

Review of the Standard of Reporting on Archaeological Artefacts in England



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Cover image

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Top right: Worked flints © Suffolk County Council

Bottom left: Anglo-Saxon pottery © Norfolk County Council

Bottom right: Roman coins © Portable Antiquities Scheme

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List of Abbreviations

ADS	Archaeology Data Service
ALGAO	Association of Local Government Archaeological Officers
CBA	Council for British Archaeology
CifA	Chartered Institute for Archaeologists
FAME	Federation of Archaeological Managers and Employers
GLL	Grey Literature Library
HERALD	Historic Environment Research Archives, Links and Data
MPRG	Medieval Pottery Research Group
OASIS	Online AccesS to the Index of archaeological investigationS
UAUK	University Archaeology United Kingdom

Summary

This project was initiated by the ClfA Special Interest Group for Finds (ClfA Finds Group), and funding was obtained by ClfA from Historic England to carry out a review of the quality of reporting on archaeological artefacts in England. The impetus for the project came from a growing level of concern over the standards of artefact work in developer-led archaeology, as reflected in the quality of reporting on artefact assemblages available as 'grey literature'.

The project comprised the assessment of 1,000 unpublished specialist artefact reports from grey literature and a further 61 published specialist artefact reports from journal articles. These were scored against a checklist of criteria devised by the ClfA Finds Group and agreed by the project board which assessed the content and quality of specialist artefact reports to enable evaluation of whether existing standards and guidance are effectively improving these.

The overall results of the survey of 1,000 specialist reports may be summarised as follows:

- | | |
|--|------|
| • Specialist artefact reports meeting 100% of the criteria | 0% |
| • Specialist artefact reports meeting 90% or more of the criteria | 0.7% |
| • Specialist artefact reports meeting 75% or more of the criteria | 12% |
| • Specialist artefact reports meeting 50% or more of the criteria | 43% |
| • Specialist artefact reports meeting fewer than 50% of the criteria | 38% |
| • Specialist artefact reports meeting fewer than 25% of the criteria | 6% |

This study has highlighted that great variations in content and quality exist between specialist artefact reports. There are numerous examples of good practice, but also several areas that require improvement. This has enabled a series of recommendations to be made to support the application of standards in artefact work.

Project Recommendations

This study has highlighted that great variations in content and quality exist between specialist artefact reports. There are numerous examples of good practice, but also several areas that require improvement. It may be concluded that variable practice in finds reporting results not only from variable practice in finds analysis, but also in the management and monitoring of finds work. The following issues emerge clearly from this review:

- Despite the requirements of existing Standards and guidance and good practice advice, specialist input into project planning, project designs and WSIs is not routinely being sought.
- Details of sampling and recovery strategies are not routinely included in grey literature reports.
- Reports (including grey literature and specialist artefact reports) do not routinely include lists or quantities of material types or objects not selected for analysis or reporting, nor a statement of the rationale for excluding them.
- Specialist reports do not routinely make explicit reference to current, accepted standards or good practice guidance.
- Detailed descriptions of material types are not always present (eg stone types) and when they are given they do not reference formal resources, such as ceramic type series.

- Specialist reports do not routinely detail archive contents, including details of the format and content of any digital components.
- Most specialist reports do not specify when the assemblage was analysed.
- Object dimensions are not consistently included in artefact reports.
- Specialist reports are not currently indexed via OASIS/HERs and there is no mechanism for uploading onto OASIS either the results of analysis or associated catalogues or datasets.
- Quantification data is not routinely presented in a standardised accessible format.
- Specialist reports do not routinely include a discussion of the assemblage in its wider context or in relation to other assemblages either from the same site or from comparative sites.
- Specialists are not routinely being credited with authorship of relevant specialist reports.
- There is great variation in the structure and content of specialist reports.
- There is currently no consistent approach towards on-site or post-excavation monitoring of artefact work by development control archaeologists, resulting in the differential application of and compliance with existing Standards and guidance.
- Awareness of current, accepted standards and guidance relating to artefact work is variable across the profession.

On the basis of those conclusions, the following recommendations have been formulated:

1. ClfA to discuss this report with its Registrations Committee and develop guidance for RO inspection panels on how to monitor the quality of finds analysis and reporting; ClfA to encourage reporting of poor practice.
2. ClfA to revise the Standard and Guidance for the collection, documentation, conservation and research of archaeological materials.
3. ClfA Finds Group to produce and disseminate a list of existing standards and guidance for artefact studies.
4. ClfA Finds Group to produce guidelines for finds analysis and reporting.
5. ClfA Finds Group to develop the criteria for evaluating finds reports into a checklist for monitoring the quality of finds reporting.
6. ClfA Finds Group to develop and run a series of training workshops on the management and monitoring of finds work, artefact analysis and reporting.
7. ClfA to work with ADS and Historic England to develop the facility to upload digital artefact/finds catalogues and datasets to OASIS, as part of the HERALD project.
8. ClfA to discuss with its Registrations Committee and to include guidance for RO inspection panels on how to monitor early engagement with artefact specialists.
9. ClfA to discuss with FAME to ensure results of the project and issues arising from it are disseminated beyond the ClfA membership.

Background to the Project

This project was initiated by the Chartered Institute for Archaeologists' (CIfA) Finds Group, who obtained funding from Historic England to investigate the application of standards in artefact work carried out as part of commercial archaeological projects in England. The impetus for the project was the growing level of concern about the standards of commercial archaeological work being carried out ahead of housing, infrastructure and other development projects, and the impact that this was having on post-excavation analysis, in particular on the analysis and reporting of artefacts. These concerns date back to at least the early 1990s and the publication of Planning and Policy Guidance Note 16 (PPG16), which led to the introduction of developer-funded archaeological work.

Over the last thirty years a range of standards and guidance documents have been developed and disseminated (see below). However, recently pottery specialists and others have spoken at conferences and published papers identifying concerns with the application of these standards in practice (Blinkhorn and Cumberpatch 2012; Evans, Brown and Knight 2016). In particular, concerns from specialists focus on the impact of increasing financial pressures within commercial archaeology and the effect that this has upon the quality of artefact work. Evans et al noted that 'Pottery reports in the field of commercial archaeology are currently often tied largely to the objective of providing for the needs of site chronology at the expense of discussions of social and economic issues, and interpretations that relate to anything more complex or revealing are often relegated to appendices which may be available only on a CD accompanying the published report' (Evans et al 2016, 259–60). The Rural Settlement of Roman Britain project and in particular the methodological discussion papers produced ahead of a conference in September 2016 highlight the difficulties faced by users of specialist artefact reports in grey literature. These papers noted in particular the absence of important information about sampling techniques (Brindle 2016), the need to improve the quality of Roman pottery reporting and analysis (Timby 2016), and a lack of basic quantification and information on artefact classification (Brindle 2016).

The Medieval Pottery Research Group (MPRG) document *A Research Framework for Post-Roman Ceramic Studies in Britain* (Irving 2011) identifies the key issues affecting the development of pottery studies as follows:

- A competitive market, causing undercutting by commercial units and consultants, resulting in depleted budgets for post-excavation analysis.
- Limited understanding of many project managers, consultants and planning curators of the role and potential of ceramic studies, leading to a dissipation of knowledge gleaned over a long time.
- Poor site sampling strategies.
- Relegation of ceramic studies during post-excavation analysis and report preparation.

The sharp increase in development-led archaeological work in the last few years has raised concerns across the sector in relation to a shortage of suitably skilled historic environment professionals. This problem is exacerbated by the co-incident timing of several major infrastructure projects, with over 40 such projects being planned in the UK during the period 2015–33, the majority of which will take place in the period 2015–21 (Hook et al 2016, 4).

Sweeping cuts to local government historic environment services have resulted in increasing pressure on a dwindling number of planning archaeologists. Figures collected in the first quarter of 2016 indicate that the number of archaeologists providing advice to local planning authorities in England

fell by 13.5% in the previous 12 months (Reilly 2016, 1). This continued pressure appears to be resulting in a reduction in the quality of reporting of archaeological projects, as planning archaeologists are increasingly less able to closely monitor post-excavation work and report-writing.

A survey of archaeological specialists is currently underway (February 2017) but at present the principal source of data on archaeological specialists is the *Labour Market Intelligence Survey of Archaeological Specialists 2010–11* (Landward Research 2011). Although this data is now 6 years old, it highlighted that in 2011 there were significant losses of specialist skills in several areas, including finds work. This situation has not improved, and Hook et al (2016, 3) highlighted archaeological specialists as a particular weak point where current evidence already indicates skills gaps and skills shortages. This part of the sector is unlikely to be able to accommodate the growing demands of the market as there is currently no capacity to take on more work or to train others.

The *Survey of Archaeological Specialists* also highlighted that 58.4% of finds specialists are sole traders, with only 37.4% of specialists being based in large organisations (Landward Research 2011, 60). This is especially problematic in terms of providing training for archaeologists wishing to acquire a finds specialism, and therefore exacerbates the challenge of maintaining and enhancing current levels of finds expertise within the sector.

Aims and Objectives

The overall aim of this project was to achieve a sector-wide understanding of the importance of a consistent approach to artefact work, and to enable an improvement in the standards of artefact analysis and reporting across the sector (Dalwood and Edwards 2015).

The project objectives as set out in the Project Design (Dalwood and Edwards 2015) are as follows:

1. To achieve a better understanding of the standards of finds reporting and the issues involved, including the context and scale of projects, and the types, quantities and dates of artefacts retrieved
2. To assess the relationship between existing published standards and the quality of finds analysis and reporting
3. To enable a clearer mutual understanding of the various pressures on those who specify, commission, undertake, monitor and approve finds reports
4. To enable non-specialists to assess the standard of specialist artefact reports
5. To facilitate discussion of how the sector as a whole can work to improve the standard of artefact work in practice
6. To offer recommendations on how to improve standards in the future.

Standards and Guidance

A number of standards relating to artefact work have been produced in the last few decades. In 1991 the IFA (Institute for Field Archaeologists, now ClfA) issued *Guidelines for Finds Work*, followed by their *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials*, which was formally adopted in 2001, revised in 2008 and reissued in 2014.

The ClfA *Standard and guidance for the collection, documentation, conservation and research of archaeological materials* provides a useful definition of finds work:

Finds work is defined as the process of retrieving, sorting, cleaning, marking, conserving, recording, analysing, interpreting and preparing for permanent storage all materials retained as a result of archaeological fieldwork, and disseminating the results. The term 'finds' is taken to include all artefacts, building materials, industrial residues, environmental material, biological remains (including human remains) and decay products.

Alongside these wide-ranging guidance documents, more specific guidance was developed by the period-based pottery special interest groups. The first of these was *Guidelines for the processing and publication of Roman pottery from excavations* (Young 1980), which sought to establish common methods of approach and some standardisation of recording. This laid the groundwork for the Study Group for Roman Pottery (SGRP) to published their *Guidelines for the Archiving of Roman Pottery*, with a stated aim 'to establish common methods of approach and some standardisation of recording' (Darling 1994, ii).

Soon after, the Medieval Pottery Research Group produced *Guidelines for the Processing and Publication of Medieval Pottery from Excavations* (Blake and Davey 1983), followed by *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics* (Slowikowski et al 2001). Both documents set out detailed methodologies for the production of pottery reports.

In a similar vein, the Prehistoric Ceramics Research Group (PCRG) in 1991 published an occasional paper, which was combined with a second occasional paper published in 1992, and reprinted in 1995 titled *The Study of Later Prehistoric Pottery: General Policies and Guidelines for analysis and publications*. A third edition was published in 2010 which included an expanded section on fabric description and an updated bibliography. These guidelines were intended to serve as a set of minimum standards, resulting from a need to achieve greater consistency in recording and analysis to facilitate successful inter-site and inter-regional comparisons.

In 2001, the Medieval Pottery Research Group (MPRG) followed suit and published a detailed standards document, intended to form the baseline for all medieval pottery studies from this point forward and was entitled *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics* (Slowikowski et al 2001)

The *Insight from Innovation* conference, which was held at the University of Southampton in 2012 in recognition of the contribution of Professor David Peacock to the study of archaeological ceramics, provided an opportunity for a joint presentation on behalf of the Medieval Pottery Research Group (MPRG), the Study Group for Roman Pottery (SGRP) and the Prehistoric Ceramics Research Group (PCRG). This collaboration of the three specialist pottery groups was in itself innovative, as despite having many shared interests, the groups had typically functioned in isolation. A resultant paper

(Evans et al 2016) put forward the case for a joint guidance document, advocating the maintenance of appropriate standards for analysis and the fostering of innovation in pottery studies in spite of increasing commercial pressures. *A Standard for Pottery Studies in Archaeology* was written by the three pottery study groups, with support from Historic England and was published in June 2016 with the aim of creating the first comprehensive, inclusive standard for those working with pottery (PCRG, SGRP, MPRG 2016).

It is intended that the Standard is used in the following ways:

- by pottery specialists working on assemblages from any type of archaeological project, with the intention of ensuring that pottery is collected, processed, recorded, analysed and reported on to consistent levels
- project managers, or anyone managing the processing and analysis of a pottery assemblage, should require finds personnel and pottery specialists to apply the Standard throughout an archaeological project, including the analysis and re-interpretation of pottery studied previously and now in storage, for instance in a museum collection
- to monitor the quality of pottery assessment, analysis and reporting, for example in peer review, or development control archaeologists overseeing planning led projects, or museum curators receiving project archives
- in combination with existing standards for processing, recording and reporting of other types of finds or with standards for the compilation and transfer of archive materials.

The study of material types other than pottery has attracted less attention in terms of devising standards and guidance. There are many specialist groups focused on the study of specific materials, but few of these have produced guidance for their group members, and certainly nothing on the scale of the pottery standards. There are several key publications which are instead regularly referenced, for example, lithic reports often reference Andrefsky's methodology for recording such artefacts (Andrefsky 1998). However, these publications are not professional standards or guidance documents and have not been formally adopted in the way that the various pottery standards have, therefore adherence to them is much more piecemeal and inconsistent. There are, however, fundamental principles, such as the description of materials and methods of quantification, that can be applied to the recording and publication of all types of artefacts, and they have formed the basis for the criteria used here to measure the quality of finds reporting.

Criteria for measuring finds reports

One of the key tasks during project initiation was the compilation of criteria, in the form of a checklist, against which specialist reports could be assessed. The checklist is drawn from all available published standards or guidance documents including the ClfA standards and guidance and *A Standard for Pottery Studies in Archaeology* (PCRG, SGRP, MPRG 2016). Draft criteria were drawn up by the author and revised by the Project Board into a series of yes/no questions that could be applied to all artefacts regardless of whether published standards exist or not. It should be emphasised that where more detailed standards do exist they will provide a better guide to the quality of specialist analysis and reporting. It was not easy to develop criteria that can be applied to every type of artefact and the result is necessarily generic, although as a result it is hoped the checklist is easy to use.

It is intended that the checklist can be used by people that produce artefact reports, or manage or monitor the finds reporting process, to ensure that agreed standards are being met. The checklist is shown in Appendix I.

No assessment of the use or quality of illustrations was included in this survey. It was agreed that while it could be worthwhile to grade the quality of any illustrations included in a specialist report, this was outside the scope of assessing the actual report against set criteria for the characterisation, quantification and interpretation of artefact assemblages. More specifically, a lack of illustrations should not necessarily be seen as a negative factor, since it may be that there is nothing that warrants or requires illustration, while even if that were not the case, a specialist writing a report may have little or no input into what, if anything, is finally illustrated. The questions in the checklist were carefully framed to ensure that it is clear that the characterisation of the assemblage has been thoroughly carried out and clearly expressed.

The checklist is divided into five sections that cover the main parts of an artefact report; Project Overview, Introduction, Characterisation, Quantification, Discussion. The first section, Project Overview, is applicable to the overall project report and establishes the need to describe the entire finds assemblage, with a breakdown of the site assemblage, a description of any sampling or selection strategy and a description of how finds were recovered. The introduction to a specialist report should cover the methods applied, the use of supporting reference material, an introduction to the character and quantity of the assemblage and a description of the records produced for archive. Criteria for characterisation include how both material and object types have been classified and recorded, levels of description of diagnostic components and decoration or surface treatment, and whether or not completeness and dimensions are stated. Methods of quantification vary between different types of find but nearly always include a count of objects or fragments, while quantities must be presented in an accessible way. It is not always possible to relate every artefact to the structural evidence, or the character of the site, but some discussion should be included, if only to note that the objects are typical of that place and time.

Methodology

Introduction and Project Management

This project has been carried out in line with the project management guidance set out in MoRPHE (English Heritage 2006). The project methodology was developed during the Project Design stage, with some minor adjustments made during project delivery in consultation with the Project Board. The Project Board is composed as follows:

- Kate Geary (ClfA) – Project Executive
- Edmund Lee (Historic England) – Project Assurance Officer
- Duncan Brown (Historic England) – ClfA Finds Group
- Louise Rayner (Archaeology South East) – ClfA Finds Group

The Project Board met on four occasions during the project. The first two meetings took place ahead of appointing a consultant. The third meeting took place on 16 November 2016 and provided an opportunity for the consultant to update the Project Board on progress on the assessment of reports. The fourth Project Board Meeting took place on 26 January 2017 and focused on the planning of a workshop to disseminate the results of the project and to seek feedback from the sector. Throughout the project the Board communicated regularly with each other and with the consultant via email, providing guidance and making decisions as necessary.

The project was designed to evaluate the application of standards in artefact work carried out in the context of recent commercial archaeological projects in England. The project scope was limited to artefacts; ecofacts and industrial residues were not included. The artefact types to be included in this project were intended to be representative of those typically found by fieldwork projects in England, including those made from ceramic, metal, stone, glass and organic materials.

Compiling the sample

The Project Design states that the sample of reports will be drawn from those available online from the Archaeology Data Service's Library of Unpublished Fieldwork Reports (commonly known as the Grey Literature Library (GLL, <http://archaeologydataservice.ac.uk/archives/view/greylit/>)). The GLL aims to make unpublished fieldwork reports ('grey literature') more widely available. Most of the reports that are currently available via the GLL result from the OASIS (Online AccesS to the Index of archaeological investigationS) project which provides a data capture form through which archaeological and heritage practitioners can provide information and upload reports about their investigations to Historic Environment Records (HERs) and national heritage bodies. In addition to reports submitted to the GLL via OASIS, there are also reports accessioned from projects and archives such as the Channel Tunnel Rail Link, the Aggregates Levy Sustainability Fund, the Rural Settlement of Roman Britain Project, the Alan Vince archive, the Highways Agency archive and some local authorities.

Sample size

The Project Design stated that the project would assess a minimum of 1,020 reports.

During project initiation, the Board agreed that this figure would comprise 1,000 specialist artefact reports from grey literature, complemented by a further 20 specialist artefact reports from published sources (journals, series, etc). The 1000 specialist reports were drawn from 332 separate grey

literature reports. The size of the sample of published reports was expanded to 61 specialist reports from 20 published sources, as it was felt that a larger sample would provide more useful comparative data. The 61 specialist reports from publications have been analysed separately from the 1000 specialist reports from grey literature.

Using OASIS to select reports

In the Project Design it was anticipated that the GLL user interface would be used to download reports. This process was explored during project initiation, and contact was made with Jo Gilham at the Archaeology Data Service (ADS). In order to speed up the process of identifying reports for inclusion in this study, and to provide a wider context for these reports, a .csv export of all signed-off grey literature reports was requested from the ADS. These records were extracted in batches of 2000 and combined into a single Excel table.

The following fields from OASIS were exported: OASIS id, Record status, Project name, Description, Project type, Project start date, Project end date, Contractor name, Contracting Unit No., Project director/manager, Site supervisor, Project design originator, Project brief originator, Planning Application No., Funder, Grid refs, Easting, Northing, Lat long (datum), County, District, Parish, Site, Area, Monument type (period), Artefact type (period), NMR no., HER event no., Related HER no., Reference, Report link.

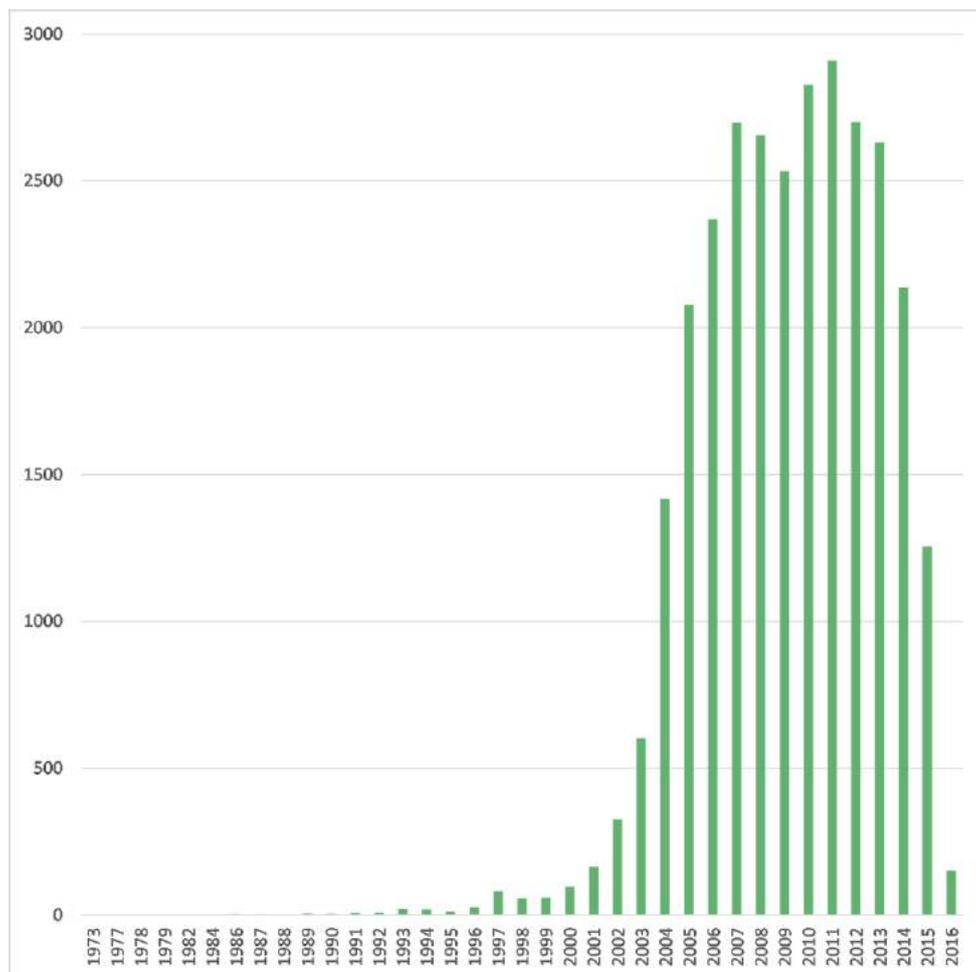


Figure 1. OASIS records. Breakdown by project end date.

On 26 July 2016 when this OASIS export was run there were 29,224 signed-off unpublished fieldwork reports available via the GLL. This provided the baseline dataset from which our sample of 1000 specialist reports would be selected. We decided to use the OASIS download as the basis of the data collection spreadsheet since this would provide some initial metadata which would be validated as each report was assessed. This was much more efficient than re-keying this metadata into the data collection spreadsheet.

The OASIS download formed the basis of the record selection. Once the records had been downloaded, an initial selection of 500 grey literature reports was made, based on the assumption of an average of two specialist reports per fieldwork report.

The main drawback of using the OASIS download to select records rather than searching for reports via the user interface of the ADS Grey Literature Library was that almost 25% of the initial selection of reports were not on the ADS library. This was because an OASIS record had been created for the fieldwork project, but the resultant report had not been uploaded to OASIS by the contractor.

Publication date

The Project Design stated that *'the reports selected should be the most recent in date, in order to assess the application of standards in the most recent archaeological work available, and should include sites of all periods from prehistoric to post-medieval'*. However, when the Project Board held their project initiation meeting, they agreed that they wanted the sample to include reports spanning the period 2001 to 2016. It was hoped that this would enable the identification of any changes in artefact analysis and reporting over the last 16 years.

It proved difficult to obtain a similar number of grey literature reports for every year from 2001 to 2016 because of the composition of the reports available from the GLL.

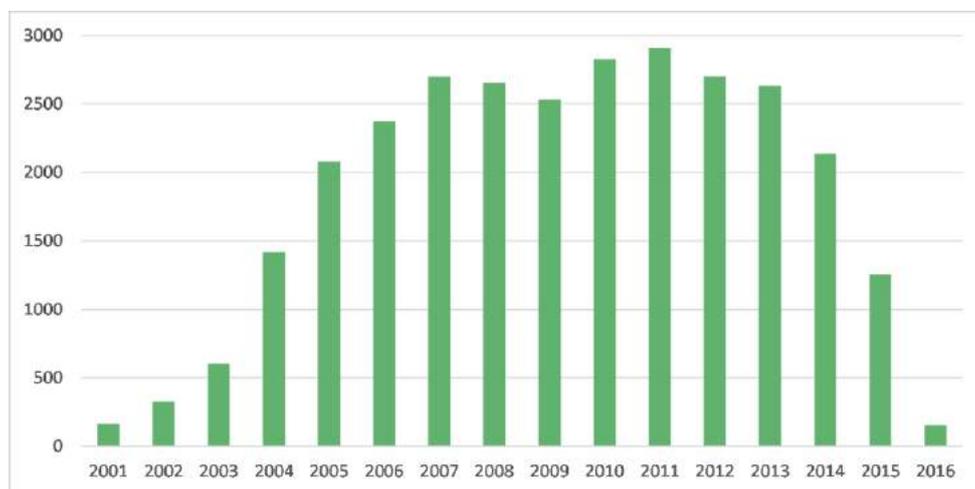


Figure 2. OASIS records. Breakdown by project end date 2001–2016

Geography

In order that the results of the project are relevant throughout England, and to pick up any local or regional patterns in artefact analysis and reporting, the sample needed to include reports from as many local authorities as possible. During the report selection process the number of reports selected per local authority and local government region was closely monitored using a pivot table. However, variations in the uptake and use of OASIS by local authorities and contractors meant that some local

authority areas were poorly represented or even entirely absent from the GLL. Where this was the case, an email was sent to these HERs requesting excavation reports. In all, 23 HERs were contacted for additional grey literature, and of these 15 responded, with eight HERs supplying grey literature that was suitable for inclusion in our study. Figure 3 (below) shows the breakdown of OASIS records by local authority, and therefore those authorities which do not use OASIS are absent from this graphic.

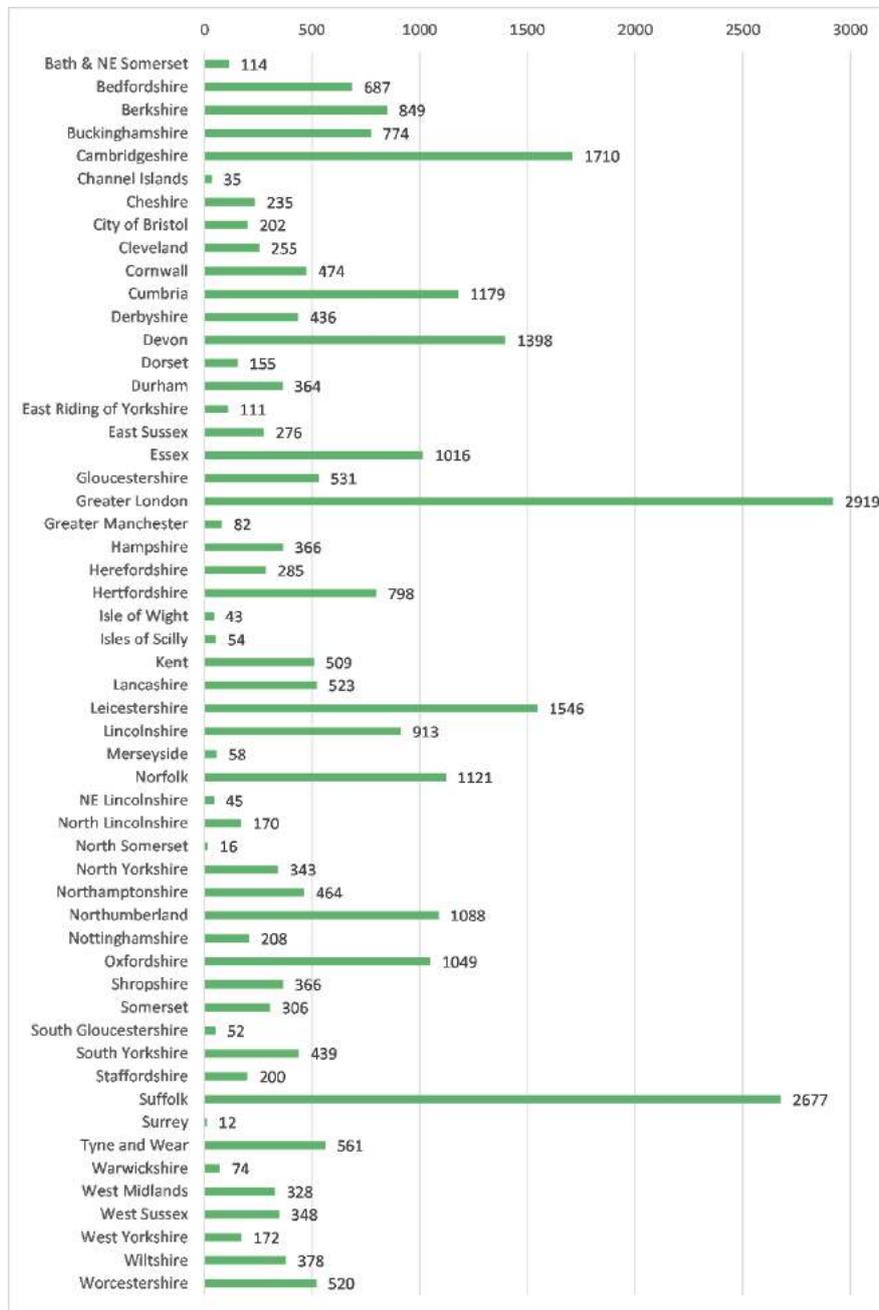


Figure 3. All OASIS records. Breakdown by local authority.

Project type

The project design does not specify how the sample was to be broken down by type of fieldwork project. However, during project initiation it was agreed that the main project types to be included in the survey were watching briefs, evaluations and excavations. OASIS uses broad project types which break down as follows:

Project Type	No. of specialist reports
Recording project	11,321
Field evaluation	11,357
Desk based assessment	1633
Building Recording	3925
Research project	851
Environmental Assessment	98
Estate Management Survey	38
Blank	1
TOTAL	29,224

The broad project types from which artefacts are likely to be recovered are Recording project, Field evaluation and Research project. Desk-based assessments and Environmental Assessments were excluded, but Building Recording was included since this is sometimes part of a wider project including some intrusive archaeological fieldwork.

In order to further clarify the nature of the fieldwork we interrogated both the 'Description' and the 'Reference' fields of the OASIS records for specific search terms to try to characterise the types of project recorded on OASIS. Searching the Reference field proved unhelpful as many contractors do not include this information in their report title, preferring only to use a site name. Searching the Description field was also difficult because it is only possible to use a wildcard search, and some projects include multiple terms in their description (eg an evaluation comprising excavation of ten trial trenches). However, for the purposes of this project, the Description field search provided us with an approximate breakdown of the different types of projects recorded on OASIS, as follows:

Description contains:	No. records	% of total
'evaluation'	9108	31.17%
'watching brief'	7003	23.96%
'excavation'	5701	19.51%
'strip, map' OR 'strip map'	230	0.79%
'test pit'	918	3.14%

It is unclear how closely these results reflect the actual breakdown of fieldwork projects undertaken in England since there is no simple way of gathering this information on a national scale.

At the first Project Board Meeting it was agreed that at least half the sample dataset should comprise specialist artefact reports from excavations, since excavation reports appeared to include a wider range of specialist reports, and the assemblages tended to be larger and more complex.

The composition of the sample in terms of project type is as follows:

Project Type	No. of specialist reports
Excavation	509
Strip, map and sample excavation	77
Trial trenching evaluation	282
Watching brief	124
Test pitting	7
Fieldwalking	1

Artefact material

When the project design was written the GLL was interrogated to determine how many reports available on the GLL related to artefacts returned by keyword searches for 'pottery' and/or 'flint' and/or 'ceramic' on the basis that other types of finds usually occur in combination with pottery/ceramic or flint artefacts.

Although the OASIS form requires users to choose artefact types and materials from thesauri, these terms are used in a variety of ways. For example, to identify sites where pottery has been found, it is necessary to run keyword searches for POTTERY, POT, CERAMIC and CERAMICS. Because of the use of multiple terms to reference material of a particular type, it has not been possible to provide a detailed breakdown of artefact materials recorded on OASIS.

During the data collection process a separate column was used to record the material type of the subject of the specialist report consistently and a pivot table was used to ensure that all material types were represented in the sample. Where multiple material types or non-standard materials were assessed in a specialist report, this was assigned to the find material type category 'other'.

The material type categories used are as follows:

Material type	Definition
CBM	Ceramic Building Material: building materials made from fired clay (eg brick)
Clay Pipe	Clay tobacco pipes, complete or fragmented
Fired Clay	Objects of fired and burnt clay (eg loom weights, fragments of daub) excluding CBM and pottery
Glass	Objects made of glass including vessels and window glass, complete or fragmented
Leather	Objects made from tanned animal hide
Lithic	Tools, projectiles and other implements knapped from flint and chert, including debitage (waste) from the manufacturing process
Metal	Objects made from metals of any kind, complete or fragmented
Pottery	Vessels made of fired clay, complete or fragmented
Wood	Objects made from wood
Worked Bone	Functional or decorative objects made from animal hard tissues (bone, antler, ivory)
Worked Stone	Functional or decorative objects made from stone (eg architectural fragments), excluding material classed as 'Lithic'
Other	Artefacts not compatible with the above categories or where multiple material types have been considered in a single specialist report.

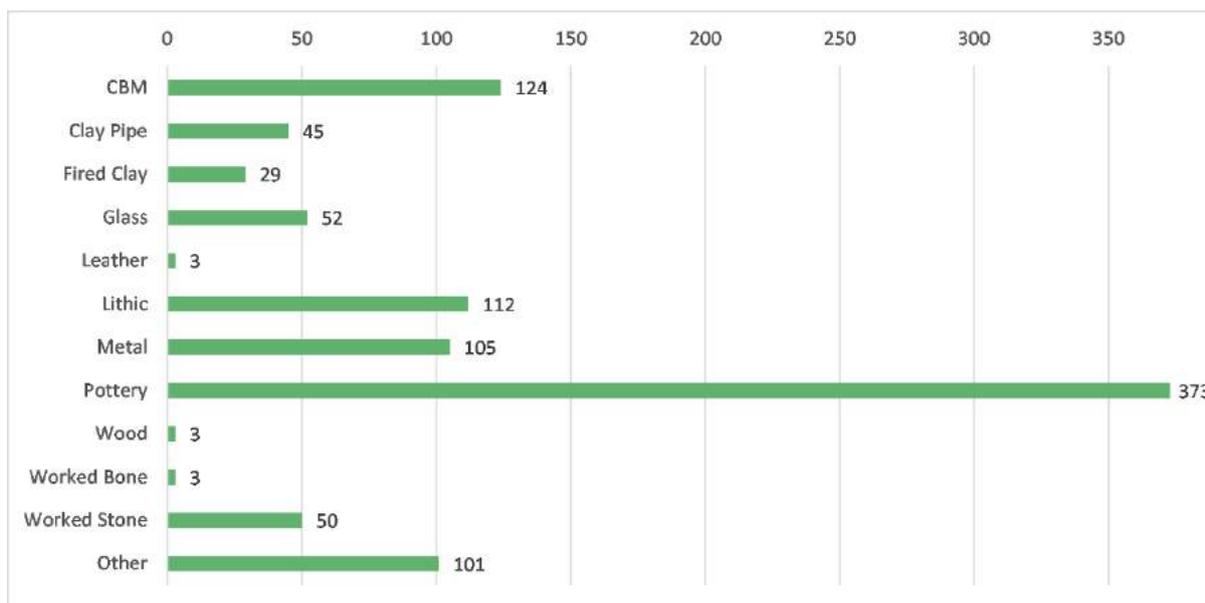


Figure 4. Specialist reports assessed. Breakdown by find material type.

Artefact date

The project design stated that the reports selected should include sites of all periods from prehistoric to post-medieval. In the OASIS download, the artefact period has been recorded in a single field alongside the artefact type. In order to better understand the periods of material represented by the reports available via OASIS, a series of wildcard searches was carried out on the 'Artefact type (period)' field to attempt to characterise the period(s) and type(s) of material recorded in grey literature. This is quite an inexact measure, since some OASIS records contain much more detail than others, with some indexed with multiple artefact types, materials and periods while others contain no details at all. Of the 29,224 OASIS records downloaded, the Artefact type (period) field contained 'None' in 13,166 records and in a further 2,296 records this field was left blank. This left 13,762 OASIS records which contained details of artefacts. These can be broken down by period as follows:

Period Name (wildcard search term)	No. of records	% of all records with finds (n=13166)
Prehistoric	1007	7.32%
Early Prehistoric	111	0.81%
Palaeolithic	63	0.46%
Mesolithic	314	2.28%
Late Prehistoric	923	6.71%
Neolithic	623	4.53%
Bronze Age	901	6.55%
Iron Age	1193	8.67%
Roman	2807	20.40%
Early medieval	893	6.49%
Medieval	7719	56.09%
Post Medieval	5337	38.78%
Modern	1033	7.51%

When compiling the sample we ensured that all major periods were represented within it. Almost half of the specialist reports within the sample (n=431) analysed material from more than one period.

Period	No. of reports
Prehistoric	8
Palaeolithic	1
Mesolithic	37
Neolithic	99
Bronze Age	105
Iron Age	100
Roman	260
Medieval	327
Post-medieval	491
Modern	42
Undated	77

Contractors

The project design did not specify any selection methods relating to the archaeological contractors that produced grey literature reports. However, during project initiation the Project Board agreed that it would be desirable to include as wide a range of contractors as possible, and to ensure that the selection included reports from contractors of various sizes and organisational backgrounds. It was agreed that it would be useful to include both CifA Registered Organisations and non-Registered Organisations.

Analysis of reports

Once the checklist had been agreed and finalised and the sample reports selected, the assessment of the reports against the checklist criteria was undertaken. The assessment was carried out in a Microsoft Excel spreadsheet. The checklist questions along with additional metadata obtained from the OASIS export formed the column headings in the spreadsheet, and each specialist artefact report was entered on a separate row in the spreadsheet.

A series of pivot tables were established at the start of the report assessment process to enable close monitoring of the composition of the sample, to ensure good geographical coverage, inclusion of reports from each year between 2001 and 2016, a balance of project types as agreed by the Project Board (with 50% of the specialist reports assessed being drawn from excavation reports) and a good mix of artefact types and dates.

The same approach was adopted for the assessment of reports from published sources, using the same spreadsheet structure.

Once all of the reports had been assessed, the resultant data was manipulated using queries and pivot tables in Excel, and bar graphs, pie charts and tables produced for inclusion in this report. These queries attempted to explore the factors affecting the characterisation, quantification and interpretation of artefactual material in specialist reports.

Case Studies

Case studies were selected to investigate specific aspects of artefact analysis and reporting, and to provide a more detailed insight into specific issues identified during the analysis of the reports. These were drawn from the main reports assessment dataset, and the assessment results were complemented by additional information extracted from these reports.

Consultation with stakeholders

In the Project Design it was anticipated that throughout the project there would be consultation with individuals and groups representing all those involved in commercial archaeological projects. This would include finds specialists, archaeological consultants, archaeological contracting organisations, planning archaeologists and the curators of archaeological archives.

Specialist Finds Groups

During project initiation, a project briefing was sent out by email to all the specialist finds groups with a request to forward this information on to members of their specialist group(s). The briefing encouraged anyone interested in the project to get in touch via email so that they could be involved in the consultation process. However, the response to this was very limited. The Project Board discussed this at their second board meeting and suggested that it might be more productive to leave the consultation process to a later stage in the project, once the reports had been analysed and some preliminary results were available.

All specialist finds groups were invited to attend the project seminar.

Planning Archaeologists/Development Control Officers

A telephone survey was carried out in February 2017 to gather feedback from archaeologists working in development management roles in local authorities. The purpose of this survey was to better understand the sector's involvement with artefact analysis and reporting and to assess whether there is a consistent approach taken to artefact reports. The survey questions asked of planning archaeologists are detailed in Appendix II. All ALGAO England members were emailed, and 10 volunteers came forward to take part in the survey. The information gleaned from this survey has been used to supplement the discussion section of this report.

Project Workshop

Representatives from ALGAO, CBA, ClfA, FAME, RESCUE, UAUk and specialist finds study groups were invited to attend a one-day meeting in Birmingham on 30 March 2017 to discuss the results of the project. The morning session focused on the aims of the project, the criteria for evaluating reports and the results of the survey. Participants were then asked to review the criteria and work towards a universally applicable method for monitoring artefact work. In the afternoon, following a case study that reviewed how artefact reports have been utilised in works of syntheses, workshop discussions considered the recommendations of the report, how to take them forward and future directions in artefact studies. The comments that were collected during the discussion sessions have been collated and incorporated into the project's recommendations and conclusions.

Discussion

This part of the report summarises the findings of this project, highlights the key issues identified during the assessment of specialist reports, and expands on these issues through the content of discussions with development control archaeologists in local authorities. This section is structured following the chronology of a typical fieldwork project, since each stage of the process is relevant to the production of specialist reports.

Initiating a fieldwork project

The ClfA guidance for archaeological fieldwork projects clearly states that ‘an archaeologist should only undertake [fieldwork projects] which are governed by a Written Scheme of Investigation (WSI) or project design ... agreed by all relevant parties, as this is the tool against which performance, fitness for purpose, and hence achievement of standards, can be measured’ (ClfA 2014c, 2014d and 2014e). Conversations with development control archaeologists in local authorities revealed that project briefs for fieldwork are being issued much less often than in the past, and that these now often take a generic form, rather than having been written with the objectives of a specific fieldwork project in mind. Now, more than ever, the WSI is the crucial document in designing and delivering archaeological projects and ensuring that appropriate standards are met.

In relation to artefact analysis and reporting the crucial element of the WSI is that it ‘should make clear that the proposed project team has access to appropriate specialists to assess the archive’s significance’ with specific reference to the project’s research aims and objectives (ClfA 2014c 3.2.15). Additionally, the WSI should clearly state the ‘collection and disposal strategy for artefacts, ecofacts, and all paper, graphic and digital materials’ (ClfA 2014c 3.2.16i).

When discussing WSIs with development control officers, several mentioned that some WSIs give little or no indication of which specialists will be used to assess artefact assemblages, while others include a generic list of specialists with no indication of which will be used for this particular project. For smaller and medium-sized units the list of specialists in WSIs usually includes numerous external specialists, most of whom are unaware of the project or of their potential involvement in it at this stage. In most cases artefact specialists are not contacted until after the fieldwork is complete and one of the recurring themes of discussions with both specialists and development control archaeologists is the need for earlier engagement with specialists.

Issue: Despite the requirements of existing Standards and guidance and good practice advice, specialist input into project planning, project designs and WSIs is not routinely being sought

Recommendations:

- ClfA to discuss with its Registrations Committee and to include guidance for RO inspection panels on how to monitor the quality of finds reporting. ClfA to encourage reporting of poor practice
- ClfA Finds Group to develop and run a series of training workshops on the management and monitoring of finds work, artefact analysis and reporting
- ClfA to discuss with FAME to ensure the results of the project and issues arising from it are disseminated beyond the ClfA membership

Anecdotally, there appears to be a disparity between the engagement of artefact specialists and the engagement of environmental specialists, with artefact specialists generally becoming involved later

in the project. This was noted by several development control archaeologists, who often see details of environmental work specified within the WSI, but who rarely encounter similarly detailed specifications from artefact specialists.

With regard to ensuring that recommended standards for artefact work are met by ensuring the appointment of appropriate artefact specialists, the diminishing resources in local authority historic environment services present a significant problem. One of the major issues identified in discussions with development control officers is that they do not have time to check all WSIs thoroughly, with several stating that they do not check WSIs for smaller projects or watching briefs and others stating that they only check these for contractors that they have not worked with before. Other development control archaeologists noted that their time is so limited that they could only check WSIs to ensure that reference had been made to regional and period-based Research Frameworks, and that they did not examine the sections relating to artefact work in any detail at all. This presents a significant problem, since this is the only point at which development control archaeologists can ensure that appropriate specialists are being engaged by the team undertaking a fieldwork project.

While WSIs are widely recognised as a crucial document in the planning and management of archaeological fieldwork projects, the reality is that many contractors are frequently producing largely generic WSIs and that development control archaeologists do not have the time to check and pursue the detail of individual cases. Plans for post-excavation work are one of many aspects of fieldwork projects that currently go unchecked at the project planning process. This is indicative of wider resourcing problems in the heritage sector, both in commercial and local government contexts.

Fieldwork

The aspects of fieldwork projects that are of greatest relevance to the subsequent artefact work are the on-site sampling, collection and selection strategies that are employed. These will directly impact the resultant assemblage derived from the site, and are therefore of great significance in interpreting and understanding the assemblage.

The report assessment undertaken as part of this project revealed that the majority of grey literature reports do not include details of the sampling and recovery strategies in the project methodology. Of the grey literature reports assessed during this project, 42.8% gave no information about either a sampling strategy or a recovery strategy. Some reports make reference to these having been detailed in the WSI or agreed with development control archaeologists, but these strategies are not explicitly stated in the report. Although ClfA guidance only states the need to include these in the project design and specification, this makes it difficult for anyone using the final project report alone to understand the relevance and representativeness of the assemblage as presented in the report. The project design and specification are often not readily accessible and are considered by some contractors to be commercially sensitive documents, although some local authorities do now require these to be added to reports as appendices.

Issue: Details of sampling and recovery strategies are not routinely included in grey literature reports

Recommendation: ClfA to revise the Standard and Guidance for the collection, documentation, conservation and research of archaeological materials

ClfA guidance (2014c 3.3.8) clearly states that 'Artefact and environmental data collection and discard policies, strategies and techniques must be fit for the defined purpose, and understood by all staff and

subcontractors'. One of the issues raised by artefact specialists is that they are often not given this information when they are given an assemblage to analyse. It would also be advantageous if they could be involved in designing, or at least consulted upon, these strategies, because such strategies have the potential to significantly alter the composition of the assemblage. For example, assemblages of ceramic building material are often not retained in their entirety but for the specialist commissioned to assess and analyse this material, details of any on-site discard policy are of paramount importance, since they allow the specialist to better understand the derivation of the material they are examining.

A crucial factor in the enforcement of standards during fieldwork projects is the potential for on-site monitoring visits and spot-checks by development control archaeologists. However, the ability of local authorities to make these visits varies a great deal, and is determined both by staff availability and financial constraints on staff travel. Most local authorities would anticipate several monitoring visits during large-scale excavations, but smaller projects such as evaluation by trial trenching and watching briefs are often not subjected to this level of scrutiny. There is an increasing reliance on telephone conversations and sharing of digital photographs in lieu of site visits. Some, but by no means all, local authorities have mitigated this by introducing charges for development control advice including site visits, with these costs being passed on to the developer. However, some authorities are not able, or not willing, to do this, resulting in minimal monitoring of most fieldwork projects.

When development control archaeologists undertake monitoring visits, many of them mentioned that they have a checklist (either physical or mental) that they work through with site staff. However, this often does not include anything relating to artefacts, except a general discussion about what type of material is being found and any objects of particular note. Discussions are often held on site about the sampling of features both in terms of the proportion that must be excavated and the taking of bulk samples for further analysis. Those strategies are generally dictated by the size, shape and nature of features, rather than any consideration of their artefactual content. As was noted with regard to inclusion in WSIs, during site visits there is also a much greater emphasis on the need for and nature of bulk environmental samples than on artefact recovery and site staff are generally more aware of the importance and need for environmental samples to be appropriately selected.

During fieldwork projects it is now rarely the case, and usually only in exceptional circumstances, that artefact specialists are invited to visit the site while work is in progress. This is especially the case for external specialists who are not employed by the organisation undertaking the fieldwork. This means that little advice or input is sought or gained from specialists during the fieldwork phases of most projects.

Commissioning artefact specialists

The specialists working on any fieldwork project should be identified in the WSI but, as set out above, this is often not the case, for a variety of reasons. Specialists are usually contacted about undertaking assessment of an assemblage once the fieldwork is complete and the post-excavation assessment and analysis is underway. This is especially the case for projects undertaken by smaller archaeological contractors who do not usually have in-house artefact specialists and who tend to be dealing with smaller projects and assemblages.

In discussions with development control archaeologists it emerged that there are several different schools of thought in relation to analysis of artefact assemblages, particularly with reference to how artefacts of different types and dates are analysed. Some development control archaeologists wanted to see the same level of recording for all types of object from every period from the Palaeolithic to the

Cold War, while others disagree and advocate an approach driven by site- and research-specific objectives. For example, in some urban contexts, later stratigraphy and artefacts are deprioritised, in order to address specific research questions about earlier phases of activity, with artefacts from later phases often being discarded on-site (if collected at all) or given only a cursory assessment. Several development control archaeologists noted that in the past, post-medieval assemblages in particular have been given little attention, although growing interest in industrial archaeology and artefacts from later periods have started to redress the balance. It is also the case that some fieldwork projects do not pass on unstratified material to artefact specialists, regarding the analysis of these objects as being of little value.

Case Study: Disparity between specialist reports

One of the excavation reports included four specialist reports, and the differences between these highlighted the differences between the treatment of material of different types and periods. The report is from the East Midlands, published in 2006 and relates to the excavation of a Roman villa and later features.

The first specialist report is a pottery report on an assemblage of over 1000 sherds. This report is a textbook example of best practice. It makes reference to relevant standards, type series, reference collection and bibliographic sources, includes a method statement, detailed characterisation of the assemblage, quantification data presented in a very clear and accessible format, and a discussion of the pottery both in its wider context and in relation to other excavated material.

By contrast, the other specialist reports were very lacking in detail. The final specialist report, which deals with the post-medieval artefacts from the excavation is especially limited, reading as follows:

'Post-medieval finds included a copper alloy ring fitting and an elliptical weight perforated for suspension'.

Although the focus of the excavations was on the Roman activity at this site, the information contained within this final specialist report is of minimal use to anyone wishing to understand the site and its artefacts. It is unsurprising that the pottery, as one of the primary dating methods, will have been given a higher priority in terms of specialist input, and this is entirely consistent with the aims of the post-excavation assessment process. However, in this particular case the lack of quantification, characterisation or interpretation of the post-medieval material, even if relatively insignificant, renders it useless.

This case study emphasises the need to ensure that all categories of material are given appropriate specialist attention, and that there should be a minimum standard and level of detail that all artefact reports should be expected to meet.

This highlights the need for a detailed breakdown of the overall assemblage which is currently only provided in around 30% of grey literature reports, following ClfA's *Standard and guidance* (2014a) 3.8.3 which states that 'a published report... should include a quantification of all material categories, including those not selected for analysis or publication, with a statement outlining the reasons for selection'.

Issue: Reports (including grey literature and specialist artefact reports) do not routinely include quantification of all material categories including those not selected for analysis/publication and a statement outlining the reasons for selection

Recommendation: ClfA Finds Group to produce guidelines for finds analysis and reporting

In the case of contractors without in-house artefact specialists, development control archaeologists report a tendency not to use artefact specialists as often as they should. A variety of reasons have been offered for this, including the need to keep to a minimum post-excavation costs on tightly costed small projects. The initial outlay in terms of time and resources to commission a specialist means that smaller assemblages are often not considered worthy of being sent to a specialist for further analysis. This is particularly problematic since smaller assemblages do not benefit from the same economies of scale as, say, the artefacts from a large excavation, all of which will require analysis. From the other end of the equation, freelance artefact specialists note that they are likewise keen to avoid the difficulties associated with working on numerous smaller assemblages when compared with the advantages that a few larger longer-term post-excavation projects can bring.

One of the other difficulties in commissioning artefact specialists is that there is currently a significant skills shortage in this area. As mentioned above, many archaeological contractors have long-term professional relationships with artefact specialists that they use for the majority of their post-excavation work. However, more recently, the initiation of several very large infrastructure projects (road schemes, rail schemes, off-shore wind farms and power stations) has further pressurised all sectors of the heritage market and artefact specialists are no exception. In areas where large infrastructure projects are underway, the relevant regional artefact specialists are already working at full capacity, resulting in long waiting lists for material to be examined. For example, in North Yorkshire fieldwork associated with improvements to the A1 have resulted in regional Roman pottery specialists having 2–3 year waiting lists. These infrastructure projects also present a separate series of challenges, since many are being undertaken by conglomerates made up of several large commercial archaeological units, all of whom have in-house specialists, but few of whom have relevant regional expertise. This situation requires significant input from development control archaeologists at every stage of the process to ensure that the large and significant assemblages are analysed by appropriately qualified and experienced individuals.

All of this highlights the current skills shortage in artefact work, and demonstrates its impact, as well as emphasising the pressing need for a new cohort of specialists to enter the profession. However, the fact that such a large proportion of artefact specialists work as sole traders (58.4% according to the Survey of Archaeological Specialists 2011, 60) makes it difficult to devise a model that can easily allow knowledge transfer from existing specialists to those wishing to learn this skill. In a similar vein, archaeologists working for organisations that do not employ in-house artefact specialists are less likely to choose to develop an artefact specialism, since there is no clear training route, and nobody within their current organisation from whom they can learn.

Production of specialist reports

Once an artefact specialist has been commissioned to assess, analyse and report on an assemblage, either as part of an in-house team, or as an external specialist, it is vital that as well as being provided with the assemblage itself, they are given all of the additional information that they need to interpret the assemblage. In particular, artefact specialists need to be fully informed of the detail of any on-site selection or discard of artefacts, as well as wider sampling strategies. Additionally, they need to be fully conversant with the site stratigraphy and contextual information for the assemblage that they

are working on. This contextual information also needs to include details of artefactual material that may be being examined by other artefact specialists working on other parts of the same assemblage. Artefact specialists have highlighted that they are rarely given all of this information, and as a result often find themselves working on assemblages in isolation, with little or no awareness of the wider context from which this material has been derived. The assessment of specialist reports undertaken as part of this project indicated that just 46.5% of specialist reports made reference to any other excavated features or material, with far fewer than this actually mentioning other artefacts from the site. It is impossible to tell whether this is because they did not have access to this information, or because they chose not to include it.

The size and composition of the archaeological contractors undertaking fieldwork projects has a significant impact on the way in which artefact specialists access and work on material from such projects. The difficulties outlined above that result from information not being passed on to artefact specialists tend to be more likely to occur where external specialists are being commissioned from outside the organisation undertaking fieldwork. Larger contractors tend to use their own in-house specialists who are more likely to be able to access digital and paper fieldwork archives and have frequent contact with colleagues involved in the fieldwork. While this is a more ideal situation in terms of furthering specialists' understanding of the site in context, development control archaeologists did report problems with larger units using in-house specialists who may lack regional understanding of relevant type-series and comparative assemblages. This problem extends to contractors without in-house specialists, many of whom have long-term professional relationships with particular specialists, and commission them to undertake artefact analysis regardless of the applicability of their expertise.

Background information

The assessment of reports undertaken as part of this project is based around the premise that an artefact report should characterise the assemblage, quantify it and interpret it. In addition, the specialist report should clearly set out their methodological approach, their sources of reference (both physical reference collections/type series and published sources of information) and refer to any thesauri, standards or guidance documents that are relevant to the assemblage.

Just 29.7% of specialist reports included their methods of study, with the remainder making no attempt to explain how the assemblage has been processed and studied. This information was more likely to have been included for larger assemblages and in pottery reports, but even for these categories of material, this information is often omitted from specialist reports. Standards and guidance were even less likely to have been included, with just 12% of specialist reports explicitly referencing these. References to standards were more common in pottery reports, but this is perhaps unsurprising, since these standards have been in existence for a long time and have been quite regularly updated and circulated. However, it is concerning that just 23% of pottery reports explicitly reference any of the pottery standards documents. It is not clear whether this reflects a lack of awareness of standards, or whether it is not considered necessary to reference these explicitly; many of the reports that made no reference to standards did in fact adhere to the structure and content of the standards documents without making mention of these.

Issue: Specialist reports do not routinely make explicit reference to current, accepted Standards or good practice guidance

Recommendation: ClifA to revise the Standard and Guidance for the collection, documentation, conservation and research of archaeological materials

The ClfA Standard and guidance (2014a) 3.7.4 states that ‘The use of regional (where appropriate) reference collections is essential’, but the report assessment undertaken as part of this project indicated that these are referred to in just 45% of specialist reports. Reference collections and type series tend to be used more frequently for analysing large assemblages, and are used more for analysing pottery than for any other type of material, having been referenced in 76% of pottery reports. This is probably due in part to the fact that more type series and reference collections exist for pottery whereas they do not for other types of artefacts. This perhaps also explains some of the regional differences that were revealed by the report assessment, which showed the use of reference collections and type series was much higher in the West Midlands, East Midlands and Greater London than in other parts of the country. Where type series have been used, any abbreviations or codes should be explained in a concordance or glossary. A concordance was included in 76% of the specialist reports that had used abbreviations or codes.

Issue: Detailed descriptions of material types are not always present (eg stone types) and when they are given they do not reference formal resources, such as ceramic type series

Recommendation: ClfA to revise the Standard and Guidance for the collection, documentation, conservation and research of archaeological materials

In addition to formal reference collections and type series, specialist reports are expected to refer to bibliographic sources and/or thesauri to support analyses, identifications and interpretations (PCRG, SGRP, MPRG 2016 2.5.4c). The report assessment revealed that only 36% of reports clearly stated that use had been made of printed or online source material. Again, pottery reports more often referenced such sources, perhaps because the requirement to do this is explicitly stated in all the pottery standards documents.

Case Study: Anglo-Saxon pottery report from East Anglia

There is an established and well-documented type series for Anglo-Saxon pottery from East Anglia which has been published, discussed and widely circulated since the 1960s. It is a standard condition of all briefs that contracting units working in the region refer to these type series in order that intra- and inter-site comparisons may be made. The following pottery report was encountered during the grey literature report assessment and comes from an evaluation by trial trenching in 2013. This fieldwork was required since the site is approximately 100m from a well-known high status Anglo-Saxon cemetery. The pottery report in its entirety reads as follows:

The evaluation recovered 18 Anglo-Saxon sherds weighing 247g from three features. All but two small undiagnostic sherds came from SFB F1019. Four rim sherds were present in the SFB comprising two simple upright rims probably to small weak shouldered cooking pots or bowls, and two simple bowl rims, one slightly inturned and one open. One thick coarse sand and organic tempered sherd had the angle of a base leading from it. Two conjoining sherds contained a double horizontal row of stamps comprising negative triangles. Twelve sherds were sand and organic tempered, and the remainder were sand tempered only.

The author also defined a fabric series of their own for characterising material from this site:

F1: coarse rounded quartz sand with burnt organics

F2: sand and voids from burnt organics

F3: fairly well sorted medium quartz sand with fine clay pellets

F4: fine sand with occasional voids

There are very clear date ranges for the different pottery types in the Anglo-Saxon period in East Anglia, but in the tabulated data that accompanies this report, all sherds are ascribed a 5th to 8th/9th century date. This pottery report makes no reference to the local type series, making it very difficult for anyone who wants to understand the results of this excavation in relation to other sites in the vicinity, without accessing the project archive and examining the pottery. This clearly demonstrates the need for reference to be made to appropriate regional type series and, where possible, for regional specialists to be used.

As well as expecting specialist reports to explicitly indicate any sources consulted, the report assessment evaluated whether or not contents of the archive were detailed in the specialist report. This is essential in order to enable future researchers to determine what resources will be available to them if they consult the project archive. Although many grey literature reports contain basic information about the project archive (eg 3 boxes of bulk finds deposited with county store), just 11% of the specialist reports assessed during this project included any information relating specifically to the archive produced during artefact analyses.

Issue: Specialist reports do not routinely detail archive contents, including details of the format and content of any digital components

Recommendations:

- ClfA to revise the Standard and Guidance for the collection, documentation, conservation and research of archaeological materials
- ClfA Finds Group to produce guidelines for finds analysis and reporting

Almost none of the specialist reports (1.2%) included details of the date when the specialist analysed the artefacts. This information is especially useful where there is a significant delay between fieldwork taking place and the results being published, since it allows the reader to understand what resources and comparative material/sites may have been available to the specialist at the time of writing. It is unclear whether this information is included by specialist authors but removed during the process of integrating their work into the overall project report. Anecdotal evidence suggests this is likely, which is further supported by the fact that many of the authors whose reports do include a date also have reports within the sample that do not. Issues related to integration of specialist reports into grey literature are considered further below.

Issue: Most specialist reports do not specify when the assemblage was analysed

Recommendations:

- ClfA to revise the Standard and Guidance for the collection, documentation, conservation and research of archaeological materials
- ClfA Finds Group to develop and run a series of training workshops on the management and monitoring of finds work, artefact analysis and reporting

Characterisation

One of the main purposes of specialist artefact work is to characterise an assemblage by identifying the material and object type and by detailing any features that assist in its identification.

Almost all of the reports assessed during this project classified the material type to basic level, with 99% identifying the broad material type (eg pottery, stone, wood), and 86% of reports making a more detailed identification of material type (eg Ipswich ware, limestone, oak). Detailed identifications were more likely to be made in reports on pottery, glass and stone, and were more often found in excavation reports than in reports on other types of fieldwork project. Likewise, the classification of object type at a basic level was achieved in 96% of reports, with 86% of specialist reports including detailed object types. All of the assemblages that lacked basic object type identifications were small (150 objects or fewer), perhaps suggesting a lack of engagement with suitable specialists and/or a lack of resources.

One aspect of reporting that this project also considered was the integration of the results of scientific analysis. However, only seven out of 1,000 reports included any scientific analysis, and the results of these analyses were only included in four reports overall. This is due in part to the fact that more common scientific techniques, such as radiocarbon dating, were not applicable to much of the material that was the subject of this study. However, while it is understandable that these techniques may not be employed as part of a small fieldwork project, given that over 50% of the specialist reports were from excavations it is still surprising that the application of archaeological science is still so very limited in artefact work.

Case Study: Integrating scientific methods

This specialist report, from a large-scale excavation that took place in the East Midlands in 2012 and was published as a grey literature report in 2014 clearly demonstrates how scientific analysis can be used successfully to enhance and complement a specialist report. The excavations revealed an extensive later prehistoric landscape, including a large ditched enclosure, a Bronze Age ring ditch and extensive Iron Age pit alignments. The prehistoric pottery report analysed an assemblage of over 1700 sherds and included petrographic analysis of a selection of diagnostic sherds from each fabric group, the results of which are fully integrated into the pottery report and the wider site narrative.

The petrographic analysis attempted to characterise the fabrics within the later prehistoric pottery assemblage and identify any non-local igneous inclusions. The successful identification of such inclusions via thin-section analysis is fully integrated into the specialist report, alongside discussion of vessel form, decorative schemes, methods of manufacture and deposition. This all-encompassing discussion of the pottery enabled the material from this site to be related to the established prehistoric pottery sequence for the locality. The report also includes an extensively illustrated catalogue of sherds and related vessel forms.

In order to characterise, identify and date artefacts, it is essential to note characteristics that are typical of a particular time period (chronologically diagnostic), product (typologically diagnostic) or culturally defined area (culturally diagnostic). Likewise, identification of decorative features, surface treatment and traces of manufacturing techniques and/or technology can be used to aid classification. Material was classified using diagnostic components in 83% of specialist reports. This method of classification is more applicable to material types such as glass, metal and pottery, where established

typologies aid identification. However, it can be used less often for the classification of materials such as fired clay, where the object type is often difficult to identify. Similarly, aspects of decoration or surface treatment are noted in 72% of reports and are more often found in pottery reports, and less likely to be recorded in reports on materials such as CBM, fired clay and lithics. Aspects of manufacture and technology are recorded in 63% of reports, and are used more often in pottery and lithic reports where this aids identification.

Other characteristics that might be recorded once objects have been identified, include describing the completeness of such objects, any dimensions that may be useful to record, and the weight of an object. This enables comparison with other objects of similar types in order to better understand the differences between objects of the same type.

Completeness of objects was recorded in 43% of specialist reports. This is obviously an attribute that can only be recorded where an object can be clearly identified, and therefore compared with complete examples. This confirms the need for specialists to draw upon established typologies and to reference comparative material from other contexts. Similarly, recording the weight of individual objects allows these objects to be compared with other similar artefacts. However, this information was only recorded in 29% of specialist reports and is more likely to be included in reports on metal and glass. Pottery reports tend to include total weights by context by fabric, and focus on the average sherd weight as a measure of post-depositional processes, but even where complete vessels are recovered, these are rarely weighed and the weights included separately. Even for metal objects, where arguably weight is an important characteristic which may help indicate standardised production (eg multiple objects being cast from a single mould), forgery (eg coin weights) and metal composition, weights are rarely given.

Recording of appropriate dimensions varies a great deal, with just 34% of specialist reports including any useful dimensions. It is clear that specialists recognise the need to record dimensions, but even for material types such as pottery, lithics and clay tobacco pipes where the benefits of recording these dimensions in order to characterise the assemblage are clear (and are reinforced in standards and guidance documents), these measurements are often not included in the final report. It is certainly the case that specialists record these dimensions when analysing assemblages but this information is not always consistently included in their reports. Dimensions may be implicit in illustrations of individual objects, which are excluded from this survey, but are not often readily accessible and although such information may reside in catalogues within the project archive, it cannot be found via the grey literature.

Issue: Object dimensions are not consistently included in artefact reports

Recommendations:

- CfA to revise the Standard and Guidance for the collection, documentation, conservation and research of archaeological materials;
- CfA Finds Group to produce guidelines for finds analysis and reporting

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) A4.1 states that ‘The assemblage should be described in a catalogue... The catalogue should be representative of the whole assemblage, covering characteristic traits, and giving the range of forms and types present. It should be arranged to complement the text and any phasing/stratigraphic grouping’. It is therefore surprising that so few specialist reports (just 37%) contained a catalogue of the assemblage. Several of the reports assessed during this project made reference to artefact catalogues (either digital or hard copy)

being available in the project archive. It was also noted that there appears to be a gradual decline in the inclusion of artefact catalogues in grey literature, even within excavation reports, perhaps reflecting a growing need to reduce report production costs, resulting in digital-only catalogues. While it is extremely useful to be able to access catalogued assemblages in digital form, this presents a significant long-term curatorial problem for those responsible for providing access to and maintaining digital project archives if these catalogues are not available elsewhere or in hard copy.

Issue: Specialist reports are not currently indexed via OASIS/HERs and there is no mechanism for uploading onto OASIS either the results of analysis or associated catalogues or datasets

Recommendation: ClfA to work with ADS and Historic England to develop the facility to upload digital artefact/finds catalogues and datasets to OASIS, as part of the HERALD project

Despite the relatively low proportion of reports that contain a catalogue, the material that has been catalogued has generally been recorded to a good standard, with 83% of catalogues including an adequate description of the objects within. Similarly, catalogues generally include good contextual information, with this being provided 95% of the time and context numbers usually being the primary unit of record when presenting the material.

Quantification

A great deal has been written about quantification and the various methods that can be used for different object types; no attempt will be made to summarise this here. The ClfA Standard and guidance (2014a) 3.8.3 states that '*a published report... should include a quantification of all material categories, including those not selected for analysis or publication, with a statement outlining the reasons for selection*'.

The size of the overall assemblage is included in 86% of specialist reports, and the inclusion of this information appears to be improving through time. Different quantification methods are used for different types of assemblage, but almost all (97%) specialist reports include an exact count. Most of the reports in which there are no exact counts are those for burnt clay fragments, such as daub. For such assemblages, it seems that estimated counts are considered to be sufficient. Estimated counts have been used in just 1.5% of specialist reports assessed during this project, and almost all relate to assemblages of fired clay or fragmentary assemblages of clay tobacco pipes. A few other assemblages have no numerical quantification, but instead a total weight has been provided. This has been used for fired clay and CBM.

Case Study: Imprecise Quantification

During the report assessment, several specialist reports were encountered that gave the distinct impression that the specialist writing the report may have been provided with material from fieldwork that they did not either have time or the inclination to analyse in detail. This is especially problematic where no quantification is included as there is no means of establishing the size or scale of the assemblage that the specialist has chosen not to describe.

One specialist report from an excavation of a Roman site in the West Midlands published in 2015 includes detailed characterisation, quantification and discussion of the Roman metalwork and glass from the site. However, the later material is only quantified as follows:

'a noticeable amount of post-medieval and modern items were also found'.

This report contains no overall breakdown of the assemblage, and no description of any material other than that dated to the Roman period.

Several other specialist reports were similarly vague in their quantification of assemblages, including phrases such as 'a notable number of', 'a few', 'a handful' and 'some' in relation to the size of the assemblage. This again reiterates the need for a minimum standard of recording for all parts of an assemblage and the difficulties presented by the use of imprecise language in specialist reports, particularly in relation to quantification.

Despite the successful inclusion of the total size of the assemblage, presentation of quantified data is far more problematic, with just 56% of reports presenting this information in an accessible form. There is an interesting correlation between the size of the assemblage and the accessible presentation of quantified data, with quantification information for larger assemblages generally being much more accessible. There are a number of possible explanations for this. At a practical level, the challenges of organising, managing and analysing large assemblages will necessitate a methodical approach to quantification on the part of the specialist. It seems that smaller assemblages are less often subject to analysis by a qualified period or material specialist, perhaps being assessed by non-specialists working on other aspects of the project instead, who are perhaps less aware of the need to present quantification data in an accessible form.

One aspect of quantification that was considered in detail in the report assessment was whether or not quantified data had been related to the structural sequence or phasing of the site. This was only achieved in 41% of specialist reports, which may be a reflection of issues discussed above relating to the fact that specialists do not always have access to detailed information about site stratigraphy. As with the presentation of quantified data in an accessible format, relating this data to the structural sequence was much more often achieved for larger assemblages than for small collections of objects. There were great variations between different material types, with pottery reports being much more likely to relate quantifications to the structural sequence. It is likely that this reflects the role that pottery plays in dating features and sequences.

Issue: Quantification data is not routinely presented in a standardised accessible format

Recommendations:

- ClfA to revise the Standard and Guidance for the collection, documentation, conservation and research of archaeological materials
- ClfA Finds Group to produce guidelines for finds analysis and reporting

Interpretation

The purpose of analysing artefacts from archaeological fieldwork projects is to aid interpretation of the site and its features and to further understanding by placing the site in its wider economic, social, geographic and temporal contexts. However, despite this, only 61% of specialist reports attempt to place the assemblage in its wider context and only 47% of specialist reports attempt to discuss the assemblage in relation to other excavated material.

This may reflect the fact that specialists feel it is not possible to draw far-reaching conclusions from the analysis of just one class of artefact, and that this is better left to the author of the project report.

This could stem in part from poor communication between artefact specialists and other project staff, resulting in the specialists lacking the information that would be necessary in order to make informed statements about the site and its wider context. It may also be that specialists feel this is outside their remit, seeing it instead as the responsibility of the author of the overall project report to take their individual analyses, integrate them into the site stratigraphic sequence and present the overall interpretation, discussion and conclusions about the site as a whole.

Issue: Specialist reports do not routinely include a discussion of the assemblage in its wider context or in relation to other assemblages either from the same site or from comparative sites

Recommendation: ClfA to revise the Standard and Guidance for the collection, documentation, conservation and research of archaeological materials

Integration of specialist reports into grey literature

Having considered in detail the factors affecting the production of specialist reports, it is also important to consider what happens to the specialist reports once they are completed and how they are integrated into the overall project grey literature report. Several specialists have raised concerns about maintaining control over the content of their specialist reports once they are integrated into project reports. The pottery standard explicitly states that ‘authorship must be credited to the pottery specialist throughout’ and that ‘the pottery specialist must be consulted during any editing of their original text’ (PCRG, SGRP, MPRG 2014, 2.5.6). However, specialists from all artefact disciplines have raised concerns about their work being properly credited to them, with some organisations removing author details during report editing. This concern is supported by the fact that during the report assessment it was not possible to identify an author for almost 12% (n=118) of the specialist reports included in this project, despite checking the acknowledgements and details of project staff if an author’s name was not included at the beginning or end of the specialist report.

Issue: Specialists are not routinely being credited with authorship of relevant specialist reports

Recommendation: ClfA Finds Group to develop and run a series of training workshops on the management and monitoring of finds work, artefact analysis and reporting

A related issue is how the specialists’ contribution to the report is acknowledged in the overall authorship credit for the grey literature report. At present, most reports have the project officer or project manager as the principal author, with some organisations giving a ‘with’ credit to specialists making a significant contribution. However, this makes it difficult to locate and identify specialist reports by a named individual via Historic Environment Records or the Grey Literature Library as reports are only indexed by principal author.

Concerns were also raised by specialists about the way in which information from their reports was being integrated into the wider site narrative. This concern was shared by many of the development control archaeologists that contributed to this project, with several suggesting that project officers need more support and training in the use of both artefactual and environmental specialist reports in order to enhance their understanding of the content of these reports and how this can be used to aid overall interpretation of the site. Several development control officers noted that too much of the content of artefact reports is devoted to describing what was found, rather than explaining what it means and how it furthers understanding of the historic environment. One development control

officer commented that when it comes to report-writing ‘people aren’t thinking, they are just going through a process’.

Many specialists raised concerns about the integration of their findings into the report discussion and conclusion. This was also an issue that was recognised by many development control archaeologists; they said that they regularly check to ensure that the conclusions presented by specialists are reflected in the site narrative, and where they are not, a report may be rejected. Development control archaeologists suggested that this is more often a problem on smaller projects, where perhaps one or two specialists have been commissioned to analyse the assemblage, but the project officer writing the overall report lacks the time and resources to fully integrate their findings. Anecdotally, both finds specialists and development control archaeologists noted that project staff are often required to write up fieldwork projects before the specialists have had time to complete their analyses and submit their reports.

Issue: There is great variation in the structure and content of specialist reports

Recommendations:

- ClfA to revise the Standard and Guidance for the collection, documentation, conservation and research of archaeological materials
- ClfA Finds Group to produce guidelines for finds analysis and reporting
- ClfA Finds Group to develop and run a series of training workshops on the management and monitoring of finds work, artefact analysis and reporting

Report sign-off and archiving

Although several of the development control officers who contributed to this project reported that they regularly check reports to ensure consistency between the conclusions of specialist contributors and the overall report conclusions, some development control officers also said that they do not always have time to read and check all of the specialist reports in detail. Others readily admitted that they do not necessarily have the knowledge and expertise to be able to offer detailed comments on specialist artefact reports, although this issue is equally applicable to other specialist areas such as geophysical surveys and environmental sampling. Few development control officers have a professional background in artefact work or post-excavation analysis, with the majority having a background in site-based fieldwork.

Issue: There is currently no consistent approach towards on-site or post-excavation monitoring of artefact work by development control archaeologists, resulting in the differential application of and compliance with existing Standards and guidance

Recommendations:

- ClfA Finds Group to develop the criteria for evaluating finds reports into a checklist for monitoring the quality of finds reporting
- ClfA Finds Group to develop and run a series of training workshops on the management and monitoring of finds work, artefact analysis and reporting

Development control archaeologists also noted that in the process of prioritising reports, they have to ignore problems with smaller-scale projects or projects where the results are considered to be of limited significance. This problem extends to not being able to insist upon specialist input for all

projects where it would be useful, meaning that projects with smaller assemblages may be signed off without full specialist input. However, all development control archaeologists were keen to emphasise that this would not happen if the assemblage was especially large or significant. Some development control archaeologists felt that rather than insisting upon specialist input, there should be a minimum standard of recording for artefacts of all types and periods comprising a basic identification, date and weight.

Publishing specialist reports

When assessing the specialist reports in publications, the sample size was much smaller, therefore the conclusions that can be drawn are more qualitative than quantitative, and it is more difficult to identify the factors influencing the nature of the specialist reports assessed. Despite this, the assessment of published specialist reports highlights some interesting contrasts and similarities between these and specialist reports in unpublished grey literature.

Archaeological monographs were excluded from this part of the study because they tend to be more extensive in scope and more varied in nature. The problems identified with specialist reports in grey literature which have formed the focus of this report have not been as widely recognised in publications such as monographs. However, there is an increasing prevalence of archaeological reports being published in journals as a more cost-effective method of dissemination, particularly for those sites and projects where a full monograph is not warranted. The quality of artefact reporting in these journal articles is highly variable.

A crucial factor in this form of publication is that, while archaeological contractors and development control archaeologists might consider a report worthy of publication, the ultimate editorial decisions and control come from third parties who are not usually actively engaged in the archaeological planning process. While grey literature reports are within the control of the authors, specialists, the archaeological contractors who produce them and the development control archaeologists who are required to sign them off, the same cannot be said of articles submitted for publication in national, regional and county journals.

As a general rule, national journals rarely carry full excavation reports complete with artefact analyses, and when they do they tend to be the results of major academic research projects. Reports relating to archaeological fieldwork of the type detailed in the grey literature reports considered here are much more likely to be published in regional or county journals, often published by local archaeological societies or related organisations.

In general, the results of the assessment of specialist reports published in journals share many characteristics with those found in grey literature reports, which, given that one is often derived from the other, is not surprising. However, there are some notable differences, particularly surrounding the level of detail that is included in the specialist reports. Published specialist reports are less likely to include the sorts of details that are required either to comply with a fieldwork project brief, or to adhere to standards and guidance set out in the project design. This is perhaps because they are not part of the development control process, even if a publication requirement has been specified. Many published specialist reports refer to the archive report or grey literature where details have been omitted.

However, published reports tend to make better use of type series, published and unpublished sources and regional comparanda, more successfully placing assemblages in their wider context.

Published specialist reports are also more likely than those found in grey literature to include interpretation of the assemblage and to draw conclusions about its significance.

Case Study: Norfolk Archaeology

Norfolk Archaeology is the peer-reviewed journal of the Norfolk and Norwich Archaeological Society and has been published annually since 1846. At the height of developer-funded archaeology in the 1990s and early 2000s, the journal carried numerous excavation reports, complete with detailed artefact reports.

There was always a feeling among the wider readership of the journal that too much space was being given over to the minutiae of excavation reports at the expense of articles of more general interest to the Society's membership, but while these publications were the only written record of the results of the fieldwork, refusal to publish could not be justified editorially. The editors of the journal were also keen to include commercially-funded articles, as these were charged to the archaeological contractors on a per-page basis and the income from these articles could be used to offset the costs of printing un-funded research papers.

The balance tipped with the rise of digital media, and in particular the inception of OASIS, the Grey Literature Library and the digitisation of the Norfolk Historic Environment Record. The existence and ready availability to a wide audience of digital copies of grey literature reports containing detailed artefact analyses and catalogues meant that it was no longer necessary to reproduce much of these data in print and that readers could now be referred to an online resource instead. In the late 2000s a formal editorial decision was taken that full grey literature reports would no longer be published in the journal and that commercial contributors would be asked to provide more discursive and synthetic pieces, akin to the final sections of their grey literature reports, and refer those readers seeking more details to the grey literature online.

While many artefact specialists clearly see publication as an opportunity to say something meaningful about the assemblage they have studied, these desires are often at odds with the editorial direction and financial constraints experienced by many local journals. Many journals have a diverse readership and the high cost of print media means that there has been a general move away from the presentation of detailed fieldwork data in printed journals.

Guidance

Feedback from development control officers in relation to guidance was very mixed, with some believing that there is already too much guidance in circulation, while others felt there was a need for more guidance. Although some were concerned about the quantity of guidance documents in circulation, nobody suggested that these were inconsistent, or that the different documents offered conflicting advice. Awareness of standards and guidance amongst development control officers also seemed to vary, with some being fully conversant with the details of the new pottery standard, while others said that they had heard of it but had not looked at it, and a small minority were not aware of the new standard at all. Some of the development control officers that were aware of the new pottery standard felt that it was not relevant to them, and others complained that it is too detailed and that it is not possible to implement all of the standard's recommendations (eg marking all pottery sherds).

Those development control archaeologists that were not in favour of further guidance argued that there is already a lot of guidance in circulation and that it is difficult to use because the quantity and variety of sources make it difficult to refer to, and not feasible to cover fully in project briefs. Similarly, some development control archaeologists felt that the proliferation of guidance enabled some contractors to quote guidance documents in WSIs instead of clearly stating their project aims and methodology.

Some of those who were not in favour of further guidance felt strongly that the current problems in artefact work relate not to a lack of standards or guidance but to problems in the way in which these are implemented. They noted that the reduction of staffing within local authorities was impeding their ability to thoroughly check fieldwork reports, and that this coupled with contractors attempting to minimise costs was resulting in an overall decline in the quality of artefact work. Several reported feeling powerless to address this situation as although there is useful guidance in place, they do not have time to read and check most fieldwork reports in sufficient detail to ascertain whether or not the report has met the required standards for artefact work.

Those development control archaeologists that were in favour of guidance suggested that this needs to come from a national organisation such as Historic England, since their guidance is perceived to carry more weight than guidance from local authorities or special interest groups when justifying archaeological requirements to developers or local planning authorities. There was also a general feeling that guidance from Historic England would be more likely to reach a wider audience than guidance from specialist groups and/or individual local authorities, and that it would be seen as having wider relevance within the sector, being of interest to most people working in archaeology rather than just to those working as artefact specialists.

Those that were in favour of further guidance suggested that it would be useful to produce a standard that could be applied to all material types and which would be less detailed than the new pottery Standard. They felt that the work of the period-based pottery specialist groups could not easily be replicated for other material types, and that if this approach was taken this could lead to undesirable divergence and differences in approach for different types of material. As well as ensuring any further guidance would be consistent for all types and periods of material, there was a strong feeling that guidance issued by Historic England would be more likely to attract a greater readership and also to be more successfully implemented in development-led archaeological fieldwork projects.

Discussion at the project workshop focused on how to implement the recommendations of this report and improve the quality of artefact studies and standards or guidelines were considered to be the best tools for informing the finds reporting process. Beyond a revision of the ClfA Standards and guidance, however, guidance already exists, and some of the feedback from this project warned against a proliferation of further standards, so the issue may not be the presence of guidance but the fact that it is not implemented. Even so, there are clearly some types of materials or objects for which no specific standards exist and some generic criteria could therefore be of value. There is a clear need to raise awareness of the issues highlighted by this project and any related guidance and it is hoped that this can be achieved by ClfA working in partnership with ALGAO and Historic England.

Issue: Awareness of current, accepted standards and guidance relating to artefact work is variable across the profession

Recommendations:

- CifA Finds Group to produce and disseminate a list of existing Standards and guidance for artefact studies
- CifA Finds Group to develop and run a series of training workshops on the management and monitoring of finds work, artefact analysis and reporting

Conclusions

The detailed analysis of 1,000 specialist reports in grey literature and 61 specialist reports in journal articles, and consultation with a range of stakeholders including artefact specialists, development control archaeologists and others working in the heritage sector, have provided a useful insight into the application of standards in artefact work over the last 16 years. In particular, this study has highlighted the great variations in content and quality that exist between specialist reports, allowing us to identify numerous examples of best practice, and highlighting areas that require improvement. This has enabled a series of recommendations to be made to support the application of standards in artefact work.

The results of the report assessment clearly indicate a general willingness and desire to adhere to standards for artefact reporting where such standards exist. However, in some regions and for some types and periods of material, the quality of artefact reporting is highly variable. In some cases this reflects a lack of existing standards, or a lack of awareness of such standards, and this seems particularly to be the case for certain types of material. For example, clay tobacco pipes were in some instances discussed in great detail, and in other cases only given a cursory summary. It also appears to be the case that material from some periods receives less attention than others, with both specialists and development control archaeologists noting, for example, that post-medieval material is still often not given the attention it deserves. The report assessment also revealed that lithics are often given little attention during post-excavation, particularly where they are not central to the site narrative. This contrasts starkly with pottery reports, which, because of their essential role in dating features and sites, are given much greater priority and emphasis in the final grey literature report.

The project has revealed several areas of artefact reporting that require significant improvement and where recommendations have been made. In terms of project management, the most significant problems appear to stem from a lack of engagement with appropriate artefact specialists at an early stage in archaeological projects. This results in post-excavation work being under-represented in project designs and WSIs, sampling and recovery strategies being designed without input from those who are going to analyse the finds assemblages, and a lack of sharing of vital project information with specialists. These problems are exacerbated by the shortage of artefact specialists, and the difficulties facing people wishing to enter and progress within this sub-sector. As noted previously, the content of specialist reports is highly variable, and would benefit from a greater degree of standardisation of approach and closer adherence to standards and guidance. In particular, the value of specialist work is compromised by a lack of interaction between different specialists working on different parts of a site assemblage, and a lack of dialogue with other project staff. The integration of specialist reports and their conclusions into the overall site narrative is often undertaken in isolation with limited appreciation of the significance of the specialists' conclusions or the content of their artefact reports. To combat this, there needs to be much greater collaboration between specialists and the other members of the project team, in order that the contribution of the specialists and the significance of their conclusions to the wider site narrative can be maximised. This should extend to the acknowledgement of the specialists' contributions in terms of authorship of reports, and indexing of specialist contributions in HERs and via OASIS. This will enable an improvement in access to specialist artefact reports.

The analyses presented here have demonstrated that there are a multitude of factors which directly or indirectly affect the content and quality of specialist reports. However, it appears that the resourcing of the heritage sector as a whole, and the archaeological post-excavation process in

particular, has had the greatest impact. This is most keenly felt by archaeological contractors where commercial pressures determine their ability to secure work, leading to limits being placed on the expenditure of resources on projects which need to be commercially successful. However, while understandable, these commercial pressures are not sufficient justification for a reduction in or abandonment of adherence to professional standards. Projects should be costed so that post-excavation work is adequately resourced to allow specialist input where required and project managers must be prepared to justify these costs to their clients as an essential part of the project.

At the same time, the sector has seen a reduction in local authority resources, meaning that the scrutiny that should be provided by development control archaeologists to ensure that existing standards and guidance are being adhered to is no longer being provided at an adequate level in all areas of the country. There are, however, some local authorities that are reversing this trend and expanding their teams, and these authorities are better able to ensure adherence to professional standards by contractors working in their area. In better resourced areas such as these, professional standards are much more likely to determine the resources available for fieldwork because development control officers have the time to scrutinise projects more closely and insist that existing standards are adhered to.

Consultation during this project suggests a feeling within the sector that there is sufficient guidance in circulation in relation to artefact work, albeit with a lack of specific guidance for all artefact types and periods. However, it is also apparent that awareness of the existence, detail and applicability of standards and guidance is very varied, with many regarding standards relating to artefacts as being of relevance only to those directly engaged in artefact work. It is clear that some work still needs to be done to raise awareness of existing standards and guidance amongst all those working in archaeology. There was also a consensus among development control officers that standards and guidance of every kind carried much greater weight, and could therefore be more easily enforced, when endorsed by a higher level authority, such as Historic England or the Chartered Institute for Archaeologists. While recognising the hugely valuable contribution of specialist finds groups in producing standards and guidance to govern their own practices, local authority archaeologists reported that developers and planning officers were more likely to respond positively to guidance that carried with it approval from a professional institute or a national body.

This project has identified several training needs within the sector. First, as identified elsewhere, there is a growing shortage of artefact specialists, resulting in slower turnaround times for post-excavation reporting. With so many large infrastructure projects planned during the next decade this situation is only likely to worsen. Although several large commercial archaeological organisations have successfully implemented in-house training schemes and apprenticeships, the fact that such a large proportion of artefact specialists are sole traders makes the transfer of knowledge and skills to a new generation of trainee artefact specialists very problematic.

Allied to this, there is a more general need for artefact-related training for non-specialists to raise awareness and highlight the huge potential of artefact work in furthering understanding of the historic environment. In particular, this study has highlighted that staff engaged in archaeological fieldwork need to be more aware of the finds process and of the impact that on-site decisions will have on the resultant assemblage. Crucially, project staff responsible for producing grey literature reports require further professional support and training to enable them to fully understand and integrate the results of artefact work into their site narratives. Consultation with development control archaeologists also revealed that few working in this area have a background in artefact work and that many of them do

not feel confident to critically assess artefact specialists' reports. The criteria used to assess artefact reports for this project could be refined and used by development control officers as an efficient way to ensure that artefact reports do meet the required standards.

The criteria that were used in this project to assess artefact reports were devised by the CifA Finds Group and agreed by the Project Board. They were designed to be used as a checklist, and were intended to be applicable to all categories of material that were being assessed. In general, the checklist was easy to use and provided a standardised framework for assessing and comparing reports of varying length, detail, content and complexity. While most questions had binary answers (yes or no), some measures were less applicable or not applicable to certain types of material or some types of report. For example, some measures, such as completeness, are readily applicable to vessels of many material types, and also to metal objects such as coins, but may not be a suitable descriptor for artefacts such as brooches, where it would be more useful to describe the artefact, noting any missing parts. There is, similarly, no standardised approach to the structure or detail of artefact catalogues. Specialists for some categories, such as coins, make consistent use of accepted reference resources, while for other artefact types detailed individual descriptions are required. Although the criteria developed at the outset of this project provided a straightforward method of assessing the content and quality of artefact reports, it would be beneficial to refine these and devise some guidance in relation to their applicability. This would allow these criteria to be more widely used as a simple method for non-specialists to evaluate the content of specialist reports.

It is clear that all parties engaged in artefact work are keen to see this work being done to a high standard. However, given the economic realities of commercial archaeology and the development process, there are significant external factors which limit the ability of all concerned to ensure that standards are successfully applied in all instances. There is a widespread expectation across the sector that the development control process will ensure that standards are rigorously adhered to, and that where they are not, appropriate action will be taken and improvements ensured. Due to diminishing resources in local government however, development control archaeologists, are increasingly reliant on contractors and specialists maintaining good practice by adhering to existing standards. The profession is, out of necessity, heavily reliant upon self-regulation.

In a profession where resources are limited and commercial pressures are great, the onus is on all involved with artefact work to ensure that this work is carried out in accordance with existing standards and guidance and that where standards are not met, appropriate measures exist to remedy this situation. This project has shown that the great variability in practice is in part related to a poor appreciation of the importance of artefact studies. There is a clear need to raise awareness and also to apply professional standards in order to maximise the contribution of artefact specialists to our understanding of the past. There has to be a collaborative effort across the sector to implement the recommendations made here, fully engaging specialists, study groups, archaeological contractors, development control archaeologists and national bodies such as CifA, ALGAO, FAME and Historic England.

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Appendix I: Report Assessment Checklist

PROJECT OVERVIEW

Project Report record number

Name of project

Contractor/main organisation of report

County

Date of report

Type of project

Archaeological period(s) present

Is there a breakdown of site overall assemblage?

Is there a description of any sampling strategy?

Is there an adequate description of recovery strategy?

INTRODUCTION

Are the methods of study described?

Are the methods of study explicitly referenced to existing and appropriate standards?

Is the assemblage recorded with reference to use of formal reference collections or type series?

Is the assemblage recorded with reference to use of source material/bibliographic resources/thesauri?

Does the report include a date of work carried out/data collected?

Is there a concordance of codes/abbreviations and their meanings?

Does the introduction state the overall size of assemblage?

Are the archive products of the recording process described?

CHARACTERISATION

Is the material type classified to a basic level?

Where applicable, is the material type classified to a detailed level?

If scientific analysis of the material was undertaken, are the results presented?

Is the object type classified at a basic level?

Is the object type classified at a detailed level?

Is the object type classified according to diagnostic components?

Are aspects of decoration and/or surface treatment described?

Are the finds characterised by aspects of manufacture/technology?

Is a catalogue of finds presented?

If a catalogue is presented, does it include adequate description of object?

If a catalogue is presented, does it include sufficient contextual information?

Is the completeness of objects recorded?

Have appropriate dimensions been recorded?

Where appropriate, are individual objects described by weight?

QUANTIFICATION

Is the assemblage quantified by exact count?

Is the assemblage quantified by relative quantities

Is the assemblage quantified by estimated count?

Are the quantified data clearly presented in an accessible form?

Are the quantified data related to the structural sequence/phasing?

DISCUSSION

Is there discussion of the assemblage in wider context?

Is there discussion of assemblage in relation to excavated evidence?

Appendix II: Planning Archaeologist Interview Questions

BASIC FACTS AND FIGURES

DC resource in FTEs?

No. of cases commented on per annum?

No. of fieldwork projects per annum?

No. of monitoring visits per annum?

WRITTEN SCHEMES OF INVESTIGATION (WSIS)

Do you check WSIs in relation to finds analysis requirements?

Do you do this for all projects or just projects of a particular type/scale/period/location?

Are contractors using the finds specialists that they say they will in their WSIs?

USE OF FINDS SPECIALISTS

When you receive reports do you check whether appropriate finds specialists have been used?

Are you aware of the Standard for Pottery Studies in Archaeology?

Do you refer to their definition of a specialist? Do you find this helpful?

Do you feel that contractors working in your area strike the correct balance when commissioning specialists?

Do you insist upon the same standard of recording for every type of find?

Are there any minimum requirements?

Are there particular contractors who use specialists more than others, and if so, what do you think are the reasons for this?

Are all categories of material given appropriate consideration?

Are there any classes/periods of artefacts that are given too much/too little attention?

REPORT ASSESSMENT AND SIGN-OFF

Do you check whether specialists' findings have been fully integrated into the report? Are they reflected in the conclusions?

Do you check whether finds are discussed in relation to other excavated evidence/wider context?

Would you find a checklist useful for assessing finds specialists' reports?

GUIDANCE

If there was a Historic England Guidance Note relating to finds specialist reports would you find this useful? Would you cite this in briefs?

Appendix III: Results of the Report Assessment (Grey Literature)

This section details the results of the assessment of 1,000 specialist artefact reports and is based around the checklist questions. As set out above (Methodology) a simple binary scoring system was used to assess the reports against the checklist criteria with score values being assigned as follows: 1=yes, 0=no.

Project Background

Region

When compiling the sample of reports, the aim was to ensure that all local government regions were represented in the survey. The sample of reports reflects the uptake of OASIS (and therefore the composition of the GLL), with the greatest number of reports from East Anglia, where several counties were early adopters of OASIS (see Figure 3).

Local government regions have been used in the discussion of the results of the report assessment, to provide an overview of any geographical trends, since it would have been too time-consuming and the sample too small to examine differences between individual local authorities. Although there are certainly some significant differences between local authorities within a single local government region (particularly in terms of resourcing), the local government region is the unit within which local authority archaeological staff work together to share best practice, for example through regional fora for development control and HER staff.

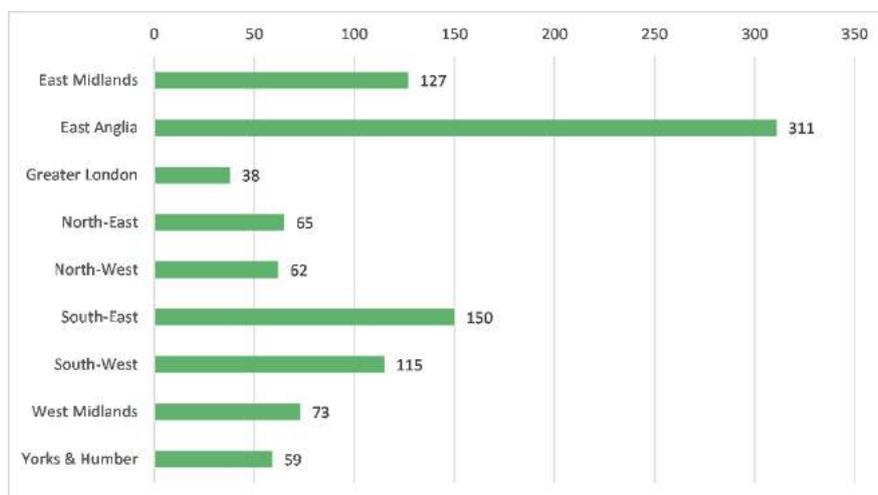


Figure 5. Specialist reports assessed. Breakdown by local government region.

Local authority

When compiling the sample the intention was to ensure that reports from as many local authorities as possible were included in the project to ensure that the results reflect artefact work across the whole of England. Local authorities are responsible for signing off grey literature produced by contractors for fieldwork being undertaken ahead of development. They are usually also the host organisations for Historic Environment Records into which the grey literature reports are submitted and indexed and from which most of this material is accessed by those wishing to study the results of archaeological fieldwork. As discussed above, not all local authorities currently use OASIS and therefore some did not have any grey literature reports in the GLL. Consequently, these authorities do not feature in Figure 6 (below).

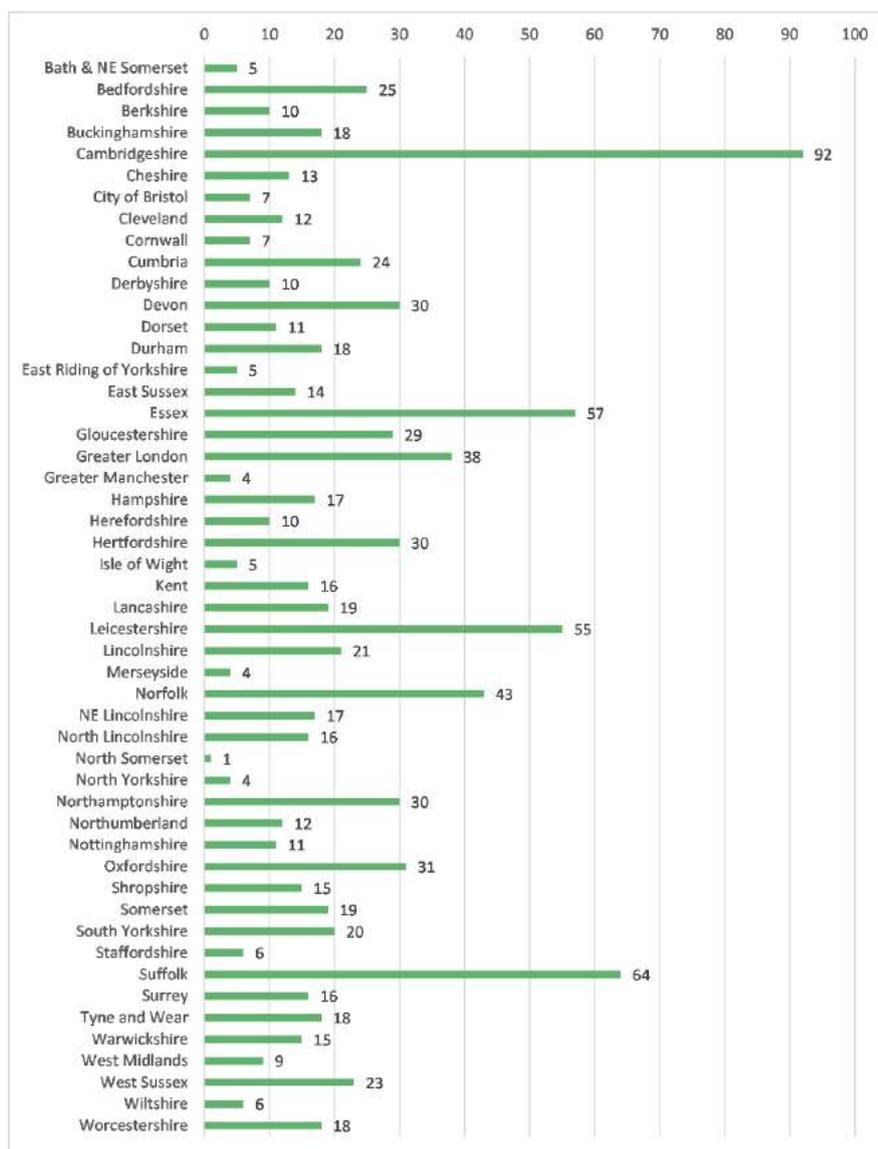


Figure 6. Specialist reports assessed. Breakdown by local authority.

Date of report

The intention when compiling the sample was to include a similar number of reports from every year from 2001 to 2016 in the study. However, this was not possible since so few reports for the earlier

years in this time period were available from the GLL. There were also few reports from 2016 available from the GLL when the sample was compiled.

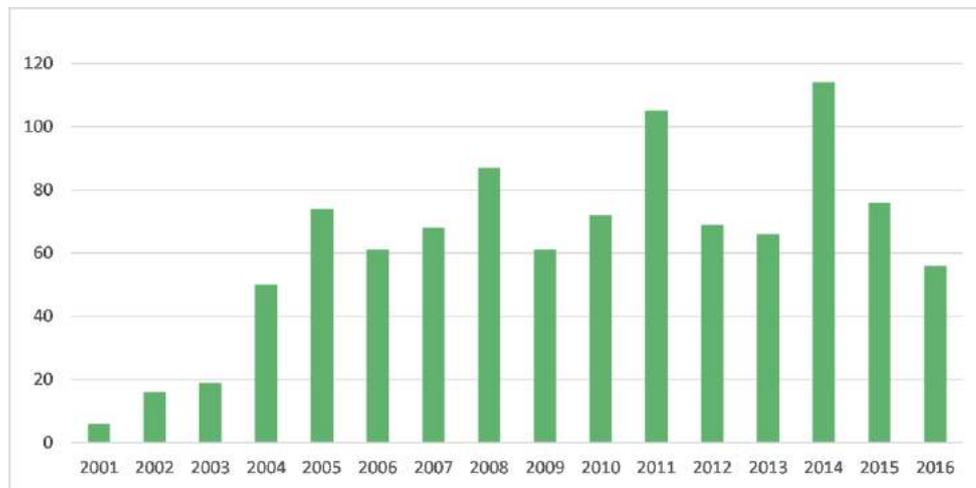


Figure 7. Specialist reports assessed. Breakdown by year of publication.

Type of project

As described above (Compiling the sample), it was decided by the Project Board that at least half the sample dataset should be specialist artefact reports from excavations, since excavation reports included a wider range of specialist reports, and the assemblages tended to be larger and more complex. When considering the results of the report assessment, the results for test-pitting and fieldwalking are excluded since there are so few projects of these types included in the sample of reports.

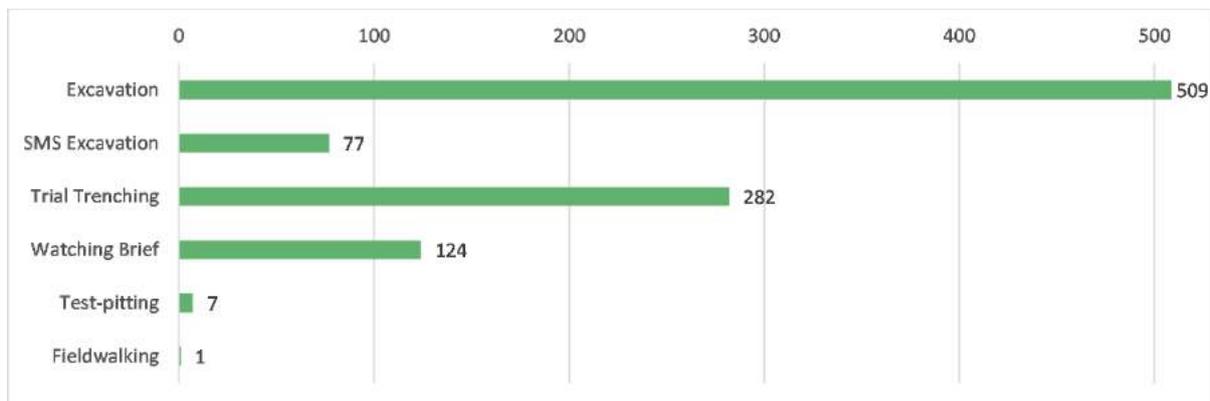


Figure 8. Specialist reports assessed. Breakdown by project type.

Archaeological context

Material type of finds

The intention when compiling the sample of reports was to ensure that it included a range of material types typical of those encountered during fieldwork projects in England. Some specialist reports included multiple material types – these are categorised as ‘other’.

As set out in the methodology, the main artefact material categories that were used to aid retrieval of specialist reports from the GLL were terms relating to pottery and lithics. All of the other material types were the subject of specialist reports included in a grey literature report alongside reports on pottery and/or lithic material. In the discussion of the results of the report assessment, although a breakdown of results is given for all categories of artefact material type, the size of the samples of specialist reports on bone, leather and wood are too small to be considered representative of this category of material. These material types are therefore not discussed in detail.

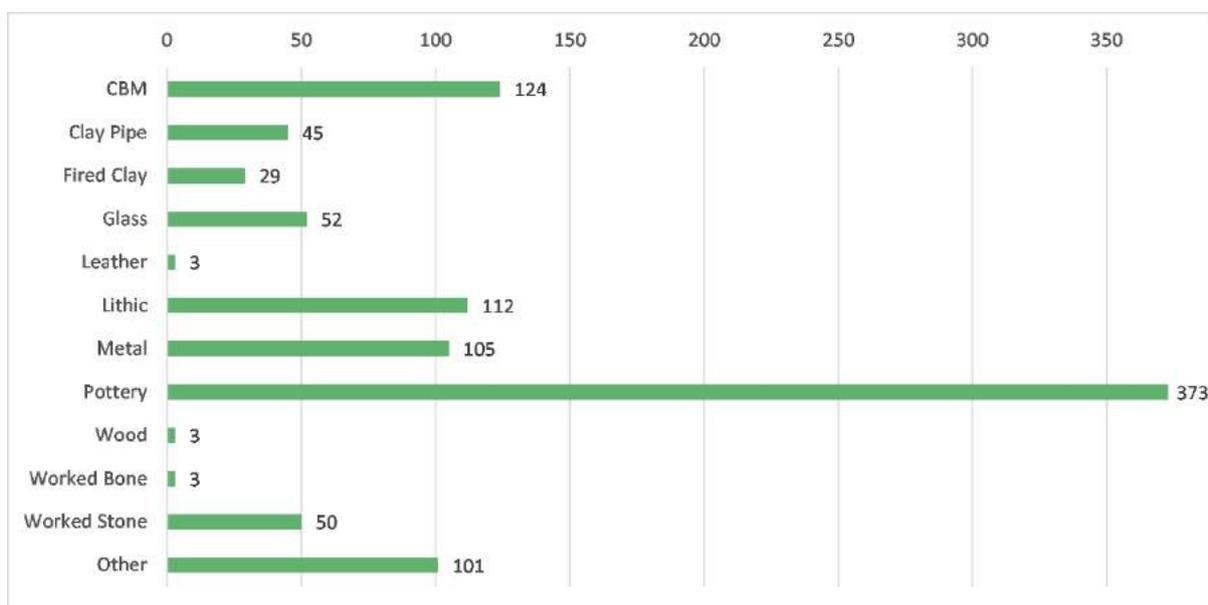


Figure 9. Specialist reports assessed. Breakdown by material type.

Period of finds

It was intended that the report sample should reflect material of all archaeological time periods typically encountered during fieldwork. As explained above (Compiling the sample), 43% of the specialist reports included in the study relate to artefacts dating from more than one archaeological period.

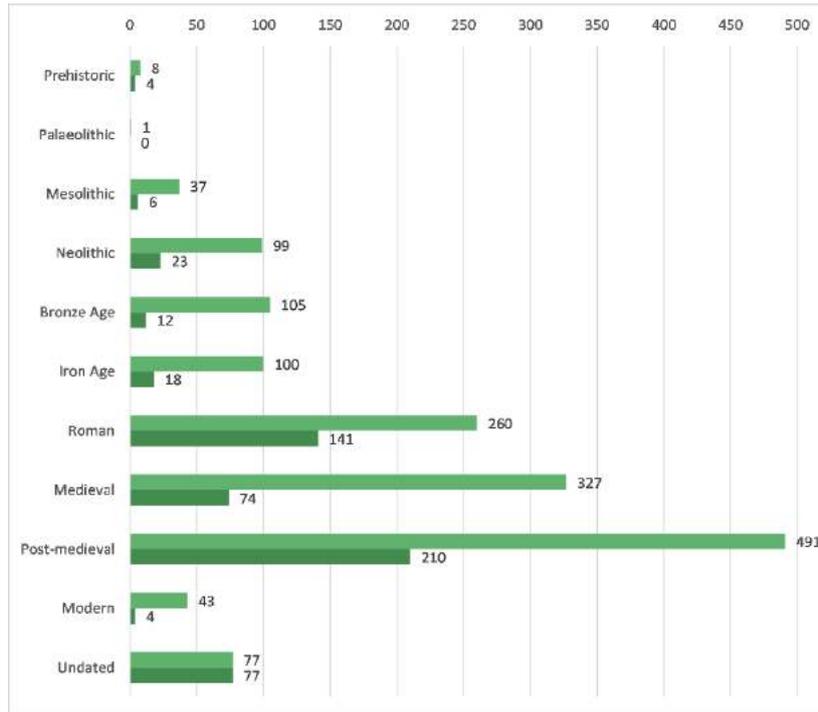


Figure 10. Specialist reports assessed. Breakdown by period of finds. Dark green bars represent single-period artefact reports. Light green bars represent inclusion of the period in a multi-period artefact report.

Project Overview

The three questions that form this section of the report assessment relate to the grey literature reports from which the specialist reports have been extracted, rather than to the individual specialist reports. For example, the question ‘Is there a breakdown of site overall assemblage?’ is assessing whether this breakdown is included in the grey literature report, not whether the individual specialist reports contain this information.

Is there a breakdown of site overall assemblage?

The CfA *Standard and guidance* (2014a) 3.8.3 states that ‘a published report... should include a quantification of all material categories, including those not selected for analysis or publication, with a statement outlining the reasons for selection’.

When assessing grey literature reports against this criterion, only reports containing a breakdown of the entire assemblage along with a quantification for each category of material were given a score of ‘1’. Reports which only listed the material types present during fieldwork or listed the contents of the archive in terms of boxes of material were given a score of ‘0’.

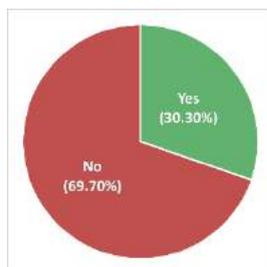


Figure 11. Is there a breakdown of site overall assemblage?

Only 30.3% of reports contained a detailed breakdown of the overall assemblage. Where a breakdown was provided, this information was usually presented in tabular form, arranged by material type, providing a useful summary of the material recovered during the fieldwork.

There appears to be some improvement in the inclusion of this information over time, with more recent reports being more likely to include a breakdown of the overall assemblage. In the five years from 2003 to 2007 the percentage of reports containing a breakdown ranged between 5% and 17.5%, whereas in the last five years (since 2012) the percentages range from 35% to 53.5%.

There also appear to be some significant regional variations in relation to the inclusion of a breakdown of the overall assemblage. The percentage of reports containing this information was very low for Yorkshire and the Humber (2%), the East Midlands (4%) and Greater London (8%), with rates being closer to average in the South-East (25%), the North-East (28%), the West Midlands (32%) and East Anglia (38%). The regions which scored highest in this category were the South-West (55%) and the North-West (53%).

The inclusion of a full breakdown of the site assemblage does appear to depend to some extent on the project type. The project type that is least likely to include a full breakdown of the overall assemblage is excavation, with only 26% of excavation reports including this information.

As this question related to the overall grey literature report rather than to individual specialist reports, the results were not analysed against find material type or period, since most grey literature reports contained more than one specialist report.

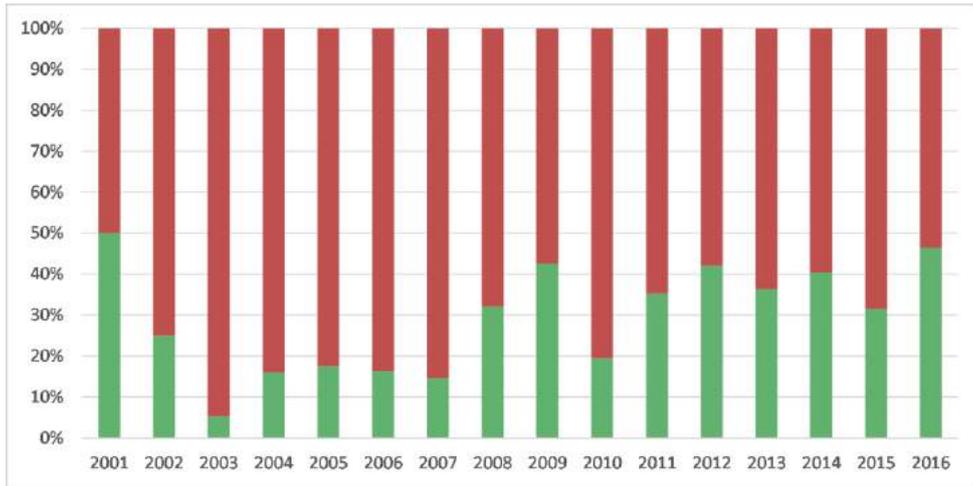


Figure 12. Is there a breakdown of site overall assemblage? Breakdown by year of publication.

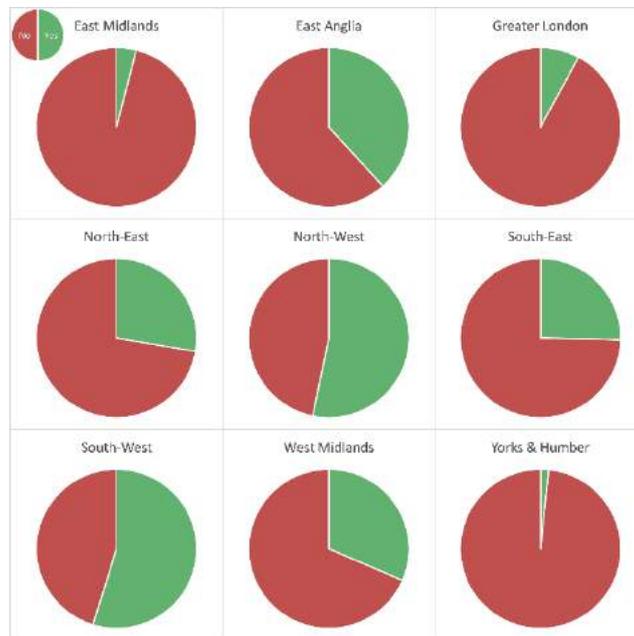


Figure 13. Is there a breakdown of site overall assemblage? Breakdown by local government region.



Figure 14. Is there a breakdown of site overall assemblage? Breakdown by project type.

Is there a description of any sampling strategy?

The ClfA Standard and guidance (2014a) 3.3.2 states that 'A recovery policy for archaeological material outlining aims and methods should be written for submission as part of a fieldwork project design and specification. This will reflect the number and type of material expected, excavation method, sampling strategies, finds retention, the nature of soil deposits, and the achievement of the project research aims'. Additionally, the ClfA Standard and guidance (2014a) 3.4.3 states that 'Selective sampling of archaeological data is a valid method of saving valuable time and resources, especially when dealing with very large quantities of mundane or repetitive evidence. Any sampling should be clearly documented and its implications for analysis recognised'.

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) 2.5.5.d states: 'The pottery report should include... a description of any sampling strategy or method of recovery employed'.

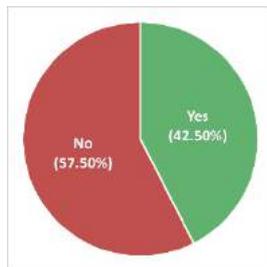


Figure 15. Is there a description of any sampling strategy?

When assessing reports against this criterion, reports which described a sampling strategy were assigned a score of '1'. Reports which did not explicitly describe the sampling strategy but instead stated that the sampling strategy was set out in the project design, or as agreed with a development control officer were given a score of '0'.

Fewer than half (42.5%) of the reports assessed included any description of the sampling strategy.

There is no obvious chronological trend in terms of the inclusion of a sampling strategy, with percentages being lowest at 0% in 2001 and 2003 and 4% in 2016 with peaks at 78% in 2010, 67% in 2008 and 66% in 2004.

There appear to be some significant regional variations in the inclusion of a sampling strategy. The percentage of reports containing a sampling strategy is lowest in Greater London at just 5%, with the South-West (31%), North-East (32%), West Midlands (36%), South-East (38%) and East Midlands (41%) all being below average. Higher percentages were recorded in Yorkshire and the Humber (49%) and East Anglia (51%) and the proportion was much higher in the North-West at 69%.

The project type appears to have a significant impact on whether or not a sampling strategy is included in the report. Watching brief reports are least likely to contain a sampling strategy, with only 17% of those assessed containing this information. The percentage is also low for strip, map and sample excavations, with only 21% of the reports assessed including details of the sampling strategy. This figure is higher for trial trenching at 38%, but excavation reports are most likely to include this detail, with 54% of these including the project's sampling strategy.

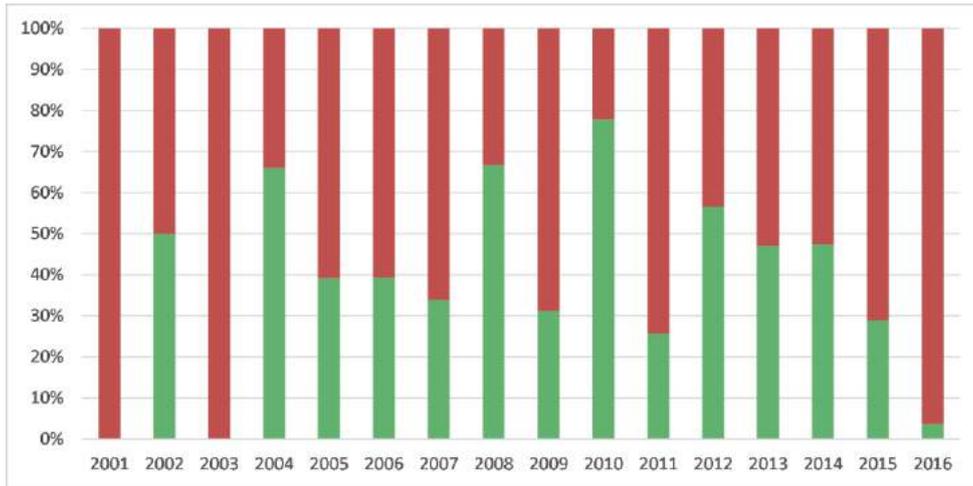


Figure 16. Is there a description of any sampling strategy? Breakdown by year of publication.

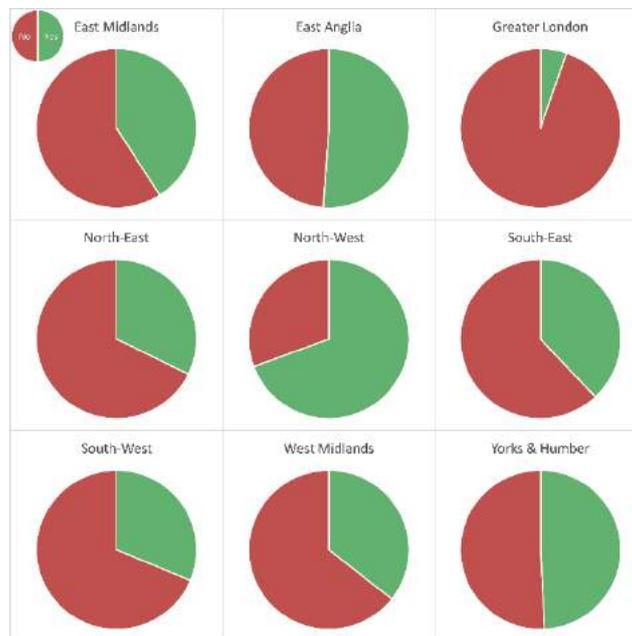


Figure 17. Is there a description of any sampling strategy? Breakdown by local government region.

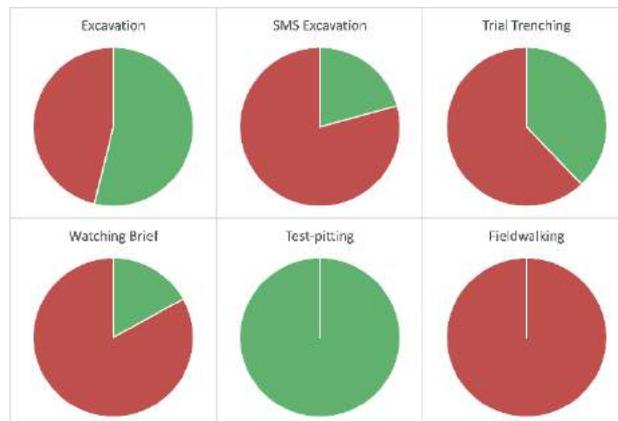


Figure 18. Is there a description of any sampling strategy? Breakdown by project type.



Figure 19. Is there a description of any sampling strategy? Breakdown by material type.

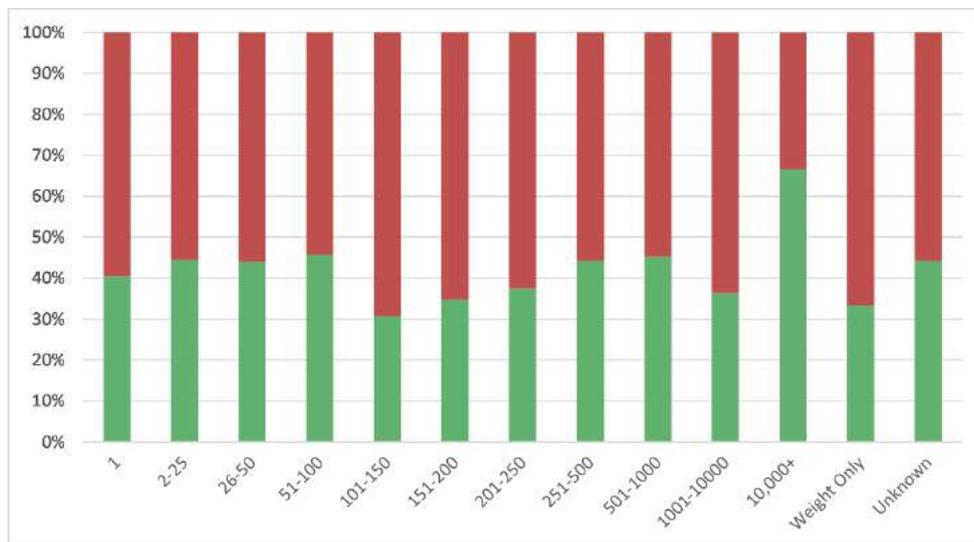


Figure 20. Is there a description of any sampling strategy? Breakdown by size of assemblage.

Is there an adequate description of recovery strategy?

The ClfA Standard and guidance (2014a) 3.3.2 states that 'A recovery policy for archaeological material outlining aims and methods should be written for submission as part of a fieldwork project design and specification. This will reflect the number and type of material expected, excavation method, sampling strategies, finds retention, the nature of soil deposits, and the achievement of the project research aims'.

ClfA Standard and guidance (2014a) 3.3.6 states that 'Finds collection and discard policies, strategies and techniques must benefit [sic] for the defined purpose and be understood by all staff and subcontractors'.

ClfA Standard and guidance (2014a) 3.4.1 states that 'During invasive fieldwork, the recovery policy for archaeological material should be kept under review and, if necessary, amended. Any changes in recovery priorities or procedures should be agreed or documented for inclusion in the project archive'.

This question was asked of the overall grey literature report, rather than of the individual specialist reports. Ideally, the recovery strategy should detail whether artefacts have been hand-collected, whether a metal-detector has been used to aid recovery of artefacts, and/or whether any of the artefacts are derived from bulk samples. Very few grey literature reports described all these aspects of artefact recovery. In order to be scored '1' against this criterion a report had to mention one or more of the above methods of recovery, and/or clearly distinguish artefacts that had been recovered from bulk samples or by metal detector from those which had been hand-collected from features.

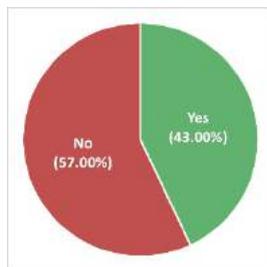


Figure 21. Is there an adequate description of recovery strategy?

Only 43% of the reports assessed included any information relating to artefact recovery. Many of the reports that scored '1' contained limited detail but did at least indicate the methods of recovery that were employed during the fieldwork. Very few reports contained a detailed recovery strategy, or indeed used the term 'recovery strategy' or 'recovery policy' despite extensive references in the ClfA guidance (see above) to the need to do this.

There are no obvious changes over time in the inclusion of a recovery strategy.

The regional picture is very similar to that recorded above in relation to the inclusion of a sampling strategy. As with the sampling strategy, the percentage of reports containing a recovery strategy is lowest in Greater London at just 11% (sampling strategy: 5%). Those regions that scored below average for the inclusion of a recovery strategy were the East Midlands at 26% (sampling strategy: 41%), Yorkshire and the Humber at 27% (sampling strategy: 49%), the West Midlands at 36% (sampling strategy: 36%) the North-East at 40% (sampling strategy: 32%) and the South-East at 40% (sampling strategy: 38%). The South-West scored above average at 48% (sampling strategy: 31%) as did East Anglia at 53% (sampling strategy: 51%). The North-West again recorded the highest percentage at 73%.

The type of project does not appear to be a very significant factor in the inclusion of a recovery strategy. The proportion of reports containing this information is pretty similar for watching briefs (41%), excavation (44%) and trial trenching (46%). The type of projects which are least likely to include a recovery strategy are strip, map and sample excavations; only 26% of strip, map and sample excavation reports assessed during this project contained this information.

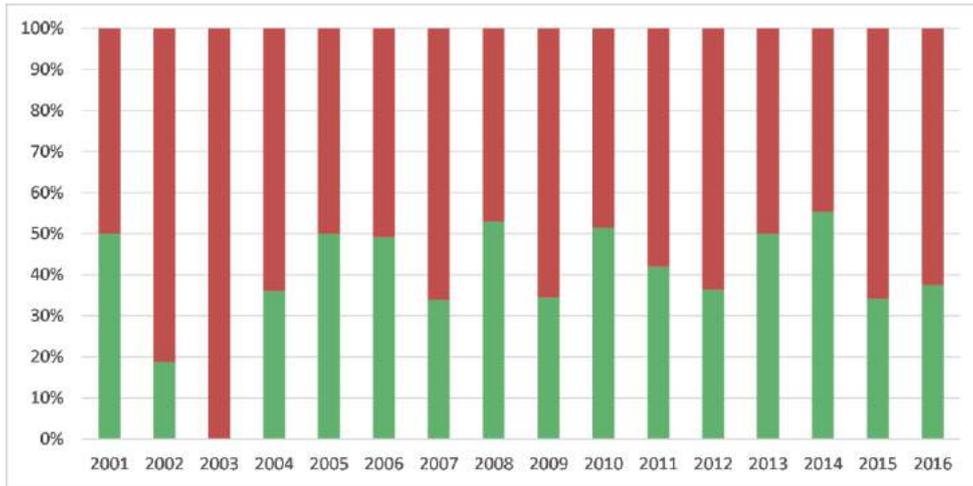


Figure 22. Is there an adequate description of recovery strategy? Breakdown by year of publication.

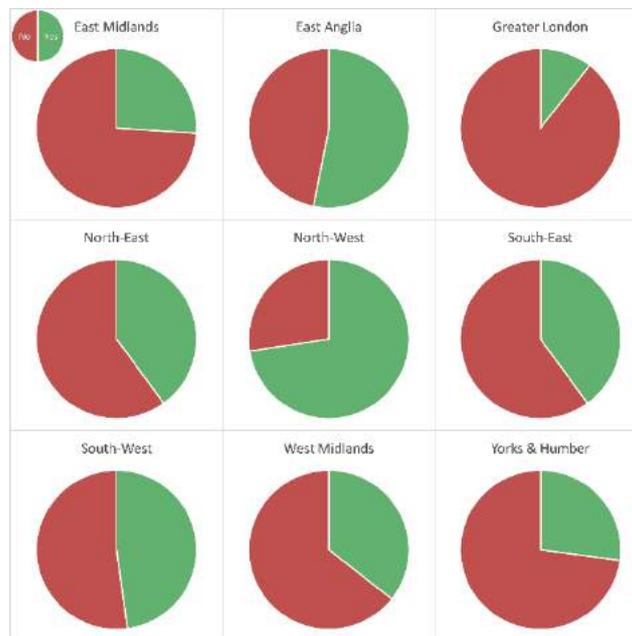


Figure 23. Is there an adequate description of recovery strategy? Breakdown by local government region.



Figure 24. Is there an adequate description of recovery strategy? Breakdown by project type.

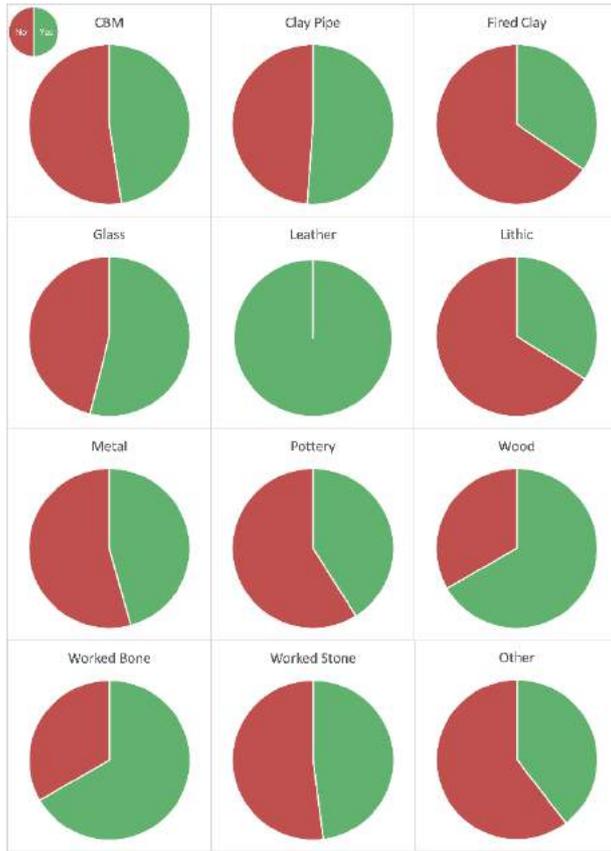


Figure 25. Is there an adequate description of recovery strategy? Breakdown by material type.

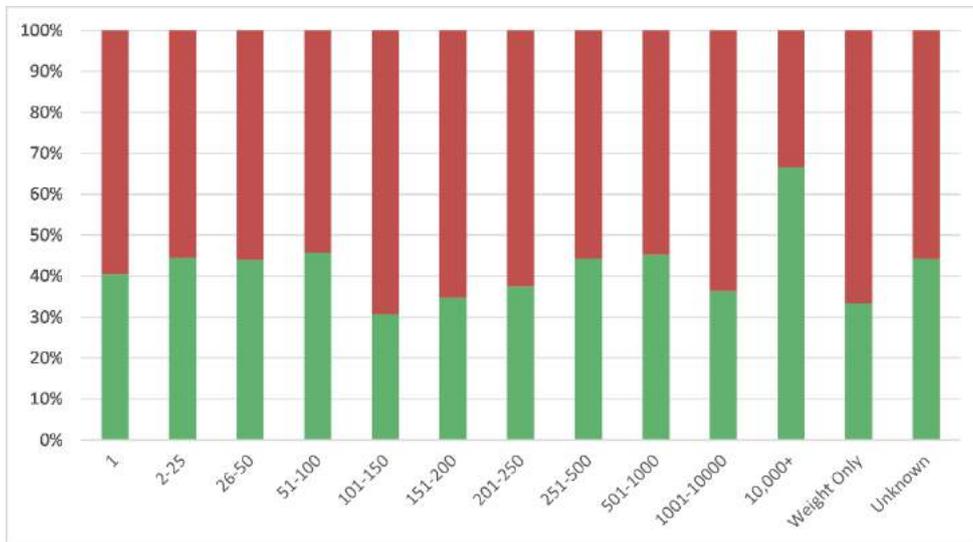


Figure 26. Is there an adequate description of recovery strategy? Breakdown by size of assemblage.

Introduction

Are the methods of study described?

The Cifa Standard and guidance (2014a) 3.8.3 states that ‘published finds reports should describe the methods employed during assessment and analysis and indicate any constraints on report preparation’.

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) 2.5.4a states that ‘A report should identify and reference... any standards and accepted methodologies used in the analysis, recording and interpretation of the pottery’.

Information about the methods of study should be in the introductory section of the specialist report, and should describe the methods of identification and quantification employed by the specialist. It may also include how these methods relate to the wider project aims. Reports which made no reference to the methods employed in identifying or quantifying the material were assigned a score of ‘0’. Reports which included any significant methodological details were given a score of ‘1’, regardless of whether methods of both identification and quantification were explained. Most of the reports that scored ‘1’ included details relating to methods of identification of artefacts, with far fewer detailing quantification methods in their introduction.

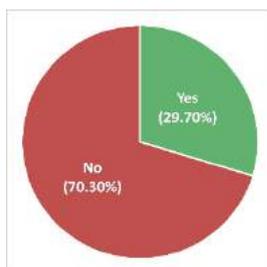


Figure 27. Are the methods of study described?

Methods of study were detailed in 29.7% of the specialist reports.

When looking at the figures by the year in which the report was published, there are no significant trends, with percentages being lowest in 2001 (17%), 2005 (18%) and 2007 (19%) and highest in 2014 (43%), 2003 (42%), 2016 (38%) and 2015 (37%). It is perhaps encouraging that over the last three years these figures are generally higher than in previous years.

There are significant regional differences in the inclusion of methods of study in specialist reports. The North-West (11%), the North-East (23%), the South-East (23%) and East Anglia (27%), all had lower rates of inclusion of methods of study. Regions where detailing methods of study was higher were the South-West (33%), Yorkshire and the Humber (37%), East Midlands (39%), West Midlands (40%) and Greater London (42%).

There also appear to be significant variations in the inclusion of methods of study in specialist reports depending upon the nature of the material being reported upon. Materials for which specialists rarely included methods of study are metal (6%), glass (8%), stone (14%), lithics (19%), and clay tobacco pipe (20%). Categories of material more likely to include methods of study were CBM (30%) and fired clay (31%). The material type for which a methods statement is most often included is pottery (47%).

The type of project does not appear to be a determining factor in whether the methods of study are described, with all project types having a similar proportion of reports that include this information.

There does appear to be a correlation between the size of the assemblage and the description of methods of study. On the whole, this information is more likely to be included in reports on larger assemblages. For assemblages of up to 100 artefacts on average only 25% of reports will include the methods of study. For assemblages of 101 to 500 objects this figure rises steeply to an average of 46% of reports including methods of study, with a further sharp rise for assemblages that are larger than 500 objects to 78% of reports including a description of methods of study.

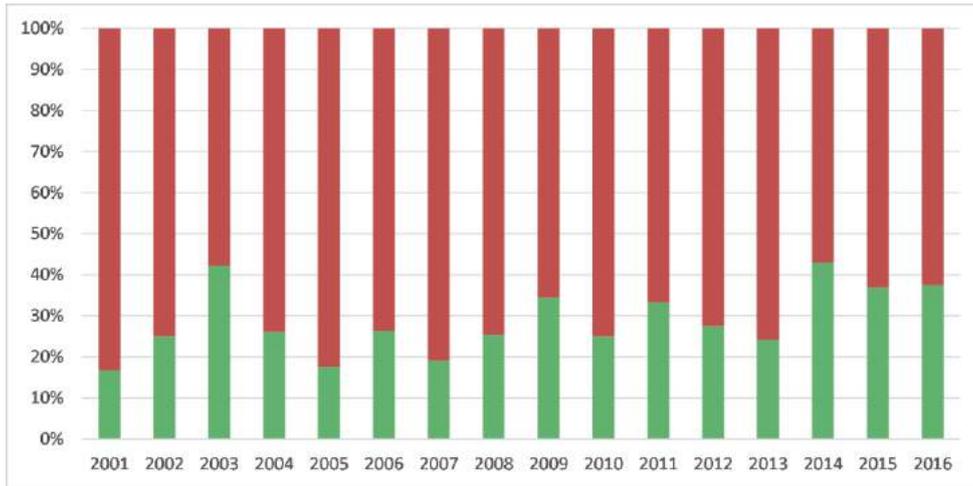


Figure 28. Are the methods of study described? Breakdown by year of publication.

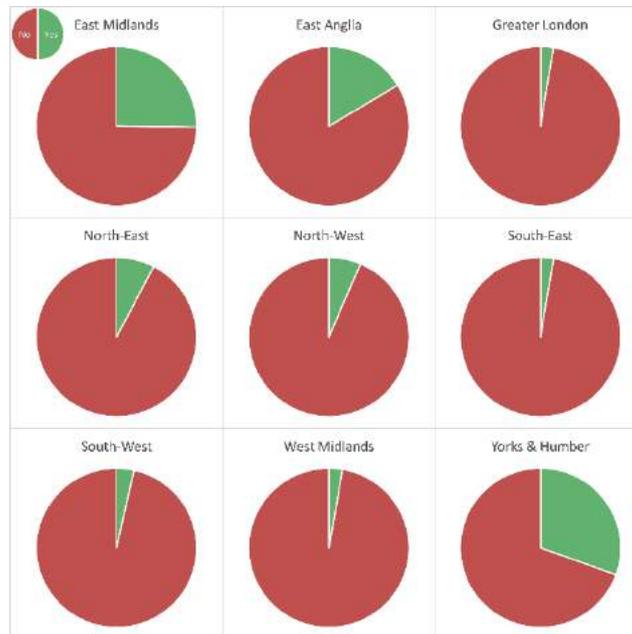


Figure 29. Are the methods of study described? Breakdown by local government region.



Figure 30. Are the methods of study described? Breakdown by project type.



Figure 31. Are the methods of study described? Breakdown by material type.

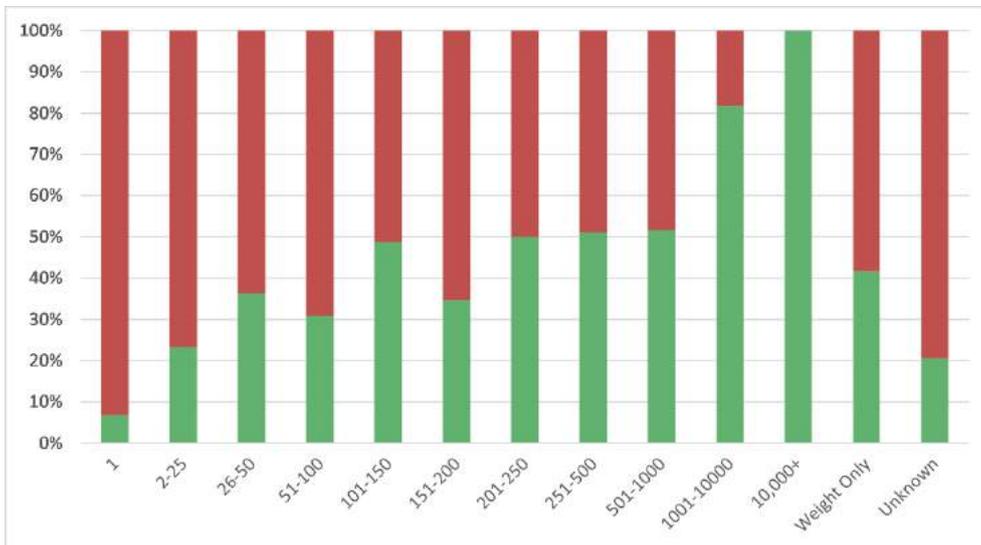


Figure 32. Are the methods of study described? Breakdown by size of assemblage.

Are the methods of study explicitly referenced to existing and appropriate standards?

When assessing reports against this criterion, reports that mentioned appropriate standards and guidance were assigned a score of '1'. Reports referencing standards and guidance that were primarily applicable to another class of material but where there are/were no formal standards and guidance and where these standards could be considered applicable, were assigned a score of '1'. Reports referencing standards and guidance that were not applicable to the class of material being assessed were assigned a score of '0'.

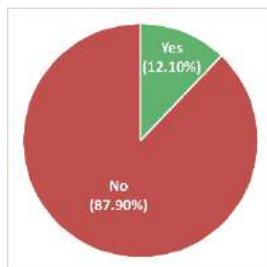


Figure 33. Are the methods of study explicitly referenced to existing and appropriate standards?

The overall proportion of specialist reports that mentioned appropriate standards and guidance was 12.1%.

There appear to be no significant trends when assessing these results against the year in which the report was published. The lowest percentages were recorded in 2001 (0%), 2004 (5%) and 2003 (6%), while higher-than-average percentages were recorded in 2009 (23%) and 2003 (19%).

Looking at the regional picture, the proportion of specialist reports that mentioned appropriate standards and guidance was lowest in Greater London, the South-East, the South-West and the West Midlands (all 3%). The North-West (6%) and North-East (8%) were slightly better. Significantly more specialists referred to standards and guidance in Yorkshire and the Humber (31%) and in the East Midlands (25%), and East Anglia was also just above average (16%).

As might be expected, significant differences in the referencing of standards and guidance were recorded for different artefact material types. All reports on glass, metal and stone made no reference to standards and guidance. Reports on lithic material also included few references to standards and guidance, with only 4% of lithic reports making such a reference, all of which cited Andrefsky (1998). Other classes of material for which standards and guidance were cited included CBM (11%), clay tobacco pipe (11%) and fired clay (14%). These reports referenced a variety of different standards, with reports on CBM and fired clay often citing the MPRG standards for describing fabric types. There appeared to be some debate about the use and reliability of guidance (and type series) for recording clay tobacco pipes. The category of material which most frequently referenced standards and guidance was pottery, but despite the standards for recording pottery having been in place since well before 2001 (when this sequence of reports begins), this figure is still low, at just 23%.

There appears to be little correlation between the referencing of standards and the type of project, with all major project types reporting a figure between 10% (watching brief reports) and 12% (excavation and trial trenching), with only strip, map and sample excavations having a slightly higher proportion of reports containing this information (17%).

There is no clear correlation between the referencing of standards and the size of the assemblage, although in general terms the larger the assemblage, the more likely it is that the standards will have been referred to in the report.

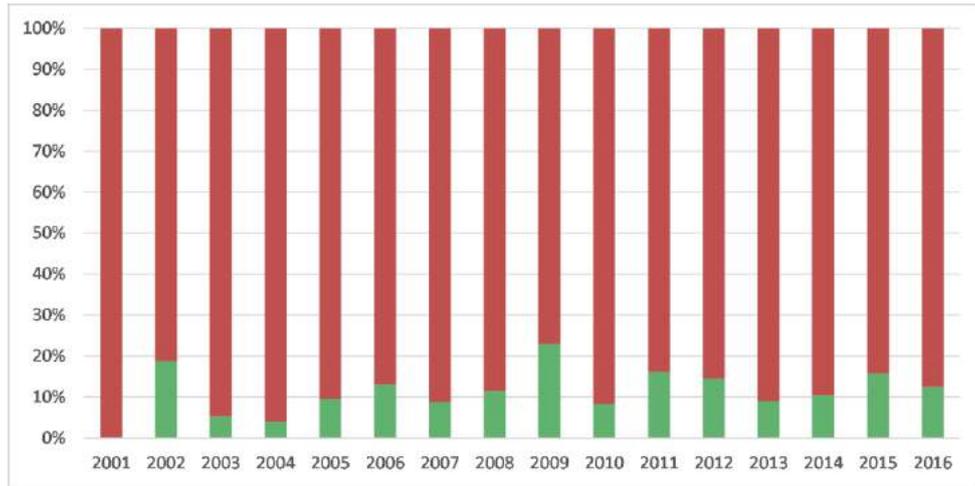


Figure 34. Are the methods of study explicitly referenced to existing and appropriate standards? Breakdown by year of publication.

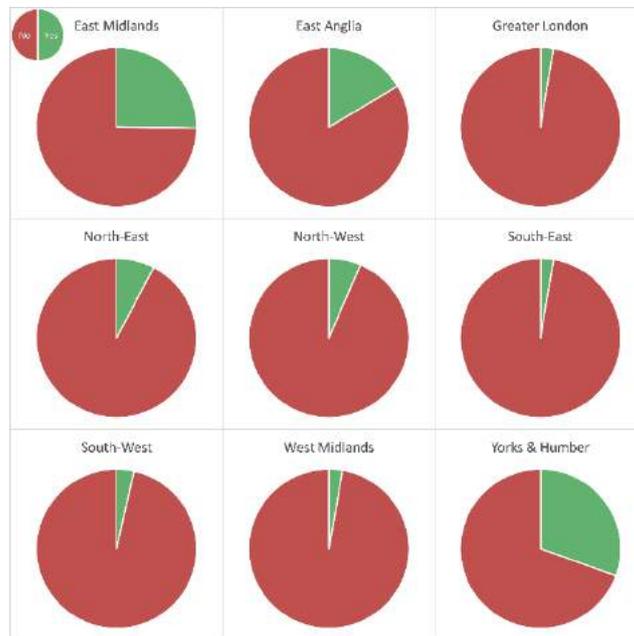


Figure 35. Are the methods of study explicitly referenced to existing and appropriate standards? Breakdown by local government region.



Figure 36. Are the methods of study explicitly referenced to existing and appropriate standards? Breakdown by project type.

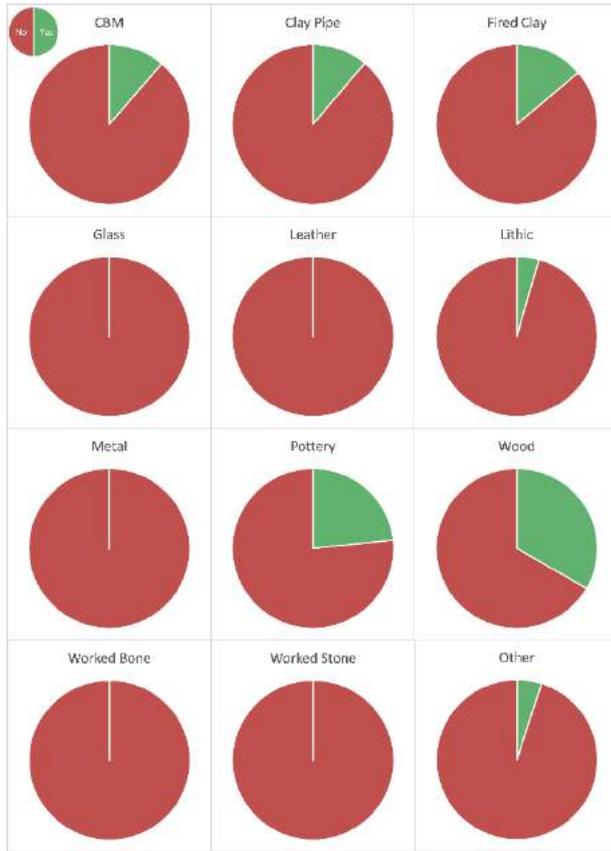


Figure 37. Are the methods of study explicitly referenced to existing and appropriate standards? Breakdown by material type.

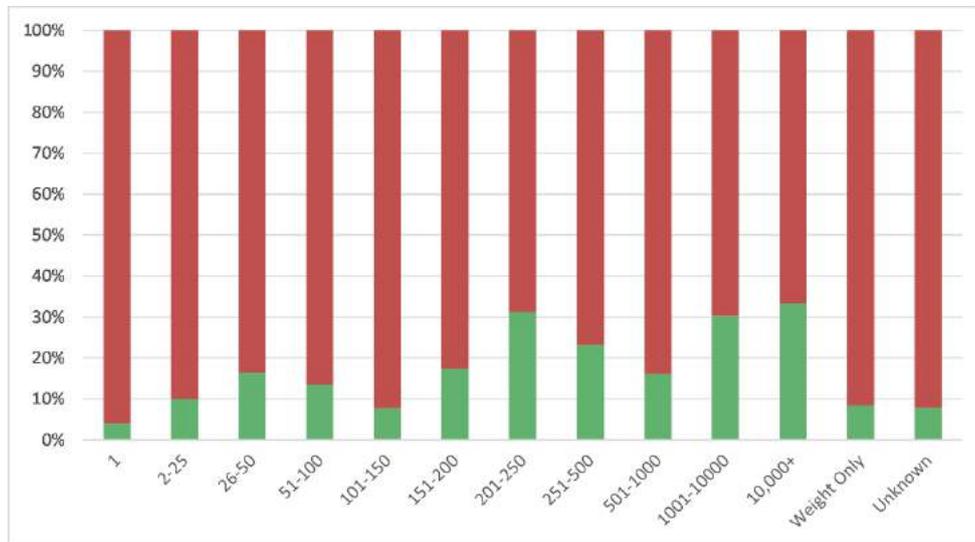


Figure 38. Are the methods of study explicitly referenced to existing and appropriate standards? Breakdown by size of assemblage.

Is the assemblage recorded with reference to use of formal reference collections or type series?

The CifA Standard and guidance (2014a) 3.7.4 states that 'The use of regional (where appropriate) reference collections is essential'.

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) 2.5.4a-b states that 'A report should identify and reference accepted typologies and type series used to characterise the pottery [and] key assemblages used to uphold or enhance the characterisation and interpretation of the pottery'.

PCRG, SGRP, MPRG (2016) A4.1 also states 'Fabrics must be described with reference to other known examples or type series, using the accepted nomenclature. Full descriptions of previously unpublished fabric and form types should be given following accepted principles (eg PCRG 2010, Darling 1994 and Slowikowski et al 2001). Where a new type series is defined, it may be appropriate to give a correlation with previously used typologies. Fabric descriptions should be presented in standardised form following period group guidance (see PCRG 2010)'.

When assessing reports against this criterion, reports that mentioned reference collections and/or type series, either as part of their methods statement or as part of the characterisation of the assemblage, were assigned a score of '1'. It was not possible to establish whether these type series were appropriate for the material examined. However, several examples of reports where the results of multiple phases of fieldwork were synthesised noted difficulties that had arisen when different type series had been used by artefact specialists working on material of the same type and date. Reports which made no mention of type series or reference collections were assigned a score of '0'.

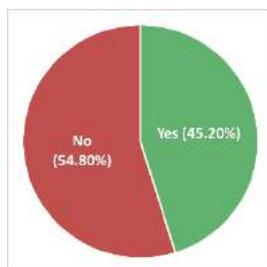


Figure 39. Is the assemblage recorded with reference to use of formal reference collections or type series?

Just under half (45.2%) of the reports assessed referred to reference collections or type series.

There appear to be no significant trends when assessing these results against the year in which the report was published.

There appear to be considerable regional differences in the use of reference collections and type series. Three regions have much higher use of type series and reference collections than the rest of the country: the West Midlands (64%), the East Midlands (59%) and Greater London (58%).

As might be expected, the most significant factor determining whether or not type series or reference collections are used is the nature of the material being reported on. The specialist reports that most frequently refer to type series and/or reference collections are pottery reports, 76% of which refer to local/regional/national type series or reference collections. Clay tobacco pipe reports make better use of type series and reference collections than most other material types, with 58% of the clay pipe reports referring to these. For other material types, the use of type series was much lower. Only 30% of reports on metal objects made use of type series or reference collections, but this relatively low figure may in part be explained by the relatively large proportion of specialist metal reports that only described undiagnostic material or material that was considered to be of little significance in terms of interpreting the site (for example large numbers of iron nails). Similarly, the 17% of glass reports that make use of type series or reference collections is partly accounted for by the large number of reports that described material such as undiagnostic

fragments of clear window glass or late post-medieval and modern bottle glass, which were only very rapidly assessed. Other material types with few references to type series or reference collections include CBM (28%), fired clay (17%), stone (16%) and lithic material (8%).

The type of fieldwork project does not appear to have a significant impact upon the use of type series and/or reference collections, with all major project types having a close-to-average proportion of reports that refer to these.

There is a clear correlation between the size of assemblage and the use of type series and/or reference collections. The proportion of reports referencing type series or reference collections rises from 20% for reports on a single artefact to around 40% for reports on assemblages of up to 100 objects and approximately 69% of reports on assemblages of between 101 and 500 objects.

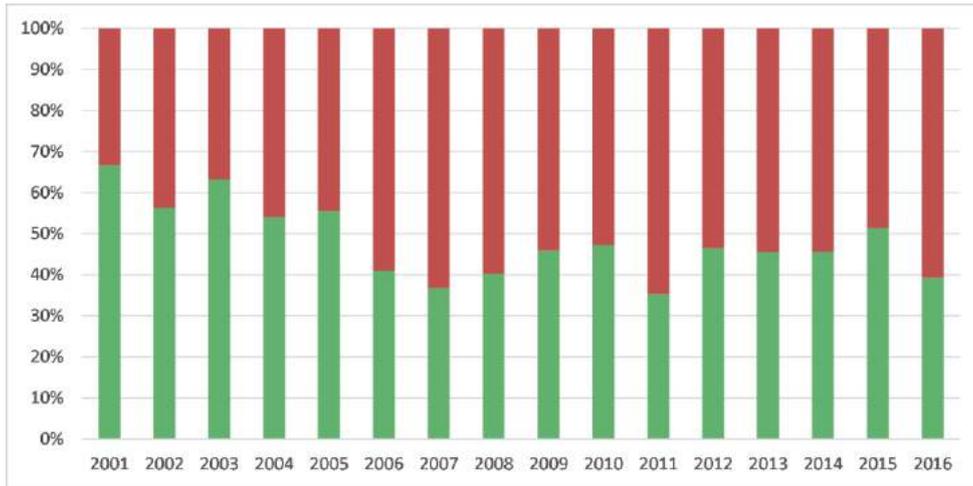


Figure 40. Is the assemblage recorded with reference to use of formal reference collections or type series? Breakdown by year of publication.

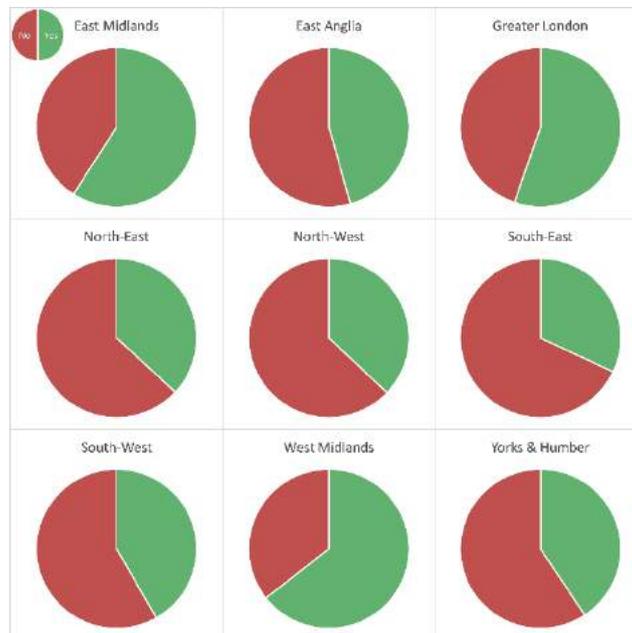


Figure 41. Is the assemblage recorded with reference to use of formal reference collections or type series? Breakdown by local government region.



Figure 42. Is the assemblage recorded with reference to use of formal reference collections or type series? Breakdown by project type.



Figure 43. Is the assemblage recorded with reference to use of formal reference collections or type series? Breakdown by material type.

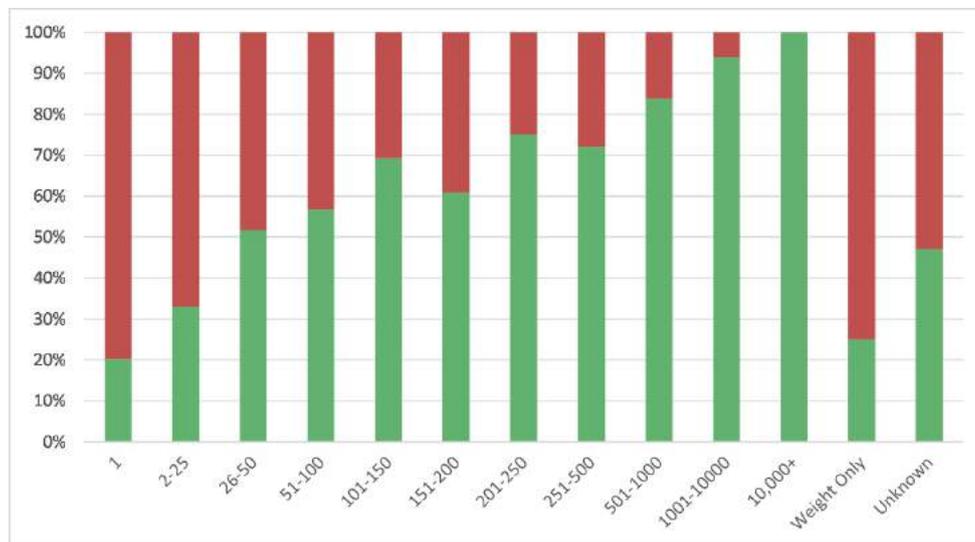


Figure 44. Is the assemblage recorded with reference to use of formal reference collections or type series? Breakdown by size of assemblage.

Is the assemblage recorded with reference to use of source material/bibliographic resources/thesauri?

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) 2.5.4c states that 'A report should identify and reference... published reports or research articles that have informed the interpretation of the assemblage'.

When assessing reports against this criterion, any reference to printed or online publications resulted in the report being assigned a score of '1'. Where the report contained insufficient detail regarding the nature of the comparative material the bibliography was briefly checked to ensure that the reference appeared to be relevant to the material. However, no attempt was made to determine whether the most appropriate/relevant publications had been referenced. Reports which included no bibliographic references or references to other source material were given a score of '0'.

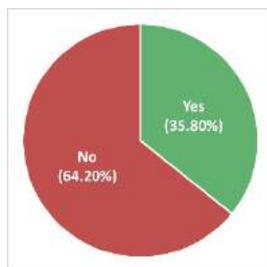


Figure 45. Is the assemblage recorded with reference to use of source material/bibliographic resources/thesauri?

Overall, 35.8% of the specialist reports assessed during this project made use of source material, bibliographic sources and/or thesauri.

There appear to be no significant trends when assessing these results against the year in which the report was published.

There do appear to be some significant regional variations in the use of source material, bibliographic sources and/or thesauri, with far fewer reports including references to these in Greater London (16%), the South-East (21%) and Yorkshire and the Humber (25%). Use of these resources was greatest in the East Midlands, with 47% of reports including some reference to one or more sources, and East Anglia, where 43% of reports included such a reference. The South-West (38%), West Midlands (36%), North-East (34%)

and North-West (32%) were all around average in the use of source material.

There were also considerable differences in the use of source material, bibliographic sources and/or thesauri when the artefact material type is considered. Use of these resources was more common in pottery reports (49%), reports on metal objects (43%) and reports on clay tobacco pipes (40%). Less use was made of such sources for reports on fired clay (24%), stone (24%), glass (23%) and lithics (17%). This may in part be explained by the lack of diagnostic traits for some of this material, but the fact that comparative material is not being sought for such a large proportion of reports is concerning.

There also appears to be a correlation between the use of source material, bibliographic references and/or thesauri and the type of project being undertaken. The report assessment indicates that these resources are less likely to have been referred to in reports on trial trenching (20%) and watching briefs (22%). These resources were more often referenced in reports on strip, map and sample excavations (36%) and most often in reports from excavations (48%).

There also appears to be a relationship between the use of source material, bibliographic references and/or thesauri and the size of the assemblage, with larger assemblages being more likely to reference such sources. The proportion of reports referencing these sources is 32% for assemblages of 100 objects or fewer, which rises to 53% for assemblages of between 101 and 500 artefacts, and the proportion of reports on assemblages of over 500 objects is 86%.

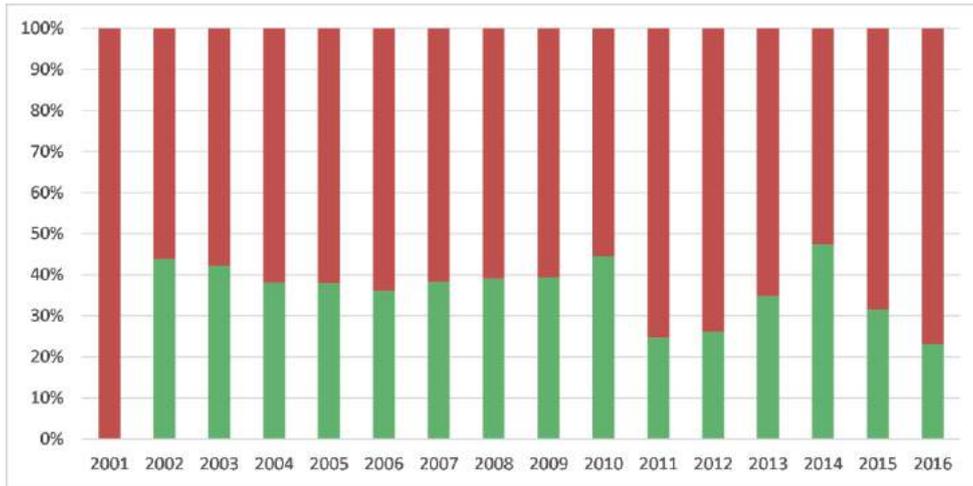


Figure 46. Is the assemblage recorded with reference to use of source material/bibliographic resources/thesauri? Breakdown by year of publication.

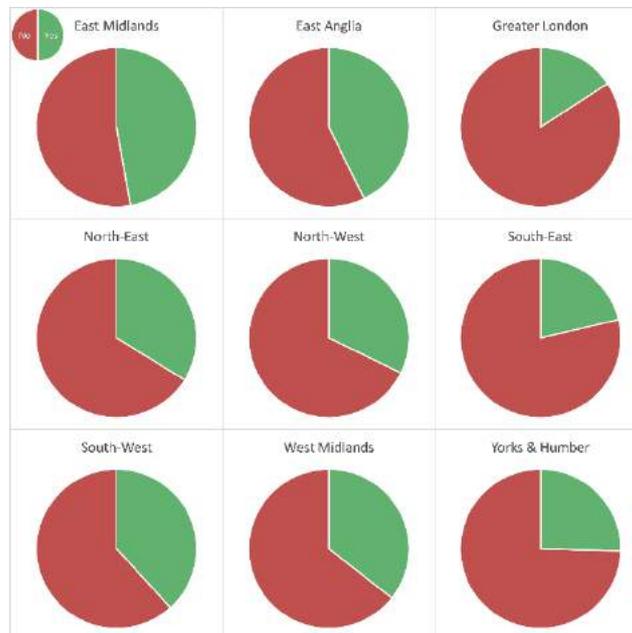


Figure 47. Is the assemblage recorded with reference to use of source material/bibliographic resources/thesauri? Breakdown by local government region.



Figure 48. Is the assemblage recorded with reference to use of source material/bibliographic resources/thesauri? Breakdown by project type.

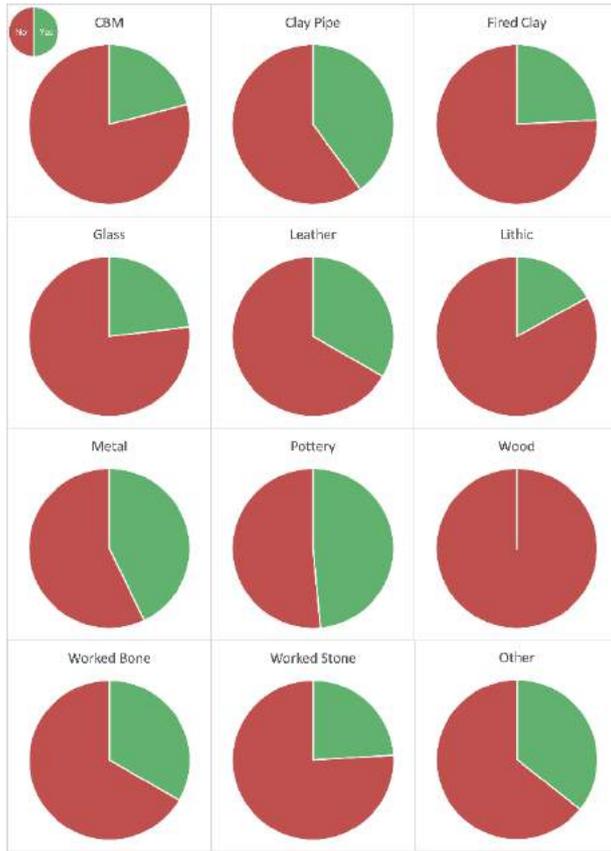


Figure 49. Is the assemblage recorded with reference to use of source material/bibliographic resources/thesauri? Breakdown by material type.

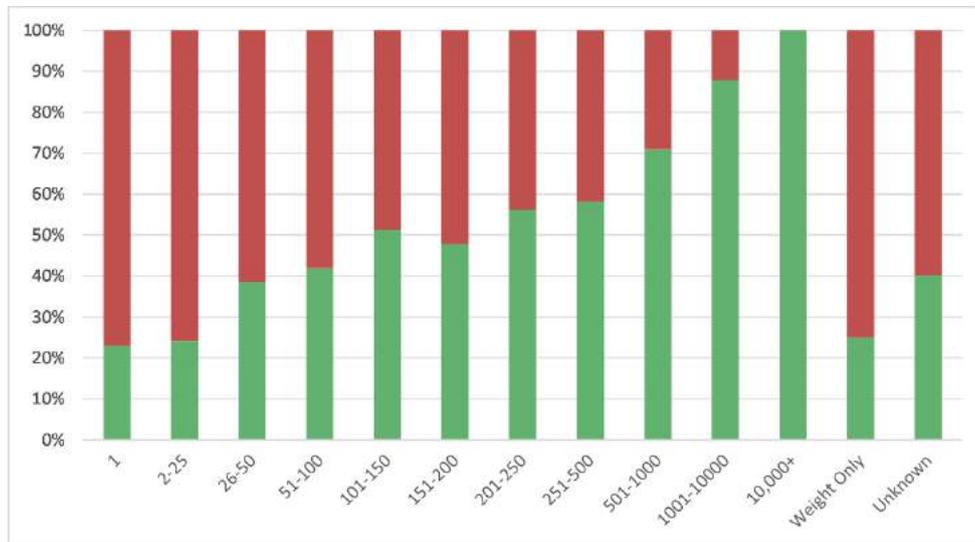


Figure 50. Is the assemblage recorded with reference to use of source material/bibliographic resources/thesauri? Breakdown by size of assemblage.

Does the report include a date of work carried out/data collected?

The ClfA Standard and guidance (2014a) 3.8.3 states that ‘The dates of commencement, completion and revision [of published finds reports] should be published’.

This is included in the report assessment to see whether it is possible to find out the date that the specialist analysis was carried out. This is especially useful for large projects where there may have been a lengthy time-lag between the specialist analysing the artefacts and the final report being published. It gives an indication of the standards to which the specialist might have been working at the time and could explain why some reference collections were not consulted (eg they may not have been in existence), or particular methods used.

When assessing reports against this criterion, all specialist reports that contained any information relating to the year in which the specialist analysis was carried out were assigned a score of ‘1’. Incomplete dates (eg 1st May) were scored ‘0’. Most of these dates were either part of the report heading or at the end of the report, but some examples were also encountered where a sentence had been added to the specialist report to indicate that it had or had not been updated since the specialist analysis was carried out (for example if there had been a lengthy time-lag between the artefact work and the publication).

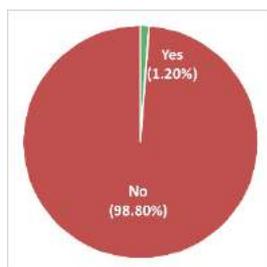


Figure 51. Does the report include a date of work carried out/data collected?

Only 1% of reports assessed during this project included the date when the specialist analysis was carried out. Anecdotally, it seems that this information is often included on specialists’ reports, but that this is removed when the specialist report is integrated with the rest of the report as part of the editorial process. Greater emphasis needs to be placed on the necessity to publish this information.

Given the small number (10) of reports in which a date is included, equating to just 1% of the overall sample, further analysis would not be worthwhile or statistically significant.

Is there a concordance of codes/abbreviations and their meanings?

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) 2.4.3 states that 'The pottery specialist should... ensure any codes used in creating the record (eg fabric codes, field names) are supported by a concordance of codes and full descriptive terms; this concordance should be in digital and paper forms for inclusion in the project archive'. It also states in A4.1 that 'All terms used in descriptions of fabrics, forms, decoration and other attributes must be used consistently, and if necessary explained in glossaries or concordances'.

The reason for including this in the assessment of reports is to ensure that the contents of the report are readily accessible to people reading the report, without them having to consult other sources in order to interpret the data. It is essential that any codes used to denote fabric, form, decoration or any other attribute are described to provide their full meaning.

When assessing reports against this criterion, reports which included a glossary or table of terms, either as part of the specialist report or as a separate appendix, were given a score of '1'. Likewise, reports which used abbreviations or codes which were defined in the text after their first use were given a score of '1'. Reports without a glossary or concordance and with no explanations accompanying abbreviations used in the text to describe fabric, form, decoration etc were given a score of '0'.

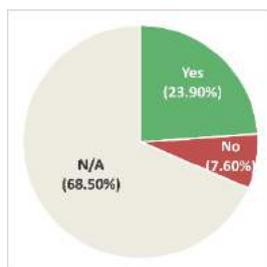


Figure 52. Is there a concordance of codes/abbreviations and their meanings?

Only 31.5% (n=315) of the specialist reports included abbreviated terms which required a definition. Of these, 75.8% (n=239) included a glossary, concordance or expansion of abbreviated terms, with the remaining 24.3% (n=76) scoring '0'.

There appear to be no significant trends when assessing these results against the year in which the report was published.

It is difficult to see any significant regional patterns in the use of concordances of abbreviations and their meanings.

The breakdown of the use of concordances by project type is also unclear, and it seems that a similar proportion of reports include this for all project types.

Artefact material types have a significant impact on the use of concordances of codes/abbreviations and their meanings. Pottery is the material type for which a concordance is most often required, with 62% of reports including abbreviations or codes. Of these pottery reports including abbreviations, 84% contained this information. The other material types for which a substantial proportion of reports included abbreviations or codes requiring a concordance were CBM (28%) and fired clay (24%). These two material types differed greatly in their inclusion of such a concordance, with just 63% of CBM reports that required a concordance including one, while for fired clay this figure was 86%.

Although the need for a concordance increases as the assemblage size grows, the proportion of reports containing a concordance if required does not change significantly with the size of the assemblage.

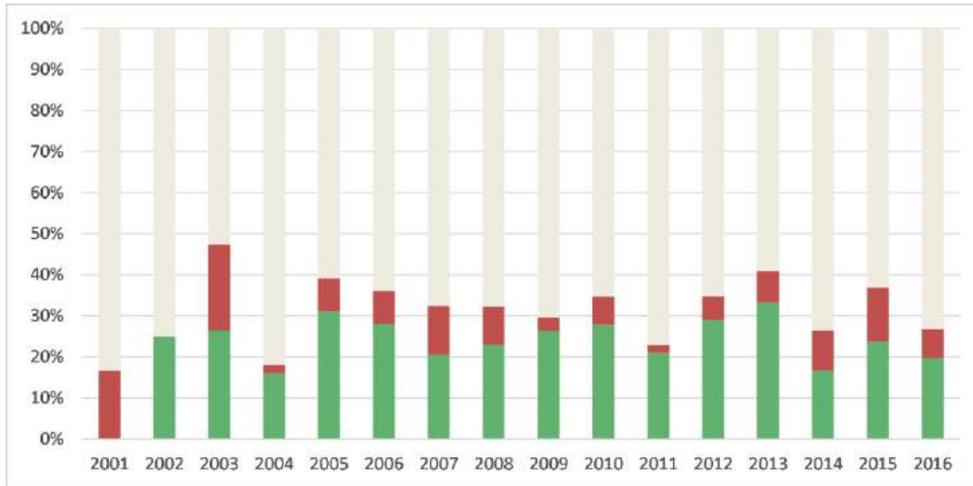


Figure 53. Is there a concordance of codes/abbreviations and their meanings? Breakdown by year of publication.

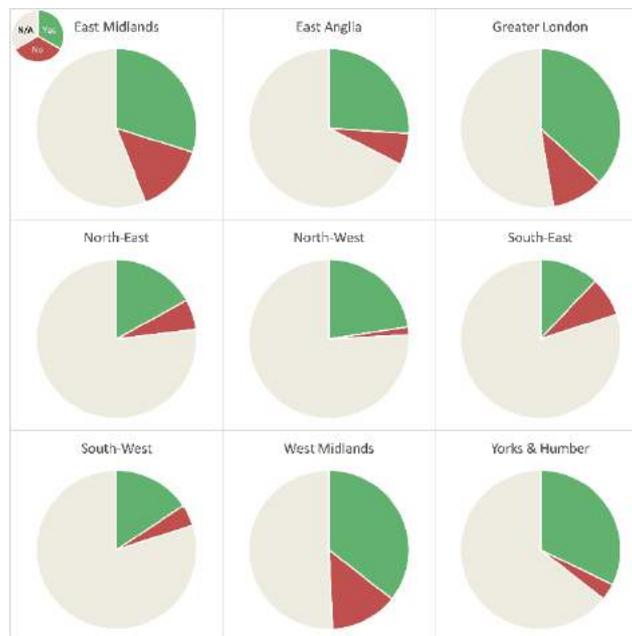


Figure 54. Is there a concordance of codes/abbreviations and their meanings? Breakdown by local government region.



Figure 55. Is there a concordance of codes/abbreviations and their meanings? Breakdown by project type.

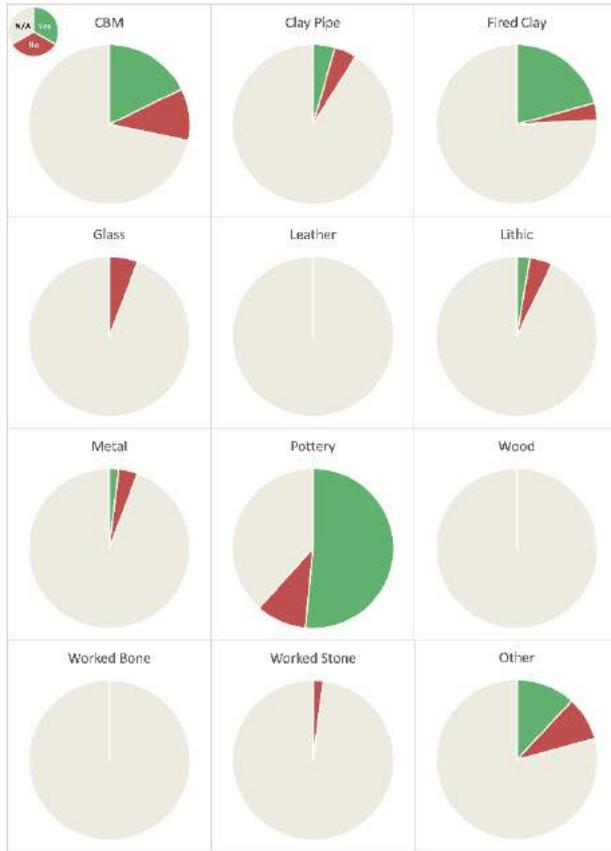


Figure 56. Is there a concordance of codes/abbreviations and their meanings? Breakdown by material type.

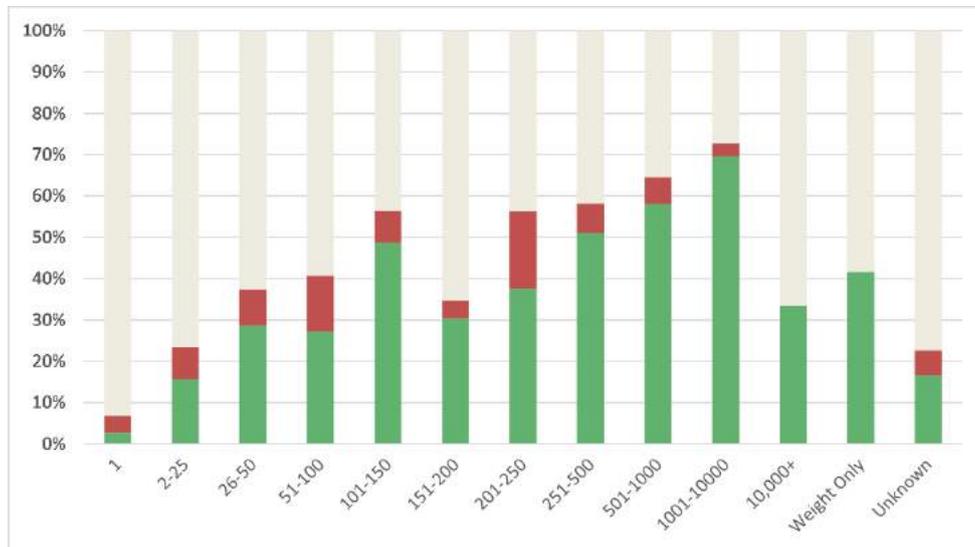


Figure 57. Is there a concordance of codes/abbreviations and their meanings? Breakdown by size of assemblage.

Does the introduction state the overall size of assemblage?

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) 2.5.5a states that 'A pottery report should include... an introduction to the nature of the assemblage, including total quantities'.

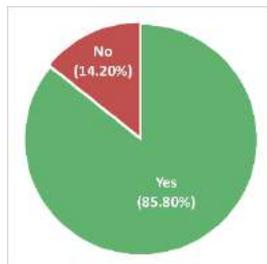


Figure 58. Does the introduction state the overall size of assemblage?

The total percentage of specialist reports in which the overall size of the assemblage is stated in the introduction is 85.8%.

While the overall figure is high, there is also an encouraging gradual improvement through time, with more recent reports being more likely to include the overall size of the assemblage in the introduction. The lowest percentages were recorded in 2002 (67%) and 2001 (62%), with the highest percentages being recorded in 2012 (93%), 2015 (92%) and 2008 (91%).

There are some regional variations within these results, with 95% of reports produced for projects in the North-West stating the overall size of the assemblage in the introduction. The percentages were below average in East Anglia (81%) and in Yorkshire and the Humber (83%).

There are also some variations when the subject of the specialist report is considered. Lithic reports are most successful at recording the overall size of the assemblage in their introduction (94%), followed by pottery and clay tobacco pipe (both 91%) and stone (90%). The overall size of the assemblage is included less often in reports on metal (75%), glass (79%) and CBM (83%).

The project type does not seem to affect whether or not the introduction of the report states the overall size of the assemblage, with the percentage of report for all major project types being similar (trial trenching: 89%, watching brief: 89%, strip, map and sample excavation: 87%, excavation: 84%).

The size of the assemblage does not seem to affect whether or not this figure is reported in the introduction to the report.

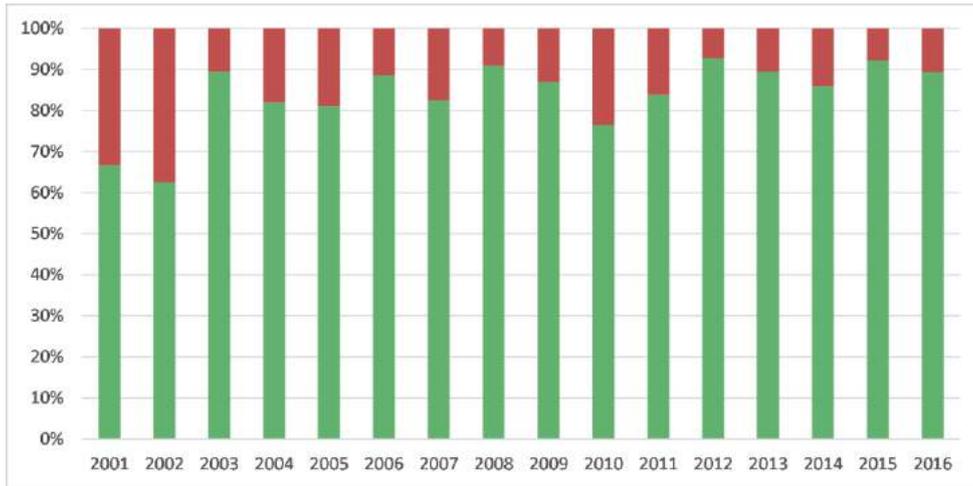


Figure 59. Does the introduction state the overall size of assemblage? Breakdown by year of publication.

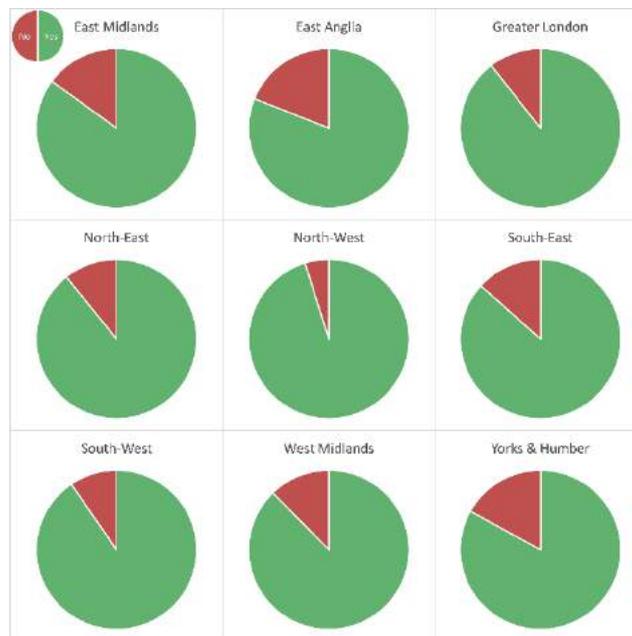


Figure 60. Does the introduction state the overall size of assemblage? Breakdown by local government region.



Figure 61. Does the introduction state the overall size of assemblage? Breakdown by project type.

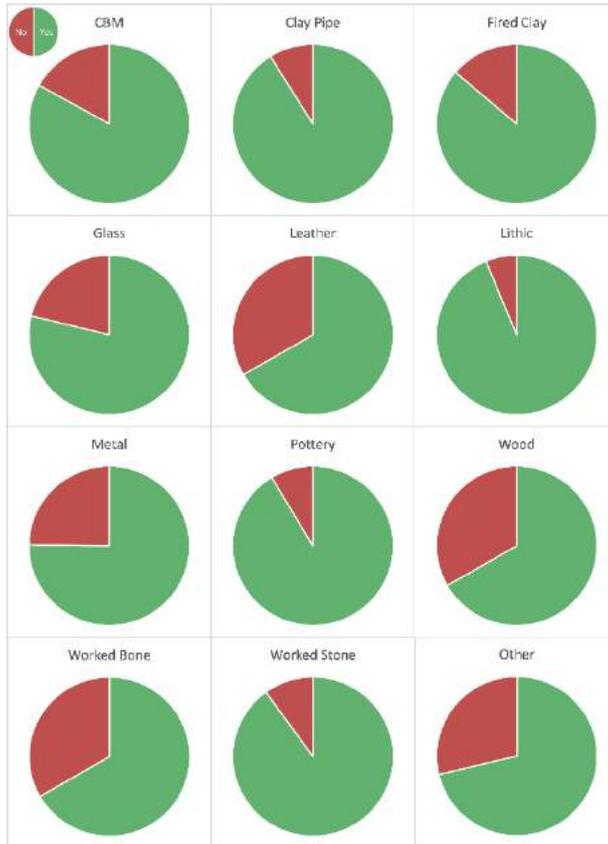


Figure 62. Does the introduction state the overall size of assemblage? Breakdown by material type.

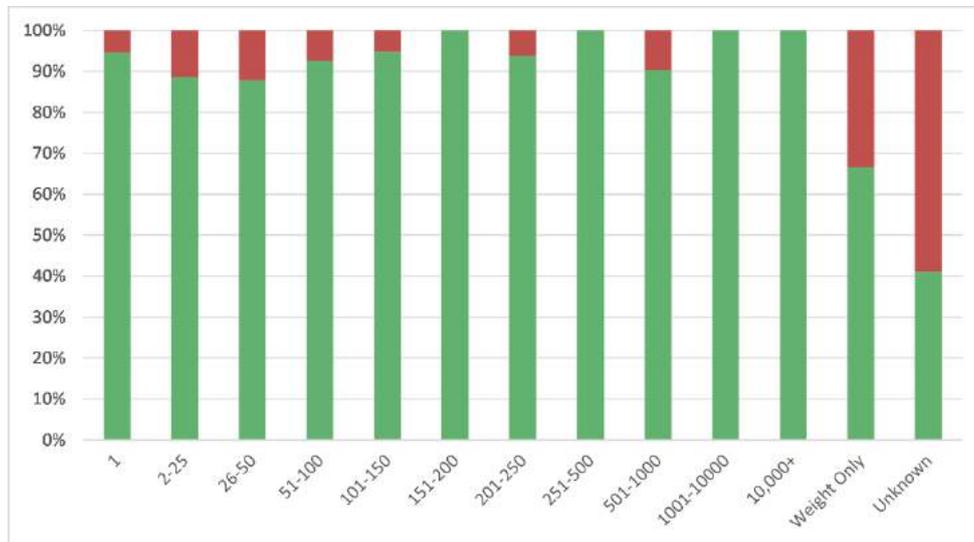


Figure 63. Does the introduction state the overall size of assemblage? Breakdown by size of assemblage.

Are the archive products of the recording process described?

The CifA Standard and guidance (2014a) 3.8.6 states that ‘The final report should specify where every component of the archive is deposited. Accession numbers given by the receiving institutions should be published whenever possible. The existence and location of unpublished documentation, if known, should be indicated’.

The CifA Standard and guidance (2014a) 3.7.6 also states that ‘A stable, accessible archive must be created. All data generated as a result of analysis should be included in the project archive.’

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) 2.5 states that ‘A published report should... clearly relate to the material archive in order to facilitate access to pottery for future researchers’. The Standard (2.6.4) also clearly sets out the contents of the archive, as follows: ‘Archive components resulting from the reporting stage that must be incorporated into the project archive include:

- a. a clean copy of the data recorded by the specialist; this will usually be in the form of a digital file, either a spreadsheet or database
- b. a concordance of all the codes used during recording and their meanings
- c. selected copies of drafts, together with the final version, of the full specialist report; it is worth considering retaining some early draft reports if these further illuminate the process of arriving at the final interpretations
- d. original versions of all drawings, which are likely to be in ink, on card or film, and must be included in the documentary archive
- e. original versions of all photographs: negatives or transparencies will be incorporated into the documentary archive but most publication photographs are now likely to be digital, and the original file, in .tiff or raw format, must be included in the digital archive; it is not acceptable to assume that photographs incorporated into document files, such as .pdfs, will be archived in that form
- f. the publication version of the specialist report, especially if this has been created as a separate file for later incorporation into the final project report’.

This criterion was included in the assessment of reports to determine whether or not the contents of the archive are detailed in the specialist report. This is essential in order to enable future researchers to determine what resources will be available to them if they consult the project archive. As stated in the Standard, the overall project report should explain what has been submitted as part of the project archive and should detail any databases, spreadsheets or record forms that can be found within the project archive.

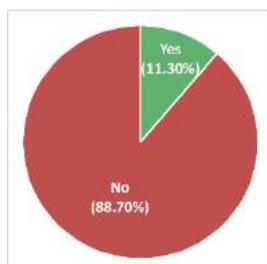


Figure 64. Are the archive products of the recording process described?

When assessing reports against this criterion, reports were only given a score of ‘1’ if the report explicitly stated what had been included in the project archive. Methodological statements relating to the analysis of the assemblage (eg concerning the software used) were only given a score of ‘1’ if the report explicitly stated that certain resources (eg an Excel spreadsheet or Access database used to identify and quantify the assemblage) had been included as part of the project archive.

Only 11.3% of the specialist reports assessed during this project included any information relating to the contents of the project archive.

By breaking down the results for this question by report year it is possible to detect a gradual improvement over time in the description of archive products of the reporting process, although the figure for 2016 (11%) was just below average.

There appear to be some significant regional differences in the description of archive products. The percentages of specialist reports containing such information are very low for Greater London, the North-West and the South-East at just 3%, and for the North-East at 5%. The percentages are around average for the West Midlands (10%), East Anglia (13%) and the South-West (14%). The regions with the highest proportion of reports including information relating to the project archive are Yorkshire and the Humber (25%) and the East Midlands (20%).

There are also some notable differences when the material type that forms the subject of the specialist report is considered. For some material types, very few reports contain any information about the contents of the project archive. This is especially the case for metal (2%), stone (2%), glass (4%) and lithics (5%). Reports that are more likely to contain this information are those on fired clay (21%), CBM (15%) and pottery (19%).

The type of project does seem to affect whether or not the archive products of the recording process are noted in the report. Projects that are less likely to include this information are watching briefs (6%) and trial trenching (9%). The proportion of reports including this information is higher for excavations (14%) and for strip, map and sample excavations (13%).

There appears to be a slight correlation between the reporting of archive products and the size of the assemblage, with reports on larger assemblages being slightly more likely to include this information, but the differences between large and small assemblages are not great.

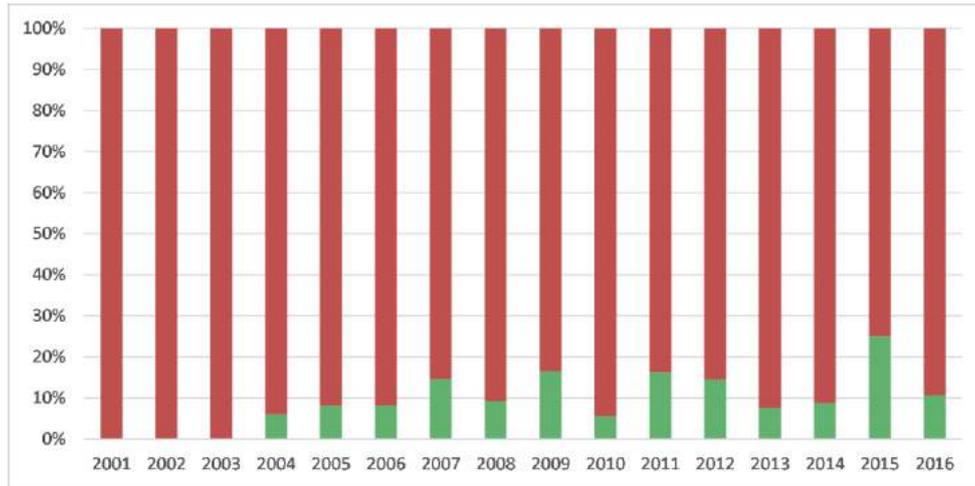


Figure 65. Are the archive products of the recording process described? Breakdown by year of publication.

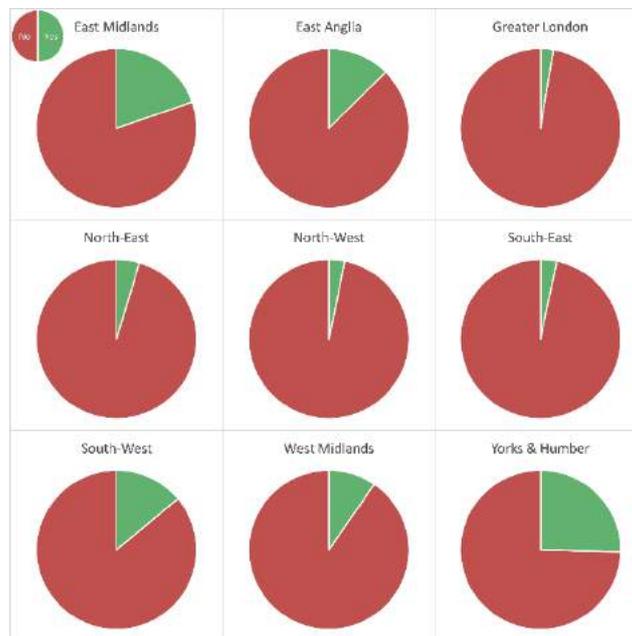


Figure 66. Are the archive products of the recording process described? Breakdown by local government region.



Figure 67. Are the archive products of the recording process described? Breakdown by project type.



Figure 68. Are the archive products of the recording process described? Breakdown by material type.

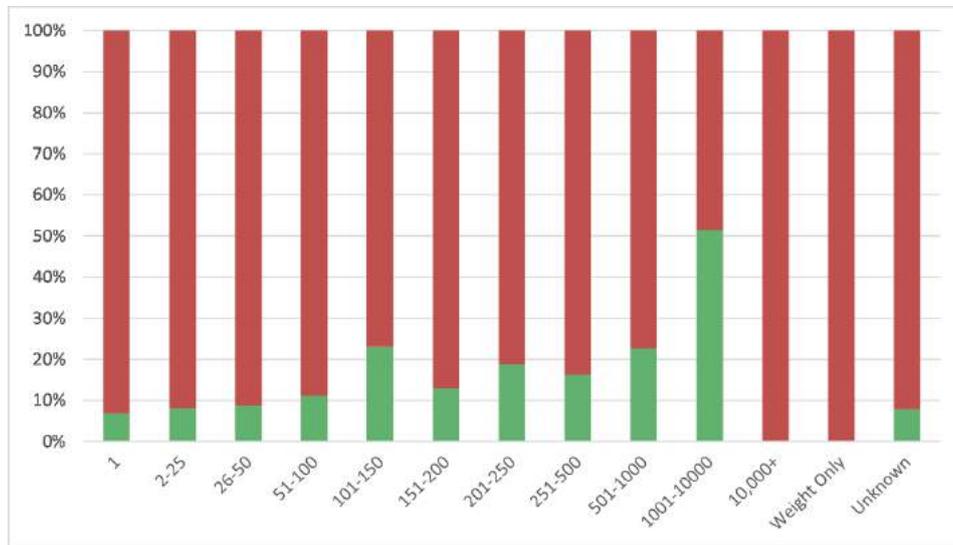


Figure 69. Are the archive products of the recording process described? Breakdown by size of assemblage.

Characterisation

Is the material type classified to a basic level?

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) 2.5.5h states that 'The pottery report should include... description of fabric types and/or ware types, depending on the level of analysis employed'.

Assessment of reports against this criterion are based on material type categories in the Object Materials Thesaurus. In order for a score of '1' to be given, objects must as a minimum be classified at a basic level using a broad type such as glass, metal, pottery, stone, wood. Where a more specific material type has been identified these reports have also been given a score of '1'. Reports where the material has not been classified to a basic or detailed level have been assigned a score of '0'.

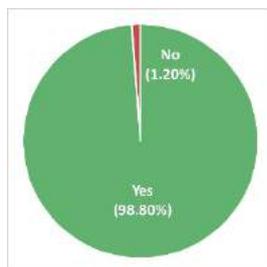


Figure 70. Is the material type classified to a basic level?

Almost all of the reports (98.8%, n=988) had classified the material type to a basic level, with just 12 out of 1000 reports (1.2%) not including any basic material type(s). Given the small number of reports which had not classified material to a basic level, there has been no further analysis of the factors behind this.

There does appear to be a correlation between the size of the assemblage and the inclusion of basic material type classification. All assemblages of over 100 items include a basic classification of material type, with only assemblages of 100 objects or fewer lacking this information from the specialist report.

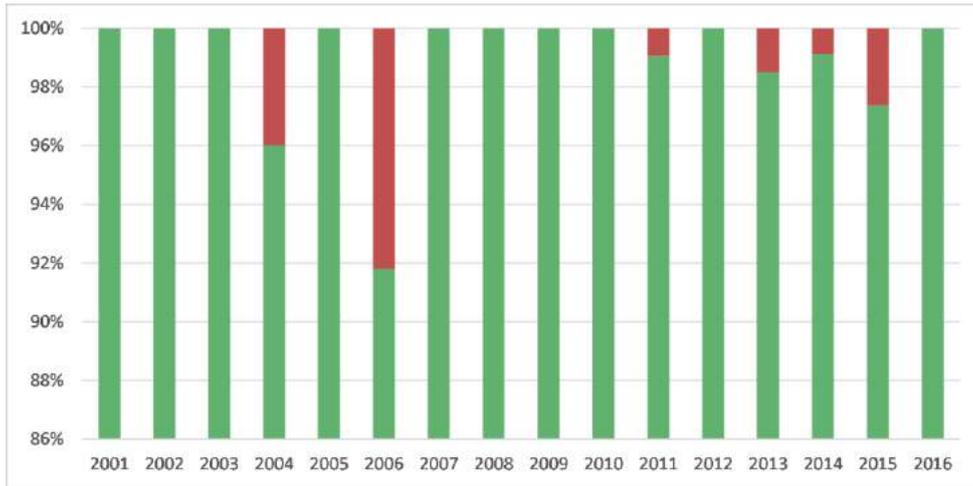


Figure 71. Is the material type classified to a basic level? Breakdown by year of publication.

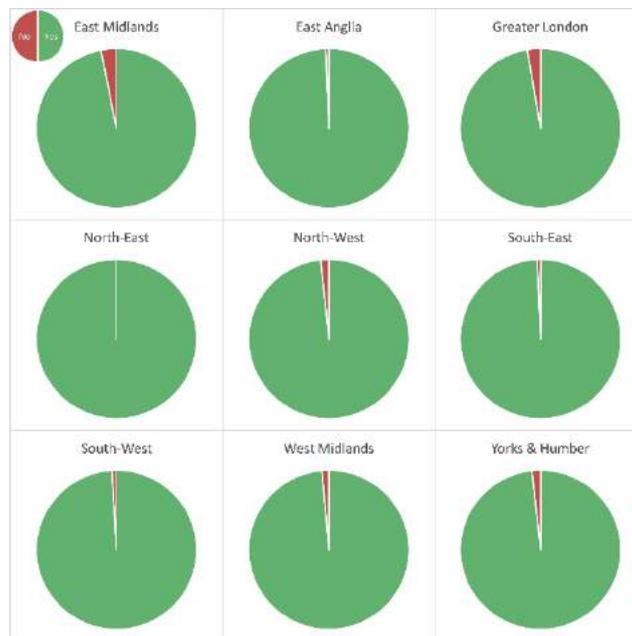


Figure 72. Is the material type classified to a basic level? Breakdown by local government region.

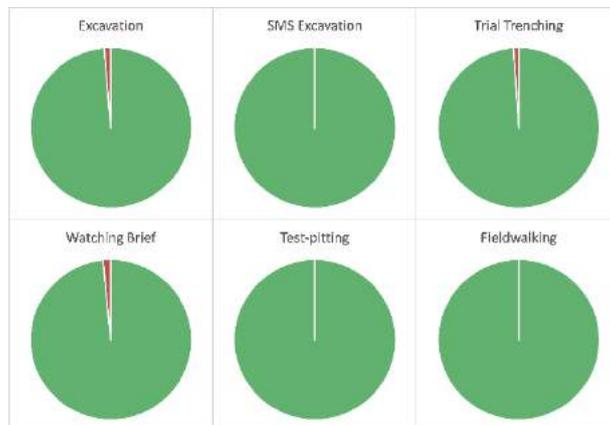


Figure 73. Is the material type classified to a basic level? Breakdown by project type.

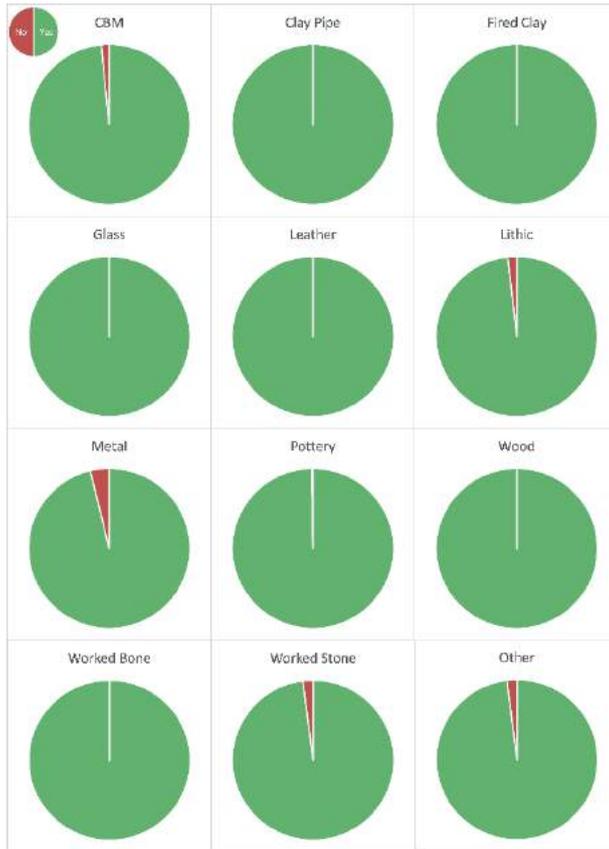


Figure 74. Is the material type classified to a basic level? Breakdown by material type.

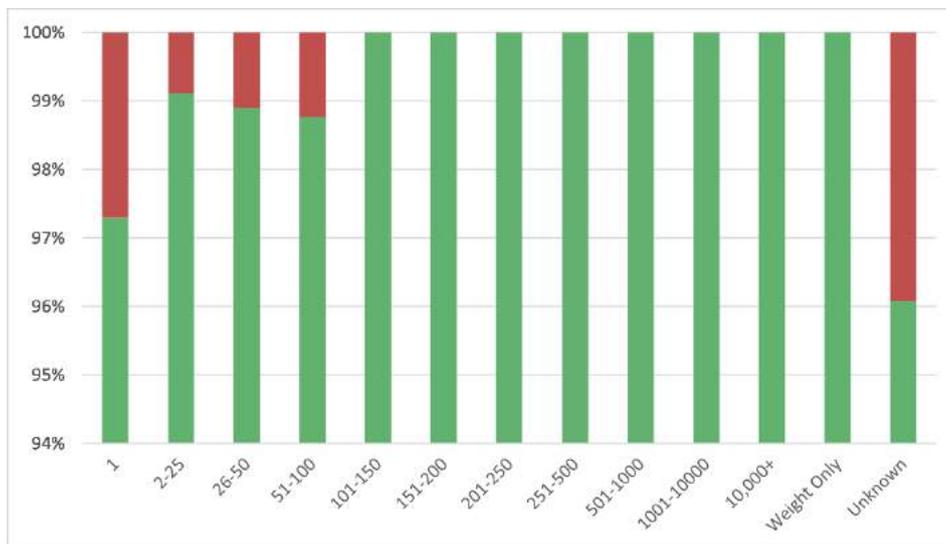


Figure 75. Is the material type classified to a basic level? Breakdown by size of assemblage.

Where applicable, is the material type classified to a detailed level?

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016, 2.5.5h) states that 'The pottery report should include... description of fabric types and/or ware types, depending on the level of analysis employed'.

Assessment of reports against this criterion are also based on material type categories in the Object Materials Thesaurus. Objects classified at a detailed level are classified using a narrow type such as colourless glass, lead, Ipswich ware, sandstone, oak. In order for a score of '1' to be assigned, all of the material discussed in the specialist report must be assigned a detailed material type, where applicable. Where none of the objects in the specialist report was classified using a narrow type from the Object Materials Thesaurus, a score of '0' was assigned.

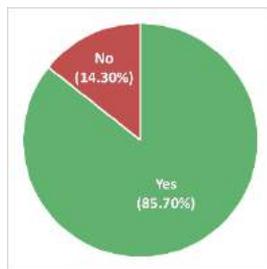


Figure 76. Where applicable, is the material type classified to a detailed level?

Within the sample of reports, 85.7% of the specialist reports classified material to a detailed level, leaving 14.3% (n=143) that did not classify the material beyond a broad type.

There appear to be no significant trends when assessing these results against the year in which the report was published. Similarly, there are no obvious regional variations in these results.

It appears that project type may affect whether material type is classified to a detailed level. Artefacts from excavations are more likely to have been classified to a detailed level by material type, with 89% of excavation reports including this information. The proportions are slightly lower for all other project types, with 85% of strip, map and sample excavation reports, 85% of watching brief reports and 79% of trial trenching evaluation reports containing this information.

Unsurprisingly, the most significant factor determining whether material has been classified to a detailed level is the nature of the material itself. The categories of material with the greatest percentages of material classified to a detailed level are pottery (98%), glass (96%) and stone (90%). For pottery, almost all specialist reports included descriptions of fabric type(s), as set out in the Standard (PCRG, SGRP, MPRG 2016, 2.5.5h). Most specialist reports on glass included some indication as to the colour and/or type of glass (eg colourless glass, plain window glass), even though many of these reports were lacking in much further detail. Almost all reports on worked stone included further information about the type of stone, with some being classified only by broad subtype (eg limestone) while others were identified more precisely to their point of origin (eg Caen stone).

More concerning was the figure of 86% of specialist reports on metal objects that contained a detailed identification of material type. This means that 14% of these reports made no attempt to classify the material type of these objects or even to make a distinction between objects of iron and objects of copper alloy.

Material types that recorded below average percentages for classification of material by detailed type included CBM (80%), lithic material (67%), fired clay (59%) and clay tobacco pipes (44%). Most CBM reports tended to include fabric description(s) and those which did not tended to be for smaller and more fragmentary assemblages. Similarly, for fired clay, where possible most reports described the fabric, but for more fragmentary assemblages this was not always done. One-third of lithic reports made no attempt to describe the material type in any more than basic detail, with most simply using

the term 'flint' to describe the artefact material. Similarly, for clay tobacco pipes, less than half of the reports assessed contained any information on the fabric from which the pipes were made.

There also appears to be a correlation between detailed classification of material type and size of assemblage, with larger assemblages more likely to include detailed classification of material type.

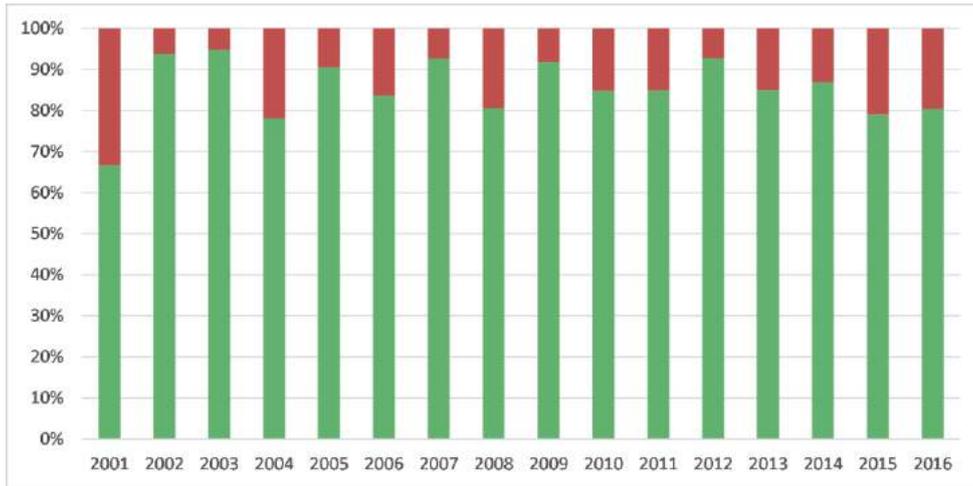


Figure 77. Where applicable, is the material type classified to a detailed level? Breakdown by year of publication.

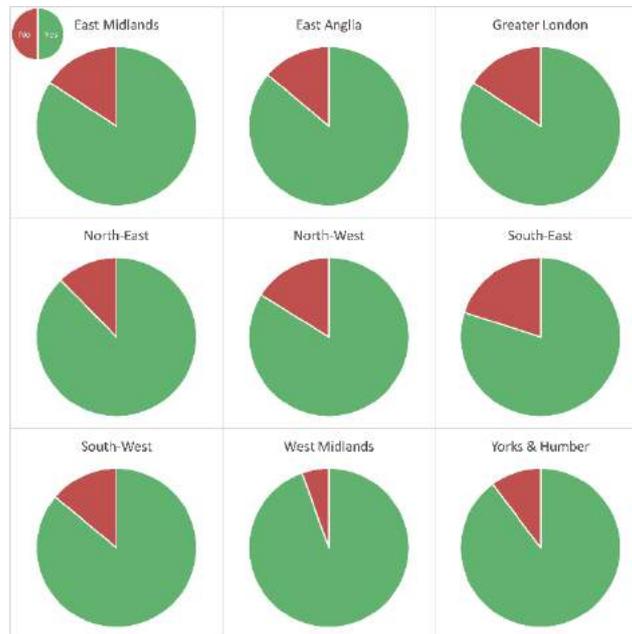


Figure 78. Where applicable, is the material type classified to a detailed level? Breakdown by local government region.

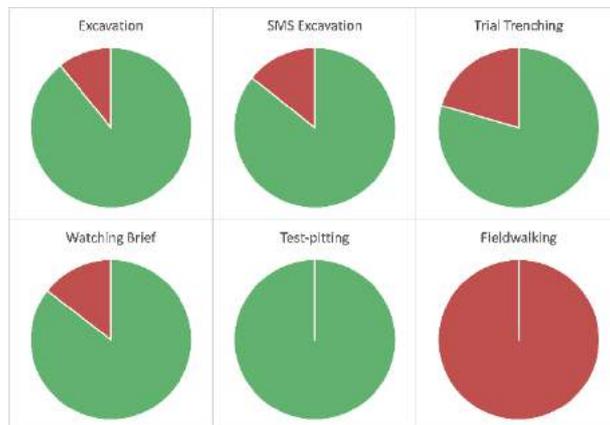


Figure 79. Where applicable, is the material type classified to a detailed level? Breakdown by project type.



Figure 80. Where applicable, is the material type classified to a detailed level? Breakdown by material type.

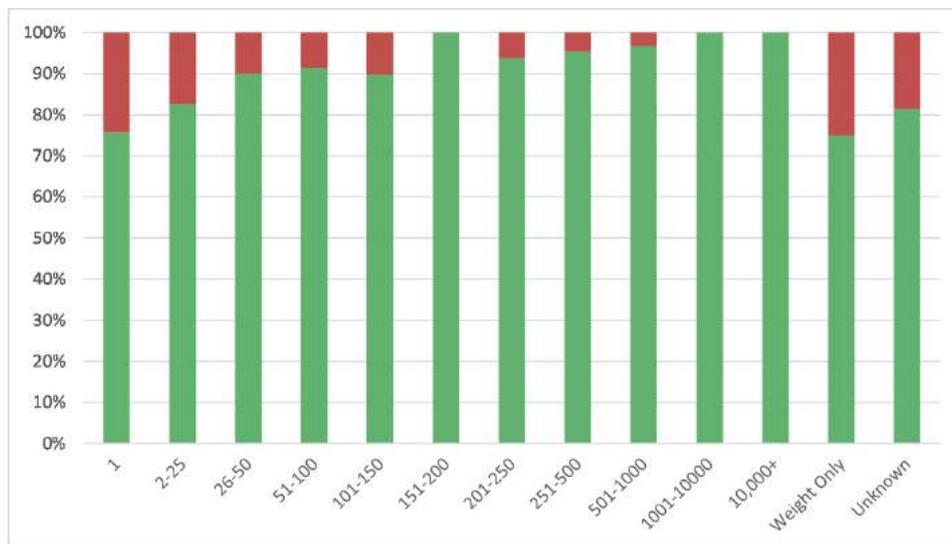


Figure 81. Where applicable, is the material type classified to a detailed level? Breakdown by size of assemblage.

If scientific analysis of the material was undertaken, are the results presented?

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) 2.5.5.g states that ‘The pottery report should include... full integration of any scientific analysis’.

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) A4.1 states that ‘The results of scientific analysis for use should be integrated with other lines of evidence for the same phenomena, eg when using lipid analysis to identify food residues’.

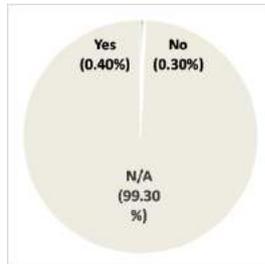


Figure 82. If scientific analysis of the material was undertaken, are the results presented?

Only seven reports out of 1000 (0.7%) included any scientific analysis. The results of the scientific analysis were presented in four out of the seven reports (0.4%).

Because of the small number of reports containing this information, no further analysis has been carried out. This sample is too small to be considered representative. It does however highlight the fact that scientific methods are still only being used very rarely in artefact work.

Is the object type classified at a basic level?

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) 2.4.5 states that to create a basic pottery record the specialist should 'Characterise and sort the pottery according to... vessel class (bowl, flagon, jar, jug etc) [and] vessel type, where appropriate (eg Samian forms)'.

For pottery, classification at a basic level equates to the identification of vessel class (eg bowl, jar, jug etc), as opposed to identifying a more precise vessel type (eg carinated bowl, globular jar, ring-necked flagon etc). For other types of material this basic level of classification would include identifications such as coin, brooch, scraper (as opposed to sceat, ansate brooch, thumbnail scraper).

When scoring specialist reports against this criterion, any reports where the object type was scored at a basic level OR at a detailed level were assigned a score of '1'. Assemblages where no attempt had been made to identify object types at a basic level were assigned a score of '0'.

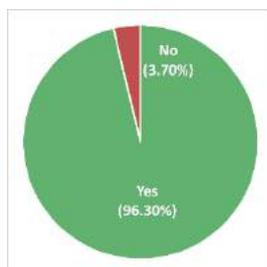


Figure 83. Is the object type classified at a basic level?

Almost all of the reports assessed in this project (96.3%, n=963) included a basic object type identification.

It is not possible to identify any changes through time in the inclusion of basic object types in reports.

Likewise, there are no significant regional trends, with most regions being just above or just below average, the only significant outlier being the South-East where only 91% of reports contained a basic object type identification.

These figures are illuminated when material type is considered. The two categories of material within which the basic object type was least likely to have been classified were fired clay (90%) and stone (90%). This is unsurprising for fired clay, since the origins of fragments of fired clay are often difficult to determine. Similarly, the stone reports that did not include identification of object type at a basic level resulted from pieces of stone having been collected during fieldwork but exhibiting no diagnostic features from which object type might be determined.

There is also some correlation between the type of project and the classification of object type at a basic level, although the variation between project types is not great. The type of projects where the classification of object types is highest are those for excavations (98%), followed by strip, map and sample excavations (97%). These percentages are slightly lower for trial trenching (94%) and watching briefs (93%).

Classification of object type at a basic level also appears to be affected by the size of the overall assemblage. Assemblages comprising 100 objects or fewer are less likely to include classification of object type at a basic level than larger assemblages.

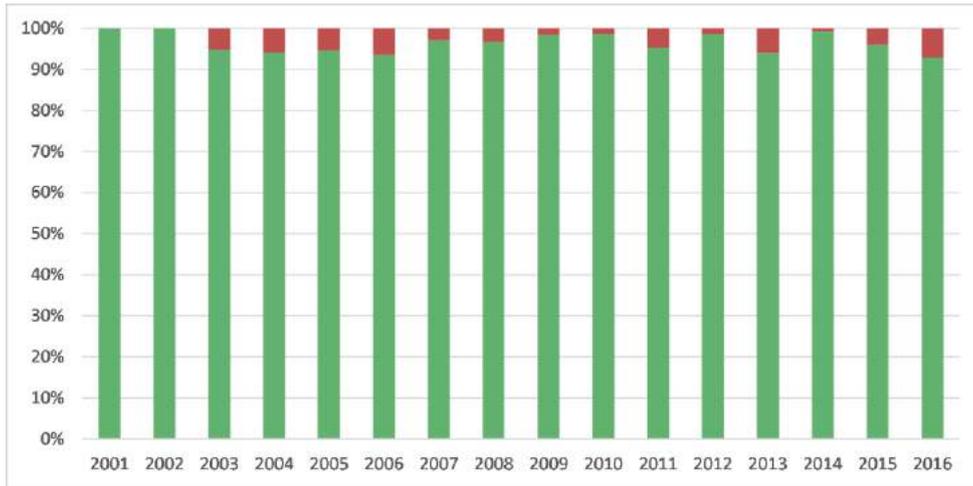


Figure 84. Is the object type classified at a basic level? Breakdown by year of publication.

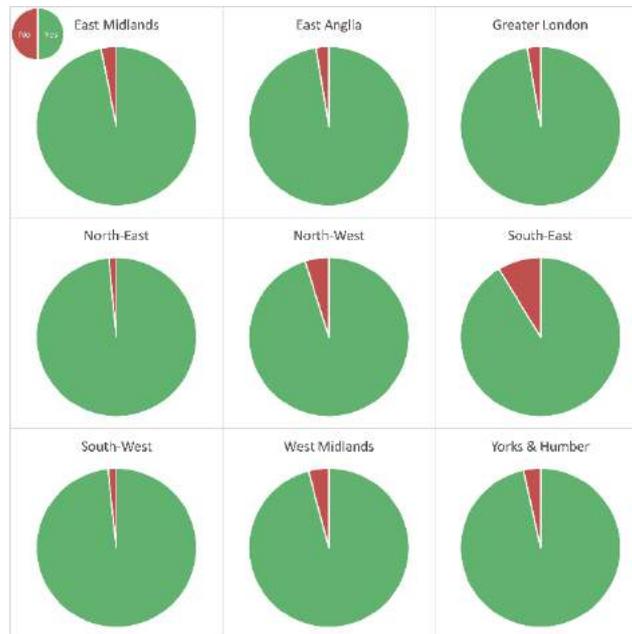


Figure 85. Is the object type classified at a basic level? Breakdown by local government region.



Figure 86. Is the object type classified at a basic level? Breakdown by project type.

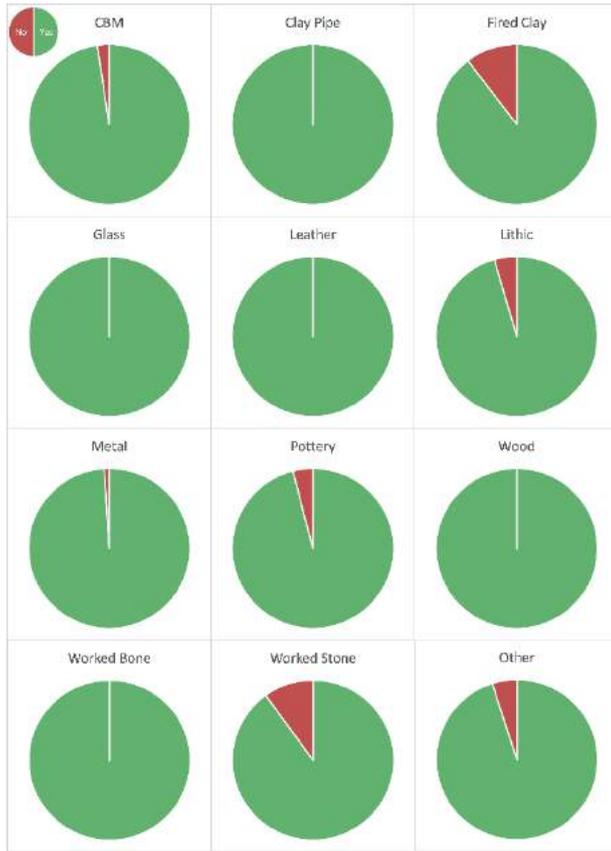


Figure 87. Is the object type classified at a basic level? Breakdown by material type.

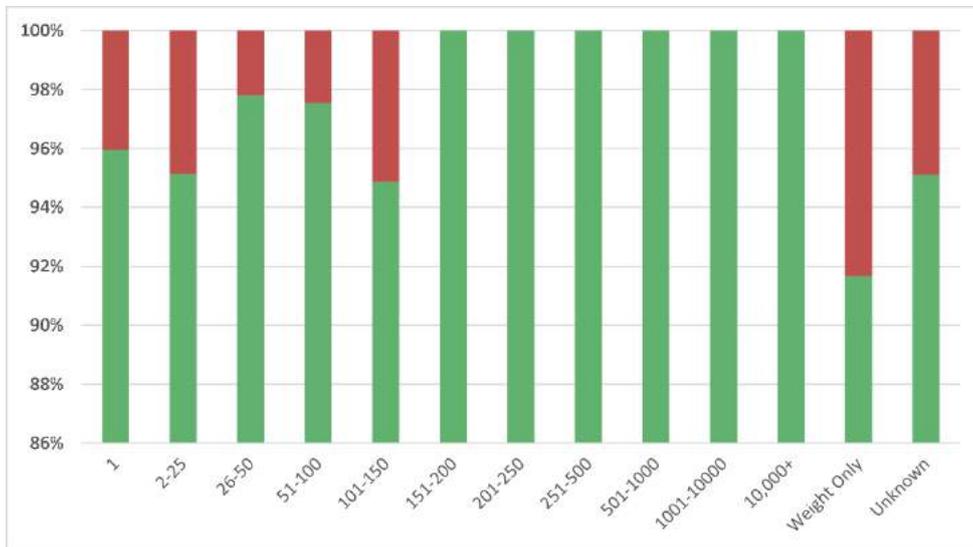


Figure 88. Is the object type classified at a basic level? Breakdown by size of assemblage.

Is the object type classified at a detailed level?

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) 2.4.5 states that to create a basic pottery record the specialist should 'Characterise and sort the pottery according to... vessel class (bowl, flagon, jar, jug etc) [and] vessel type, where appropriate (eg Samian forms)'.

For pottery, this equates to an identification of vessel form (eg carinated bowl, globular jar, ring-necked flagon etc) rather than just vessel class (eg bowl, jar, jug etc). For other types of material classification at a detailed level would require precise identification of object types, for example farthing, bow brooch, thumbnail scraper.

For assemblages where one or more objects had been classified at a detailed level, a score of '1' was assigned. Some of these assemblages did also contain material only classified to a basic level, but this was qualified by a lack of diagnostic components. Where no detailed classifications were included, a score of '0' was assigned.

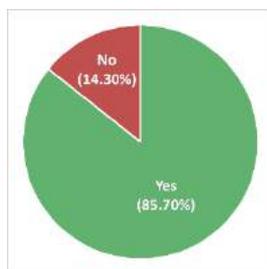


Figure 89. Is the object type classified at a detailed level?

The overall proportion of specialist reports within which the object type was classified to a detailed level is 85.7% (n=857).

There are no significant changes through time when these results are analysed against the year in which the reports were produced.

Likewise, there are no obvious regional differences in the identification of detailed object types, with most regions being within a percentage point or two of the national average. The exception is the North-West where only 74% of specialist reports classified object types to a detailed level.

The type of project appears to have some impact on the classification of objects at a detailed level, although the differences between project types are not great. Reports that are most likely to include classification of object types at a detailed level are those from excavations (89%). This proportion drops to 86% for strip, map and sample excavations and 85% for watching briefs. The reports that are least likely to include classification of objects at a detailed level are reports on trial trenching evaluations (79%).

Unsurprisingly, there are some significant patterns that emerge when these results are correlated with the artefact material type. The category of material in which the lowest percentage of reports include detailed object identifications is fired clay. As set out above, this is because this material is often fragmentary, with few discernible diagnostic features that would lead to a positive object identification. Conversely, the objects that were most successfully given a detailed identification were those made of metal (94%) and glass (92%).

It is not clear from the assessment of reports whether there is a relationship between the size of an assemblage and the classification of objects at a detailed level. However, the reports without objects classified at a detailed level are mostly for smaller assemblages (though there are some exceptions to this).

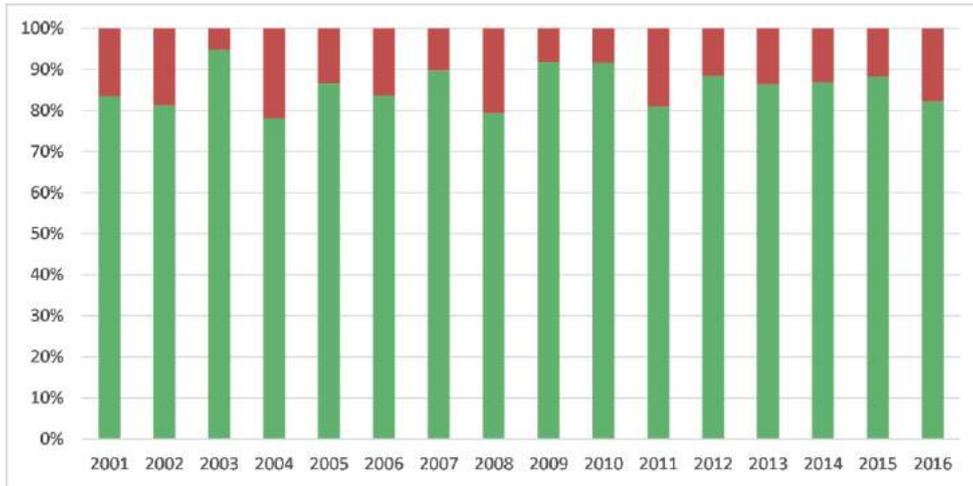


Figure 90. Is the object type classified at a detailed level? Breakdown by year of publication.

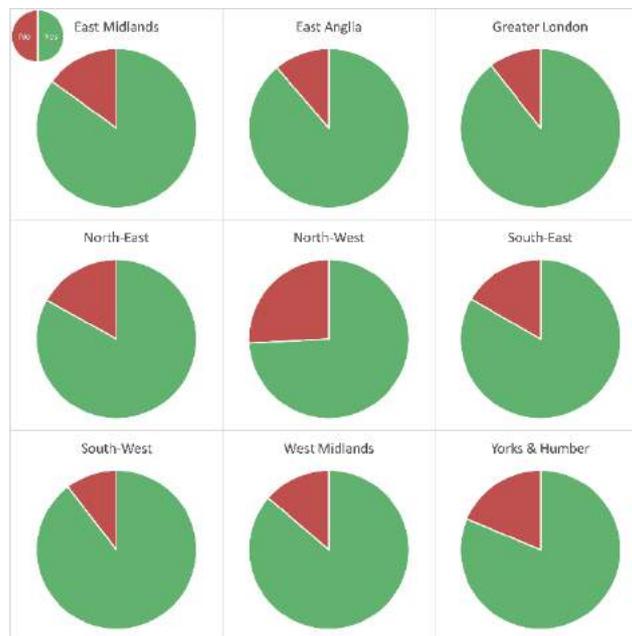


Figure 91. Is the object type classified at a detailed level? Breakdown by local government region.

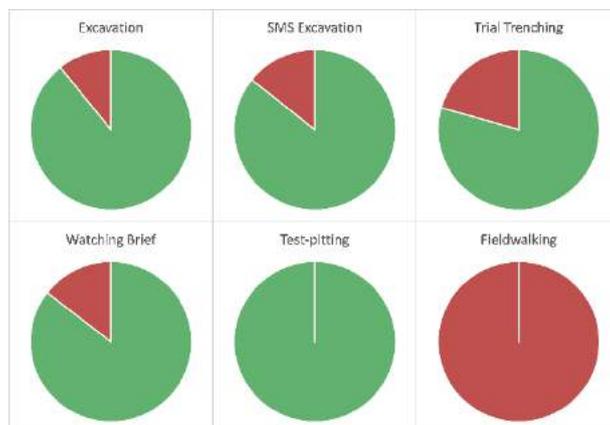


Figure 92. Is the object type classified at a detailed level? Breakdown by project type.

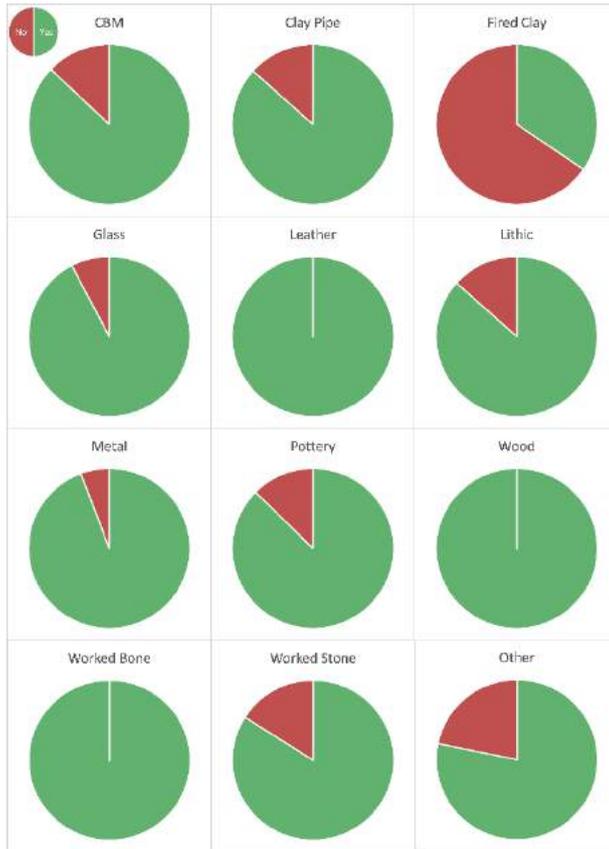


Figure 93. Is the object type classified at a detailed level? Breakdown by material type.

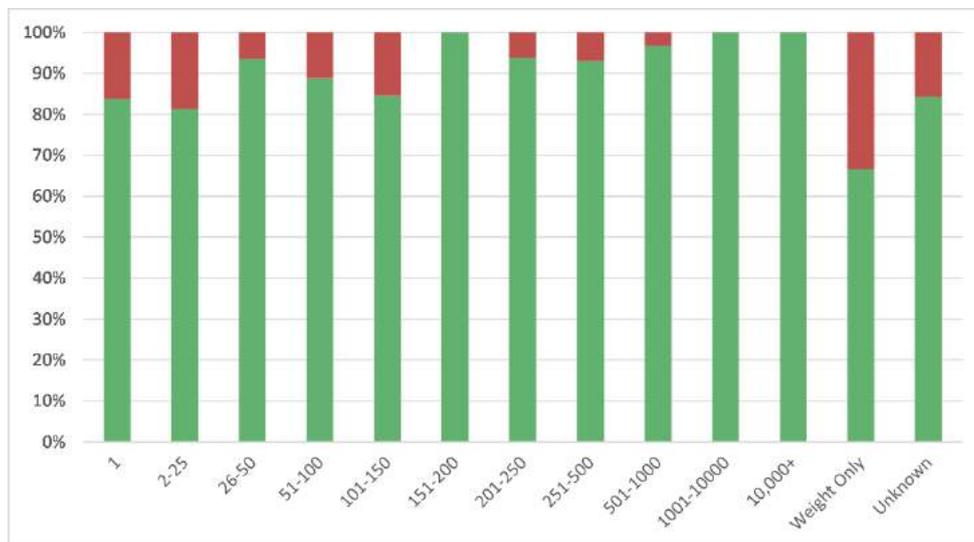


Figure 94. Is the object type classified at a detailed level? Breakdown by size of assemblage.

Is the object type classified according to diagnostic components?

Classification of object type may be based upon the identification of particular elements (diagnostic components) that are characteristic of a particular type of product, eg form of handle, type of fastening.

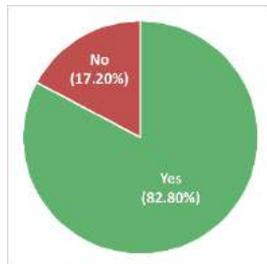


Figure 95. Is the object type classified according to diagnostic components?

The overall proportion of specialist reports within which the object type is classified according to diagnostic components is 82.8%.

There do not appear to be any significant changes through time in the classification of objects according to diagnostic components.

There are some slight regional variations in relation to the classification of objects according to diagnostic components. Fewer reports from the South-East (72%) and North-West (74%) include classification via this method, with the highest use of diagnostic components to classify object type in reports from the South-West (90%) and East Anglia (87%).

There appears to be some correlation between the type of project and the use of diagnostic components to classify objects. The proportion of reports using this method was highest for excavations (89%), with strip, map and sample excavations and watching briefs only using this method in 81% of reports. The project type least likely to use diagnostic components to classify objects was trial trenching (74%).

Unsurprisingly, the most significant factor in the use of diagnostic components to classify object type is the material type of the assemblage being analysed. Diagnostic components were most frequently used to characterise assemblages of glass (92%), metal (90%) and pottery (87%). By contrast, only 34% of reports on fired clay used diagnostic components to classify objects.

The use of diagnostic components to classify objects also appears to relate to the size of the assemblage being studied. In general, this method of classification is more likely to be used in the analysis of larger assemblages.

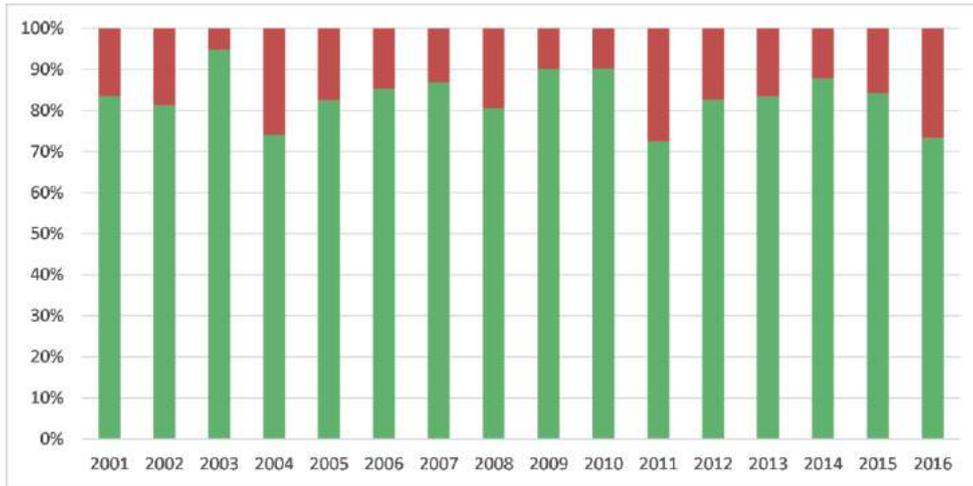


Figure 96. Is the object type classified according to diagnostic components? Breakdown by year of publication.

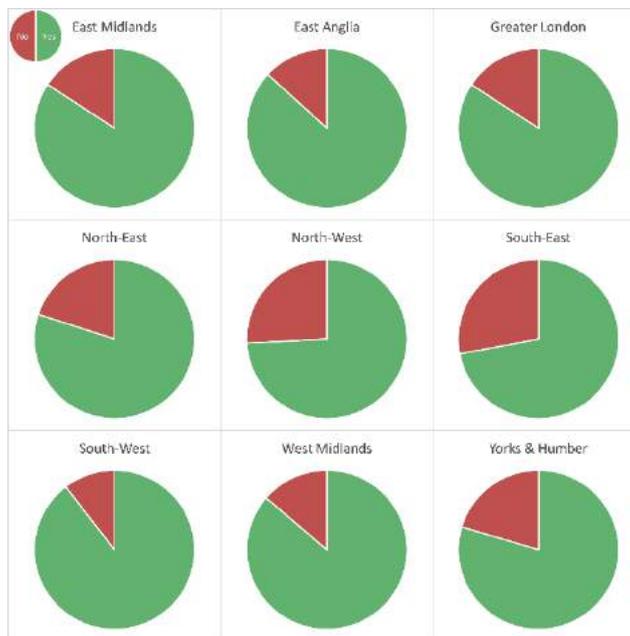


Figure 97. Is the object type classified according to diagnostic components? Breakdown by local government region.



Figure 98. Is the object type classified according to diagnostic components? Breakdown by project type.

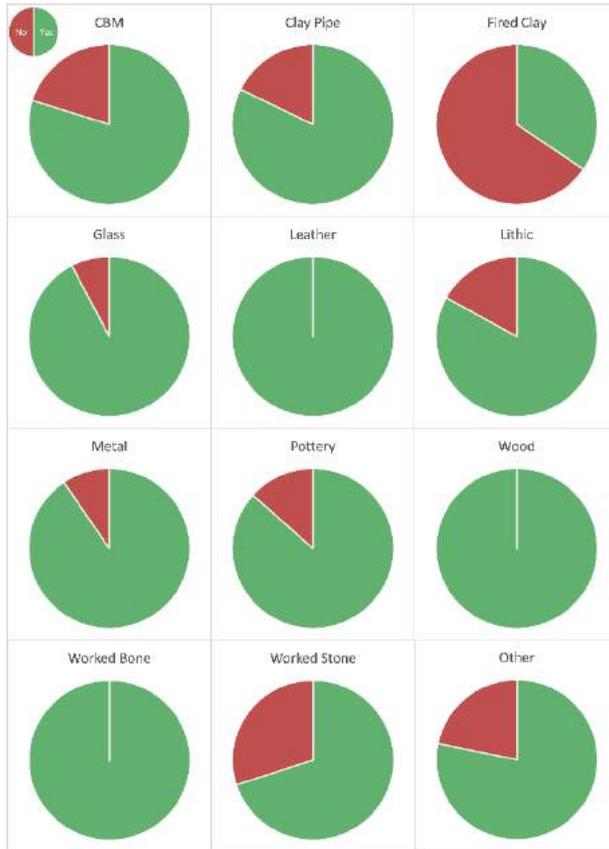


Figure 99. Is the object type classified according to diagnostic components? Breakdown by material type.

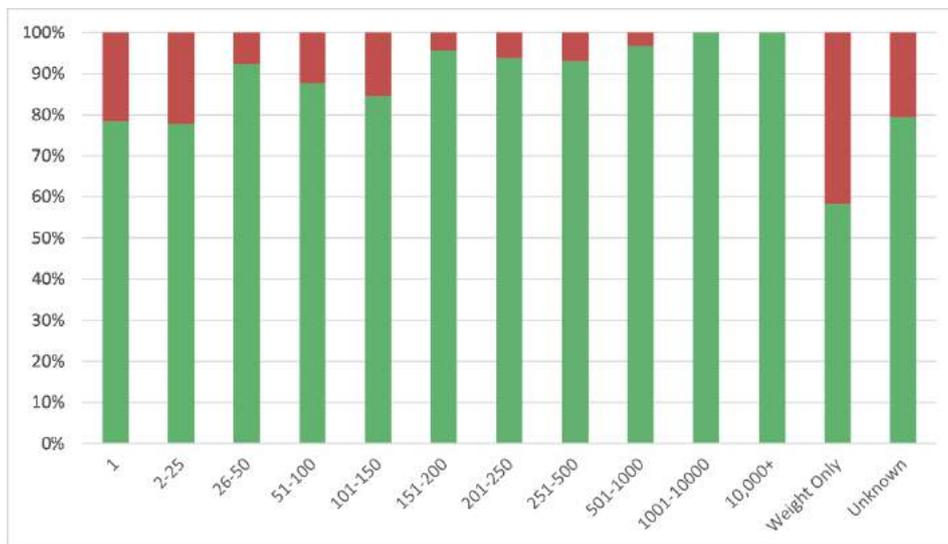


Figure 100. Is the object type classified according to diagnostic components? Breakdown by size of assemblage.

Are aspects of decoration and/or surface treatment described?

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) 2.5.5.i states that 'The pottery report should include any or all of the following, as appropriate: description of the vessels present in each fabric/ware type, including where possible... surface treatment, decoration'.

This may include information on methods of decoration (eg incised, burnished, stamped or glazed) or details of any stylistic attributes that can be identified (eg La Tène style, Jellinge style).

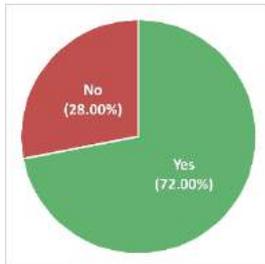


Figure 101. Are aspects of decoration and/or surface treatment described?

The overall proportion of specialist reports that include a description of aspects of decoration and/or surface treatment is 72%.

There are no significant trends when these results are analysed against the year in which the reports were produced.

Some regional differences may be noted, with a lower than average proportion of reports containing a description of aspects of decoration and/or surface treatment in the South-East (61%), the North-West (65%) and Greater London (66%). The West Midlands saw the greatest proportion of reports containing this information, at 81%.

The type of project also appears to have some impact on whether or not aspects of decoration and/or surface treatment are included in the report. Excavation reports are more likely to include this information, with 78% of such reports including this. By contrast, only 62% of watching brief reports include description of aspects of decoration and/or surface treatment.

Significant differences are also visible when the material type is considered. Descriptions of aspects of decoration and/or surface treatment were recorded in 83% of pottery reports. Classes of material where this information is present less often include fired clay (59%), CBM (60%) and lithics (61%).

There appears to be no correlation between the size of the assemblage and the description of aspects of decoration and/or surface treatment in specialist reports.

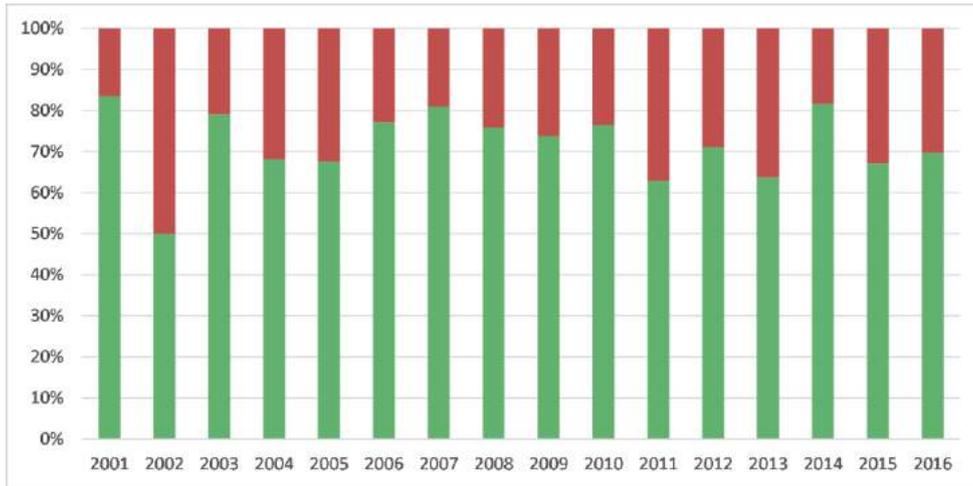


Figure 102. Are aspects of decoration and/or surface treatment described? Breakdown by year of publication.

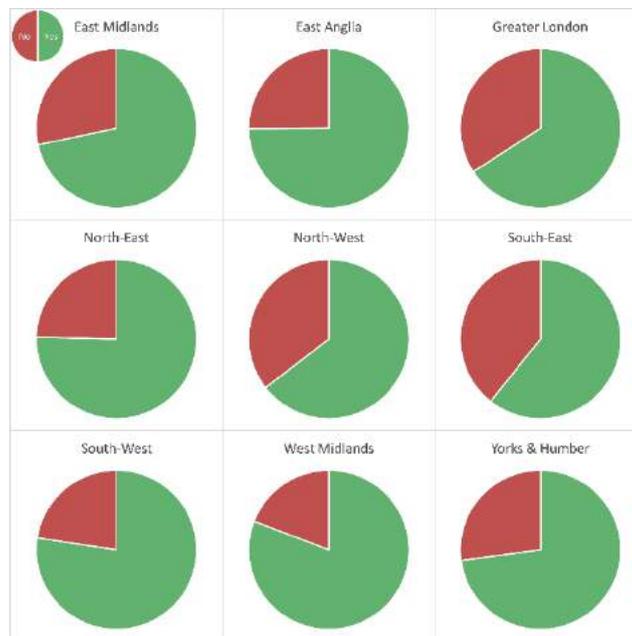


Figure 103. Are aspects of decoration and/or surface treatment described? Breakdown by local government region.

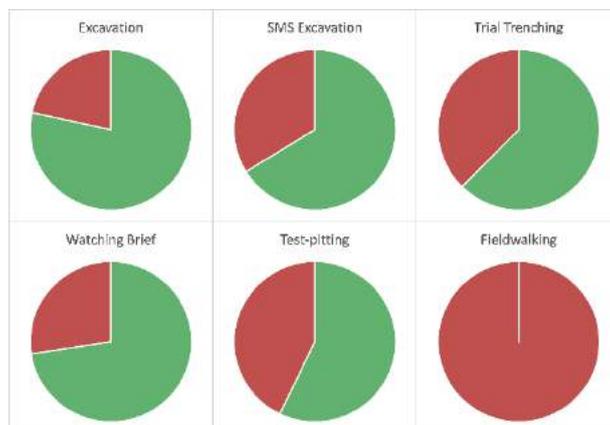


Figure 104. Are aspects of decoration and/or surface treatment described? Breakdown by project type.



Figure 105. Are aspects of decoration and/or surface treatment described? Breakdown by material type.

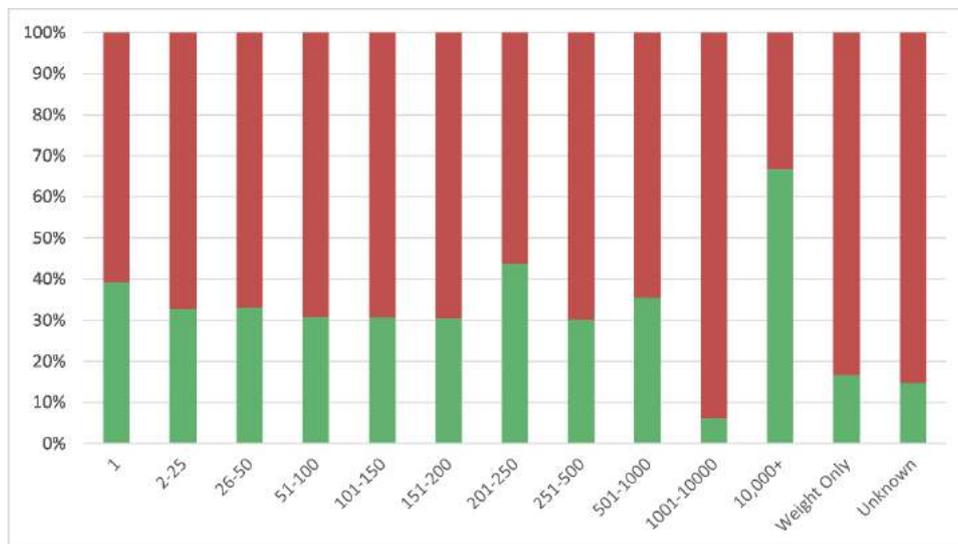


Figure 106. Are aspects of decoration and/or surface treatment described? Breakdown by size of assemblage.

Are the finds characterised by aspects of manufacture/technology?

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) 2.5.5.i states that 'The pottery report should include any or all of the following, as appropriate: description of the vessels present in each fabric/ware type, including where possible methods of manufacture'.

For pottery, this could include methods of vessel manufacture (eg hand-built, wheel-thrown, moulded), forming and attaching component parts (eg pulled rod handle, luted wheel-thrown strap handle) and details of manufacturing faults (eg warping, bloating, cracking) (Barclay et al 2016, A3.6). For metal objects this might include methods of manufacture such as whether an object has been cast, milled, plated etc, and other features of manufacture such as casting flaws/sprues, evidence for filing and other modifications may also be noted.

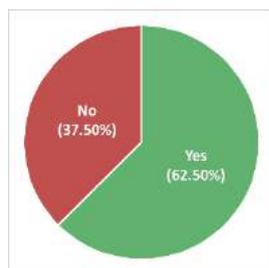


Figure 107. Are the finds characterised by aspects of manufacture/technology?

Overall, 62.5% of specialist reports assessed as part of this project included characterisation of artefacts by aspects of manufacture and/or technology.

There are no significant patterns when these results are analysed against the year in which the reports were produced.

Some regional differences can be observed. The proportion of reports including aspects of manufacture and/or technology is considerably lower in the North-West (50%) and South-East (51%), and higher in East Anglia (70%), the West Midlands (67%), the East Midlands (66%) and the South-West (66%).

Considerable differences in the characterisation of material by aspects of manufacture/technology are noted when project type is considered. This aspect of characterisation is much more common in excavation reports, of which 73% contain details of manufacture/technology. This information is considerably less likely to be included in specialist reports for other project types, with strip, map and sample excavations only including this detail in 55% of reports, and both trial trenching and watching briefs only considering this aspect of artefact characterisation in 51% of specialist reports.

As with other aspects of characterisation, the most significant factor again appears to be the material type. Reports on lithic material are most likely to characterise artefacts by aspects of manufacture/technology, with 77% of lithic reports including this information. Pottery reports are also more likely to include this information with 71% of those assessed in this project including this detail. By contrast, only 31% of reports on fired clay make any reference to aspects of manufacture or technology.

There also appears to be some correlation between the characterisation of material by aspects of manufacture/technology and the size of the assemblage, with specialist reports on larger assemblages including this information more often than those for smaller assemblages.

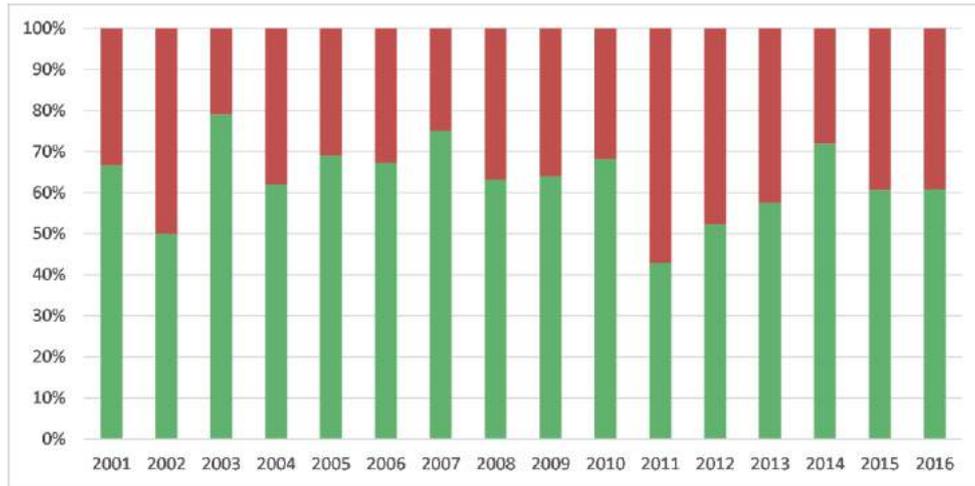


Figure 108. Are the finds characterised by aspects of manufacture/technology? Breakdown by year of publication.

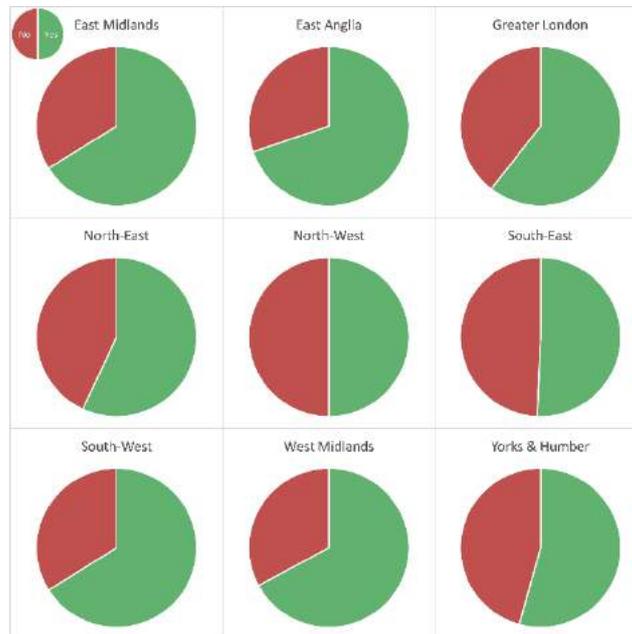


Figure 109. Are the finds characterised by aspects of manufacture/technology? Breakdown by local government region.



Figure 110. Are the finds characterised by aspects of manufacture/technology? Breakdown by project type.



Figure 111. Are the finds characterised by aspects of manufacture/technology? Breakdown by material type.

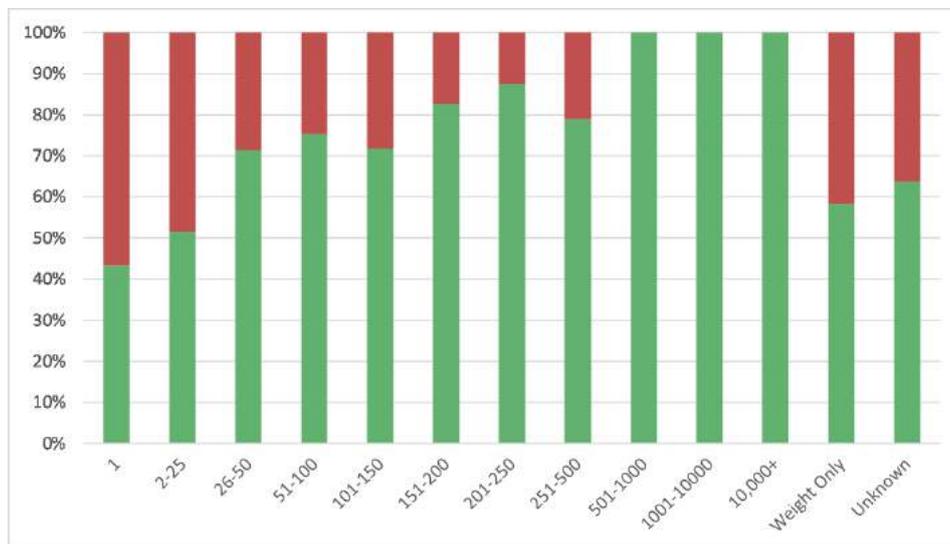


Figure 112. Are the finds characterised by aspects of manufacture/technology? Breakdown by size of assemblage.

Is a catalogue presented?

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) A4.1 states that ‘The assemblage should be described in a catalogue... The catalogue should be representative of the whole assemblage, covering characteristic traits, and giving the range of forms and types present. It should be arranged to complement the text and any phasing/stratigraphic grouping. The extent of the catalogue will depend on the rarity and importance of the material described’.

In order to score ‘1’ against this criterion, the specialist report had to include a catalogue that was representative of the whole assemblage. Reports that contained a partial catalogue (eg a catalogue of illustrated objects) were scored ‘0’, since these catalogues were not representative of the whole assemblage and did not provide a complete picture of the object types and/or fabrics present within the assemblage. Reports that did not contain a catalogue were also assigned a score of ‘0’.

This measure only indicates whether or not a catalogue is present within the report; it does not indicate anything about the quality or content of the catalogue. It was added to the checklist to qualify the next two questions.

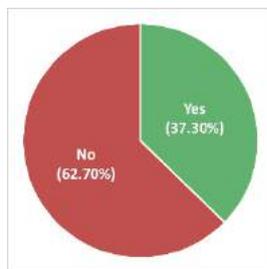


Figure 113. Is a catalogue presented?

Only 37.3% of the reports assessed during this project included a catalogue of artefacts.

There appears to be a general decline in the inclusion of catalogues within specialist reports since 2001. In the five-year period since 2012, around 31% of reports have included a catalogue, compared with approximately 41% for the five-year period 2007–2011 and around 53% for the five-year period 2002–2006. The reasons for this are unclear, but they may relate to the need to reduce report production costs and the resultant increase in digital-only catalogues for many fieldwork projects.

There appear to be considerable regional differences in the inclusion of catalogues in specialist reports. The proportion of reports containing a catalogue is lowest in Greater London (16%), the South-East (18%), the South-West (18%) and the North-West (22%). By contrast, the proportion of reports including a catalogue are as high as 76% of reports from Yorkshire and the Humber and 61% of reports from the East Midlands.

Project type does not seem to have a great impact on the inclusion of catalogues in specialist reports, although this is more common in excavation reports (45%) than for the other major project types (watching brief: 32%, strip, map and sample: 31%, trial trenching: 28%).

A catalogue was most likely to be included for metal objects (58%). The artefact types least likely to include a catalogue of finds were CBM (27%) and pottery (33%).

The size of the assemblage does not seem to have any impact on the inclusion of artefact catalogues in specialist reports.

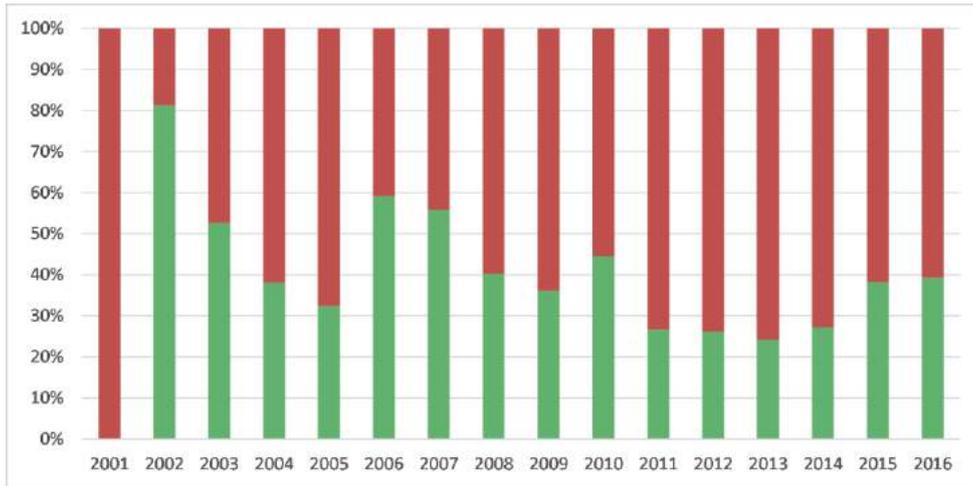


Figure 114. Is a catalogue presented? Breakdown by year of publication.

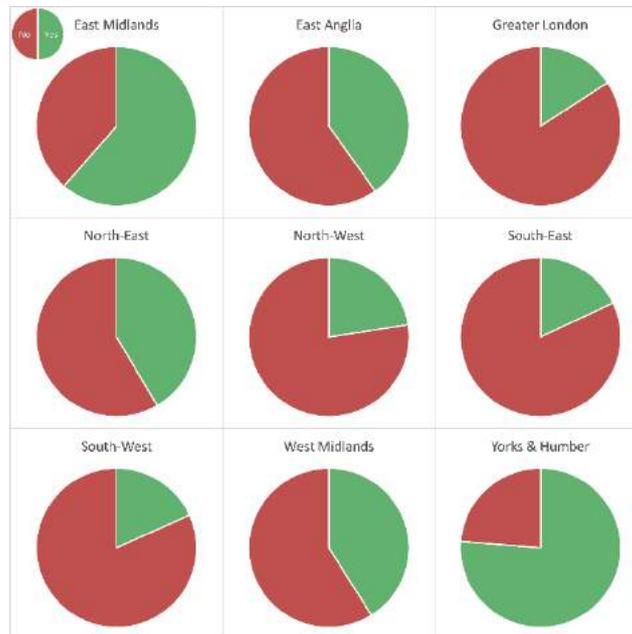


Figure 115. Is a catalogue presented? Breakdown by local government region.



Figure 116. Is a catalogue presented? Breakdown by project type.



Figure 117. Is a catalogue presented? Breakdown by material type.

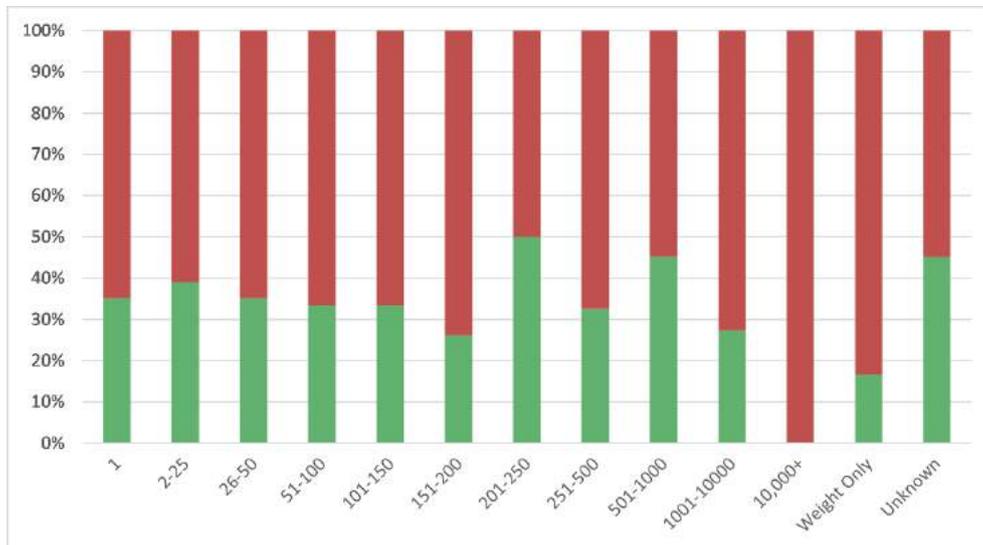


Figure 118. Is a catalogue presented? Breakdown by size of assemblage.

If a catalogue is presented, does it include adequate description of object?

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) A4.1 sets out how to describe a pottery assemblage. For other classes of material, consideration was given to the level of detail of form, decoration and other attributes, and whether or not it was possible to fully understand all of the attributes of each object in the catalogue. In order for a specialist report to be assigned a score of '1' all objects within the catalogue must be adequately described. Catalogues including poor descriptions or lacking in detail were assigned a score of '0'.

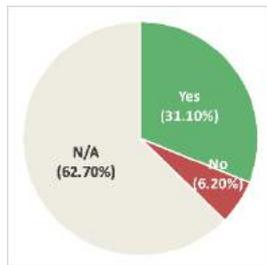


Figure 119. If a catalogue is presented, does it include adequate description of object?

As stated above, only 37.3% (N=373) of the reports assessed included a catalogue, therefore this question is not applicable to the remaining 62.7% of the dataset. Of the reports that contain a catalogue, 83% include an adequate description of the objects in the assemblage.

There appear to be no significant changes through time in the proportion of catalogues containing adequate description of objects.

As highlighted above, there are significant regional differences in the inclusion of catalogues in specialist reports. The proportion of these catalogues that include adequate description of objects also varies considerably by region. All reports from Greater London containing a catalogue adequately described all objects within these assemblages. By contrast, in the South-East only 59% of specialist reports containing a catalogue included adequate descriptions of all objects.

The proportion of reports containing an adequate description of objects in a catalogue does not appear to relate to the type of fieldwork project.

The object material type appears to have little impact on whether or not an adequate object description is included in the catalogue, with most material types having a similar proportion of reports containing such a description. However, reports on fired clay and lithics are less likely than other material types to contain an adequate catalogue description of objects.

There is no clear relationship between size of assemblage and the inclusion of adequate object descriptions in a catalogue.

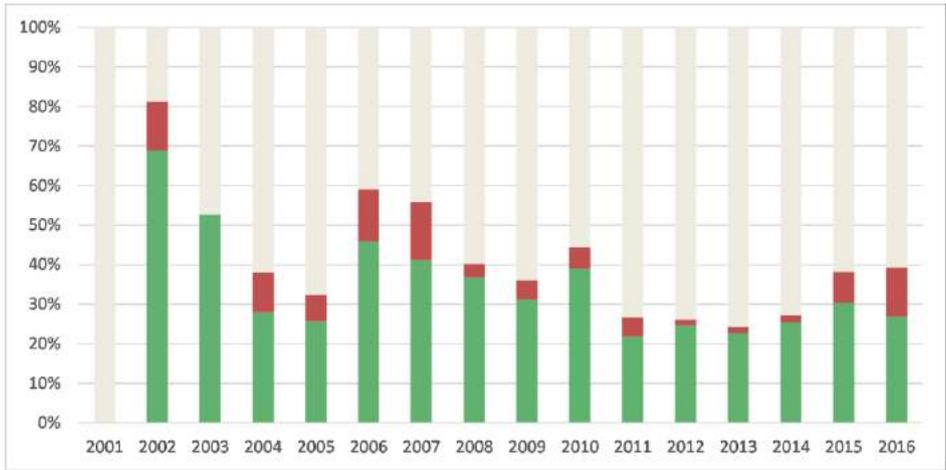


Figure 120. If a catalogue is presented, does it include adequate description of object? Breakdown by year of publication.

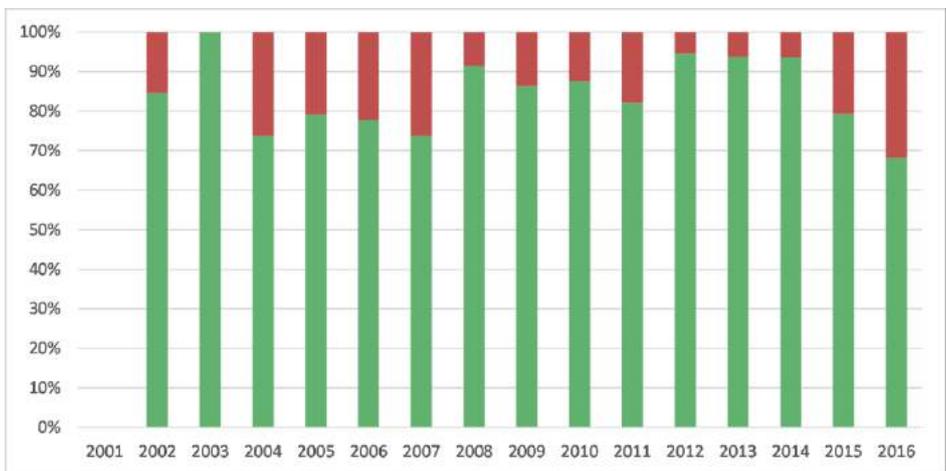


Figure 121. If a catalogue is presented, does it include adequate description of object? Breakdown by year of publication, only reports with a catalogue (n=373).

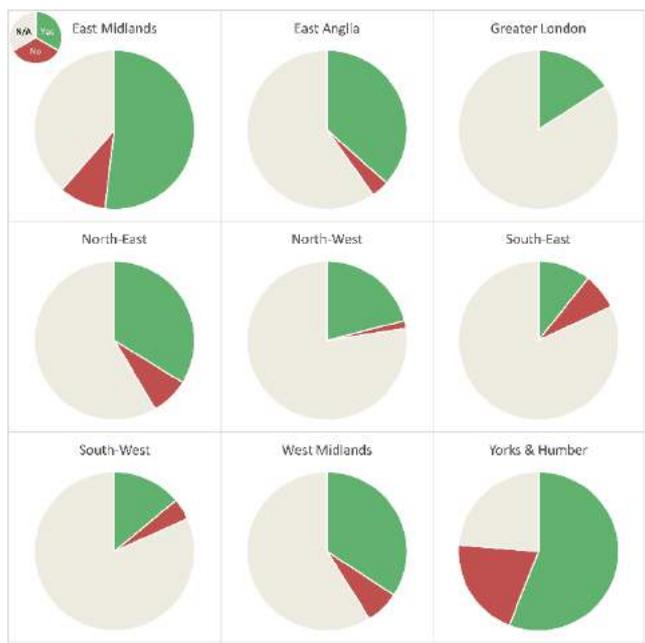


Figure 122. If a catalogue is presented, does it include adequate description of object? Breakdown by local government region.



Figure 123. If a catalogue is presented, does it include adequate description of object? Breakdown by project type.

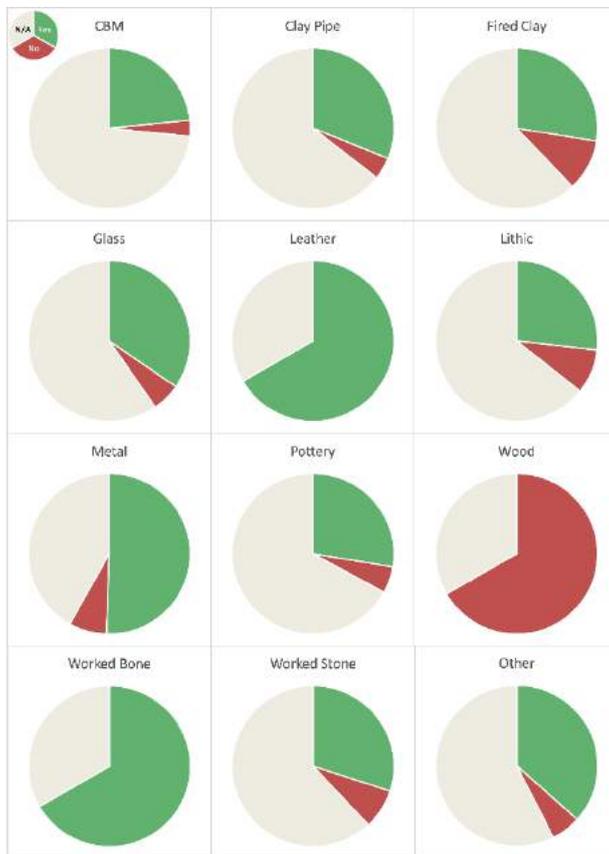


Figure 124. If a catalogue is presented, does it include adequate description of object? Breakdown by material type.

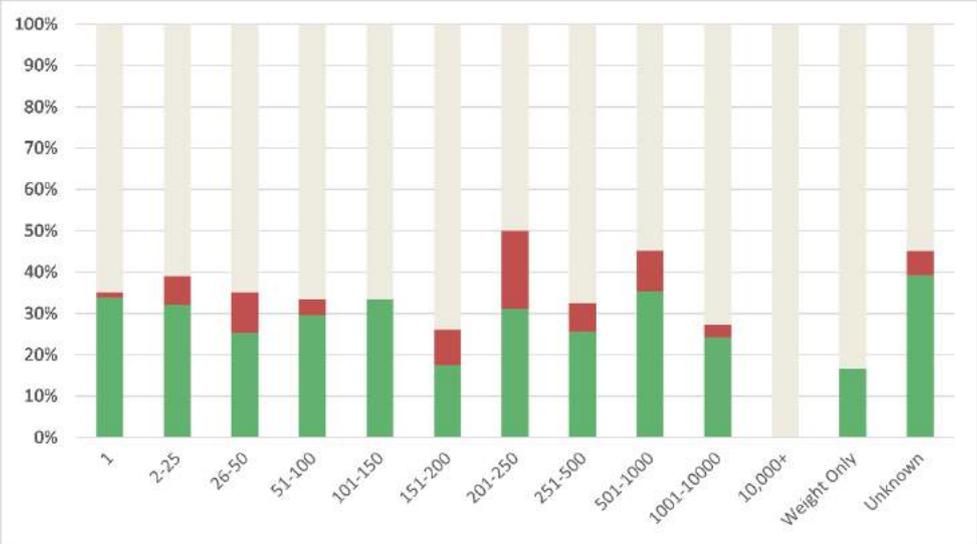


Figure 125. If a catalogue is presented, does it include adequate description of object? Breakdown by size of assemblage.

If a catalogue is presented, does it include sufficient contextual information?

The ClfA Standard and guidance (2014a) 3.8.2 states that ‘Published finds data should be capable of being linked to provenance and phase’.

When assessing specialist reports against this criterion catalogues presented in specialist reports were checked to see whether the material included clear and appropriate references to a contextual unit. Where this was the case, a score of ‘1’ was assigned. Where it was not possible to fully understand the context from which objects in the catalogue had come, a score of ‘0’ was assigned.

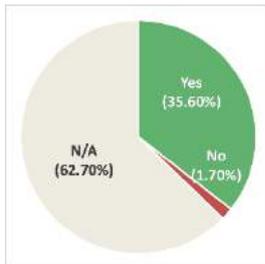


Figure 126. If a catalogue is presented, does it include sufficient contextual information?

As stated above, only 37.3% (n=373) of the reports assessed included a catalogue, therefore this question is not applicable to the remaining 62.7% of the dataset. The proportion of catalogues containing sufficient contextual information is 95.4%. This equates to just 17 specialist reports that do not include sufficient contextual information within their catalogue.

Given the overwhelming proportion of catalogues containing sufficient contextual information, no further analysis is required.

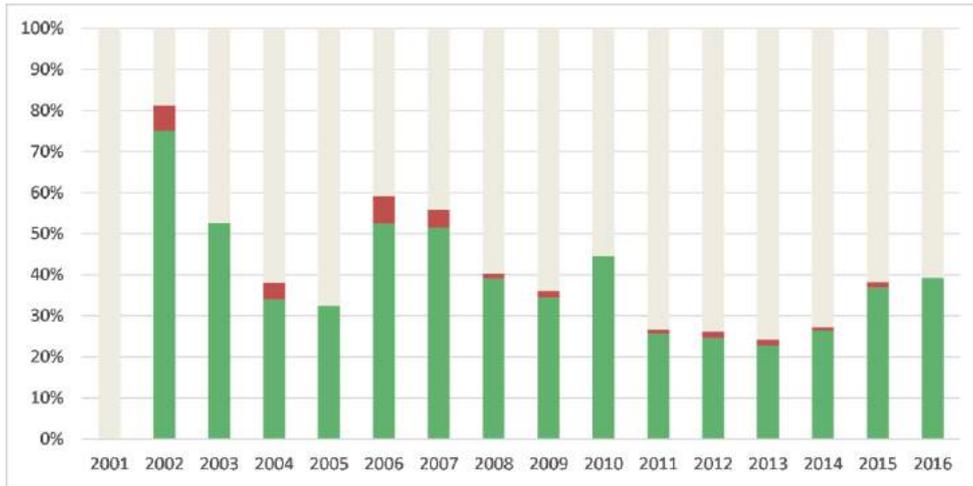


Figure 127. If a catalogue is presented, does it include sufficient contextual information? Breakdown by year of publication.

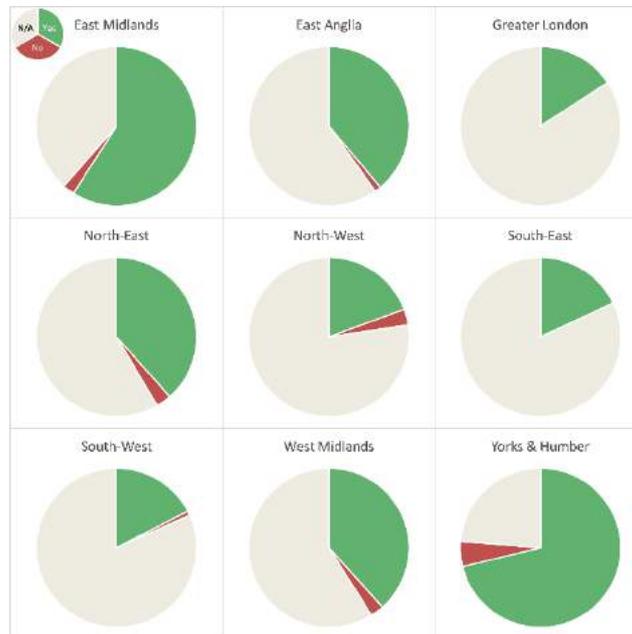


Figure 128. If a catalogue is presented, does it include sufficient contextual information? Breakdown by local government region.



Figure 129. If a catalogue is presented, does it include sufficient contextual information? Breakdown by project type.

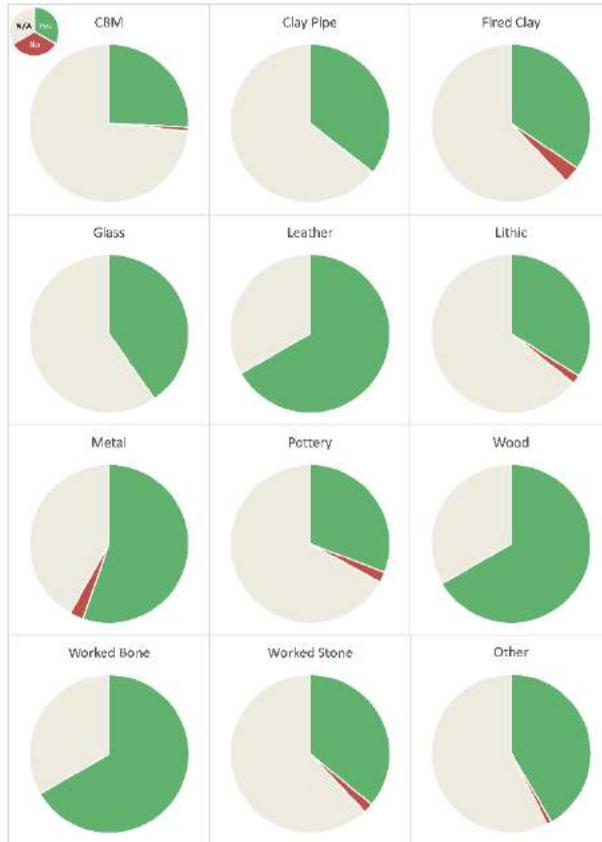


Figure 130. If a catalogue is presented, does it include sufficient contextual information? Breakdown by material type.

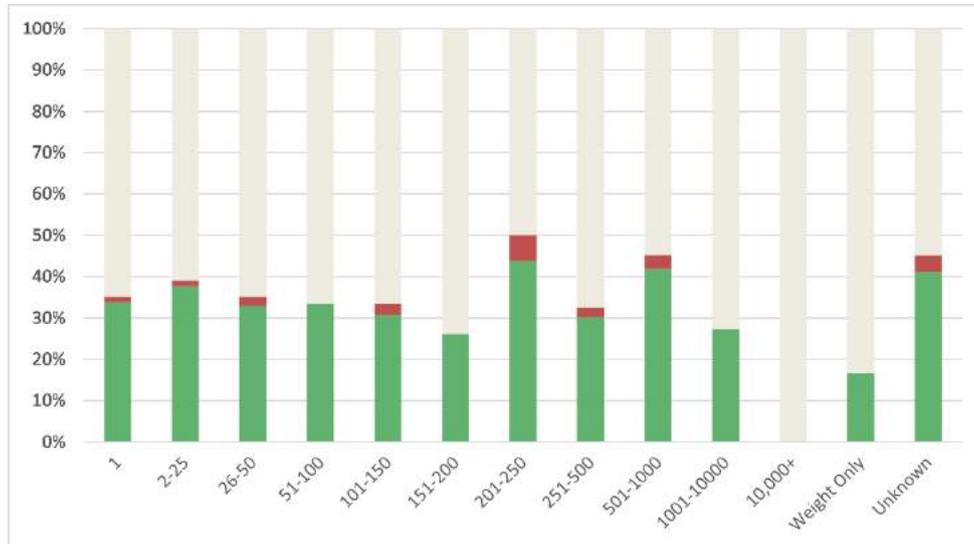


Figure 131. If a catalogue is presented, does it include sufficient contextual information? Breakdown by size of assemblage.

Is the completeness of objects recorded?

Specialist reports were assigned a score of '1' against this criterion if an attempt had been made to establish what proportion of the original artefact is present in the assemblage. Where the specialist had described the part or proportion of an object that was present in the assemblage (for example a cruciform brooch, missing one arm) a score of '1' was assigned. Reports where no attempt had been made to describe which part(s) of an object were present were assigned a '0' unless it was clear from the object description that the object was complete.

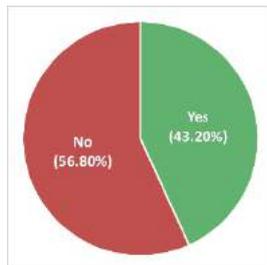


Figure 132. Is the completeness of objects recorded?

The completeness of objects was recorded in 43.2% of the specialist reports.

There are no significant patterns when these results are analysed against the year in which the reports were produced.

Some regional differences can be observed. Reporting of completeness is much lower than average in the North-West at 18%. It is considerably higher than average in Yorkshire and the Humber (56%), the South-West (50%) and the East Midlands (50%).

The type of project also has an impact on recording of completeness. The proportion of reports that include this information is substantially lower for strip, map and sample excavations (29%), trial trenching (32%) and watching briefs (40%) than for excavations (53%).

Material type is a significant factor in determining the recording of completeness. Recording this characteristic was considerably higher than average for metal objects (66%), stone (60%), lithics (58%) and clay pipe (56%). Material types where completeness was less often recorded included pottery (30%) and fired clay (31%).

It is not clear whether the size of an assemblage has an impact on the recording of completeness of objects.

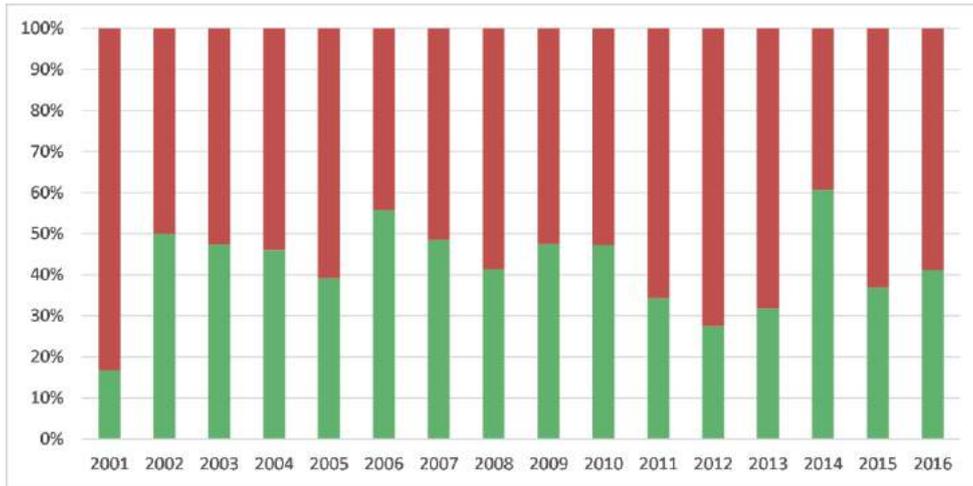


Figure 133. Is the completeness of objects recorded? Breakdown by year of publication.

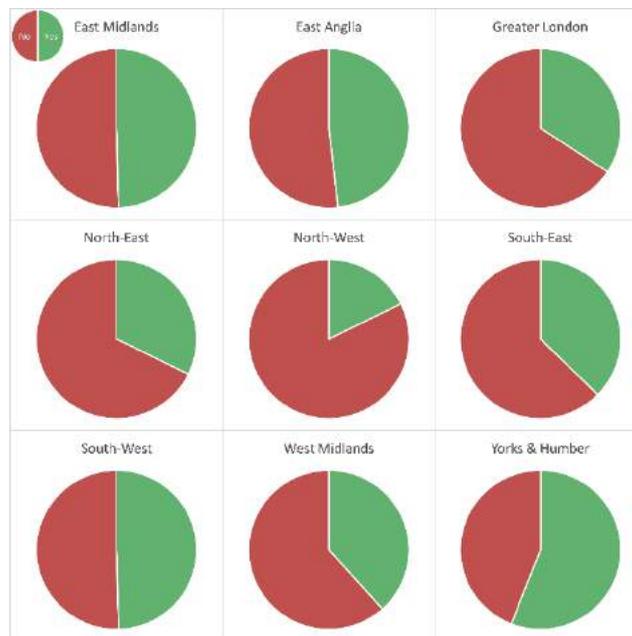


Figure 134. Is the completeness of objects recorded? Breakdown by local government region.



Figure 135. Is the completeness of objects recorded? Breakdown by project type.



Figure 136. Is the completeness of objects recorded? Breakdown by material type.

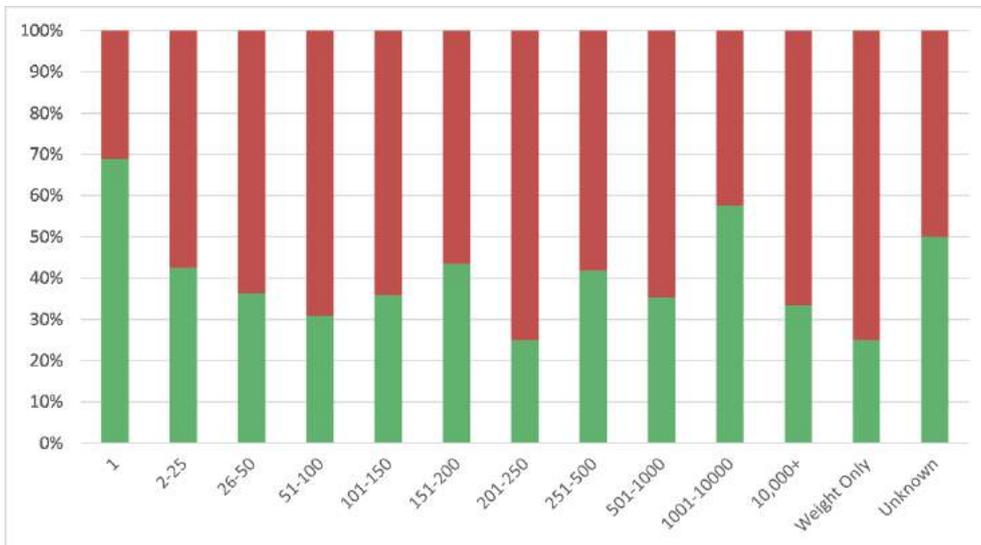


Figure 137. Is the completeness of objects recorded? Breakdown by size of assemblage.

Have appropriate dimensions been recorded?

Specialist reports being assessed against this criterion were assigned a score of '1' if appropriate measurements were recorded for individual objects within the assemblage. The nature of these dimensions varied between artefact types, since it is not appropriate to measure the same dimensions on different types of objects. For pottery vessels, dimensions were expected to include the external diameter of the rim in millimetres. Some prehistoric pottery reports also included the wall thickness in millimetres. For worked stone/flint, measurements of dimensions in millimetres, after Andrefsky (1998), were sometimes recorded, and any specialist reports providing these measurements were assigned a score of '1'.

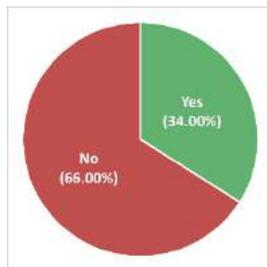


Figure 138. Have appropriate dimensions been recorded?

Appropriate dimensions were included in 34.0% of the specialist reports assessed during this project.

No significant patterns emerge when these results are analysed against the year in which the reports were published.

There are some regional variations in the recording of appropriate dimensions. Regions with a lower proportion of reports including appropriate dimensions include Greater London (21%), the South-West (24%), the North-West (26%) and the South-East (27%). Appropriate dimensions are most frequently recorded in Yorkshire and the Humber (46%).

There appear to be some correlation between the type of project and the recording of appropriate dimensions. Appropriate dimensions are more likely to have been recorded for artefacts described within excavation reports (41%) than artefacts described in reports for other types of fieldwork projects (strip, map and sample: 34%, trial trenching: 26%, watching brief: 23%).

The material type appears to be a significant factor in the recording of appropriate dimensions. These were most often recorded for metal objects (58%), stone objects (58%) and CBM (56%). Object types for which appropriate dimensions were less often recorded include pottery (17%), lithics (23%), and clay tobacco pipe (31%). This seems surprising since there are clear guidelines for recording dimensions for pottery, lithics and clay tobacco pipe. With pottery this may be due to assemblages being too fragmentary to allow estimation of rim diameters, and in some cases, specialists did note that this was the case. The inclusion of dimensions in lithic reports appeared to relate to the preferences of individual specialists, and whether or not they considered this a useful attribute to record. Generally, dimensions of lithic implements were included in reports where the material had been less readily classified (for example where fewer artefact types had been confidently identified), perhaps suggesting these assemblages were less easy to characterise, or that the specialist felt less confident in their interpretation of the material. For clay tobacco pipes the low proportion recording appropriate dimensions is perhaps explained by the fragmentary nature of many such assemblages. However, the value of recording the bore diameter should not be overlooked as a means of dating this material.

There is no clear relationship between the size of an assemblage and the recording of appropriate dimensions in specialist reports.

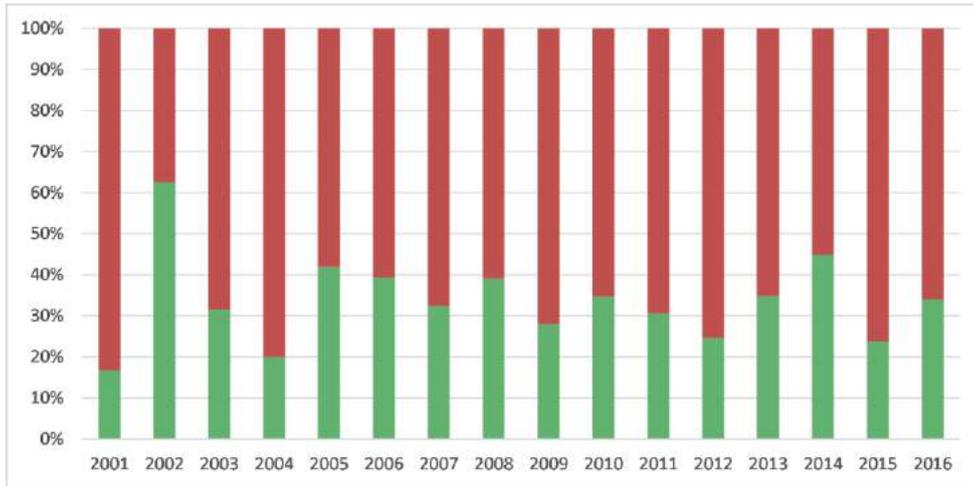


Figure 139. Have appropriate dimensions been recorded? Breakdown by year of publication.

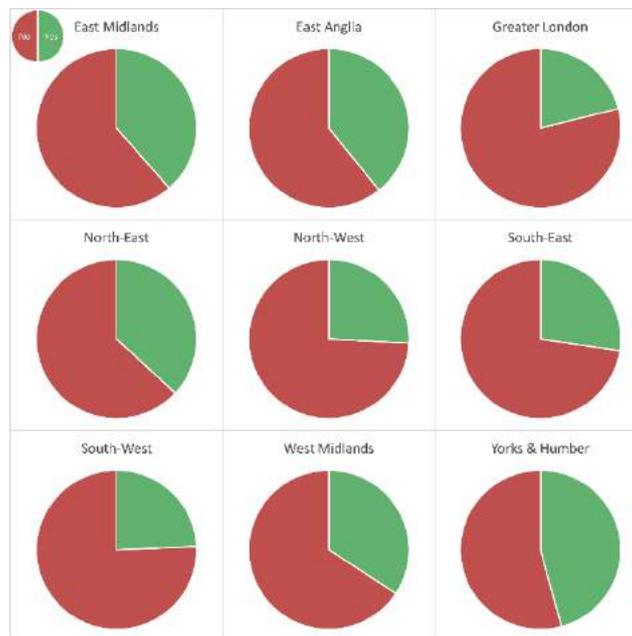


Figure 140. Have appropriate dimensions been recorded? Breakdown by local government region.



Figure 141. Have appropriate dimensions been recorded? Breakdown by project type.



Figure 142. Have appropriate dimensions been recorded? Breakdown by material type.

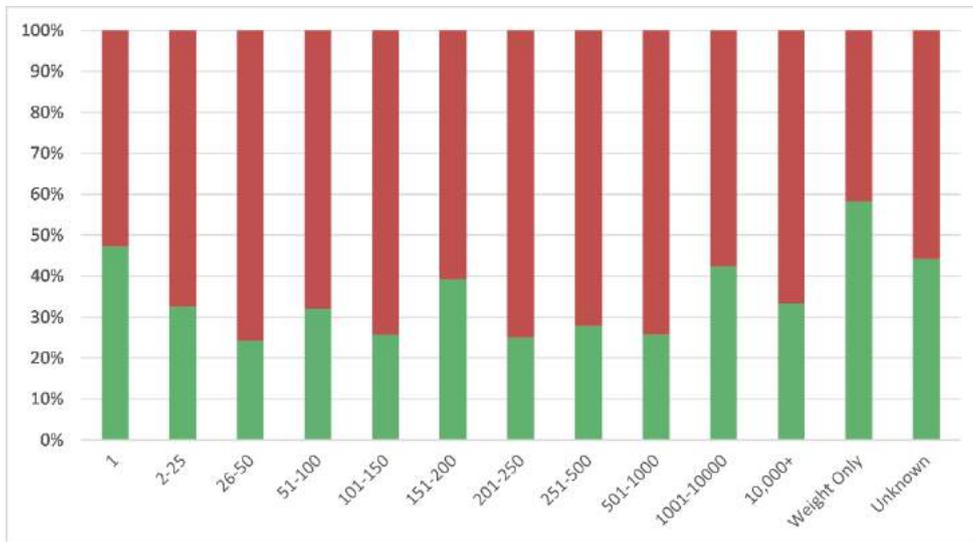


Figure 143. Have appropriate dimensions been recorded? Breakdown by size of assemblage.

Where appropriate, are individual objects described by weight?

Specialist reports being assessed against this criterion were assigned a score of '1' if significant individual objects within the assemblage were described by weight. Where overall weights per vessel type or per fabric type were included, these reports were assigned a score of '0' since it is not possible to determine the weight of individual objects from this composite value.

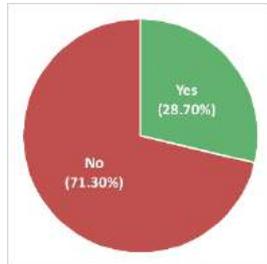


Figure 144. Where appropriate, are individual objects described by weight?

Within the sample of specialist reports assessed for this project, 28.7% (n=287) included descriptions of individual objects by weight.

No significant patterns emerge when these results are analysed against the year in which the reports were published.

There are some regional variations in the description of individual objects by weight. Reports produced for projects in the North-West are least likely to include such information, with only 8% of the reports assessed containing individual weights. By contrast 42% of reports produced in Yorkshire and the Humber include this information.

Material types for which individual objects are most likely to have been described by weight are metal (38%) and glass (33%). Objects for which an individual weight is least likely to have been recorded are clay tobacco pipes (20%) and lithic implements (17%). The size of the samples of reports on wood and leather assemblages are too small to be representative, but these categories of material are some of the most likely not to include exact counts because of the fragmentary nature of such assemblages.

As with other aspects of characterisation, there is a relationship between the type of project and the inclusion of weights for individual objects. Excavation reports are more likely to contain this information than reports from other major project types.

There does not appear to be any correlation between the size of an assemblage and the description of individual objects by weight.

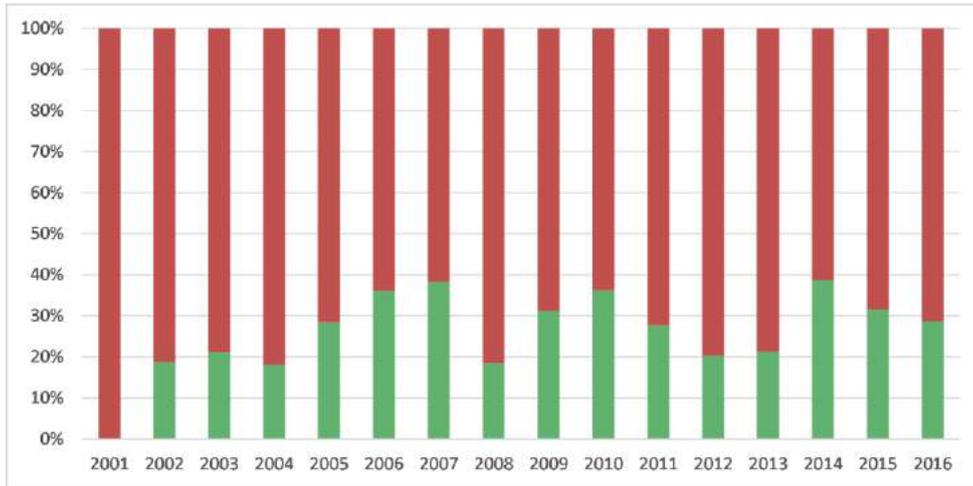


Figure 145. Where appropriate, are individual objects described by weight? Breakdown by year of publication.

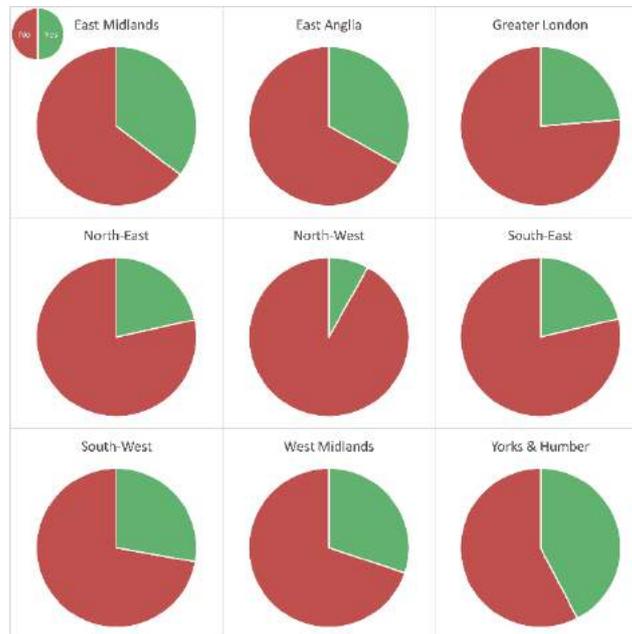


Figure 146. Where appropriate, are individual objects described by weight? Breakdown by local government region.



Figure 147. Where appropriate, are individual objects described by weight? Breakdown by project type.



Figure 148. Where appropriate, are individual objects described by weight? Breakdown by material type.

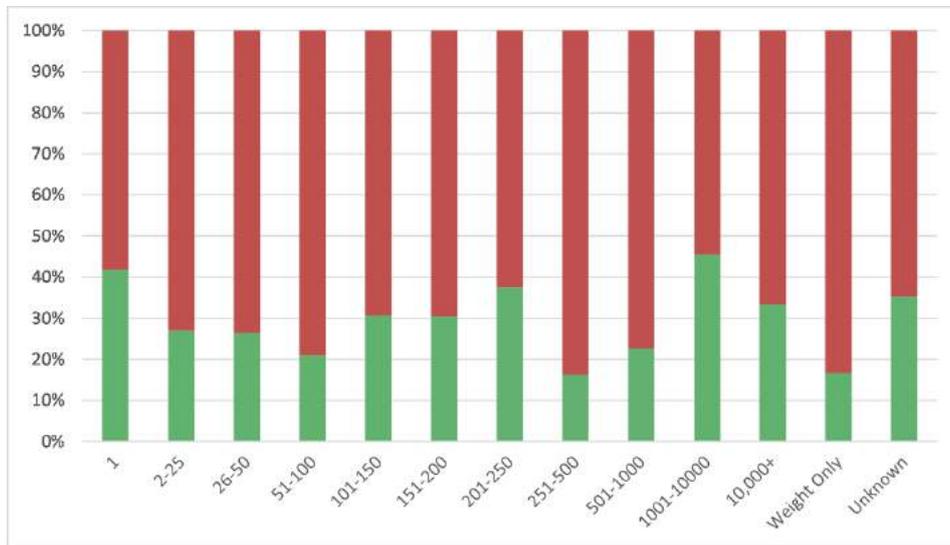


Figure 149. Where appropriate, are individual objects described by weight? Breakdown by size of assemblage.

Quantification

CIfA Standard and guidance (2014a) 3.8.3 states that *a published report... should include a quantification of all material categories, including those not selected for analysis or publication, with a statement outlining the reasons for selection*.

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) A4.12 states that 'Methods of quantification must be described in an introductory section on methodology. The methods and rationale used for measuring and estimating vessel size, diameter, wall-thickness and volume should be stated and referenced. The total number (excluding fresh breaks) and weight of sherds, and average sherd weight should be clearly stated in the report along with the number of recognised vessels and the method used to calculate vessel counts. Tables should be used to present a proportional breakdown of the assemblage by key attributes by site sub-division, phase and stratigraphic groupings. Presenting data in a standardised tabulated format enables direct comparison to be made between assemblages.

Is the assemblage quantified by exact count?

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) 2.45 states that even for a basic record, the report must 'quantify the pottery by sherd count, sherd weight in grams and number of vessels'.

In order to score a '1' material must have been quantified exactly, (ie not estimated or given in terms of 10s or 100s). Any reports in which the assemblage was not exactly quantified was assigned a score of '0'.

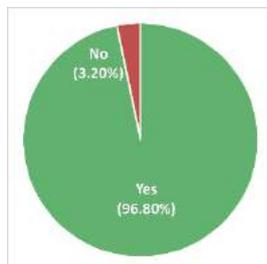


Figure 150. Is the assemblage quantified by exact count?

The overwhelming majority (96.8%, n=968) of reports assessed during this project quantified the assemblages studied using an exact count.

There appear to be no significant changes in the inclusion of quantification by exact count in specialist reports produced since 2001.

There appear to be no significant regional differences in relation to the inclusion of an exact count, although impressively, every report for Yorkshire and the Humber included this quantification measure.

Unsurprisingly, the material type for which the percentage of reports without an exact count was highest is fired clay (10%). This is because of the fragmentary nature of the assemblage. The categories of material most likely to include an exact count were metal (99%), pottery (98%) and glass (98%).

There do not appear to be significant differences in the use of exact counts for quantification of material from different types of projects. Likewise, the size of the assemblage does not appear to determine whether or not exact counts are included to quantify these assemblages.

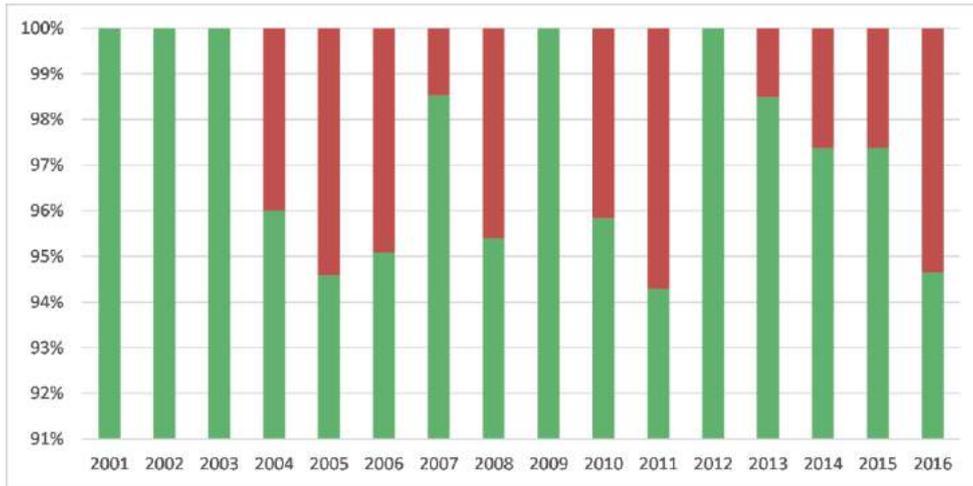


Figure 151. Is the assemblage quantified by exact count? Breakdown by year of publication.

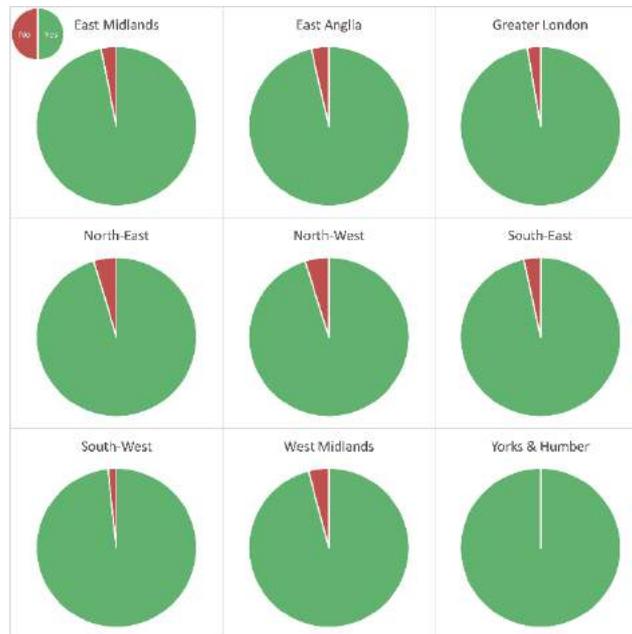


Figure 152. Is the assemblage quantified by exact count? Breakdown by local government region.

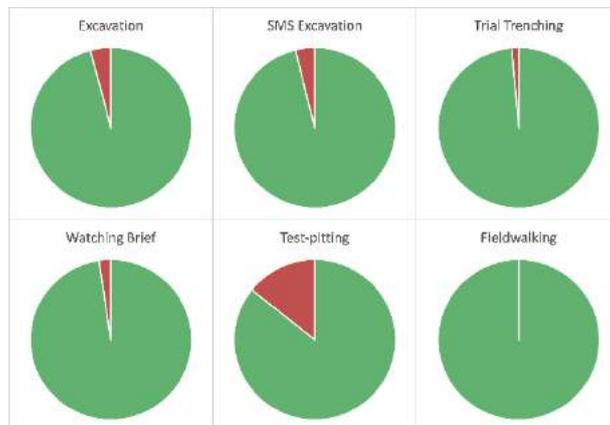


Figure 153. Is the assemblage quantified by exact count? Breakdown by project type.

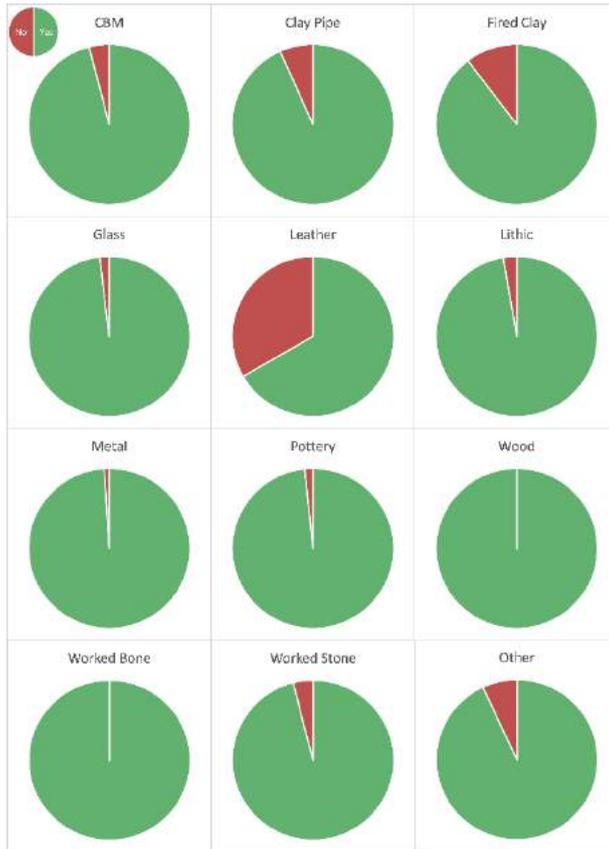


Figure 154. Is the assemblage quantified by exact count? Breakdown by material type.

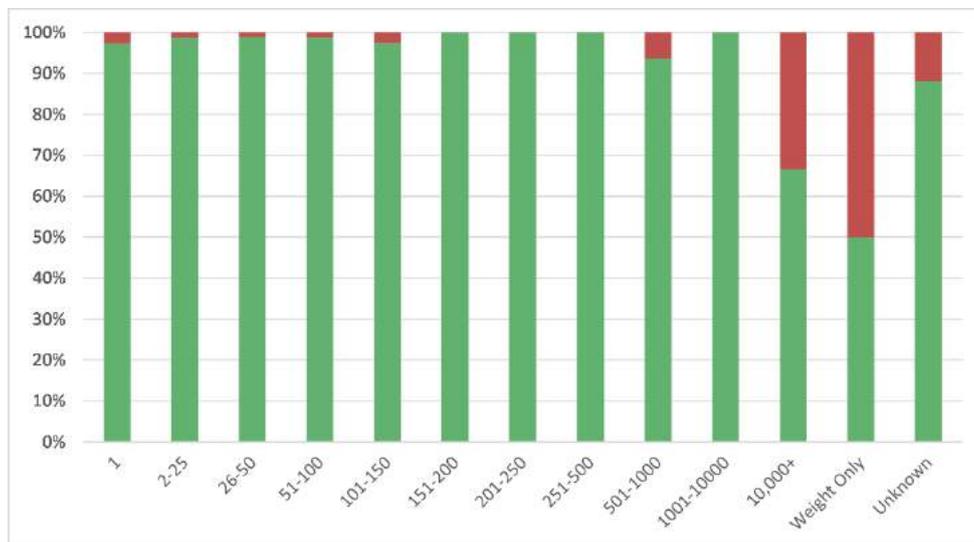


Figure 155. Is the assemblage quantified by exact count? Breakdown by size of assemblage.

Is the assemblage quantified by estimated count?

In order to score a '1' material will have been quantified using an estimate, with figures rounded to the nearest 5, 10 or 100.

Assemblages that were exactly quantified or which were not quantified at all were assigned a score of '0'.

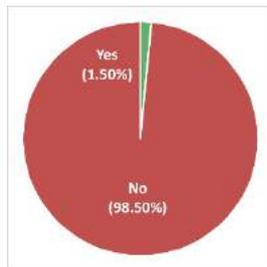


Figure 156. Is the assemblage quantified by estimated count?

Only 1.5% of the reports assessed for this project included quantification of an assemblage using an estimated count.

This method was primarily used for assemblages of fired clay (7%) and clay tobacco pipes (7%) as well as for 2% of glass, CBM and stone assemblages.

There do not seem to be any significant regional differences in the use of estimated counts, and nor do there seem to be any obvious trends in the use of this quantification measure since 2001.

Reports from all of the major project types appear to use estimated counts a similar proportion of the time.

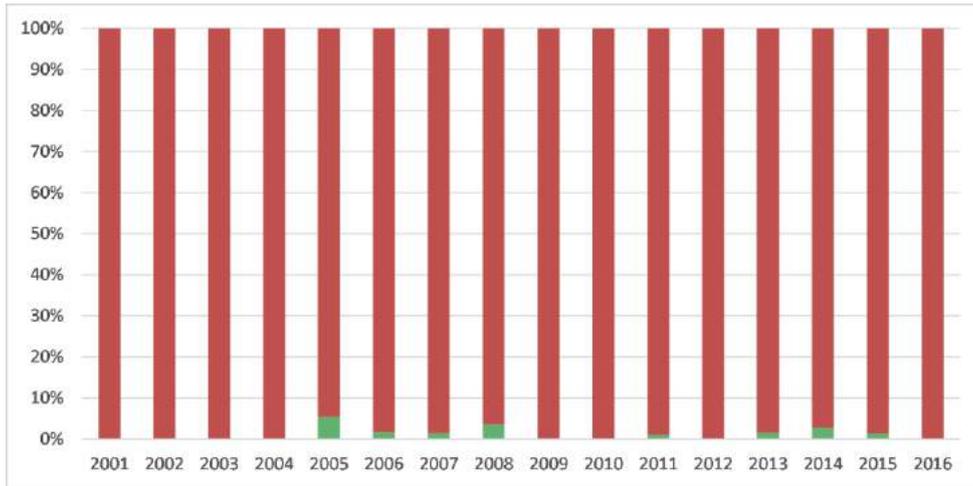


Figure 157. Is the assemblage quantified by estimated count? Breakdown by year of publication.

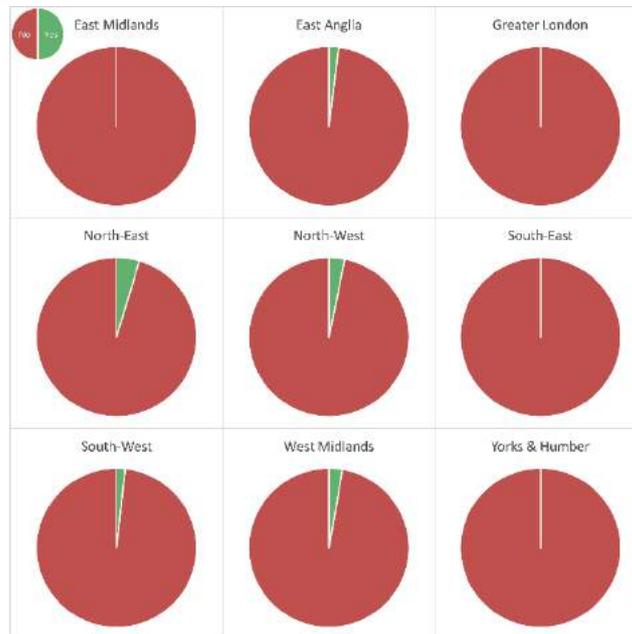


Figure 158. Is the assemblage quantified by estimated count? Breakdown by local government region.

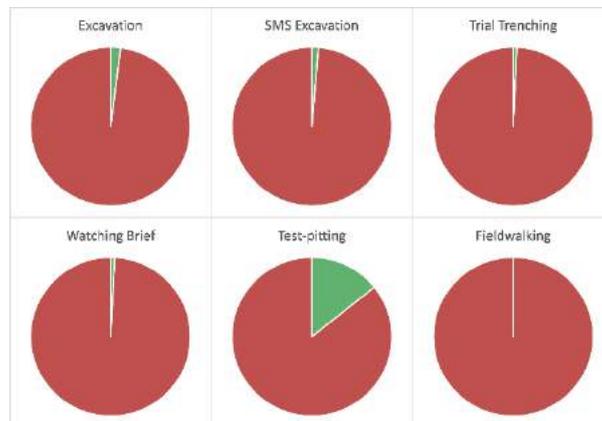


Figure 159. Is the assemblage quantified by estimated count? Breakdown by project type.

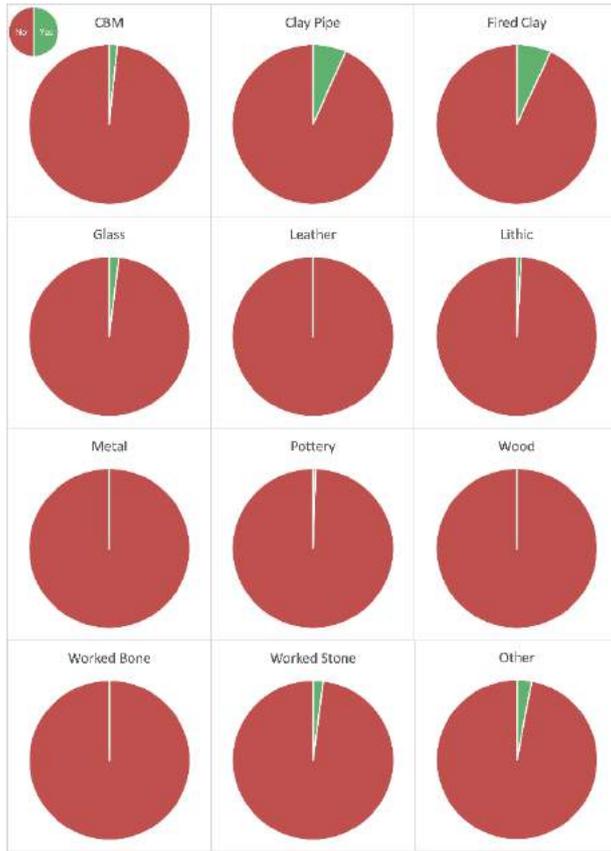


Figure 160. Is the assemblage quantified by estimated count? Breakdown by material type.

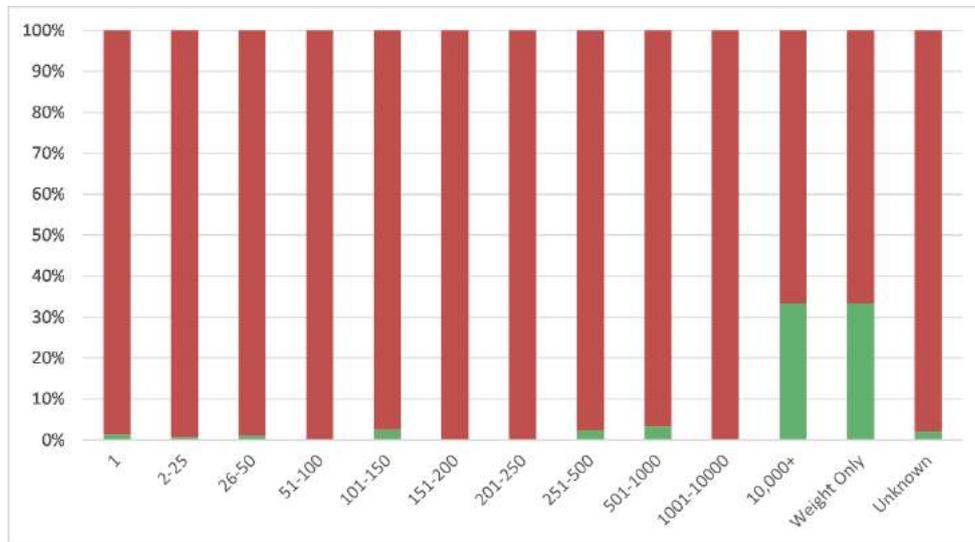


Figure 161. Is the assemblage quantified by estimated count? Breakdown by size of assemblage.

Are the quantified data clearly presented in an accessible form?

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) A4.12 states that 'Tables should be used to present a proportional breakdown of the assemblage by key attributes by site sub-division, phase and stratigraphic groupings. Presenting data in a standardised tabulated format enables direct comparison to be made between assemblages'.

In order to score '1' against this criterion, the quantification of the material must have been clearly presented, easy to understand and using appropriate tables or graphs as necessary. Quantifications which were difficult to use or where the quantities were not tabulated were assigned a score of '0'.

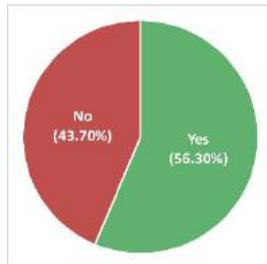


Figure 162. Are the quantified data clearly presented in an accessible form?

Just over half the reports assessed (56.3%, n=563) included quantified data clearly presented in an accessible form.

There do not appear to be any significant changes through time in relation to the presentation of quantified data.

There do appear to be some regional variations. The regions from which reports were least likely to include accessible quantifications were the South-East (42%) and the North-West (44%). The region where accessible quantification data was most frequently recorded in reports was Yorkshire and the Humber (78%).

There does not appear to be any significant relationship between project type and the presentation of quantified data in an accessible form.

Material type appears to be a significant factor in determining the presentation of quantification data, with some categories of material being far less likely to include accessible data than others. Reports that were least likely to include clear, accessible quantification information were those for stone objects (28%) and metal objects (35%). Reports that most often included accessible quantification data were pottery reports (71%).

The size of the assemblage does seem to be a significant factor affecting the presentation of quantified data in an accessible form. Quantified data from smaller assemblages is less likely to be presented in an accessible form than similar data from larger assemblages.

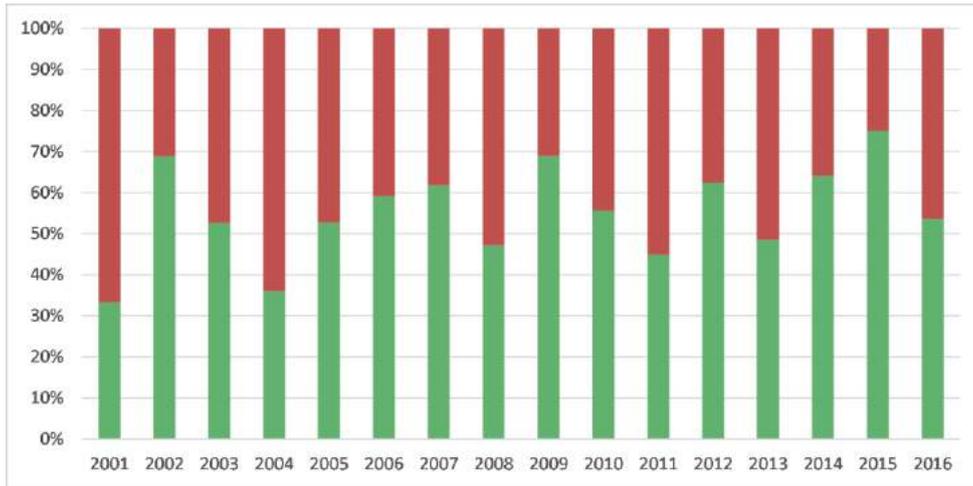


Figure 163. Are the quantified data clearly presented in an accessible form? Breakdown by year of publication.

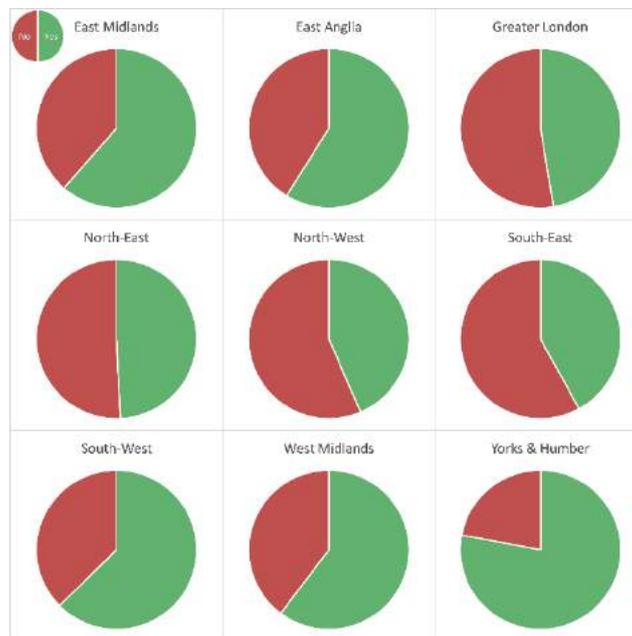


Figure 164. Are the quantified data clearly presented in an accessible form? Breakdown by local government region.

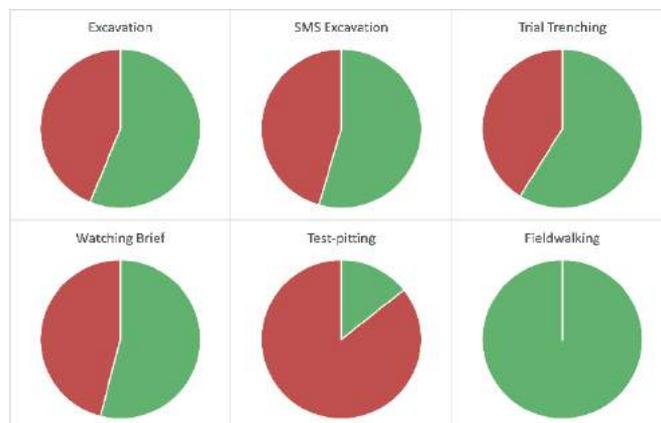


Figure 165. Are the quantified data clearly presented in an accessible form? Breakdown by project type.



Figure 166. Are the quantified data clearly presented in an accessible form? Breakdown by material type.

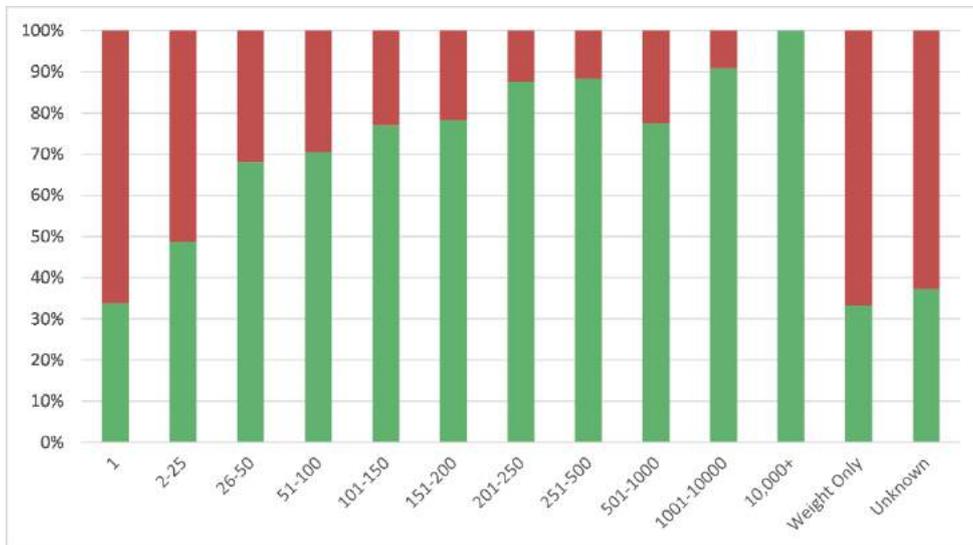


Figure 167. Are the quantified data clearly presented in an accessible form? Breakdown by size of assemblage.

Are the quantified data related to the structural sequence/phasing?

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) A4.12 states that 'Tables should be used to present a proportional breakdown of the assemblage by key attributes by site sub-division, phase and stratigraphic groupings'.

In order to score '1' against this criterion, the quantification must include some attempt to subdivide the material into phases.

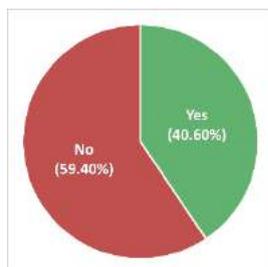


Figure 168. Are the quantified data related to the structural sequence/phasing?

The overall proportion of reports in which the quantified data was related to the structural sequence or phasing of the site was 40.6% (n=406).

As with the other quantification measures, there do not appear to be any significant changes through time.

However, there are some regional variations. Reports from the South-East are especially poor at including quantified data that is related to the structural sequence or phasing, with just 26% of reports from this region including this information. By contrast, the proportion of reports containing this information was around half in Yorkshire and the Humber (53%), the South-West (51%) and the East Midlands (49%).

The project type does not appear to affect whether or not quantified data are related to the structural sequence or phasing.

Material type appears to be a significant determinant of whether or not quantified data are related to the structural sequence or phasing. There are considerable differences between material types. The material type for which data is most likely to be related to the structural sequence is pottery (58%). This is almost certainly because of the vital role that pottery plays in dating features and sequences. Most other materials scored well below average against this measure, with just 12% of stone reports, 21% of fired clay reports, 24% of metal reports and 24% of lithic reports including quantification data that was related to the structural sequence/phasing.

The size of the assemblage does appear to have some impact upon whether or not quantified data are related to the structural sequence or phasing. In general, reports on larger assemblages are more likely to relate quantified data to the structural sequence or phasing than reports on smaller assemblages.

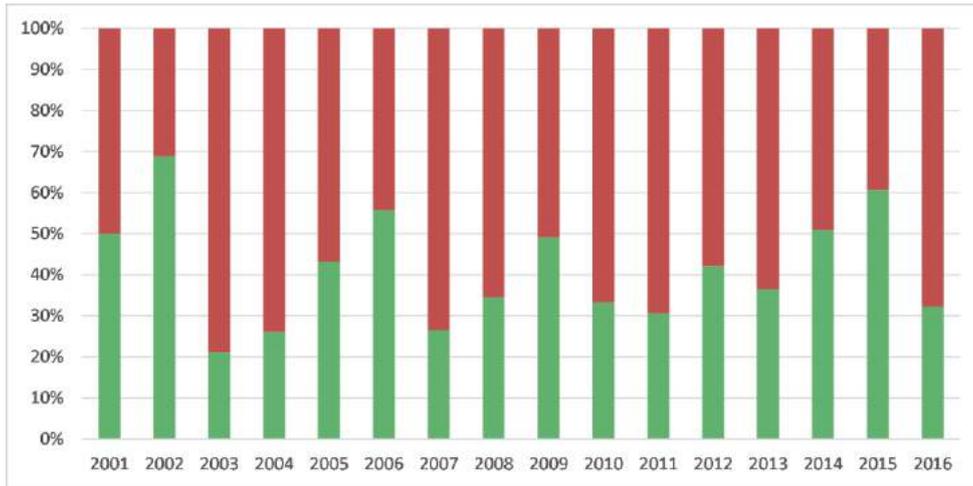


Figure 169. Are the quantified data related to the structural sequence/phasing? Breakdown by year of publication.

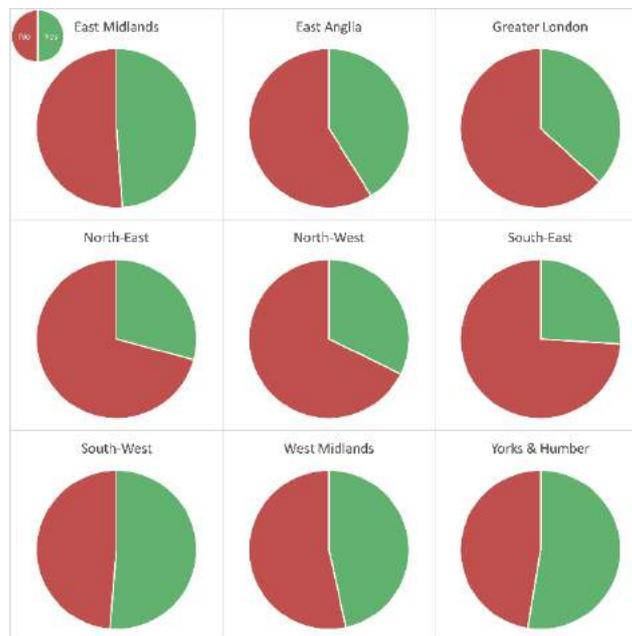


Figure 170. Are the quantified data related to the structural sequence/phasing? Breakdown by local government region.

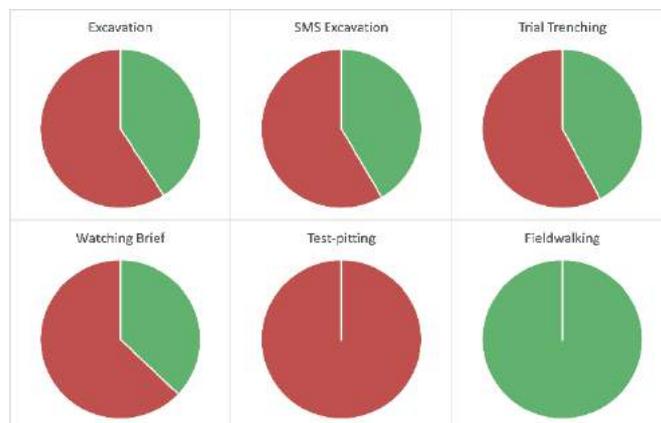


Figure 171. Are the quantified data related to the structural sequence/phasing? Breakdown by project type.



Figure 172. Are the quantified data related to the structural sequence/phasing? Breakdown by material type.

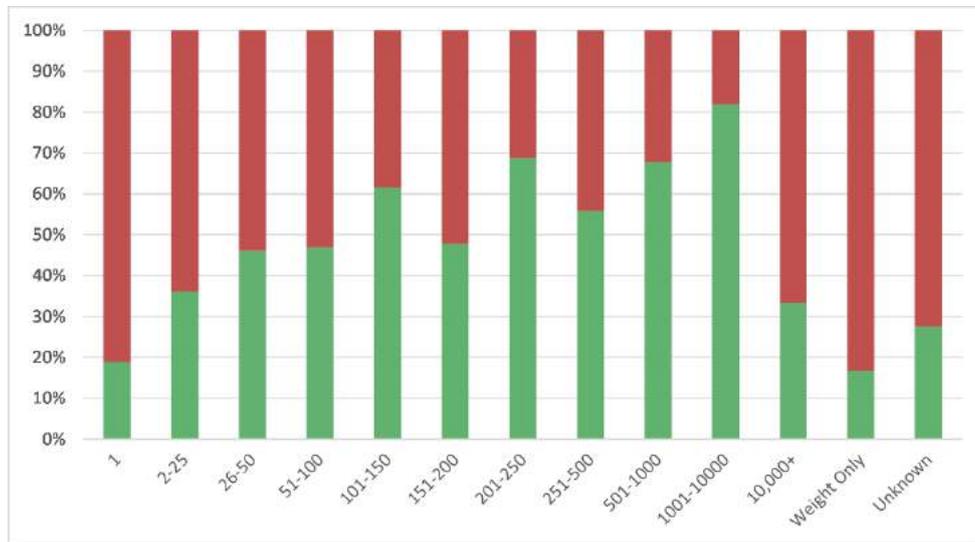


Figure 173. Are the quantified data related to the structural sequence/phasing? Breakdown by size of assemblage.

Discussion

Is there discussion of the assemblage in wider context?

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) 2.5.5.l and 2.5.5.m states that 'The pottery report should include any or all of the following, as appropriate: a discussion and assessment of the assemblage in its local, regional and wider economic and social context [and] a discussion of the assemblage as evidence for the way of life represented at the site over time, including how pottery was obtained and utilised'.

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) A4.3 also states that 'The discussion should place the assemblage in its wider local and regional context'.

In order to score '1' against this criterion, the specialist report must include some discussion of the assemblage in its wider context by expanding on its value as evidence for activity at the site, and/or by discussing how it relates to material recovered from other sites.

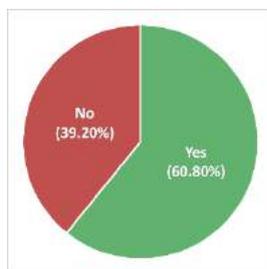


Figure 174. Is there discussion of the assemblage in wider context?

The overall proportion of specialist reports that include discussion of the assemblage in the wider context is 60.8% (n=608).

Overall there appears to be a slight decline in the discussion of assemblages in their wider context over the period 2001 to 2016. Reports produced in the six years between 2001 and 2006 were all more likely to include discussion of assemblages in their wider context (on average around 72% of reports produced included this information) compared with reports produced in the last six years from 2011 to 2016 (when on average approximately 56% of reports included this information). The proportions are lowest from the period from 2011 to 2013 (2011: 48%, 2012: 49%, 2013: 53%) with a slight improvement in the last three years from 2014 onwards.

Some regional variations are visible. The South-East is the only region for which fewer than half (46%) of reports produced contain discussion of assemblages in their wider context. By contrast, this figure stands at 84% in the West Midlands.

Another factor that appears to affect whether or not assemblages are discussed in their wider context is the type of fieldwork project that the reports relate to. Assemblages are often discussed in their wider context if they relate to an excavation (70%), whereas this is less likely to be the case for strip, map and sample excavations (56%), watching briefs (54%), and trial trenching (49%).

There are also considerable differences in the discussion of assemblages in their wider context when material type is considered. The material type that is most commonly discussed in a wider context is pottery, with 75% of pottery reports including such a discussion. Materials that specialists are least likely to discuss in their wider context are glass (38%), CBM (46%) and metal (48%).

The size of the assemblage affects whether or not it is discussed in its wider context, with larger assemblages being more likely to be discussed in this way.

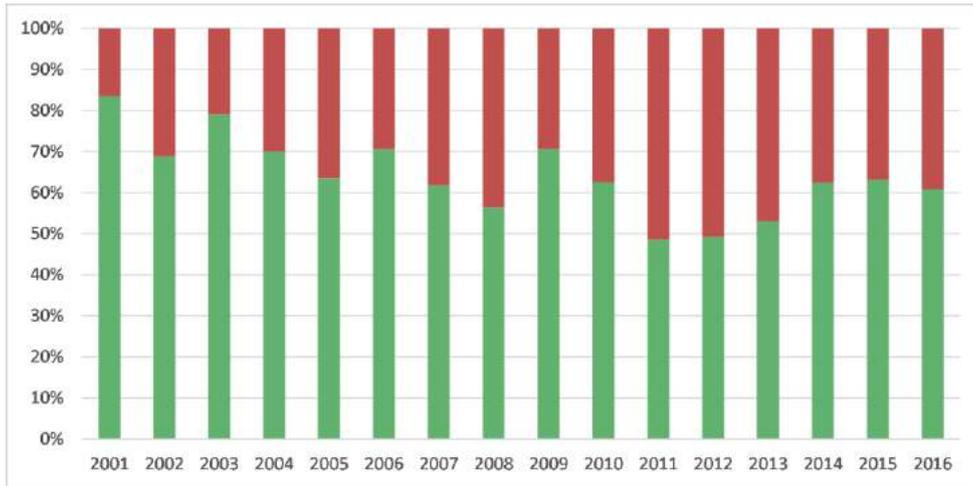


Figure 175. Is there discussion of the assemblage in wider context? Breakdown by year of publication.

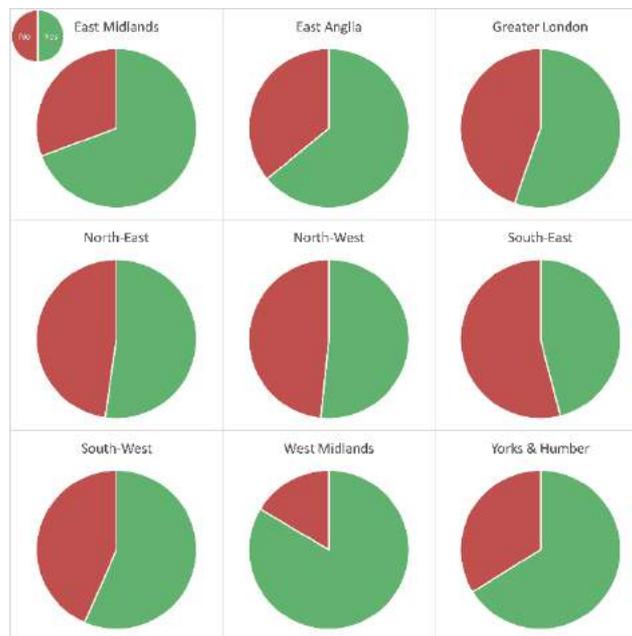


Figure 176. Is there discussion of the assemblage in wider context? Breakdown by local government region.



Figure 177. Is there discussion of the assemblage in wider context? Breakdown by project type.



Figure 178. Is there discussion of the assemblage in wider context? Breakdown by material type.

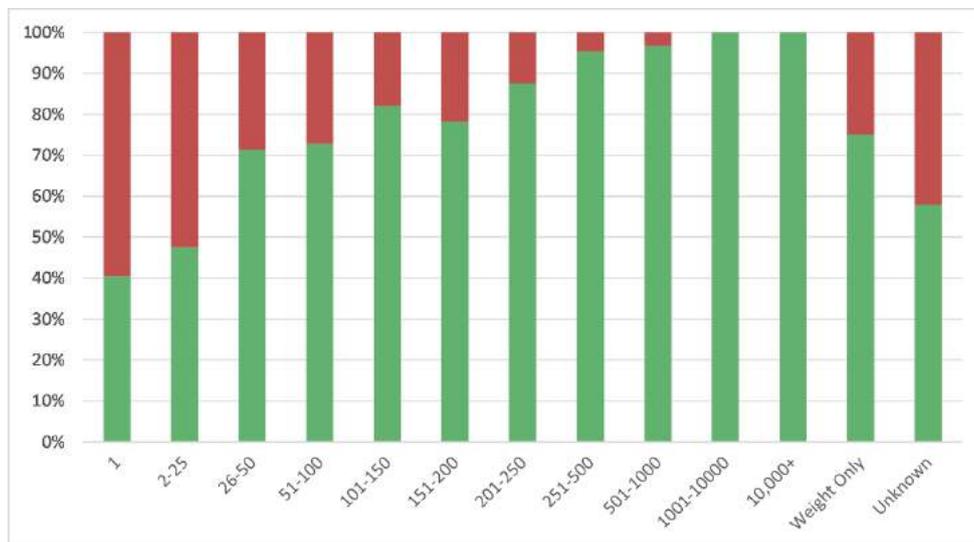


Figure 179. Is there discussion of the assemblage in wider context? Breakdown by size of assemblage.

Is there discussion of assemblage in relation to excavated evidence?

A Standard for Pottery Studies in Archaeology (PCRG, SGRP, MPRG 2016) 2.5.5.n states that 'The pottery report should include any or all of the following, as appropriate: references to other finds from the site and a discussion of the significance of the pottery alongside objects made of other materials'.

In order to score a '1' against this criterion, specialist reports must refer to the context(s) from which the assemblage has been excavated and/or its relationship with other excavated material. Where no reference is made to other classes of material or the feature(s) from which the assemblage was recovered, a score of '0' was assigned.

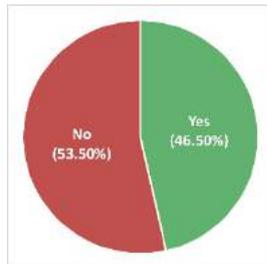


Figure 180. Is there discussion of assemblage in relation to excavated evidence?

The overall proportion of specialist reports that include discussion of the assemblage in relation to the excavated evidence is 46.5% (n=465).

There does not appear to be any significant change in the inclusion of discussion of assemblages in relation to other excavated evidence since 2001.

There are some regional differences in the inclusion of discussion of assemblages in relation to other excavated evidence. This is much more prevalent in reports from East Anglia (57%) and the East Midlands (53%), whereas in the North-West this figure is as low as 29%.

The type of project also appear to affect whether or not an assemblage is discussed in relation to other excavated material. This type of discussion is present less often in watching brief reports (31%) than in reports on trial trenching (40%) and strip, map and sample excavations (43%). However, the type of project that is most likely to include discussion of an assemblage in relation to other excavated material is an excavation, with this type of discussion being found in 55% of excavation reports.

When considering the results with reference to the material type there are also some notable differences. Pottery reports are much more likely than reports on any other type of material to include discussion of assemblages in relation to other excavated evidence with this being included in 59% of pottery reports. For all other material types fewer than half the reports assessed included discussion in relation to other excavated evidence, with assemblages of metal objects (33%), clay tobacco pipes (33%) and stone objects (34%) being least likely to include this.

The size of the assemblage affects whether or not it is discussed in relation to other excavated evidence, with larger assemblages being more likely to be discussed in this way.

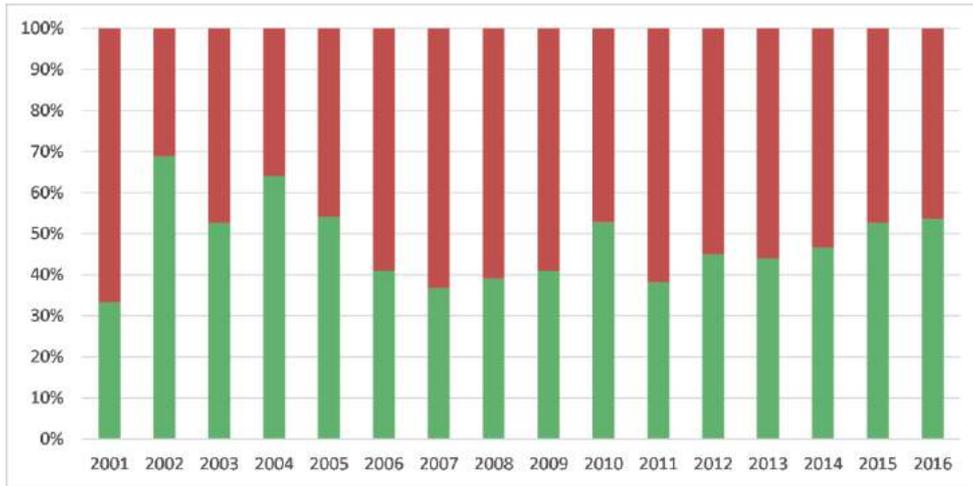


Figure 181. Is there discussion of assemblage in relation to excavated evidence? Breakdown by year of publication.

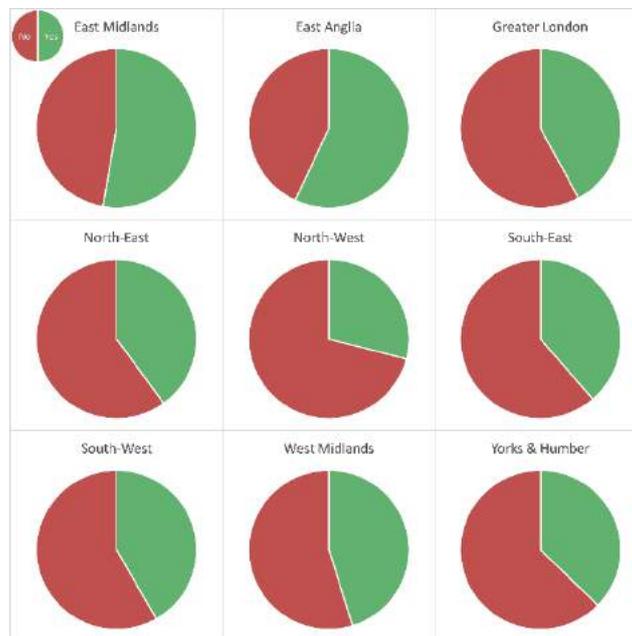


Figure 182. Is there discussion of assemblage in relation to excavated evidence? Breakdown by local government region.

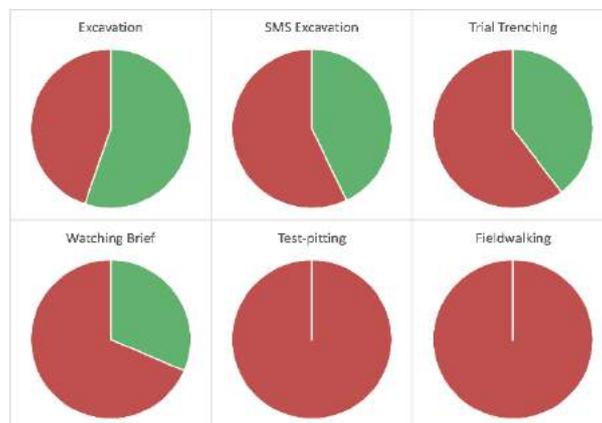


Figure 183. Is there discussion of assemblage in relation to excavated evidence? Breakdown by project type.

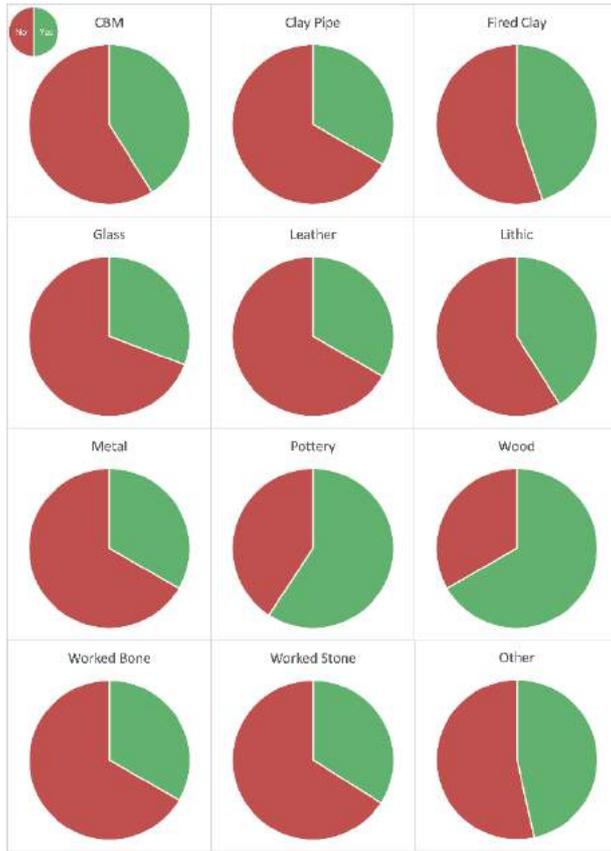


Figure 184. Is there discussion of assemblage in relation to excavated evidence? Breakdown by material type.

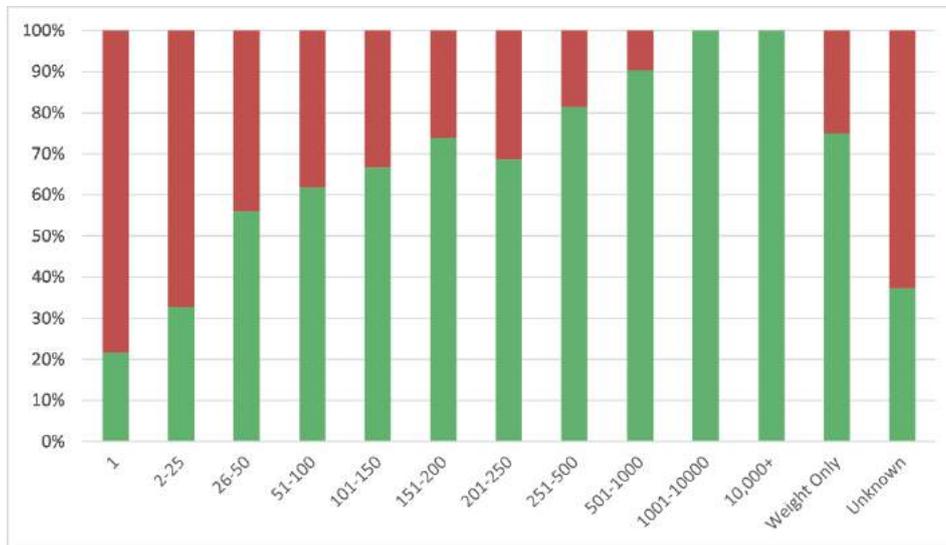


Figure 185. Is there discussion of assemblage in relation to excavated evidence? Breakdown by size of assemblage.

Appendix IV: Results of the Report Assessment (Publications)

When the results of a particular piece of fieldwork, usually an excavation, are thought to be significant enough then it is recommended that formal publication of the report be undertaken. In the case of larger projects, this might take the form of an archaeological monograph either published by the archaeological contractors themselves (in the case of some of the larger organisations) or submitted to an established regional or subject-specific monograph series. Typically, such monographs contain comprehensive details of all specialist reports and analyses, which may span one or more additional volumes, and were historically augmented by microfiche and latterly by CD-ROM. Increasingly, such publications are complemented by a digital archive, in some cases hosted by the Archaeology Data Service. Given their comprehensive and all-encompassing nature, monographs of this kind fall outside the scope of this project.

For the purposes of this project, it was decided instead to take a small sample of small- and medium-sized projects which were not considered to warrant monographs, but which were instead considered worthy of publication in a national, regional or county journal. The sample was originally planned to comprise just 20 specialist reports but this was expanded to include 61 specialist reports from 20 grey literature reports, so that the sample included a wider range of artefact material types and periods.

Because the sample of published specialist reports is so much smaller than the sample of specialist reports from grey literature, the analysis of this sample is limited to assessing the overall results. With a sample of this size further analysis by region, year of publication, artefact type or date is not meaningful.

Project Overview

Published specialist reports differ from those in grey literature, in that in general, they include less background information. None of the published fieldwork reports assessed as part of this project included a breakdown of the overall assemblage (compared with 30% of specialist reports in grey literature). Similarly, information on sampling and recovery strategies was also lacking, with just 18% of published specialist reports containing a sampling strategy (compared with 42% of specialist reports in grey literature) and just 13% contained a recovery strategy (compared with 43% of specialist reports in grey literature).

Introduction

Methodological statements are almost as common in published specialist reports (23%) as they are in grey literature (30%). However, explicit references to standards documents were only found in three published specialist reports (5%) which is lower than the proportion of grey literature reports containing this information (12%).

Published specialist reports are more likely than those in grey literature to refer to type series or formal reference collections (61% compared with 45% for grey literature), and also to make use of source material, other publications or thesauri (61% compared with 39% of reports in grey literature).

Published specialist reports were more likely to contain a concordance explaining any abbreviations used in the report (85%, compared with 76% of specialist reports in grey literature). Conversely, 79% of published specialist reports stated the size of the assemblage in their introduction, compared with 85% of specialist reports in grey literature.

Descriptions of archive products are very rare in published specialist reports, with just two of the published reports assessed as part of this project containing this information. This equates to just 3% of the total, whereas the proportion is higher in grey literature at just over 11%. However, several published specialist reports do make reference to the full archive reports, particularly where the contents of a report have been substantially abridged.

Characterisation

As was the case with specialist reports in grey literature, the vast majority of specialist reports in publications (97%, compared with 99% of those in grey literature) classify material to a basic level. However, the proportion of reports that classify material at a detailed level is higher in grey literature (86%) than in publications (75%).

Classification of object type at both a basic and a detailed level is higher in published specialist reports than in grey literature; 98% of published specialist reports classify object type to a basic level (compared with 96% of specialist reports in grey literature), and 93% of published specialist reports include detailed classification of object type (compared with 86% of specialist reports in grey literature). Similarly, the proportion of reports that classify the object type according to diagnostic components is higher in published specialist reports (92%, compared to 83% of specialist reports in grey literature), as is the proportion of reports that include descriptions of decoration or surface treatment (79%, compared to 72% of specialist reports in grey literature) and the proportion of reports that characterise artefacts by aspects of manufacture or technology (77%, compared to 63% of specialist reports in grey literature).

Fewer published specialist reports include catalogues of artefacts, with just 15% including a catalogue, compared with 37% of specialist reports in grey literature. However, in publications, all of the specialist reports that included a catalogue provided enough contextual information, whereas in grey literature this proportion was lower at 95%. A slightly higher proportion of published catalogues provide adequate object descriptions (88%) than catalogues in grey literature (83%).

Object completeness and weight are less often included in published specialist reports than in grey literature (completeness: 26% compared with 43% in grey literature, weight 8% compared with 29% in grey literature). However, published specialist reports more often include appropriate dimensions (43%) than specialist reports in grey literature (34%).

A larger proportion of published specialist reports included scientific analysis (7%, compared with just 1.2% of reports in grey literature), and the results of the scientific analysis were presented in 75% of cases, compared with just 57% in grey literature. The figures for published specialist reports that include scientific analysis are more encouraging than the figures from grey literature, but they still demonstrate that the use of scientific methods in the analysis of archaeological artefacts is still quite rare.

Quantification

In general, specialist reports in publications contain less information than those in grey literature. This is presumably because somewhere in the editorial process this level of detail is considered unnecessary. For example, 89% of specialist reports in publications include an exact count, compared with 97% of specialist reports in grey literature. No published specialist reports contained estimated counts. The presentation of information relating to quantification is generally less good than in grey literature, with only 34% of published specialist reports containing quantified data in an

accessible form, compared with 56% of specialist reports in grey literature. Similarly, in published specialist reports the quantified data are much less likely to be related to the site sequence or phasing, with just 16% of reports including this information, compared with 41% of reports in grey literature.

Discussion

Most of the published specialist reports included more discussion of the assemblage both in its wider context and in relation to other excavated evidence than similar reports in grey literature. Assemblages were discussed in their wider context in 83% of published specialist reports, whereas in grey literature only 61% of specialist reports include this information. Discussion of the assemblage in relation to other excavated evidence was included in 67% of published specialist reports but just 47% of specialist reports in grey literature.



Figure 186. Results of assessment of published specialist reports.