

Project Report: Scoping Studies and Guidance for the Rationalisation of Museum Archaeology Collections – Suffolk County Council Archaeological Archives

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For: Historic England and the Society of Museum
Archaeology

14th July 2017

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14th July 2017

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Abbreviations

AACAI – Australian Association of Consulting Archaeologists Inc.

ADS – Archaeological Data Service

CBM – Ceramic Building Material

CIMS – Colchester and Ipswich Museums Service

DBA – Desk Based Assessment

HE – Historic England

HBR- Historic Building Recordings

HER – Historic Environment Record

SCC – Suffolk County Council

SCCAS – Suffolk County Council Archaeological Service

SHINE – Selected Heritage Inventory for Natural England

SMA – Society for Museum Archaeology

1. Executive Summary

This report reviews the findings of a scoping study for rationalisation of our bulk finds and photographic archive. This project was undertaken in response to a call for such studies from Historic England (HE) and the Society for Museum Archaeology (SMA).

Rationalisation is used to assess collections, identify areas in need of enhancement, improve familiarity with collections and identify material that could be de-accessioned.

SCCAS currently holds 7,592 individual site archives which include approximately 8,290 boxes of bulk finds and approximately 99,621 individual slides and negatives.

1.1. Brief Methodology

To meet our project goals, we undertook an assessment of the bulk finds, paper archives and photographic material held within our collections.

First, we assessed the number of sites with bulk finds and recorded the quantity and type of bulk finds present for each of these sites. We then recorded the components of paper archive present for each of these sites, their publication status and significance.

Next, having recorded the above, we ranked each site by its potential for being retained based upon the site significance, the types of material it contained and the ease of recording the material for de-accessioning. Information on the paper archive and publication status were used to highlight areas of the archive that could be enhanced.

We then assessed a sample of slides, by recording the photograph types and the quality of the images. This information was used to assess whether the slides should be digitised, retained but not digitised or potentially discarded.

Finally, we costed the resources needed to continue the process of rationalisation on the material identified as being eligible for de-accessioning from the bulk finds. As well as researching the cost of digitising our photographic collection.

1.2. Results Summary

Bulk Finds

A maximum of 2,892 bulk finds boxes were identified as potentially eligible for de-accessioning, releasing up to 57.84 cubic meters of space, this accounts for 23% of our current total capacity.

The process of rationalising this material could be approached in two different ways:

Scenario 1 breaks the material down into three groups based on the amount of time and resources each would take to rationalise. It assumes that only one or two groups of finds would be rationalised, due to the high cost of specialist input, however if all three groups were rationalised individually in this manner, it would cost a total of £628,833.44.

Scenario 2 assumes that all three groups of finds would be rationalised so combines tasks such as the assessment of finds contexts and the specialist analysis. The total cost of this scenario is £332,238.64.

Given the large amount of financial resources required to release such a small amount of shelf space a range of other options which could be undertaken with the same funds were explored.

- 1) Roller racking installation at our current warehouse, approximately £81,000. This option could increase our capacity by potentially 160%.
- 2) Purchase of an additional warehouse of similar size to our current facility, approximately £180,000. This option would increase our current capacity by 200%.
- 3) Replacement of our current facility with a new warehouse (c.8,000 sq. feet) 4-5 times the size, approximately £500,000. This option would increase our capacity by 475%.

In the event that the financial resources were made available to continue with retrospective rationalisation in order to release space in the archives, it is clear that other options of equivalent cost would increase our capacity by a far greater amount. As it stands retrospective rationalisation of our collections is not a cost-effective method of creating capacity and is a poor justification of the financial resources.

Photographic Material

The audit identified that 85% of our slide collection was eligible for digitisation. Again, as with the bulk finds, two costed scenarios were offered.

Scenario 1 rationalises the photographic material prior to digitisation and was costed at £84,709.60.

Scenario 2 digitises the entire photographic collection. The digitised slides and negatives could then be rationalised. This scenario was costed at £69,996.71.

Given the reduced cost of *Scenario 2* this is the logical method to use to digitise the slides. This method also has other positive benefits, such as being able to see how much data could be retrieved from degrading or poorly exposed photographs before a decision on rationalisation was taken. There is external funding available for digitisation projects such as these that could be sought out.

In both cases before undertaking digitisation a clear strategy for the long term curation of the data created would need to be established.

1.3. Conclusions

Overall scoping for rationalisation has been a useful process to identify where our archives need enhancing and to inform our guidance to depositors. The study has also pinpointed

areas of our archive that could be used to enhance SCCAS' Historic Environment Record (HER).

Although the scoping study was successful in identifying material that could potentially be retrospectively rationalised and de-accessioned it was clearly demonstrated that this was not a cost-effective method of creating more space in our bulk finds archive in comparison to other less costly options.

However, this study can now be used to inform our collections policy and ensure that new accessions are accepted in a sustainable manner. What we have learned is already being applied by SCCAS to all new depositions.

We would recommend that SCCAS could rationalise some material as part of our current staff roles, such as burnt flint and burnt stone. This would be undertaken to improve the quality of our archives and would not be viewed as a solution to potential shortages in storage. In order to cost-effectively increase our capacity, we should consider roller racking our existing stores and the purchase or rental of a new storage facility in order to continue collecting as the most desirable and cost effective options.

2. Introduction

A scoping study of collections is a process which provides an opportunity for a curating organisation to assess their collections in terms of quality and quantity. It should highlight where collections have strong research value and where collections could be enhanced.

Ethically the lack of space and so the need to identify material for discard, should not be the only driving reason for undertaking such a study. This being said many museums are so lacking in space, they can no longer collect material (Boyle, et al., 2016). Repositories in this position are in need of a process which enables them to assess what should be done with their collections to solve this issue, including the identification of material suitable for dissemination or discard. A scoping study fulfils this need by providing a process within which curators aim to identify material eligible for further rationalisation.

Rationalisation is a resource expensive and costly process, especially in regard to the discard of material. A scoping study enables repositories to make decisions on how to sustainably manage their collections and decide whether rationalisation of their collections is the best way forward.

3. Museum Overview

Suffolk County Council Archaeological Service (SCCAS) is currently the main repository for all archaeological archives from Suffolk. Most of the archives are from development led projects but there are also amateur and research archives within the collection. Historically the county of Suffolk has not had a county museum and local museums have never had the capacity to collect large archaeological archives. SCCAS runs loan schemes with local museums to ensure that they can continue to display recently excavated material from their local areas.

3.1. Our archives

SCCAS has been curating archaeological archives from the county since the 1970s and holds, at present count, 7,597 individual site archives. The collection includes assemblages of regional and national importance, including those from the Middle Saxon settlement at Brandon and from the Roman small towns of Scole and Pakenham. In addition to this SCCAS also holds some older archives from the county, such as those generated in the mid-20th century by Lady Briscoe and Basil Brown, and collections made by other amateur archaeologists.

Our archives are made up of five main components: bulk finds, small finds, paper records, photographic records, and digital data files. Our bulk finds archives are stored in a warehouse in Ipswich and the rest of our archives are held in our offices at Bury St. Edmunds.



Figure 1: typical packing and shelving arrangements in our paper store.



Figure 2: typical packing and shelving arrangements in our bulk finds store.



Figure 3: typical packing and shelving arrangements in our small store.

3.2. Project Team

Two members of the SCCAS team have been involved in this project:

- **Julie Kennard (Archaeological Officer - Archives)**
 - Conducted the scoping project and producing the report
- **Faye Minter (Senior Archaeologist)**
 - Currently managing the archives.

4. The Project

4.1. Aims

The overall aims of the project were as follows:

- To create a methodology for assessing the collections and their potential for rationalisation based upon the quantity, quality, and significance of the material they contain.
- To identify areas of our collections that could be enhanced.
- To identify bulk finds that could potentially be de-accessioned and the resources required to follow this process through.
- To identify photographic material suitable for long-term curation and digitisation.
- To contribute to a review of our current collections policies.

4.2. Research Questions

The questions this project addressed are as follows:

- Is there any scope for retrospective rationalisation of SCCAS bulk finds collections?
- If there is scope to rationalise then how much space could we save through rationalisation and de-accessioning of certain categories of bulk finds?
- How much would it cost to apply rationalisation?
- Which and how much photographic material in our collections is eligible for digitisation?
- How can we adjust our collections policy to ensure informed discard of unnecessary material before deposition and therefore manage future depositions so that future rationalisation is less necessary?

4.3. Objectives

In order to meet our aims and answer the project research questions the following objectives were set.

- 1: Assess the quality and quantity of each of the archaeological archives held by SCCAS.
- 2: Establish selection criteria in order to achieve objective 1.
- 3: Identify potential archives for rationalisation based on objectives 1 and 2.
- 4: Calculate how much space could be saved from rationalisation.
- 5: Establish the level of recording and suitable disposal methods for archaeological material and estimate the costs and resources required to do this.

4.4. Rationale

As is the case nationally, Local Authority resources are decreasing whilst numbers of development led archaeological excavations continue to rise and their resulting archives need to be collected. There is pressure on SCCAS as it is the only actively collecting establishment in the county.

To be able to continue to take in new archives SSCAS needs to prove that it is managing its collections and future accessions in as cost-effective a way as possible. It also needs to retain an accessible collection for benefit to the people of Suffolk.

The project results will provide a basis of a review of our collections policies to ensure that we are only taking in and curating good quality archives in a sustainable manner. This project and our revised collections policy will provide evidence and support for the continued collecting of new and curation of current archaeological material and will inform Senior SCC management and elected members in their decisions regarding the future management of the archive.

In addition to the above the project will establish the research value of our current collections and ensure that they are of a consistent standard by identifying areas for enhancement. The project will enable SCCAS to have confidence that its collections are of high quality and value.

Finally, there are pressures relating to the building in which the bulk finds collection is kept. It is not fit for purpose in the medium term, and is running out of space. We therefore potentially anticipate a move of our bulk finds archive store within the next five years. This situation gives a strong incentive to explore options for the bulk finds collection, including retrospective rationalisation, before we secure and move it into a new store.

5. Method Statement

5.1. Previous Work

Several SCCAS projects over the last ten years have focused upon the enhancement of the archaeological archives.

The first project (2009-2011) focused on the consolidation and enhancement of all Ipswich archives excavated between 1974 and 1990. The data from these archives is now publicly accessible and has been uploaded to the ADS website, the bulk finds were transferred to CIMS for storage and the paper archive retained by SCCAS.

In 2015 a second project was undertaken to consolidate, via re-packing and cataloguing, the remaining site paper and bulk finds archives held at our Bury St. Edmunds and Ipswich stores. As a part of this project the paper archive was subject to rationalisation. In 2016-2017 an extension of this project was undertaken to consolidate and catalogue the digital archives, again rationalisation has been applied to these archives at the time of cataloguing.

From summer 2017 the small finds store will be part of a re-packing, condition logging, and cataloguing project and any potential for rationalisation of small finds will be identified at this time.

5.2. Revised Approach

Over the past 40 years we have collected c.8290 boxes of bulk finds from c.3450 individual sites. In addition to this we hold c.99,621 individual monochrome and colour film photographs. Given the projects that have already taken place and the large size of our collections this current project did not include the paper, digital or small finds archive.

We approached this project in four main phases as outlined below:

- **Phase 1: Establishing Criteria.** In this phase, we established the criteria by which we want to assess the collections, including the types of finds to be rationalised. The criteria took into account the publication status of the site, significance of the site and the quality of its associated contextual information in the form of the paper archive.
- **Phase 2: Bulk Finds Assessment.** In this phase, we documented all the finds and calculated how many boxes each find type occupied. Other information about the site, such as its importance, locally, regionally, or nationally, was also recorded.
- **Phase 3: Photographic Material Assessment.** This phase of the project focused upon the recording of the photographic material. The quality of the photograph as well as its subject and condition were incorporated into the assessment.

- **Phase 4: Reporting.** This phase of the project established the future process SSCAS would use for rationalisation and potential disposals. The cost of de-accessioning, and disposal, including specialist recording, will be discussed at this stage.

5.3. Stakeholders and Consultation

The stakeholders involved in the management, undertaking and delivery of this project are as follows:

- **Suffolk County Council Archaeological Service**, are conducting the scoping for rationalisation project on our own collections and have produced the findings within this report.
- **Historic England** has provided some funding for this project and has provided advice and support to SCCAS staff.
- **The Society for Museum Archaeology** is the professional body disseminating the results of the audit.

5.4. Research

Existing sector resources and guidance were drawn upon to fully inform this project and in the creation of internal SCCAS guidance to manage existing and incoming collections. Any sources used throughout the project will be included within the bibliography (*Section 11*).

5.5. Resources

IT hardware and software packages required for this project were already provided to members of SCCAS staff as standard by the council, further details of these can be found in *Section 10.1*. One piece of equipment, a slide and negative viewer, was purchased for use in this project. No additional members of staff were employed to undertake the scoping project as Julie Kennard (Archaeological Officer: Archives) was seconded to do the project, putting much of her day to day work on hold for its duration.

5.6. Budget and Timescales

We estimated that the scoping project would take approximately six months, with a further month for report writing and preparation with an estimated cost of **£22,712.50**. Historic England offered the maximum contribution of £12,000 for this project and the remaining amount was matched with a contribution from SCC. *Table 1* below gives a breakdown of our projected budget.

Task	Number of Days	Cost
Criteria Establishment		
Criteria Establishment (research existing)	2	£265
Assess quantity of sites	1	£130
Archive rationalisation audit		
Identify potential bulk finds archives for discard	105	£13,700
Identify potential photographic material for digitisation and/or discard		
Grade sites by quality of written records and level of importance		
Rationalisation (Disposal) Estimations		
Identify and collate sites suitable for rationalisation as highlighted from audit	2	£265
Establish levels of recording and resources required	2	£265
Establish disposal methods and resources required	5	£660
Calculate the amount of saved space and resources	1	£130
Compare costs of retention vs. costs of rationalisation	1	£130
Report Writing		
Report writing (Grade 4)	3	£400
Report editing and review (Grade 6)	5	£1,050
Project Management		
Project management	2.5	£525
Staff Total		£17,510
Project Total +25% overheads		£21,887.50
Non-Staff		
Consultancy of retired experts, including +10% on cost	3	£825
Total		£22,712.50

Table 1: budget allocations for the project

As stated above the time estimate for this project was six months. Given the vast nature of our archives and other pressures on staff time and need to keep the archive accessible compromises had to be made. The photographic archive was too large to be completely audited within the given six-month period, as a result of this we audited a sample of the slides in order to test our methodology. The start of the project was delayed by one month due to administration delays; this delay was accommodated by extending the end date of the project by a month.

There were two tasks that were not fully completed within this project, the assessment of the paper archives and the publication status for each individual site. Otherwise all other tasks ran on schedule. *Table 2* below details our planned schedule of tasks.

No.	Task	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17
1	First project meeting									
2	Asses quantity of sites									
3	Criteria Establishment									
4a	Site grading by material type									
4b	Logging of documentary archive types for each site									
4c	Site grading by archive quality									
4d	Site grading by publication status									
4e	Site grading by local/regional/national importance									
4f	Slide assessment / characterisation									
4g	Grading of slides									
5	Second project meeting									
6a	Establish method for assessing quality of archives and potential material for rationalisation									
6b	Establish method for assessing photographic collections									
7	Establish recording requirements for material rationalisation									
8	Establish rationalisation and disposal methods									
9	Identify sites with material for rationalisation									
10a	Estimate the costs and resources required to carry out rationalisation and disposal									
10b	Calculate potential total space that could be saved									
10c	Produce a detailed costed breakdown of space that could be saved based on various graded criteria									
10d	Compare the costs of disposal and retention									
11	Third project meeting (CANCELLED)									
12	Produce a report on the findings									
13	Group project meeting and presentation									

Table 2: planned schedule of tasks

6. Bulk Finds

Although all site archives were listed as a part of the scoping project, the primary focus was on bulk finds and photographic material. This choice made to address the research questions and aims of the project and takes into account the previous projects already undertaken. Potential for retrospective rationalisation of certain categories of bulk finds has also been included as a focus of this project due to the need to explore this as part of the SCC aspiration to manage our collections in a sustainable manner.

The large size of the collection and pressures on staff time meant that a careful staged assessment with a well thought out methodology was a necessity. It was uneconomical in this project to physically look in each box, so on the whole the data required for the analysis was extracted from the collections catalogue. All the data was combined into two spreadsheets to allow for easy analysis and navigation.

The method described here tries to reflect the questions that we have about the quality of an archive including: *Does the material have a secure context? What is the quality of the associated archive? Has the material been published? Does the site hold any significance locally, regionally and nationally? Does the site belong within our collecting area?* Answering these questions through data collection allowed us to then answer our research questions.

6.1. Detailed Methodology

The first stage was to consider the types of data that we wished to record in order to characterise the collections. The specific data fields used in our spreadsheet are detailed in *Section 10.1*. Our data collection covered the following areas:

- Site identifiers
- County (collecting area) site is located within
- Date and type of archaeological work
- Presence of bulk finds
- Quantities of each finds type
- Presence of small finds
- Presence of paper archive components
- Publication status*
- Quality grading for the paper archive*
- SHINE/HER site significance data
- Retention Rating

**this data could also be incorporated into the first phase of rationalisation after a scoping project.*

The next stage involved entering the list of all our sites into the spreadsheet (copied from the database) and then identifying which sites had bulk finds. After this initial identification, the quantity of bulk finds (by number of boxes) for each site was entered into the spreadsheet. The next phase of the data entry involved logging the components of the paper archive and small finds present for each site. Although optional at this stage we also

recorded the significance of the sites, graded each site by quality of the paper archive, and recorded each sites publication status

The last phase of the bulk finds scoping for rationalisation involved grading the sites, in terms of which sites were of best quality and highest importance, and produced counts of all the materials that could be considered for rationalisation.

Finds Categories

Each individual find type was added to the spreadsheet in order to calculate how many boxes of material were present for each type. The finds were quantified by the number of boxes as we did not have access to information on the weight of each find type for each site. This also meant that where a box may contain more than one finds type i.e. CBM, pottery and burnt flint it was assumed that each finds type occupied 1/3rd of a box. The fractions of a box were expressed to two decimal places.

The finds were coded by their ease of recording for de-accessioning and their research potential because these are the two factors affecting their likelihood of disposal. What constitutes each finds category is detailed in *Table 3* below.

All of the finds types listed below are subject to full assessment for suitability for rationalisation at a post-scoping stage and would need fuller recording before any de-accessioning could occur.

Red	Orange	Yellow	Green	Blue
These finds types are of little research value and can be easily recorded. They are the most likely finds groups to provide discard.	These finds groups need more investigation. They also provide the most likely areas for discard depending on context, date and specific material types.	These finds types are most likely to provide discard in the form of sampling, where appropriate.	These finds types are not currently being considered for discard but are not fully exempt from future considerations.	These finds are not being considered for discard.
This group includes: <ul style="list-style-type: none"> • Burnt Stone • Burnt Flint • Shell • Clay pipe (stems) 	This group includes: <ul style="list-style-type: none"> • Iron • Glass • Stone • Flint • Lead • Un-fired clay • Metal • Misc / Various / Unknown 	This group includes: <ul style="list-style-type: none"> • CBM • Slag • Fired Clay 	This group includes: <ul style="list-style-type: none"> • Pottery • Animal Bone • Worked Stone • Copper Alloy • Wood • Plaster & Mortar • Leather • Environmental Samples 	This group includes: <ul style="list-style-type: none"> • Human Skeletal Remains • Silver • Charcoal • Textile (we do not have this in the bulk stores)

Table 3: descriptions of the finds categories and the finds included within each one

Publication Status

It will also be a useful dataset to consult in the event we choose to continue with the rationalisation process. A list of grey literature publications, held by our HER, was added to the spreadsheet first and then a systematic search of each archive identified any existing reports for any outstanding sites. The publication was recorded using the fields described in *Table 4* below.

Publication Status	Description
No	There is no known publication
Grey	A report exists in the HER grey literature library. This report may or may not also appear within the archive
Archive	The excavation report only appears in the archive and is not available through the HER
Yes	The site is fully published in a journal or book
Should	There should be a report for the site but none can be found.

Table 4: description of the publication status' of sites

Paper Archive Quality Grading

Once the quantities of finds and the components of the paper archive had been recorded on the spreadsheet, the quality of the paper archive was then assessed. This involved a more in depth look at each archives' paper records to establish the presence of contextual records, specialist reports, drawings and photographs. The presence of an excavation report was not included in this rating as it is already accounted for in the 'publication status' data.

The site ratings were given depending on how many of the expected records were present in the archive, and whether they were just in digital format or hard copies. Sites with no contextual records could not score more than a medium rating. The ratings given are explained below in *Table 5*.

This assessment had to take into account the type of archaeological field work as different types of works will produce different types of archive. An example of what we might expect from each type of archive is illustrated in *Table 6*.

Paper Archive Quality Rating	Explanation
Very Good	All expected components of the archive are present
Good	Most of the expected documents are present in addition to contextual information. Some extra documentation such as conservation records, specialist reports, or x-rays may be missing.
Medium	Most expected archives of the archive are present but with missing context records, or context records are present but other expected documents are missing.
Poor	No contextual records and other documents may be missing. For example, the archive may contain only photos or photos and a drawing.
Very Poor	No paper archive present

Table 5: paper archive quality ratings

Type of work	Excavation Records Expected	Post-Excavation Records Expected (If applicable)
Excavation & Evaluation	<ul style="list-style-type: none"> Context Sheets Sample Sheets Skeleton Sheets (if burials present) Site Registers Drawings Photographs 	<ul style="list-style-type: none"> Specialist Reports Specialist Database/recording sheets Conservation Records Photographs Finds catalogues Finds record sheets X-rays
Monitoring / Watching Brief	<ul style="list-style-type: none"> Context Sheets Sample Sheets (if applicable) Skeleton Sheets (if burials present) Site Registers Drawings Photographs 	<ul style="list-style-type: none"> Specialist Reports Specialist Database/recording sheets Conservation Records Photographs Finds catalogues Finds record sheets X-rays
Survey	<ul style="list-style-type: none"> Drawings / site maps Photographs 	<ul style="list-style-type: none"> Survey Data
HBR	<ul style="list-style-type: none"> Drawings / site maps Photographs 	
Fieldwalking	<ul style="list-style-type: none"> Drawings / site maps Photographs 	<ul style="list-style-type: none"> Specialist Reports Specialist Database/recording sheets Conservation Records Photographs Finds catalogues Finds record sheets X-rays
DBA	<ul style="list-style-type: none"> Drawings / site maps Photographs 	
Spot Find	<ul style="list-style-type: none"> Photographs 	<ul style="list-style-type: none"> Finds Report

Table 6: documents expected in our archives

Site Ranking Criteria

After the main characteristics of the archive had been recorded the next stage was to rank the sites in terms of the material categories they contained, the types of archaeological work under taken and the significance of the site. The sites were ranked from 1-6 with 6 being a high rating, where total retention is required and 1 being a low rating where a large proportion of the material could be considered for rationalisation. *Table 7* below gives details on which finds categories and site significance rating was included in the retention rating and what action each rating might warrant.

Any sites highlighted as being potentially suitable for rationalisation would then be further investigated to establish the level of recording, publication status and popularity with researchers before decisions on disposal would be made.

Retention Rating	Finds Categories Contained in Archive	Significance	Action
1 (very low)	Red, Orange, Yellow, Green	Unrated sites	Could be considered for entire archive discard
2 (low)	Red, Orange, Yellow, Green, Blue	Local significance and unrated sites	Red material could be discarded, orange categories of material to be sampled or retained.
3 (low/medium)	Red, Orange, Yellow, Green, Blue	Regional and nationally significant sites. Some local sites may also have this rating.	Red material could be discarded, orange categories of material to be sampled or retained.
4 (medium)	Orange, Yellow, Green, Blue	Local significance and unrated sites	Orange categories of material to be sampled.
5 (high)	Orange, Yellow, Green, Blue	Regional and nationally significant sites. Some local sites may also have this rating.	Orange categories of material to be sampled, or retained.
6 (very high)	Red, Orange, Yellow, Green, Blue	Any	All archive to be retained due to ethical considerations. Also includes sites that are in our guardianship but belong to someone else.

Table 7: Details of the "retention ratings" given to sites

6.2. Results

The scoping audit has provided a good overview of our collections. *Table 8* below details the breakdown of the equivalent number of boxes that could be de-accessioned for each material, how many boxes it is spread over and how many sites contain that particular material in their archives.

It is clear from *Figure 4* that pottery and animal bone constitute the largest proportions of our bulk finds archives. Due to their research potential, current popularity with researchers, and the unpublished or unstudied status of these materials we have taken the decision not to scope to rationalise them in this project. This also applies to: worked stone, wood, charcoal, plaster, mortar, leather, environmental samples, copper alloy, silver and textile. We will also not be de-accessioning human remains due to ethical considerations surrounding their reburial, their very high research potential and they popularity with researchers.

Figure 4 also illustrates that the majority of our sites are spread over a large number of boxes. When investigated it was discovered that this is due to the large number of our sites only occupying a single box, often of mixed materials, as is clearly evident in *Figure 5*. This will have a large impact on the cost of rationalisation and de-accessioning as it means it will take a considerable amount of time to retrieve material from the boxes and then reconsolidate them.

Finds Type	Maximum Equivalent No. of Boxes	Spread over 'X' Boxes	No. of Sites with this Material
Red Category Finds			
Burnt Flint/Burnt Stone	168	837	767
Shell	125	762	515
Claypipe	86	635	535
Orange Category Finds			
Iron	98	675	577
Glass	95	727	553
Stone	374	1311	773
Flint	350	1404	1382
Lead	6	294 (All of these finds types are in the same "misc" boxes)	204 (All of these finds types are in the same "misc" boxes)
Misc	58		
Un-fired clay	16		
Metal	12	111	188
Various	23	51	70
Unknown	0.75	7	7
TOTAL	1032.75		
Total (Minus 10% sample retained)	929.5	4480	3613
Yellow Category Finds			
CBM	1101	2333	1351
Slag	326	749	326
Fired Clay	333	949	492
TOTAL	1760		
TOTAL (Minus 10% retained sample)	1584	4031	2169
Green Category Finds (Not considered for rationalisation)			
Plaster/Mortar	130	328	186
Environmental Samples	142	318	292
Wood	34	168	72
Pottery	2059	3459	2723
Copper Alloy	36	301	297
Worked Stone	14	1311	773
Animal Bone	2113	3129	1046
Leather	1	8	8
TOTAL	4529	9022	4397
Blue Category Finds (Not considered for rationalisation)			
Human Remains	515	581	180
Charcoal	54	387	248
Silver	0.64	5	2
TOTAL	569.64	973	430

Table 8: Breakdown of Material Types in our Collections

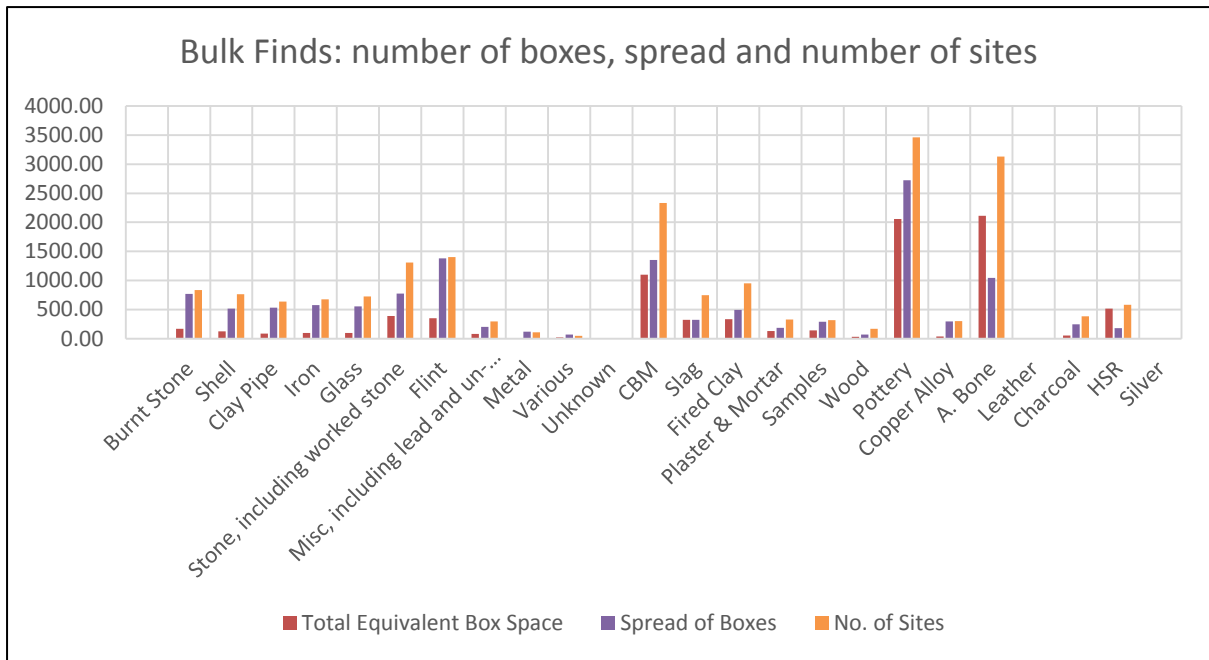


Figure 4: showing the number of boxes for each finds category, the number of boxes the material is spread across and from the what number of sites

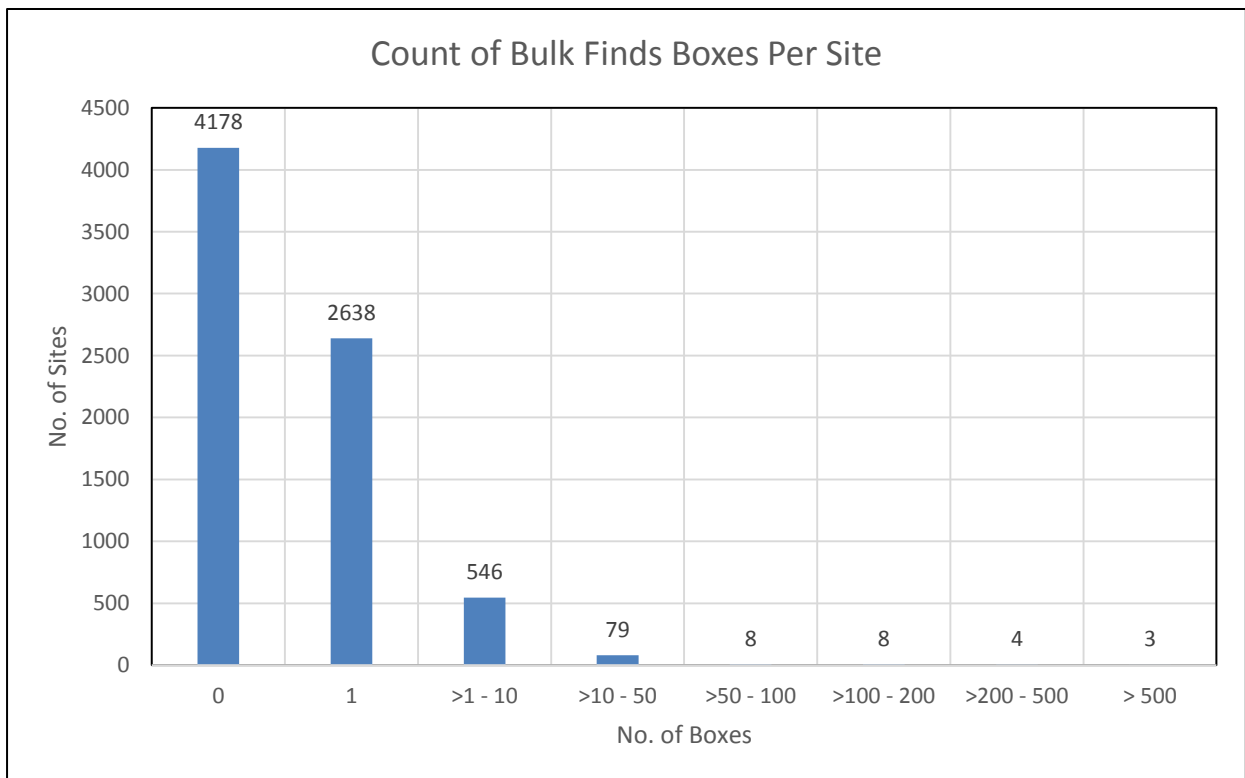


Figure 5: count of bulk fins boxes per site

Methods for de-accessioning material

Material selected for rationalisation needs to be disseminated in an ethical manner after it has been fully recorded by a specialist. Before destructive disposal is to be considered a number of different solutions could be utilised to disperse material. Methods we have considered using to disperse our collections include:

- Sending out of county material back to the relevant collecting organisation
- Offered back to the landowner
- Producing handling collections for outreach groups and schools
- Offering material to local museums
- Offering more complete assemblages to academic research collections
- Upcycling where appropriate i.e. complete bricks could be re-used by members of the public
- Destruction of the material, then either burying or recycling it

As our target materials for rationalisation are stone, ceramic building material, shell or metal based objects, when they cannot be disseminated using the above methods they will be sent to a local waste aggregates company that will recycle the material. Other disposal methods are discussed in the SMA's disposal toolkit (Society for Museum Archaeology, Unknown).

The cost of Rationalisation and De-accessioning

The costings for further rationalisation have been based on two scenarios. The first is to target each material category separately one at a time, the second is to conduct the rationalising on all the categories of material simultaneously.

The first stage of rationalisation involves the checking of contexts for material to verify whether or not it should be rationalised. This may result in a saving of less boxes than shown below as the costs given in this report are based on the maximum amount of material being eligible for rationalisation. The criteria we use to decide whether material should be retained are much the same as Sussex Museums selection criteria (Sussex Museums Group, 2015). The second is the recording stage and the third is the disposal stage.

The costings below assume that the maximum amount of material could be rationalised and would require recycling by an aggregates company.

Scenario 1: Targeting one or two categories of finds

Red Category Only

Task	Staff Required	Hours/Quantity	Cost
Assessment of each material contexts for each site (allowance of 30 minutes per material per site)	1 x Grade 4 (£93.41 per day)	1817 sites taking 113.5 days	£10,602.04
Recording of rationalised material (1 hour per box) at Grade 4 (£74.73 per day)	1 x Grade 4 (£93.41 per day)	2234 boxes taking 279.25 days	£26,084.74
Disposal of material (290 boxes per skip)		379 boxes (2 x 8 yard skips at £235 exc. VAT)	£564 inc. VAT
TOTAL			£37,250.78
TOTAL + 25% on cost		392.75 days	£46,563.48
Saving a maximum of 379 boxes			

Table 9: costings for rationalising the Red Category Finds (Scenario 1)

Orange Category Only

Task	Staff Required	Hours/Quantity	Cost
Assessment of each material contexts for each site (allowance of 30 minutes per material per site) at Grade 4	1 x Grade 4 (£93.41 per day)	3613 sites taking 226 days	£21,110.66
Assistance of specialist (1 hour per box) at Grade 4 (Assisting specialist)	1 x Grade 4 (£93.41 per day)	4480 boxes taking 560 days	£52,309.60
Recording of material requiring specialist (1 hour per box) by specialist	1 x Finds Specialist (£310 per day)	4480 boxes taking 560 days	£173,600
Disposal of material (290 boxes per skip)		929.25 box (4 x 8 yard skips at £235 exc. VAT)	£1,128 inc. VAT
TOTAL			£248,148.26
TOTAL + 25% on cost		786 days	£310,185.33
Saving a maximum of 929.25 boxes			

Table 10: costings for rationalising the Orange Category Finds (Scenario 1)

Yellow Category Only

Task	Staff Required	Hours/Quantity	Cost
Assessment of each material contexts for each site (allowance of 30 minutes per material per site) at Grade 4	1 x Grade 4 (£93.41 per day)	2169 sites taking 135.5 days	£12,657.06
Recording of rationalised material (1 hour per box) at Grade 4 (assisting specialist)	1 x Grade 4 (£93.41 per day)	4031 boxes taking 504 days	£47,078.64
Recording of rationalised material (1 hour per box) by specialist @ £310 per day	1 x Finds Specialist (£310 per day)	4031 boxes taking 504 days	£156,240
Disposal of material (290 boxes per skip)		1584 box (6 x 8 yard skips at £235 exc. VAT)	£1,692 inc. VAT
TOTAL			£217,667.70
TOTAL + 25% on cost			£272,084.63
Saving a maximum of 1,584 boxes			

Table 11: costings for rationalising the Yellow Category Finds (Scenario 1)

Scenario 2: Rationalising all three categories simultaneously

Table 12 below details the cost of rationalising all three categories in one exercise.

Task	Staff Required	Hours/Quantity	Cost
Checking records for all sites with bulk finds (allow 1 hour per site)	1 x Grade 4 (£93.41 per day)	3324 sites taking 415.5 days	£38,811.86
Rationalising material not requiring specialist analysis (Red Category)	1 x Grade 4 (£93.41 per day)	2234 boxes taking 279.25 days	£26,084.74
Rationalisation of material requiring a specialist (Orange and yellow categories)	1 x specialist (£310 per day)	3922 boxes taking 491 days	£152,210
Assisting specialist	1 x Grade 4 (£93.41 per day)	3922 boxes taking 491 days	£45,864.31
Disposal of material (290 boxes per skip)		2,892.25 box (10 x 8 yard skips at £235 exc. VAT)	£2,820 inc. VAT
Total			£265,790.91
Total +25% on cost		1186 days	£332,238.64
Saving a maximum of 2,892.25 boxes			

Table 12: costings for rationalising all material (Scenario 2)

Cost Comparisons and Space Saved

If it was decided to only target one material category type at a time rationalising all three categories in turn would cost £628,833.44. If it perceived that in the future all three finds categories would be rationalised it is more cost effective to combine some of the tasks such as report checking and recording. This method, illustrated by scenario two, would cost £332,238.64 saving approximately £296,594.80 by not double handling tasks and boxes.

Clearing all three of these finds categories would create a maximum of 2,892.25 boxes equal to 57.84 cubic meters of shelf space. Given our total capacity is 12,750 boxes (225 cubic meters of shelf space) rationalisation would only increase our shelf capacity by a maximum of 23%. Currently these boxes occupy only 312.04 square feet of floor space due to the dimensions of our shelving.

<p>Current shelving bays measure 1m x 1m x 4m holds 102 boxes. 1m x 1m = 1 square meter = 10.76 square feet. 2,892 boxes requires 28.3 bays (rounded to 29 bays). 29 x 10.76 square feet = <u>312.04 square feet released by 2,892 boxes</u></p> <p>Unit 4 capacity = 125 bays = 1,345 square feet, this area is doubled to approximate the area required to house these shelves. <u>So our bulk finds warehouse is 2,690 square feet and can shelve 255 cubic meters of boxes</u></p>
--

Figure 6: workings for space calculations

Alternative means of increasing capacity

There are a few other options that could be considered to increase our current capacity.

Roller Racking

Installing roller racking (up to a height of 3.6m high) could increase our shelf capacity to 409 cubic meters. This is assuming we could roller rack the entire width and length of the building leaving enough space for access. This increases our capacity up to seven times more than rationalising would for a cost approximately £81,600. This is a price difference of between £240,638.64 and £547,233.44. The roller racking would increase our entire capacity by approximately two and a half times (160%)

This being said, the building is in a state of disrepair to a point that it has been decommissioned from regular use. With this in mind sale of the property and purchase of a new building with the proceedings, which could then be roller-racked would be a more ideal situation.

New Building

After researching a few other similar commercial warehouse properties closer (10 miles) to our current office (to cut down on staff travel time and costs) it was discovered that we could purchase something of a similar size for £180,000 or over two and a half times the size for £500,000.

Rent of Industrial Units In Bury St. Edmunds Area	Purchase Price	Possible Capacity with Roller Racking
2,938 Sq ft building (Mildenhall) of near equivalent size to our current store.	£180,000	409 cubic meters of shelf space (20,450 boxes)
7,973 Sq ft building (Bury St. Edmunds)	£500,000	1,212 cubic meters of shelf space (60,612 boxes)
*Prices as of July 2017 on https://propertylink.estatesgazette.com/industrial-for-rent/bury-st-edmunds and http://www.rightmove.co.uk/commercial-property-for-sale/property-49218135.html		

Table 13: current purchase prices for industrial local industrial warehouses

Archive Enhancement

The scoping study highlighted a number of areas where archives could be enhanced. It is clear from *Figure 7* that a large proportion of our archives (3064) do not have an excavation report. It is also evident, from *Figure 5* and *Table 15*, that there are a significant number of archives which are rated poor or very poor (3353) in terms of quality. These numbers include archive entries that are made up of only aerial photos or spot finds. Drawing out these archives and reaching a more accurate number of archaeological investigations without reports will take some time. Out of the sites which do have excavation reports 172 are only held in the archive and are missing from the HER.

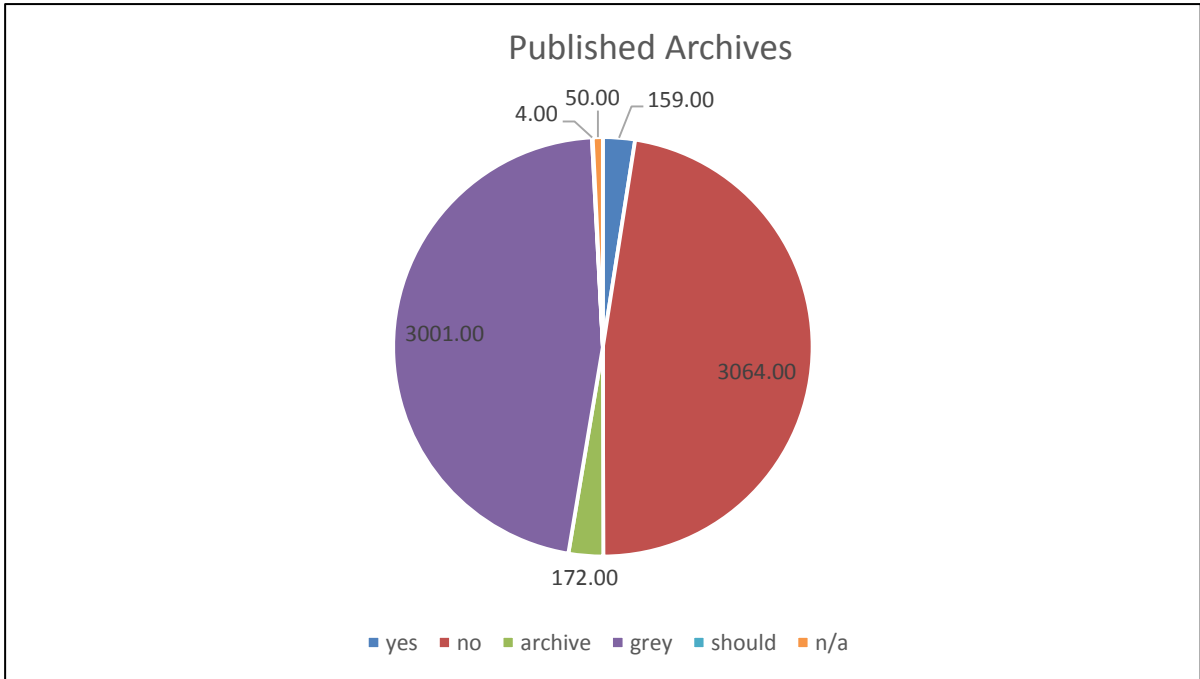


Figure 7: proportions of published archives

Publication Status	Count	Proportion
Yes	159	2.47
No	3064	47.5
Archive Only	172	2.67
Grey Literature	3001	46.53
Should	4	0.06
n/a	50	0.78
Total	6450	100

Table 14: summary of publication status

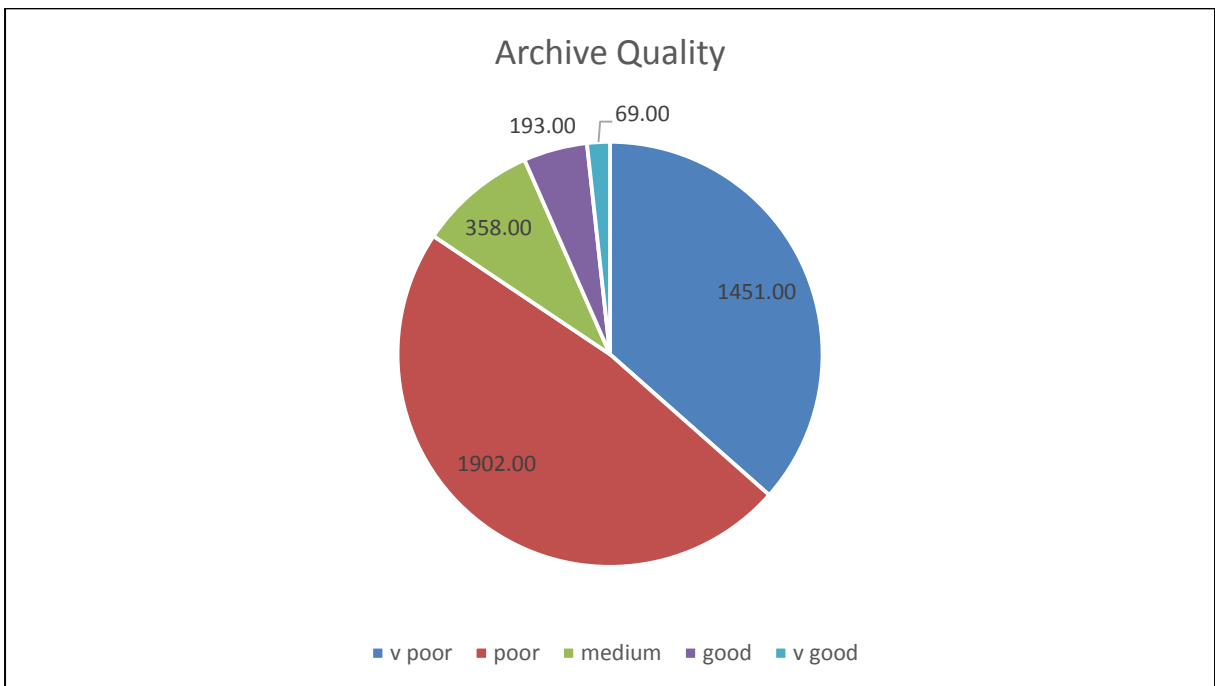


Figure 8: proportions of archive quality

Paper Archive quality	Count	Proportion
Very Poor	1451	36.52
Poor	1902	47.87
Medium	358	9.01
Good	193	4.86
Very Good	69	1.74
Total	3973	100

Table 15: Summary of Paper Archive Quality

7. Photographic Material

7.1. Detail Methodology

The scoping of the photographic material focused upon a sample of our collections. We aimed to analyse approximately 1000 slides to be able to reliably assess our methodology. The first 1000 slides of the film code system were chosen as the sample. The data to be recorded was based upon the aim of being able to identify which slides would be suitable for digitisation. The specific data fields used in the photographic material spreadsheet are detailed in *Section 10.1*, but the following list gives a broad view of what data was recorded:

- Site Identifier
- Film code and frame number
- Location in store/Box number
- Photo type
- Colour/Black & White?
- Exposure
- Site ID featured in photo?
- Scale shown in photo?
- In focus?
- Digitise, retain or discard
- Comments

Photo Types

The photograph types have been recorded in order to be able to record the variation of subjects photographed during archaeological investigations. The suggested categories were adapted from the AACAI standards for taking photographs on archaeological sites (Schiltz, 2015).

A photograph descriptor was used to summarise the main subject of the photograph, explained in *Table 16* below. A further numeric photograph grade was issued to each image, and gives an indication of each photograph's value within the archive. This grading is used alongside the general photograph type and other quality markers to suggest if the photograph should be put forward for digitisation. This grading is explained in *Table 17* below.

Photograph Type	Definition
Aerial Photo	This category includes aerial photograph shots showing the landscape surrounding a specific site.
Landscape	This character describes photographs taken of the landscape surrounding an archaeological site. Landscape shots including people working on this site and photographs taken looking over an entire archaeological site which do not show individual features may also be placed in this category.
Drawing (Figure Copy)	This category covers photographs that have been taken of drawings that exist in the paper archive. This practice was often used as a method to incorporate drawings into presentations using a slide projector.
Feature	A feature shot records and archaeological context or the relationship between groups of archaeological contexts. These may include
Post-excavation	This photograph category is used to describe photographs taken during post-excavation stages. These may record small finds or be used to illustrate observations made during the find analysis.
Other	This category has been used to describe any other photograph that does not fit into the above categories. An example might be a group shot of the archaeologists working on a particular site.

Table 16: Photograph types and their definition

Grading		Photo Types Included in this Grading
1	Feature Shot, Landscape Shot, Post-excavation Shot	These shots directly record archaeological features and act as a site record. If good enough quality these photographs should be digitised and retained. Duplicates do not require digitisation where at least one copy has been digitised and may be discarded at the discretion of the curator.
2	Aerial Photographs	These shots are to be digitised for use by the HER. These photographs should be retained.
3	Other, Landscape Shot, Post-excavation shot.	These shots are illustrating certain action on sites but are not directly recording archaeology. They may feature machinery at work or staff excavating. These photographs may be more useful inclusion in presentations or publication reports. These photographs are best digitised when required. These photographs should be retained.
4	Drawing (Figure Copy)	Copies of drawings seen in the paper archive. Only digitise if the original copy is no longer in the paper archive. The photograph should be retained.
5	Other	Photographs that don't require digitising and could be discarded.

Table 17: Numeric photograph gradings and their definitions/actions

Exposure & Focus

The exposure and focus of a photograph are important as they directly affect the amount of data that can be drawn from the image. If photographs are hugely out of focus or poorly exposed there is little value in digitising them as many of the important details are obscured. Photographs illustrating the data being obscured by focus is shown in *Figures 9 and 10* below.



Figure 9: Photograph of an excavated pit in focus



Figure 10: Photograph of an excavation pit out of focus

Poor Exposure

Poorly exposed photographs will be very dark or very bright. There is substantial data loss in the extremely dark areas and extremely bright areas.



Figure 11: photograph illustrating poor exposure

Medium Exposure

Medium exposure gives a reasonable range of darks and lights. A photograph may look a little dark or a little bright but there should be no significant data loss in dark or light areas.



Figure 12: photograph showing medium exposure

Good Exposure

Good exposure gives a good range of darks and lights with little to no data loss.



Figure 13: photograph showing good exposure

Slide Condition

Photograph condition/deterioration was recorded when seen as any slides exhibiting decay should be digitised as soon as possible to preserve the image on the slide. Below are some examples of decaying photographs. Many colour photographs like the one in *Figure 14* below turn a red colour when they degrade; monochrome photographs tend to fade and may look similar to poorly exposed photographs.



Figure 14: example of decaying photographic negatives

Site Code and Scale in View

This category has been recorded on photographs in order to make decisions when digitising material. If there is a duplicate of a photograph one with a site code and scale, and one without it would be preferable to digitise the one with the site code and scale in order to preserve this information and not rely solely on the folder and file naming systems.

7.2. Results

Digitisation of Slides

Figure 15 below shows that the method for assessing the photographic collection identified 1,157 slides for digitisation including 39 that had begun to degrade. Of the 1,157 slides identified for digitisation, 96 of them would as required as they are more suited for use in illustrating presentations and publications.

186 slides were identified for retention but wouldn't need to be digitised. Only two slides were not required to be retained at all. The action on 5 slides were unknown as they were missing from the collections.

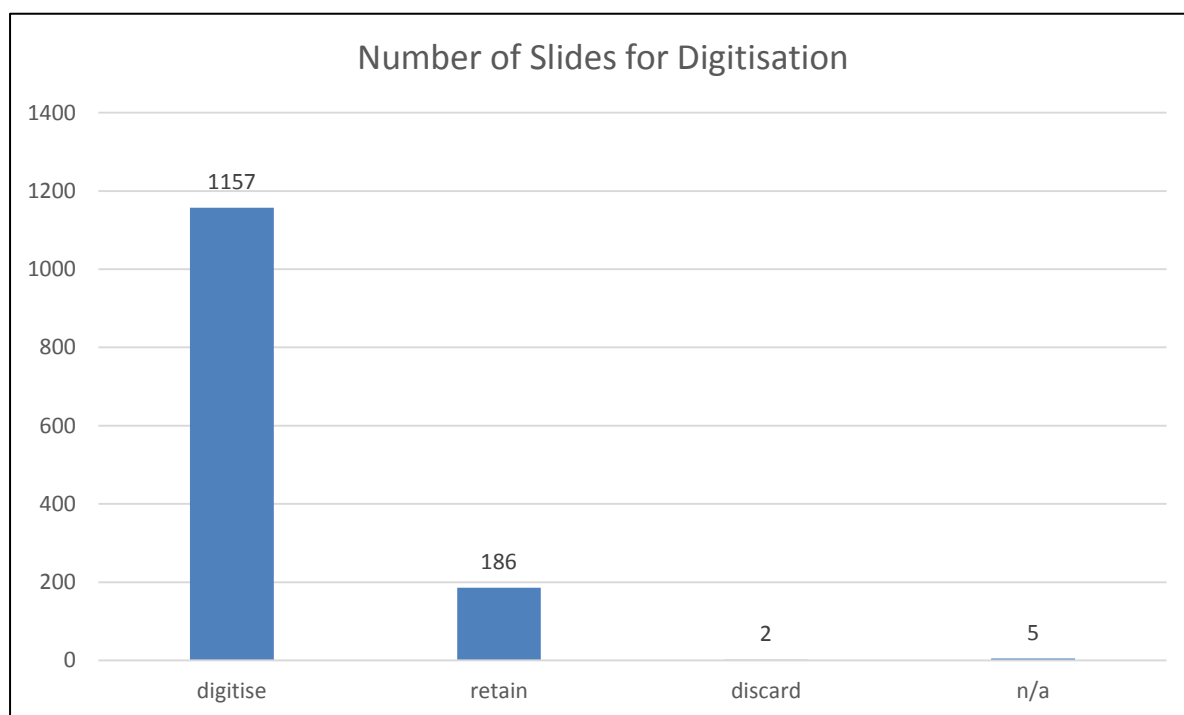


Figure 15: number of slides for digitisation

Action	Count	Proportion %
Digitise Slide	1157	85.7
Retain Slide but don't digitise	186	13.8
Discard Slide	2	0.1
n/a (slide missing)	5	0.4
Total	1350	100

Table 18: summary of slides for digitisation

The cost of digitising

Digitising photographic negatives and slides is an expensive process costing between 25p to 37p per photograph depending on the number being scanned. A good quality hard drive can be used to store the media in the short term, but a long-term solution would need to be found. A breakdown of the costs for two different scenarios are detailed below.

Scenario 1: Rationalise slides before digitisation

In this scenario, the rationalisation would occur first. The audit identified 85% of the slides suitable for digitisation. When applying this to the complete collection of 99,621 photographic negatives and slides that means 84,678 of them could be eligible for digitisation.

Task	Staff Required	Hours/Quantity	Cost
Sorting of images, taking an average of 200 slides a day	1 x Grade 4 at £93.41	99,621 images taking 498 days	£46,518.18
Image Digitisation of 85% of collection of images	Worcestershire Archaeological Service	84,678 at 25p per image	£21,169.50
Data storage for 84,678 images approximately 12MB in size		2TB external hard drive	£80
Total			£67,767.68
Total + 25% on cost			£84,709.60

Table 19: cost of digitising slides (Scenario 1)

Scenario 2: Digitise all slides and rationalise after digitisation

This scenario breaks down the costs of digitising all of the collection and rationalising the photographs after. Although more storage may be required this method has the added benefit of using digital post-processing techniques to regain data lost from degrading photographs or poor exposures.

Task	Staff Required	Hours/Quantity	Cost
Image Digitisation	Worcestershire Archaeological Service	99,621 at 25p per image	£24,905.25
Data storage for 99,621 images approximately 12MB in size		2TB external hard drive	£80
Sorting of images, taking an average of 300 slides a day	1 x Grade 4 at £93.41	99,621 images taking 332 days	£31,012.12
Total			£55,997.37
Total + 25% on cost			£69,996.71

Table 20: cost of digitising slides (Scenario 2)

8. Evaluation

8.1. Performance

A total of 1,350 slides were analysed instead of the original 1000 sample size. The only tasks that took longer than anticipated were the recording of the sites publication status and the assessment of the quality of the project archives. 6450/7471 publication status' were entered into the database and 3973/7471 sites were assessed for archive quality.

The project ran for a total of 101 days instead of the projected 130, this is due to a responsibility to keep the collections open and accessible to researchers who require them and the need to continue accessioning new archives. There was also time lost to personal staff leave due to unforeseen circumstances. We will be continuing with these two tasks after the completion of this report.

Table 21 and 22 both provide a breakdown of the time and budget spent on the project.

Task	Expected No. Days	Expected Cost	Actual No. Days	Actual Cost
Criteria Establishment				
Criteria Establishment (research existing)	2	£265	2	£265
Assess quantity of sites	1	£130	1	£130
Archive rationalisation audit				
Identify potential photographic material for digitisation and/or discard	See Below	See Below	10	See Below
Bulk finds quantities logged			37	
Recording of paper archive components and logging of small finds			5	
Recording of significance ratings			4	
Grade sites by quality of written records and level of importance (INCOMPLETE)			20	
Identify potential bulk finds archives for discard			1	
Total			105	
Rationalisation (Disposal) Estimations				
Identify and collate sites suitable for rationalisation as highlighted from audit	2	£265	1	£265
Establish levels of recording and resources required	2	£265	2	£265
Establish disposal methods and resources required	5	£660	2	£264
Calculate the amount of saved space and resources	1	£130	1	£130
Compare costs of retention vs. costs of rationalisation	1	£130	1	£130
Report Writing				
Report writing (Grade 4)	3	£390	6	£780
Report editing and review (Grade 6)	5	£1,050	5	£1,050
Project Management				
Project management	2.5	£525	2.5	£525

Staff Total		£17,510		£13,850
Project Total +25% overheads	130	£21,887.50	101	£17,312.50
Non-Staff				
Consultancy of retired experts, including +10% on cost	3	£825	0	£0.00
Total		£22,712		£17,312.50

Table 21: showing expected and actual number of days used and costs

No.	Task	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17
1	First project meeting		C							
2	Asses quantity of sites		C							
3	Criteria Establishment		C							
4a	Site grading by material type						C			
4b	Logging of documentary archive types for each site					O	C			
4c	Site grading by archive quality						O	O	O	O
4d	Site grading by publication status						O	O	O	O
4e	Site grading by local/regional/national importance						O	C		
4f	Slide assessment / characterisation					O	O	C		
4g	Grading of slides					O	O	C		
5	Second project meeting							C		
6a	Establish method for assessing quality of archives and potential material for rationalisation		O	C						
6b	Establish method for assessing photographic collections					C				
7	Establish recording requirements for material rationalisation								C	
8	Establish rationalisation and disposal methods							O	C	
9	Identify sites with material for rationalisation		O	O	O	C				
10a	Estimate the costs and resources required to carry out rationalisation and disposal								C	
10b	Calculate potential total space that could be saved							C		
10c	Produce a detailed costed breakdown of space that could be saved based on various graded criteria								C	
10d	Compare the costs of disposal and retention								C	
11	Third project meeting (CANCELLED)									
12	Produce a report on the findings		O	O	O	O	O	O	O	C
13	Group project meeting and presentation									C

Grey squares show allocated time for the task, O indicates when task was being worked on, and C indicates when task was completed

Table 22: showing our projected timetable and actual timetable

8.2. Aims, Objectives and Research Questions

During the scoping for rationalisation process, we were able to achieve all our aims, answer our research questions and meet our objectives.

Aims

We created a successful methodology designed for our collections which could identify material suitable for rationalisation based upon the quantity of material, quality of the archive and the significance of the site. We were able to estimate the resources needed to carry out rationalisation and provide a figure for the projected maximum cost.

The information generated by the project immediately showed where our collections could be enhanced and improved.

The slide audit successfully identified slides suitable for digitisation and created a record of which slides required monitoring. Due to the large number of resources required to digitise the identified slides it was decided it would be better to digitise all of the slides and rationalise the collection afterwards. This means some of the data recorded for this methodology is now redundant for the photographic negatives and slides, but despite this the methodology could still be useful for assessing the x-ray collection which most likely won't be digitised unless required for access reasons.

The results of the audit will contribute to a review of the current collection policies and they have given us an overall view of the collections, identifying areas where future incoming archives could be rationalised before deposition in addition to identifying the minimum requirements needed for new paper archives.

Research Questions

Is there any scope for retrospective rationalisation of SCCAS bulk finds collections?

Yes, there is scope for the retrospective rationalisation of SCCAS bulk finds, but it requires large amounts of financial resources and staff time.

If there is scope to rationalise then how much space could we save through rationalisation of certain categories of bulk finds?

We could release up to 2,892 accounting for 57.84 cubic meters of shelf space. In reality this number is likely to be greatly reduced as some of the material identified during this audit may be deemed not suitable during the assessment phase of the rationalisation.

How much would it cost to apply rationalisation?

The cost of rationalisation is very high. Scenario 1 was costed at £628,833.44 and scenario 2 was costed at £332,238.64.

Which photographic material in our collections is eligible for digitisation?

Through this scoping audit we identified that 85% of our collection was eligible for rationalisation. Due to the large proportion of slides that were identified for digitisation financial cost of rationalisation it is more cost-effective to digitise all of the slides and then rationalisation. This also enables any data loss through poor exposure and degradation to be at least partially recovered through digital post-processing techniques.

How can we adjust our collections policy to ensure informed discard of unnecessary material before deposition and therefore manage future depositions so that future rationalisation is less necessary?

Key groups of finds identified in the scoping audit such as burnt stone, burnt flint etc. could be discarded by the depositing organisation prior to deposition. This is also relevant to the sampling of finds types such as CBM identified during the audit.

Objectives

The following objectives were met during the course of the project and have been featured within this report:

- 1: Assess the quality and quantity of each of the archaeological archives held by SCCAS.
- 2: Establish selection criteria in order to achieve objective 1.
- 3: Identify potential archives for rationalisation based on objectives 1 and 2.
- 4: Calculate how much space could be saved from rationalisation.
- 5: Establish the level of recording and suitable disposal methods for archaeological material and estimate the costs and resources required to do this.

8.3. Insights

The methodology allowed for the achievement of our aims and our objectives allowing us to answer our research questions. Our methodology was effective at identifying areas for enhancement and material eligible for rationalisation. The process was even able to highlight issues in the database which require tidying up due to duplicate record, blank entries or typing errors.

There were a number of issues highlighted by the process, the biggest issue it highlighted was the use of “unknown”, “misc” and “various” in the database. Although this is an easy tool to catalogue difficult material types it gives little information about these material types to anyone subsequently using the database to gain knowledge of the collections. The term “All Contexts” or “All Finds” are also similar in this respect.

Another issue in this project is that the amount of space saved calculated based on the number of boxes is an estimation, this is due to two reasons. The first is, the catalogue did not allow for the interrogator to know exactly how much of individual materials were

present in mixed boxes. This meant that when boxes contained both CBM and Pottery that it is a 50/50 split when in reality it may only be a 20/80 split.

Secondly the box numbers have not been exclusively used for boxes of material, they have also been used to represent entire shelves holding multiple pieces of oversized stone, in addition to this not all the boxes are of the same size. For the purpose of the project we had to assume that all the 'boxes' represented a box, so the box count and the calculations of cubic space they take up in the store is an estimation.

9. Project Legacy

9.1. Recommendations

For those wishing to undertake their own scoping project for rationalisation we would recommend:

- That the collection is catalogued before undertaking a scoping audit for rationalisation.
- There is a member of staff dedicated to just the scoping process or to allow for more time if a member of staff has other duties.
- To carefully think through what data you wish to record before proceeding with an audit. The data you collect should related to the aims, research questions and objectives of the project.
- Regardless of rationalisation the scoping project is a powerful tool for creating familiarity with collections and identifying areas for enhancement. It is worth undertaking as a standalone curatorial project.

9.2. Recommendations for SCCAS delivery of rationalisation

Bulk Finds

Based upon the above figures if the finance was available to proceed with the rationalisation and de-accessioning of the identified material, the purchase of roller racking or a new building (partially funded by the sale our current building) would be a more cost-efficient way of increasing our capacity. As it stands the creation of space through rationalisation and de-accessioning is a poor justification for the financial cost when there are other options for the equivalent financial outlay that could increase our current capacity by up to 475% in addition to providing a local solution to the national space crisis in museums.

Any rationalisation should be undertaken in line with national guidelines.

Photographic Material

Considering that it is likely to be more cost-effective to digitise the all 99,621 images and then rationalise them at a cost of £69,996.71. This is opposed to £84,709.60 when rationalising the images prior to digitisation. It would be logical to go with the more cost-effective option. This option has other benefits in that all the images can be judged after having gone through post-processing. This may make photographs not eligible for digitisation due to data loss, more likely to be retained on the basis that the data is now accessible from the image. Long-term storage has not been costed into each scenario and must be bared in mind when taking on a digitising project of this scale.

Archive enhancement

The improvement of the areas of the archives missing reports and with poor records are both good opportunities to enhance our collections with little additional cost as the work

could be incorporated into existing member of staffs work plans. Addressing these areas would greatly improve the quality of the archive.

Changing Collecting Guidelines

As a result of this report SCCAS plan to work with depositors to rationalise incoming archives prior to them being deposited. This will ensure that good quality archives are being received from depositing organisations. This has been trialled successfully within the last few months, and will be integrated fully into our collections policy outlined with a 'Selection and Retention' guidance document.

All rationalisation will be in line with current standards and our own research framework.

10. Documentation & Templates

10.1. Templates

Bulk Finds Spreadsheet

The bulk finds recording sheet used the following fields to record material:

Heading	Explanation
Site Code	The HER number issued to each site. Used as an accession number by the archive.
Site ID	The ID number issued to each site by the <i>Microsoft Access</i> database. Used as an identifier.
Site in Suffolk? yes/no	Is the site in the County of Suffolk?
Site Name	The name given to the site, used as an identifier.
Event and Monument Numbers	The event and monument numbers issued to each site by the HER. Used as a site identifier in the archive.
Excavation Type	What type of investigation was undertaken on this site.
Excavation Date	The year in which the investigation on site was undertaken.
Bulk finds present? yes/no	Does this site archive feature any bulk finds? To be used as an identifier.
Bulk Finds Types	Quantities of bulk finds to be entered under this field.
Un-stratified finds	Details of any un-stratified finds.
Paper records? yes/no	Are there any records available in the paper component of the archive?
X-rays? yes/no	Are there any x-rays for this site?
Slides? yes/no	Are there any slides for this site?
Negative Strips? yes/no	Are there any negatives for this site? This includes both monochrome and coloured film not in slide holders.
Prints?	Are there any photographic prints for this site?
Digital archive? yes/no	Are there any digital files for this site? This covers all digital archive types including photographs.
Publication Status	Is the site published? What form does the publication take?
Paper Archive Quality	Quality rating of the paper archive.
Small finds? yes/no	Are there any small finds for this site?
Shine Rating?	Is the site listed in the SHINE significance ratings?
HER Rating?	Any significance rating issued by the Historic Environment Record
Retention Rating	A rating of how much potential a site has and should be retained. A lower value here would suggest a site is more eligible for disposal.
Comments	Any additional comments or useful information.

Table 23: fields used for the bulk finds analysis spreadsheet

Photographic Material Spreadsheet

The photographic material was recorded using the following fields:

Heading	Explanation
Site Code	The HER number issued to each site. Used as an accession number by the archive.
Site ID	The ID number issued to each site by the <i>Microsoft Access</i> database. Used as an identifier.
Location/Box Number	The location of the slide within the store.
Film Code	Film code issued to the image.
Frame Number	Frame number of the slide.
Photograph Type	The type of photograph, i.e. landscape shot, feature shot, aerial photograph etc.
Photograph Grading	Numerical value issued to the image based upon its purpose and value within the archive.
Colour/B&W	The type of negative i.e. colour slide, black & white negative etc.
Summary	Any summary notes useful for making a decision to digitise or not. i.e. section obscured by spade.
Exposure	Quality of the exposure.
Site Code?	Is the site code visible in the image?
Scale?	Is the scale visible in the image?
In/Out of Focus	Is the image in or out of focus?
Action	Action to be taken on photograph – digitise, retain only, discard.
Already Digitised?	Has the slide or similar images already been digitised.
Notes	Any additional notes.

Table 24: fields used within the photographic material spreadsheet

10.2. Hardware

The hardware, a Dell Ultrabook laptop, used for this project was supplied by the council's IT department and is standard issue for employees.

10.3. Software

The software used to conduct this audit was relatively standard, and is readily available.

Microsoft Access is the database software used as the main archive catalogue in SCCAS. Although occasionally problematic, and prone to stability issues it is the legacy programme used by the Archaeological Service for the archive catalogue, it is also accessible without any specialist software as it is standard package supplied by the council on all council PCs and laptops. Regular backups and clean ups are made to ensure the ongoing stability and usability of the database. This database was used as the main tool for accessing information about the archive we hold.

Microsoft Excel was the programme used to create the audit spreadsheets.

Microsoft Word was the programme used for any word processing requirements i.e. reports and progress logs.

Inspiration is a mind-mapping software. It was primarily used in this project for organisational requirements and also for the creation of flow charts.

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12. Acknowledgements

We would like to thank Historic England and the Society of Museum Archaeologists for offering funding for this project, in particular Duncan Brown (HE) for his guidance in the project.

We would like to thank Sue Anderson for her advice and quotations on specialist analysis

We would like to thank Suffolk County Council's HER for sharing information on grey literature reports and site significance ratings.