Archaeological Archive Rationalisation Project

Executive summary

This project is one of several *Scoping Studies and Guidance for the Rationalisation of Museum Archaeology Collections*, which were commissioned by Historic England in late 2016. The aim was to devise strategies for de-selecting parts of existing collections in order to create space for material from current excavations, and to estimate the time and resources required for so doing.

The Museum of London project was in three stages:

1. **An inventory of the entire London Archaeological Archive, except for human remains and structural stonework and timbers stored off-site.** This revealed that we have over 85,376 boxes of general bulk finds alone, from 2,868 sites, and that the store is currently 91% full. A bespoke, environmentally-controlled Metal Store contains in excess of 8,000 boxes and is currently just over half full. An unexpected finding was that one third of the general finds boxes were generated by just 31 sites; conversely, over 2,700 sites produces just a single box or less. The survey revealed the presence of certain categories of material that might be rationalised because they would not be retained if excavated on sites today; however, these are relatively few in number (less than 5% of the entire Archive), and it was apparent that in order to make significant savings, categories such as Pottery (38% by volume of the Archive) or Animal Bone (22%) would have to be targeted.

2. **A Quality Assessment of 320 site archives (roughly 10% of the total), with reference to:**
    - Site documentation; location and periods of history represented
    - Condition and packaging of the finds
    - The use made of the archives in gallery displays, for research visits and by remote users

    The assessment confirmed one of the main trends previously identified, namely that the Archive is characterised by a relatively small number of very large 'iconic' archives that are well documented and well used. Conversely, while there many poorly-documented archives, their space-saving potential is reduced by their being predominantly small and often from geographical areas that are under-represented archaeologically. More immediately relevant were the conclusions of the condition surveys. As many as 10,000 boxes might be saved simply by combining the contents of those that are no more than half-full, while 'preservation by x-ray record' may be a more useful strategy for dealing with bulk and unidentified ironwork than attempting to conserve in perpetuity items that were already in bad condition at the time of excavation.

3. **Detailed assessment of eight sites, ranging in size from 1 to 871 boxes of finds, and representing various geographical areas, periods of history and eras of archaeological investigation.** Study of the administrative records for these sites indicated that explicit

transfers of title in the finds, from the landowner to the Museum, were rarely enacted until recent times. This could be a major barrier to rationalisation, since each proposed disposal must be assessed in terms of potential legal, financial or reputational risk. In order to assess archives according to a common standard, and to document recommendations for disposal, an assessment template was devised with five broad retention/disposal criteria which, with allowances for the differences in material, match those devised for the Museum of London's Social and Working History Rationalisation Project. When applying this methodology to three small sites, a team of MoL curators was able to identify one instance in which the finds must be entirely preserved; one in which they might be entirely disposed of; and one in which the archive might be 'streamlined' with disposal of certain categories of finds. However, when this methodology was explored in greater depth, using much larger and more complex archives, and engaging specialists from across the profession, the problems in identifying material for potential disposal became much more apparent. In the absence of records of a standard to serve as surrogates for dispersed material, the process was recognised as being prohibitively expensive.

Overall, the project was of immense benefit to the Museum of London by way of greatly enhanced understanding of the nature of the Archive and its current condition. Several general conclusions can be drawn:

- Discarding large quantities of material is not the best way to resolve our storage problems. The costs – both by way of internal administrative overheads and in terms of procuring experts to assess and record items before disposal – would be prohibitively high.
- On the other hand, useful extra space – perhaps an additional 10% - could be created by the entirely uncontentious methods of re-boxing finds more effectively and, possibly, adjusting the spacing of the shelves. Assessing the claims for long-term retention of finds that are unstratified, for example, may also be an option to pursue.
- While the focus of this project was on saving space, there may be other reasons for considering the rationalisation of collections. Prioritising important individual finds, or groups of finds, to ensure that they receive optimum conservation treatment or to enable specialists to devise more easily research programmes that will develop the subject and attract funding – these may be valid reasons for seeking to streamline an archive by reducing its administrative overheads.
- Given that the pace of current planning-led archaeological work is such as to require very large additional space for storing the resultant archives – perhaps as much as 30% over the next few years – a more practical solution may be to prioritise key archives for retention close at hand, while consigning the remainder to remote, low-cost storage.

1. General introduction

1.1. Background to the project

This project is one of several *Scoping Studies and Guidance for the Rationalisation of Museum Archaeology Collections*, which were commissioned by Historic England in late 2016. In their invitation to participate in the programme, HE explained that:

> 'Rationalisation, here, means the application of agreed selection strategies to previously accessioned archaeological project archives, with the purpose of de-selecting parts of the collection and creating storage space. The guidance will set out approaches to determining what criteria to set for rationalisation, how to estimate the time and resources required and what procedures to follow once parts of a collection have been de-selected.'[1]

HE, in conjunction with the Society of Museum Archaeologists, is taking the initiative at this time because of a near-universal breakdown in the traditional arrangements whereby material from archaeological excavations is routinely deposited in local museums. According to a survey commissioned by those two organisation in 2012,

> 'in England, due mainly to pressures on storage space, 47 local authority museums no longer collect archives from archaeological projects. This has created the build-up of over 9,000 project archives that no museum is willing to collect … many curators are therefore considering rationalisation as a means of reducing the size of their existing collections in order to create room for new acquisitions.'[2]

The Museum of London was particularly keen to be the location of one of the scoping studies, because it is confronting many of the issues identified by HE/SMA – indeed, on a much greater scale than most museums, given that around 400 fieldwork projects are carried out annually in our collecting area. Our main archaeological store is filled to 91% of its potential capacity, and the main reason that a storage crisis has not yet arisen here, is that archaeological contractors have – for a range of different reasons – deposited archives from scarcely more than 25% of the total sites excavated since the London Archaeological Archive opened in 2002. For the Museum of London, moreover, the invitation to review its archaeological holdings comes at a particularly opportune moment. A three-year project that resulted in the dispersal of some 4,000 items from our vast Social and Working History collections has just come to an end[3], and many other collections are being reassessed as we prepare for closure of our galleries at London Wall and the creation of an entirely new museum for London, which will open at West Smithfield in 2022.

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[1] Historic England Action Plan, Call for Proposals relating to Project No: 7359, Date of Issue: 18th August 2016, p. 2

[2] *Ibid*

[3] Funded by the Museums Association and the Esmée Fairbairn Foundation

1.2. Methodology

The project ran for just over six months, from mid-December 2016 to the end of June 2017, and was in three main stages:

1. Inventory of the General Store and the Metal Store (January-February)
2. Quality assessment of a 10% sample of sites: documentation, ironwork condition, research and public usage (March-late April)
3. Detailed assessment of selected sites, involving Museum of London curators and external experts (late April-early June)

The project was managed by Francis Grew (FG), Senior Curator for Archaeology, supported by a Project Board, comprising Alex Bromley (AB), Documentation Manager, Helen Ganiaris (HG), Conservation Manager, and Kathy Richmond, Registrar (KR). Most of the data collection was carried out by Michol Stocco (MS), who was started work as project assistant (dedicated exclusively to this project) in mid-January; she was supported in some tasks by Dan Nesbitt, Curatorial Assistant, and by Lucy Creighton, Archaeological Collections Manager, besides herself assisting Helen Butler (HB), Conservator (Archaeology), with the ironwork survey. In this report, the principal authors of the different sections are identified by their initials, as above; however, since this project has been a team effort throughout, involving close collaboration between individuals and departments, the principal contributors hold themselves joint responsible for the results and the opinions expressed.

1.3. Scope

As stated in the original application, the study concentrated only on material in our main store at Mortimer Wheeler House. The following categories of material, which are mostly held in other locations, and which raise particular issues for retention and storage that do not concern the normal run of archaeological finds, were therefore excluded:

1. Human remains
2. Sculpted and architectural stonework
3. Large structural timbers

The main store has roller-racking throughout, with shelving to hold 1,554 cubic metres of material, or just under 140,000 standard boxes[4]. We also have an environmentally-controlled Metal Store, with roller-racking and shelves for 235 cubic metres of material, nearly 21,000 standard boxes. Most of the racking outside the Metal Store is designated for general 'bulk' finds: 1,400 cubic metres, sufficient, in theory, for around 124,000 standard boxes. At present, there are just 85,403 boxes of 'bulk' finds; but, since many of them are in boxes much larger than the standard box, this equates to 1,276 cubic metres of storage space. In terms of general 'bulk' finds, therefore, the Museum of London is at 91% capacity. The situation is similar for individually-registered finds, for metalwork, records and photographs – though in the case of the latter two categories, the rapidly increasing use of digital media means that the collection is growing at much slower and more manageable rate.

[4] The Museum of London's standard box measures 0.19m x0.47m x 0.13m and therefore has a capacity of 0.0116 cu. m.

One factor, which is probably unique to the Museum of London, complicates study of its stores. This is that material from 1992 to the mid-2000s, which is still being researched and prepared for archive by its former archaeological department, MoLA, is held in the same store as archival material that has been fully deposited[5]. In the present survey, however, this distinction was ignored, on the grounds that it can be assumed that all the material in question will come to the Museum eventually and that to exclude it would give a falsely optimistic impression of the storage position in London. One of the consequences, however, was that it was not possible to include in the Stage 2 Quality Assessment many of the sites from the 1992-2005 era – some of which have exceptionally large finds' assemblages – simply because the site documentation was not available for study, still being with the contractor.

1.4. Organisation of the report

The report is in three main sections, with sub-sections, followed by some overall conclusions:

2. Inventory and general character of the Archive (FG, MS)
    1. Method
    2. Results
    3. General conclusions
3. Quality Assessment
    1. Acquisition records (KR)
    2. Site documentation (FG, MS)
    3. Condition surveys:
        1. ironwork (HB, HG)
        2. leather (HG)
        3. general packaging (MS)
    4. The use made of site archives (AB, FG)
4. Approaches to rationalising individual sites
    1. Acquisition records (KR)
    2. Identifying sites for rationalisation: the curatorial perspective (FG, MS)
    3. Seminar on archive assessment and documentation (Caroline Peach, with FG and MS)
5. Conclusions
6. Appendix 1: Quality Matrix
7. Appendix 2: Draft Archive Assessment pro forma, as tested on three small archives
8. Appendix 3: Types of box in use in the Museum of London Archaeological Archive

[5] MoLA, formerly a semi-autonomous division of the Museum of London, because an entirely independent organisation in November 2012. For practical and economic reasons, it was decided not to remove from its exisiting storage locations at Mortimer Wheeler House any of the material produced by excavations in the 1990s and early 2000s – whereas, of course, any finds from recent, current or future sites would be taken entirely to MoLA's own stores, In a similar way, the Museum does hold small amounts of analogous material from other archaeological contractors – in other words, the finds, but usually not the records, from sites that are still to be formally deposited by the original excavators.

1.5. List of figures

1.6. List of tables

2. Inventory and general character of the Archive (FG, MS)

The goal of Stage 1 was to inventorise and quantify the Archaeological Archive's holdings of 'Bulk Finds'. This would be at the relatively high level of:

- the total number of boxes held for each site;
- the categories of finds held for each site, and their numbers of boxes.

Whereas a type (a) inventory already existed in a relatively complete form, the Archive previously had no records fully corresponding to (b). It had information about the main finds' categories for each site but no quantified data relating to any of them. Quantified data was self-evidently a prerequisite for the rationalisation project. It would show which categories of finds occupy the most space in the store, and it would reveal anomalous or exceptionally large groups within individual sites.

The Archive's non-metallic 'Registered Finds' were not inventorised or quantified at this stage. This is because these occupy far less space and are relatively better known; moreover, because they are usually rarer items – items that are complete, suitable for museum display or in less robust materials (eg glass, textile, leather) – they are generally assumed to be among the least likely candidates for disposal[6]. Metal Registered Finds were included, however, since Stage 2 would feature a condition survey of all ironwork: items in bad condition might well be considered for disposal, even though technically 'registered'.

2.1. Method

2.1.1. General Finds (Bays 7, 8 and 11 at Mortimer Wheeler House)

The starting point was the inventory, held on four Excel spreadsheets, that had been maintained by the Archive's Curator until he retired from the Museum of London in October 2015. Each of these spreadsheets represented a different phase in the history of archive acquisition at the Museum of London and at its predecessor museums:

1. 1928-1971: material resulting from work by the Guildhall Museum, the London Museum, the Roman and Medieval London Excavation Council and various amateur groups, such as the London and Middlesex Archaeological Society
2. 1972-1991: material mostly generated by the Museum of London's Department of Urban Archaeology, and by organisations such as the Inner London Archaeology Unit or the Southwark and Lambeth Archaeological Excavation Committee; in the 1980s the latter were merged to form the Museum of London's Department of Greater London Archaeology.

[6] A survey of the registered finds will be carried out after the present project.

3. 1992-2002: material produced after the adoption of PPG16 and the introduction, as a consequence, of new post-excavation practices; about 50% of the material was generated by the Museum of London Archaeology Service (MoLAS), the rest by a wide range of commercial contractors.
4. 2003-present: material deposited by MoLAS (since 2012 'MoLA') and other contractors, after the opening of the London Archaeological Archive and Research Centre in 2002.

Initially we expected to merge the spreadsheets, but in practice the four-fold division was found useful for analytical purposes and so has been retained for the present.

The existing inventory gave the total number of boxes for each site, and documented the presence/absence of the following categories of finds for each site:

1. Pottery
2. Animal bone
3. Ceramic building material
4. Clay tobacco pipes
5. Post-medieval glass bottles and window glass
6. Flints
7. Metalwork
8. Kiln waste/kiln furniture
9. Human remains
10. Environmental remains
11. Marine shell
12. Leather scraps, waste and offcuts
13. Roman painted wall-plaster
14. Stone (in the Archive's General Store)[7]

Several tests, covering small groups of different types of site, were carried out to check whether these categories best represented the range of Bulk Finds and, to confirm that it would be possible to quantify them within the four weeks set aside for this phase of the project. These tests were positive but recommended including two further categories:

15. Slag (to cover general industrial waste other than kiln debris)
16. Miscellaneous (to cover boxes containing more than four categories of finds)

At the same time, the tests showed that a simple box count could be misleading when it came to identifying large or anomalous groups of finds. One of the two types of box most commonly used in the Archive has three times the capacity of the other; and only six, as opposed to twenty, can be stored on a standard shelf. Indeed, since our stores take a modular approach, with roller-racking

[7] The inventory also noted the presence/absence of material in the Museum of London's Rotunda store (human remains and architectural stonework), and the Museum's off-site store at Wraughton (large timbers). As stated in the project proposal these items are beyond the scope of the present project.

optimised for boxes of a particular size, any variations from the standard can have a major impact on capacity. Simply re-boxing material that is currently in out-sized containers could, in certain circumstances, be a cheaper (and less contentious) alternative to disposal. Consequently, eight main types of box were identified (see Appendix 3), of which the following were particularly important in inventorising the general finds:

- Type 1, the standard Museum of London 'shoe box' (capacity 0.011 cu. m.)
- Type 2, the standard Museum of London 'skelly box' (capacity 0.034 cu. m.)
- Type 5, a square variant of Type 1 (capacity 0.016 cu. m.), which was in regular use pre-1972 but is still used occasionally today. Type 5 boxes are less efficient in our store: just 12 fit on a standard shelf and they are difficult to accommodate in conjunction with Types 1 and 2.

When carrying out the inventory, the total number of boxes of each type was recorded for each category of material. Because of the scale of the project, the contents of the boxes were taken entirely from the labels; only in rare cases, where information on a label seemed inherently implausible, was the lid lifted and the actual contents investigated[8]. When boxes contained more than one category of finds, each category was recorded arbitrarily as an equal fraction: for instance, a box containing both Pottery and Animal Bone would be recorded as having 0.5 of each. In the case of boxes recorded as containing more than four categories of finds, the entire contents were assigned to the Miscellaneous category,without further description of the materials represented. Finally, the total number of boxes for the site was compared with the total on the original inventory. Some discrepancies could be easily resolved – for instance, because boxes had been moved onto other shelves. Unresolved discrepancies were recorded in a Notes column.

2.1.2. Metalwork (Bay 6A (Metal Store) at Mortimer Wheeler House)

Existing inventories of the Metal Store were less useful than the inventory of general bulk finds. One contained some quantification but was clearly incomplete, apparently representing a state of the store before a major reorganisation in c. 2010; moreover, the categories into which the material had been divided were unsatisfactory for present purposes. The other inventory appeared more complete, but was less detailed. Consequently, it was decided to start an entirely new inventory, using the first of the existing lists mainly as a means of checking that sites recorded earlier were still in place, and in roughly the same quantities.

The metalwork was therefore divided into the following categories, using – as in the general store – information on the box labels, rather than by first-hand investigation of the box contents:

1. Iron nails
2. Ironwork (unspecified)
3. Copper alloy (unspecified)
4. Lead alloy (unspecified)

[8] The risk that the labelling was a misleading guide as to the real contents of the boxes was mitigated to some extent by the study of labelling, bagging and boxing that was undertaken on a sample of 1,000 boxes during Stage 2 (see below). In general, the descriptions seemed to be reasonably accurate.

5. Slag
6. General metalwork (material unspecified)
7. Miscellaneous

Also as in the general store, the metalwork from each site was quantified in terms of boxes: the number of boxes of each type (see Appendix 3) holding each category of material. Two types of box proved to be particularly numerous: the standard cardboard 'shoe-box' (Type 1) and a square, close-sealing, plastic container with a capacity of 0.017 cu. m. Because of their different shape and dimensions, these two types of box do not sit together efficiently on our shelves.

For the reasons stated above (see 'Objectives'), it was decided to include 'registered' as well as 'bulk' metalwork. The recording method was identical however: registered finds were not examined individually but inventorised as bulk box-groups, with the box contents identified on the basis of the box labels. Coins had been removed from the general run of metal finds and stored in a dedicated area of the Metal Store, often with items from many sites contained in a single box. Using a previous inventory, these were recorded summarily.[9]

2.1.3. Out-sized objects (Bay 8 and Metal Store at Mortimer Wheeler House)

The Archive includes a small number of large objects that are stored in dedicated areas of the store: mainly complete pots, but some metalwork, including sections of lead water pipes. These items were recorded individually. Although not likely to be candidates for disposal, re-packing them in standard containers might bring valuable savings in storage space and make for more cost-effective management.

[9] At the same time, the very small number of precious-metal items were checked individually against an existing inventory.

2.2. Results

2.2.1. General character of the Archive

The inventory showed that the Archive includes 85,376 boxes of general Bulk Finds from 2,868 sites. This equates to almost exactly 30 boxes per site. However, analysis reveals a far more complex pattern, with a high proportion of those boxes coming from a small number of large or very large sites (Fig 1). No fewer than 1,084 sites (38% of the total) produced only one box – or less than one box – of general Bulk Finds, around 1% of all such boxes in the store. Conversely, 31 sites (just over 1% of the total) each produced more than 500 boxes, the largest being GPO75, with over 2,000 boxes. Together, these very large sites are the source of 28,638 boxes of general Bulk Finds – precisely a third (33%) of the total (Fig 2). The source of the next third (35%) is a group of large sites, each with between 100 and 500 boxes. Again, their number is relatively small – 151, just over 5% of the total number of sites – but together they produced 30,037 boxes of general Bulk Finds.

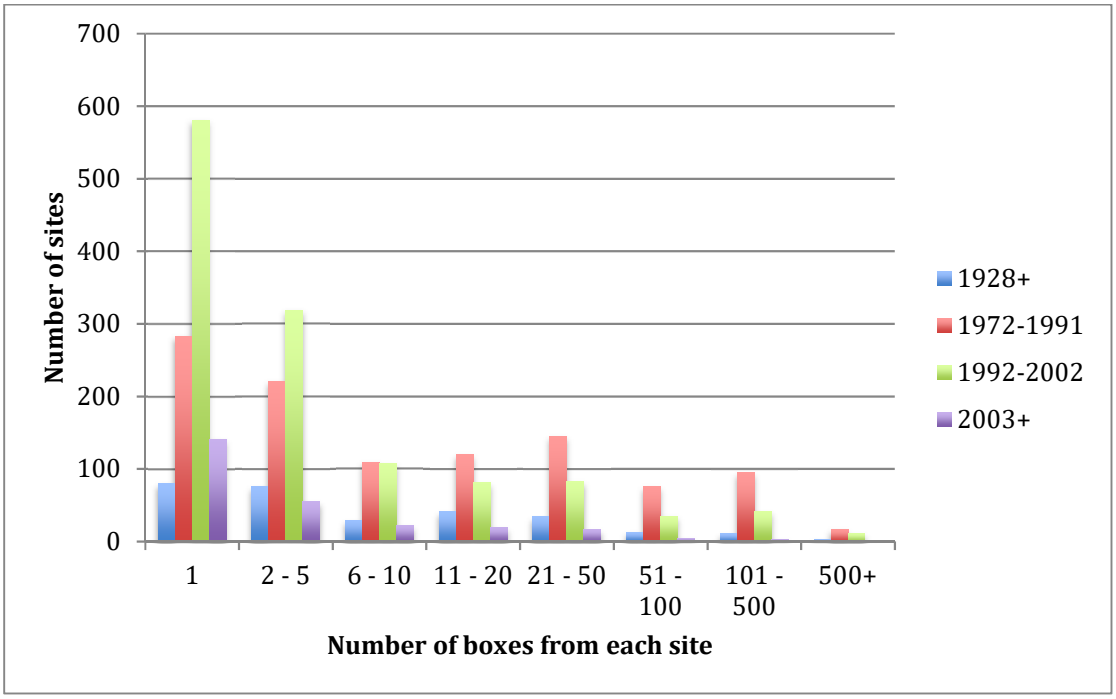


Fig 1: the size of sites, measured in terms of general Bulk Finds boxes

	Site code	Bulk Finds boxes		Site code	Bulk Finds boxes
1	GPO75	2030	6	ONE94	1261
2	FER97	1596	7	WP83	1237
3	GYE92	1564	8	SRP98	1149
4	AE72-81	1527	9	GSM97	1056
5	GHT00	1522	10	MC70-73	916

Table 1: the ten largest sites, by total number of general Bulk Finds boxes

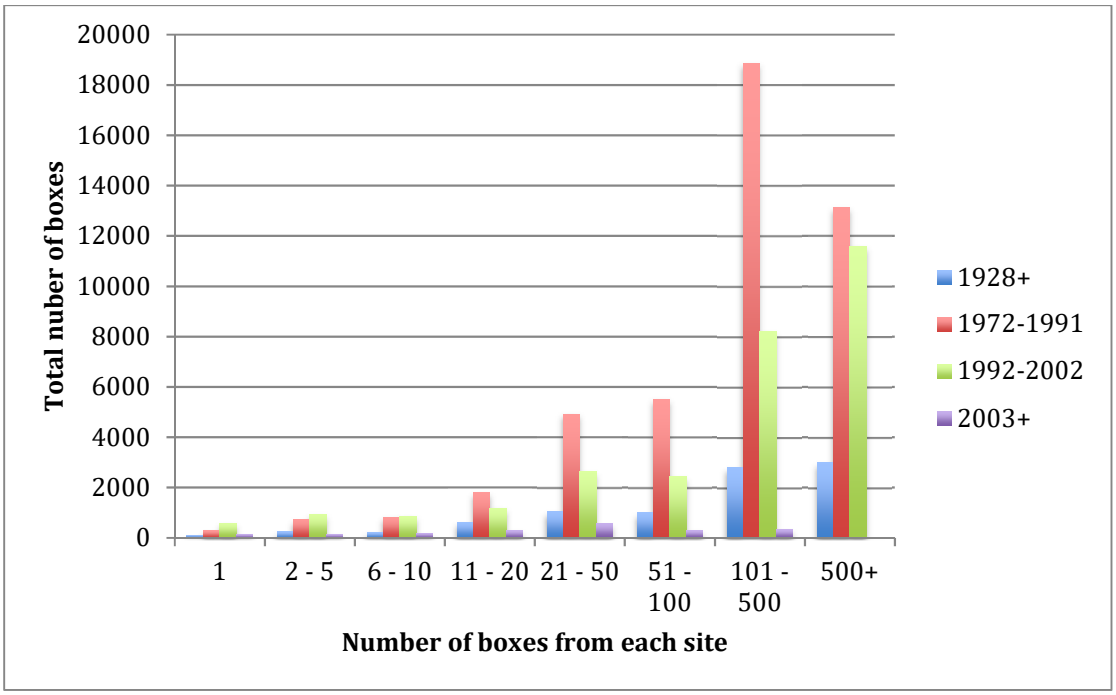


Fig 2: the number of general Bulk Finds boxes produced by sites in different size ranges

At the same time, it is evident that the disparity between very small and large or very large sites is increasing (Figs 1, 3). From the earliest period represented in the Archive, 1928-1971, there are just 80 sites with one box or less of general Bulk Finds (28% of the total 287 sites). There is a similar pattern in the next period, 1972-1991, with 283 one-box sites (27% of the total 1,064 sites), but after that the proportion of such sites virtually doubles. Of all excavations between 1992 and 2002, 580 produced one box or less (46% of the total 1,257 sites), while for excavations since 2003, the proportion is no less than 54% (141 of 260 sites). This pattern undoubtedly reflects the changes in archaeological practice and coverage that followed the introduction of PPG16 in the early 1990s. The number of archaeological interventions more than doubled – 1,257 in the single decade, 1992-2002, compared with 1,064 in the two previous decades – and many of these were small evaluations or watching-briefs in Greater London's outer Boroughs, where deeply stratified sequences from Roman to modern are almost invariably absent.

But while the *relative* proportions are accurate in the *general* trend they portray, the *absolute* figures must be treated with caution. The finds and archives from by far the majority of sites excavated since 2002 remain with contractors, as do a smaller, though still sizeable, number of those from the 1990s. These undeposited archives are often from sites with large finds assemblages, problems in obtaining Deeds of Transfer from siteowners, or lack of contractor resources for finalising the documentation to the Museum of London's required standard, being barriers to deposition. Taking the 1990s as a rough guide, however, it would appear that London generates around 120 finds-producing archaeological projects each year[10], and around 3,000 boxes of general Bulk Finds; two-thirds of

[10] The *London Archaeologist* round-ups for 2014 and 2015 included reports on over 400 archaeological interventions, and this figure is consistent with the number of site codes issued by the Museum of London each year. However, an increasing number of these projects are historic-building surveys, geotechnical surveys or other types of work that were rarely carried out by archaeologists until recently, and which do not generate finds or ecofacts for long-term storage. Moreover, some of the *LA* reports represent sites whose archives will

those boxes will be from probably no more than one ‘very large’ (500+ boxes), and four ‘large’ (100+ boxes) sites.

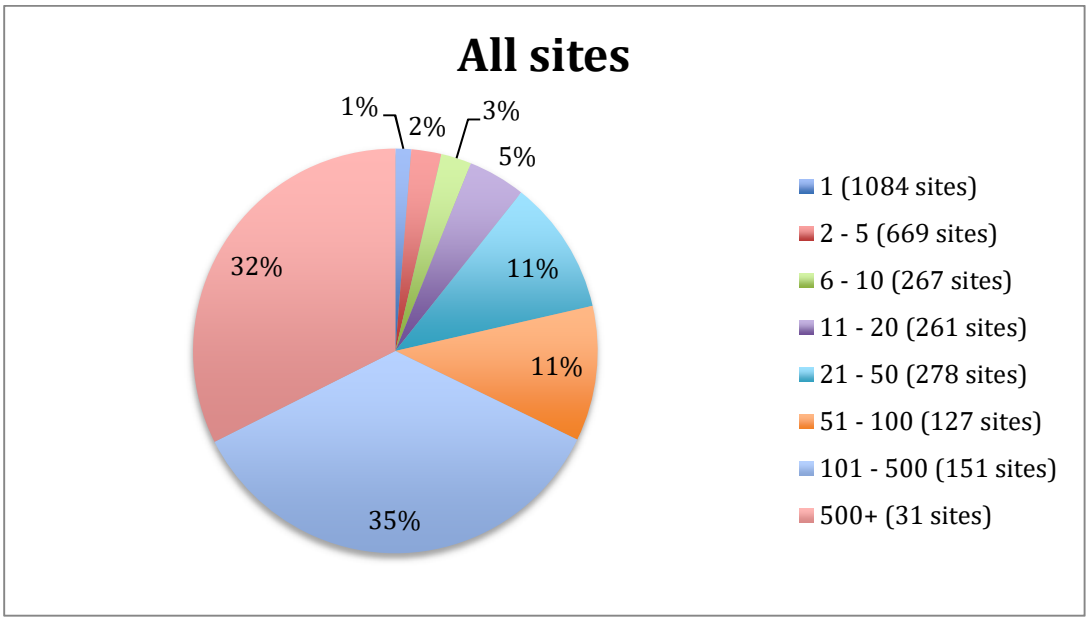
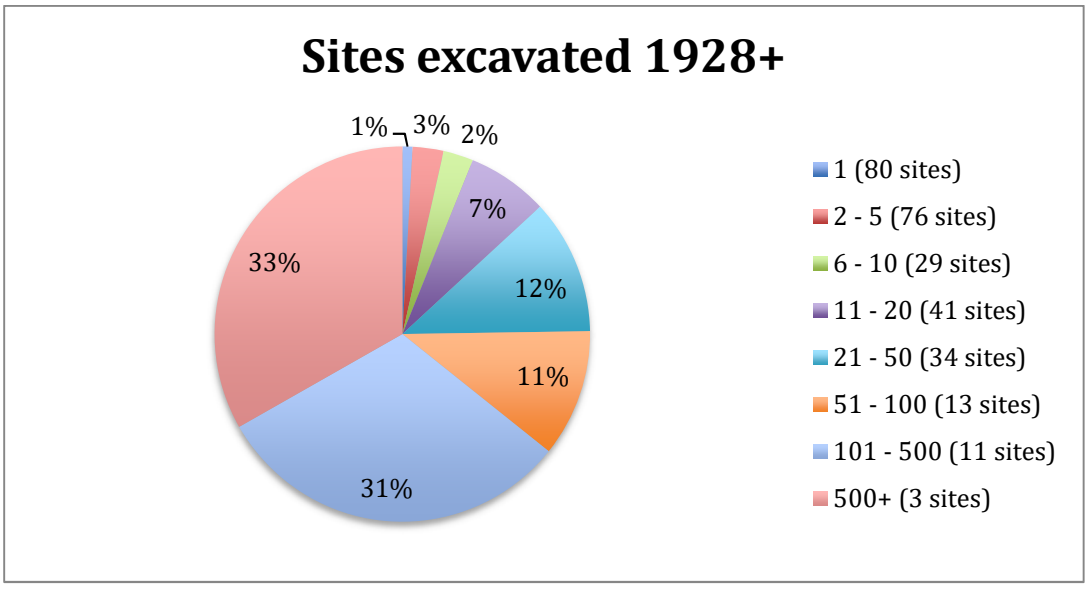


Fig 3 (continued below and overleaf): the proportion of the total general Bulk Finds boxes produced by sites in different size ranges.



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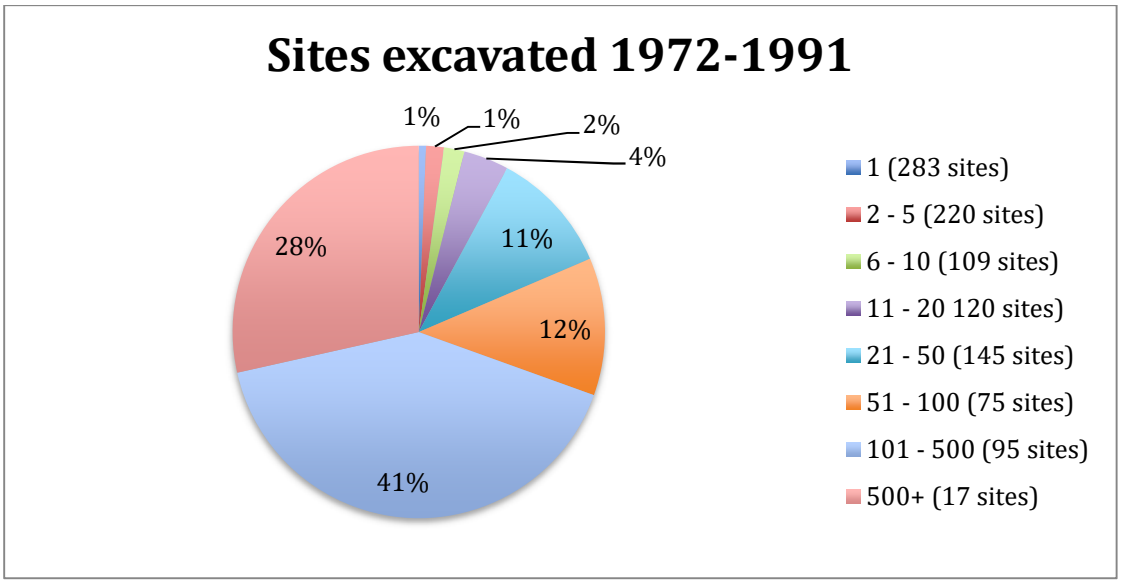
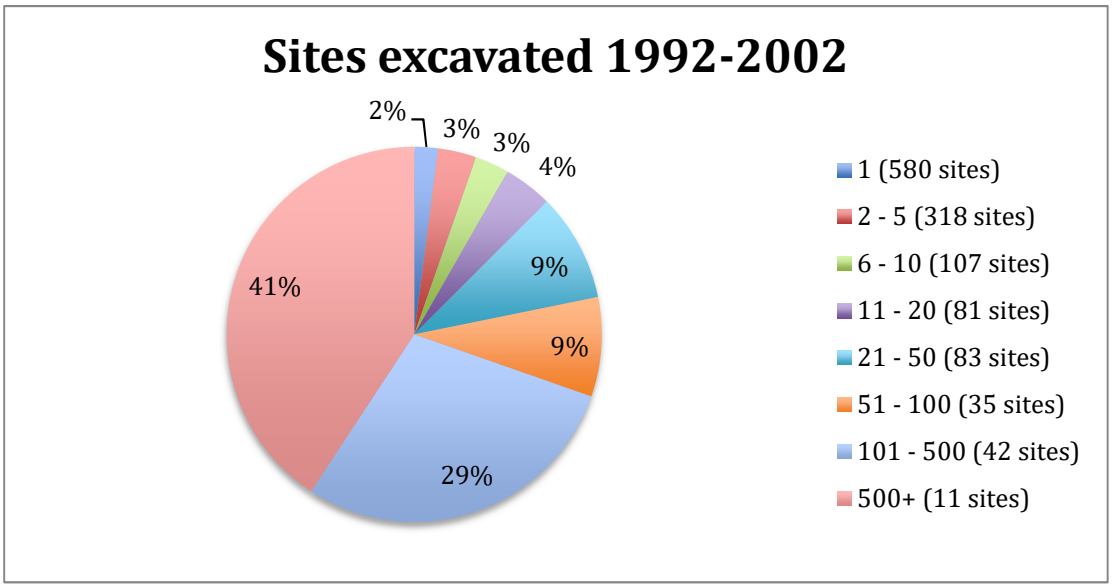
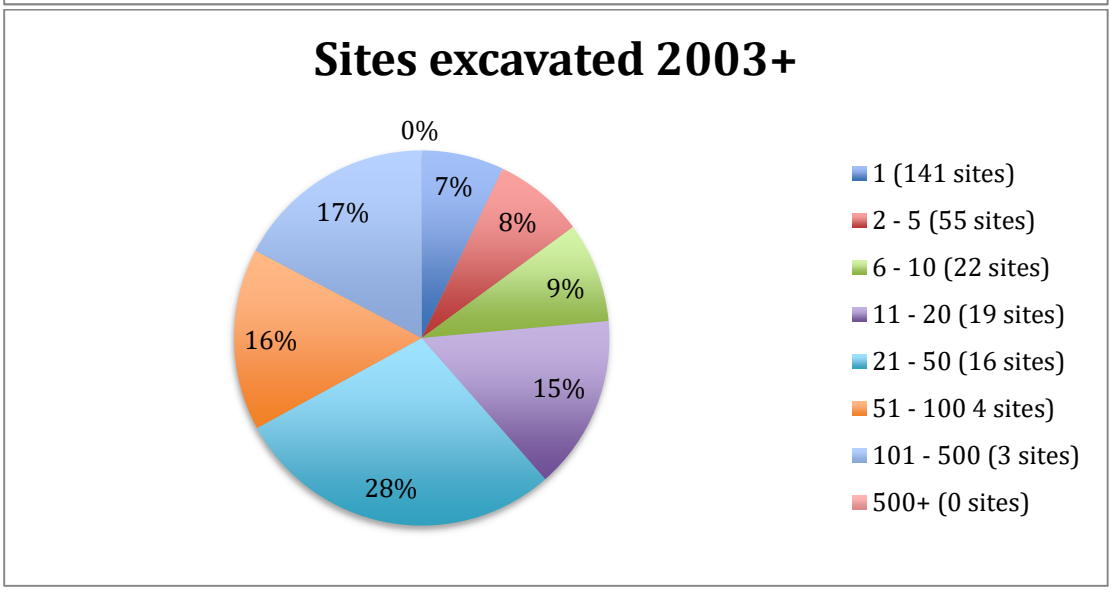
be curated by other institutions, notably Historic Royal Palaces. Overall, therefore, while the number of finds-producing site per annum is undoubtedly greater than it was in the 1990s, it may not be significantly greater: perhaps around 150. In the absence of reliable forecasts by contractors for all interventions, no greater precision is currently possible.


Sites excavated 1972-1991
1%
1%
2%
4%
11%
12%
41%
28%
1 (283 sites)
2 - 5 (220 sites)
6 - 10 (109 sites)
11 - 20 120 sites)
21 - 50 (145 sites)
51 - 100 (75 sites)
101 - 500 (95 sites)
500+ (17 sites)


Sites excavated 1992-2002
2%
3%
3%
4%
9%
9%
29%
41%
1 (580 sites)
2 - 5 (318 sites)
6 - 10 (107 sites)
11 - 20 (81 sites)
21 - 50 (83 sites)
51 - 100 (35 sites)
101 - 500 (42 sites)
500+ (11 sites)


Sites excavated 2003+
0%
7%
8%
9%
15%
28%
16%
17%
1 (141 sites)
2 - 5 (55 sites)
6 - 10 (22 sites)
11 - 20 (19 sites)
21 - 50 (16 sites)
51 - 100 4 sites)
101 - 500 (3 sites)
500+ (0 sites)

Pottery is by far the largest consituent of the Archive (Fig 4). Measured in terms of boxes, it represents 43% of the total; in terms of space occupied, 38%. The lower figure can be explained by the fact that pottery generally fits in a standard box. Only complete pots, or substantial parts of large pots, are stored in a large Type 2 'skeleton' box. While the proportion of pottery to other finds is relatively consistent in archives pre-dating c. 2002, it is noticeably smaller in archives from the more recent sites (Fig 5). These more recent archives have higher proportions of animal bones, glass and environmental remains; however, since comparatively few post-2002 archives have been deposited, it is not yet clear whether this is an accurate indicator of a new trend in the composition of archaeological archives.

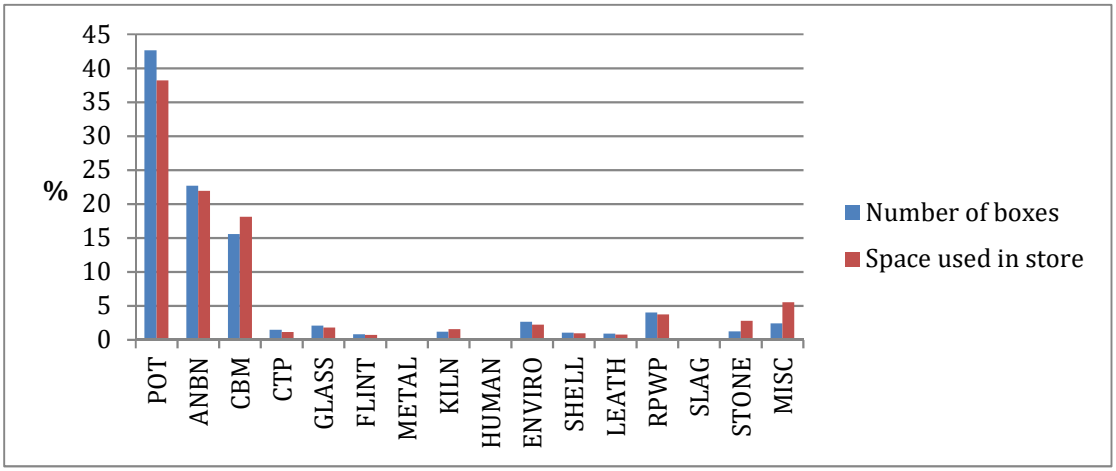


Fig 4: the quantities of different categories of Bulk Finds, expressed as a percentage of the total. Absolute number of boxes shown by blue bars, space occupied (m^3) by red bars.

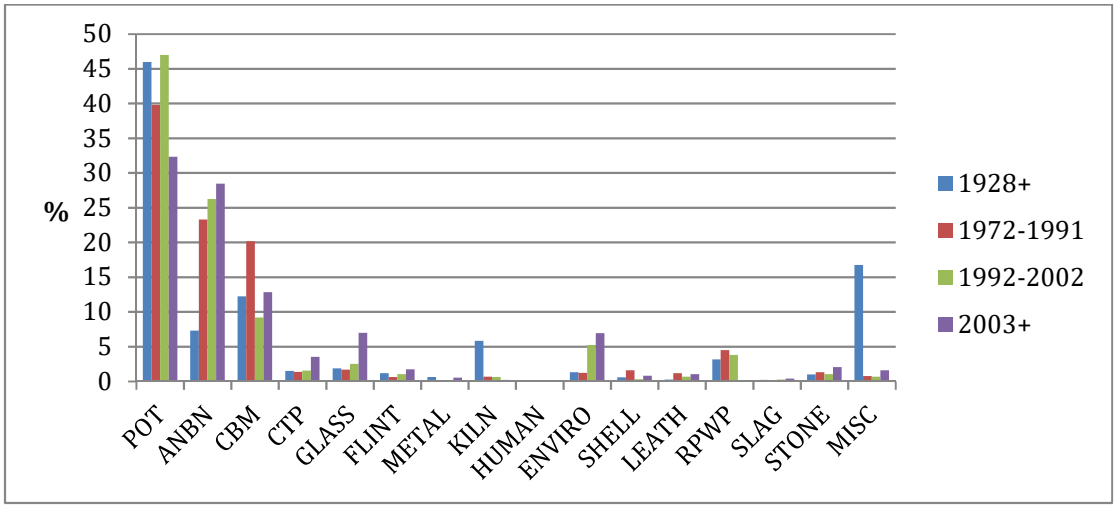


Fig 5: the relative quantities of different categories of Bulk Finds in the four different periods of deposition represented in the Archive. Absolute number of boxes only.

Animal bone is the second largest material group in the Archive, representing 22-23% of the overall total, whether reckoned in terms of number of boxes or by space occupied. The proportion is markedly smaller for the earliest deposition period (1928-1971): just 7%. Few archaeological groups operating at that time included specialists in faunal remains, and even leading academics were often reluctant to concede that animal bones of any period (especially those of the main domesticates)

were of much value in studying the past. Sieving deposits for 100% recovery of fauna was virtually unheard of, beyond a few major prehistoric projects in rural locations, and it was normally a matter of hand-picking a few bones that were intact or simply looked 'interesting'.

Conversely, it is evident that once the value of retaining animal bone became generally recognised in the mid-1970s, there has been steady increase in the quantity deposited in the archive – both in absolute terms and as a proportion of entire finds' assemblages. For sites excavated since 2003, the proportion is 28%, only 4% lower than pottery (32%). Too few sites from this period have been deposited to indicate whether animal bone has reached a plateau, or whether it will continue to rise – at least as a proportion, if not in absolute quantities. What is clear, however, is that the increase has gone hand in hand with a rise in the volume of environmental remains deposited (5% from 1992-2002 sites, 7% from 2003+ sites). This is the result of regular sampling, especially of waterlogged deposits, that not only reflects a growing interest in studying historic landscapes but also the availability of suitable sites throughout Greater London, to a degree that was not possible before the reorganisation of archaeology and planning in the early 1990s.

The third largest material group in the Archive is ceramic building material. Overall, this accounts for 15.5% of all the boxes, and 18% of the space used (the second figure being higher because large Type 2 boxes have been used for building material more frequently than for any other category of finds in the General Store). On the other hand, since the early 1980s it has been common practice to record and discard most building-material on-site, retaining only rare pieces, items with signature marks or graffiti, or particularly notably examples of their type that might have a use in reference collections or for teaching purposes. It would appear that once this recording/discard strategy has been applied, ceramic building material becomes around 10-12% of the total finds' assemblage – often considerably less. Consequently, if a site has a much higher proportion, it is likely that, for whatever reason, the rationalisation process has not yet taken place and that useful space savings could be made (see further below).

Finally, it should be noted that for sites deposited pre-1971, there is a very high proportion of material in the 'miscellaneous' category (17%). This signifies boxes containing a wide range of different finds, often metalwork as well as pottery and building materials. Seldom have the items been sorted and packed to current standards, and the selection embodies the on-site collection policy of the time. Moreover, since the containers are generally much larger than the current standard box, these miscellaneous finds occupy much more space in the store than would be apparent from a simple box count. Taken as a whole – across all periods of deposition – miscellaneous boxes constitute only 2% by number but possibly as much as 6% by volume[11].

[11] Because of the variety of boxes containing miscellaneous finds, the individual box types could not be itemised and recorded. However, if it is assumed that on average they equate to Type 2 boxes – some are certainly smaller, but some very considerably larger – then it can be estimated that in terms of volume they occupy approaching 6% of the General Store.

2.2.2. Material not meeting current retention criteria

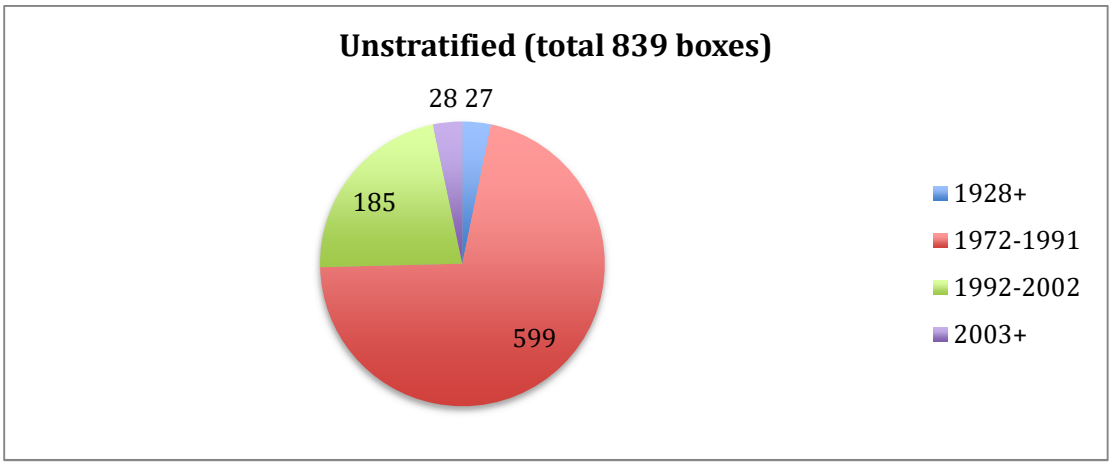


Fig 6: the number of boxes of unstratified general Bulk Finds

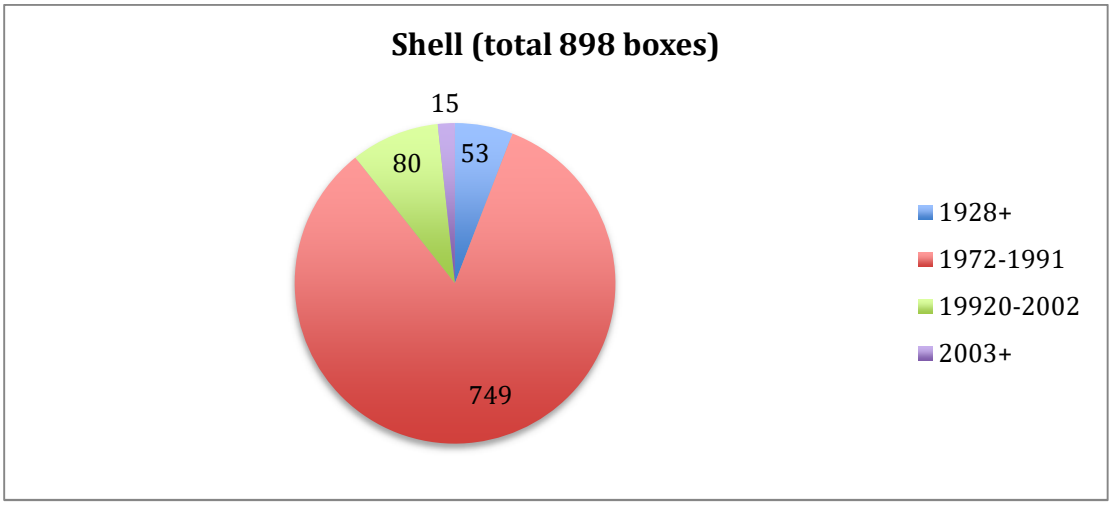


Fig 7: the number of boxes of shell

The 1998 edition of the *Standards for the Deposition of Archaeological Archives* stated that the Museum of London did not wish to receive certain categories of Bulk Finds, and this position has been maintained ever since. One of these categories is unstratified material of any type – except particularly noteworthy individual items – and another is oyster shell, the research potential of which is generally accepted to be extremely limited. The inventory revealed 839 boxes of unstratified Bulk Finds, and 898 boxes of shell. By far the majority of these are from the period 1972-1991, before the introduction of any guidelines as to the composition of archaeological archives. Consequently, when it comes to identifying candidates for disposal, these categories should be 'easy wins'. On the other hand, even when taken together, they amount to considerably fewer than 2,000 boxes in total – roughly the same as the quantity from a single very large site, and at least 1,000 fewer than the number of boxes generated each year by archaeological projects in London.

2.2.3. Exceptional groups or categories of finds

No fewer than 83 of the 182 large or very large sites (see above) have each produced in excess of 100 boxes of pottery[12]; eight of them, moreover, have each produced in excess of 500 boxes (Table 2). It therefore follows that if it is necessary to make a significant reduction in the space occupied by Bulk Finds – whether currently or in the future – then the retention strategy for this material must be one of the first to be reviewed.

SITE ID	TOTAL BULK	*TOTAL POT*	SITE ID	TOTAL BULK	*TOTAL POT*
FER97	1596	885	GPO75	2030	713
GSM97	1056	813	AE72-81	1527	664
GHT00	1522	735	SRP98	1149	648
LLS02	789[13]	722	ONE94	1261	561

Table 2: pottery (POT). Eight sites have each produced over 500 boxes of POT (and a further 75 over 100 boxes). Absolute number of boxes of General Bulk Finds in the third column.

Also to be reviewed at an early stage must be the retention strategy for animal bone. While occupying in total little more than half the space occupied by pottery, there are nevertheless some exceptionally large assemblages of this material. Forty-four sites have yielded over 100 boxes, including two that have yielded over 500 (Table 3). Altogether, the quantity of bone from just these few sites – approaching 9,000 boxes – is close to the total quantity of Bulk Finds produced by three years' average excavation on sites throughout Greater London (see above).

SITE ID	TOTAL BULK	*TOTAL ANBN*	% ABNB	SITE ID	TOTAL BULK	*TOTAL ANBN*	% ABNB
GYE92	1564	869	55.6	POM79	480	156	32.5
GPO75	2030	627	30.9	BGH95	615	153	24.9
GHT00	1522	487	32.0	BRU92	188	146	77.7
BIG82	715	325	45.5	EVT95	144	143	99.0
VAL88	844	318	37.7	UPT90	211	138	65.4
ROP95	506	311	61.5	GAG87	285	138	48.2
KEW98	646	261	40.3	ETA89	582	135	23.3
WFT99	357	243	68.1	MRL98	214	132	61.4
WAT78	566	241	42.6	LOW88	296	125	42.2
TL74	663	228	34.3	ELV94	120	115	95.4
FER97	1596	224	14.0	FIP92	207	114	55.1
SRP98	1149	209	18.2	PET81	214	112	52.3
ONE94	1261	208	16.5	RAG82	260	111	42.5
MIN83	614	189	30.8	AES96	152	107	70.7

[12] 1928-1971: 8 sites; 1972-1991: 53 sites; 1992-2002: 22 sites; 2003+: 0 sites (but no large or very large sites from the 2003+ era have so far been deposited with the Archive).

[13] Incomplete deposit: only ceramics and a few other items deposited so far.

MLK76	584	189	32.4	PIC87	237	107	45.1
WP83	1237	187	15.1	SM75	289	105	36.3
SH74	311	174	55.9	SAY88	476	104	21.9
LCT84	690	170	24.6	OPT81	193	104	53.9
KWS94	861	165	19.2	LBT86	185	104	55.9
BSF81	546	164	30.0	TR74	237	103	43.6
ILA79	349	161	46.1	MPY88	237	102	43.1
GSM97	1056	158	15.0	BA84	817	100	12.2
				TOTAL	**26306**	**8760**	**33.3**

Table 3: animal bone (ANBN). There are 44 sites that have each produced over 100 boxes of ANBN. Absolute number of boxes in the third column, with ANBN as a percentage of all bulk finds in the fourth.

The only other categories of material to be represented by over 100 boxes from a single site are ceramic building-material (CBM) and wall plaster. It appears from Table 4 that some sites are represented by substantial quantities of CBM simply because they were very large excavations: the extant volume is commensurate with scale of the fieldwork, a strategy of on-site recording and discard having been rigorously applied already.[14] But, by the same token, it is evident that in some cases the exceptional volume is attributable either to the site having been excavated before there was a commonly-agreed strategy for recording and disposal (eg GPO75, BC72), or because – for whatever reason – that strategy was not applied (eg DMT88). Whenever CBM amounts to over 20% of the total Bulk Finds assemblage, it is likely that processing has not previously taken place and that space could be made available through rationalisation. Table 4 suggests that around 1,700 boxes might be saved if the largest CBM assemblages were reduced by half; nearly 2,300 if they were reduced by two-thirds. Experience suggests that the former is a minimum, the latter a more likely average.

SITE ID	TOTAL BULK	*TOTAL CBM*	% CBM	Record and discard	50% reduction	66% reduction
GPO75	2030	636	31.3	yes	318	424
WP83	1237	546	44.1	yes	273	364
BA84	817	373	45.6	yes	187	249
DMT88	591	281	47.5	yes	141	187
BC72	879	195	22.2	probably	98	130
MLK76	584	193	33.1	yes	97	129
FER97	1596	165	10.4	no		
WIV88	444	164	36.8	yes	82	109
COSE84	528	160	30.2	yes	80	107
TL74	663	159	23.9	probably	80	106
MIN83	614	149	24.3	probably	75	99
ONE94	1261	140	11.1	no		
KWS94	861	132	15.3	no		
RM84/85	437	128	29.3	yes	64	85

[14] For example, FER97 or ONE94, where vast quantities of CBM were recorded and discarded on-site.

CO88	329	127	38.6	yes	64	85
15SKS80	691	119	17.2	no		
NOR90	329	114	34.7	yes	57	76
PDN81	446	107	24.0	probably	54	71
VAL88	844	104	12.3	no		
NON59	983	103	10.5	no		
GYE92	1564	103	6.6	no		
207BHS72	284	100	35.2	yes	50	67
TOTAL	**18012**	**4296**	**23.9**		**1716**	**2288**

Table 4: ceramic building material (CBM). There are 22 sites that have each produced over 100 boxes of CBM. Absolute number of boxes in the third column, with CBM as a percentage of all Bulk Finds in the fourth. Possible savings in the sixth and seventh columns: the number of boxes remaining after reduction by, respectively, 50% and 66%.

Roman painted wall-plaster is found infrequently on London sites, but when it does, it is often in large quantities (Table 5). A strategy of recording and disposal is not normally applied to this category of material,[15] with the result that casual inspection of some of the assemblages in store indicates the presence of a high proportion of plain white plaster in extremely fragmented condition. If subsequent assessment suggests that there is little chance of reassembling the fragments, and that they derive from secondary contexts with no direct relationship to a particular wall or building, then a substantial number of these fragments might be considered for disposal after an adequate recording standard has been accepted.

SITE ID	TOTAL BULK	*TOTAL PWP*	% PWP	SITE ID	TOTAL BULK	*TOTAL PWP*	% PWP
SAY88	476	292	61.3	15SKS80	691	123	17.8
WP83	1237	262	21.2	RWT93	140	114	81.1
NON59	983	260	26.4	KWS94	861	108	12.5
FER97	1596	223	14.0	DMT88	591	107	18.2
GHT00	1522	139	9.1	**TOTAL**	**8097**	**1627**	**20.1**

Table 5: painted wall plaster (PWP). There are 9 sites that have each produced over 100 boxes of PWP. Absolute number of boxes in the third column, with PWP as a percentage of all bulk finds in the fourth. The plaster from NON59 (Nonsuch Palace) is 16th-century; that from the other sites is entirely Roman.

2.2.4. Metalwork

The Metal Store is a purpose-built temperature- and humidity-controlled room within the Mortimer Wheeler House store. It has a floor area of around 320 m^2 and roller-racking throughout. This gives it capacity for just over 20,000 standard boxes, representing a notional volume of around 230 m^3. In practice, however, the store contains a wide variety of boxes and packaging, probably the largest

[15] Except to isolated lumps found in deposits of general building material: in those cases the recording/disposal strategy for CBM is normally applied.

variety to be found anywhere in the general archaeological store. This reflects the fact that the material (metal), rather than the size or shape of the object, is the key factor in determining what is stored here.

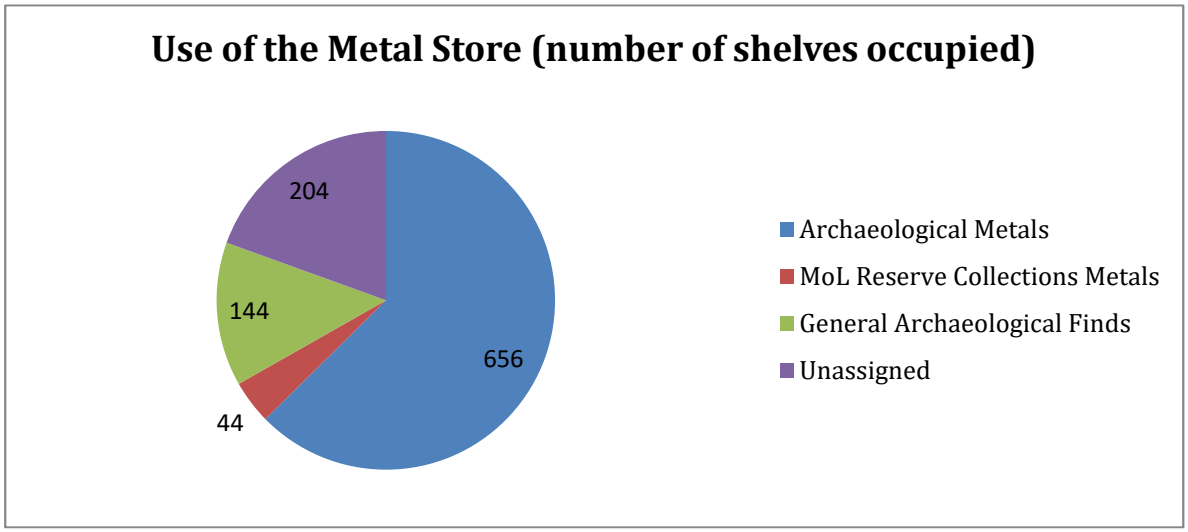


Fig 8: the number of shelves currently occupied by different categories of finds in the Metal Store

In terms of metalwork from archaeological sites, the store is no more than half-full, containing 8,376 boxes that equate to a volume of 116m^3 (almost exactly 50% of the store's total notional capacity). However, whereas the other stores surveyed during the course of this project contain only archaeological material, some 44 shelves in the Metal Store – with a notional carrying capacity of around 1,000 standard boxes – hold social and working-history material from the Museum of London's Reserve Collections ('overflow' from the Metal Store at London Wall). The store also contains no fewer than 144 shelves assigned to general finds – pottery, animal bone, building-material etc – that cannot currently be accommodated elsewhere in the building. When these collections are included, the overall proportion of free space falls to around 20%.

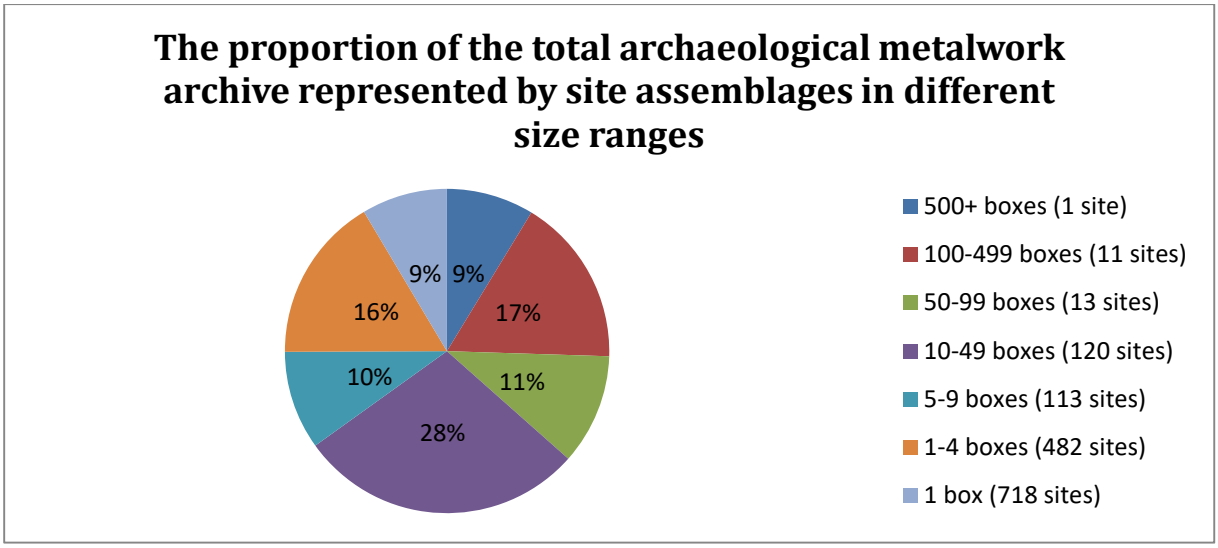


Fig 9: the proportion of the total metalwork archive represented by site assemblages in different size ranges. This reveals that two-thirds of the material comes from fewer than a tenth of the sites.

Analysis of the inventory reveals not only that metal finds are far less abundant than general finds, but also that scarcely over half the archives that contain finds of any kind, contain metalwork (1,559 of 2,868 archives; 54%). In terms of assemblage size, however, metalwork archives represent a pattern of distribution that closely mirrors that observed for general finds, with the bulk of the material attributable to a very small number of sites (Section 2.2.1). Reckoned by number of boxes, considerably over a third of the total metalwork was produced by just 25 sites (3,064 boxes; 37%). One exceptional cemetery site produced over 700 boxes, mostly coffin handles and breastplates; 11 sites produced between 100 and 200 boxes each, and a further 13 between 50 and 99 boxes. The next third derives from a relatively small group of 120 sites, each of which yielded between 10 and 49 boxes (2,390 boxes; 28%), leaving the final third to the remainder: 1,313 sites with fewer than 10 boxes each (2,923; 35%). Interestingly, nearly half the sites that produced metalwork of any type, produced no more than a single box (718 sites; 46%).

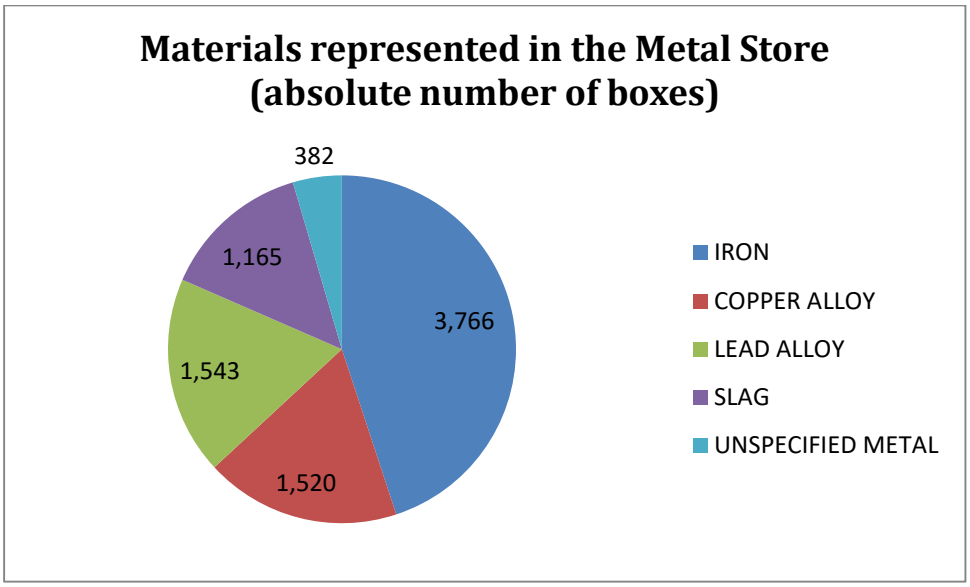


Fig 10: the numbers of boxes of different types of metalwork in the Metal Store.

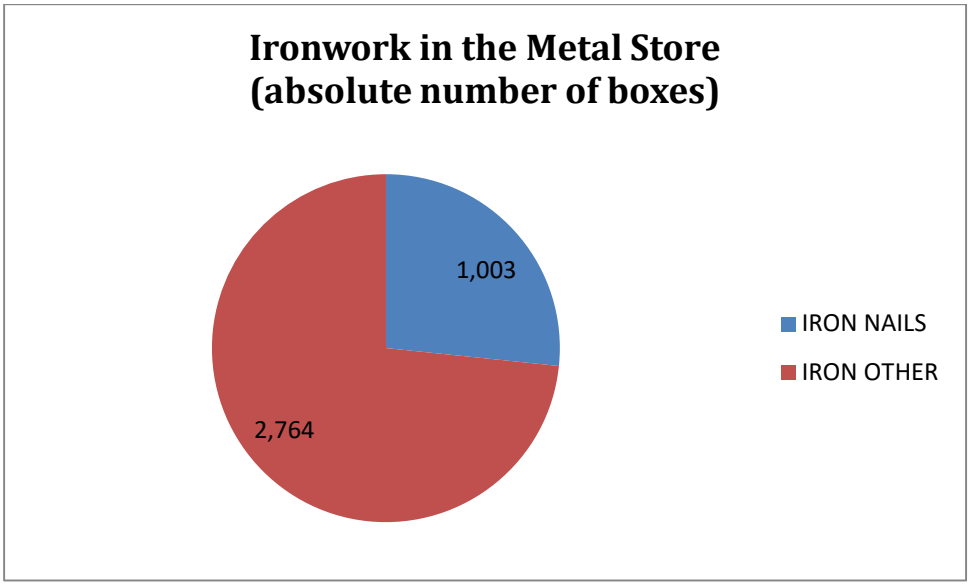


Fig 11: the proportion of nails to other types of ironwork in the Metal Store.

Since archaeological sites generate metalwork at a much slower rate than general finds, there is no immediate pressure on the storage capacity of the Metal Store. The shelves that are currently unassigned could carry around 3,000 standard boxes which should be sufficient for a further ten years' collecting. However, this relatively comfortable position could be changed very rapidly by the excavation of very large post-medieval cemetery sites[16], and/or of sites along the Thames with large volumes of finds-rich medieval reclamation dumps. On the other hand, simple storage space is not the only issue to be considered when reviewing the Metal Store. Maintaining the items deposited there comes at a high price – not only in terms of providing effective systems for maintaining ambient temperature and humidity, but also because it is necessary for sample boxes to be routinely inspected by qualified conservators, and for silica gel to be changed on a regular basis. The latter are costs that can be attributed to particular archives and particular categories of material in direct proportion to the number of boxes used to store them. For that reason, analysis of the inventory reveals two matters of concern. First, over 1,000 boxes are described as containing slags of various types (1,165 boxes; 14%), a substance that might safely be stored in general, rather than closely monitored, environmental conditions. And secondly, it is evident that by far the largest metalwork category is iron (3,766 boxes; 44%) – the substance most susceptible to degradation and least tolerant of fluctuating humidity – just over 1,000 boxes of which are labelled as only containing iron nails. The metalwork study group at the 2013 'Less is More?' seminar recommended that most iron nails can be safely discarded after adequate recording and careful checking that objects such as styli, awls or drill-bits have not been missed. As this could produce significant savings in management time as well as shelf-space, the matter was examined in more detail in Stages 2 and 3 of the project (see Sections 3.3.1, 4.5).

[16] This matter was discussed by the metalwork group at the 2013 'Less is More?' seminar, which recommended collecting a single representative handle from the normal set of six on each coffin. This might also be a possible strategy for rationalising the collection in store.

2.3. General conclusions

1. One third of the boxes in the General Store contain Bulk Finds from just 31 sites. Self-evidently it will be necessary to examine these very large site assemblages carefully, particularly in the light of their past use by researchers; as the basis for publications and exhibitions; and as raw material for future academic research.
2. The second third of the total Bulk Finds boxes come from a further 151 sites – again a remarkably small number when seen in the context of the Archive as a whole. These should be scrutinised using similar criteria to those suggested above, but may prove difficult to characterise as a group, the large numbers of finds probably being attributable to a range of different factors. Nor will there always be a direct correlation between the original scale of the fieldwork and the extant finds archive.
3. The final third is contributed by the remaining sites in the Archive – over 2,700, of which well over 1,000 are represented by a single box of Bulk Finds. The initial reaction may be to dismiss such sites as insignificant in the context of freeing-up space in the General Store. However, if further investigation reveals common patterns – for instance, a preponderance of very recent material of a repetitive nature, and/or assemblages that are too small to have any academic research value – then it is possible that many such site assemblages could be discarded with minimum record, perhaps in their entirety. There is, moreover, a long-term administrative overhead in retaining site archives, even the smallest. When it comes to top-level procedures, such as audit of the collection or disposal of items, the top-level documentation of an individual site archive is similar, regardless of its size.
4. Some Bulk Finds are strong candidates for disposal simply because they do not meet the current guidelines for retention. The Museum of London does not accept any type of unstratified material (apart from exceptional individual items); nor oyster shell, even from well stratified deposits. Most ceramic building material should have been recorded and discarded before the archive is deposited. Applying these strategies rigorously throughout the Archive could result in the disposal of around 4,000 boxes of material – approaching 5% of the total Bulk Finds.
5. Given that it represents 43% of the Archive by number of boxes, and 38% by volume, Pottery is the category of material that must be considered first in any discussion of how the Archive might be streamlined or reduced in size ; next in line is Animal Bone (22-23%). While the former has been exhaustively researched and is of prime importance in dating archaeological features, the latter is under-studied yet with unrealised potential as the focus of biological/zoological research. These aspects will be reviewed in later stages of the project.

3. Quality Assessment

The Stage 1 inventory successfully characterised the Museum of London's holdings in terms of the number and size of individual site archives; also in terms of the scale, both absolute and relative, of the different categories of material. But since items that could be easily identified as not conforming to present retention criteria – unstratified finds, for example – represented no more than 5% of the total, it soon became clear that if the aim is to free up really large amounts of space in the store, an entirely new rationalisation strategy must be devised. The enormous range of sizes – some archives comprising just a single box, others hundreds, even thousands of boxes – indicated immediately that no single approach could be taken; though equally it was evident that those categories of material occupying most space in the store, namely Pottery and Animal Bone, should be scrutinised particularly closely in terms of potential for rationalisation.

In order to devise a rationalisation strategy, it was decided to select a 10% sample of the entire Archive – some 300 individual site archives – and investigate these in much greater detail. The following criteria were identified as being particularly relevant:

1. Acquisition records. The absence of documents proving that the Museum has adequate title to an archive may mean that rationalisation is difficult, even if acceptable on archaeological grounds.

2. Site documentation. The value of an archive, in terms of archaeological research potential, will depend heavily on the quality of the field records. These records were known to vary enormously across the Archive, if only because it has been assembled over a period of over half a century and from many different sources.

3. Location of the site, and periods of history represented.

4. Condition and packaging of the finds. This was known to vary widely across the collection, if only because methods of conservation and finds-processing have improved enormously over the 50+ years during which the Museum of London has taken in archaeological archives. Three aspects were explored:

    a. General packaging, in particular the scope for re-boxing in a way that would create space on the shelves.

    b. Ironwork. The Stage 1 survey had raised an important issue that concerns ironwork but few other categories of material: namely that in the case of items in very poor condition, 'preservation by record' may be a better way of ensuring the long-term availability of the information they represent, then attempting to preserve them in perpetuity as they are.

    c. Leatherwork. As in the case of ironwork, initial Stage 1 inspection of air-dried leather had raised concerns about the level of information that could now be extracted from this material.

5. The use made of site archives: in gallery displays and exhibitions, in research visits and by remote users.

The sample sites were selected so as to cover the different periods of site-excavation and archive-compilation: 1950s/60s; 1970s; 1980s; 1990s; 2000s. The sites were selected to some extent with an eye to ensuring that all the issues would be addressed, but a degree of randomness was introduced by assessing – wherever possible – all the sites from a particular year, rather than simply 'cherry-picking' individual archives (Table 6):

Period	Year(s)	Total archives	Comments
1950s/1960s	various	16	The first six sites (as numbered, not necessarily in order of excavation) attributable to the Roman & Medieval London Excavation Committee; the first ten sites with finds (again as numbered, not necessarily as excavated) attributable to the Guildhall Museum.
1970s	1972 1974	46	Good coverage of work both by the Museum of London's Department of Urban Archaeology (DUA), and by the various professional/semi-professional groups in West London and Southwark. Two years were selected rather than one, in order to create a worthwhile sample.
1980s	1982	28	Good coverage of work as above, by the DUA and by organisations in West London and Southwark.
1990s	1991 1995/1996	190	The year 1991 (87 sites) was selected because it immediately preceded the wholesale reorganisation of archaeology in England. In London, English Heritage[17] replaced the Museum of London as advisor to borough planning departments, and the Museum's DUA and Department of Greater London Archaeology were amalgamated into a single Archaeological Service (MoLAS). It was suspected that owing to the disruption, many of the archives from this period would be in a sub-standard condition. The years 1995 and 1996 were added (103 sites), partly because the 1991 sites were mostly small or very small; and partly so that work by a representative selection of contractors other than MoLAS could be scrutinised. +
2000s	2002	40	This year was initially selected entirely at random, to

[17] English Heritage's (now Historic England's) Greater London Archaeological Advisory Service provides a 'curatorial' service, scrutinising planning applications and specifying works, in 30 London Boroughs and the City of Westminster . In the City of London and LB Southwark, however, officers in the respective planning department fulfil that function.

		follow the sequence (1972, 1982). However, it was found to contain a good selection of sites, especially outside the City of London and Southwark.
TOTAL	**320**	

Table 6: sites selected to form the 10% sample. For full listing see the Quality Matrix (Appendix 1)

The various surveys are described in the ensuing sections of this chapter. Much of the information has been incorporated into an overall Excel spreadsheet – the Quality Matrix (Appendix 1) – which serves as a quick reference to individual site archives and therefore as a tool for identifying archives that might be considered for rationalisation. It was not possible to assess the Acquisition Records (criterion 1 above) for all sites in the sample, but the issues likely to be involved were examined in some detail and are discussed in the section immediately following. Conversely, in the case of the geographical and historical aspects of the sites (criterion 3 above), it was only possible to extract the relevant data[18] and to include it – without interpretation or discussion of possible trends – in the Quality Matrix.

[18] By MS, mainly from the Museum's Collections Management System (MIMSY XG Site Authority), with only occasional recourse to the original documentation in the Archive.

3.1. Acquisition records (KR)

In order to understand whether we have the legal right to dispose of a site archive, or selected items within it, we first need to understand the terms of ownership. Documentation of the legal and physical deposition of site archives has varied over the course of the organisation's history and that of its predecessor museums, the Guildhall Museum and the London Museum. In addition, legal frameworks governing the recovery and ownership of archaeology, Treasure and Human Remains have also been subject to change over time. As a result, paperwork which reveals the legal ownership status of each site exists in a variety of places and formats. In addition to the location of acquisition records, the terms of acquisition vary both over time and according to the specific circumstances involved in the site project, which makes an analysis of ownership a potentially lengthy process.

It was immediately apparent that for the 10% sample of site archives selected for the Stage 2 assessment, it would not be feasible to undertake an in-depth review of documentation, due to the resources required which were out of scope of the original brief. However, some key issues within the documentation review can be examined here, as they relate in general terms to the selection which will be explored in more detail in stage 3.

The current system of transferring ownership to the museum or 'legal deposition' involves obtaining a deed of transfer for the site records, a deed or agreement of transfer for any physical finds, and a separate licence for intellectual property in the records where this is not covered in the deed process. The Museum holds title documentation in acquisition files for each site archive, but the standardised approach to record keeping seems to have been implemented around 1991. Prior to this, the approach varies and title documentation may either not exist, or may be in a non-standard form such as a letter from the landowner agreeing the transfer. A standard form of transfer was introduced on 1 January 2000. Between 1991 and implementation of the standard form, there is a variance in terms of transfer, including where contractors used their own standard forms.

Records relating to site archives pre-dating 1991 are split between the Site records (which include context sheets site reports and correspondence) and the Department of Urban Archaeology Site Files (which include general correspondence, and in some cases 'Works Contracts' which often have statements about removal of Finds from the site). These are located within the Archaeological Archive Business Archive (MWH 8a) within a roller racking system. The site records can range from a few pages to several boxes of records.

Understanding the context of record-keeping over time means that the existence of Site Archive acquisition records can be somewhat anticipated, and we can build a picture of what form it may take and where it might be located. This is expressed in the following matrix (Table 7), as it relates to our Stage 1 inventory period categories:

Period collected	Physical documents typically contained in:	Typical form of acquisition documentation for this period
1928 – 1972	Museum Business Archive Site Records Site Files (DUA)	Letter from landowner Correspondence Transfer of title unlikely
1972 – 1991	Site Records Site Files (DUA)	Transfer of title possible Letter from landowner Correspondence
1992 – 2002	Acquisition files	Transfer of title documentation should exist, though format varies widely.
2003 to current.	Acquisition files	Standard Transfer of title documentation likely (some anomalies known to exist)

Table 7: types of acquisition documentation for archives compiled at different periods

Within the latter two periods, existence of a standard system of record keeping allows us to confirm where sites have been 'completed' (following both physical deposition and legal deposition). [19] Any review of the records relating to the two former periods is not conclusive as absence of evidence does not necessarily mean evidence of absence. We know that attitudes to transfer of title processes, as well as attitudes to archaeology itself within these earlier periods were often lax. However, attitudes to record-keeping were also far short of the standard we would consider acceptable today, so without undertaking a 100% audit it would be difficult to be certain that acquisition paperwork did not exist in some form within the various available archive sources.

In terms of developing a scoring or rating system for acquisition paperwork, there is little value in this as a grading process, though we can apply a simplistic categorisation system which sets out whether a disposal can proceed or requires further review (Table 8):

[19] The museum is currently undertaking a separate project to retrospectively audit site archive acquisition documentation contained within the acquisition file system which applies to the two later periods within this project. The resources required to confirm the presence or absence of legal transfer of title paperwork is significant, and is increased by the variance in terms of transfer, for which an additional analysis is needed to understand fully whether there are any restrictions on disposal.

Outcome	Category
Title belongs to the Museum. No restrictions to disposal included.	No legal barriers to disposal.
Title belongs to the Museum. Restrictions apply.	Requires review to assess: • if there are legal barriers to disposal, or • any necessary steps to be taken prior to disposal, and • the risks associated with proceeding with disposal
Acquisition documents not located.	Requires review to assess: • If there are any other searches that can be made to locate documentation, and • the risks associated with proceeding with disposal
Title belongs to a third party.	Consult with third party regarding return of material, or obtain their written permission to dispose or transfer. If the third party cannot be traced or contacted, review to assess: • whether there are any other steps needed to trace/contact the third party • the risks associated with proceeding with disposal

Table 8: actions consequent upon different outcomes of assessing acquisition documentation

Given the particular issues with accessing and assessing acquisition records, sample cases selected for stage 3 will be reviewed in detail to test the factors we anticipated as issues, and to explore the issues around ethical and legal disposal processes in more depth.

3.2. Site documentation (FG, MS)

3.2.1. Methodology

Just as in quantities of finds, individual site archives were found to range enormously in the scale of the associated records: from a single slim folder to over 20 boxes of paperwork. This meant that it would be impossible to review the 300 sites in the 10% sample in detail with any degree of consistency. Consequently, the decision was taken to carry out a quality-assessment of just three key aspects of each documentary archive:

1. **Location**. How accurately can the site be situated geographically?
2. **Field recording**. How well were the various features and deposits on the site recorded? Can their relationship and the overall stratigraphic sequence be understood?
3. **Post-excavation analysis**. Is there an overall report on the site at a detailed level? Are their specialist reports on different aspects of the site and/or finds from it?

In general, when it comes to assessing the potential significance of an archive in terms of its likely value to academic researchers or professional heritage managers, the first two aspects are more likely to be crucial than the third. If a site cannot be located with any accuracy, it is of relatively little value to planners assessing the impact of proposed redevelopment on surviving heritage assets; while if the excavated features and deposits were poorly recorded – or if the necessary records are missing – then the archive will frustrate researchers, whether they are attempting to reconstruct landscapes and townscapes, or to understand the dating and social connotations of particular artefacts. Conversely, post-excavation analyses, while obviously desirable and helpful in terms of facilitating academic research and public access, will rarely in themselves endow an otherwise faulty archive with particular value. If the excavated finds and field records survive in good order, such analytical work can often be done – or re-done – in the future. Such scrutiny as was possible, moreover, of the sample site archives, revealed enormous variations in the nature of the post-excavation documentation. Hardly any archive was 'complete', in terms of having all possible types of analytical document; and, since the bulk of the London Archaeological Archive relates to sites excavated considerably before 2000, hardly any of the data – for recording pottery, for example – is to a fully 'modern' standard that might suffice as a means of 'preservation by record', should it be decided to dispose of any of the finds themselves.

The scoring system

Each of the 312 sample site archives was given scores for each of the three key criteria, and these were then combined to give an overall 'quality' score. The scoring system was built around the concept of an archive being 'to the expected standard' (score 2). Those 'considerably above' would score 3, those 'just below' would be given 1 – the latter being cases in which, even if the full information is not immediately to hand, it could potentially be reconstructed from such evidence as is readily available. Archives entirely lacking data of the requisite type or of sufficient precision would score 0, while 'x' would be given to the 12 sites for which there are no documentary records of any kind.

Location and pre-excavation records

Essential elements:

1. Street address, including building number
2. National Grid Reference, to at least 8-figure precision
3. Site location plan, adequately referenced to the National Grid, showing the overall site area and the position of the individual trenches

Desirable but not essential:

1. Correspondence, explaining the circumstances of the work

Scoring:

- **2** ('to the expected standard'): all essential elements present but no correspondence
- **3** ('above the standard'): all essential and non-essential elements present
- **1** ('just below the standard'): one of the essential elements is missing
- **0** ('of little value'): two or more essential elements are missing and/or the site cannot be located with any precision

Field records

Essential elements:

(for most sites excavated since the late 1970s)

1. Contexts register. A complete list of all 'contexts' issued on site.
2. Context sheets. The complete series, with no missing sheets.

(for most sites excavated prior to the late 1970s)

3. Site notebook(s). For many 'early' sites this will serve the function of both Context Register and Context Sheets, and so is the essential primary record of what was discovered. For 'later' sites it is likely to contain more general information – often including a diary of the excavation – and so is valuable but perhaps not strictly 'essential'.

(for all sites)

4. Plans, sections and other field drawings. These must all be tied in accurately to the Site location plan (see above), with absolute levels/height data calibrated with reference to OS benchmarks (or for very recent sites by GPS).
5. Photographs register. If there are images of any kind (digital, monochrome negatives/prints, transparencies) these must be listed and tied in with the context records.
6. Finds catalogue. This must include summary information about all finds, both 'bulk' and 'individually registered', referenced by context number.

Desirable but not essential:

1. Single context plans. Optional for small-scale evaluations and watching-briefs, especially when there is an emphasis on recording in section rather than plan, and for many rural sites. Essential for all complex sites with deep stratification, where the Single Context Recording system is used.

2. Matrix. Essential for nearly every site; the exceptions will be rural sites where there is little intercutting of features and so no 'sequence' as such.

3. Photographs: digital images, monochrome negatives/prints, colour transparencies.

Scoring:

- **2** ('to the expected standard') All essential elements are present: context register and context sheets (OR, for 'early sites', adequate site notebooks); drawn records such as plans and sections; photographs register (if there are images of any kind); finds catalogue.

- **3** ('above the standard'). All non-essential, as well as essential, elements are present, and the recording is to an exceptional standard.

- **1** ('just below the standard'). One of the essential elements is missing, but the deficiency could potentially be made good from the surviving data.

- **0** ('of little value'). Two or more essential elements are missing, and so a full description of the excavation can no longer be recovered.

Post-excavation analysis

Whereas the documentation in the first two categories was scored with reference to a mean value (whether or not it was 'up to standard'), here a simple cumulative scoring system was used:

- **0** No reports/datasheets of any kind are available.

- **1** At least one finds report/datasheet is available.

- **2** A full report on the stratigraphic sequence is available.

- **3** An overall sequence report, finds report(s)/datasheets and/or detailed published reports are available.

For the purposes of this assessment, 'reports' and 'datasheets' were loosely defined as reports and catalogues by 'experts' with a high level of detail. Brief notes, management reports and press cuttings were not included. It is worth reiterating that while undoubtedly hindering access to the archive, the absence of detailed post-excavation analyses does not necessarily reduce the potential value of an archive to researchers or professionals.

The overall 'quality' score

- **0** ('of limited value') The archive has scored 1 or 0 in all three categories.

- **1** ('potentially of some value') The site has scored at least 2 on Location/pre-excavation records OR on Field records;

- **2** ('potentially of high value') The site has scored at least 2 on both Location/pre-excavation AND Field records;

- **3** ('probably of high value') The site has EITHER scored at least 2 on all three categories OR 3 on both Location/pre-excavation records and Field records.

These overall scores should not be regarded as absolute values, but more as a guide to the likely relative merit of a particular documentary archive. Nor must they be seen in isolation. Just as a site scoring 0 may be rendered more important by unusual finds or by its location, however imprecisely, in areas with little other archaeological coverage, so may a site scoring 3 be rendered less important by the absence of finds or archaeological features/deposits that usefully expand our knowledge of the area at any time in the past.

3.2.2. Results

Analysis of the overall scores (Fig 13) reveals that there has been steady improvement in the quality of documentary archives received by the Museum of London. Around half the archives from 1995-6 and 2002 are rated 'potentially or probably of high value' (scores 2-3), whereas, conversely, just two of the 16 sites excavated before 1972 have been given that rating. A number of factors have contributed to this improvement: a general rise in standards thanks to better training and cheaper high-quality equipment (particularly in surveying); greater uniformity and regulation following the introduction of competitive tendering in the early 1990s; and the publication by the Museum of archiving standards from the mid-1990s onwards. On the other hand, the scores for the post-1995 sites still make depressing reading. Half the documentary archives are graded as 'potentially of some value' or even less (scores 0-2), in the majority of cases because the field records are lacking some essential data (Fig 13d). The scores for projects in the 'middle period', the 1970s and 1980s, do to some extent reflect a mid-point in the road to improvement. Just over a quarter of the documentary archives are rated 'potentially' or 'probably of high value' (Fig 13b; scores 2-3); though, by the same token, a second quarter fall below the standard that would be expected today (score 1), and nearly a half are rated 'of limited value' (score 0) – much the same proportion as for the pre-1972 archives (Fig 13a). As was noted above, archives from projects carried out in 1991 were expected to show particular evidence of incompleteness, owing to the wholesale reorganisation of archaeology in London during that and the following year. The assessment certainly seems to show this (Fig 13c). While the steady improvement in archaeological recording during the 1980s is probably reflected in the fact that just a quarter of documentary archives are now 'of limited value' (score 0), exactly a half score just 1 ('potentially of some value'). In most of these cases, key components of the locational and field record are missing – often site plans and registers – which could well be a consequence of projects being abandoned at short notice, and never restarted.

One of the assumptions at the beginning of Stage 2 was that there would be some sites – especially perhaps from the pre-1972 era – which had yielded large quantities of finds, but for which the documentary archive was either missing in its entirety or so sketchy as to be worthless. Consequently, if the finds from those sites were themselves found to be of very low intrinsic worth, they might well be considered candidates for disposal. But, to judge by the sample at least, it is evident that the Museum has very few entirely worthless documentary archives. Rather, the impression is that, until the 1990s (Fig 13d), by far the majority fall into a very wide 'middling' band, with great variation in detail across that band but with as few really outstanding archives as there are entirely inadequate ones. Thus to take the first of the key criteria – the accuracy with which a given

site can be located on a map – none of the 16 archives in the pre-1972 group scored 0 (Fig 14a); in fact, over half reached or exceeded modern expectations for recording (score 2 or more). This undoubtedly reflects the fact that both the Museum of London's predecessors – the Guildhall and the London Museums – were particularly concerned only to collect material with an accurate provenance.[20] It turns out, moreover, that most of the 37 sites for which is there is inadequate locational information (score 0) produced very small finds' assemblages. Taken together, these site archives are responsible for just 608[21] of the 9,895 boxes of finds in the present sample (6%), with 29 producing fewer than 10 boxes apiece.

Turning to the second key criterion – the quality of the field-recording of features, deposits and overall sequence – nearly twice as many records' archives were rated 'of little value' (score 0; Fig 14): 71 examples in all. Many of these were from the sames sites as had failed the test of locational accuracy but now, as might be expected, four of the 16 archives from the pre-1972 era fell into this category. On the other hand, it was again apparent that the most poorly recorded sites tend to be the the ones that have produced the smallest volumes of finds. Altogether the 71 archives in this category account for just 1,223 boxes of general bulk finds, a little over 12% of the total boxes in the sample. Fifty-two archives comprise fewer than seven boxes apiece; 16 have between 10 and 100 boxes; and just three contain more than 100 boxes.[22]

As a general rule, sites that have generated finds in large quantities, seem to have been relatively well recorded. Of the twenty-seven archives in the sample that include over 100 boxes (Fig 12), just one was 'failed' (score 0) for locational accuracy; and the same site, together with one other, for inadequacy of the field records. Two other archives had little by way of post-excavation records (score 0); but, as explained above, this deficiency may have no significant bearing on the overall value of the archive. The connection between good documentation and large numbers of finds is unlikely to be coincidental. Many of these are 'iconic' sites, which were recognised as such at the time of excavation and so were allocated suffient resources to ensure a high standard of recording[23]. In other cases, when the importance of the site became apparent subsequently, resources were then found to bring the records up to the requisite standard, especially if it would lead to an academic publication[24].

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[20] The primacy of context runs throughout the Museum of London's collections: Social and Working History, Ephemera and Costume, just as much as Archaeology. In a report supporting an application to the Heritage Lottery Fund in 2004, an independent assessor, Stuart Davies, concluded that this characteristic differentiates the Museum of London from most other museums in the UK, since the principle was applied across the board right from the start, well over a century ago.

[21] By far the largest assemblage comes from a site that has been published in detail (TR74: 236 boxes). The original location plan is missing, and so the excavation can only be positioned by means of the published plan, which is small in scale and not referenced to the National Grid.

[22] The largest (236 boxes) being the TR74 site described in footnote 2.

[23] For example, Billingsgate 1982 (BIG 82: 871 boxes); Trig Lane 1974-77 (TL74: 663 boxes); Royal Opera House 1995 (ROP95: 553 boxes)

[24] For example, 'Baynards Castle' 1972 (BC72: 972 boxes)

3.2.3. Conclusions

The survey of 312 documentary archives revealed a wide range of 'quality' but no easy routes to identifying groups of archives – or, even, individual archives – that are strong immediate candidates for 'rationalisation'. The assumption that there are some archives for which the records are either non-existent or so poor as to be useless for all archaeological enquiry, was proved to be largely false. Frustrating though numerous archives are, through their lack of important units of data and general sense of 'incompletness', in most cases there is sufficient information to make them potentially useful for both academic research and professional heritage management. Moreover, since there appears to be a correlation between the scale of a finds' assemblage and the quality of its associated records' archive, very large numbers of individual site archives would have to be deaccessioned in order to create really large volumes of space for incoming finds from current excavations. If the proportion of sites that scored 0 overall in the records' assessment (77 of 312 sites, around 25%) is consistent across the entire Archive, it could involve over 700 sites (25% of the total 2,868 sites), with the discard of over 11,000 boxes of finds – roughly equivalent to the average intake for four years. However, even the most cursory examination of these 77 sites from other aspects of the overall Quality Matrix – the intrinsic worth of the finds, for instance, the periods represented or previous usage of the archives – suggests that a very much small number of boxes could be earmarked as candidates for disposal.

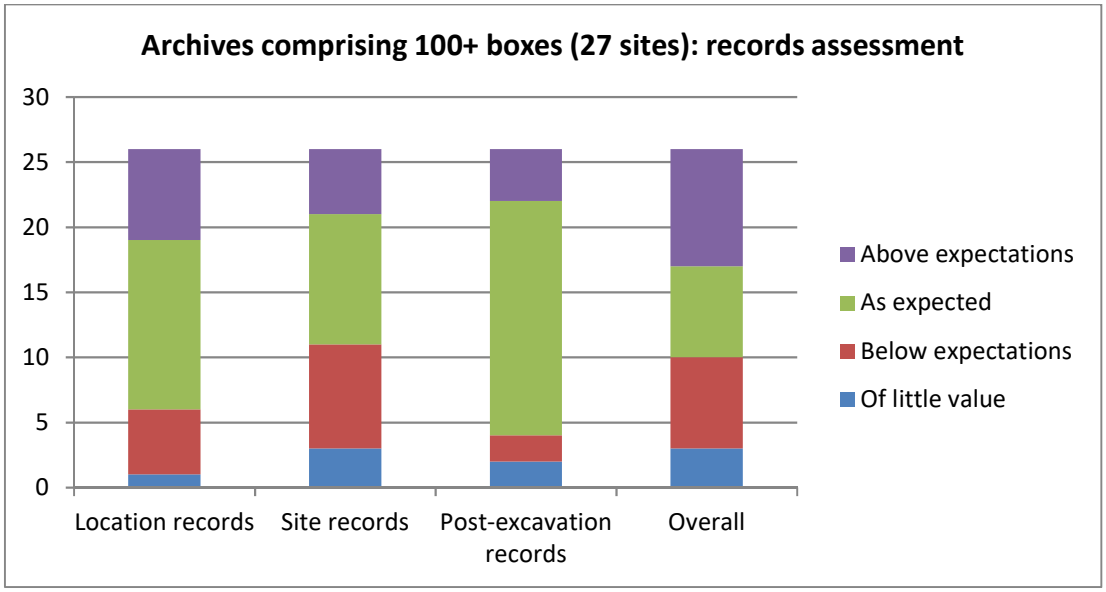
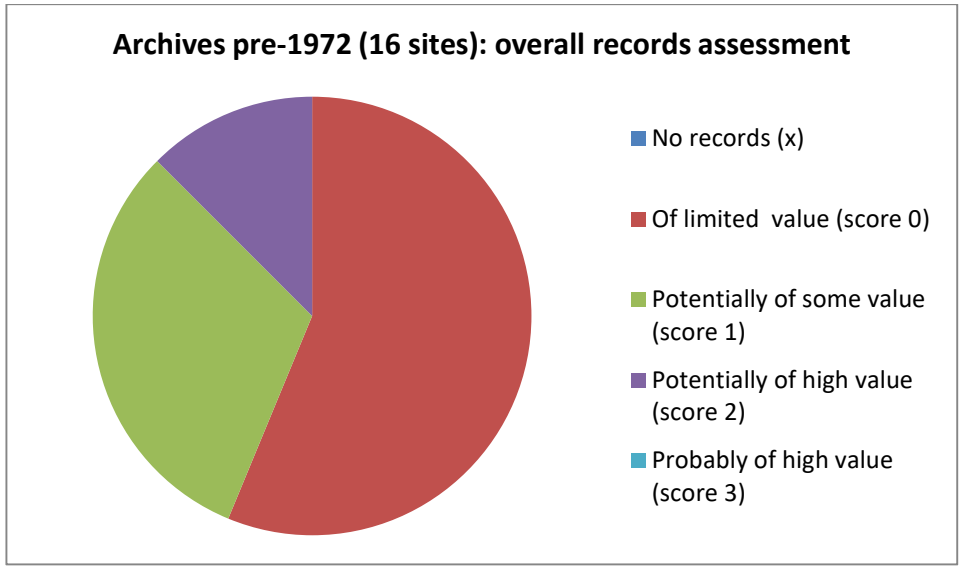
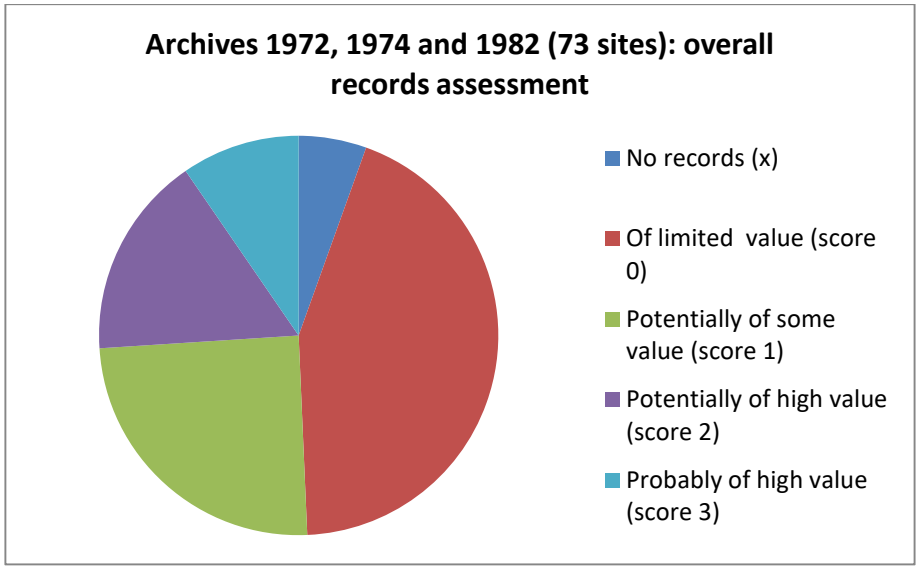
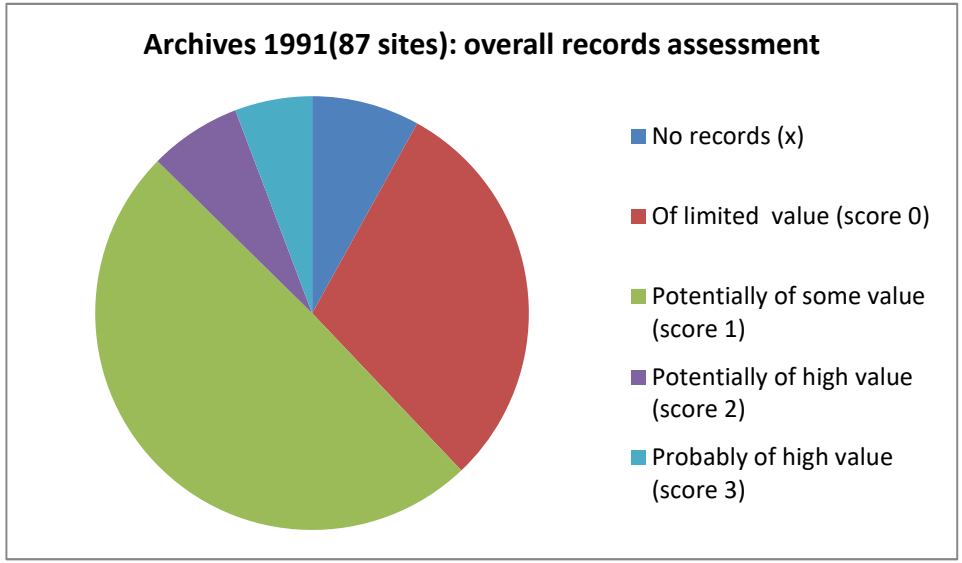


Fig 12: records' assessment for large sites (100+) boxes, revealing a high degree of correlation between the quantity of finds in store and the quality of the documentary archive.







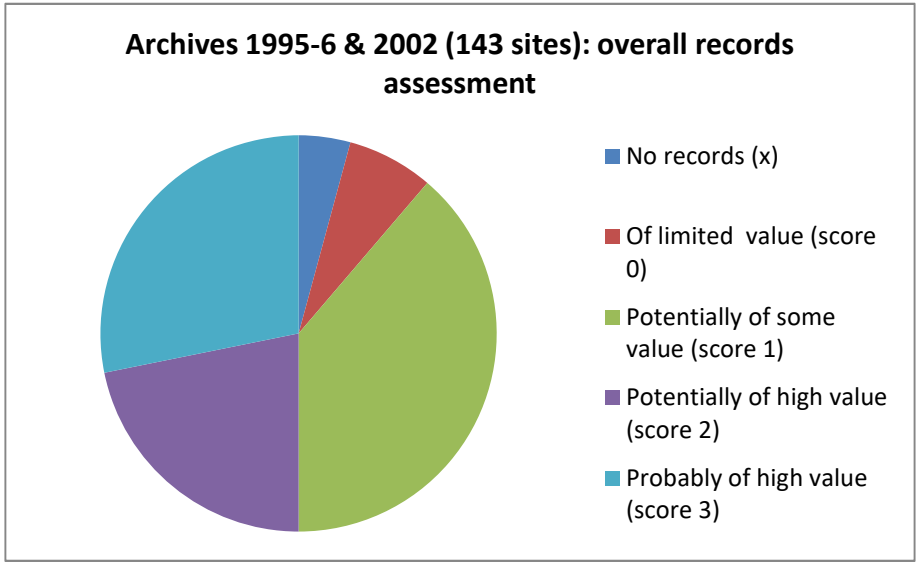


Fig 13: the overall records assessment ('quality score') for archives of the periods (a) pre-1972; (b) 1972, 1974 and 1982; (c) 1991; (d) 1995-6 and 2002

Fig 14: records assessment (Location/Site/Post-ex)for archives of the periods (a) pre-1972; (b) 1972, 1974 and 1982; (c) 1991; (d) 1995-6 and 2002

3.3. Condition Surveys

3.3.1. Ironwork (HB, HG)

3.3.1.1. Background

Iron finds have been stored in the metal store at Mortimer Wheeler House since 2002 alongside other metals (mainly copper and lead alloys). Prior to 2002, storage was in a number of different locations with varying environmental conditions.

Iron finds are designated as either bulk or registered; bulk iron is generally stored in archival cardboard boxes and registered finds in plastic (polyethylene boxes) with silica gel. However with such a large group of material, anomalies are found in particular with the pre-1980 sites. Oversize registered objects are often stored in non-plastic boxes. The selection of bulk vs registered finds is described in the archive's deposition standards document (2.3.4) and in the Finds Procedures Manual (MOL 2006, section 4).

Since 1980, all iron (with some exceptions) is x-rayed as a screening for identification and for aiding decisions on selection for conservation. Standards for deposition allow exceptions which include all post-medieval nails, medieval nails that have been identified and structural metalwork if there is a prior agreement with the museum. Again there are anomalies with this.

The relative humidity in the current metal store is usually between 40 to 50% and 35 to 45% in the summer months. The temperature fluctuates from 14 to 25° throughout the year. When silica gel is maintained, RH within the plastic boxes can achieve below 12%, a level advised for slowing down corrosion. Random checks have shown this is maintained within boxes with silica gel for several years depending on how much the boxes are accessed. However maintenance of silica gel is demanding on staff time; reduction of staffing and changes to work experience and volunteer programmes at the archive have had an impact on this.

3.3.1.2. The survey

The survey of iron was carried out over five days in March 2017. Each object was given a score based on the Criterion Anchored Rating Scale, adapted for different types of materials by conservators since the 1990s. This system uses two categories, physical integrity and stability, to assess the current condition or future survival of an object. Each category scores from 1 to 6 with the lower end of the scale indicating poor condition. This gives the object a potential score of 2 to 12.

Sites were selected based on several criteria: geographical location in London; the type of site i.e. waterfront or terrestrial; the company that excavated the site; the time period of the site and whether it is stored in cardboard or plastic boxes.

A total of 1018 objects from 19 sites were surveyed. The existence of an x-ray for the object was also recorded (noted on the object label) but x-ray images were not viewed. Both bulk and registered finds were surveyed in an attempt to have a clearer view of the condition of the iron collection.

A large proportion (22%) could not be rated because they are too concreted to be seen without an x-ray. These objects had to be given a 0 rating for the purposes of this survey. This meant that 795 objects (out of the 1018 available) were surveyed.

3.3.1.3. Survey results

Of the 795 objects that were scored in the survey, the average score was 7 out of 12. The worst site, PSH02, scored an average of 4. The highest average score for a site was 9 scored by 3 of the 19 sites.

- **Types of objects:** 410 of the objects were nails, 362 were unidentified, 55 were knives, and 8 were defined as waste with the rest being various types of objects from spurs to buckles.
- **Type of storage box:** 1018 objects surveyed: 405 were in cardboard boxes and 613 were in plastic. The objects in the cardboard boxes scored 6 on average and the ones in plastic scored 7.
- **Existence of x-rays**: As expected there is a bias with the registered finds having more x-rays than the bulk finds. 3 of the 19 sites are not recorded as having any x-rays while one site surveyed had x-rays for 100% of the objects. The sites with no recorded x-rays are all older sites that were excavated prior to the museum having x-ray facilities.
- **Conserved objects**: Determining if an object had been conserved was based on the presence of a lab number on the label or on the judgement of the conservator carrying out the survey. 41 objects were identified as having received conservation treatment. These objects scored an average of 10. This may indicate two things: that the objects were selected for conservation owing to their good condition and appearance on excavation or they have been looked after better than untreated objects owing to their significance.
- **Type of site:** A CARS survey carried out by Museum of London conservators in 2010 to assess the condition of iron from waterfront sites found that a high percentage of the objects scored well meaning their condition is good. The waterfront sites selected for this survey only scored an average of 7 in comparison with the non-waterfront sites which scored an average of 6.
- **Older sites vs more recent:** Older sites arbitrarily defined as pre-1990 scored the exact same on average as more recently excavated sites. This average is 6. However sites from the 1970s score higher than those from the 2000s.

3.3.1.4. Issues identified from the survey

- A large proportion (22%) could not be rated because they are too concreted to see the object. An x-ray image (existing or new) would be needed to assess them. These objects had to be given a 0 rating for the purposes of this survey.
- Slag was excluded because the deterioration of slag is different to iron objects and so does not fit into the CARS system. It became obvious that slag should be considered for retention by different criteria than its condition.
- Some objects are in such poor condition that it is difficult to decide how to record them in their present state. X-raying or photography would not be useful to record these objects as they have fallen apart.
- The condition of bulk finds was expected to be poor but registered finds also had low ratings with some scoring the lowest score of 2. The data needs more investigation for example is there an overall difference in registered versus bulk finds overall regardless of site? It appears that there is not a big difference with registered finds scoring an average of 7 versus the bulk scoring an average of 6.

- Can this type of survey be carried out by non-conservators with training and an illustrated guide? Whether carried out by conservators or non-conservators, agreement on condition ratings should be agreed at the start of the survey to make the ratings as objective as possible.

3.3.1.5. Some points

- Past surveys carried out by the museum and anecdotal evidence have shown that iron from waterfront sites is generally in better condition than iron from terrestrial sites. This was corroborated by a recent PhD dissertation in which the museum participated. (This study investigated iron from a number of excavations in the UK and showed that iron from London waterfront sites had lower chloride levels than iron from other sites).
- This survey did not show a substantial difference between iron from terrestrial and waterfront sites – this may have been because of the sites selected or surveyor judgement. It is known that there are many objects in excellent condition from these sites for example iron from TL74 (examined by Marit Gaimster, iron specialist for the project).
- X-radiography is required for all most iron at the fieldwork stage of finds processing (with some exceptions outlined in the Museum's standards document). This is widely accepted as a cost effective way of screening and recording iron objects.
- Storage in dry conditions (below 12% RH) has been shown to stop or slow down corrosion. This can only be achieved within enclosures (e.g. well-sealed, good quality plastic boxes) and a prescribed amount of silica gel that must be maintained. For large archives, this is resource heavy on staff time and initial cost of silica gel. However it is an effective low tech method of slowing corrosion
- Interventive conservation (that is immersion to remove chlorides) is not widely used in the UK for a number of reasons. This type of treatment, when carried out, would only apply to selected objects that do not have other associated material such as coatings or organic elements. The treatment is more widely used in France and Germany and is a subject of debate in the UK.

3.3.1.6. Some thoughts

- It is accepted that x-radiography is a cost-effective way of identifying and recording iron. Should all iron be x-rayed at an earlier stage in finds processing so that some material is selected for disposal prior to registering the finds?
- Digital xradiography is an effective way to screen iron objects; initial costs are high and there are issues with storing and archiving data but as more investment is made in acquiring this type of equipment so costs will reduce and there will be wider availability.
- Condition surveying is labour intensive (e.g. requiring two trained staff). Condition surveying is useful for giving an overall view of the state of an archive but may not be an effective tool in decision making for rationalisation.
- There are some other potential uses for material such as metalwork. Metallurgists can gain information from even heavily corroded material. Conservation research projects on iron

treatments benefit from using real excavated material. (The museum has donated in the recent past bulk iron from selected sites to Cardiff University for their studies).

- Selection for retention also based on the importance value of the object – an important object in bad condition may still be retained.

3.3.1.7. Conclusion

- The iron in the archive is of varied condition depending mainly on type of site, type of object, past and current storage and treatment regimes. Some of it is in poor condition, particularly bulk iron and some in very good condition, particularly from sites with waterlogged conditions.
- X-radiography is done on most of the iron material and is a cost-effective way of identifying and recording iron objects. Some archaeological units now use digital x-radiography to screen all ironwork during early stages of processing.
- Very few iron objects receive conservation treatment so preservation relies on dry storage in conditions only possible for an archive of this scale by storage in well-sealed polythene boxes with the prescribed amount of silica gel. Maintaining these conditions is labour intensive but effective.
- Rationalisation of ironwork in poor condition would help to reduce the amount of time in maintaining silica gel and help to ensure that the iron in good condition continues to stay in good condition.

SITECODE	YEAR	LOCATION	CONTRACTOR	PERIODS REPRESENTED	WATERFRONT	OBJECTS SURVEYED	AVERAGE SCORE
GM4	1965	City of London	GM	Roman, Medieval	N	43	7
WFG3	1947	City of London	RMLEC	Roman; Medieval; Post-Medieval; 18th century; 19th century	N	30	9
BC72	1972	City of London	GM	Saxon, Medieval, Post-Medieval	Y	92	9
MS72	1972	Tower Hamlets	SAEC	Roman	N	7	9
TR74	1974	City of London	DUA	Roman, Saxon/Medieval	Y	106	7
199BHS74	1974	Southwark	SAEC	Roman, Medieval, Post-Medieval	N	88	6
SH74	1974	City of London	DUA	Roman, Medieval, Post-Medieval		55	7
4STS82	1982	Southwark	SLAEC	Prehistoric, Iron Age, Roman, Medieval, Post-Medieval	Y	51	8
BIG82	1982	City of London	DUA	Roman, Saxon, Medieval, Post-Medieval	Y	188	6
CH82	1982	Hounslow	MOL, WLAFG	Post-Medieval, 18th century	N	25	4
SPI91	1991	Tower Hamlets	DGLA	Roman, Medieval, Post-Medieval	N	18	6
DEN91	1991	City of London	DUA	Bronze Age, Roman, Medieval	N	59	6
TRE91	1991	Southwark	DGLA	Roman, Medieval, Post-Medieval, 18th century, 19th century?	N	17	6
PRB95	1995	Tower Hamlets	MOLAS, PCA	Bronze Age, Roman, 19th century	N	24	6
ROP95	1995	Westminster	MOLAS	Saxon, Post-Medieval/17th century	N	68	7
SOA 96	1996	Greenwich	PCA	Roman, Saxon, Medieval?, Post-Medieval/17th century, 18th century, 19th century	Y	16	5
JAC96	1996	Southwark	MOLAS	Bronze Age?, Medieval, Post-Medieval/17th century, 18th century, 19th century	Y	45	7
FAS02	2002	City of London	PCA	Roman, Medieval, Post-Medieval, 17th century, 18th century, 19th century, 20th century	N	39	7
PSH02	2002	Southwark	MOLAS	Mesolithic; Neolithic; Bronze Age; Iron Age; Roman; Medieval	N	47	4

Table 9: site information and conservation survey results

3.3.2. Leatherwork (HG)

A review of leather deposited at the Archive was carried out in April 2017. Since the sites forming the 10% sample did not contain sufficient of this material to support worthwhile conclusions, it was decided to include some additional sites in order that all periods of archive compilation – from pre-1970 to the 2000s – were represented to some degree. Forty-eight sites were examined in all (Table 10).

Period of compilation	Total sites	Total boxes
pre-1970s	2	2
1970s	2	131
1980s	3	27
1990s	28	66
2000s	13	9
TOTAL	**48**	**235**

Table 10: numbers of sites and boxes selected for the leatherwork review

Based on this selection, some broad conclusions can be reached:

- Most sites of the sites selected for survey have several boxes of leather. Some, primarily from waterfront sites, have very large numbers, BC72 being by far the largest in the present sample, with 127 boxes.
- All leather is now in a dry state; processing of the backlog of leather stored wet was completed in 2016.
- Leather conserved since 1980 will have been either solvent dried or freeze dried.
- Leather recovered prior to 1980 will have been solvent dried or air dried. The air-dried leather (mainly from BC72) is in bags by context, and is stiffer and less flat than the treated leather. It can be studied and identified but not as easily as the treated leather.
- Some leather treated prior to 1980 has been treated with oils and dressings with a resulting dark colour. These can sometimes also be sticky and have a residual odour.

3.3.2.1. Conclusions

The conservation of leather has largely been successful. A survey carried out by Museum of London conservators in 2012 of leather stored at the archive showed that leather treated by current methods, that is by freeze drying, is in good condition. Leather processed prior to the introduction of current methods is in variable condition but can be studied, and most can be displayed. Some would need remedial work to improve appearance. Air-dried leather can also be studied and in some cases retreated, but may not be displayable.

Leather experts generally agree on 100% retention because survival of leather relative to other materials is rare. Space-saving can sometimes be achieved by categorising some material as 'bulk', since individually registered finds require more labelling and bagging. This option could be considered for very large site assemblages, though further advice should be sought from leather experts before doing so. However, whatever approach is taken, rationalisation of this material will not make a substantial reduction in space in the Archive.

Discussions during the seminar on 22 May (see Stage 3 below), and on other occasions, have shown the value of capturing information about storage and treatment methods for leather no less than for other materials. Treatment records for individual objects are available but overall statements about treatment strategies, and how and when they changed over time, are not routinely recorded.

3.3.3. General condition of the packaging (MS)

3.3.3.1. Method

The packaging assessment was carried out on all 320 sites in the 10% sample. The number of boxes examined, the overall quality assessment and information about the relative filling of the boxes can be viewed in the Quality Matrix (Appendix 1). The aim was not only to check the condition in which the finds were stored – and hence to identify any major management issues – but also to explore the possibility of making space in the store simply by re-packing the existing boxes in a more efficient way.

Because of the limited time available and the large quantities of material to investigate, it was decided to sample a limited but significant number of boxes for each site. Initially, the following scheme was adopted:

- *Sites with fewer than 10 boxes*: only 1 box;
- *Sites with 11-20 boxes*: 2 boxes;
- *Sites with more than 20 boxes*: 2 boxes per shelf (normal contents of a shelf is 20 boxes).

  However, after analysing 45 sites it was clear that not only would this scheme be too time-consuming but that the results would be repetitive, yielding little further useful information than a smaller sample. It was then decided to reduce the number of boxes analysed as follows:

- *Sites with up to 20 boxes*: 1 box
- *Sites with more than 20 boxes*: 1 box per shelf

The following aspects were examined:

- *Box labels*: the presence of standard museum labels, appropriately filled in;
- *Fullness of the boxes*: with due consideration for the fragility and safety of the objects contained therein, it was noted if each box was almost empty, half full or full;
- *Bag material*: whether the finds were stored in plastic or paper bags, or if they were stored entirely un-bagged. The presence of some old site archives, where finds were stored in boxes without bags or, sometimes, in paper bags instead of standard plastic bags, was known both from the Stage 1 survey and from previous re-packing projects carried out by volunteers; however, the extent of the practice was unknown.

- *Bag labels*: whether each bag had a standard museum label indicating sitecode, material and context number

'*Up to standard*': an assessment of whether the packaging met the standard laid down in the Museum of London's *Standards for the Deposition of Archaeological Archives*, and which is routinely implemented by volunteers and Museum staff re-packaging finds in the Archaeological Archive. The standard covers matters such as organising boxes boxes on the shelf in context order, dividing finds scrupulously by material, and stored everything appropriately in labelled bags.

3.3.3.2. Results:

The survey suggests that the majority of archives are stored in a broadly acceptable manner, with box labels filled in correctly and everything in labelled plastic bags. Somewhat surprisingly, no paper bags were found in any of the sampled boxes. Without doubt this reflects the scale of the projects undertaken by volunteers in recent years to audit and repack archives from the 1970s and earlier, to a a fully modern standard[25]. Also relatively small was the number of boxes in which finds were discovered entirely un-bagged: 96 in total, nearly all of them from a handful of sites in the 1970s, which have not yet received attention from volunteers. It was noticed that certain materials – principally shells and animal bones – tend to be more frequently stored un-bagged than others. On the other hand, in the case of just 98 sites archives did the packaging reach the full modern standard, with all finds correctly sorted, ordered and bagged; 54 were small sites comprising a maximum five boxes, only three were large, with more than 200 boxes (Fig. 16). A surprising number of the sub-standard archives relate to sites from the 1990s and 2000s; in some instances this is because the material has not yet been fully deposited, but more often it appears that the Museum of London *Standards* are not being completely fulfilled by contractors.

The most important result in the present context, however, was the discovery that approaching a quarter of the boxes sampled were not filled to capacity: 122 were half-full and 111 were near-empty (Fig. 15). Since the sample represents around 1% of all the boxes in the Archive, this could imply that around 10,000 boxes in the General Store are half-full, and that a similar number are near-empty. One reason for there being so many near-empty boxes is that hitherto we have not stored the finds from more than one site in the same box, even though it has been common practice to do so with Records. In fact, in 54 of the 89 archives represented by a single box of finds, the assessment revealed that the box is near-empty. Granted that it will not always be possible to combine two half-full boxes into a single full box, and that various numbers of near-empty boxes will make up a full box – nevertheless, it is evident that simple re-packaging, without any discard or other rationalisation, could release a useful amount of space in our stores. A conservative estimate, supported by years' of experience carrying out volunteer projects, would be 6,000 boxes. It could conceivably be as many as 10,000 boxes.

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[2525] These projects, commonly known as 'Volunteer Inclusion Projects', are currently funded by Arts Council England. They usually involve teams of 6 volunteers, led by an Archive Collections Manager, working one day per week for a period of 10 weeks. Around 50% of the volunteer's time is spent on auditing/repacking, the remainder on learning activities and engaging with members of the public. Prior to ACE, similar projects were funded by MLA Renaissance and, before that, by the Heritage Lottery Fund.

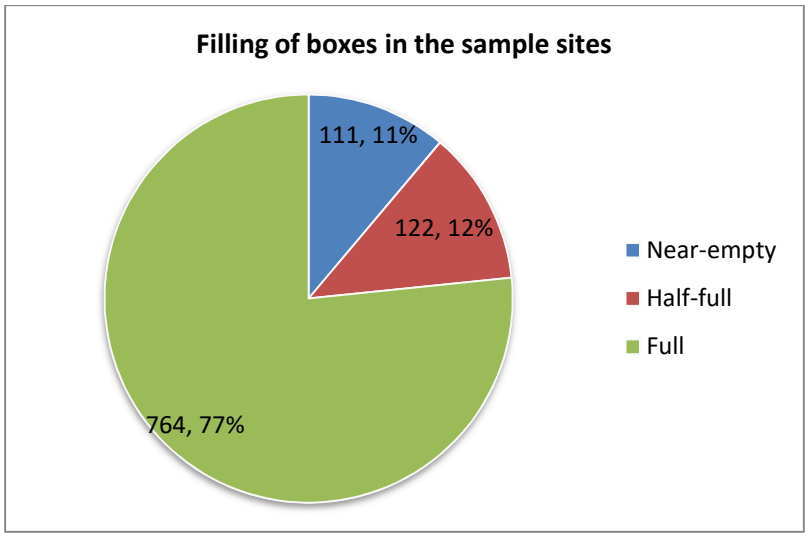


Fig 15: the proportion of boxes (numbers and percentages) from the sample sites that are full, half-full or nearly empty. Total boxes assessed: 996

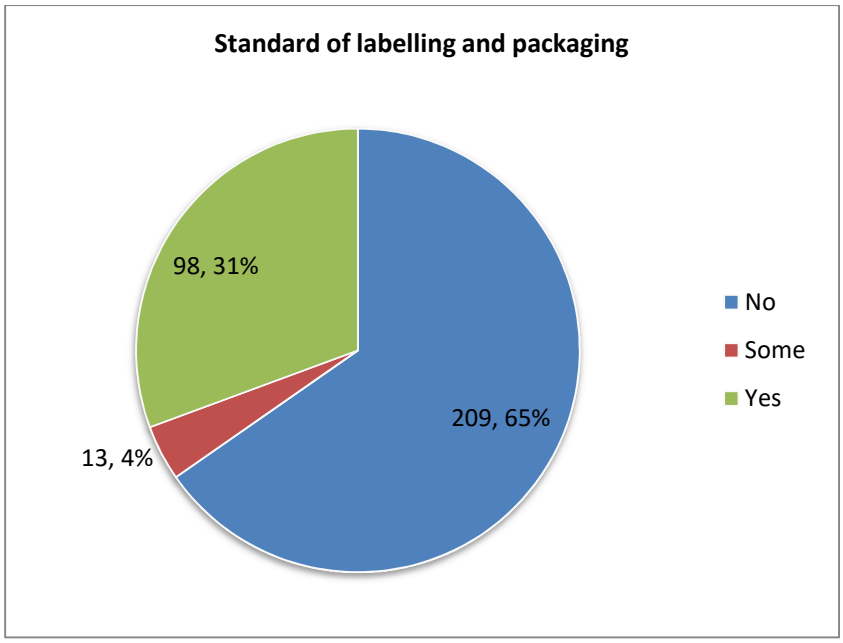


Fig 16: assessment of whether the packaging of the finds from the sample sites (total 320) meets current standards of bagging and labelling

3.5. The use made of site archives (AB, FG)

3.5.1. Method

Analysing the use that has been made of site archives in the past will clearly give some clues as to how they may be used in the future, though there are severe risks in using the data uncritically. In this section, we survey the Museum of London's records pertaining to a wide range of different categories of archive use, and draw some general conclusions not only about the type of archive that is most frequently consulted, but also about the specific factors that sometimes occasion that consultation. For some categories, the data was analysed across all sites in the archive; but for others, where the information is particularly complex, only the sites comprising the 10% sample were reviewed. The categories are summarised in Table 11 below, with the full data for the sample sites incorporated in the Quality Matrix (Appendix 1).

Category of use or consultation	Scope of records consulted	All sites	Sample sites only
Use of objects within permanent gallery displays	Objects currently on display at the Museum of London or Museum of London Docklands	*	
Objects sent out on loan to other organisations, usually for exhibition	Records for the past c. 20 years	*	
Objects sent to other organisations for other purposes: eg for scientific analysis, to support student research projects, for particular public events	Records for the past c. 20 years	*	
Enquiries pertaining to site records and/or digital records: email, telephone, letter or in-person visit	Records for the past 4.5 years (since 1 January 2013)		*
Enquiries pertaining to finds: email, telephone, letter or in-person visit	Records for the past 4.5 years (since 1 January 2013)		*
Website searches for particular archives, as identified by the individual site code	Analysis of the search string sent to the Archive Catalogue[26] Website logs for 3 years, May 2014-May 2017	*	
Publications, including single and multi-site monographs; journal articles; objects included in catalogues. Also included are	All available bibliographic data held by the Museum of London		*

[26] http://archive.museumoflondon.org.uk/laarc/catalogue/

student dissertations, but **not**
unpublished 'grey-literature' reports

Table 11: the categories of use of archaeological site archives, and the scope of the records analysed

3.5.2. Results

In all, 442 objects from the Archaeological Archive are currently on display in the Museum's galleries at London Wall – less than 5% of the total of 10,424 items that are currently displayed there. Indeed, almost exactly a third of those objects – 143 flints – derive from a single site in Uxbridge, which produced information about the Upper Palaeolithic and Mesolithic periods that is virtually unique for the London region. Table 12 lists the 13 sites from which there are currently more than 20 items on display, with notes summarising the types of objects and the significance of the site and/or the finds from it. It is immediately evident that most of these sites are 'special' in some way, representing particular places (eg The Rose Theatre) or unique deposits (burial groups, Great Fire assemblages), or filling gaps in the Museum's collections, especially of items made of leather, wood or textile.

Site	Objects on display	Loans	'Exits'[27]	Character/significance
UX86viii	143	none	none	Prehistoric (upper palaeolithic/mesolithic) flints
MSL87	89	28	1	Roman burial groups: counters, coins
CSI86	79	none	none	Post-medieval pit groups – glass, ceramics, clay pipes – used as underfloor displays in the gallery
179BHS89	50	3	1	Roman various small finds, often of individual importance
GPO75	45[28]	none	8	Roman
BIG82	32	12	1	Early medieval timber structures, leatherwork and various medieval objects of intrinsic interest
PEN79	30	8	5	17th century, mostly for Great Fire exhibition
SBH88	30	16	1	The Rose Theatre
BC72	28	28	13	Medieval finds: shoes, metalwork, ceramics
BUF90	28	none	19	Saxo-Norman coins and other finds

[27] See below for definition of 'exits'

[28] Includes over 30 items that at the time of the survey (early 2017) formed part of a temporary display concerning the medieval church on the site, as well as the Roman levels

OPT81	24	1	3	Roman bone-working waste
NFW74	22	13	1	Roman, mainly samian from a unique trading deposit of the early 3rd century
ONE94[29]	22	1	none	Roman, mainly barrel fragments

Table 12: the 13 sites from which there are currently more than 20 objects on display in Museum of London galleries

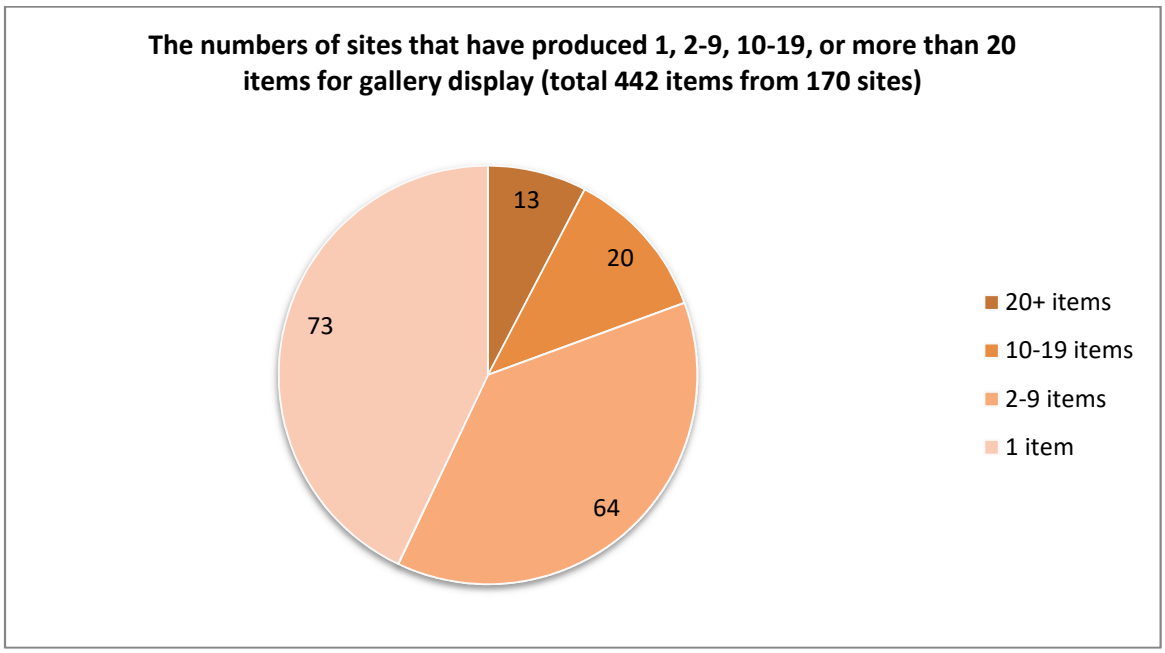


Fig 17: numbers of objects from the 170 sites that are represented in the London Wall Galleries (just 6% of the 2,868 sites in the Archaeological Archive)

Overall, the data for gallery use indicates many of the same characteristics as have been observed elsewhere in this survey – namely that the Archaeological Archive contains a small number of 'iconic' sites, usually of considerable size, that have had a vastly disproportionate impact. Just 170 out of a total of nearly 3,000 sites have produced finds that are currently exhibited; and, of these, 73 sites (over 40%) are responsible for just a single find (Fig 17). So too when it comes to objects that have been loaned to museums or other organisations for exhibitions, or that have been sent out for other reasons – for instance, for scientific analysis, specialised conservation, student projects or public events. There have been 781 loans and 461 other 'exits' – the former deriving from 103 sites, the latter from just 84 – and, as Fig 18 shows, only a handful of sites have produced really large numbers of finds used in this way. While there is a considerable overlap with the sites most strongly represented in the galleries of the Museum of London (see Table 12) – take, for instance, the Rose Theatre or waterfront sites that have yielded uniquely well-preserved medieval finds – there others that feature hardly at all in the gallery displays, and in most of those cases, special factors can be

[29] Over 100 items from this site were displayed in 2000-2001 as part of a major exhibition concerning the site, *High Street Londinium*

easily identified. Thus the top three archives for loans are NON59, Nonsuch Palace (85 items to Sutton Museum), EDE89, Kingston (61 items to Kingston Museum) and VHA89, Vintry (48 items formerly loaned to the Vintners' Company). The Vintry site, VHA89, also appears as a leading source of 'exits' (54 items), along with ASQ87, America Square, City of London (79 items sent to West Dean College for conservation student training) and LOW88, London Wall (48 items to the Natural History Museum).

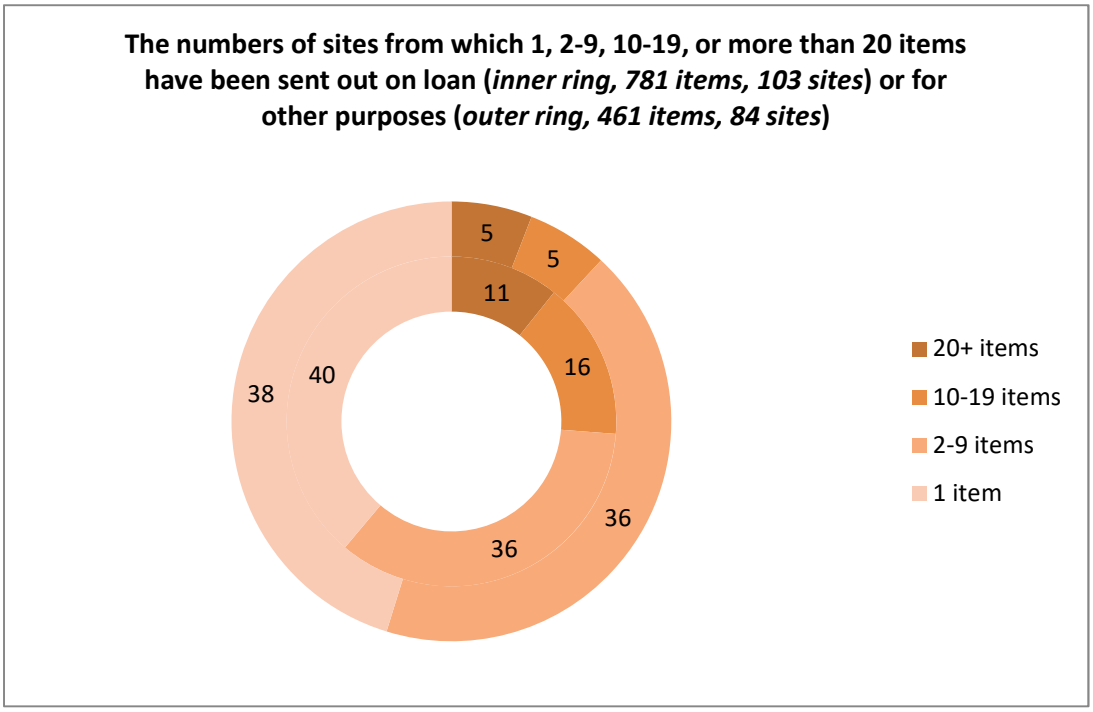


Fig 18: objects that have been loaned for exhibitions, or sent out ('exits') for purposes of study, research, conservation or events

On the other hand, simply to take as a yardstick the numbers of objects that have appeared in galleries or exhibitions, would underestimate the use that is regularly made of the archaeological archives held by the Museum of London. Leaving aside the fact that much of the information presented on display panels, in videos or as models in the Prehistoric, Roman and Medieval Galleries is derived entirely from archaeological work – usually the product of interrogating and amalgamating data from many individual interventions of many different types – the Archaeological Archive also receives many enquiries each year, both from remote users and from visitors in-person. Analysis of the 3,671 searches made of the Archive's online catalogue over the past decade reveals a very different pattern, with requests for information about sites outnumbering those about finds by over nine to one (Fig. 19 *bottom*). In most instances, the site information viewed was a single page summarising the archaeological sequence and highlighting the principal discoveries, whether structural or eco/artefactual. Sometimes the user seems to have typed the sitecode directly into the search engine, evidently knowing – perhaps from a published report – that this was a site of potential interest. In most cases, however, this was a follow-up search – a request for more detailed information following an initial enquiry using general terms such as 'palaeochannel', 'Saxon Barking'

or ‘Charterhouse’, which had generated a list of relevant sites. Moreover, the data logs reveal that information was requested for a very large number of individual sites[30]: well over 2,000, of which 1,344 were viewed only once and just three were viewed ten times or more. Although these searches are for high-level summary information that is scarcely ‘archival’ in character, nevertheless they reveal a public interest in an extremely wide range of topics and archaeological sites, which is somewhat at variance from the impression gained from analysis of gallery or research use.

The complexity of the issues are further apparent once we include data concerning publications and direct enquiries (by email, telephone or visit to the Archive in-person). Only the 320 sites in the 10% sample were investigated to this level of detail, and the results have been incorporated in the Quality Matrix (Appendix 1). This reveals well over 1,000 ‘uses’ of various kinds, which, when scaled up, would imply over 10,000 ‘uses’ for the London Archaeological Archive as a whole. Perhaps most surprising is the large number of publications – 435 – which range from notes on individual objects to complete site reports. Fig 20 (also Table 13) suggests that the role of conventional publication in attracting further use of site archives should not be underestimated.

Neither the correlation between published reports and exhibited objects, nor that between reports and specific enquiries for site as well as finds’ data, is particularly unexpected. Perhaps more noteworthy, however, are the slender indications that, when it comes to detailed individual enquiries and consultations, the balance between records and finds enquiries varies according to the date of the excavation (Fig 21). When it comes to sites excavated in the 1970s, over 70% of the enquiries concern finds – no doubt reflecting the number of large-scale, mainly waterfront, excavations, which produced many rare objects and are well-known through publication and gallery display. For sites excavated in the 1980s, finds’ and records’ enquiries are roughly equal, but for the 1990s the picture is entirely reversed, with records’ enquiries representing over 80% of the total. The figures for the 2000s are roughly equal, but too few enquiries have been received to draw valid conclusions. It is reasonable to assume that the rise in the number of records’ consultations for sites from the 1980s onwards is a reflection of an increase in the number of sites, their wider geographical coverage, and the better quality of both fieldwork and recording, which was noted above in the discussion of site documentation. All these factors undoubtedly make the archives more relevant and useful to present-day archaeologists. However, this trend is without doubt also a reflection of the fact that only two of the 1980s sites – SWA81 and BIG82 – feature to any significant extent in the Museum’s hugely influential series of books on *Medieval Finds from London*; these principally concern discoveries from the 1970s.[31]

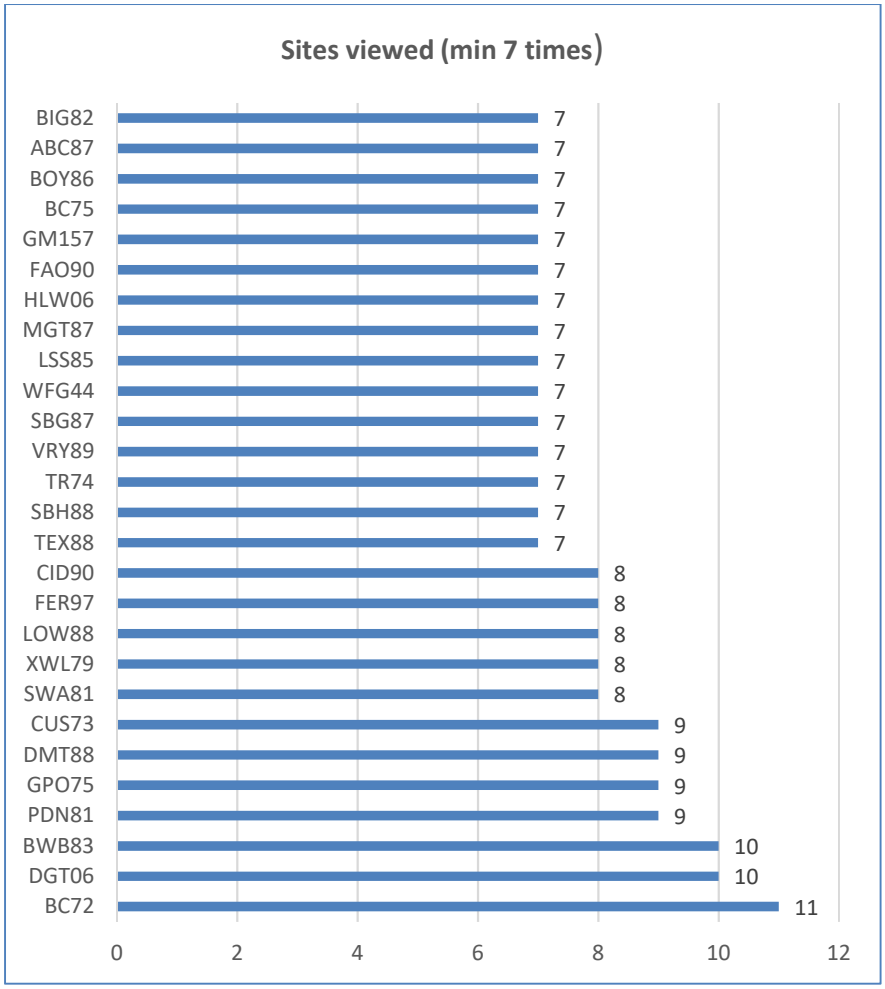
Sitecode	Gallery display	Loans	Exits	Records Enquiries	Finds Enquiries	Web searches	Publications	TOTAL USES

[30] Note that the online catalogue (a) contains information about sites that have not yet been deposited in the London Archaeological Archive, and (b) currently includes only sites excavated to the end of 2009. Consequently, it is not possible to relate this data directly to the data for the archives currently held by the Museum of London, which are the focus of this report.

[31] It must also be noted that academic enquiries concerning finds from major, well-published sites of the 1990s – eg the Royal Opera House site, ROP95 – probably do not go to the London Archaeological Archive but to MoLA, which employs the specialists who wrote the reports and who are very well known in their fields. Data concerning such enquiries is not available to the present writers.

BC72	28	28	13	1	8	11	20	109
BIG82	32	12	1	4	16	7	25	97
NFW74	22	13	1	4	12	6	12	70
TL74	11	24	6	1	7	5	16	70
LUD82		1		8	12	2	6	29
SH74	3	2			6	4	11	26
AL74				2	9	6	7	24
OST82	7	6			2	5		20
RAG82	7	1		3		4	4	19
1STS74	3				4		10	17

Table 13: the top 10 of the 320 sample sites, in terms of use/consultation at a wide range of levels



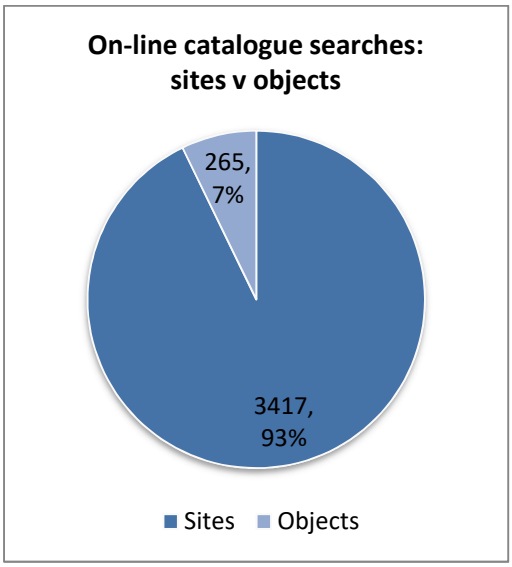


Fig 19: analysis of searches (total 3671) of the London Archaeological Archive's Online Catalogue. *Above*: site description pages viewed 7 times or more. Note the reappearance of sites well represented in the Galleries and in other enquiries (eg BIG82, SBH88, GPO75, BC72) *Below*: the relative numbers of searches for Sites and Finds

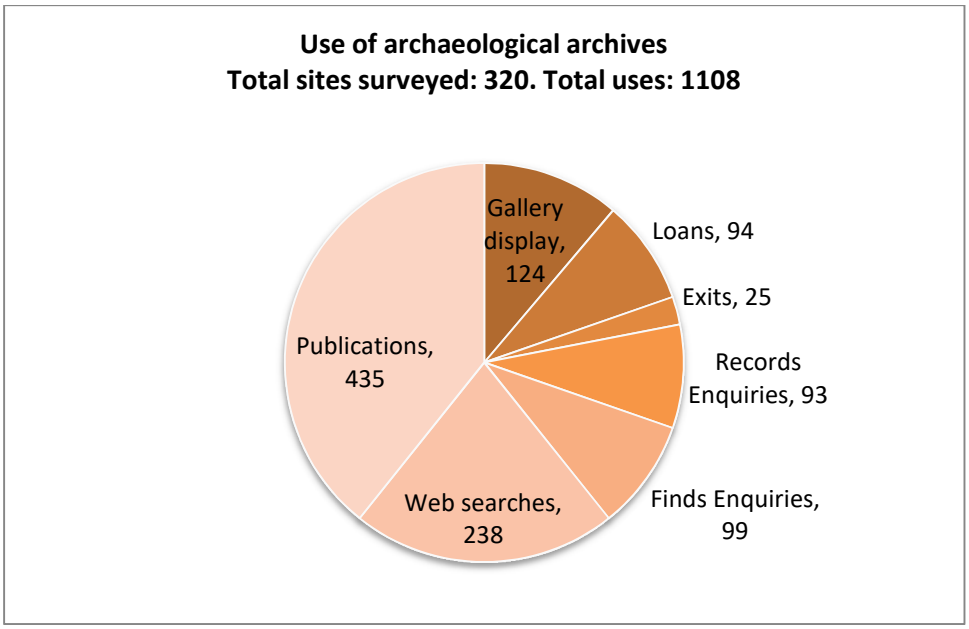


Fig 20: the various uses made of archaeological archives in the 10% sample

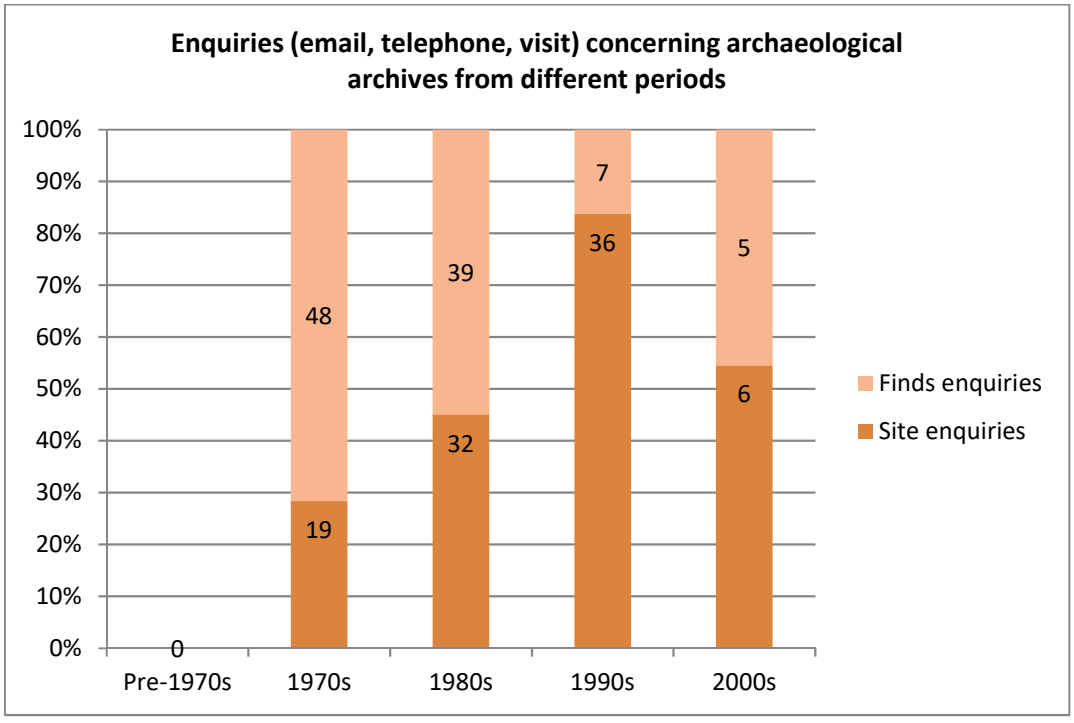


Fig 21: the ratio of finds' to site records' enquiries made for archives in successive decades (10% sample, 320 sites). No enquires were received concerning the 12 pre-1970 archives that were included in the sample

3.6. Conclusions from Stage 2

The main purpose of this stage of work was to examine a 10% sample of the total archives from a range of perspectives – documentation, condition, periods/location, display/consultation – and to devise a consistent method for investigating and rating them. The ratings would be expressed in terms of a Quality Matrix (Appendix 1), which could guide the future selection of sites for further assessment and, potentially, disposal/rationalisation.

The various surveys that were undertaken all yielded valuable results, and so we should have no hesitation in extending the methodology to all sites in the London Archaeological Archive. Potentially too, it could be used in other museums with similar holdings. The following conclusions can be briefly noted:

1. Approaching 25% of the nearly 1,000 finds' boxes that were examined, were found to be half-full or nearly empty. Consequently, a great deal of space could be saved in the General Store simply by combining the contents of boxes. This could easily amount to 6,000 boxes, possibly as many as 10,000.
2. A visual survey of over 1,000 iron objects suggested that it will be necessary to devise a new strategy for the archiving of this material – regardless of whether the need to save storage space is a motive. Since 25% of the sample could not be identified by visual means, routine x-raying may be a more effective guide to what might rationalised; and, at the same time, the x-ray will serve as a mechanism for preserving basic information that may ultimately be more useful and cost-effective than attempting to maintain an object that was already in bad condition when it came out of the ground.
3. The documentary survey of over 300 archives did reveal that around 25% of them have documentary archives of very poor quality, which might therefore bring into question the value of retaining the finds' assemblages in their entirety. However, when studied on a site-by-site basis, in conjunction with other factors on the Quality Matrix, such as geographical location or periods represented, the case for rationalising these archives seems much less obvious[32]. Moreover, they tend to be very small assemblages, there being a definite correlation between scale of the finds' assemblage, quality of the documentary archive and the general importance of the site.
4. Overall, the Stage 2 survey supported one of the principal conclusions of Stage 1. The London Archaeological Archive is characterised by a very small number of 'iconic' archives – which score highly on all measures from gallery and research use to scale of the finds' assemblages – and by an exceptionally large number of very small archives that have correspondingly low scores across the Quality Matrix. If the aim is to clear large amounts of space in the store, no 'easy wins' are in sight: de-accessioning large numbers of very small archives would carry large administrative overheads, while pruning 'iconic' archives seems unacceptable on academic grounds.

[32] For example, an initial hypothesis was to target for rationalisation those archives that comprise early-modern finds only, and have documentary records of very poor quality. In fact, only a handful of such sites can be recognised on the Quality Matrix.

4. Approaches to rationalising individual sites

4.1. Introduction

In the final stage of the project, the Quality Matrix was used in conjunction with the Stage 1 Inventory to identify a very small number of sites that could serve as the basis for studies of the detailed practical steps that would have to be taken in order to assess, record and, potentially, discard material from archaeological archives. The followings sites were selected, which together offer a glimpse of the geographical and chronological coverage, the enormous difference in scale of different excavations, and the sheer diversity represented by the London Archaeological Archive (Table 14):

Site code	Address	Number of finds boxes	Reasons
PLG02	80 Plough Lane, Wimbledon, SW17 LB Merton	1	A typical very small site: adequate recording; some Roman but mainly early modern finds; no recorded 'uses' Appeared a strong candidate for disposal of most of the finds.
JST02	31 James Street, WC2 City of Westminster	4	A small site: high standard of recording; Saxon and post-medieval finds; some publications To test the possibility that, on sites that had clearly yielded finds of importance, there might be scope nevertheless for 'rationalising' less important components.
ROA96	Sadler's Wells Theatre, Roseberry Avenue, EC1 LB Islington	11	A small site: high standard of recording; entirely post-medieval finds; little previous use or consultation. To assess the impact of the excavation being on the site of a landmark building, on the decision whether or not to retain the finds' assemblage in its entirety.
LIB82	119-121 Cannon Street, 3 Abchurch Yard, EC4 City of London	28	A small/medium site: high standard of recording; Roman, medieval and post-medieval; some research use but no items on display or so far used in publications. To assess the possibility of rationalising a typical small central London site that seemed to have yielded – in comparison with many sites nearby – both stratigraphic sequences and finds' assemblages of far

			less worth.
CUT78	Cutler Street PLA Warehouse, Harrow Place, Middlesex Street, New Street, E1 and EC2 City of London	347	A large site; relatively poorly recorded, even by the standards of the time; some Roman but mostly 17th to 18th century finds in large quantities; some research, publication and display use. This site, which was not assessed at Stage 2, was introduced here because it fulfilled a particular requirement: to explore the possibility of preserving by record only, the large quantities of finds deriving from a site with inadequate stratigraphic records and clear evidence of residuality.
TL74	2-3 Trig Lane, Upper Thames Street, EC4 City of London	663	A very large site, 'iconic' in terms of its medieval finds and contributions to knowledge of London's medieval waterfront; field records generally adequate but not up to modern standards To assess the possibility of rationalising the very large animal bone assemblages from the site, which were not collected to a modern standard and have hitherto been ignored by animal-bone researchers.
BIG82	Billingsgate Market Lorry Park, Lower Thames Street, EC3 City of London	871	A very large, 'iconic' site, similar to last in terms of its contribution to studies of medieval finds and the London waterfront; field-recording of a high standard, in its way a landmark in the implementation of the Harris Matrix/Single Context Recording System. Selected as a counterpart to the TL74 archive for the purposes of assessing the possibility of rationalising medieval animal bone assemblages. More 'modern' in the way they were collected, these assemblages have hitherto been studied by researchers no more than those from TL74.
GM3	Three Nun Court (formerly Church Alley), Aldermanbury, EC2 City of London	51	A small/medium site from the first period of Museum of London archive collecting (pre-1972); Roman, medieval and post-medieval; some publication but very poor documentation. To assess the possibility of rationalising sites without archaeological sequence (all strata removed by basements, leaving only the bases of deeply cut features). Also to assess the value of assemblages that potentially already been 'weeded', with individual items accessioned into the Museum of

	London's main collection.

Table 14: the eight sites used as the basis for detailed Stage 3 analyses

The Stage 3 analysis itself took the form of three interconnected sub-projects:

1. *Investigating acquisition records*. Four of the sites – TL74, CUT78, BIG82, LIB82 – were used to investigate the problems of establishing sufficient authority to dispose of items from an archive, especially when the material was collected many years ago and lacks documentation to the modern standard.
2. *Identifying sites for rationalisation: the curatorial perspective*. The three smallest site archives – PLG02, JST02 and ROA96 – were examined by Museum of London curators, and provisional conclusions recorded on a draft Archaeological Archive Assessment form.
3. *Identifying sites for rationalisation: perspectives of subject experts, archaeological professionals and SMA delegates*. Parts of five site archives – LIB82, CUT78, TL74, BIG82, GM3 – were reviewed in a day-long workshop, in order to establish general principles for the selection of sites for possible rationalisation and to consider the practical steps that would need to be taken for rationalisation in individual cases.

4.2. Acquisition records (KR)

If we reach a position where we have sound principles for proposing a site (or part of a site) for disposal, then what further legal and ethical issues are presented and how would we implement the disposal process on a practical level?[33]

The Museum is free to enact disposal, as outlined in its Collections Development Policy which states that, "*Under the terms of the Museum of London Act 1965, the Board has powers to sell, exchange, give away or otherwise dispose of any object comprised in the collection if it is a duplicate or is for any reason not, in the Board's opinion, required for retention, provided this is not inconsistent with any trust or condition attached to the object. Similarly, the Board may transfer any object, with any trust or condition attached thereto, to a national museum as listed in the National Heritage Act 1992.*"[34]

When we take into account the Disposal requirements outlined in the Museum's Collections Development Policy, these place some legal, ethical and practical requirements on the rationalisation of archaeological archives which need to be tested, namely:

1. That the governing body will confirm that it is legally free to dispose of an item. Agreements on disposal made with donors will also be taken into account (16.2).

2. That the museum will establish if it was acquired with the aid of an external funding organisation. In such cases, any conditions attached to the original grant will be followed. This may include repayment of the original grant and a proportion of the proceeds if the item is disposed of by sale (16.3).

3. The need to apply SPECTRUM Primary Procedures (16.1) specifically that full records will be kept of all decisions on disposals and the items involved and proper arrangements made for the preservation and/or transfer, as appropriate, of the documentation relating to the items concerned, including photographic records where practicable in accordance with SPECTRUM Procedure on deaccession and disposal (16.12).

4. That a decision to dispose of a specimen or object, whether by gift, exchange, sale or destruction (in the case of an item too badly damaged or deteriorated to be of any use for the purposes of the collections or for reasons of health and safety), will be the responsibility of the governing body of the museum acting on the advice of professional curatorial staff, if any, and not of the curator or manager of the collection acting alone (16.6), and

5. That the method of disposal may be by gift, sale, exchange or as a last resort – destruction (16.4), priority will be given to retaining it within the public domain. It will therefore be offered in the first instance, by gift or sale, directly to other Accredited

[33] Human Remains are excluded entirely from this review. These are held on licence only, and are subject to a Human Remains policy and reburial methods upon 'disposal'. Those currently held by the museum are retained on scientific grounds, so in terms of rationalisation review both the need to hold, and methods for 'disposal' are already highly controlled and managed.

[34] Collections Development Policy, Museum of London, 6.3

Museums likely to be interested in its acquisition (16.7) and that the museum community at large will be advised of the intention to dispose of the material, normally through a notice on the MA's Find an Object web listing service, an announcement in the Museums Association's Museums Journal or in other specialist publications and websites (if appropriate) for a period of 2 months and subsequently the museum may consider disposing of the material to other interested individuals and organisations giving priority to organisations in the public domain (16.8 and 16.9).

Using the site archives identified in Stage 3 of the project, we will explore the impact of these requirements to establish key questions that must be applied to future rationalisation.

4.2.1. Establishing legal title

As outlined in Stage 2, in order to understand whether we have the legal right to dispose of a site archive, or selected items within it, we first need to understand the terms of ownership. Documentation of the legal and physical deposition of site archives has varied over the course of the organisation's history and that of its predecessor museums, the Guildhall Museum and the London Museum. In addition, legal frameworks governing the recovery and ownership of archaeology, Treasure and Human Remains have also been subject to change over time. Particular issues outlined in Stage 2 showed that an assessment of acquisition records would involve searching a range of sources, and analysing the documentation contained to identify and interpret any legal deposition records.

Our stage 3 sample sites dated from 1974 to 1982, which meant they pre-dated the implementation of the current system and did not have a standard deposition or acquisition file. Records relating to site archives pre-dating 1991 are split between the Site records (which include context sheets site reports and correspondence) and the Department of Urban Archaeology Site Files (which include general correspondence, and in some cases 'Works Contracts' which often have statements about removal of Finds from the site). These are located within the Archaeological Archive Business Archive (MWH 8a) within a roller racking system. The site records can range from a few pages to several boxes of records. In order to review documentation for each of the selected stage 3 sites to establish whether transfer documents existed, the review was undertaken by the Registrar, and the Head of Archaeology whose combined knowledge enabled the review and analysis of documents to make connections between contextual knowledge and information within the site records. Further enquiries were brought to the attention of the Senior Curator of Archaeology who also has extensive institutional knowledge from this time period.

Record ranges were located and assessed for each of the stage 3 sites selected for review. The state of the documentation was poor in that it was incomplete and archive boxes often contained correspondence relating to more than one site, making analysis a lengthy process to first sift and then review pertinent information. There was a rudimentary visual management system in that topics were written on the exterior of boxes to outline what the contents would cover (e.g. 'context sheets').

The assessment approach was to undertake a visual review of any documents contained in boxes with even a tenuous title that may yield relevant information, so things like 'site diaries', 'correspondence' and 'site admin' were checked, whereas boxes simply labelled 'context sheets' were not. It is therefore feasible that other documentation could be contained if poorly filed, but with the time and resources available a complete audit was not feasible.

It took between 30 minutes to 2 hours per site to assess information contained.

4.2.1.1. Title research:

TL74

No title paperwork was found. Correspondence alluded to the fact that the site being developed was a school and there are indications that the landowner may have been a local authority, but this could not be confirmed within available records.

BIG82

An unsigned draft licence agreement was found, along with a report outlining the difficulties encountered with the landowners. It seems the original landowner was unwilling to complete the legal deposition process, however the site was sold to a new owner .

CUT78

Correspondence gives the excavation as being funded by two named companies... There is evidence that selected animal bone from the site was deposited with the Natural History Museum (an assemblage of 202 horn cores). This is regrettable as the site is no longer one entity.

LIB82

No transfer of title paperwork was found. Within correspondence there is evidence that transfer of title is likely to have taken place between 1980 and 1982. A letter dated 19 June 1980 requests that the finds are transferred to the Museum of London, and a later letter dated 20 May 1982 discusses arrangements for lending the finds to the site for a small display.

4.2.1.2. Outcome:

None of the documentation includes evidence of ownership in a clear form, but there are clues to the circumstances of transfer and indications that this was intended or enacted. It is important to consider the context of time in which these transactions took place, and that attitudes to both archaeology and legal process may well have been in line with contemporary thinking, however frustrating that is to our need for legal clarity at this juncture.

These four sites are only a sample and it should be noted that for other sites, though rare, a range of anomalies can exist including; sites where finds were loaned not gifted, sites where finds were split between recipient museums (which adds complexity to the issue of curatorial review) and sites where landowners were unwilling to sign title over, or are untraceable following reasonable due diligence on behalf of the contractor.

In these circumstances the museum can take a risk-based approach to deciding whether the disposal of the site would be likely to result in legal, financial or reputational risk. This may include external expert advice, legal advice, a review of the financial value of any site elements, and reasonable due diligence if it is felt that this has not already been conducted.

4.2.1.3. External funding and/or conditions

As explored in section 1 above, the lack of clear transfer details frustrates a clear picture of whether there are conditions or funding concerns involved in considering archaeological archives for disposal. Certainly site archaeology will have been funded, but it is often not clear from the records, and on

occasion the body providing funding is either defunct or a public (or devolved) body. General knowledge of the funding environment can help us here as we know that archaeological work between 1974 and 1981/2 was almost entirely government-funded (by the Department of the Environment/Ministry of Works). We understand that BIG82 was in fact the last of these projects, and CUT78 is an exceptional, very early example of developer-funding. After 1982 everything in the City was developer-funded. In Greater London there was GLC funding until the mid-1980s but we do not have information about the extent.

It seems that archaeological archives are very different to traditional museum collections when we assess the motivation that would usually prompt the disposing party to contact donors/ previous owners. Our contemporary institutional approach to contacting donors involves an assessment based on a series of criteria including financial value, cultural value, time since donation/acceptance into the collection and known or perceived personal or sentimental value. When applied to archaeological archives these factors yield little motivation for contacting original depositors, especially when considering the cost involved in housing archives and any possible benefit given that the rationalisation had identified the material as being of low curatorial value.

One could argue that the payment of a fee to deposit the archive is a form of transaction that cements the status of the archive as legally transferred, and thereby removing any obligation on the Museum to offer return.

4.2.1.4. Recording of decision-making and preservation of records (SPECTRUM compliance)

There is a question of how a site archive can be managed through the process of disposal given that the following steps are usually mandatory:

- Itemised listing and description in the Collections Management System (CMS)
- Digital image linked to the CMS item record

For bulk finds it is unlikely that these will be documented to the granularity expected of registered finds or accessioned museum objects. Currently the primary system for management of archaeological archive is AMS, not MIMSY XG (the museum's primary CMS). Documentation about any rationalisation would therefore need to be stored in AMS, together with links to any listings of finds selected for disposal. Justification for rationalisation and tracking of the disposal 'history' for each set of records would need to be recorded in a parallel document and a link made to AMS. If it was necessary to record the Disposal in MIMSY for purposes of management and approval then a Disposal Activity record would need to be created, then linked to a 'meta' record describing each set of bulk finds according to their method of disposal and destination.

In the long term, the museum intends that there should be one system for management of museum collections. Once this is achieved, the management of rationalisation for site archives should be managed through this. It would be desirable not to attempt rationalisation until this state has been achieved to avoid double handling of data.

The requirement for digitisation of disposal items presents difficulties for bulk finds. Typically these are bagged and packed tightly in boxes. However it should be possible to record a view of the box contents, either in one shot or several, to give an impression of the variety of material contained therein. These images can then be referenced in the listing spreadsheet maintained during disposal process, or if MIMSY is used, linked to the 'object' records using that system's media authority.

The resources required to effect a large scale rationalisation should not be underestimated. Whereas with the Social and Working History Rationalisation project the majority of the objects selected for disposal were already on MIMSY, no such ready-made listing exists for bulk finds. In order to achieve compliance with Spectrum standard, each set of finds would need to be thoroughly listed, together with justification and disposal histories. This would be particularly time consuming if a site was split and distributed to several recipients.

If a whole site was being disposed, would the records also be disposed? We would usually retain any records that evidenced receipt, ownership and exit, but what about context sheets and correspondence – where is the legal/ethical boundary and what uses might these have that disposal would preclude (for example a history of approaches to archaeology).

4.2.1.5. Decision of the Governing Body

Archaeological Archives present an interesting challenge in terms of their status and requirements for reporting. There is a distinction at the Museum of London that accessioned material requires Board approval for disposal, whereas all unaccessioned material may be disposed on the approval of another body – Collections Committee, with delegated authority. Though site archives are formally allocated a number, and registered finds are allocated object records within the Collections Management System, Bulk Finds tend not to be numbered and associated site archive records are not.

The practicality of presenting disposals to Board (having first been submitted to Collections Committee for scrutiny and recommendation, following a rigorous proposal procedure), requires months, if not years, of planning and scheduling.

Furthermore, in order to present material for disposal, the items need first to be recorded and described in the CMS in order to generate large-scale reports for the various reviewing bodies. The amount of resource required for this process is significant.

4.2.1.6. Method of disposal

The requirement for the Museum to offer material for transfer with a view to retaining it first within preferably an Accredited Museum, followed by other museums and public organisations is an interesting conceptual issue when applied to site archives. In the case of an entire site archive which may theoretically have relevance to another local borough museum within greater London, there is a definite case for offering material prior to considering other forms of disposal. However this brings additional questions such as, how to proceed if a recipient cannot currently receive the site, or how to proceed if the recipient does not wish to retain the whole site?

Whether there is merit in offering categories of bulk material for rationalisation is perhaps harder to reconcile. It is hard to imagine a future use within the museum/public sector for large amounts offragments of ceramic building material (bricks, tiles, plain plaster) or potsherds, often of comparatively recent date, with little visual appeal , for example, especially where this is unstratified or poorly documented. Putting large amounts of this type of material through the ‘Find an Object’ website could be counter-productive (clogging the service with items simply to account for a step in the process), however there is perhaps an argument for uses that may be as yet unknown (learning aids, for example).

Although it is stated in 16.15 of the Collections Development Policy that it is acceptable to destroy material of low intrinsic significance (duplicate mass-produced articles or common specimens which lack significant provenance) this may only take place where no alternative method of disposal can be found, and not as a first step. Provided that the museum is able to demonstrate it has met its responsibilities as far as seeking an alternative method of disposal, what then are the issues in disposing of site archives via destruction?

The physical disposal of site archive finds poses some practical concerns. Firstly, the concern that material might be interred and subsequently be a cause of confusion for future generations of archaeologists. Secondly, assessing what is appropriate in terms of destruction methods. Museum generally may experience nervousness when considering the 'end of the road' scenario for disposal via destruction. Would it, for example be sufficient to hire a skip? Or would it be more appropriate to perform some kind of destructive process, such as grinding to rubble or dust? Identifying any costs, hazards and practical issues is also a factor for consideration.

4.2.2. Summary

It is evident from the review that there are a series of key questions that each institution would need to apply as part of any rationalisation project concerning archaeological archives. These have been reduced to a list as an aid for other institutions undertaking a review:

1. Does the organisation hold legal documentation confirming it has title to all elements of the archive being considered for disposal? Has a review of all other associated records been conducted by relevant staff with expertise in identifying transfer terms? If documentation exists, are there any conditions or restrictions given in the terms that relate to disposal?

2. Was funding provided to facilitate acquisition? Are any terms implied that affect disposal?

3. What level of recording is required to achieve disposal within the organisation's stated policies and procedures? Is there resource available for this? What is the timescale?

4. What level of approval is required within the organisation? How will this be sought including timescales and reporting/recording requirements?

5. What is the proposed method of disposal? If the organisation is an Accredited Museum then have the required stages of offer and advertisement been schedule/undertaken. What funding and resources are required if no appropriate transfer recipient is found? What are the physical/practical issues associated with final transfer/disposal?

4.2.3. Conclusion

Based on an assessment of the findings, this could determine whether a risk assessment is then needed to identify the legal, financial and reputational risks of disposal based on the following (and any other criteria deemed relevant or important); expert advice, legal advice, a review of the financial value of any site elements, and conducting and recording further reasonable due diligence if it is felt that this has not already been achieved.

Ultimately, the resources required to apply these ethical and legal checks and balances would be the same for distinct elements of a site archive as they would be for the whole site or multiple sites. This needs to be factored into any rationalisation project so that it is clear from the outset that it is the

number of sites (whether in part or whole) being proposed for rationalisation that will determine the resources required.

4.3. Identifying sites for rationalisation: the curatorial perspective (FG, MS)

4.3.1. Method

A working-group, comprising the Museum of London curators who deal most frequently with archaeological material[35], was convened to go through a selection of smaller archives in detail, and to begin to explore both the practical and theoretical aspects of selection, recording and discard. This investigation would include issues such as:

- To what extent does the excavation, and/or the finds from it, amplify existing knowledge of London? Or, conversely, do the site/finds simply repeat what is already known and/or well represented in existing collections?
- To what extent is it necessary to retain the actual finds? If they are unsuitable for display and duplicate numerous better-preserved examples, is a record likely to be sufficient for all future research/enquiry purposes?
- To what extent are the criteria used to earmark items in the Social and Working History Collections for disposal, applicable to archaeological material?
- How far do the archives actually meet the Museum's *Standards for Deposition* – particularly with regard to 'preservation by record' for certain categories of finds, such as building material?
- How should we record the assessment process? Can we design a single form to document this and the outcome, in a way that will stand up to both internal and external scrutiny?

In order to explore these issues in an entirely practical way, three sites were used as test cases: PLG02, JST02 and ROA96 (see Table 15). All were small enough for the entire archive to be scrutinised –records as well as finds – and it appeared from the Quality Matrix that they were reasonably representative of some of the types of small archive of which there are over two thousand in our stores (*ibid*). The archives were extracted from the stores and prepared for viewing by MS, and the assessment took place during two half-days in late April/early May. The second half-day also included a viewing of two further archives – LIB82 and GM3 (*ibid*) – to assess their suitability for use in the much larger workshops, which would external subject specialists and others, and which would conclude the entire project (see 4.4 below).

4.3.2. Results

The group drafted an assessment form (Fig 22) that broadly followed the structure of the Significance Table devised for the Social and Working History Rationalisation Project (see Appendix 4, Section 7.4, including correlation (7.4.1) with archaeological criteria). Here more detailed questions are assembled in five broad groups, covering various aspects of significance and condition At the end of the form the assessors are required to assign a status to the archive:

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[35] The working-group comprised Jackie Keily (Senior Curator, Prehistory and Roman), Kate Sumnall (Curator, Medieval), Roz Sherris (Curatorial Administrator and experienced field archaeologist), Roy Stephenson (Head of Archaeological Collections and post-Roman ceramics expert), Stuart Wyatt (Finds Liaison Officer) – in addition to MS and FG. The other members of the Project Board, AB, HG and KR, contributed to the design of the assessment form.

- No scope for rationalisation (green)
- Likely scope for rationalisation, for all or part of the archive, after expert assessment (amber)
- Rationalisation could begin (red)

In the case of archives with an amber rating, the assessors are required to give details of the parts of the finds' assemblage that are targeted for rationalisation – particular categories of material, for instance, or finds from certain phases or locations on the site; also to describe the further stages of expert assessment and recording that are needed to reach a definite conclusion concerning the archive's status. If an archive has a red rating, then the process of discard can begin. This will involve completing the administrative procedures that are outlined above in Section 4.2, as well as recording the finds to an approved professional standard[36]. The form is thus to some extent a working tool, in which archives with an amber rating move either into the green or the red zone, depending on the results of further evaluation.

The assessment sheets for the three sites are reproduced in Appendix 2 (Section 6.2), but the results are summarised below:

Site	Number of boxes	Potential discard	Status	Comments
PLG02	1	1	**RED**	The only items potentially worth preserving seem to be a few Roman potsherds. However, these are in no way exceptional and a record should be adequate; the Roman ceramic building material (CBM) (which included a fragment of flue tile) has already been discarded. The post-medieval finds should be discarded in their entirety, and so if the Roman were retained, there would be no saving of space. Staff resources to discard: 1-2 p/day
ROA96	11	9	**AMBER**	Much of the finds' assemblage could be discarded after recording. Two near-complete black-glazed drinking vessels are certainly worth retention as representatives of a ceramic assemblage that is over-weighted in terms of drinking-vessels and may therefore have a connection with the site as a place of entertainment. Also worth retention is an ovoid stoneware bottle. It was not evident to the assessors why the CBM had not been recorded and discarded

[36] It was not possible, within the timescale of the present project, to produce definitive guidelines as to what 'recording finds to an approved professional standard' might entail. At the seminar described in Section 4.4, it became evident that the special interest groups for Roman and post-Roman pottery had devised standards for recording. But it appeared that these were geared more towards championing common methods of analysing pottery than to creating records that would serve as surrogates for assemblages to be discarded; the role of photography or illustration was not included. Meanwhile, for certain categories of material such as animal bone, it appeared that there are as yet only the beginnings of a recording standard that is implemented uniformly across the profession.

				before deposition – though it is possible that it was with a view to potential display on the site (will require correspondence with current managers of the Sadler's Wells Theatre. Staff resources to discard: ? 3-4 p/days
JST02	5	< 1	**GREEN**	An important archive, with finds relating to the mid-Saxon settlement of Lundenwic, about which relatively little is known, and a fine group of decorated floor tiles. The only material to be considered for discard is some CBM. However, in the absence of CBM recording sheets, the cost of commissioning a record to be made – besides the cost of administering other aspects of the disposal process – would entirely outweight the very small savings (< 1 box). Staff resources to discard: 1 p/day

Table 15: outcome of the assessment by curators of three small archives

A number of general conclusions can be drawn from the assessment of these three sites:

1. The outcome for each site was broadly in line with what might have been guessed from the Quality Matrix. The very small site (PLG02), with no recorded 'uses' or citations was deemed suitable for rationalisation, whereas the site which had yielded Saxon remains and had been published was deemed unsuitable (JST02).
2. The process revealed the extent to which each site is unique, and highlighted the work involved in assessing archives even before they enter the disposal process. The ROA96 site, for instance, presented particular problems in terms of its relationship with a historic cultural institution, which could not have been guessed from the Quality Matrix.
3. The presence of material that does not meet normal retention criteria – chiefly, ceramic building materials – was surprising, and begs the question that some contractors do not have access to the reference collections needed to record and discard finds of this type.
4. Preparing the material for assessment took the project assistant around half a day for each of the smaller archives, and a day for the larger archives (ROA96). When this is added to the time taken by – say – two assessors to go through the prepared material and document the conclusions, it can be estimated that assessment of even the smallest site could involve 1 person-day's work. When this is added to the resources required for the actual recording and disposal process – see Table 15 – it becomes evident that rationalisation of sufficient small archives to have any impact on storage capacity will be labour-intensive and, probably not cost-effective.

ARCHAEOLOGICAL ARCHIVE ASSESSMENT

SITE CODE:		**TOTAL BOXES**		**CURRENT STATUS**	**GREEN**
ORGANISATION:					

Site information and state of the archaeological records	
What is the state of the site documentation? (Score: 0/1/2/3)	
How accurately can the site be located?	
Is there a good stratigraphic sequence with little contamination and/or residuality?	
What digital finds inventories exist for this site?	
General historical/archaeological significance	
What periods are represented?	
Is the site associated with any important monument/area/event? Is it a production site?	
If yes, does it tell us anything about that monument/area/event that wasn't known before?	
Is the site particularly important for general interpretation of the area/borough?	
Is the site in a Greater London Archaeological Priority Area or particularly relevant to a Research Framework priority?	
Condition	
Are the finds preserved particularly well or particularly badly?	
Are there conservation issues? [Note especially metalwork, outsize objects and organics.]	
What is the state of the packaging?	

Are there any hazardous materials?						
Quality/value of the finds assemblage						
Are there any rare/unusual individual objects?						
Are there any groups of finds that are intrinsically important?						
Are they are any finds/groups of finds that are particularly relevant for the interpretation of the site or area?						
Exploitability						
Are any finds displayable?						
Is the archive particularly suitable for learning or public engagement purposes?						
Is the archive likely to be particularly useful for academic research?						
Provisional recommendations (tick one)						
The archive should be preserved in its entirety.						
The archive can be discarded in its entirety after suitable recording.						
Certain items or groups of items can be discarded.						
If certain items or groups of items are to be discarded, list here or on separate sheet.						
Ownership and administrative status (To be completed by a Registrar)						
How does the Museum hold the finds? (Tick one only)	Deed of Transfer		Deposit Agreement		Other or none	
If 'other or none' add further comments here						

Further actions	
List tasks to be completed before a final recommendation can be made (eg consulting with experts, searching for missing information, recording objects for discard).	
Current status	
	Green = No action required **Amber** = Items can probably be discarded after further checks and recording **Red** = Ready for immediate disposal or rationalisation (as detailed above)

Fig 22: draft Archaeological Archive Assessment form

4.5. Seminar on archive assessment and documentation (Caroline Peach, with FG and MS)

22 May 2017

4.5.1. Introduction

This report summarises a seminar, held on 22 May 2017, which was organized by the Museum of London as part of a six-month project to explore approaches to the rationalisation of archaeological archives. The project is one of five scoping studies to investigate likely methods and outcomes of retrospective collections rationalisation that has been commissioned by Historic England. Collectively, the studies will be used by the Society for Museum Archaeology to establish guidance for the rationalisation of museum archaeology collections.

Rationalisation, in this document, follows the description used by Historic England in its call for proposals, that is: "the application of agreed selection strategies to previously accessioned archaeological project archives, with the purpose of de-selecting parts of the collection and creating storage space".

The project builds on a body of existing research into the subject of the rationalisation of archaeological archives. Participants at this seminar had been provided with a summary of the large-scale colloquium '*Less is More?*' held at the Museum of London in 2013 and a document summarising strategies for the selection of material for archaeological archives that was developed as a result of the colloquium. A summary of a survey of iron (undertaken as part of the current project), a draft assessment form and a significance assessment table (for social and working history collections) were also distributed to participants in advance, as background to the seminar and for use during the practical workshop sessions.

4.5.2. Purpose and format of the seminar

The purpose of the seminar was to devise, from a series of case-study-based workshop sessions, a strategy for rationalisation that can be considered for application, in a practical way, to collections in the Museum of London and in other museums.

The seminar brought together 21 participants including Museum of London staff, subject specialists and professional colleagues. It sought to move forward the debate surrounding the rationalisation of archaeological archives by applying findings from the 2013 colloquium, the five months of research undertaken as part of the current project, and the successful experience of the Museum's rationalisation of social and working history collections, to actual material in the London Archaeological Archive.

The case studies from the archaeological archive were chosen to cover a number of variables including size (small and large), period/material category, quality of the field records and publication record. As such, it was felt that they would give a realistic picture of the challenges that are likely to be encountered when undertaking a collection review with view to rationalisation. Informed by the inventory that formed the first part of the project, the case studies focused on three categories of material: pottery, animal bone and ironwork. The first two categories are the largest components of the Archive by volume (over 40% and 20% respectively of the total); and, although ironwork is small in overall volume, it occupies a large amount of space, (in a segregated store for metals) and commands a significant conservation overhead. To make any significant impact in terms of rationalisation it was considered important that possible methods are tested against these categories of material.

The seminar took place in three sessions. The first session involved group working to discuss the application of selection criteria to site assemblages. The second session focused on testing the draft archaeological archive assessment form against different assemblages. The final session brought all participants together to discuss the potential of using the findings from the first two sessions (selection criteria and assessment questions) to create a significance assessment table, similar to the example that had been successfully applied to the Museum's social and working history collections.

4.5.3. Session 1: Group working to discuss the application of selection criteria to site assemblages

In the first session attendees were divided into two groups. Each group was asked to test three hypotheses against an assemblage with the aim of agreeing a small number of top-level criteria for assessing the significance of material, to inform rationalisation. Each group benefitted from subject specialists who provided an introduction to the assemblage and insight to the materials present.

The three hypotheses to be tested were derived from the 2013 '*Less is More?*' colloquium. Although that event had taken a 'materials-based' approach to distinguishing archaeological finds for long-term preservation it was proposed that the suggestions, when analysed and restated, could be reduced to the following three hypotheses:

Hypothesis 1: On any site beyond the most simple, some contexts and/or stratigraphic units will be more important – in terms of finds – than others.
Conclusion: Finds from important contexts/stratigraphic units should be retained; those from less important ones should be considered for discard.

Hypothesis 2: Well-preserved objects and/or groups of objects are more useful than badly-preserved ones.
Conclusion: When it comes to selection for long-term retention, well-preserved objects should be privileged over badly-preserved ones.

Hypothesis 3: When there are many sites in an area, some will be more important than others.
Conclusion: When searching for archives that could potentially be rationalized, we should start with area where there are clusters of sites containing repetitive material.

4.5.4. Testing the hypotheses

4.5.4.1. Group A – case study LIB82

Description of the archive

- *Site details*: 119-121 Cannon Street, EC4 (City of London), excavations by the Museum of London's Department of Urban Archaeology in 1982.
- *Size of the finds' assemblage*: 25 standard boxes, including 15 of pottery and 8 of animal bone, together with some ironwork.
- *Archaeological findings*. Above a well dating to the 50s/60s AD, were remains of a substantial masonry building, which possibly remained in use into the 4th century AD, being part of a monumental building complex known from adjacent sites. Medieval and post-medieval pits were also excavated, but the workshop focused only on the Roman material.
- *Reasons for selection*. To examine an archive which, to non-specialist curators, appeared to include assemblages that were small, poorly preserved and of limited research/display potential in comparison with many others from the City of London.

Key points from pottery specialist:

- For London, this is a relatively small sequence.

- There is a high standard of recording and paperwork with stratigraphic analysis to level 3.
- There are bulk find context sheets and spot date records (the latter can be used to inform the stratigraphic analysis).
- There are no fixed horizon points.
- The assemblage contains unusual/significant finds in terms of the well context.

Key points from metalwork specialist:

- The recording tends to be of a less high standard than that of the pottery.
- Preservation is an issue; particularly deterioration of iron (nails).
- X-rays are vital to understanding this material.
- However, some iron has corroded to a point where x-rays are unlikely to help.
- Some finds are registered but are unstratified (and/or not Roman).
- Some items are slag.
- Includes undiagnostic/incomplete objects.
- Is the material in a state that may enable future analysis?

Hypothesis 1: On any site beyond the most simple, some contexts and/or stratigraphic units will be more important – in terms of finds – than others.
Conclusion: Finds from important contexts/stratigraphic units should be retained; those from less important ones should be considered for discard.

The group agreed that the site is well recorded and it is easy to identify a particular context of greater value within the assemblage: that of the 'well'. In general, there is potential to discard standard contexts (this was not defined or explored) where there is a high level of recording (to minimum national standards of pottery recording). Assessing the relative importance of different contexts within this site is difficult and is hampered by the state of the records.

An issue raised by the group was disparity in the way that different types of material are recorded. The example of 'Samian ware' was given as a material that is automatically recorded as a 'registered find' (and therefore prioritized for retention).

It was felt that there is the potential to discard unstratified pottery after review by a specialist to identify rare objects/materials or important finds. However, the investment needed to improve the standard of the records such that material could be preserved by record (and rationalized) is likely to be significant, leading to the conclusion that the reality of retrospectively reassessing the material is unpragmatic.

Hypothesis 2: Well-preserved objects and/or groups of objects are more useful than badly-preserved ones.
Conclusion: When it comes to selection for long-term retention, well-preserved objects should be privileged over badly-preserved ones.

The testing of hypothesis 2 focused on discussion around the ironwork. It was agreed that there is little benefit in keeping ironwork that is in poor condition, and that this case study provided an example of a situation in which the state of preservation is more important in determining its long-term retention than the context of the material. In this case study, the state of preservation of the ironwork was observed to relate to the way in which it was excavated and classification as bulk finds.

The group discussed the benefit of taking x-rays of this type of material as an aid to research (and conservation), and as a desirable step prior to discard. However, the group noted the costs involved in taking x-rays and their long-term storage if acting as a preservation record. The group concluded

that the cost of storage/preservation would need to be assessed against the cost of x-radiography (some items would require multiple views) and improved recording.

For metalwork, even when in poor condition, it was felt that examples of finds related to 'super sites' may need to be retained until/unless better examples found (i.e. an instance in which the conclusion of hypothesis 1 takes priority over that of hypothesis 2).

Hypothesis 3: When there are many sites in an area, some will be more important than others. *Conclusion: When searching for archives that could potentially be rationalized, we should start with area where there are clusters of sites containing repetitive material.*

For a terrestrial site, that is surrounded by others (such as this case study) the group agreed that there is the potential to discard bulk pottery. However, in this specific case, there would need to be better recording for the record to stand as proxy. It is questionable whether the cost of improving the records would be offset by the costs saved through storage.

With regard to whether the site and its relationship to other sites can be used as a criteria for selection/de-selection, it was agreed that metalwork from terrestrial sites could be a target for review as it is more susceptible to corrosion.

4.5.4.2. Group B – case study CUT78

Description of the archive

- *Site details*: Cutler Street PLA Warehouses, Harrow Place, E1 (City of London), excavations by the Museum of London's Department of Urban Archaeology in 1978.
- *Size of the finds' assemblage*: 275 boxes of various sizes, including 119 of pottery and 97 of animal bone.
- *Archaeological findings*. Apart from a few Roman graves, the archaeological deposits on this large redevelopment site were all of the period 1600-1800. There were just two small areas of controlled excavation. Elsewhere, features – some of them of considerable size – were recorded only during clearance by demolition contractors. The material selected for the seminar was a small sample of the total: pottery and animal bone in one of the controlled excavation areas, associated with houses built after the Great Fire in 1666 and demolished prior to construction of warehouses in the 1790s.
- *Reasons for selection*. To examine an archive containing a large number of boxes of finds, from an excavation with inadequate site records. It seemed to non-specialist curators, moreover, that alongside items of individual interest, there were many scrappy potsherds and animal bones with limited research/display potential – especially bearing in mind their relatively late date and the presence of more complete examples in the collection.

Introductory statements from specialists:

- The assemblage forms part of a sequence of post medieval buildings covering post 1666 building and later dumping (1780).
- The excavation comes from the site of a former East India company warehouse; there was an extensive watching brief over other areas.
- It is not possible to reconstruct the sequence (an attempt was made in 1990s)
- The site has not been published in total, although there are some publications relating to finds in isolation.
- There are unlikely to be near-by sites with similar street sequence.
- The post medieval building sequences are important.

Pottery

- The quality of record very poor and the assemblage would have to be recorded again before discard could be considered.

Bone

- Given the uncertainty with regards to the pottery record, it is difficult to assess the bone. The bone requires basic research of species but possibly not much further work.

Hypothesis 1: On any site beyond the most simple, some contexts and/or stratigraphic units will be more important – in terms of finds – than others.
Conclusion: Finds from important contexts/stratigraphic units should be retained; those from less important ones should be considered for discard.
This case study presented material from mixed contexts which is potentially of lower value and could be considered for discard. However, the poor standard of the records, and their inconsistency, mean that a complete reassessment would be necessary in order to make relative judgements. For example, although the backfill can be identified as a context of less value there would still be the need to assess the whole context assemblage in order to make relative judgements (this session only had access to part of the site archive).

Hypothesis 2: Well-preserved objects and/or groups of objects are more useful than badly-preserved ones.
Conclusion: When it comes to selection for long-term retention, well-preserved objects should be privileged over badly-preserved ones.
The group challenged whether the categories of 'well-preserved' and 'badly-preserved' could sensibly apply to the case study material (pottery and bone). They concluded that assessments on the basis of relative state of preservation would (again) require access to material from the whole site. They observed that, particularly for bone, the nature of the excavation, (how the material was collected) may also impact its preservation state (e.g. fragmentary bone is potentially less useful than a 'badly preserved' pot sherd).

Hypothesis 3: When there are many sites in an area, some will be more important than others.
Conclusion: When searching for archives that could potentially be rationalized, we should start with areas where there are clusters of sites containing repetitive material.
This example is unique in the area so the archive (sequence) is more important than it would be if there were others nearby. The group questioned the definition of 'area' and highlighted the value of surrounding and near-by sites in providing related information about each other. The group returned to the value of overall context and the limitation of only looking at part of the archive when making an assessment.

It was agreed that 'cherry picking' would not be appropriate to this archive, because it is the only one of its type; although it was not considered to be a 'super site'.

A further issue that arose from consideration of this case study was the value to society and the profession of the archive itself, as an example of practice at a key stage in the development of archaeology.

4.5.5. Summary observations

- There are well-established criteria for retention (importance of site, context etc.) and these do not need to be re-visited.
- A significant challenge when seeking to apply the criteria to a retrospective reassessment of archive material is the (often poor) quality of the records.

- Any reassessment of material would require input from a specialist. The cost-benefit of savings in storage against investment in improving the records (e.g. specialist input or x-rays) would need to be evaluated. Although there are other potential benefits from reassessment including increased research value as a result of better description.
- There is only a small proportion of 'quick win' material. If the aim is to make a big impact on space, rationalisation would need to address sites/archives of this quality (with all their associated problems and interest).

The key issue therefore, at this stage, is not how to rationalise within individual archives but how to prioritise which archives should be reviewed for rationalisation.

4.5.6. Session 2: Group working to test archaeological archive assessment form

In this session, attendees were again split into two groups. Each group was asked to discuss the draft archaeological archive assessment form that had been circulated prior to the seminar, and to test its application against an assemblage (i.e. a different case study). Participants were asked to consider the questions included in the form, including:

- whether the questions could be used to arrive at an assessment;
- whether changes are needed to individual questions;
- whether additional questions are needed or superfluous questions can be removed;
- who could use the form; and
- what supporting guidance or information might be needed to enable use of the form.

It was explained that the form has been drafted as an aid to assessment of material considered for rationalization (based on a form used for a recent rationalisation project for social history material). It is envisaged that it would be used at the end of a review process (which would uncover answers to the questions posed); the form itself acting as a summary record of the review work.

The assessment form is structured in nine sections (listed below), which address both significance assessment and processing requirements. Comments from applying the form to the case study assemblages are noted under the form headings.

1. Site information and state of the archaeological records
2. General historical/archaeological significance
3. Condition
4. Quality/value of the finds assemblage
5. Exploitability
6. Provisional recommendations
7. Ownership and administrative status (to be completed by Registrar)
8. Further actions
9. Current status

The following archives were used as case studies:

4.5.6.1. Group A – GM3

Description of the archive

- *Site details*: Three Nun Court (formerly Church Alley), Aldermanbury, EC2 (City of London), excavations by the Guildhall Museum in 1965-6.
- *Size of the finds' assemblage*: 51 boxes of general bulk finds, including 25 of pottery, 4 of animal bones, and 16 of ceramic building-material.

- *Archaeological findings*. All archaeological layers had been removed by early modern basements. Consequently, the only surviving features were the bottoms of deeply-cut features. These included a few Roman pits, a larger number of medieval pits, and several substantial brick-lined cesspits of the post-medieval period.
- *Reasons for selection*. To examine a site which was known to have yielded objects of interest, but where the documentary archive is very poor (score 0 in the Quality Matrix). Also, since some items had been been accessioned individually into the Museum's collections in the 1970s, to explore the relationship between those and the remaining 'bulk'.

4.5.6.2. Group B – TL74 and BIG82

Description of the archives

- *Site details*: 2-3 Trig Lane, Upper Thames Street, EC4 (City of London), excavations by the Museum of London's Department of Urban Archaeology in 1974-6; Billingsgate Market Lorry Park, Lower Thames Street, EC3 (City of London), excavations as last, but in 1982
- *Size of the finds' assemblage*: TL74: 905 boxes of finds, including 227 of animal bones and 48 of metalwork; BIG82: 994 boxes of finds, including 325 of animal bones and 156 of metalwork.
- *Archaeological findings*. The workshop focused on just one stratigraphic unit from each of these very large sites that document the evolution London's waterfront (north bank) from Roman to late medieval times. TL74 (immediately west of the present Millennium Bridge): rubbish dumps behind a stone river wall of c. 1440; BIG82: (east of London Bridge): rubbish dumps behind a timber river wall of c. 1235.
- *Reasons for selection*. To explore the possibility of rationalising the very large collections of animal bone and ironwork from waterfront sites. Two archives were selected rather than one, because they represent very different levels of site recording and, in the case of the animal bone, entirely different strategies for the collection of the material on-site.

1. Site information and state of the archaeological records

Assessment form question	Group comments
What is the state of the site documentation? (Score: 0/1/2/3)	Scoring needs to be qualified (what does '0', '1', '2', '3' mean?). The question is best asked at the end of the section.
How accurately can the site be located?	
Is there a good stratigraphic sequence with little contamination and/or residuality?	
What digital finds inventories exist for this site?	Also need to know the type of (digital) record and whether they are accessible. Need metadata relating to inventory codes when using the form.

Additional comments:
It would be useful if section 1 could be pre-populated prior to assessment. Knowledge of existing documentation would mean that assessors could focus on identifying key/not key groups.

Metadata for archaeology in London would be useful, so that the assessor would know what to expect for an excavation of a certain period (i.e. what processes, standards etc. were followed). This could usefully include aspects of the process such as finds processing, agreed selection procedures at the time, e.g. CBM (ceramic building-material) discarded, wet wood not retained for treatment

discarded, storage methods, conservation treatments (e.g. air dried vs. freeze dried leather for bulk leather) if all can be stated concisely.

Adding a field that could be used to identify anyone who worked on the site or could otherwise help to provide further information could be beneficial.

2. General historical/archaeological significance

Assessment form question	Group comments
What periods are represented?	
Is the site associated with any important monument/area/event? Is it a production site?	
If yes, does it tell us anything about that monument/area/event that wasn't known before?	
Is the site particularly important for general interpretation of the area/borough?	The wording of this question was considered to be vague. Value needs to be defined within a framework.
Is the site in a Greater London Archaeological Priority Area or particularly relevant to a Research Framework priority?	

3. Condition

Assessment form question	Group comments
Are the finds preserved particularly well or particularly badly?	Material can be very important, but in bad condition, so weighting applied to this question will need to be considered carefully.
Are there conservation issues? [Note especially metalwork, outsize objects and organics.]	
What is the state of the packaging?	The state of the labeling should also be assessed.
Are there any hazardous materials?	It is not obvious how this question would be addressed by people assessing archive material. It implies very specialist knowledge as it is not possible to identify hazardous materials simply by analysing the type of material. Hazards may come from external contamination, e.g. asbestos.

Additional comments:
This 'condition' section would benefit from greater consideration so that it is better adapted to archaeological material.

4. Quality/value of the finds assemblage

Assessment form question	Group comments
Are there any rare/unusual individual objects?	
Are there any groups of finds that are intrinsically important?	

Are they are any finds/groups of finds that are particularly relevant for the interpretation of the site or area?	

5. Exploitability

Assessment form question	Group comments
Are any finds displayable?	The three questions in this section are very broad and, as they stand, do not have much meaning.
Is the archive particularly suitable for learning or public engagement purposes?	Need to define what level of learning. Something may be useful to one group but not to another.
Is the archive likely to be particularly useful for academic research?	This should be amended to 'research' (rather than 'academic research').

6. Provisional recommendations

Assessment form question		Group comments
The archive should be preserved in its entirety.		
The archive can be discarded in its entirety after suitable recording.		
Certain items or groups of items can be discarded.		
If certain items or groups of items are to be discarded, list here or on separate sheet.		

7. Ownership and administrative status (to be completed by Registrar)

How does the Museum hold the finds? (Tick one only)	*Deed of Transfer*		*Deposit Agreement*		*Other or none*	
If 'other or none' add further comments here						

8. Further actions

List tasks to be completed before a final recommendation can be made (eg consulting with experts, searching for missing information, recording objects for discard).	Could have prompts for different materials (e.g. 'x-ray needed?' for iron).

9. Current status

	Green = No action required **Amber** = Items can probably be discarded after further checks and recording **Red** = Ready for immediate disposal or rationalisation (as detailed above)

General comments about the form
If the archive doesn't answer the questions, does it mean that it's a poor archive?
Answers to questions should allow 'yes', 'no', 'needs more work'. This third category is very important (and would also cover 'don't know', i.e. the further work required would be the input of a specialist).
Is there enough information available to enable one to answer the questions?

If the answers to the questions are to be used to generate an assessment, the questions need to be phrased consistently (e.g. scored, open/closed questions).

A different form would be needed for each type of material being assessed, because the case study application revealed that the answers (detailed assessments) for each material type were very different. These multiple forms would support quality assessments that are distinct to the material types.

It was agreed that specialist input is required for assessments of significance, and that this presents a high barrier to understanding most of the material.

4.5.6.3. Summary observations

- The assessment form is currently framed as being applicable at site level (i.e. potentially to 2,868 sites).
- Session 1 highlighted the poor standard of records as a significant obstacle to assessing the historical/archaeological significance of assemblages within archives, and the quality/value of finds assemblages. The session demonstrated that where records are of a poor standard there is a need for specialist input to determine historical/archaeological significance.
- The value of specialist input to significance assessments was also highlighted by the testing of the draft assessment form against case study material.
- The assessment form, as it stands, is perhaps too ambitious. Its value is likely to be greater when applied as a high-level tool to identify which archives should be targeted for review/detailed assessment (with potential for subsequent rationalisation), i.e. for use before a review is carried out rather than afterwards as a summary of that review.
- If the assessment is to perform an identification function, it could be beneficial to put greater emphasis on some of the more generic attributes of the archive that have been identified by the inventory phase of the project; with assessment of significance of the content forming a second and separate stage.
- If this approach were to be adopted, factors such as the total number of boxes (and the range the number falls into), date of excavation, whether the archive meets current retention standards, proportion of pottery (range value), proportion of bone (range value), presence of iron (and whether from an terrestrial site) might all be used to generate an initial score that would indicate whether the archive is a priority for rationalisation in terms of its (theoretical) potential to release space.
- This information could be supported by data on the site and state of the archaeological records as proposed in the draft assessment form. By exposing what information is available that will support assessment of significance, and what is missing, the process could give an indication of the likely relative ease or difficulty of making the second stage assessment of historical/archaeological assessment; condition; value and quality of the finds assemblage; and potential – all of which be dependent on physical assessment and would benefit from specialist input.
- The resulting recommendations could still colour code according to priority for review (or, alternatively, ease of review). It might at this stage be appropriate to pilot the review of a selection of archives to test whether the prioritization criteria have correctly identified archives with a high potential for rationalisation.

4.5.7. Session 3 – Questions for a significance assessment table for archaeological archives

This session brought all participants together to consider whether, based on their experience of identifying top level significance criteria (session 1) and testing an assessment process (session 2), there was the potential to generate a significance assessment table for archaeological archives, along the same lines as the example that had been circulated of the table used to support the assessment of the Museum of London's social and working history collections.

The proposed benefit of the significance assessment table is as a tool to structure thinking when undertaking an assessment, and as a means of ensuring that assessments are carried out in a consistent manner. Such tools are reasonably widespread in the museums sector and have proved valuable aids to reviewing collections for a variety of purposes, including rationalisation.

It was apparent that there was some frustration at being asked to consider top-level significance categories which are perceived by the group to be well-established. Assessment against such criteria are deemed to be a routine part of the archaeological selection process.

However, there was some agreement that provenance, integrity of the archive, archaeological significance, potential (e.g. for research, education, display) and condition were key categories. It was more difficult to identify the prompt questions to sit under these headings and although a few suggestions (or areas that questions should explore) are noted below, this is a topic for further investigation if it is agreed that the methodology merits development.

Significance assessment framework for review of archaeological archives

Provenance	**Integrity of archive**	**Archaeological significance**	**Potential**	**Condition**
Deed of transfer (necessary; could help to target resource)	Completeness	Use what makes archive significant from matrix (2013 colloquium). There is a well established model for assessing components with equal weight	For research	Of archive
Does it come from a particular site?	State of records		For education	Of components
When was it undertaken (in this context helps to identify by which MoL/ predecessor body)	Can you locate the site?		For display	
	Can you reconstruct the sequence?			
	Is there a level of synthesis or detailed recording that enables understanding of the site			

Whilst the creation of a significance assessment table was not successful at this stage (and perhaps it is questionable whether it is desirable), the group gave final consideration to whether there were broad categories of material that might be prioritized for rationalisation.

Suggested materials were: oyster shell, slag, unstratified bulk material, plain Roman plaster. The inventory project associated with this seminar reveals that some space saving can be achieved by targeting this material but it was agreed that benefits would be limited and the approach does not address the underlying issue of whether it is possible to select/prioritise from within a site archive. A more strategic approach would be to match what is retained to what is important about the site.

It was noted that geography will also be a factor, particularly when it comes to the creation of national guidelines. What is significant or important may vary with geographical location.

Finally, there were comments on the potential impact of splitting an archive on its integrity. It was proposed that the three elements of an archive (finds, site records and provenance data) make up the single entity that has value for research, and as such it is important that all three components are managed as a single entity.

4.5.8. Summary observations

- Whilst there may now be well-established criteria for the selection of archaeological material grounded in significance, it would appear that this has not always been the case and the purpose of re-visiting the criteria is not to undermine or challenge existing process, but to test how the criteria might most usefully be applied to the retrospective review of archaeological archives.
- How can the archaeological community be confident in its approach to rationalisation? In the absence of detailed records people are dependent on new specialist input to make assessments of significance. The scale of an archaeological archive such as that held by the Museum of London is so great that a specialist re-assessment of all the material would be costly and time-consuming (particularly considering that more than one type of specialist input will be required for the assessment of many archives).
- The risk of archives being assessed by non-specialists is that material is identified for discard that contains something of significance. How great is this risk? What is the tolerance to risk (i.e. what level of risk is acceptable)?
- Could an assessment checklist or form be generated to mitigate that risk? Based on existing practice/standards, the purpose would be to establish what records or assessments are in place so that non-specialist assessors can confidently that identify archives for review (the potential role of the assessment form from session 2).
- Is this then the most effective point to seek the input of specialists? The role of the specialist would be to assess target archives to establish what can be discarded with relatively little further research, what needs considerably more research before a decision can be made, or what could be discarded but will need further research to meet the requirements of preservation by record.

Conclusion

The seminar on 22nd May 2017 formed part of a larger project to investigate methods and outcomes of retrospective collections rationalisation by applying agreed selection strategies to previously accessioned project archives with the purpose of de-selecting parts and creating storage space.

The purpose of this seminar was to contribute to the formulation of a strategy for rationalisation by testing strategies on case study assemblages from the London Archaeological Archive and Research Centre (Museum of London). The process of testing exposed the impact of the standard of records on decision-making and the critical role of specialist input to significance assessments.

In terms of the three hypotheses that were tested:
1. The groups were unable to apply the principle that finds from important contexts/stratigraphic units should be retained and those from less important ones should be considered for discard because they were unable to make judgements on relative importance due to the (poor) state of the records. For both case studies the groups concluded that reassessment of the material is necessary before a judgement can be made.

2. When it comes to selection for long-term retention and the proposal that well-preserved objects should be privileged over badly-preserved ones, there was general agreement that this principle could be applied to ironwork, that it could be partially applied to bone and that it was not relevant to pottery. Ironwork should be x-rayed to enhance its value for record and research.

3. When searching for archives that could potentially be rationalised, although it was not unanimous, there was support for the proposal that archives from areas in which there are clusters of sites containing repetitive material could be prioritised. Again, the issue of the standard of the associated record and its impact on the ability to make relative assessments came to the fore. The value of contexts presented in nearby sites and their potential to provide related information as clusters was also a concern.

This leads to the conclusion that at this stage the priority issue is not how to agree selection strategies to apply to previously accessioned archives (those selection strategies being broadly agreed), but how to prioritise which archive should be reviewed (and potentially enhanced) to the point that they can be rationalised.

Application of the draft assessment form to case study assemblages generated some useful feedback which can be usefully incorporated into the form, but primarily it reinforced the findings from session 1, that the current level of records is insufficient and in light of this, significance assessment needs to be carried out by a specialist.

An alternative approach would be to adopt a two-stage process in which, in the first stage, data from the project inventory is combined with an assessment of the state of the records at the archive level, to target particular archives with the potential to achieve space-saving through rationalisation. The more resource-intensive second stage of detailed assessment by subject specialists could then be focused on those archives that have been identified as priorities, with research and assessment carried out to current standards using established selection criteria (which the groups agreed is fit for purpose).

Although the seminar pointed to little appetite for developing a significance assessment table, the value of such a table as a tool to ensure consistency of assessment should not be dismissed. The consensus that emerged from this seminar is that significance should continue to be assessed at material level (rather than at archive or assemblage level) in terms of context, site and state of preservation (where appropriate). In view of this, the material-based matrix developed following the 2013 '*Less is More*?' colloquium may be a more useful tool than an assessment table along the lines of those that have been successfully employed by heritage organisations for other types of collections, and as represented by the table used to support the review and rationalisation of the Museum of London's social and working history collections.

Examples of other significance assessment methodologies
UCL Collections Review Toolkit
https://www.ucl.ac.uk/culture/projects/collections-review

Collections Trust – Reviewing Significance 2.0
http://collectionstrust.org.uk/resource/reviewing-significance-2-0/
Welsh Government. Why do we have it? A significance process and template.
http://gov.wales/docs/drah/publications/130327significanceen.pdf
Renaissance North West "What's in Store?"
https://museumdevelopmentnorthwest.files.wordpress.com/2012/06/collections-review-in-the-north-west.pdf
All accessed 24.05.17

5. Conclusions

5.1. Project brief (reproduced verbatim from the invitation to tender)

The expected method for each scoping study is to:

• audit the quality and quantity of the archaeological archives in museum stores

• establish criteria for selection

• calculate the amount of storage space that could be created by applying those criteria

• estimate the resources needed to carry out rationalisation

• produce a report that summarises their results and sets out the strengths and weaknesses of the exercise, with recommendations for the compilation of universal guidance for rationalisation

5.2. Additional premises for the Museum of London's project

1. It appeared from reading the Invitation to Tender that the aim would be to free up considerable amounts of space in the store, rather than simply 'tinker round the edges'. For instance, it states (p. 2) that: 'This [viz. the fact that 47 museums are no longer accepting archaeological material] has created the build-up of over 9,000 project archives that no museum is willing to collect'. To make room for this quantity of material would self-evidently require very extensive disposal of existing collections.

2. It was also evident from the Invitation to Tender that one of the key requirements was to test the premise that older, poorly recorded material could be identified and cleared out to make way for well-recorded material from current or recent excavations. It states (p. 2) that 'Applying those procedures retrospectively [viz. selection/retention criteria currently used in the field] is one way of rationalising an archaeology collection but there are other methods, such as focussing on poorly recorded projects …'

5.3. Results of the surveys

1. The Stage 2 assessment revealed that of the 1,000 boxes sampled, over 10% were nearly empty, and a further 10% just half full. It is evident, therefore, that the least contentious way of saving space would simply be to re-pack and rebox the finds. This could save between 6,000 and 10,000 boxes, 5% and 10% of the total space in our stores. The resources required would be far from neglible, however, bearing in mind that nearly every box would have to be opened; that boxes to

be combined are not necessarily adjacent; and that new box labels would have to be prepared. To prepare an accurate estimate of resourcing will require further pilot work.[37]

2. We were able to identify some categories of material that not only fail to meet current selection/retention criteria, but have failed to meet those that have been stated in our Standards document – at least since the 1998 edition. These include completely unstratified finds and unprocessed soil samples, along with most ceramic building-material and marine shell. These are obvious first candidates for rationalisation, but the following points must be noted:

    a. The saving in space will be relatively small: perhaps 5% of the total general finds.
    b. Some unstratified finds have clearly been archived because they are intrinsically important: complete pots or glass bottles, for instance. Therefore, the actual saving may be less than 5%.
    c. Three-quarters of the unstratified material (625 out of 838 boxes, from 207 out of 287 separate archives) is in small quantities from sites of the pre-2000 era, for which the ownership documentation is poor. The proportion is similar for building-material and shell, though the latter derives from far fewer sites. To investigate possible issues relating to title could be time-consuming – unless, in view of the type of material, it is decided to proceed on the basis of negligible risk.
    d. To process the material – locate, screen, document, package and dispose of it – is likely to involve at least 1 person day's work per site by collections staff and registrars, though further pilot studies are needed to verify this. The ceramic building-material is almost entirely from well stratified contexts, and so it should be recorded by an expert to the current standard. This could involve processing over 3,000 boxes (which might be reduced by over a third) – perhaps 200 days' work.

3. The documentation survey tends not to support the premise that there are many poorly recorded project archives, which can be identified easily and so become immediate targets for rationalisation. On the other hand, there are notably few archives that reach the best modern standards. This position probably stems from a number of special factors that have made the London Archaeological Archive what it is, and which may not be found in museums elsewhere:

    a. Well over half the Archive was generated in the two decades 1972-1991, virtually all by the Museum of London's departments of Urban Archaeology (DUA) and of Greater London Archaeology (DGLA). The DUA had been responsible for devising a methodology that has been adopted worldwide, and so its standards of field

[37] It has emerged since completion of the survey (October 2017), that altering the shelf-spacing on our racking could be another approach to significantly increasing the carrying-capacity of the store. A typical bay, currently holding 95 standard boxes (17 rows of 5), could be reconfigured to hold 105 (19 rows of 5) – an increase of ten boxes
, around 10%. The practical possibilities of achieving this have not been explored in detail, but at the very least this emphasises the importance of employing standard sizes of box and configuring shelving precisely to hold the maximum number of boxes.

recording – which were later adopted near-universally by the DGLA – were notably high.

b. A further third of the Museum of London's holdings of archaeological material are from sites excavated c. 1992-2002. In many cases the documentary archive is incomplete, with key plans and records remaining at present with MoLA (and, to a lesser extent, other contractors). It is reasonable to presume that, at least so far as the field record goes, the archives will be of a high standard, probably exceeding that produced previously.
c. Very few archives – especially those comprising large numbers of finds – have been deposited within the last ten years. Consequently, the Museum of London's holdings are almost entirely deficient in detailed records of the type that were recommended at a national level in the mid-2000s for the recording of pottery and certain other categories of finds.

4. Assessment of a wide range of other factors – for example, the periods of history represented, the location of the excavated sites, the use of objects in displays or the status of the archive in terms of ownership – suggests some possible routes to rationalisation but no 'easy wins'. Even though the Museum of London holds nearly 3,000 archives, such is the diversity that nearly all would have to be reviewed on a case-by-case basis. One of the key points made at the seminar was that without detailed assessment by experts, it is well-nigh impossible to judge how much particular assemblages of bulk finds could contribute to reconstruct the site narrative; or conversely, how much intrinsic worth an individual object might have, especially if it is in bad physical condition and so not instantly recognisable.

   This range of sites and types of finds' assemblage is probably to be expected for an institution which serves a population greater than that of Scotland and Wales combined, and has a large collecting area that ranges from semi-rural landscapes to the most intensively built-up urban areas in Britain. Nevertheless, in the following table an attempt is made to summarise some of the issues that will guide the formulation of a strategy for identifying those sites which *prima facie* seem candidates for rationalisation and which might, therefore, be worth submitting to the expensive process of specialist assessment[38]. The archives are grouped very broadly according to the size of the object holdings.

[38] As explained in Section 4.3, the cost of preparing an archive for internal assessment by curators, and then carrying out the assessment, is unlikely to be less than 1 person day for even the smallest site. The equivalent cost for sites in the 30-50 box range (such as LIB82 or GM3 assessed in Stage 3) could be 2-3 days, depending on the extent and nature of the documentary archive. Estimating resources needed for tackling the very largest sites is beyond the scope of the present study, though it should be noted that preparing small sections of the CUT78 and BIG82 site archives for the Stage 3 seminar absorbed around 2-3 days' each of curatorial time. As noted above, such is the nature of the Museum of London's Archaeological Archive that it contains comparatively few sites recorded to modern standard, and for which existing records might therefore stand as an adequate surrogate for items discarded. The need to compile such records almost certainly renders rationalisation of any large archives cost-ineffective. To take the CUT78 site as an example, to record the pottery and animal bone – a combined total of around 200 boxes – could take around 50 person-days by specialists, including some time for assessing the results in conjunction with the stratigraphic records. Superficial scanning of the contents of the boxes

Category of archive	Likely opportunities for rationalisation	Likely obstacles to rationalisation
Very large (500+ boxes)	Rationalising just a few archives could make a real difference Much lower administrative overhead (fewer ownership issues to investigate, fewer documentary archives to assess) Often multi-period sites, where some periods are much better represented than others; this raises the possibility of rationalisation where the bulk finds' assemblages do not contain items of individual importance, and/or where their physical preservation is not integral to developing knowledge of the period/phase represented	Many of these are 'iconic' sites, important for particular periods of history, particular buildings etc Field record tends to be good, adding value for research and professional use Individual items likely to have been published or used in gallery display
Large (100 – 500 boxes)	Similar to those for the very large group Some sites with poor-quality field records[39] Some sites, especially in central London, may be in close proximity to others: reviewing them as 'clusters' may suggests approaches to rationalisation that could not be applied to sites in isolation	Some have produced important individual finds, or relate to important aspects of London's archaeology Study of the documentary archives, preparation of the material for review by specialists, and recording items selected for discard – these will all be very time-consuming
Small (<100 boxes)	Often of low value in terms of finds' assemblages or individual items of intrinsic importance The site as a whole may contribute relatively little to historical or archaeological knowledge; there	A very large number of archives would have to be rationalised in order to create much extra storage space: this carries a high administrative overhead Many very small sites are from Outer London boroughs where, until recently,

suggests that even after that level of recording, some items would still be recommended for retention: at least a quarter, possibly as many as half the present boxes.

[39] For example, the CUT78 archive examined at the seminar.

	would be little loss of knowledge through 'preservation by record only' Some sites have missing or sub-standard locational and/or field records	there has been little archaeological work; consequently, archives from those areas have a higher value than if they derived from some inner city areas

5. Three categories of material were selected for particular investigation in terms of potential for rationalisation:

    d. Ironwork. This is a special case, in that while filling only a small proportion of the total space in the Archive, it requires special storage conditions (a climate-controlled store) and a labour-intensive management regime. The Stage 2 survey, combined with detailed examination of certain objects by specialists during Stage 3, indicated that some of the 'bulk' ironwork (e.g. general-purpose nails) is of little intrinsic importance and often too badly decayed to justify preservation in perpetuity. Recording by x-ray, and then discarding, may thus be more effective than physical retention when it comes to preserving the information these items contain.
    e. Pottery. This material represents well over 40% of the London Archaeological Archive, but the Stage 3 assessment indicated that opportunities for rationalisation are extremely limited – mainly because hardly any of it has been recorded to the nationally-agreed minimum standard. Consequently, not only would the costs be prohibitive for disposing of pottery even from a small number of medium-sized sites, but there were doubts as to whether the basic site and finds records have yet reached the standard where a pottery specialist could assess the material and make recommendations on retention or disposal.
    f. Animal bone. This category of material represents over 20% of the total Archive. The specialists consulted during Stage 3 felt that it might be possible to record and discard (a) individual bones or small quantities of bone from 'low-quality'[40] deposits, (b) some of the very large assemblages from the medieval waterfront that are repetitive in nature, besides being a partial and probably unrepresentative sample of the contents of the original deposits. Nevertheless, as with pottery, it was emphasised that in the absence of modern-style records, it would be expensive and time-consuming both to prepare each archive for review, and then to record the material, should disposal be recommended.

5.4. Ways forward

The Museum of London's strategy in the light of the present review, is the subject of on-going internal discussion. However, it is possible to offer the following pointers:

[40] Deposits, for example, which contain datable finds that are demonstrably of different periods or which contain bones that are fragmentary or surface-worn – not during use but by constant reworking of the soil in which they were buried.

1. Saving space by re-boxing will be an option to pursue. It promotes 'good housekeeping' and is entirely in sympathy with the aims of our Volunteer Inclusion Programme. However, for the reasons given in 5.2.1, this is likely to be an on-going process, rather than a single project to improve the storage of the entire Archive.
2. Removing unstratified material, and items such as shell and building-material that do not meet current retention criteria, will also be an option to pursue. This is more likely to be done as a single project, albeit a relatively costly one.
3. The review has demonstrated conclusively that discarding large quantities of archival material is not the best way to resolve our storage problems. The costs – both by way of internal administrative overheads and in terms of procuring experts to assess and record items before disposal – would be prohibitively high[41].
4. The review has also demonstrated the cardinal importance of assessing archives and providing information about their contents. Rather than wholesale discarding, the Museum of London is likely to consider a policy of prioritising a certain number of archives for retention close at hand, and sending the remainder into remote low-cost storage. This option – the investigation of which was not within the specific remit of the present project – may be a more satisfactory solution, on both ethical and financial grounds.
5. Before settling on a particular strategy towards the archives it already holds, the Museum of London will be carrying out a detailed review – in conjunction with the Greater London Archaeology Advisory Service, City of London Planning Office, Southwark Planning Office, and all leading contractors – of the material that currently remains undeposited.

5.5. Afterthought (October 2017)

The focus of the project was on exploring rationalisation of 'old' collections as a means of creating space in a store. Although the results demonstrated that this would not be an easy, cost-effective solution to that particular problem, it does not follow that rationalisation should be entirely ruled out in the management of archaeological archives. Since the project ended, the Museum has begun consulting with specialists concerning some of the categories of material identified in Stage 1 as potential candidates for rationalisation. The point has been made that the weeding out of 'minor' collections could enable scarce administrative resources to be concentrated on documenting and promoting groups of material that are of undoubted research value; a more streamlined and better-understood archive might be more attractive to researchers and a better platform upon which to build research projects that attract funding. In much the same way, 'streamlining' the collection may well be the only means of guaranteeing the preservation of fragile items, particularly metalwork, that require on-going maintenance by trained conservators; with such resources in short supply, there is a real risk – adumbrated by the findings of the Stage 2 Metal Store survey – of truly important objects deteriorating simply because they have not been given a higher priority than items of questionable research value. Whereas rationalisation of large numbers of small sites was rejected as a space-saving mechanism – principally because of the administrative cost of proving title – these are likely to be the prime targets for 'streamlining' on grounds of research potential and conservation certainty.

[41] Particularly worth remembering is a point made by experts attending the seminar – a point that is perhaps not made often enough – namely that the material produced by excavations in central London in the last three decades of the 20th century is a unique resource: unique not only in that derives from sites that have now been completely destroyed, but unique because it was collected in quantities and with detailed records of a standard that was not possible before, and which has been seldom achieved since, in a more competitive, commercial world.

6. Appendices

6.1. Appendix 1: Quality Matrix

Supplied as separate Excel spreadsheet

6.2. Appendix 2: Completed sample Archive Assessment forms (see Section 4.3.1)

SITE CODE:	PLG02	**TOTAL BOXES:**	1

Provenance, acquisition and state of the records	
Ownership/title status	Yes, standard MoL deed for Records and Finds
What is the state of the site documentation? (Score: 0/1/2/3)	2 Missing: finds inventory (digital?)
How accurately can the site be located?	Very accurately.
Is there a good stratigraphic sequence with little contamination and/or residuality?	No: mostly modern features containing some much earlier residual material.
General historical/archaeological significance	
What periods are represented?	Roman, post-medieval
Is the site associated with any important monument/area/event? Is it a production site?	No
If yes, does it tell us anything about that monument/area/event that wasn't known before?	n/a
Is the site particularly important for general interpretation of the area/borough?	Comparatively little is known about LB Merton in prehistoric and Roman times, and so any material of that period will automatically have a higher weighting.
Is the site in a Greater London Archaeological Priority Area or particularly relevant to a Research Framework priority?	Probably within the GLAPA (to check)
Condition	
Are the finds preserved particularly well or particularly badly?	Normal preservation.
Are there conservation issues? [Note especially metalwork, outsize objects and organics.]	No
What is the state of the packaging?	To standard

Are there any hazardous materials?	No	
Quality/value of the finds assemblage		
Are there any rare/unusual individual objects?	No	
Are there any groups of finds that are intrinsically important?	No	
Are they are any finds/groups of finds that are particularly relevant for the interpretation of the site or area?	Roman sherds are not from any features of that period but do represent another spot on the Roman distribution map for the area.	
Exploitability		
Are any finds displayable?	No	
Is the archive particularly suitable for learning or public engagement purposes?	No	
Is the archive likely to be particularly useful for academic research?	No	
Provisional recommendations (tick one)		
The archive should be preserved in its entirety.		The only items potentially worth preserving are the few Roman potsherds; however, these are in no way exceptional and the spot-dating record should be adequate. The Roman CBM (which included a fragment of flue tile) has already been discarded. The post-medieval finds should be discarded in their entirety, and so if the Roman were retained, there would be no saving of space.
The archive can be discarded in its entirety after suitable recording.	✓	
Certain items or groups of items can be discarded.		
If certain items or groups of items are to be discarded, list here or on separate sheet.	Roman pottery Post-medieval pottery Post-medieval registered finds	
Further actions		
List tasks to be completed before a final recommendation can be made (eg consulting with experts, searching for missing information, recording objects for discard).		
Current status		
RED		**Green** = No action required **Amber** = Items can probably be discarded after further checks and recording **Red** = Ready for immediate disposal or rationalisation (as detailed above)

ARCHAEOLOGICAL ARCHIVE ASSESSMENT

SITE CODE:	ROA96	**TOTAL BOXES:**	11

Provenance, acquisition and state of the records	
Ownership/title status	Yes, records and finds transfer (old-style documents)
What is the state of the site documentation? (Score: 0/1/2/3)	3 But note that reports do not included specialist recording sheets for CBM
How accurately can the site be located?	Very accurately
Is there a good stratigraphic sequence with little contamination and/or residuality?	Yes
General historical/archaeological significance	
What periods are represented?	Post-medieval
Is the site associated with any important monument/area/event? Is it a production site?	Yes, the Sadler's Wells Theatre.
If yes, does it tell us anything about that monument/area/event that wasn't known before?	Yes, buildings beneath the 1920s theatre that may be remains of earlier theatres (theatres documented on the site from mid 18th c. and probably earlier).
Is the site particularly important for general interpretation of the area/borough?	See above, but otherwise no.
Is the site in a Greater London Archaeological Priority Area or particularly relevant to a Research Framework priority?	To check
Condition	
Are the finds preserved particularly well or particularly badly?	Normal preservation.
Are there conservation issues? [Note especially metalwork, outsize objects and organics.]	No
What is the state of the packaging?	Plastic bags and correct labels, but not to full MoL standard.
Are there any hazardous	No

materials?		
Quality/value of the finds assemblage		
Are there any rare/unusual individual objects?	No	
Are there any groups of finds that are intrinsically important?	The site produced an unusually high proportion of fragments from mugs or tygs, especially in late 17th century black-glazed ware. This possibly relates to the function of the site but are mostly in poor stratigraphic contexts (one of the two near-complete mugs is actually from a cut (so mis-labelled on-site), the other from an unexcavated context).	
Are they are any finds/groups of finds that are particularly relevant for the interpretation of the site or area?	Large quantities of CBM have been retained, including samples from mid-18th-c pre-Theatre buildings, but they are unlikely to yield further information about dating or function.	
Exploitability		
Are any finds displayable?	No, except for a complete ovoid stoneware bottle, late 19th century, with stamp.	
Is the archive particularly suitable for learning or public engagement purposes?	No	
Is the archive likely to be particularly useful for academic research?	Records yes. But apparently little academic potential in the finds' assemblage.	
Provisional recommendations (tick one)		
The archive should be preserved in its entirety.		The finds' assemblage could be discarded virtually in its entirety after recording. The two near-complete black-glazed drinking vessels are probably worth retention as representatives of this aspect of the ceramic assemblage; also the ovoid stoneware bottle.
The archive can be discarded in its entirety after suitable recording.		
Certain items or groups of items can be discarded.	✓	
If certain items or groups of items are to be discarded, list here or on separate sheet.	Ceramic building material Clay tobacco pipe stems Animal bone Pottery, except as detailed above	
Further actions		
List tasks to be completed before a final recommendation can be made (eg consulting with experts, searching for missing information, recording objects for discard).	Search for digital records: unprocessed on MoL computer system or with the contractor? Contact Oxford Archaeology re paper recording sheets (CBM, pipes): otherwise, the finds must be recorded before discard.	
Current status		
AMBER		**Green** = No action required **Amber** = Items can probably be discarded after further checks and recording **Red** = Ready for immediate disposal or rationalisation (as detailed above)

ARCHAEOLOGICAL ARCHIVE ASSESSMENT

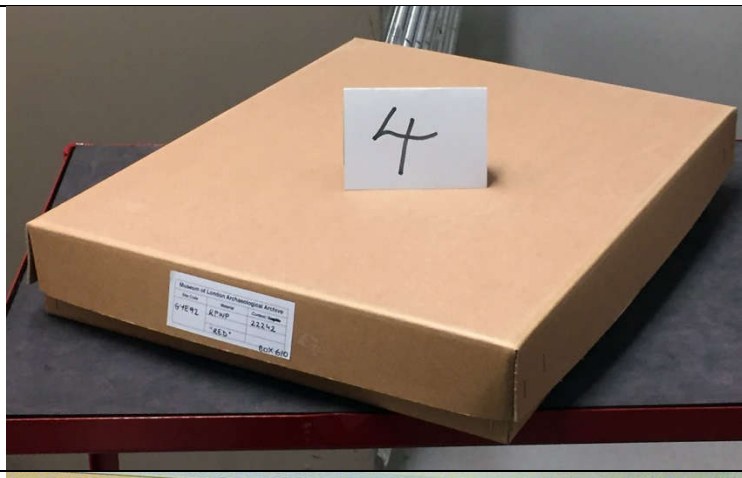
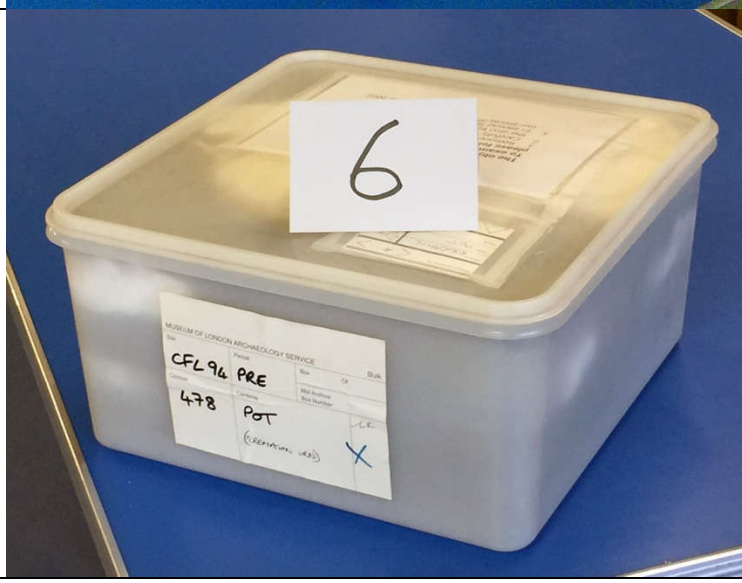
SITE CODE: JST02 **TOTAL BOXES:** 5

Provenance, acquisition and state of the records	
Ownership/title status	Standard Finds Transfer but no deed or licence for Records
What is the state of the site documentation? (Score: 0/1/2/3)	3
How accurately can the site be located?	Very accurately.
Is there a good stratigraphic sequence with little contamination and/or residuality?	Yes
General historical/archaeological significance	
What periods are represented?	Saxon, Post-Medieval
Is the site associated with any important monument/area/event? Is it a production site?	Yes: mid-Saxon settlement (Lundenwic), Covent Garden (at the south end of James Street, close to where it joins the piazza.
If yes, does it tell us anything about that monument/area/event that wasn't known before?	Lundenwic: yes, discovery of a well and ?tanning pit add to the little knowledge we have. Post-medieval: no, except for important tile group (see below).
Is the site particularly important for general interpretation of the area/borough?	See above.
Is the site in a Greater London Archaeological Priority Area or particularly relevant to a Research Framework priority?	Yes
Condition	
Are the finds preserved particularly well or particularly badly?	Normal preservation.
Are there conservation issues? [Note especially metalwork, outsize objects and organics.]	No
What is the state of the packaging?	Plastic bags and standard labels, but not to full MoL standard for packaging.
Are there any hazardous	No

materials?	
Quality/value of the finds assemblage	
Are there any rare/unusual individual objects?	See next section.
Are there any groups of finds that are intrinsically important?	A group of rare delftware tiles, late 17th century, with Biblical and secular imagery. Published in London Archaeologist.
Are they are any finds/groups of finds that are particularly relevant for the interpretation of the site or area?	Lundenwic: with so little known to date, all finds are relevant to interpreting the site. Post-medieval tiles: these shed light on the interior decoration of housing of the period – in this case a refurbishment after the initial laying out of the piazza – and would be particularly interesting if could be associated with a individual occupant.
Exploitability	
Are any finds displayable?	Yes: delftware tiles (need reconstruction but rare and interesting types).
Is the archive particularly suitable for learning or public engagement purposes?	See above.
Is the archive likely to be particularly useful for academic research?	Yes: Lundenwic; study of ceramic tiles; study of the area (needs further documentary research).
Provisional recommendations (tick one)	
The archive should be preserved in its entirety.	
The archive can be discarded in its entirety after suitable recording.	
Certain items or groups of items can be discarded.	✓
If certain items or groups of items are to be discarded, list here or on separate sheet.	Ceramic building material (see below).
Further actions	
List tasks to be completed before a final recommendation can be made (eg consulting with experts, searching for missing information, recording objects for discard).	Contact Pre-Construct Archaeology re missing paper recording sheets (CBM, pottery); if these could be found, the remaining CBM could be considered for discard, though the space saving would be very small, and other costs of administering the disposal would outweigh any likely benefits.
Current status	
GREEN	**Green** = No action required **Amber** = Items can probably be discarded after further checks and recording **Red** = Ready for immediate disposal or rationalisation (as detailed above)

6.3. Appendix 3: Museum of London box types and sizes

Category	Name/type	Notes	
1	'Shoe box'	Standard box, by far the most commonly used. Measure: 18.5x47x13	
2	'Skeleton box'	Largest box in general use. Invariably used for human remains; sometimes for large objects or large quantities of bulk finds. Measure: 28x47x26	
3	Small box	Term applied to several different types of box smaller than the 'shoe box'. None extensively used and so not differentiated at this stage. Measures: 16x22x6 10.5x10.5x4.5 19x18.5x10.5	

4	'Plaster box' Measure: 33x48x8	Large flat box used almost exclusively for Roman painted wall plaster	
5	Large square box Measures: 30x35x15 29x48x13.5	In common use for pre-1974 sites (superseded in general use by the 'shoe box'). Occasionally used subsequently for outsize objects.	
6	'Stewart tub' Measure: 32x32x17	Standard square plastic box with sealed lid. Commonly used for metalwork, occasionally for other categories of finds.	

7	[smaller Stewart type box] Measure: 17x23x8	[to define]	
X	Miscellaneous	Non-standard boxes, ranging from large fruit boxes to small plastic boxes, are not differentiated. They represent only a very small proportion of the total archive.	

6.4. Appendix 4: Museum of London Social and Working History Rationalisation: Significance Assessment Table

PROVENANCE/ACQUISITION	RARITY/UNIQUENESS	CONDITION	HISTORICAL SIGNIFICANCE	EXPLOITABILITY – for research, education, display, visual impact
Is the object accessioned? Do we know who created, made, owned or used it? Do we know when it was made or produced? Is its place of origin or manufacture known and/or documented? Is there a well-evidenced chain of ownership and use? Is the object unusually well-provenanced/documented for its class or type? Do we know how/when the object was acquired by the Museum and from whom? Have all attempts been made to trace ownership and provenance of an unaccessioned object? Was the acquisition of the object/collection part of a defined, proactive collecting plan? Was the object/collection acquired with external funding?	Is the object the only or one of the best examples of its class or type? Do we have other identical examples in the collections? If this is a duplicate item, identical to others in the collection is there a reason why duplicate examples may be useful/significant for future displays e.g. a row of identical typewriters or industrial sewing machines in a display would create an important visual impact representing how common these items once were in the workplace? Is it one of a kind, unique, rare or unusual? Is it a typical/characteristic example of its type? Is it of a quality, type or class rarely accessible for viewing as part of a public collection? Is the object generic or	Is the object in good condition for its type? Is the object displayable? Is the object in a condition to realise it potential as a research resource? Does the object include hazardous materials? Is the object intact/complete? If the object is dismantled do we have documentation to show how it could be reassembled? If the object is dismantled do we have evidence to prove we have all the parts to reassemble if required? If the object is dismantled do we realistically feel we would ever be able to display in its entirety or provide research access? Does the object's condition or evidence of wear have	Is the object associated with an important event, person, family, group, period, activity or theme relevant to London's social and working history? Does the user, maker, creator or designer of the object have a strong London connection? Is the object an example of a cultural or social activity specific to London? Is the object an example of a London specific domestic or working life activity? Does the object embody or symbolise beliefs, ideas, customs, traditions, practices or narratives significant to London's social and working history? Does the object demonstrate a direct connection to a historical event, person, family, group or theme significant to London's social & working	How does the object relate to the Museum's collecting policies? Does the object support the Museum's Content Framework? Does the object have a strong visual impact? Does the object have the potential to 'stretch thinking' Is the object's visual impact /interpretation in a display context dependent on the display of other related items. e.g. a pharmacists shop fitting/shelf originally used for the display of a number of jars also in the collection? Is the object's potential as a research resource dependent on its context within a group of related objects E.g. is a jeweller's single hand tool significant for research on its own or only as part of a complete

Does the provenance demonstrate a direct connection to a historical event, person, family, group or theme relevant to London's social & working history?	**specific to an associated collection. Eg is this a specialist hand tool associated with a particular trade or a generic hand tool such as a spanner that could be found in any workshop.** **Can similar objects be found in other Museum collections?** **Is the object best placed/transferred to a specialist Museum. For example would an item specifically related to the cinema be better placed in the Cinema Museum.**	**any specific significance? What do signs of wear and tear tell us about the history or use?** **If restored/conserved how authentically/sensitively has this been done?** **If altered before acquisition does this tell us anyting about its changing history of use/ownership?**	**history?** **Is the objects historical significance dependent on other objects in the same or similar collections e.g. is it part of a tool kit or an essential part of a machine?** **Is the object generic or specific to an associated collection. Eg is this a specialist hand tool associated with a particular trade or a generic hand tool that could be found in any workshop such as a generic spanner.** **Does the object have a special place in relation to other items in the Museum's collections.** **Is the object traditionally regarded as an iconic object in the collection?**	**collection of hand tools?** **Is the item/collection currently used for research/public enquiries/learning or outreach?** **Does or could the object support schools or Curriculum based educational activities?** **What particular characteristics give the object research value?** **Could the object inspire creativity or support income generation, business or product development?** **Could the object support profile raising?** **Has the object ever been loaned for display?**

6.4.1. Correlation with draft Archaeological Archive Assessment form

Social & Working History	Archaeological Archive
Provenance/acquisition	Site information and state of the records
Rarity/uniqueness	Quality/value of the finds' assemblage
Condition	Condition
Historical significance	General historical/archaeological significance
Exploitability	Exploitability