statement 5: Planning for the Historic Environment* [PPS 5]. London: Stationery Office. [Accessed 16 September 2021]. Available from: https://webarchive.nationalarchives.gov.uk/20120919201742/http://www.communities.gov.uk/archived/publications/planningandbuilding/pps5

Dix, B., (1991). Towards the restoration of a period garden: An interim report on archaeological excavation and related investigation at Kirby Hall, Gretton, Northamptonshire, 1987-1988. In: A.E. Brown, ed. *Garden Archaeology: Papers Presented to a Conference at Knuston Hall, Northamptonshire, April 1988*. London: Council for British Archaeology. pp. 60-72.

Dix, B., (1997). 'Diging of borders': Reflections on archaeology and garden restoration. *Journal of Garden History* [online]. **17**(1), pp. 11–17. [Accessed 5 March 2021]. Available from: https://doi-org.sheffield.idm.oclc.org/10.1080/01445170.1997.10412530

Dix, B., (1999). "Of Cabbages - and Kings": Garden Archaeology in Action. In: G. Egan and R.L. Michael, eds. *Old and New Worlds: Historical/Post-Medieval Archaeology Papers from the Societies' Joint Conferences at Williamsburg and London 1997 to Mark Thirty Years of Work and Achievement*. Oxford: Oxbow Books. pp. 368–377.

Dix, B., (2005). Review of *Garden Archaeology: A Handbook*, by C. Currie. *Garden History* [online]. **33**(2), pp. 309–309. [Accessed 23 December 2021]. Available from: doi.org/10.2307/25434199

Dix, B., (2011a). "Barbarous in its magnificence": the archaeological investigation and restoration of W. A. Nesfield's parterre design for the East Garden at Witley Court, Worcestershire. *Garden History* [online]. **39**(1), pp. 51–63. [Accessed 5 March 2021]. Available from: https://www.jstor.org/stable/41411771

Dix, B., (2011b). Experiencing the past: the archaeology of some Renaissance gardens. *Renaissance Studies* [online]. **25**(1), 151–182. [Accessed 5 March 2021]. Available from: https://doi.org/10.1111/j.1477-4658.2010.00711.x

Dix, B., (2014a). Garden archaeology. In: M. Harney, ed. *Gardens and Landscapes in Historic Building Conservation*. Chichester: Wiley-Blackwell. pp. 149-152.

Dix, B., (2014b). '. . . with great art, cost, and diligens . . .' – the reconstruction of the Elizabethan Garden at Kenilworth Castle. In: M. Harney, ed. *Gardens and Landscapes in Historic Building Conservation*. Chichester: Wiley-Blackwell. pp. 339-344.

Dix, B., and Parry, S., (1995). The excavation of the Privy Garden. In: S. Thurley, ed. *The King's Privy Garden at Hampton Court Palace, 1689-1995.* London: Apollo Magazine. pp. 79–118.

Dix, B., Parry, S., and Finn, C., (2017). *The Archaeology of Kenilworth Castle's Elizabethan Garden: Excavation and Investigation 2004-2008*. Oxford: Archaeopress.

Dix, B., Soden, I., and Hylton, T., (1995). Kirby Hall and its gardens: excavations in 1987–1994. *Archaeological Journal* [online]. **152**, pp. 291–380. [Accessed 5 March 2021]. Available from: https://doi.org/10.1080/00665983.1995.11021433

Doggett, N., (1999). *Patterns of re-use: The transformation of former monastic buildings in post-Dissolution Hertfordshire, 1540-1600*. Ph.D. thesis, University of Southampton.

Dommett, T., (2016). Tom Dommett: Project Archaeologist, Clandon Park [online]. *National Trust.* [Accessed 5 March 2021]. Available from: https://www.nationaltrust.org.uk/clandon-park/profiles/tom-dommett

Draper, J., (2001). *Post-Medieval Pottery 1650-1800.* Second edition. Princes Risborough: Shire Publications.

Drury, P., (1980). No other palace in the kingdom will compare with it: The evolution of Audley End, 1605–1745. *Architectural History* [online]. **23**, pp. 1–39. [Accessed 5 March 2021]. Available from: https://doi.org/10.2307/1568420

Drury, P., (1982b). Walden Abbey into Audley End. In: S.R. Bassett, ed. *Saffron Walden: excavations and research, 1972-80*. Chelmsford: Council for British Archaeology. pp. 94–105.

Drury, P., (1982c). A mid eighteenth-century floor at Audley End. *Post-Medieval Archaeology* [online]. **16**(1), pp. 125–140. [Accessed 5 March 2021]. Available from: https://doi.org/10.1179/pma.1982.007

Drury, P., (1984b). Joseph Rose Senior's Site Workshop at Audley End, Essex: Aspects of the Development of Decorative Plasterwork Technology in Britain During the Eighteenth Century. *The Antiquaries Journal* [online]. **64**(1), pp. 62–83. [Accessed 5 March 2021]. Available from: https://doi.org/10.1017/S0003581500067482

Drury, P., (2011). *Audley End.* First edition. London: English Heritage.

Drury, P., (2014). *Audley End.* Second edition. London: English Heritage.

Drury, P., and Simpson, R., (2009). *Hill Hall: a singular house devised by a Tudor intellectual*. London: Society of Antiquaries of London.

Drury, P., and Smith, P., (2010). *The Audley End Stable Block in the 17th Century. English Heritage Historical Review*. **5**, pp. 44–81.

Drury, P.J., and Gow, I.R., (1984). *Audley End, Essex*. London: HMSO.

Dugan, H., (2018). London Smellwalk Around 1450: Smelling Medieval Cities. In: C.M. Gerrard and A. Gutiérrez, eds. *The Oxford Handbook of Later Medieval Archaeology in Britain* [online]. Oxford: Oxford University Press. pp. 728–741. [Accessed 10 March 2021]. Available from: https://doi.org/10.1093/oxfordhb/9780198744719.001.0001

Dunn, R.M., (2004). Howard, James, third earl of Suffolk (1619–1689) [online]. *Oxford Dictionary of National Biography.* [Accessed 10 March 2021]. Available from: https://doi.org/10.1093/ref:odnb/13919

Edmondson, P., Colls, K., and Mitchell, W.I., (2016). Introduction: finding Shakespeare's New Place. In: P. Edmondson, K. Colls, and W.I. Mitchell, eds. *Finding Shakespeare's New Place: An Archaeological Biography.* Manchester: Manchester University Press. pp. 1-4.

Edwards, S., (2017). Dawn of the new age: Edwardian and neo-Edwardian summer. In: N. Carle, S. Shaw, and S. Shaw, eds. *Edwardian Culture: Beyond the Garden Party.* Abingdon: Routledge. pp. 15-30.

Elliott, B., (1986). *Victorian Gardens.* Portland: Timber Press.

Elliott, B., (2001a). Nesfield, William Andrews. In: G. Jellicoe, S. Jellicoe, P. Goode, and M. Lancaster, eds. *The Oxford Companion to Gardens*. Second edition. Oxford, New York: Oxford University Press. pp. 390.

Elliott, B., (2001b). Carpet bedding. In: G. Jellicoe, S. Jellicoe, P. Goode, and M. Lancaster, eds. *The Oxford Companion to Gardens.* Second edition. Oxford, New York: Oxford University Press. pp. 94.

Ellis, R.H., (1986). *Catalogue of Seals in the Public Record Office: Monastic Seals*. London: Her Majesty's Stationary Office.

English Heritage, (1991). *Management of Archaeological Projects.* London: Historic Buildings and Monuments Commission for England.

English Heritage, (2014a). Description of Audley End House and Gardens [online]. *English Heritage.* [Accessed 10 March 2021]. Available from: https://www.english-heritage.org.uk/visit/places/audley-end-house-and-gardens/history-and-stories/history/description/

English Heritage, (2014b). Sources for Audley End House and Gardens [online]. *English Heritage.* [Accessed 10 March 2021]. Available from: https://www.english-heritage.org.uk/visit/places/audley-end-house-and-gardens/history-and-stories/history/sources/

English Heritage, (2015). Our Priorities [online]. *English Heritage.* [Accessed 10 March 2021]. Available from: https://www.english-heritage.org.uk/about-us/our-priorities/

English Heritage, (c.2020a). Thomas Lord Audley of Walden. *Google Arts & Culture* [online]. [Accessed 27 April 2021]. Available from: https://artsandculture.google.com/asset/thomas-lord-audley-of-walden-rebecca-biagio/WgHBQaG-dTQjtA

English Heritage, (c.2020b). Thomas Howard, 1st Earl of Suffolk. *Google Arts & Culture* [online]. [Accessed 27 April 2021]. Available from: https://artsandculture.google.com/asset/thomas-howard-1st-earl-of-suffolk-rebecca-baggio/MAEqvxDa7rz3Fw

Evans, D., (2010). A good riddance of bad rubbish? Scatological musings on rubbish disposal and the handling of 'filth' in medieval and early post-medieval towns. *Relicta Monografieën.* **4**, pp. 267–278.

Everill, P., (2007). British Commercial Archaeology: Antiquarians and Labourers, Developers and Diggers. In: Y Hamilakis, and P.G. Duke, eds. *Archaeology and Capitalism: From Ethics to Politics, One World Archaeology*. Walnut Creek: Left Coast Press. pp. 158–187.

Everill, P., (2014). The AGEN excavations 2001-10: Methodology. In: P. Everill, ed. *Nokalakevi Tsikhegoji Archaeopolis: Archaeological excavations 2001-10. Anglo-Georgian Expedition to Nokalakevi.* Oxford: BAR International Series. pp. 19-24. [Accessed 30 September 2021]. Available from: https://winchester.elsevierpure.com/en/publications/the-agen-excavations-2001-10-methodology-3

Fairchilds, C., (1993). The production and marketing of populuxe goods in eighteenth-century Paris. In: J. Brewer and R. Porter, eds. *Consumption and the World of Goods.* Abingdon: Routledge. pp. 228-248.

Finch, J., (2008). Three Men in a Boat: Biographies and Narrative in the Historic Landscape. *Landscape Research* [online]. **33**(5), pp. 511–530. [Accessed 10 March 2021]. Available from: https://doi.org/10.1080/01426390802323732

Fisher, D.R., (2004). Griffin [formerly Neville], Richard, third Baron Braybrooke (1783–1858) [online]. *Oxford Dictionary of National Biography*. [Accessed 10 March 2021]. Available from: https://doi.org/10.1093/ref:odnb/19959

Fleming, A., (2006). Post-processual Landscape Archaeology: a Critique. *Cambridge Archaeological Journal* [online]. **16**(3), pp. 267–280. [Accessed 10 March 2021]. Available from: https://doi.org/10.1017/S0959774306000163

Flenley, R., (1997). Working with archaeologists. *Studies in the History of Gardens and Designed Landscapes* [online]. **17**(1), pp. 95-99. [Accessed 12 October 2021]. Available from: doi.org/10.1080/01445170.1997.10412541

Ford, L.L., (2004). Audley, Thomas, Baron Audley of Walden (1487/8–1544) [online]. *Oxford Dictionary of National Biography.* [Accessed 10 March 2021]. Available from: https://doi.org/10.1093/ref:odnb/896

Frame, K., (2014). *Collection Care and Conservation Policy* [online]. Version 1.1. London: Historic Royal Palaces. [Accessed 10 March 2021]. Available from: https://www.hrp.org.uk/media/1245/2014-07023_conservationpolicy.pdf

Fulford, M., (2011). The impact of commercial archaeology on the UK heritage. In: J, Curtis, M. Fulford, A. Harding, and F. and Reynolds, eds. *History for the taking? Perspectives on material heritage.* London: British Academy. pp. 33-53. [Accessed 29 December 2021]. Available from: https://www.thebritishacademy.ac.uk/documents/251/History-for-the-taking.pdf

Gaimster, D., (2001). The excavation of Nonsuch Palace. *British Archaeology*. **60**, pp. 8–13.

Gaimster, D., (2012). The Geoff Egan Memorial Lecture 2011 Artefacts, art and artifice: reconsidering iconographic sources for archaeological objects in early modern Europe. *Post-Medieval Archaeology* [online]. **46**(2), pp. 304–319. [Accessed 10 March 2021]. Available from: https://doi.org/10.1179/0079423612Z.00000000015

Gaimster, D.R.M, (1997). *German stoneware 1200-1900: archaeology and cultural history*. London: British Museum Press, London.

Gaimster, D.R.M., (1999). The Post-Medieval Ceramic Revolution in Southern Britain c.1450-1650. In: G. Egan and R.L. Michael, eds. *Old and New Worlds: Historical/Post-Medieval Archaeology Papers from the Societies' Joint Conferences at Williamsburg and London 1997 to Mark Thirty Years of Work and Achievement*. Oxford: Oxbow Books. pp. 214–225.

Gaimster, D.R.M., and Gilchrist, R., (2003). Introduction. In: D.R.M. Gaimster and R. Gilchrist, eds. *The Archaeology of Reformation 1480-1580*. London: Routledge. pp. 1–8.

Gallotti, R., Lembo, G., and Peretto, C., (2012). Mapping Three-Dimensional Density Patterns for Analyzing Artefact (Re)distribution Trends in Palaeolithic Sites. *Advances in Anthropology* [online]. **2**(2), pp. 39-48. [Accessed 10 March 2021]. Available from: http://dx.doi.org/10.4236/aa.2012.22005

Gardner, P., (2000). Landscapes, follies and villages. In: C. Christie, ed. *The British country house in the eighteenth century.* Manchester: Manchester University Press. pp. 129-178.

Gell, A., (1998). *Art and agency: an anthropological theory*. Oxford: Clarendon Press.

Gerrard, C., (2007). *The Shapwick Project*. London: Society for Medieval Archaeology.

Gilchrist, R., (2012). *Medieval life: archaeology and the life course*. Woodbridge: Boydell Press.

Gilchrist, R., (2014). Monastic and Church Archaeology. *Annual Review of Anthropology* [online]. **43**, pp. 235–235. [Accessed 10 March 2021]. Available from: https://doi.org/10.1146/annurev-anthro-102313-025845

Gilchrist, R., and Sloane, B., (2005). *Requiem: the Medieval Monastic Cemetery in Britain.* London: Museum of London Archaeological Service.

Giles, K., (2003). Reforming Corporate Charity: Guilds and Fraternities in Pre- and Post-Reformation York. In: D.R.M. Gaimster and R. Gilchrist, eds. *The Archaeology of Reformation 1480-1580*. London: Routledge. pp. 325–340.

Giles, K., (2007). Seeing and believing: visuality and space in pre-modern England. *World Archaeology* [online]. **39**(1), pp. 105–121. [Accessed 10 March 2021]. Available from: https://doi.org/10.1080/00438240601136470

Girouard, M., (1980). *Life in the English country house: a social and architectural history.* Harmondsworth: Penguin Books.

Gleason, K.L., (2013). Special Considerations in Excavating a Garden. In: A. Malek, ed. *Sourcebook for Garden Archaeology.* Bern: Peter Lang. pp. 197-216.

Goode, P., (2001). Gilpin, William Sawrey. In: G. Jellicoe, S. Jellicoe, P. Goode, and M. Lancaster, eds. *The Oxford Companion to Gardens.* Second edition. Oxford, New York: Oxford University Press. pp. 227-228.

Goody, J., (1982). *Cooking, cuisine, and class: a study in comparative sociology.* Cambridge: Cambridge University Press.

Gosden, C., and Marshall, Y., (1999). The cultural biography of objects. *World Archaeology* [online]. **31**(2), pp. 169–178. [Accessed 10 March 2021]. Available from: https://doi.org/10.1080/00438243.1999.9980439

Gow, I., (1997). Robert Adam's silks at Audley End. *Furniture History* [online]. **33**, pp. 163–171. [Accessed 10 March 2021]. Available from: https://www.jstor.org/stable/23408087

Graves, C.P., (2007). Sensing and believing: exploring worlds of difference in pre-modern England: a contribution to the debate opened by Kate Giles. *World Archaeology* [online]. **39**(4), pp. 515–531. [Accessed 10 March 2021]. Available from: https://doi.org/10.1080/00438240701676276

Graves, M.A.R., (2008). Howard, Thomas, fourth duke of Norfolk (1538–1572) [online]. *Oxford Dictionary of National Biography.* [Accessed 10 March 2021]. Available from: https://doi.org/10.1093/ref:odnb/13941

Gray, A., (2016). Broccoli, bunnies and beef: supplying the edible wants of the Victorian country house. In: J. Stobart and A. Hann, eds. *The Country House: Material Culture and Consumption*. Swindon: Historic England. pp. 166–173.

Greene, J.P., (1989). *Norton Priory: the archaeology of a medieval religious house*. Cambridge: Cambridge University Press.

Greene, J.P., (1992). *Medieval monasteries* [online]. Online edition. London: Continuum. [Accessed 10 March 2021]. Available from: https://ebookcentral.proquest.com/lib/sheffield/detail.action?docID=742772

Greene, J.P., (2001). Strategies for future research and site investigation. In: T. Hall, M. Aston, and G. Keevill, eds. *Monastic Archaeology*. Oxford: Oxbow Books. pp. 4–8.

Greene, K., and Moore, T., (2010). *Archaeology: an introduction.* Fifth edition. London: Routledge.

Greig, H., (2013). *The Beau Monde: Fashionable Society in Georgian London*. Oxford: Oxford University Press.

Griffiths, D., Philpotts, R., and Egan, G., (2007). *Meols: The Archaeology of the North Wirral Coast: Discoveries and Observations in the 19th and 20th Centuries, with a Catalogue of Collections.* Oxford: Oxford University School of Archaeology.

Hall, E., and Lear, J., (1992). Chatham Dockyard Gardens. *Garden History* [online]. **20**(2), pp. 132–152. [Accessed 16 September 2021]. Available from: doi.org/10.2307/1587040

Hann, A., (2010). Labour Recruitment on the Audley End Estate in the Late 19th Century. *English Heritage Historical Review*. **5**(1), pp. 134–155. [Accessed 10 March 2021]. Available from: https://doi.org/10.1179/175201611X13079771582628

Hann, A., and Dresser, M., (2013). Introduction. In: M. Dresser and A. Hann, eds. *Slavery and the British Country House*. Swindon: English Heritage. pp. xiii–xv.

Harlan, D., (2010a). *Sheffield Museum Excavations 1968-70.* Sheffield: University of Sheffield.

Harlan, D., (2010b). *Sheffield Museum Excavations 1971.* Sheffield: University of Sheffield.

Harlan, D., (2010c). *Sheffield Museum Excavations 1972-74.* Sheffield: University of Sheffield.

Harris, E.C., (1989). *Principles of archaeological stratigraphy*. Second edition. London: Academic Press.

Haselgrove, C., (1985). Inference from Ploughsoil Artefact Samples. In: C. Haselgrove, M. Millett, and I. Smith, eds. *Archaeology from the Ploughsoil.* Sheffield: University of Sheffield. pp. 7-29.

Haselgrove, C., Millett, M., and Smith, I., (1985). Introduction. In: C. Haselgrove, M. Millett, and I. Smith, eds. *Archaeology from the Ploughsoil.* Sheffield: University of Sheffield. pp. 1-3.

Hayden, P., (1993). Castle Bromwich Hall gardens: an alternative date. *Post-Medieval Archaeology* [online]. **27**, pp. 201-203. [Accessed 30 November 2021]. Available from: doi.org/10.1179/pma.1993.007

Hayes, P.P., (1991). Models for the distribution of pottery around Former Agricultural Settlements. In: A.J. Schofield, ed. *Interpreting artefact scatters: Contributions to ploughzone archaeology*. Oxford: Oxbow Books. pp. 81-92.

Heald, S., and McGee, A., (1996). *Witley Court, The Excavations 1996.* Oxford: Oxford Archaeology. [Accessed 15 November 2021]. Available from: https://doi.org/10.5284/1012684.

Heath, B.J., and Bennett, A., (2000). "The little spots allow'd them": The archaeological study of African-American yards. *Historical Archaeology* [online]. **34**, pp. 38–55. [Accessed 10 March 2021]. Available from: https://doi.org/10.1007/BF03374312

Henderson, P., (2005). *The Tudor house and garden: architecture and landscape in the sixteenth and early seventeenth centuries*. New Haven, Connecticut: Yale University Press.

Higgins, D., (1995). Clay tobacco pipes: a valuable commodity. *The International Journal of Nautical Archaeology* [online]. **24**(1), pp. 47–52. [Accessed 10 March 2021]. Available: https://doi.org/10.1006/ijna.1995.1006

Higgins, D., (2004). The Clay Tobacco Pipes. In: G. Keevill, ed. *The Tower of London Moat: Archaeological Excavations 1995-9*. Oxford: Oxford Archaeology. pp. 241–270.

Higgins, D., (2017). *Guidelines for the Recovery and Processing of Clay Tobacco Pipes from Archaeological Projects* [online]. Liverpool: National Pipe Archive. [Accessed 10 March 2021]. Available: http://www.pipearchive.co.uk/How_to.html

Hill, N., (2004). Kirby Hall: The Inside Story. *Association for Studies in the Conservation of Historic Buildings*. **28**, pp. 30–47.

Hill, N., (2006). The Kitchen Garden at Audley End. In: S. Kelleher, ed. *Diary of a Victorian Gardener: William Cresswell and Audley End.* Swindon: English Heritage. pp. 141-161.

Hill, N., (2009). The restoration of the house, 1993-1998. In: P.J. Drury, ed. *Hill Hall: A Singular House Devised by a Tudor Intellectual.* London: Society of Antiquaries of London. pp. 383–418.

Hinchcliffe, J., (1980). Effects of ploughing on archaeological sites: assessment of the problem and some suggested approaches. In: J. Hinchliffe and R.T. Schadla-Hall, eds. *The Past Under the Plough*. London: Department of the Environment.

Hinton, I.D., (2010). *Aspects of the alignment and location of medieval rural churches.* Ph.D. thesis, University of East Anglia. [Accessed 30 September 2021]. Available from: https://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.569336

Historic England, (2015). *Geoarchaeology: Using Earth Sciences to Understand the Archaeological Record*. Swindon: Historic England. [Accessed 16 September 2021]. Available from: https://historicengland.org.uk/images-books/publications/geoarchaeology-earth-sciences-to-understand-archaeological-record/

Historic England, (2016). *Preserving archaeological remains. Appendix 5 – Materials for use in the reburial of sites*. Swindon: Historic England. [Accessed 16 September 2021]. Available from: https://historicengland.org.uk/images-books/publications/preserving-archaeological-remains/

Historic England, (2018). *Archaeological Evidence for Glassworking: Guidelines for Recovering, Analysing and Interpreting Evidence.* Swindon: Historic England. [Accessed 16 September 2021]. Available from: https://historicengland.org.uk/images-books/publications/glassworkingguidelines/

Historic England, (2018). *Our Portable Past.* Swindon: Historic England. [Accessed 15 November 2021]. Available from: https://historicengland.org.uk/images-books/publications/ourportablepast/

Historic England, (2021). Copy of watercolour of Audley End, from the Gallery Window 1847. *Historic England Archive* [online]. [Accessed 1 November 2021]. Available from: https://historicengland.org.uk/images-books/photos/item/AA060734

Historic England, (c.2017). Uncovering the Hidden Gardens at Marble Hill House [online]. *Historic England*. [Accessed 16 September 2021]. Available from:

https://historicengland.org.uk/research/support-and-collaboration/research-and-english-heritage-trust/marble-hill-excavations/

Hitchcock, C., (2013). End of Season Garden Photos [online]. *The Castle Bromwich Hall Gardens Blog*. [Accessed 4 January 2021]. Available from: https://castlebromwichhallgardenstrust.blogspot.com/2013/11/end-of-season-garden-photos.html

Hodder, I., (1997). 'Always momentary, fluid and flexible': towards a reflexive excavation methodology. *Antiquity* [online]. **71**(273), pp. 691-700. [Accessed 16 September 2021]. Available from: doi.org/10.1017/S0003598X00085410

Hodder, I., (1999). *The Archaeological Process: An Introduction*. Oxford/Massachusetts: Blackwell.

Hoffman, H., (2018). Nottingham Stoneware [online]. *C.A.R.T. Archaeology.* [Accessed 10 March 2021]. Available: https://cartarchaeology.wordpress.com/2018/01/12/nottingham-stoneware/

Hollister, C.W., (1973). The misfortunes of the Mandevilles. *History* [online]. **58**(192), pp. 18–28. [Accessed 10 March 2021]. Available: https://www.jstor.org/stable/24408230

Hoskins, W.G., (1953). The rebuilding of rural England, 1570-1640. *Past and Present* [online]. **4**, pp. 44–59. [Accessed 10 March 2021]. Available: https://www.jstor.org/stable/649896

Howard, M., (1987). *The early Tudor country house: architecture and politics 1490-1550.* London: George Philip.

Howard, M., (2003). Recycling the monastic fabric: beyond the Act of Dissolution. In: D.R.M. Gaimster and R. Gilchrist, eds. *The Archaeology of Reformation 1480-1580*. London: Routledge. pp. 221–234.

Howard, M., (2007). *The building of Elizabethan and Jacobean England*. New Haven, Connecticut: Yale University Press.

Howard, M., (2015). "The Lordship of the Eye": country houses as the setting for intellectual enquiry in the early modern period. In: M. Dimmock, A. Hadfield, and M. Healy, eds. *The*

Intellectual Culture of the English Country House, 1500-1700. Manchester: Manchester University Press. pp. 11–26.

Howes, L., (1991). Archaeology as an aid to restoration at Painshill Park, Surrey. In: A.E. Brown, ed. *Garden Archaeology: Papers Presented to a Conference at Knuston Hall, Northamptonshire, April 1988*. London: Council for British Archaeology. pp. 73–82.

Howsam, C.L., (2016). *Book fastenings and furnishings: an archaeology of late medieval books.* Ph.D. thesis, University of Sheffield. [Accessed 10 March 2021]. Available from: http://etheses.whiterose.ac.uk/13105/

Hoyle, R.W., (1995). The Origins of the Dissolution of the Monasteries. *The Historical Journal* [online]. **38**(2), pp. 275–305. [Accessed 10 March 2021]. Available from: https://www.jstor.org/stable/2639985

Huggins, P.J., (1972). *Monastic grange and outer close excavations, Waltham Abbey, Essex, 1970-1972*. Colchester: Essex Archaeological Society.

Huggon, M., (2018). *The archaeology of the medieval hospitals of England and Wales, 1066-1546*. Ph.D. thesis, University of Sheffield. [Accessed 10 March 2021]. Available from: http://etheses.whiterose.ac.uk/23473/

Hurst, D.G., (1967). Post-Medieval Britain in 1966. *Post-Medieval Archaeology* [online]. **1**(1), pp. 107–121. [Accessed 10 March 2021]. Available from: https://doi.org/10.1179/pma.1967.011

Hurst, D.G., (1968). Post-Medieval Britain in 1967. *Post-Medieval Archaeology* [online]. **2**(1), pp. 175–194. [Accessed 10 March 2021]. Available from: https://doi.org/10.1179/pma.1968.016

Hurst, D.G., (1969). Post-Medieval Britain in 1968. *Post-Medieval Archaeology* [online]. **3**(1), pp. 193–212. [Accessed 10 March 2021]. Available from: https://doi.org/10.1179/pma.1969.011

Hurst, D.G., (1970). Post-Medieval Britain in 1969. *Post-Medieval Archaeology* [online]. **4**(1), pp. 174–188. [Accessed 10 March 2021]. Available from: https://doi.org/10.1179/pma.1970.014

Huxtable, S.-A., Fowler, C., Kefalas, C., and Slocombe, E., (2020). *Interim Report on the Connections between Colonialism and Properties now in the Care of the National Trust, Including Links with Historic Slavery* [online]. Swindon: National Trust. [Accessed 10 March

2021]. Available from: https://nt.global.ssl.fastly.net/documents/colionialism-and-historic-slavery-report.pdf

Hynd, N.R. and Ewart, G., (1983). Aberdour Castle Gardens. *Garden History* [online]. **11**(2), pp. 93-111. [Accessed 25 February 2021]. Available from: https://doi-org.sheffield.idm.oclc.org/10.2307/1586838

Ickowicz, P., (1993). Martincamp ware: a problem of attribution. *Medieval Ceramics* [online]. **17**, pp. 51-60. [Accessed 10 March 2021]. Available from: https://medievalpottery.org.uk/medieval-ceramics-online/volume-17-1993/

Impey, O., (2002). Japanese Porcelain at Burghley House: The Inventory of 1688 and the Sale of 1888. *Metropolitan Museum Journal* [online]. **37**, pp. 117–131. [Accessed 17 March 2021]. Available from: https://www.journals.uchicago.edu/doi/abs/10.2307/1513079

Ingham, D., and Cooper-Reade, H., (2005). *Audley End House, Saffron Walden, Essex. Archaeological Investigation CCTV and Floodlighting Trench and associated works* [online]. Bedford: Albion Archaeology. [Accessed 17 March 2021]. Available from: https://doi.org/10.5284/1001946

International Council on Monuments and Sites, (1981). *Historic Gardens* [online]. Florence: ICOMOS. [Accessed 30 March 2021]. Available from: https://www.icomos.org/images/DOCUMENTS/Charters/gardens_e.pdf

Irving, H., (2019). 'We want everybody's salvage!': Recycling, Voluntarism, and the People's War. *Cultural and Social History* [online]. **16**(2), pp. 165-184. [Accessed 14 April 2021]. Available from: https://doi-org.sheffield.idm.oclc.org/10.1080/14780038.2019.1586811

Jackson-Stops, G., (1985). *The treasure houses of Britain: five hundred years of private patronage and art collecting*. Washington: National Gallery of Art.

Jackson-Stops, G., (1992). *An English Arcadia, 1600-1990: Designs for Gardens and Garden Buildings in the Care of the National Trust*. Washington: American Institute of Architects Press.

Jacques, D., (1995). The history of the Privy Garden. In: S. Thurley, ed. *The King's Privy Garden at Hampton Court Palace, 1689-1995.* London: Apollo Magazine. pp. 23–42.

Jacques, D., (1997). The progress of garden archaeology. *The Journal of Garden History* [online]. **17**(1), pp. 3–10. [Accessed 17 March 2021]. Available from: https://doi.org/10.1080/01445170.1997.10412529

Jamestown Rediscovery Foundation, (2021). London Post-Medieval Redware [online]. *Historic Jamestowne.* [Accessed 10 March 2021]. Available from: https://historicjamestowne.org/collections/artifacts/material/lpmr/

Jamieson, E., (2013). *Kirby Hall, Northamptonshire: the Garden and Settlement Remains Surrounding the Elizabethan Mansion House*. Fort Cumberland: English Heritage.

Jarrett, C. and Thompson, G., (2012). A group of early 20th-century naval victualling finds from Royal Clarence Yard, Gosport, Hampshire. *Post-Medieval Archaeology* [online]. **46**(1), pp. 89-115. [Accessed 24 March 2021]. Available from: https://doi.org/10.1179/0079423612Z.0000000005

Jeffries, N., and Major, N., (2015). Mid 17th- and 19th-century English wine bottles with seals in London's archaeological collections. *Post-Medieval Archaeology* [online]. **49**(1), pp. 131–155. [Accessed 17 March 2021]. Available from: https://doi.org/10.1179/0079423615Z.00000000075

Jeffries, N., Fetherby, R., Wroe-Brown, R., Betts, I., Harrington, S., and Richardson, B., (2014). "Would I were in an alehouse in London!": a finds assemblage sealed by the Great Fire from Rood Lane, City of London. *Post-Medieval Archaeology* [online]. **48**(2), pp. 261–284. [Accessed 17 March 2021]. Available from: https://doi.org/10.1179/0079423614Z.00000000057

Johnson, M., (1999). The New Postmedieval Archaeology. In: G. Egan and R.L. Michael, eds. *Old and New Worlds: Historical/Post-Medieval Archaeology Papers from the Societies' Joint Conferences at Williamsburg and London 1997 to Mark Thirty Years of Work and Achievement.* Oxford: Oxbow Books. pp. 17–22.

Johnson, M., (2002). *Behind the castle gate: from medieval to renaissance*. London: Routledge.

Johnson, M., (2014). *English houses, 1300-1800: vernacular architecture, social life*. Second edition. London: Routledge.

Johnson, M.H., (1993). Rethinking the Great Rebuilding. *Oxford Journal of Archaeology* [online] **12**, pp. 117–125. [Accessed 17 March 2021]. Available from: https://doi.org/10.1111/j.1468-0092.1993.tb00286.x

Jones, I.K., and Drayton, I.W., (1984). *The royal palaces of Enfield*. Enfield: Enfield Historical Society.

Jones, O., (1986). *Cylindrical English wine and beer bottles 1735-1850*. Ottawa: Environment Canada.

Jones, O., and Sullivan, C., (1989). *The Parks Canada Glass Glossary for the description of containers, tableware, flat glass, and closures.* Ottawa: Environment Canada.

Jones, O.R., and Smith, E.A, (1985). *Glass of the British Military, ca. 1755-1820*. Ottawa: Environment Canada.

Jones, R., (2004). Signatures in the Soil: the use of pottery in manure scatters in the identification of medieval arable farming regimes. *Archaeological Journal* [online]. **161**, pp. 159–188. [Accessed 15 November 2021]. Available from: doi.org/10.1080/00665983.2004.11020574

Jones, R., (2012). Understanding medieval manure. In: R. Jones, ed. *Manure matters*. Online edition. Farnham, Burlington: Ashgate. pp. 145-158. [Accessed 15 November 2021]. Available from: https://ebookcentral.proquest.com/lib/sheffield/detail.action?docID=870757

Keay, A., and Watkins, J., eds., (2013). *The Elizabethan Garden at Kenilworth Castle.* London: English Heritage.

Keevill, G., (2001). Introduction: past approaches to the archaeological study of monastic sites. In: T. Hall, M. Aston, and G. Keevill, eds. *Monastic Archaeology*. Oxford: Oxbow Books. pp. 1–3.

Kerr, J., (2007). *Monastic Hospitality: The Benedictines in England, c.1070-c.1250*. London: Boydell & Brewer.

Kerr, J., (2009). *Life in the medieval cloister*. London: Bloomsbury Publishing.

Kibblewhite, M., Tóth, G., and Hermann, T., (2015). Predicting the preservation of cultural artefacts and buried materials in soil. *Science of the Total Environment* [online]. **529**, pp. 249-263. [Accessed 16 September 2021]. Available from: doi.org/10.1016/j.scitotenv.2015.04.036

Kirkham, G., (2012). 'Rip it up, and spread it over the field': Post-Medieval Agriculture and the Destruction of Monuments, a Case Study from Cornwall. *Landscapes* [online]. **13**(2), pp. 1-20. [Accessed 15 November 2021]. Available from: https://doi-org.sheffield.idm.oclc.org/10.1179/lan.2012.13.2.002

Knowles, D., (1976). *Bare ruined choirs: the dissolution of the English monasteries*. Cambridge: Cambridge University Press.

Krueger, R., (2016). Spanish Olive Jar [online]. *Rare, Beautiful & Fascinating: 100 Years @ Florida Museum*. [Accessed 17 March 2021]. Available from: https://www.floridamuseum.ufl.edu/100years/spanish-olive-jar/

Laird, M., (1999). *The Flowering of the Landscape Garden: English Pleasure Grounds 1720-1800*. Philadelphia: University of Pennsylvania Press.

Lehmberg, S.E., (1972). Sir Thomas Audley: a soul as black as marble? In: A.J. Slavin, eds. *Tudor Men and Institutions.* Baton Rouge: Louisiana State University Press. pp. 3–31.

Lewis, A.E., (1998). A Recreation to Great Persons: Bowling in Colonial Boston. *Northeast Historical Archaeology* [online]. **27**, pp. 121-132. [Accessed 17 March 2021]. Available from: https://doi.org/10.22191/neha/vol27/iss1/10

Lewis, C., (2013). Test pit excavation within occupied settlements in East Anglia in 2013. *Medieval Settlement Research* [online]. **29**, pp. 78-89. [Accessed 15 November 2021]. Available from: https://doi.org/10.5284/1059101

Lewis, C., (2014). The Power of Pits: Archaeology, outreach and research in living landscapes. In: K. Boyle, R.J. Rabett, and C.O. Hunt, eds. *Living in the Landscape*. Cambridge: McDonald Institute for Archaeological Research. pp. 321-338.

Lewis, C., (2015). Archaeological Excavation and Deep Mapping in Historic Rural Communities. *Humanities* [online]. **4**(3), pp. 393-417. [Accessed 16 September 2021]. Available from: doi.org/10.3390/h4030393

Lewis, C., (2020). A Thousand Years of Change: new perspectives on rural settlement development from test pit excavations in eastern England. *Medieval Settlement Research*. **35**, pp. 26-46.

Lewis, C., and Pryor, A., (2013). *Archaeological Test Pit Excavations in Meldreth, Cambridgeshire, 2013*. Cambridge: Access Cambridge Archaeology. [Accessed 15 November 2021]. Available from: https://doi.org/10.5284/1030514

Liddy, L.J.H., (2015). *Domestic objects in York c.1400-1600: consumption, neighbourhood and choice.* Ph.D. thesis, University of York. [Accessed 17 March 2021]. Available from: http://etheses.whiterose.ac.uk/11614/

Lindsey, B., (2020). Historic Glass Bottle Identification & Information Website [online]. *Historic Glass Bottle Identification & Information*. [Accessed 17 March 2021]. Available from: https://sha.org/bottle/

Linford, N., and Payne, A., (2011). *Audley End House and Park, Saffron Walden, Essex: Report on Geophysical Surveys, 2009-2010* [online]. Swindon: English Heritage. [Accessed 17 March 2021]. Available from: https://research.historicengland.org.uk/Report.aspx?i=14958

Linford, N., and Payne, A., (2015). Summary of Geophysical Survey 2009-2010. In: M. Alexander, ed. *Audley End, Essex: Historic Landscape Investigations*. Swindon: Historic England. pp. 49–57.

Locock, M., (2005). Geophysical survey. In: C. Currie, ed. *Garden archaeology.* York: Council for British Archaeology. pp. 53-57.

Longworth, C., (2004). Buckley Sgraffito: a study of a 17th century pottery industry in North Wales, its production techniques and design influences. *Internet Archaeology* [online]. **16**. [Accessed 17 March 2021]. Available from: https://doi.org/10.11141/ia.16.1

Lucas, G., (2001). *Critical approaches to fieldwork: contemporary and historical archaeological practice*. Online edition. London/New York: Routledge. [Accessed 16 September 2021]. Available from: https://ebookcentral.proquest.com/lib/sheffield/detail.action?docID=165861

Lucas, G., (2006). Historical Archaeology and Time. In: D.C. Hicks and M.C.C. Beaudry, eds. *The Cambridge Companion to Historical Archaeology.* Cambridge: Cambridge University Press, pp. 34–47.

MacAlister, I., and Elliott, J., (2004). Gotch, John Alfred (1852–1942). *Oxford Dictionary of National Biography* [online]. [Accessed 17 March 2021]. Available from: https://doi.org/10.1093/ref:odnb/33484

Malek, A., (2013a). Wilhelmina F. Jashemski and the Gardens of the Roman Empire. In: A. Malek, ed. *Sourcebook for Garden Archaeology.* Bern: Peter Lang. pp. 41-58.

Malek, A., (2013b). Christopher Taylor and British Garden Archaeology. In: A. Malek, ed. *Sourcebook for Garden Archaeology.* Bern: Peter Lang. pp. 59-72.

Malek, A., (2013c). American Garden Archaeology and Chesapeake Bay. In: A. Malek, ed. *Sourcebook for Garden Archaeology.* Bern: Peter Lang. pp. 73-92.

Mandler, P., (1997). *The fall and rise of the stately home*. New Haven, Connecticut: Yale University Press.

Margeson, S. (1993). *Norwich households: the medieval and post-medieval finds from Norwich Survey excavations 1971-1978* [online]. Norwich: Norfolk Museums Service. [Accessed 17 March 2021]. Available from: https://doi.org/10.5284/1042744

Martin, J., (2019). Griffin [married name Grey], Elizabeth [other married name Elizabeth Wallop, countess of Portsmouth] (bap. 1691, d. 1762), landowner. *Oxford Dictionary of National Biography* [online]. [Accessed 21 October 2021]. Available from: https://doi-org.sheffield.idm.oclc.org/10.1093/ref:odnb/62679

Matthews, B., and Foreman, S., (2009) *Witley Court: The parterre de broderie in the East Parterre: Post-Excavation Assessment and Project Design.* Oxford: Oxford Archaeology. [Accessed 15 November 2021]. Available from: https://doi.org/10.5284/1030740

Mattick, B.E., (1993). The history of toothbrushes and their nature as archaeological artifacts. *The Florida Anthropologist* [online]. **46**(3), pp. 162–184. [Accessed 17 March 2021]. Available from: https://ufdc.ufl.edu/UF00027829/00044/15j

Mawrey, G., and Groves, L., (2010). *The Gardens of English Heritage*. London: Frances Lincoln Ltd.

Mays, S., (2012). The osteology of monasticism in Medieval England. In: R. Gowland and C. Knüsel, eds. *The Social Archaeology of Funerary Remains*. Third edition. Oxford: Oxbow Books. pp. 179-189.

McShane, A., (2014). Material Culture and 'Political Drinking' in Seventeenth-Century England. *Past & Present* [online]. **222**, pp. 247–276. [Accessed 17 March 2021]. Available from: https://doi.org/10.1093/pastj/gtt037

Medieval Pottery Research Group, (1998). *A guide to the classification of medieval ceramic forms.* London: Medieval Pottery Research Group.

Miller, B., (2016). "Daunting is an understatement": The battle by archaeologists to save a burnt-out mansion [online]. *Culture 24*. [Accessed 17 March 2021]. Available from: https://www.culture24.org.uk/history-and-heritage/archaeology/art555152-clandon-park-archaeology-fire-national-trust

Miller, D., (1994). *Material culture and mass consumption*. Oxford: Blackwell.

Miller, G.L., (1980). Classification and Economic Scaling of 19th Century Ceramics. *Historical Archaeology* [online]. **14**, pp. 1–40. [Accessed 17 March 2021]. Available from: https://doi.org/10.1007/BF03373454

Millward, J., and Martin, C., (2007). *Audley End House, Essex: The Museum Room*. Swindon: English Heritage.

MOLA, (2014). *Medieval and post-medieval pottery codes* [online]. London: MOLA. [Accessed 17 March 2021]. Available from: https://www.mola.org.uk/medieval-and-post-medieval-pottery-codes

Moorhouse, S., (1971). Post-Medieval Britain in 1970. *Post-Medieval Archaeology* [online]. **5**, pp. 197–222. [Accessed 17 March 2021]. Available from: https://doi.org/10.1179/pma.1971.014

Moorhouse, S., (1991). Ceramics in the medieval garden. In: A.E. Brown, ed. *Garden Archaeology.* CBA Research Report No. 78. London: Council for British Archaeology. pp. 100-117.

Moorhouse, S., (1991). Ceramics in the medieval garden. In: A.E. Brown, ed. *Garden Archaeology: Papers Presented to a Conference at Knuston Hall, Northamptonshire, April 1988*. London: Council for British Archaeology. pp. 100–117.

Moorhouse, S., (1993). Pottery and glass in the medieval monastery. In: R. Gilchrist and H. Mytum, eds. *Advances in Monastic Archaeology*. Oxford: Tempus Reparatum. pp. 127–148.

Mullins, P.R., (2011). The Archaeology of Consumption. *Annual Review of Anthropology* [online]. **40**, pp. 133–144. [Accessed 17 March 2021]. Available from: https://doi.org/10.1146/annurev-anthro-081309-145746

Murphy, P. and Scaife, R.G., (1991). The environmental archaeology of gardens. In: A.E. Brown, ed. *Garden Archaeology.* CBA Research Report No. 78. London: Council for British Archaeology. pp. 83-99.

Museum of London, (2009). *Museum of London Archaeological Archive: Standards*. London: Museum of London. [Accessed 16 September 2021]. Available from: https://www.museumoflondon.org.uk/collections/other-collection-databases-and-libraries/museum-london-archaeological-archive/archaeological-research-resources

Mytum, H., (2016). A short history of the Society for Post-Medieval Archaeology. *Post-Medieval Archaeology* [online]. **50**(1), pp. 6–18. [Accessed 17 March 2021]. Available from: https://doi.org/10.1080/00794236.2016.1160626

Naidoo, R., (2005). Never mind the buzzwords: 'race', heritage and the liberal agenda. In: J. Littler and R. Naidoo, eds. *The Politics of Heritage: The Legacies of 'Race'.* London: Routledge. pp. 32–43.

National Heritage List for England, (1951). Charlton Park House, Charlton – 1022216. *Historic England* [online]. [Accessed 19 April 2020]. Available from: https://historicengland.org.uk/listing/the-list/list-entry/1022216

National Heritage List for England, (2015). Elsyng Palace, Non Civil Parish – 1002040. *Historic England* [online]. [Accessed 17 December 2019]. Available from: https://historicengland.org.uk/listing/the-list/list-entry/1002040 (accessed 12.17.19).

National Trust for Scotland, (2018). History of the Trust [online]. *National Trust for Scotland.* [Accessed 17 March 2021]. Available from: https://www.nts.org.uk/our-work/history-of-the-trust

National Trust, (2015). Witchmarks at Knole and the Gunpowder Plot [online]. *National Trust.* [Accessed 16 September 2021]. Available from: https://www.nationaltrust.org.uk/knole/features/witchmarks-at-knole-date-back-to-gunpowder-plot

National Trust, (2016a). Archaeologists discover evidence of the Jacobean house at Clandon Park. *National Trust.* [Accessed 17 March 2021]. Available from: https://www.nationaltrust.org.uk/clandon-park/features/archaeologists-discover-evidence-of-the-jacobean-house-at-clandon-park

National Trust, (2016b). Kedleston's lost garden [online]. *National Trust.* [Accessed 12 January 2022]. Available from: https://www.nationaltrust.org.uk/kedleston-hall/features/kedlestons-lost-garden

National Trust, (2017). Delve into the history of Hanbury Hall [online]. *National Trust.* [Accessed 12 January 2022]. Available from: https://www.nationaltrust.org.uk/hanbury-hall-and-gardens/features/delve-into-the-history-of-hanbury-hall

National Trust, (2018). Archaeological excavations at Wimpole [online]. *National Trust.* [Accessed 17 March 2021]. Available from: https://www.nationaltrust.org.uk/wimpole-estate/features/archaeological-excavations-at-wimpole

National Trust, (2021). Lidar in lockdown: rediscovering a lost landscape at Calke Abbey, Derbyshire. *National Trust.* [Accessed 12 January 2022]. Available from: https://www.nationaltrust.org.uk/blogs/archaeologists-blog/lidar-in-lockdown-rediscovering-a-lost-landscape-at-calke-abbey-derbyshire

National Trust, (c.2020). Recreating lost gardens at Hanbury Hall [online]. *National Trust.* [Accessed 12 January 2022]. Available from: https://www.nationaltrustjobs.org.uk/our-stories/recreating-lost-gardens-at-hanbury-hall

Nenk, B., (1999). Post Medieval Redware of London and Essex. In: G. Egan and R.L. Michael, eds. *Old and New Worlds: Historical/Post-Medieval Archaeology Papers from the Societies' Joint Conferences at Williamsburg and London 1997 to Mark Thirty Years of Work and Achievement.* Oxford: Oxbow Books. pp. 235–245.

New, E.A., (2002). Christological personal seals and Christocentric devotion in later medieval England and Wales. *The Antiquaries Journal* [online]. **82**, pp. 47–68. [Accessed 19 March 2021]. Available from: https://doi.org/10.1017/S0003581500073728

Newman, C., and Willmott, H., (2017). *Collaborative Doctoral Award: The Evolution of Audley End.* Sheffield: University of Sheffield. [Unpublished item].

Noble, G., Lamont, P., and Masson-Maclean, E., (2019). Assessing the ploughzone: The impact of cultivation on artefact survival and the cost/benefits of topsoil stripping prior to excavation. *Journal of Archaeological Science* [online]. **23**, 549-558. [Accessed 15 November 2021]. Available from: doi.org/10.1016/j.jasrep.2018.11.015

Noël Hume, I., (2001). *If these pots could talk: collecting 2000 years of British household pottery.* Milwaukee: Chipstone Foundation.

Orna-Ornstein, J., (2020). Beautiful places, challenging histories [online]. *National Trust.* [Accessed 19 March 2021]. Available from: https://www.nationaltrust.org.uk/blogs/directors-blog/beautiful-places-challenging-histories

Orser, C.E., (2019). Rethinking "Bellarmine" contexts in 17th-century England*. Post-Medieval Archaeology* [online]. **53**(1), pp. 88–101. [Accessed 19 March 2021]. Available from: https://doi.org/10.1080/00794236.2019.1601390

Orton, C., Tyers, P., and Vince, A.G., (1993). *Pottery in archaeology*. Cambridge: Cambridge University Press.

Oswald, A., (1975). *Clay pipes for the archaeologist.* Oxford: British Archaeological Reports.

Oswald, A., (1999). A hillfort on Ring Hill, Littlebury, Essex. In: P. Pattison, D. Field, and S. Ainsworth, eds. *Patterns of the Past: Essays in Landscape Archaeology for Christopher Taylor*. Oxford: Oxbow Books. pp. 23–28.

Ottaway, P., and Rogers, N., (2002). *The Small Finds 17/15. Craft Industry and Everyday Life: Finds from Medieval York* [online]. York: York Archaeological Trust. [Accessed 19 March 2021]. Available from: https://doi.org/10.5284/1000404

Parker Pearson, M., and Richards, C., (1994). Ordering the World: Perceptions of Architecture, Space and Time. In: M. Parker Pearson and C. Richards, eds. *Architecture and order: approaches to social space.* London: Routledge. pp. 1-37.

Parker, N., and Lewis, C., (2018). *Archaeological test pit excavations at Middlefield Lane, Gainsborough, Lincolnshire in 2016*. Lincoln: Archaeological Project Services and University of Lincoln. [Accessed 15 November 2021]. Available from: https://eprints.lincoln.ac.uk/id/eprint/34469/

Patterson, W.B., (2008). Fuller, Thomas (1607/8-1661). *Oxford Dictionary of National Biography* [online]. [Accessed 21 October 2021]. Available from: https://doi-org.sheffield.idm.oclc.org/10.1093/ref:odnb/10236

Pearce, J., (1992). *Border wares.* London: HMSO.

Pearce, J., (1999). The Pottery Industry of the Surrey/Hampshire Borders in the 16th and 17th Centuries. In: G. Egan and R.L. Michael, eds. *Old and New Worlds: Historical/Post-Medieval Archaeology Papers from the Societies' Joint Conferences at Williamsburg and London 1997 to Mark Thirty Years of Work and Achievement.* Oxford: Oxbow Books. pp. 246–263.

Pearce, J., (2000). A late 18th-century inn clearance assemblage from Uxbridge, Middlesex. *Post-Medieval Archaeology* [online]. **34**(1), pp. 144-186. [Accessed 25 February 2021]. Available from: https://doi-org.sheffield.idm.oclc.org/10.1179/pma.2000.004

Pearce, J., (2007). *Living in Victorian London: The Clay Pipe Evidence* [online]. London: Museum of London Specialist Services. [Accessed 24 March 2021]. Available from: https://www.academia.edu/737367/Living_in_Victorian_London_The_Clay_Pipe_Evidence

Pearce, J., (2016). Down at the old Ship and Ball - taverns, trade and daily life in the London Borough of Southwark. *Post-Medieval Archaeology* [online]. **50**(2), pp. 181–226. [Accessed 19 March 2021]. Available from: https://doi.org/10.1080/00794236.2016.1224478

Pearce, J., Taylor, R., Betts, I.M., Pipe, A., Richardson, B., and Stewart, K., (2013). The stock-in-trade of a Parish Scavenger: an 18th-century community reflected in refuse from excavations at 9 and 11 Duke Street, London. *Post-Medieval Archaeology* [online]. **47**(2), pp. 281–322. [Accessed 19 March 2021]. Available from: https://doi.org/10.1179/0079423613Z.00000000037

Pearson, N., and Williams, T., (1993). Single-context planning: its role in on-site recording procedures and in post-excavation analysis at York. In: E.C. Harris, M.R. Brown III, and G.J. Brown, eds. *Practices of Archaeological Stratigraphy.* New York: Academic Press. pp. 89-103.

Pelling, M., (2019). Souvenirs of Italy: An English Family Abroad [online]. *BSECS Criticks Reviews: Fine and Decorative Art*. [Accessed 24 March 2021]. Available from: https://www.bsecs.org.uk/criticks-reviews/souvenirs-of-italy-an-english-family-abroad/

Pennell, S., (2016). *The birth of the English kitchen, 1600-1850*. London: Bloomsbury.

Pennell, S., (2017). Getting down from the table: Early modern foodways and material culture. In: C. Richardson, T. Hamling, and D. Gaimster, eds. *The Routledge Handbook of Material Culture in Early Modern Europe*. London: Routledge. pp. 185–195.

Phibbs, J., (2010). The structure of the eighteenth-century garden. *Garden History* [online]. **38**(1), pp. 20-34. [Accessed 24 March 2021]. Available from: https://www.jstor.org/stable/27821614

Phillpotts, C., (2003). The houses of Henry VIII's courtiers in London. In: D.R.M. Gaimster and R. Gilchrist, eds. *The Archaeology of Reformation 1480-1580*. London: Routledge. pp. 299–309.

Piebenga, S., (1994). William Sawrey Gilpin (1762-1843): Picturesque Improver. *Garden History* [online]. **22**(2), pp. 175–196. [Accessed 19 March 2021]. Available from: https://doi.org/10.2307/1587026

Piebenga, S., (2004). Gilpin, William Sawrey (1761/2–1843), landscape painter and landscape gardener. *Oxford Dictionary of National Biography* [online]. [Accessed 21 October 2021]. Available from: https://doi-org.sheffield.idm.oclc.org/10.1093/ref:odnb/10763

Portable Antiquities Scheme, (2016). Finds Recording Guides: Buttons (2001 guide) [online]. *Portable Antiquities Scheme*. [Accessed 22 March 2021]. Available from: https://finds.org.uk/counties/findsrecordingguides/buttons/

Portable Antiquities Scheme, (2019a). Finds Recording Guides: Book Clasps [online]. *Portable Antiquities Scheme.* [Accessed 22 March 2021]. Available from: https://finds.org.uk/counties/findsrecordingguides/book-clasps/

Portable Antiquities Scheme, (2019b). Finds Recording Guides: Seal Matrices [online]. *Portable Antiquities Scheme.* [Accessed 22 March 2021]. Available from: https://finds.org.uk/counties/findsrecordingguides/seal-matrices/

Portable Antiquities Scheme, (2019c). Finds Recording Guides: Buckles [online]. *Portable Antiquities Scheme.* [Accessed 22 March 2021]. Available from: https://finds.org.uk/counties/findsrecordingguides/buckles/

Portable Antiquities Scheme, (2019d). Finds Recording Guides: Lace-Tags [online]. *Portable Antiquities Scheme*. [Accessed 22 March 2021]. Available from: https://finds.org.uk/counties/findsrecordingguides/lace-tags/

Portable Antiquities Scheme, (2019e). Finds Recording Guides: Forks [online]. *Portable Antiquities Scheme*. [Accessed 22 March 2021]. Available from: https://finds.org.uk/counties/findsrecordingguides/forks/

Powell, A.B., (2010). *Manor Lodge, Sheffield: Interim Report on the 2009 Excavation* [online]. Sheffield; Wessex Archaeology. [Accessed 26 April 2021]. Available from: https://archaeologydataservice.ac.uk/library/browse/issue.xhtml?recordId=1154673

Powell, W.R., (1963). *A History of the County of Essex*. Volume III. London: Victoria County History.

Prall, S.E., (1973). Tudor Men and Institutions: Studies in English Law and Government. *History: Reviews of New Books* [online]. **1**, pp. 130–131. [Accessed 22 March 2021]. Available from: https://doi.org/10.1080/03612759.1973.9946126

Prehistoric Ceramics Research Group, Study Group for Roman Pottery, and Medieval Pottery Research Group, (2016). *A Standard for Pottery Studies in Archaeology* [online]. London:

Historic England. [Accessed 22 March 2021]. Available from: https://historicengland.org.uk/images-books/publications/standard-for-pottery-studies-in-archaeology/

Rapson, E.J., and Spain, J., (2019). Griffin [formerly Whitwell], John Griffin, fourth Baron Howard de Walden and first Baron Braybrooke. *Oxford Dictionary of National Biography* [online]. [Accessed 21 October 2021]. Available from: https://doi-org.sheffield.idm.oclc.org/10.1093/ref:odnb/11589

Rayner, E., (2012a). Gawthorpe Manor: engaging the public with Harewood's medieval past. *The Post Hole* [online]. **25**, pp. 25–31. [Accessed 22 March 2021]. Available from: https://www.theposthole.org/read/article/182

Rayner, E., (2012b). *Gawthorpe Excavation Blog*. [Accessed 22 March 2021]. Available from: https://gawthorpedigharewood.wordpress.com/

Regan-Lefebvre, J., (2017). John Bull's Other Vineyard: Selling Australian Wine in Nineteenth-Century Britain. *The Journal of Imperial and Commonwealth History* [online]. **45**(2), pp. 259-283. [Accessed 24 March 2021]. Available from: https://doi.org/10.1080/03086534.2017.1294243

Renfrew, C., and Bahn, P., (2007). *Archaeology: theories, methods and practice*. New York: Thames and Hudson.

Richards, J.D., (2008). Managing Digital Preservation and Access: The Archaeology Data Service. In: F.P. McManamon, A. Stout, and J.A. Barnes, eds. M*anaging Archaeological Resources*: Global Context, National Programs, Local Actions. Online edition. London: Routledge. pp. 173-194. [Accessed 16 September 2021]. Available from: https://ebookcentral.proquest.com/lib/sheffield/detail.action?docID=677745

Richardson, C., Hamling, T., Gaimster, D., (2017). Introduction. In: C. Richardson, T. Hamling, and D. Gaimster, eds. *The Routledge Handbook of Material Culture in Early Modern Europe*. London: Routledge. pp. 3–28.

Rickard, J., (2006). *Mocha and related dipped wares, 1770-1939*. New York: University Press of New England.

Ridgway, C., (1993). William Andrews Nesfield: Between Uvedale Price and Isambard Kingdom Brunel. *The Journal of Garden History* [online]. **13**(1), pp. 69-89. [Accessed 8 October 2021]. Available from: doi.org/10.1080/01445170.1993.10412480

Rippon, S.J., Fyfe, R.M., and Brown, A.G., (2006). Beyond villages and open fields: the origins and development of a historic landscape characterised by dispersed settlement in south-west England. *Medieval Archaeology* [online]. **50**(1), pp. 31-70. [Accessed 15 November 2021]. Available from: doi.org/10.1179/174581706x124239

Roach, J.P.C., (1959). *A History of the County of Cambridge and the Isle of Ely: Volume III, the City and University of Cambridge*. British History Online edition. London: Victoria County History. [Accessed 26 April 2021]. Available from: http://www.british-history.ac.uk/vch/cambs/vol3

Rodwell, W., (1972). The Roman Fort at Great Chesterford, Essex. *Britannia* [online]. **3**, pp. 290-293. [Accessed 24 March 2021]. Available from: https://doi.org/10.2307/526032

Roebuck, J., Coppack, G., and Hurst, J.G., (1987). A closely dated group of Late Medieval pottery from Mount Grace Priory. *Medieval Ceramics* [online]. **11**, pp. 15–24. [Accessed 22 March 2021]. Available from: https://medievalpottery.org.uk/medieval-ceramics-online/volume-11-1987/

Roseff, R., (1993). *Archaeological Investigations in the North Garden, Castle Bromwich Hall. Birmingham: Birmingham University Field Archaeology Unit.* [Accessed 15 November 2021]. Available from: doi.org/10.5284/1032196

Rosenfield, M.C., (1961). *The disposal of the property of monastic houses, with a special study of Holy Trinity Aldgate*. Ph.D. thesis, Queen Mary, University of London. [Accessed 22 March 2021]. Available from: https://qmro.qmul.ac.uk/xmlui/handle/123456789/1543

Rowell, R.L., (2000). *The archaeology of late monastic hospitality*. Ph.D. thesis, University of York. [Accessed 22 March 2021]. Available from: http://etheses.whiterose.ac.uk/14051/

Royal Commission on Historical Monuments, (1916). *An Inventory of the Historical Monuments in Essex*. London: His Majesty's Stationery Office. Reproduction of copy in the University of

Toronto collections. [Accessed 26 April 2021]. Available from: https://archive.org/details/inventoryofhist01grea/

Rutherford, S., (2018). *Hardy Plants and Plantings for Repton and Late Georgian Gardens (1780-1820)*. Research Department Report no. 20/2018. Swindon: Historic England. [Accessed 4 January 2021]. Available from: https://historicengland.org.uk/research/results/reports/20-2018

Saint Mary's University, (2014). Shell-edged Pearlware [online]. *Saint Mary's University Archaeology Lab Ceramics Database*. [Accessed 22 March 2021]. Available from: http://www.smu.ca/academics/departments/anthropology-shell-edged-pearlware.html

Salisbury, H., (2013). Bond to Indemnify the parish of Walden agt Ann White's Child by Mr Rebecca, 1773. *Essex Record Office Blog* [online]. [Accessed 27 April 2021]. Available from: http://www.essexrecordofficeblog.co.uk/nominate-your-favourite-record/

Sambrook, P.A., (1996a). *Country House Brewing in England 1500-1900.* London: Hambledon Press.

Sambrook, P.A., (1996b). Introduction. In: P.A. Sambrook and P. Brears, eds. *The Country House Kitchen 1650–1900*. Stroud: Alan Sutton Publishing. pp. 1-9.

Samford, P.M., (1997). Response to a market: Dating English underglaze transfer-printed wares. *Historical Archaeology* [online]. **31**, pp. 1–30. [Accessed 22 March 2021]. Available from: https://doi.org/10.1007/BF03373600

Schiffer, M.B., (1985). Is There a "Pompeii Premise" in Archaeology? *Journal of Anthropological Research* [online]. **41**(1), pp. 18–41. [Accessed 22 March 2021]. Available from: https://www.journals.uchicago.edu/doi/abs/10.1086/jar.41.1.3630269

Schivelbusch, W., (1993). *Tastes of paradise: a social history of spices, stimulants, and intoxicants.* New York: Vintage Books.

Schofield, A.J., (1991). Interpreting artefact scatters: an introduction. In: A.J. Schofield, ed. *Interpreting artefact scatters: Contributions to ploughzone archaeology*. Oxford: Oxbow Books. pp. 3-10.

Schofield, A.J., (1991). *Interpreting artefact scatters: contributions to ploughzone archaeology.* Oxford: Oxbow Books.

Schofield, J., and Lea, R., (2005). *Holy Trinity Priory, Aldgate, City of London: an archaeological reconstruction and history*. London: Museum of London Archaeology Service.

Schofield, J., Carmen, J., and Belford, P., (2011). *Archaeological Practice in Great Britain: A Heritage Handbook*. New York: Springer.

Shennan, S., (1985). *Experiments in the collection and analysis of archaeological survey data: the East Hampshire survey*. Sheffield: University of Sheffield.

Sladen, T., (1984). The Garden at Kirby Hall 1570-1700. *Journal of Garden History*. **4**(2), pp. 139-156.

Slowikowski, A., (1995). 'The greatest depository of archaeological material': the role of pottery in ploughzone archaeology. In: E. Shepard, ed. *Interpreting Stratigraphy 5*. Hunstanton: Witley Press. pp. 15-20. [Accessed 15 November 2021]. Available from: https://www.york.ac.uk/archaeology/strat/pastpub/95nor.htm

Smith, E.A., (1981). *Glassware from a reputed 1745 siege debris context at the fortress of Louisbourg*. Ottawa: Environment Canada.

Smith, K., (2016). Imperial objects? Country house interiors in 18th-century Britain. In: J. Stobart and A. Hann, eds. *The Country House: Material Culture and Consumption*. Swindon: Historic England. pp. 105–112.

Smith, P., (2008). *Stable Building, Audley End House, Saffron Walden, Essex* [online]. Fort Cumberland: English Heritage. [Accessed 22 March 2021]. Available from: https://research.historicengland.org.uk/PrintReport.aspx?i=14686

Smith, T., (1996). "Almost Pathetic ... But Also Very Glorious": The Consumer Spectacle of the Diamond Jubilee. *Histoire Sociale/Social History* [online]. **29**(58), pp. 333-356. [Accessed 22 March 2021]. Available from: https://hssh.journals.yorku.ca/index.php/hssh/article/view/4759

Society for Museum Archaeology, (2018). *Museums Collecting Archaeology (England)* [online]. Report III. Swindon: Historic England. [Accessed 27 April 2021]. Available from:

http://socmusarch.org.uk/socmusarch/gailmark/wordpress/wp-content/uploads/2019/04/HE-SURVEY-2018-TEMPLATE-FINAL.pdf

Society for Museum Archaeology, (2020). *Standards and Guidance in the Care of Archaeological Collections*. Online edition. [Accessed 16 September 2021]. Available from: http://socmusarch.org.uk/training/smart-project/

Soden, I., (2005). A multi-disciplinary approach to garden archaeology. In: C. Currie, ed. *Garden archaeology.* York: Council for British Archaeology. pp. 148-152.

Soutar, S., (2015). Aerial Photographic and LiDAR Survey and Analysis. In: M. Alexander, ed. *Audley End, Essex: Historic Landscape Investigations*. Swindon: Historic England. pp. 23–48.

Spence, C., (1993). Recording the archaeology of London: the development and implementation of the DUA recording system. In: E.C. Harris, M.R. Brown III, and G.J. Brown, eds. *Practices of Archaeological Stratigraphy.* New York: Academic Press. pp. 23-46.

Stater, V., (2004). Howard, Theophilus, second earl of Suffolk (1584–1640) [online]. *Oxford Dictionary of National Biography.* [Accessed 22 March 2021]. Available from: https://doi.org/10.1093/ref:odnb/13938

Steane, J., (1985). *The archaeology of medieval England and Wales.* Croom Helm, London: Croom Helm.

Stobart, J., (2011). Gentlemen and shopkeepers: supplying the country house in eighteenth-century England. *The Economic History Review* [online]. **64**(3), pp. 885–904. [Accessed 22 March 2021]. Available from: https://doi.org/10.1111/j.1468-0289.2010.00562.x

Stobart, J., (2016). Introduction: The country house and cultures of consumption. In: J. Stobart and A. Hann, eds. *The Country House: Material Culture and Consumption*. Swindon: Historic England. pp. 1–10.

Stobart, J., (2017). Retail revolution and the village shop (1660–1860) [online]. *Economic History Society: The Long Run.* [Accessed 22 March 2021]. Available from: https://ehsthelongrun.net/2017/11/28/retail-revolution-and-the-village-shop-1660-1860/

Stobart, J., and Rothery, M., (2016a). *Consumption and the country house.* Oxford: Oxford University Press.

Stobart, J., and Rothery, M., (2016b). Geographies of supply: Stoneleigh Abbey and Arbury Hall in the 18th century. In: J. Stobart and A. Hann, eds. *The Country House: Material Culture and Consumption*. Swindon: Historic England. pp. 43–54.

Stobart, J., Hann, A., and Morgan, V., (2007). *Spaces of Consumption: Leisure and Shopping in the English Town, c.1680-1830*. London: Routledge.

Stocker, D., (2005). Holy Trinity Priory, Aldgate, City of London: An Archaeological Reconstruction and History. By John Schofield and Richard Lea. *Archaeological Journal* [online]. **162**(1), pp. 354. [Accessed 22 March 2021]. Available from: https://doi.org/10.1080/00665983.2005.11020653

Strafford, L., (2015). *Archaeological Investigations at the Backgrounds, Kedleston Hall, Derbyshire*. Sheffield: ArcHeritage. [Accessed 12 January 2022]. Available from: https://doi.org/10.5284/1041729

Straube, B., (2013). 'Like Daffodils and Oak Trees': an examination of 17th century earthenware costrels from Jamestown, Virginia. In: E.C. Klingelhöfer ed. *A Glorious Empire: Archaeology and the Tudor-Stuart Atlantic World: Essays in Honor of Ivor Noël Hume*. Oxford: Oxbow Books. pp. 12-30.

Sutherill, M., (1995). *The gardens of Audley End*. London: English Heritage.

Sutherill, M., (1996). Garden buildings at Audley End. *Georgian Group Journal*. **6**, pp. 102–109.

Sutherill, M., (1997). The buildings of the Elysium Garden at Audley End. *Georgian Group Journal*. **7**, pp. 94–104.

Sygrave, J., (2010). Potions, powders, and ointments: a post-medieval apothecary or druggist assemblage, and the evolution of Coleman Street. *Transactions of the London & Middlesex Archaeological Society* [online]. **60**, pp. 91-107. [Accessed 22 March 2021]. Available from: https://www.lamas.org.uk/archives/transactions/transactions-vol60.html

Symes, M., (2006). *A Glossary of Garden History*. Princes Risborough: Shire Publications.

Tait, A.A., (1980). Loudon and the Return to Formality. In: L. Fern, ed. *John Claudius Loudon and the early Nineteenth Century in Great Britain*. Washington: Dumbarton Oaks. pp. 59-76.

Tatham, S., (2013). Audley End House: Interpretation Plan for The House. Swindon: English Heritage.

Tatlioglu, T.G., (2010). *Biographies of people and place: the Harewood Estate, 1698-1813*. Ph.D. thesis, University of York. [Accessed 22 March 2021]. Available from: http://etheses.whiterose.ac.uk/1405/

Taylor, C., (1996). The archaeology of gardens and designed landscapes. In: D.M. Evans, P. Salway, and D. Thackray, eds. '*The Remains of Distant Times': Archaeology and the National Trust.* Woodbridge: Boydell Press. pp. 59-65.

Taylor, C., (2014). The house and garden of Henry Winstanley, Littlebury, Essex. *Landscape History* [online]. **35**(2), pp. 39–52. [Accessed 22 March 2021]. Available from: https://doi.org/10.1080/01433768.2014.981394

Taylor, C., and Brown, A., (1972). The gardens at Lyveden, Northamptonshire. *The Archaeological Journal*. **129**, pp. 154-160.

Taylor, C.C., (1991). Garden archaeology: an introduction. In: A.E. Brown, ed. *Garden Archaeology.* CBA Research Report No. 78. London: Council for British Archaeology. pp. 1-5.

Thackray, D., (1997). The use of volunteers in garden archaeology. T*he Journal of Garden History* [online]. **17**(1), pp. 54-60. [Accessed 29 December 2021]. Available from: doi.org/10.1080/01445170.1997.10412535

Thomas, J., (1999). *Understanding the Neolithic.* LondonL Taylor & Francis.

Thomas, R., (2019). It's Not Mitigation! Policy and Practice in Development-Led Archaeology in England. *The Historic Environment: Policy & Practice* [online]. **10**, pp. 328-344. [Accessed 16 September 2021]. Available from: https://doi.org/10.1080/17567505.2019.1662999

Thompson, M., (2017). *Rubbish theory: the creation and destruction of value* [online]. Second edition. London: Pluto Press. [Accessed 22 March 2021]. Available from: https://doi.org/10.2307/j.ctt1rfsn94

Thompson, M., (2019). Humphry Repton and the Development of the Flower Garden. *Garden History* [online]. **41**, Supplement 1, pp. 57-72. [Accessed 4 January 2021]. Available from: https://thegardenstrust.org/repton-and-horticulture-issue/

Thorne, R., (2021). Griffin, Richard [formerly Richard Aldworth Neville], second Baron Braybrooke (1750–1825), politician. *Oxford Dictionary of National Biography* [online]. [Accessed 21 October 2021]. Available from: https://doi-org.sheffield.idm.oclc.org/10.1093/ref:odnb/19957

Thrush, A., (2018). The Fall of Thomas Howard, 1st Earl of Suffolk and the Revival of Impeachment in the Parliament of 1621. *Parliamentary History* [online]. **37**(2), pp. 197–211. [Accessed 22 March 2021]. Available from: https://doi.org/10.1111/1750-0206.12361

Thurley, S., (1993). *The royal palaces of Tudor England: architecture and court life, 1460-1547*. New Haven, Connecticut: Yale University Press.

Thurley, S., (1995). William III's Privy Garden at Hampton Court Palace: Research and restoration. In: S. Thurley, ed. *The King's Privy Garden at Hampton Court Palace, 1689-1995.* London: Apollo Magazine. pp. 3–22.

Thurley, S., (2003). The early Stuarts and Hampton court. *History Today* [online]. **53**(11), pp. 14–15. [Accessed 22 March 2021]. Available from: https://www.historytoday.com/archive/early-stuarts-and-hampton-court

Thurley, S., (2013). *Men from the ministry: how Britain saved its heritage*. New Haven, Connecticut: Yale University Press.

Thwaite, A.-S., (2017). A "witch-bottle". In: C. Richardson, T. Hamling, and D. Gaimster, eds. *The Routledge Handbook of Material Culture in Early Modern Europe*. London: Routledge. pp. 224–225.

Tinniswood, A., (1989). *A history of country house visiting: five centuries of tourism and taste*. Oxford: Basil Blackwell.

Tyers, P.A., (1996). *Atlas of Roman Pottery*. [Accessed 24 March 2021]. Available from: http://potsherd.net/atlas

University of Leicester, (2018). Colonial Countryside [online]. *University of Leicester.* [Accessed 22 March 2021]. Available from: https://www2.le.ac.uk/departments/english/creativewriting/centre/colonial-countryside-project

Valdez-Tullett, A., (2017). *Phases 2 and 3 Evaluation of the grounds at Marble Hill House, Twickenham, London Borough of Richmond*. London: Historic England.

Valentine, I., (2004). *Station 43: Audley End House and SOE's Polish Section*. Stroud: Sutton.

Van Der Veen, M., Hill, A., and Livarda, A., (2013). The archaeobotany of Medieval Britain (c AD 450–1500): identifying research priorities for the 21st century. *Medieval Archaeology* [online]. **57**(1), pp. 151-182. [Accessed 15 November 2021]. Available from: doi.org/10.1179/0076609713Z.00000000018n/a

Velis, C.A., Wilson, D.C., and Cheeseman, C.R., (2009). 19th century London dust-yards: A case study in closed-loop resource efficiency. *Waste Management* [online]. **29**(4), pp. 1282–1290. [Accessed 22 March 2021]. Available from: https://doi.org/10.1016/j.wasman.2008.10.018

Verey, R., (1974). Knots and Parterres, a Bibliography. *Garden History* [online]. **2**(2), pp. 77-81. [Accessed 4 January 2021]. Available from: https://www.jstor.org/stable/1586462

Vickery, A., (2009). *Behind Closed Doors: At Home in Georgian England* [online]. New Haven, Connecticut: Yale University Press. [Accessed 24 March 2021]. Available from: https://ebookcentral.proquest.com/lib/sheffield/detail.action?docID=4585764

Voss, B.L., (2012). Curation as research. A case study in orphaned and underreported archaeological collections. *Archaeological Dialogues* [online]. **19**(2), pp. 145–169. [Accessed 22 March 2021]. Available from: https://doi.org/10.1017/S1380203812000219

Waterson, M., (1980). *The servants' hall: a domestic history of Erddig*. London: Routledge.

Weatherill, L., (1996). *Consumer behaviour and material culture in Britain, 1660-1760*. London: Routledge.

Webb, D., (2011). *Audley End, Saffron Walden, Essex. Archaeological Monitoring.* Cambridge: Cambridge Archaeological Unit. [Accessed 29 December 2021]. Available from: https://doi.org/10.5284/1030698

West, J.J., (1997). Garden archaeology from a curator's point of view. *The Journal of Garden History* [online]. **17**(1), pp. 86–90. [Accessed 29 December 2021]. Available from: doi:10.1080/01445170.1997.10412539

West, S., (1999a). Introduction. In: S. Tarlow and S. West, eds. *The Familiar Past? Archaeologies of Later Historical Britain*. London: Routledge. pp. 1–15.

West, S., (1999b). Social Space and the English Country House. In: S. Tarlow and S. West, eds. *The Familiar Past? Archaeologies of Later Historical Britain*. London: Routledge. pp. 103–122.

Whittle, J., (2016). The gentry as consumers in early 17th-century England. In: J. Stobart and A. Hann, eds. *The Country House: Material Culture and Consumption*. Swindon: Historic England. pp. 24–32.

Wilkins, K. (2011). "The most exclusive village in the world": The Utilization of Space by the Victorian Aristocracy during the London Season. *Urban History Review* [online]. **40**(1), pp. 5-16. [Accessed 27 April 2021]. Available from: https://doi.org/10.7202/1006402a

Williams, H., (2013). Saxon Obsequies: the Early Medieval Archaeology of Richard Cornwallis Neville. *Bulletin of the History of Archaeology* [online]. **23**(1), pp. 1-19. [Accessed 22 March 2021]. Available from: https://doi.org/10.5334/bha.2312

Williams, J.D., (1966). *Audley End: the restoration of 1762-1797*. Chelmsford: Essex County Council.

Williams, J.D., (1974). *A study of an eighteenth century nobleman, his house, household and estate: Sir John Griffin Griffin, 4th Lord Howard de Walden, 1st Lord Braybrooke, of Audley End, Essex, 1719-1797.* Ph.D. thesis, King's College London (University of London). [Accessed 24 March 2021]. Available from: https://kclpure.kcl.ac.uk/portal/en/theses/a-study-of-an-eigteenth-century-nobleman-his-house-household-and-estate--sir-john-griffin-griffin-4th-lord-howard-de-walden-1st-lord-braybrooke-of-audley-end-essex-17191797(1e3d9367-6116-4ee1-921d-fe701668d9a7).html

Williams, J.D., (1992). The noble household as a unit of consumption: the Audley End experience, 1765-1797. *Essex Archaeology and History* [online]. **23**, pp. 67–78. [Accessed 22 March 2021]. Available from: http://esah1852.org.uk/research/transactions/3rd-and-4th-series-1960-date/item/65-eah-volume-23-1992-contents-list

Williams, J.D., (1993). The noble household as a unit of employment: Audley End, 1755-97. *Essex Archaeology and History* [online]. **24**, pp. 164-167. [Accessed 22 March 2021]. Available from: http://esah1852.org.uk/research/transactions/3rd-and-4th-series-1960-date/item/64-eah-volume-24-1993-contents-list

Willmott, H., (2002). *Early post-medieval vessel glass in England, c. 1500-1670*. York: Council for British Archaeology.

Willmott, H., (2005a). *A history of English glassmaking AD 43-1800.* Stroud: Tempus.

Willmott, H., (2005b). Tudor dining: object and image at the table. In: M. Carroll, D. Hadley, and H. Willmott, eds. *Consuming Passions: Dining from Antiquity to the Eighteenth Century*. Stroud: Tempus. pp. 121-142.

Willmott, H., (2020). *The Dissolution of the Monasteries in England and Wales*. Sheffield: Equinox Publishing.

Willmott, H., and Bryson, A., (2013). Changing to suit the times: a post-Dissolution history of Monk Bretton Priory, South Yorkshire. *Post-Medieval Archaeology [*online]. **47**(1), pp. 136–163. [Accessed 22 March 2021]. Available from: https://doi.org/10.1179/0079423613Z.00000000029

Wilson, C.A., (1996). Cooks, kitchen-maids and kitchen helpers in the country house. In: P.A. Sambrook and P. Brears, eds. *The Country House Kitchen 1650–1900*. Stroud: Alan Sutton Publishing. pp. 77-91.

Woodbridge, K., (2001). Dezallier d'Argenville, Antoine-Joseph. In: G. Jellicoe, S. Jellicoe, P. Goode, and M. Lancaster, eds. *The Oxford Companion to Gardens.* Second edition. Oxford, New York: Oxford University Press. pp. 142.

Woodbridge, K., and Goode, P., (2001). Parterres. In: G. Jellicoe, S. Jellicoe, P. Goode, and M. Lancaster, eds. *The Oxford Companion to Gardens*. Second edition. Oxford, New York: Oxford University Press. pp. 422-424.

Worsley, G., (2011). *England's lost houses: from the archives of Country life*. London: Aurum.

Woudstra, J. and Finch, J., (2020). Capability Brown, Royal Gardener and Placemaker in Northern Europe. In: J. Finch and J. Woudstra, eds. *Capability Brown, Royal Gardener.* Online edition. York: White Rose University Press. pp. 199-204. [Accessed 30 March 2021]. Available from: https://doi.org/10.22599/CapabilityBrown.n

Woudstra, J., (1995a). The planting of the Privy Garden. In: S. Thurley, ed. *The King's Privy Garden at Hampton Court Palace, 1689-1995.* London: Apollo Magazine. pp. 43-78.

Woudstra, J., (1995b). The Reconstruction of the Privy Garden. In: M. Batey and J. Woudstra, eds. *The Story of the Privy Garden at Hampton Court.* London: Barn Elms. pp. 22-56.

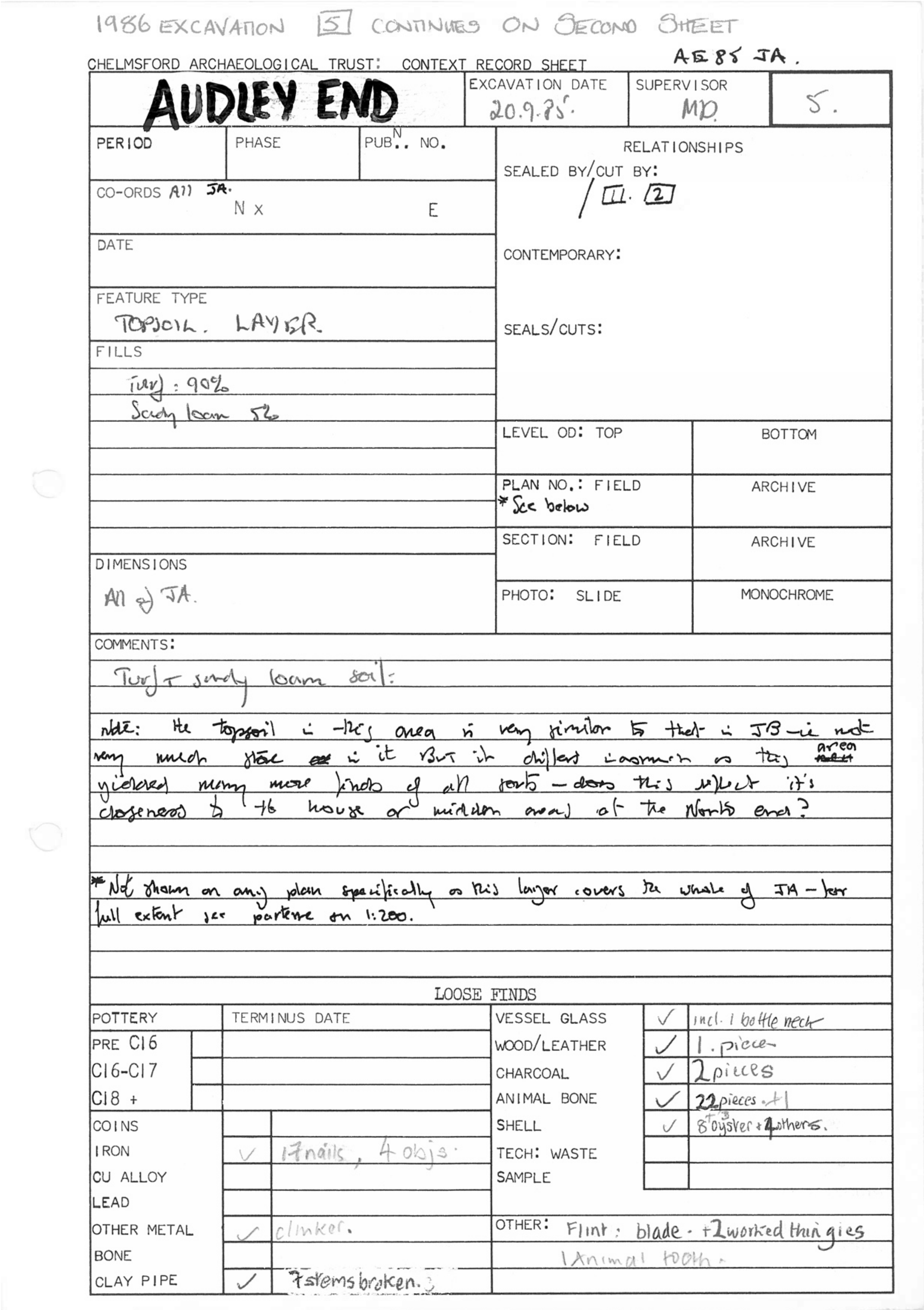
Woudstra, J., Merrony, C. and Klemperer, M., (2004). The Great Parterre at Chatsworth: Refining Non-Invasive Archaeological Methods as Investigation Techniques. *Garden History* [online]. **32**(1), pp. 49-67. [Accessed 25 February 2021]. Available from: https://doi.org/10.2307/1587313

Wright, D.W., (2015). Shaping Rural Settlements: The Early Medieval Legacy to the English Village. *Landscapes* [online]. **16**(2), pp. 105-125. [Accessed 16 September 2021]. Available from: doi.org/10.1179/1466203515Z.00000000045

Wright, S.M., and Hurst, D., (2010). *Midlands purple and Cistercian-type wares in the west Midlands in the 15th-16th centuries* [online]. Worcester: Worcestershire Archaeology. [Accessed 25 February 2021]. Available from: https://doi.org/10.5284/1037532

Young, H., (1999). *English porcelain, 1745-95: its makers, design, marketing and consumption*. London: Victoria and Albert Museum.

Appendix 1: Examples of site documentation



1986 EXCAVATION [5] CONTINUES ON SECOND SHEET

CHELMSFORD ARCHAEOLOGICAL TRUST: CONTEXT RECORD SHEET — AE 85 JA.

AUDLEY END	EXCAVATION DATE 20.9.85.	SUPERVISOR MD	5.

PERIOD | PHASE | PUB^{N}. NO.

CO-ORDS A11 JA. N x E

DATE

FEATURE TYPE: TOPSOIL. LAYER.

FILLS: Turf : 90%; Sandy loam 5%

DIMENSIONS: All of JA.

RELATIONSHIPS — SEALED BY/CUT BY: / [1]. [2]

CONTEMPORARY:

SEALS/CUTS:

LEVEL OD: TOP | BOTTOM

PLAN NO.: FIELD * See below | ARCHIVE

SECTION: FIELD | ARCHIVE

PHOTO: SLIDE | MONOCHROME

COMMENTS:

Turf + sandy loam soil:

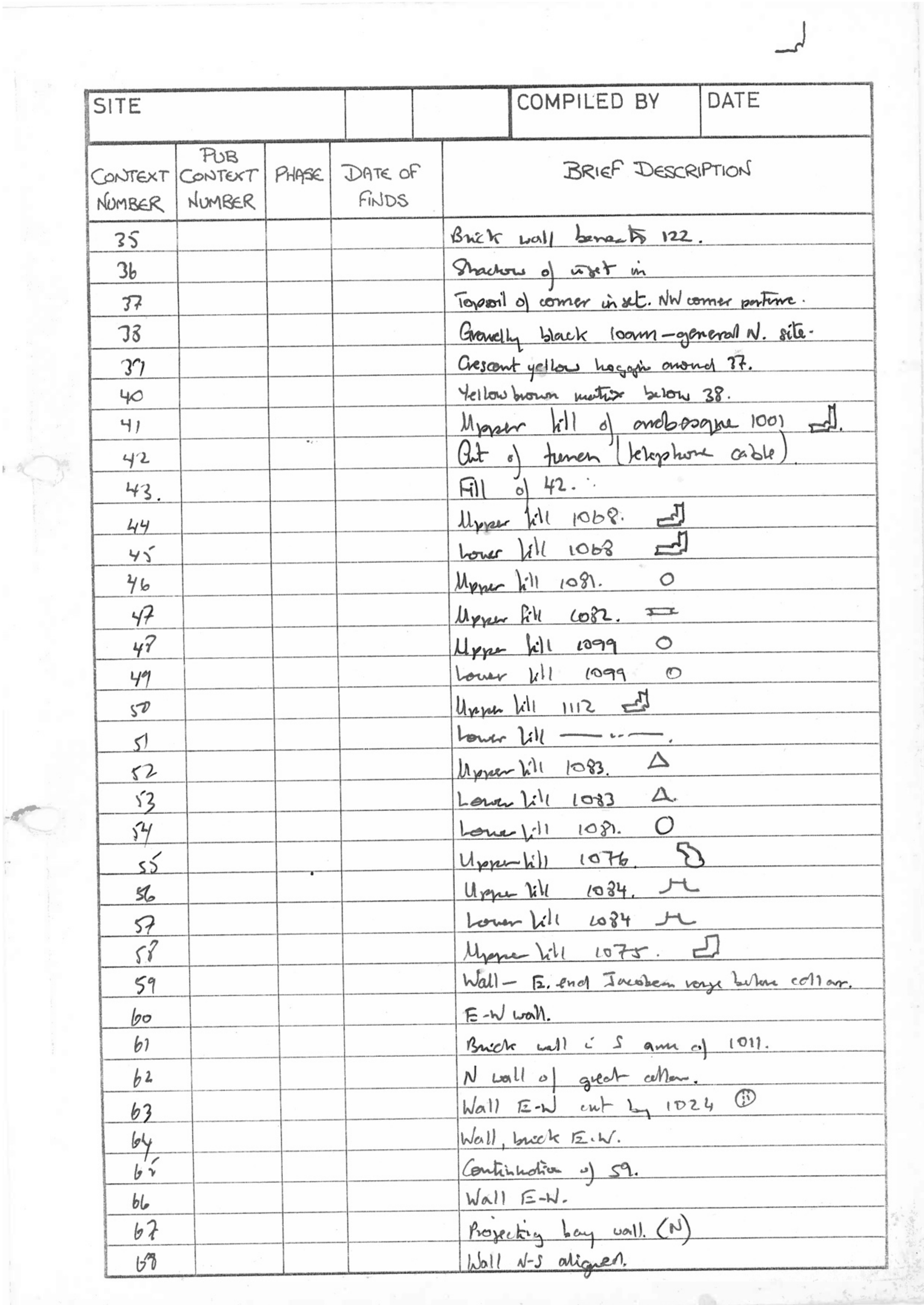
note: the topsoil in this area is very similar to that in JB — ie not very much stone in it But it differs insomuch as this area yielded many more finds of all sorts — does this reflect it's closeness to the house or midden area at the North end?

* Not shown on any plan specifically as this layer covers the whole of JA — for full extent see partere on 1:200.

LOOSE FINDS

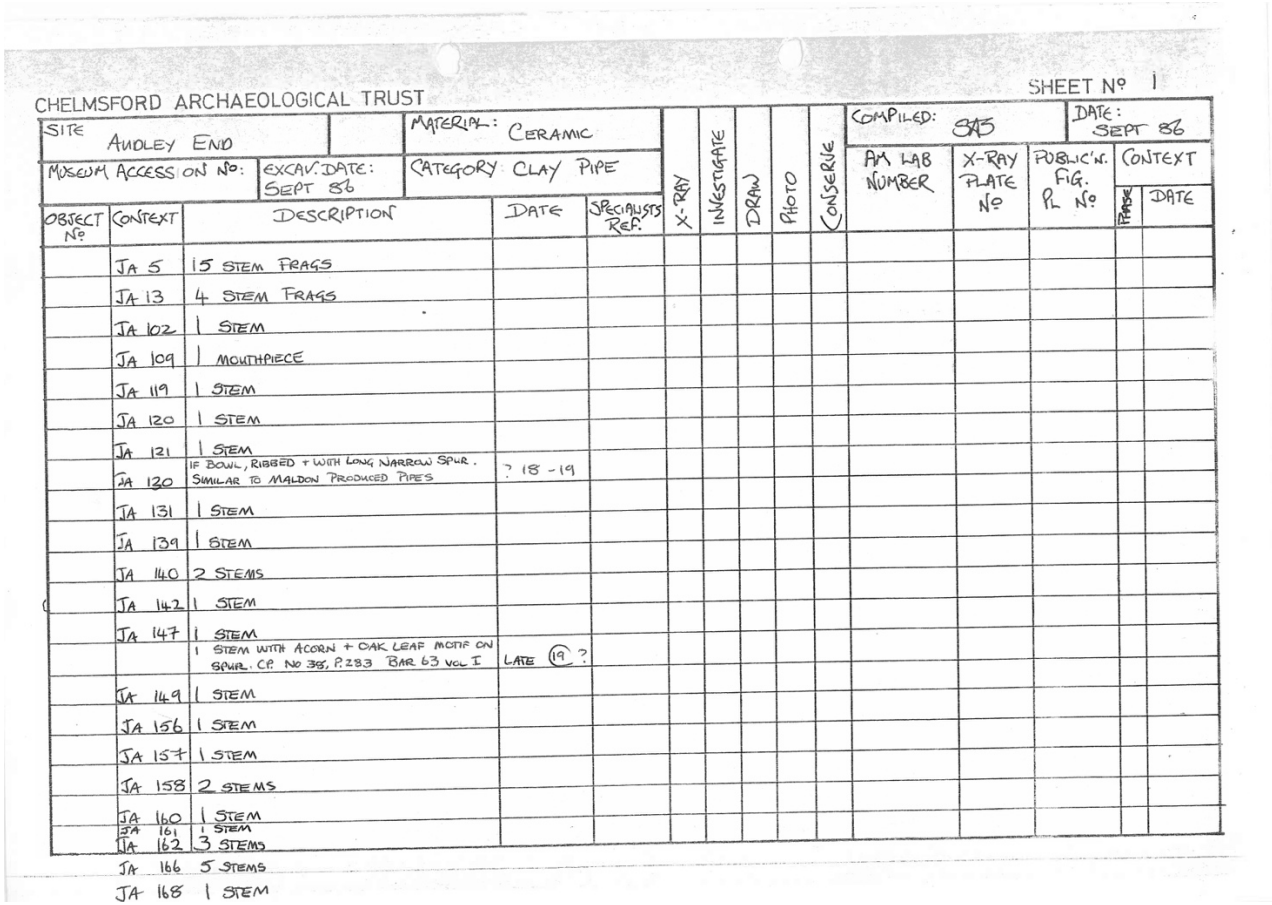
POTTERY	TERMINUS DATE		VESSEL GLASS	✓	incl. 1 bottle neck
PRE C16			WOOD/LEATHER	✓	1. piece
C16-C17			CHARCOAL	✓	2 pieces
C18 +			ANIMAL BONE	✓	22 pieces + 1
COINS			SHELL	✓	8 oyster + 4 others.
IRON	✓	17 nails, 4 objs.	TECH: WASTE		
CU ALLOY			SAMPLE		
LEAD					
OTHER METAL	✓	clinker.	OTHER: Flint: blade + 2 worked thingies		
BONE			1 Animal tooth.		
CLAY PIPE	✓	7 stems broken.			

Figure A1.0.1: A context sheet produced by the Chelmsford Archaeological Trust during the 1985-1987 excavation; this example records topsoil context [JA 5]. © English Heritage.



SITE				COMPILED BY	DATE
CONTEXT NUMBER	PUB CONTEXT NUMBER	PHASE	DATE OF FINDS	BRIEF DESCRIPTION	
35				Brick wall beneath 122.	
36				Shadow of inset in	
37				Topsoil of corner inset. NW corner portion.	
38				Gravelly black loam – general N. site.	
39				Crescent yellow hoggin around 37.	
40				Yellow brown mortar below 38.	
41				Upper fill of [illegible] 1001	
42				Cut of trench (telephone cable).	
43.				Fill of 42.	
44				Upper fill 1068.	
45				Lower fill 1068	
46				Upper fill 1081.	
47				Upper fill 1082.	
48				Upper fill 1099	
49				Lower fill 1099	
50				Upper fill 1112	
51				Lower fill — " —.	
52				Upper fill 1083.	
53				Lower fill 1083	
54				Lower fill 1081.	
55				Upper fill 1076.	
56				Upper fill 1084.	
57				Lower fill 1084	
58				Upper fill 1075.	
59				Wall – E. end Jacobean range below cellar.	
60				E-W wall.	
61				Brick wall in S arm of 1011.	
62				N wall of great cellar.	
63				Wall E-W cut by 1024	
64				Wall, brick E-W.	
65				Continuation of 59.	
66				Wall E-W.	
67				Projecting bay wall. (N)	
68				Wall N-S aligned.	

Figure A1.0.2: A sheet from the context register produced by the Chelmsford Archaeological Trust; this example covers contexts [JA 36-68]. © English Heritage.



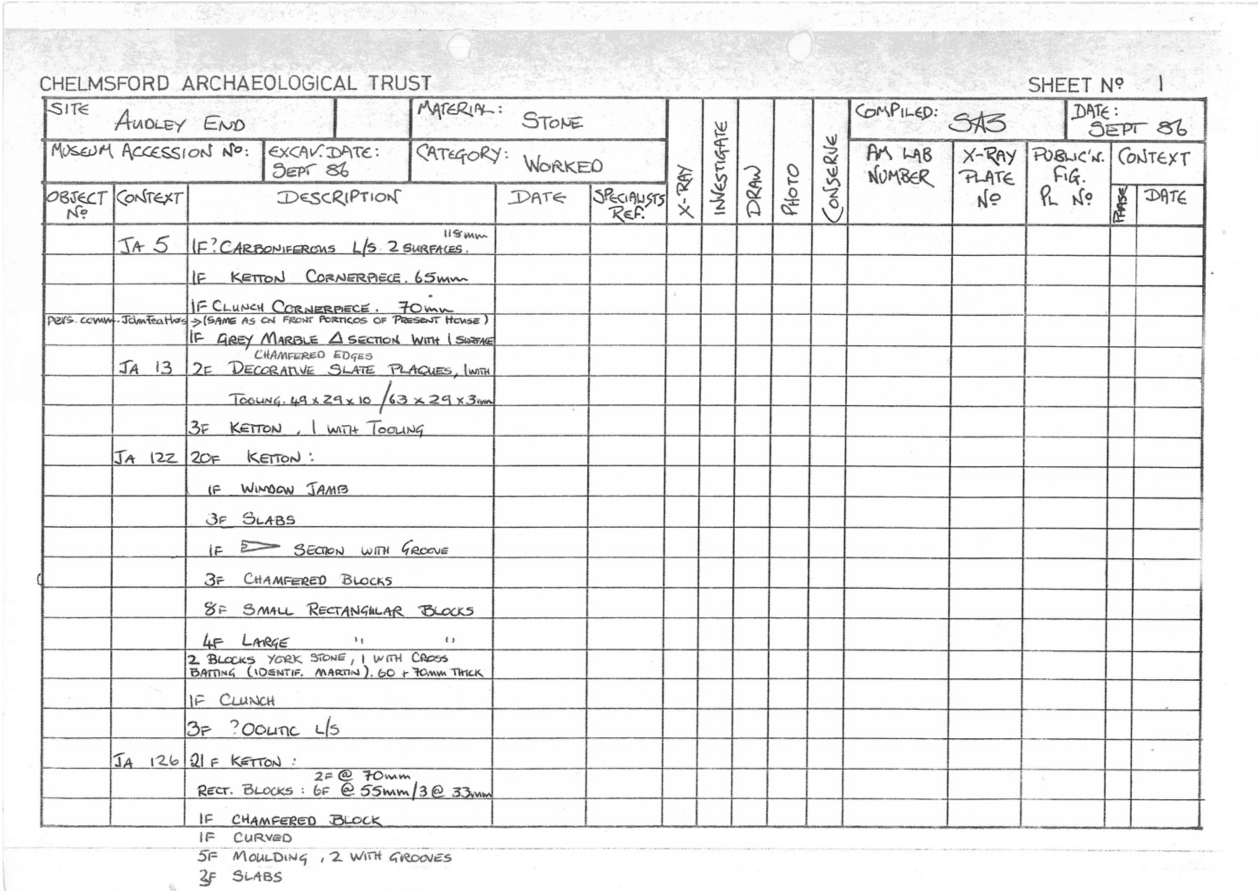
CHELMSFORD ARCHAEOLOGICAL TRUST

SHEET Nº 1

SITE		MATERIAL:	X-RAY	INVESTIGATE	DRAW	PHOTO	CONSERVE	COMPILED:	DATE:
AUDLEY END		CERAMIC						SJS	SEPT 86
MUSEUM ACCESSION Nº:	EXCAV. DATE: SEPT 86	CATEGORY: CLAY PIPE							

OBJECT Nº	CONTEXT	DESCRIPTION	DATE	SPECIALISTS REF.	AM LAB NUMBER	X-RAY PLATE Nº	PUBLIC'N. FIG. PL Nº	CONTEXT PHASE	CONTEXT DATE
	JA 5	15 STEM FRAGS							
	JA 13	4 STEM FRAGS							
	JA 102	1 STEM							
	JA 109	1 MOUTHPIECE							
	JA 119	1 STEM							
	JA 120	1 STEM							
	JA 121	1 STEM							
	JA 130	IF BOWL, RIBBED + WITH LONG NARROW SPUR. SIMILAR TO MALDON PRODUCED PIPES	? 18 - 19						
	JA 131	1 STEM							
	JA 139	1 STEM							
	JA 140	2 STEMS							
	JA 142	1 STEM							
	JA 147	1 STEM							
		1 STEM WITH ACORN + OAK LEAF MOTIF ON SPUR. CF. NO 36, P.283 BAR 63 VOL I	LATE (19) ?						
	JA 149	1 STEM							
	JA 156	1 STEM							
	JA 157	1 STEM							
	JA 158	2 STEMS							
	JA 160	1 STEM							
	JA 161	1 STEM							
	JA 162	3 STEMS							
	JA 166	5 STEMS							
	JA 168	1 STEM							

Figure A1.0.3: A sheet from the bulk finds register produced by the Chelmsford Archaeological Trust; this example shows the clay pipe assemblage recovered from contexts in the main parterre area. © English Heritage.



CHELMSFORD ARCHAEOLOGICAL TRUST — SHEET Nº 1

SITE: AUDLEY END — MATERIAL: STONE — COMPILED: SAB — DATE: SEPT 86

MUSEUM ACCESSION Nº: — EXCAV. DATE: SEPT 86 — CATEGORY: WORKED

OBJECT Nº	CONTEXT	DESCRIPTION	DATE	SPECIALISTS REF.	X-RAY	INVESTIGATE	DRAW	PHOTO	CONSERVE	AM LAB NUMBER	X-RAY PLATE Nº	PUBLIC'N. FIG. PL. Nº	CONTEXT PHASE	CONTEXT DATE
	JA 5	1F ? CARBONIFEROUS L/S 2 SURFACES. 118mm												
		1F KETTON CORNERPIECE. 65mm												
		1F CLUNCH CORNERPIECE. 70mm												
pers. comm. Jdm Feathers		→ (SAME AS ON FRONT PORTICOS OF PRESENT HOUSE)												
		1F GREY MARBLE Δ SECTION WITH 1 SURFACE												
	JA 13	2F DECORATIVE SLATE PLAQUES, 1 WITH CHAMFERED EDGES												
		TOOLING. 49 x 29 x 10 / 63 x 29 x 3mm												
		3F KETTON, 1 WITH TOOLING												
	JA 122	20F KETTON:												
		1F WINDOW JAMB												
		3F SLABS												
		1F ▷ SECTION WITH GROOVE												
		3F CHAMFERED BLOCKS												
		8F SMALL RECTANGULAR BLOCKS												
		4F LARGE " "												
		2 BLOCKS YORK STONE, 1 WITH CROSS BATTING (IDENTIF. MARTIN). 60 + 70mm THICK												
		1F CLUNCH												
		3F ? OOLITIC L/S												
	JA 126	21F KETTON:												
		RECT. BLOCKS: 6F @ 55mm / 3 @ 33mm 2F @ 70mm												
		1F CHAMFERED BLOCK												

1F CURVED
5F MOULDING, 2 WITH GROOVES
3F SLABS

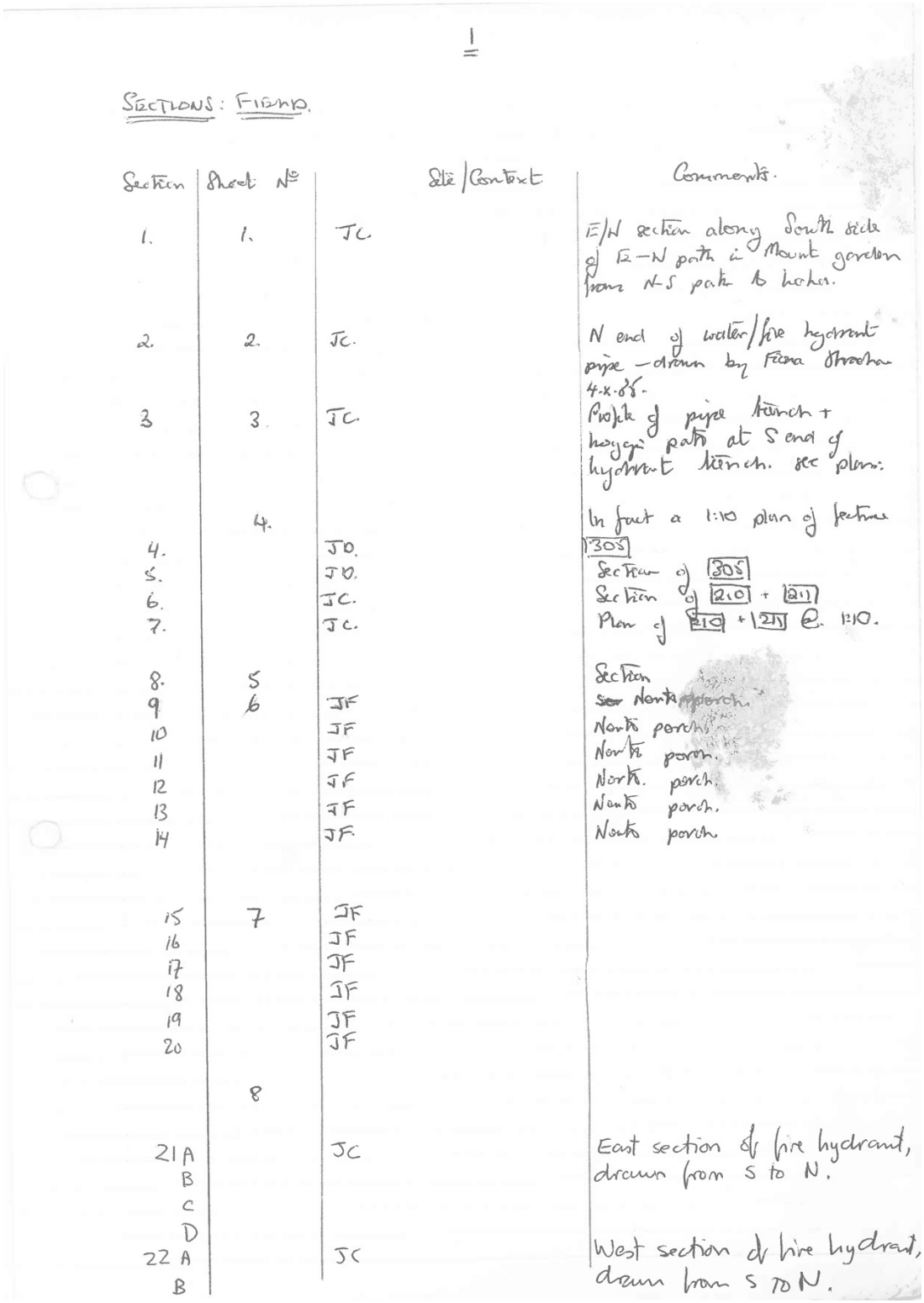
Figure A1.0.4: A sheet from the bulk finds register produced by the Chelmsford Archaeological Trust; this example catalogues worked stone recovered from contexts in the main parterre area. © English Heritage.

PLANS: FIELD

Plan Nº	Site.	Comments.
1.	JE.	} together comprise complete trench.
2.	JE.	}
3.	JD.	for overlay see 50
4.	JC.	South end of wide path. See 51 for overlay.
5.	JC.	East path running towards ha ha.
6.	JB.	NW corner of site.
7.	JC.	Trench. (South end.)
8.	JB.	
9.	SD	Trench
10.	JC	— " — drawn by MD. 95N–117N
11.	JE.	First overlay. for plan number 1.
12.	JC.	South section of West face.
13.	JC.	Hoggin paths in Mount Garden.
14.	JB.	Southern area of JB.
15	JC.	Trench JC centre section of N-W.
16	JC	Trench. N/S. JC North end
17.	JC	Trench. N/S. JC. Centre.
18	JB.	Overlay to show flower bed of excavated, overlay to No. 6.
19	JC	Overlay for 16. (on same sheet as 28).
20	JC	South end towards estate wall.
21	JE.	Overlay for plan number 11.
22	JC.	Mount Gdn paths (DLB)
23	JH	W-E trench for gas main – late services
24	JH	1st overlay to Plan 23. – fairly recent features
25	JH	Overlay to Plan 23 – mainly to West of trench.
26	JH	Overlay to Plan 23 – possible path to E of trench.
27	JH	Surface below path.
28	JC.	Overlay for 19. (and on same sheet!).
29	JH	Path (725)
30	JC	Trench – northern continuation of plan 10 121N – 117N.
31	JH	Path (732)
32	JA	NE sector Parterre Flowerbeds (DLB) (for overlay see section sheet 13).
33	JA	SE sector Parterre Flowerbeds (DLB)
34.	JC.	Mount Gdn path. – SW stretch from house past Cedar of Leb...
35	JH/JC	North end of Hydrant trench. 182N–170N.
36	JH/JC	Overlay to 35, showing extent of chalk path.
37	JH/JC	
38	JC	Continuation W of Plan No. 22 (DLB) Mount Gdn Path E/W
39	JC	Trench to South end next estate wall – overlay for 20
40	JC	Trench N/S JC. North end. Overlay for Plan Nos 28 + 16.
41	JC	Continuation W. of Plan No. 38 (DLB) Mount Gdn Path E/W

Figure A1.0.5: A sheet from the plan register produced by the Chelmsford Archaeological Trust.

**



SECTIONS: FIELD.

Section	Sheet No		Site/Context	Comments.
1.	1.	JC.		E/W section along South side of E–W path in Mount garden from N–S path to house.
2.	2.	JC.		N end of water/fire hydrant pipe – drawn by Fiona Strachan 4.x.88.
3	3.	JC.		Profile of pipe trench + hoggin path at S end of hydrant trench. see plan.
	4.			In fact a 1:10 plan of feature [305]
4.		JD.		Section of [305]
5.		JD.		Section of [210] + [211]
6.		JC.		Plan of [210] + [211] @ 1:10.
7.		JC.		
8.	5			Section
9	6	JF		~~see~~ North porch.
10		JF		North porch.
11		JF		North porch.
12		JF		North porch.
13		JF		North porch.
14		JF		North porch.
15	7	JF		
16		JF		
17		JF		
18		JF		
19		JF		
20		JF		
	8			
21 A		JC		East section of fire hydrant, drawn from S to N.
B				
C				
D				
22 A		JC		West section of fire hydrant, drawn from S to N.
B				

Figure A1.0.6: A sheet from the plan register produced by the Chelmsford Archaeological Trust.

© English Heritage.

Appendix 2: 1985-1987 site documentation catalogue

Type of document	Quantity	Archival location
Basic finds records	Approx. 100 finds register sheets	XDE1101
Context records	Approx. 1200 context sheets	XDE1101 (1985-1986) XDE1102 (1985-1987) XDE1103 (1987)
Context register/index	Register of contexts, produced at start of each 100 context sheets	XDE1101 (1985-1986) XDE1102 (1985-1987) XDE1103 (1987)
Environmental records	Soil sample register (14 sheets)	XDE1111
Fieldwork photographs	7 unannotated black and white photographs	XDE1111
Other site documentation	1 sheet titled 'Audley End Grid Points'	XDE1101
Plans, sections, and drawing registers	Register of plans (3 sheets) Register of section drawings (6 sheets)	XDE1101
Site drawings	45 plans and 103 section drawings	XDE1105, XDE1108, XDE1109, XDE1110, XDE1113
Specific finds records	Small finds register for 1987 Approx. 250 masonry record sheets	XDE1103 XDE1104

Appendix 3: Post-excavation research documentation catalogue

Type of document	Description	Author(s)	Archival location	Bibliographic reference
Assessment report	*Audley End Gardens: Excavations 1985-1987. A Post-excavation Assessment*	Colin Hayfield	XDE1111	(Hayfield, 1997)
Bibliography	List of published sources about Audley End House	Unknown	XDE1111	N/A
Draft general report	*Excavations at Audley End House 1987*	Andrew Harris	XDE1933	N/A
Draft general report	*Walden Abbey and the Development of Audley End House: Excavations 1985-1987*	Andrew Harris	XDE1111	(Harris, 1997)
Finished interim report	*Excavations around the north and south porches, AE JF, AE JG*	Carol Cunningham	XDE1933	(Cunningham, c.1985)
Finished interim report	*Excavations at Audley End, 1985-1987*	Carol Cunningham Andrew Harris	XDE1933	(Harris and Cunningham, c.1987)
Finished interim report	*Excavations in Audley End Gardens 1986/87 Interim Report*	Carol Cunningham	XDE1933	(Cunningham, 1987a)
Finished interim report	Excavations in the Courtyard 1987 Interim Report	Carol Cunningham	XDE1111 XDE1933	(Cunningham, 1987b)
Publication drawings	Drawings prepared for publication, some annotated	Unknown	XDE1107 XDE1109 XDE1113 XDE1297	N/A
Research documentation	Correspondence noting lack of organic preservation from soil samples	Carol Cunningham	XDE1111	N/A
Research documentation	Draft interpretative drawings of site plan, sections, buildings, and stone mouldings	Unknown	XDE1297 XDE1932 XDE1933	N/A

Research documentation	Draft outline of final report	Unknown	XDE1932	N/A
Research documentation	Notes and photocopies from house research	Unknown	XDE1932	N/A
Research documentation	Notes for public tours and notices during 1986 season	Unknown	XDE1933	N/A
Research documentation	Scans of 18th-century household records from Essex Record Office	Unknown	XDE1932	N/A
Specialist report	Draft of report listing medieval pottery types found in 1987	Unknown	XDE1103	N/A
Specialist report	Untitled stonework report	Geologists' Association	XDE1933	(Anon., 1989)

Appendix 4: 1985-1987 excavation context catalogue

Area code	Context type classification	Number of contexts	Number of pottery fragments	Number of vessel glass fragments	Number of clay pipe fragments	Number of small finds
JA	Burial	7	0	0	0	0
JA	Cut	18	0	0	0	0
JA	Flowerbed fill	226	314	246	78	14
JA	Layer	128	174	20	0	0
JA	Other fill	23	4	7	0	0
JA	Service	2	1	2	0	0
JA	Structure	62	0	0	0	0
JA	Topsoil	3	112	116	28	3
JA	Unknown	2	0	0	0	0
JB	Cut	5	0	0	0	0
JB	Flowerbed fill	6	36	21	9	1
JB	Layer	6	3	1	0	1
JB	Topsoil	1	0	2	15	0
JC	Cut	26	0	0	0	0
JC	Layer	62	56	18	14	2
JC	Other fill	28	17	3	4	1
JC	Service	5	0	0	0	0
JC	Structure	4	0	0	0	0
JC	Topsoil	2	0	2	2	0
JC	Unknown	4	0	0	0	0
JD	Cut	3	0	0	0	0
JD	Layer	9	4	3	1	0

JD	Other fill	3	1	0	0	0
JD	Topsoil	1	0	0	0	0
JE	Layer	13	6	0	4	0
JE	Other fill	2	0	0	1	0
JE	Topsoil	1	6	0	0	0
JF	Cut	15	0	0	0	0
JF	Layer	26	3	0	39	0
JF	Other fill	14	0	0	1	0
JF	Service	2	1	3	0	2
JF	Structure	6	0	0	0	0
JF	Unknown	1	0	0	0	0
JG	Cut	2	0	0	0	0
JG	Layer	4	0	0	0	0
JG	Other fill	3	0	0	0	0
JH	Unknown	14	44	50	10	1
K	Cut	35	1	0	0	0
K	Flowerbed fill	88	139	37	30	17
K	Layer	218	32	7	1	2
K	Other fill	29	22	7	2	2
K	Service	41	58	14	6	2
K	Structure	52	0	0	0	1
K	Topsoil	1	1	1	1	0
K	Unknown	4	2	0	0	1
TOTALS		**1207**	**1037**	**560**	**246**	**50**

Appendix 5: Pottery catalogue

Ware type	MOLA fabric code	Essex post-Roman pottery code	Period classification	Number of sherds	Minimum number of vessels (rim equivalent)	Maximum number of vessels	Number of rims	Number of bases	Weight (g)
Dutch/Low Countries red earthenware	DUTR	31	12th-15th centuries	3	0.1	3	1	2	289.3
Medieval coarsewares	UN	UN	12th-15th centuries	17	0.1	17	2	0	202.7
Tudor Green ware	TUDG	41	12th-15th centuries	5	0.125	4	3	0	19
Unidentified medieval ware	MISC M	98	12th-15th centuries	11	0.075	11	1	0	116
Beauvais sgraffito earthenware	BEAU	30	16th century	1	0	1	0	0	19.2
Cistercian wares	CSTN	40C	16th century	4	0	4	0	2	49.2
Martincamp flask (type 1)	MART1	43	16th century	2	0	2	0	0	20
Midlands purple ware	MPUR	UN	16th century	4	0.075	4	1	0	62.1
Raeren stoneware	RAER	45C	16th century	2	0	2	0	0	37

Frechen stoneware	FREC	45D	17th century	77	2.95	76	6	5	1244.5
Metropolitan slipware	METS	40A	17th century	14	0.175	14	3	2	285.8
Post-medieval black-glazed red earthenware	PMBL	40	17th century	11	0	11	0	3	147.7
Spanish olive jar	OLIV	29A	17th century	1	0.075	1	1	0	26.6
Staffordshire-type combed slipware	STSL	50	17th century	1	0.1	1	1	0	48.3
Surrey/Hampshire border white ware	BORD	42	17th century	3	0.05	3	1	0	40
Nottingham/ Derbyshire stoneware	NOTS	45G	18th century	7	0.225	7	3	0	71.6
Porcelain	UN	48	18th century	3	0.125	3	2	1	23.3
Post-medieval red earthenware	PMR	40	18th century	301	4.95	295	60	26	5588

Staffordshire-type white salt-glazed stoneware	SWSG	47	18th century	12	0.2	12	2	2	160.3
Tin-glazed earthenware	TGW	46	18th century	25	0.45	23	3	7	258.5
Westerwald stoneware	WEST	45F	18th century	3	0	3	0	1	25.9
Basalt ware	BBAS	49	19th century	1	0	1	0	0	12.9
Bone china	BONE	48D	19th century	8	0.225	8	4	1	60.9
English salt-glazed stoneware (modern)	ENGS	45M	19th century	35	1.675	34	5	4	863.1
Late slipped kitchenware	UN	51A	19th century	15	0.25	13	4	4	715.8
Refined white earthenware	REFW	48D/48L	19th century	215	4.35	210	52	19	3413.8
Refined white earthenware with transfer-printed decoration	TPW	48D	19th century	138	1.825	117	40	31	1575.6

Rockingham ware	ROCK	48X	19th century	4	0.05	4	1	0	61.3
Yellow ware	YELL	48E	19th century	10	0.125	10	3	1	191.6
Roman black-burnished and grey wares	N	N	Roman	12	0.875	12	9	2	357.8
Roman colour-coated ware	N	N	Roman	3	0	3	0	1	140
Unidentified Roman wares	UN	N	Roman	9	0.6	9	4	3	885.7
Unidentified ware	MISC	98	Undated	78	1.25	76	15	5	1964.2
Unidentified post-medieval ware	MISC PM	98	Undated	2	0	2	0	0	11.6
			TOTALS	**1037**	**21**	**996**	**227**	**122**	**18989.3**

Appendix 6: Vessel glass catalogue

Colour class	Vessel class	Vessel form	Period class	Number of fragments	Minimum number of vessels	Maximum number of vessels	Number of rims	Number of bases	Weight (g)
Dark green	Container	Bottle	17th century	70	5.05	70	8	8	2786.8
Colourless	Unidentified	Unidentified	18th century	2	0	2	0	0	12.9
Dark green	Container	Bottle	18th century	3	0	2	0	1	94.2
Light/mid green	Container	Vial	18th century	2	2	2	2	0	8
Blue	Container	Bottle	19th century	1	0	1	0	0	4
Blue	Tableware	Plate	19th century	4	0	4	0	2	23
Colourless	Container	Bottle	19th century	6	1.3	3	3	1	142.3
Colourless	Tableware	Stemware	19th century	1	0	1	0	0	18.3
Colourless	Tableware	Tumbler	19th century	4	0.1	4	1	3	404.2
Dark green	Container	Bottle	19th century	65	5.75	64	13	38	5863.4

Light/mid green	Container	Bottle	19th century	20	2.275	17	3	3	1005.8
Blue	Container	Unidentified	Undated	1	0	1	0	0	10.1
Blue	Unidentified	Unidentified	Undated	4	0	4	0	1	31.7
Brown	Container	Bottle	Undated	1	0	1	0	0	22.9
Brown	Unidentified	Unidentified	Undated	1	0	1	0	0	2.6
Colourless	Container	Bottle	Undated	14	0.25	14	1	1	317
Colourless	Container	Unidentified	Undated	4	0	4	0	1	61.5
Colourless	Tableware	Closed vessel	Undated	4	0.95	4	4	0	23.4
Colourless	Tableware	Stemware	Undated	1	0	1	0	0	34.8
Colourless	Tableware	Unidentified	Undated	6	0	5	0	0	58.6
Colourless	Unidentified	Unidentified	Undated	30	0.05	29	1	0	117.3
Dark green	Container	Bottle	Undated	116	1.325	115	2	1	1436.9
Dark green	Container	Unidentified	Undated	3	0	3	0	0	77.4
Dark green	Unidentified	Unidentified	Undated	146	0	143	1	0	1516.5
Light/mid green	Container	Bottle	Undated	1	0	1	0	0	24.7
Light/mid green	Container	Unidentified	Undated	8	0	8	0	0	37.3
Light/mid green	Unidentified	Unidentified	Undated	42	0	42	2	1	192.6
			TOTALS	**560**	**19.05**	**546**	**41**	**61**	**14328**

Appendix 7: Clay pipe catalogue

Typology classification	Period classification	Number of fragments	Minimum number of pipes (bowl/stem junctions)	Maximum number of pipes	Number of bowls	Number of stems	Number of mouthpieces	Weight (g)
AO25	18th century	5	3	5	3	2	1	42
OS23	18th century	2	2	2	2	0	0	22.2
London 29	19th century	3	1	2	2	1	0	8.9
OS24	19th century	1	1	1	0	1	0	4
Unidentified	19th century	3	1	3	0	3	0	7.8
Unidentified	Undated	232	15	231	15	207	11	812.4
	TOTALS	**246**	**23**	**244**	**22**	**214**	**12**	**897**

Appendix 8: Small finds catalogue

Object type	Period classification	Number of objects	Weight
Book clasp	12th-15th centuries	1	7.2
Buckle	12th-15th centuries	1	2.1
Lace tag	12th-15th centuries	3	0.7
Seal matrix	12th-15th centuries	1	3.2
Strap end	12th-15th centuries	1	2.1
Button	18th century	1	3.9
Fork	18th century	1	46.8
Plant marker	18th century	1	2.1
Button	19th century	3	4.1
Coin	19th century	1	2.7
Keyhole cover	19th century	1	10.5
Plant marker	19th century	1	5.7
Toothbrush	19th century	1	4.7
Buckle	Undated	1	4.8
Coin	Undated	1	3.5
Mount	Undated	1	6.8
Nail	Undated	2	8.1
Pin	Undated	9	2.8
Ring	Undated	1	1.8
Ring/hoop	Undated	3	4.5
Sheet	Undated	1	4
Strip	Undated	6	53.8
Unidentified	Undated	5	39.6
Wire	Undated	3	37.7
	TOTALS	**50**	**263**