

# **Final Report**

Title:	GLADE: Grey Literature – Access Dissemination and Enhancement. The Pilot Assessment Phase Final Report
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Date:	25/08/10

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### **Section 1: Background to the project**

The GLADE project builds upon foundations laid by OASIS: a collaborative venture between the Archaeology Data Service (ADS), English Heritage (EH) and the Archaeological Investigations Project (AIP) which provided access to information about archaeological 'grey literature' reports, especially those produced as a result of PPG16 related fieldwork. An electronic data submission form was developed by a consortium of bodies led by the ADS, including EH and AIP, and was released in April 2004. The data submission form has facilitated the deposition of 'grey literature' reports (<a href="http://ads.ahds.ac.uk/catalogue/library/greylit/">http://ads.ahds.ac.uk/catalogue/library/greylit/</a>). There has been an exponential growth in the use of the form and a corresponding increase in the deposit of 'grey literature' reports.

However, whilst OASIS has now provided a sustainable method of capturing and disseminating grey literature for the future, there is continuing concern that there is a substantial backlog of reports, amounting to at least a decade of developer-funded archaeology, for which only the AIP/Excavation Index OASIS index records are accessible. This continues to be of concern to the scholarly community and is seen as a key constraint on research (e.g. Bradley 2006). GLADE seeks to explore the potential options and possibilities for accessing this backlog – a vast resource of reports from small to medium scale developer-led archaeological investigations which has been produced annually in the UK.

In the ten years since coming into force, PPG16 guidelines have given rise to some 28,000 archaeological investigations, at an annual cost of around 35 million pounds, largely funded by commercial developers (Darvill and Russell 2002). For small excavations, surveys, desk-top evaluations and watching briefs, the lack of any formal publication means that it is often difficult to find out about the archaeology of a site at anything but the cursory level, yet it is likely that each of these interventions has an associated report in existence. A large proportion of these will probably already exist in digital form or may be subject to a digitization program, which are becoming more frequent as repositories such as HERs run out of shelf space. Moreover, by disseminating such information online through an appropriate vehicle it is possible link to other on-line resources including primary data and synthetic publication, but also both to reach a wide audience and to secure the long-term viability and flexibility of the digital resource. This project seeks to extend the availability and life span of collections of Grey Literature.

### **Section 2: Summary of findings**

### Summary of important points (expanded below)

- Most people find value in reusing grey literature and would like to be able to access more.
- There is a substantial amount of grey literature held by units in digital form, but not yet available online or in a searchable form.
- Some level of archiving of the digital versions of the data is taking place, but the infrastructure available within organisations is of variable quality and utility.
- Differences in the standards employed in the creation and indexing of grey literature can make it difficult to find and access.
- 1. The reports of fieldwork undertaken within the academic sector are underrepresented in the records held by local and national bodies.
- 2. Different working practises with local authority HERs are likely to undermine the comprehensiveness of 'grey' literature listings for different regions. It is likely that coverage is more complete for those areas where HER listings are supplemented by bibliographic records and archives provided by the major contractual archaeology units. The proportion of grey literature records that are not present within the HER or AIP and NMR will vary from county to county. The figures may be disproportionately large, as issues with recording (and subsequently searching) methodologies may mean that these 'missing' grey literature records are indeed recorded, by for example the AIP, but using a different criterion. This problem is compounded by the variety of thesauri used in the creation of grey literature.
- 3. There is a significant difference in the type (category) of grey literature which is recorded by different organisations. Geophysical survey, aerial photographic assessments, building recording, conservation plans and recommendations are primarily recorded by the HER alone, there was significant overlap in the recording of walkover survey reports, watching briefs and excavation/evaluation reports by the HER, AIP and NMR. So depending on the type of information researchers may wish to access, their options may be limited in terms of the places that it may be available.
- 4. There is still some confusion between dissemination of data online and digital archiving. Many people concentrate on the accessibility issues which having data in digital form makes more achievable having the data online. They do not however seem to consider the ephemeral nature of web sites (i.e. the associated importance of digital archiving) nor the requirement for good indexing in order to enable access.
- 5. There is confusion in the perception of what grey literature is. Some people seem to define it as the text report only (with some images included) others seem to extend the definition to include additional digital data such as specialist spreadsheet and CAD plans.

- 6. HERs do not, on the whole, consider themselves to be 'archives', and are certainly not set up to become digital archives for the grey literature that is in a digital form to the extent that they mostly consider the hard copy to be the primary version of the reports. This issue is not eased by the disconnect between many HERs and the larger county councils digital archiving policies which are often nascent and/or focussed on keeping digital documents for statutory periods (7 years). There is an issue that arises here in that many seem to believe that by sending their grey literature to the HER they are 'archiving' it.
- 7. Many HERs are in the process of digitising grey literature, sometimes with a view to cutting storage costs by discarding printed copies. However this is being done without regard to the potential for OCR (and thereby NLP), or for digital curation issues which ensue.
- 8. If greater access is to be promoted then the key to digitisation is not the relatively low cost of scanning but the high costs of effective indexing; but there may be automated solutions that could address these issues.
- 9. Many larger units (especially those associated with larger institutions or organisations such as universities) are effective in managing their digital data and have a good stable digital infrastructure. This is not the case for many of the smaller organisations.
- 10. There is a high reuse rate for grey literature but most people seem to want to use it alongside other resources, in particular specialist datasets and traditional publications (journals and monographs).
- 11. It may be that the continued high use of journals may indicate a preference for these over grey literature either perhaps because the published reports seem to be perceived to be of higher quality or perhaps because published information is more easily found and accessible.

#### 3. Key Recommendations

We recommend a further phase of the GLADE project to investigate (pilot) methodologies for effective data capture in the following ways:

- Capturing the data: Hand crafted metadata i.e. the creation of an online form to upload grey literature to the ADS grey literature library
- Capturing the data: Using a commercial unit's database of records as a metadata set to accompany a deposit of grey literature
- Capturing the data: Using an HER record as a metadata set to accompany a deposit of grey literature
- Capturing the data: Using Natural Language Processing software to create metadata for an 'orphaned' set of grey literature

The interplay of the creation, dissemination and archiving of grey literature is underpinned by the use and application of correct standards and metadata creation. The OASIS system provides a structure and a 'standard' by which grey literature can be recorded disseminated and archived.

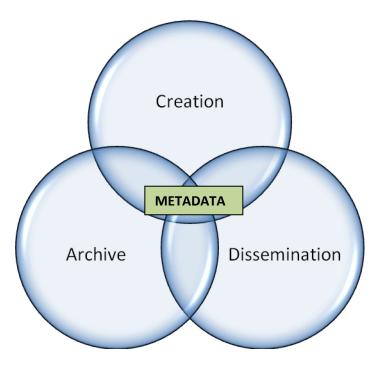


Figure 3.1: Interplay of creation, dissemination and archive of grey literature.

- Most people find value in reusing grey literature and would like to be able to access more.
- There is a substantial amount of grey literature held by units in digital form, but not yet available on line or in a searchable form.
- Some level of archiving of the digital versions of the data is taking place, but the infrastructure available within organisations is of variable quality and utility.

• Differences in the standards employed in the creation and indexing of grey literature can make it difficult to find and access.

Given the above core findings we judge that while the HERs and some of the units continue to maintain a paper archive the archival stability has not changed with the advent of digital versions of the reports, indeed many HERs view the digital version as a security back-up of the hardcopy. However, the results of the survey seem to show that many archaeological professionals would welcome greater access to grey literature reports, and preferably to be able to do that online and in a 'joined-up' way. Although this aim should be achieved with relative ease there are a number of issues which arise from this course of events.

- 1. The requirement to approach this work in a 'joined up' way
  - a. The key to being able to join together similar resources are currently reliant on the use of common standards in metadata creation. This would allow searches to be undertaken on the same terms, meaning the same things.
  - b. Portals such as the Heritage Gateway, HEIRPORT and the ADS ArchSearch catalogue can be used to create one place that users can come to and undertake one search on a range of resources, rather than finding and accessing several differently hosted resources separately and re-running the same search many times.
- 2. The long term sustainability of such a resource
  - a. The sustainability of digital resources should be underpinned by a digital archive which should be actively managed and undertake preservation activities.
  - b. In addition to the necessary long term viability of the digital resource, the same goes for the web hosts and aggregators i.e. Heritage Gateway or the ADS ArchSearch interface.

#### Data capture pilots

There is a need to investigate cost-effective ways of facilitating access to grey literature. A series of work packages would examine a range of options and lead to an options report and recommendations.

# Capturing the data: Hand crafted metadata

We propose to create a shorten version of the OASIS form (the GLADE form) which will record the basic details, which will provide enough resource discovery metadata to allow a grey literature report to be retrieved from the ADS Grey Literature Library. As with the current OASIS form, the user of the GLADE form would be able to attach and submit Grey Literature to the ADS. There would be no need for an extensive validation process, as this form would only be appropriate for use when submitting grey literature from interventions no longer subject to the development control process. We propose to advertise the existence of this form widely to those who might use the GLADE form to deposit digital versions of Grey Literature currently held in either paper or digital form. In order to maintain links between the EH Excavation Index and the associated grey literature one of the compulsory fields within the GLADE recording form would be the Excavation Index unique id. There is a danger that this means of deposit may, should it prove popular, overwhelm the ADS. It would therefore be suggested that this means of deposit and metadata creation be made available for a limited period only (3 months) and with an upper limit of numbers of grey literature reports to

be accepted at 10,000. After the period of the pilot project had expired the form could be reactivated on request as and when funding becomes available for this ingest.

### Capturing the data: Using a commercial unit's database of records

The second method and dataset we propose in testing the suitability of ingest/data capture procedures is by using a dataset from a commercial unit. Commercial archaeological units usually hold a project management database. This case study will investigate ways in which the information held within such databases could be used as resource discovery metadata for the deposit of accompanying grey literature. We wish to investigate the extraction of appropriate data from databases as .csv files. It is suggested that we work with Leicester University Archaeological Unit to investigate the upload of .csv data and associated grey literature reports. It is also intended that the procedure will be fully documented in order to ease the process should it be replicated in the future.

### Capturing the data: Using an HER record

The third case study will look at the possibility of using HER data as resource discovery metadata to accompany a deposit of grey literature (currently in digital form). Many HERs are considering a process of digitisation of hard-copy grey literature reports in order to alleviate problems of shortage of storage space. However, many HERs may not have given due consideration to the problems associated with the archiving of digital objects, nor may they have the resources to exploit the opportunity for easy dissemination that digital version of grey literature may afford. Deposition of digital versions of grey literature with bodies such as the ADS may become a popular option for many HERs. We propose to work with Suffolk County Council to use existing HER data to produce grey literature metadata. Again it is intended to document fully the procedures to produce a set of guidelines for future use.

#### Capturing the data: Using Natural Language Processing software to create metadata

The recent Archaeotools project employed natural language processing (NLP) to allow automated tools to search within documents for terms which are part of known classification schemes, adding them to a facetted index, and providing much deeper and richer access to unpublished archaeological literature. Previous work on the Archaeobrowser demonstrated that a faceted classification approach to large datasets and the associated facet classification browser result in significantly more intuitive, usable, complete and reliable searching. The Archaeotools project delivers the first UK service implementation of a faceted classification tree and associated browser in archaeology. This is specifically intended to enhance the ADS' ArchSearch facility with richer data resources and to transform our users' primary search approach away from the vagaries of a Google style type-and-hope free text search model towards a more intuitive and informative system. The solutions to the two broad issues outlined above, automatic metadata extraction and browsing by facet, are extremely complementary. It is the Archaeotools implementation of these solutions together that offers such potential. The use of this technology aims to allow archaeologists to discover, share and analyse datasets, and legacy publications that, despite their importance, have hitherto been very difficult to integrate into the existing digital frameworks (Jeffery S et al 2009).

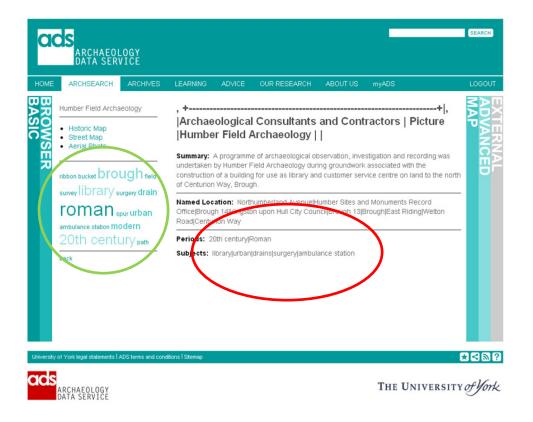


Figure 3.2 showing the two metadata sets, entered by hand through OASIS (circled in red) and created by NLP (circled in green).

The figure shows the type of metadata produced by different methods. For those collections of grey literature for which there is no accompanying metadata the use of natural language processing software could provide a convenient and quick means of indexing. Datasets such as the collection of grey literature from the Highways Agency, or the collections of grey literature from recently closed archaeological units (ARCUS and UMAU) may benefit from using NLP. The use and retrieval effectiveness of this methodology should be tested.

### Enhancing the archaeological record

All the above methods for data capture should be investigated while bearing in mind the requirement to link the information back into the recording bodies at a national and local level.

### Section 4: Trent Valley Bibliography Review

The ADS has undertaken a review of the outcomes of the project to create the Trent Valley Geo-Archaeology Bibliographic Database (TVGAB) 2002. This is based on the findings of the TVGAB final report, <a href="http://ads.ahds.ac.uk/catalogue/specColl/trentvalley">http://ads.ahds.ac.uk/catalogue/specColl/trentvalley</a> eh 2004/, by Stuart Brookes, accessed 02/02/2010.

The original TVGAB project aimed to provide a single means of access to all bibliographic sources for the archaeology of the Trent Valley. Specifically, the database:

- Facilitates the access of information on archaeological works across the whole Trent Valley area.
- Provides bibliographic sources to allow the Trent Valley to be seen as a single geographical unit
- Maximises the effectiveness of future work on the Trent Valley by providing a gateway to all resources in an integrated way.
- Preserves a record of past and current unpublished resources for the Trent Valley.

### Collection of 'Grey Literature' within the TVGAB

The TVGAB contained electronic and paper-based datasets provided and reformatted for inclusion from the following sources:

- 1. <u>Archaeological Investigations Project</u> (data supplied on the 3/10/03).
- 2. English Heritage Excavation Index for England, accessed via the ADS on the 26/6/03.
- 3. Archaeological Research & Consultancy at the University of Sheffield reports (data supplied on the 28/8/03)
- 4. P.C. Buckland BIBLIOGRAPHY OF QUATERNARY ENTOMOLOGY (data supplied on the 26/8/03)
- 5. The Potteries Museum Archaeology Unit reports (including Stoke-on-Trent City Museum data)(data supplied on the 2/10/03)
- 6. Wessex Archaeology reports (supplied on the 25/09/03)
- 7. Trent & Peak Archaeological Unit reports (supplied on the 16/09/03, archive visitation 24/09/03 10/10/03)
- 8. Electronic 'grey literature' listings from relevant Sites and Monuments records

#### Consistency and error checking within the TVGAB

Data comprising the Bibliography has been checked to two degrees of accuracy. Data was designated as 'checked', when recorded by two or more sources, and 'final checked' when the citation was physically inspected for accuracy. An outcome of this method of error checking is that a small number (c.8%) of records comprising the TVGAB represent unsubstantiated data referenced to only a single bibliographic listing. These citations have been neither 'checked' nor 'final checked'. In some cases these might be reports produced by contractual fieldworkers but not deposited to relevant SMRs. In other cases, they represent bibliographic citations not identified in any of the targeted libraries.

#### **GLADE Questions**

Within the GLADE project we hoped to use the same dataset to:

Assess the proportion of bibliographic information which is based on grey literature;

- Find where the primary repository for such information is most commonly found
- Find where there is duplication in recording of the data
- Find if there are any 'gaps' in knowledge.

### Assess the proportion of bibliographic information which is based on grey literature:

The TVGAB found that there were a large number of unpublished 'grey' literature reports documenting archaeological work within the Trent Valley. These were related to specific archaeological interventions, such as desk-based assessments, fieldwork and specialist reports, or took the form of more general or thematic surveys, produced by, for example, individual researchers or student dissertations. Whilst many of these sources were logged with SMR archives, further unpublished material was often held in museums, by archaeological units, universities, and by individual excavators and researchers.

There are 4202 references in the TVGAB of which there are 1531 unpublished reports; 1359 of these have been 'checked' (see above for explanation) located and referenced to at least one source (88.8%). 1531 reports represent 36.4% of the total, which at first glance seems to be a quite a small proportion. However, the way in which all references have been recorded may mean that the small proportion of grey literature may be a misrepresentation. For example, a search in the TVGAB for a site in Lockington produces 41 results of which 11 relate to one publication - G. Hughes (ed) (2000), The Lockington Gold Hoard: An Early Bronze Age Barrow Cemetery at Lockington, Leicestershire, Oxbow Monograph, 95. Oxford: Oxbow Books. Whereas only two separate grey literature reports are recorded for the same site (Meek J. (2000) 'Archaeological Desk-based Assessment of Lockington Barrow Cemetery, Leicestershire', University of Leicester Archaeological Services reports, Leicester: University of Leicester Archaeological Services. Clark R. (1995) 'The Lockington Barrow Cemetery, Leicestershire: An Archaeological Assessment', Leicestershire Archaeological Unit reports, Leicester: Leicestershire CC Museums, Arts and Records Service). Because specific chapters within the oxbow publication have been recorded, it appears that there are more published sources available than grey literature sources. If this type of recording is commonplace through the bibliography then the importance of grey literature as a resource may have been downplayed.

# Find where the primary repository for such information is most commonly found, duplication and 'gaps'.

There are 4202 references in the TVGAB of which there are 1531 unpublished reports; 1359 of these have been 'checked' located and referenced to at least one source (88.8%). Within the TVGAB, the use of 'Originator' and 'Identifier' needs to be explained. The former is used as "Name of the organisation to which the data can be sourced"; the latter is used to provide back links to the Originator, by referencing unique numbers supplied with the data. There are 2029 identifiers representing 1201 unique reports (as some reports will have more than one identifier). There is a shortfall between the number of checked records and the number of unique identifiers. The primary reason for this is the number of reports cited independently - especially via field-work practitioners – and not archived in the relevant SMR/HER (Brookes 2003, 15).

For example, taking the records from Derbyshire; here Brookes identified 216 unpublished reports (grey literature), of these only 176 reports had associated identifiers. Leaving a shortfall of 40 (18.5% of the total) grey literature reports which had no associated identifiers; these reports (or specialist reports) were most likely held by units and did not appear in records held by the SMR, AIP or EH NMR. Of the 176 grey literature reports, 158 were recorded by the Derbyshire SMR; 54 are recorded by the EH NMR; 45 of these have been identified in the AIP and 77 are MonUID for scheduled monuments.

By taking a closer look at a smaller area we may be able to tease out differences. The Parish of Willington in South Derbyshire has 23 entries for grey literature in the TVGAB; 19 of these entries have identifiers and, of these, 18 originated (was first recorded) from the SMR and one from the AIP. The remaining four 'unidentified' reports were from unit datasets and not found anywhere else. Only three reports are recorded by both the SMR and the AIP, and six reports have both SMR and NMR identifiers.

This discrepancy between SMR and, for example, AIP data may, to a certain degree, be more about the search methodology within the TVGAB project than a disconnect in records. By cross referencing keywords we find that at least four reports that are not attributed to the AIP in the TVGAB, are infact present in the AIP dataset (Table 4.1 coloured pink). The reason for these not being picked up by the TVGAB project as is probably due to differences in the recording practises of the SMR and the AIP (in this case the Parish is listed in the AIP as Egginton rather than Willington). The difficulties in cross-referencing electronic sources are acknowledged and were well documented in the TVGAB project (Brookes, 2003, 16).

So, of the 19 identified grey literature reports, 11 are not recorded by the AIP. This may be explained in a number of cases:

- 8 records relate to DBA's, post excavation designs etc, rather than conventional excavation reports;
- 1 is a luminescence dating report from Durham University.

ID	Year	Title	Publisher	Originator	Notes	EVIDENCE1
3540	1995	Further Archaeological Work at Hill Farm, Willington, Derbyshire, July 1995: Phase 1.	Birmingham University Field Archaeology Unit		[Recorded by AIP, but not seen]	AIP
10380	1995	An archaeological evaluation at Hill Farm, Willington, Derbyshire, 1995	Birmingham University Field Archaeology Unit	Derbys SMR	FIELD EVALUATION	Derbys SMR
10420	1994	An Archaeological Assessment for a Proposed Sand Quarry at Hill Farm Willington, Derbyshire (SK 300 290)	Liverpool Museum Field Archaeology Section	Derbys SMR	DESK TOP EVALUATION	Derbys SMR
10434	1997	An Archaeological Watching-Brief during Haul Road Construction at Willington Quarry, Derbyshire	University of Leicester Archaeological Services	Derbys SMR	WATCHING BRIEF	Derbys SMR
6378	2001	Excavations at Willington, Derbyshire: the assessment	University of Leicester Archaeological Services	RRF - E Midlands		Clay data
6379	2001	Excavations at Willington, Derbyshire: the assessment	University of Leicester Archaeological Services	RRF - E Midlands		Clay data

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Neolithic Pit Group and Later Prehistoric Features at Hill Farm, Willington, Derbyshire, 1996. An Interim Report  10427 1990 Potlock, Derbys (SK3128): August 1989 to March 1990 Summary Report Potlock, Derbyshire: excavations, 1994 - Summary Report Archaeological Trust  10436 2003 An Archaeological Deskbased Assessment for land at the Willington Quarry Extraction Site, Derbyshire  10439 1987 Potlock, Derbys (SK 3128) Trent & Peak Derbys SMR  University Field Archaeology Unit Trent and Peak Archaeological Trust  Trent and Peak Archaeological Trust  Tent and Peak Archaeological Trust  Derbys SMR  DESK-TOP Derbys SMR	10413	1996	pottery from Willington		Derbys SMR		Derbys SMR
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excavations, 1994 - Summary Report  Archaeological Trust  10436 2003 An Archaeological Desk- based Assessment for land at the Willington Quarry Extraction Site, Derbyshire  10439 1987 Potlock, Derbys (SK 3128)  Peak Archaeological University of Leicester Archaeological Services  Derbys SMR DESK-TOP Derbys SMR Derbys SMR Derbys SMR Derbys SMR Derbys SMR	10427	1990	August 1989 to March	Peak Archaeological	RRF - Derbys		Derbys SMR
based Assessment for land at the Willington Archaeological Quarry Extraction Site, Derbyshire  10439 1987 Potlock, Derbys (SK 3128) Trent & Peak Derbys SMR  Derbys SMR  Derbys SMR  Derbys SMR	10432	1994	excavations, 1994 -	Peak Archaeological	T&PAU dbs		Derbys SMR
	10436	2003	based Assessment for land at the Willington Quarry Extraction Site,	Leicester Archaeological	Derbys SMR	DESK-TOP	Derbys SMR
- Research Design Archaeological	10439	1987	Potlock, Derbys (SK 3128) - Research Design	Trent & Peak Archaeological	Derbys SMR		Derbys SMR

			Trust			
10443	1989	Potlock, Derbys. (SK 3128) - 1987 & 1988 Summary Report	Trent and Peak Archaeological Trust	Derbys SMR		Derbys SMR
10405	2001	Willington Quarry Extension, Willington, South Derbyshire. Results of Watching Brief, Zone 9	University of Leicester Archaeological Services	Derbys SMR	WATCHING BRIEF	Derbys SMR
10435	2003	Results of a L.I.D.A.R. Elevation Data Study for Willington Quarry Extension, South Derbyshire SK 281 278	University of Leicester Archaeological Services	Derbys SMR		Derbys SMR
10449	1990	Hill Farm, Willington: A Preliminary Report	Trent and Peak Archaeological Trust	Derbys SMR	Assessment of site prior to development	Derbys SMR
10494	1990	Willington Hill Farm	Paul Beavitt	Derbys SMR	Resistivity survey	Derbys SMR

Table 4.1: Unpublished reports from the Parish of Willington South Derbyshire.

Key: Green indicates that the report has an SMR and AIP identifier; pink indicates reports that are in the AIP, but are recorded differently so do not appear as AIP records in the TVGAB; pale blue indicates that the report was only identified within the SMR; orange indicates an un-checked record or a record without an identifier.

We can look at an example of what type of reports are represented in the TVGAB by looking at an example form the parish of Shardlow and Great Wilne, Derbyshire. There are 28 grey literature reports recorded in the TVGAB, 2 of which are not attributed to the SMR, AIP or EH NMR. Of the remaining 26, 22 are listed in the SMR and the remaining four are listed in both the AIP and NMR. The 'checked' reports can be broken down into the following categories:

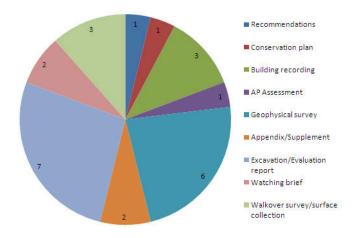


Figure 4.1: Checked reports from Shardlow and Great Wilne by category

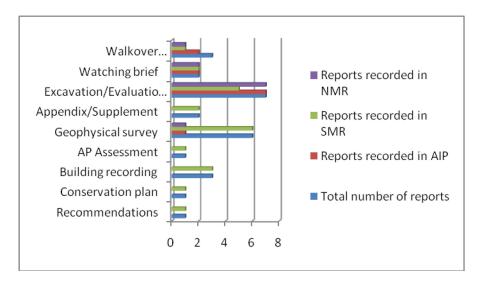


Figure 4.2: Chart showing reports recorded in NMR/AIP and SMR by category.

The two excavations and walkover survey reports that have not been recorded by the SMR were identified after a trip to TPAU. This may explain why they appear in the AIP (and subsequently the NMR) records but not the SMR.

#### **Conclusions**

Brookes' overview of collected data identified several trends in the pattern of research and publication in the Trent Valley area. He believed that, in part, trends in the data were likely to be the result of data collection and maintenance procedures at SMR level. For instance, the inclusion of published sources data supplied by the SMRs of Staffordshire, Nottinghamshire, Lincolnshire and Derbyshire allowed for the more rapid identification of relevant works than was possible for other areas where more orthodox library searches were adopted to collect data. Similar procedural issues were likely to undermine the comprehensiveness of 'grey' literature listings for different regions. We would strongly agree with his conclusion that it is likely that coverage of bibliographical data is more complete for those areas where SMR listings were supplemented by bibliographical archives of the major contractual archaeology units; for example southern Nottinghamshire (Trent & Peak Archaeological Unit) or north-west Leicestershire (University of Leicester Archaeological Service). The proportion of grey literature records not present within the SMR or AIP and NMR will vary from county to county. The figures may be disproportionately large, as issues with recording (and subsequently searching) methodologies may mean that these 'missing' grey literature records are indeed recorded, by for example the AIP, but using a different criterion.

Additionally, there is a significant difference in the type (category) of grey literature which is recorded by different organisations. Bearing in mind the caveat that this research was originally undertaken in 2002/3, while geophysical survey, aerial photographic assessments, building recording, conservation plans and recommendations are primarily recorded by the SMR alone, there was significant overlap in the recording of walkover survey reports, watching briefs and excavation/evaluation reports by the SMR, AIP and NMR. So depending on the type of information researchers may wish to access, their options may be limited in terms of the places that it may be available.

#### **Relevant TVGAB Recommendations**

1. Brookes outlines significant difficulties that the TVGAB project encountered in collating those electronic references received from different sources, such as SMRs, AIP or English

Heritage Excavation Index for England. It was clear to him, and in our own comparisons, that data standards have not been adopted multi-laterally across these organisations. The MIDAS data standard defines sources as any physical material that has been used to provide a source of information for the inventory. Examples include publications, unpublished manuscripts, correspondence, maps, plans, photographs, museum collections, sound recordings and film footage, databases and other digital media. The lack of standardisation led Brookes to recommend an urgent requirement for these organisations to adopt systematic procedures in line with standards established by the AACR2. Since the project was undertaken in 2002/3, the roll out of the OASIS system for recording fieldwork events, should have gone some way to enable a level of standardisation by the use of controlled agreed word lists and the same record being used by all parties to populate databases.

- 2. Brookes further recommended that the shortfall in 'grey' literature recognised in SMR holdings suggest that the migration of reports from contractual units to SMRs was not being comprehensively carried out (2002/3). It is probable that a proportion of this shortfall was the result of individually-logged specialist reports, later subsumed within final amalgamated reports. However, it is clear that greater metadata need to be supplied indicating a) the relationship between constituent reports, and b) the date of report production, its draft version, and its relationship to archaeological works. Again the advent of the OASIS project and the ADS Grey literature Library may have gone some way to alleviate this problem, but only in those areas of England and Scotland where take-up of the system has been consistently monitored.
- 3. Brookes also recommended that although the use of primary SMR data in student research is a significant element comprising academic study, the lack of academic work archived in SMRs is worrying. Recommendations addressing this oversight may include the implementation of contractual obligations preceding the use of SMR data, or increased outreach work highlighting the importance of SMR archives. This, despite the introduction of the OASIS system this has continued to be a problem.

### **Section 5: Interviews across East Anglia**

As part of the GLADE project interviews were undertaken with the following archaeology professionals in the East Anglia region between the 1<sup>st</sup> and 3<sup>rd</sup> March 2010:

Norfolk Property Services (formerly Norfolk Archaeological Unit)
Suffolk County Council (HER and field unit employees)
Norfolk County Council (HER)
East Anglian Archaeology editor
Oxford Archaeology (East)
Cambridge Archaeological Unit
Cambridgeshire County Council (HER)

The interviews were held in the East Anglia region as some work had already been undertaken looking in to the issue of grey literature in archaeology. The advent of the East Anglian Archaeology  $100^{th}$  volume in 2005 prompted a suggestion to 're-engineer' the archaeological process in the face of the digital challenge (http://www.eaareports.org.uk/). A series of workshops were held in the east of England. Since then there have been a series of projects looking into the use of grey literature (Jess Tipper, Richard Bradley and Francis Healey). They all agreed that grey literature could be very useful in archaeological research but only when it was available in large quantities, Bradley commenting that the main requirements were a good summary and a site plan. Subsequent work by Jenny Glazebrook (EAA) revealed that between 1990 and 2004 there were c.20,000 reports created in the six counties making up the East of England region. Up until 2005, 75% of the texts were available in digital form and 50% of the associated plans were held in digital form. It is probable that in the following 5 years both these percentages have risen.

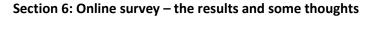
The key points gleaned from the interviews are set out below.

- 1. All the units interviewed (NPS, Suffolk, OAE, CAU) created grey literature in digital form and they currently lend equal importance on the digital and paper copies.
- 2. Within these units the data was held securely; they used networked drives, back-up servers and offsite storage facilities. Most importantly perhaps was that the body of work was kept current by frequent and regular reuse.
- 3. Some digitization of their own, older, reports had been undertaken by the units in order to save physical space and increase accessibility to their reports by their own staff. The digitization is not comprehensive.
- 4. All the units index their reports in some way, usually key to this is their internal project number system.
- 5. In contrast the curators (HERs) did not consider the digital versions of grey literature to be the primary copy, but all held hard copies of the reports.
- 6. None of the HERs considered their role to be archival; while wishing to adhere to best practice none have the facilities, resources or skills to act as a digital archive.
- 7. The HERs store digital versions of reports within the limits of server space and practicality and digitize when required to in order to send information out to members of the public.

- 8. The HERs are interested in making digital versions of the grey literature for the county available on line either via their own county council site or through the use of the OASIS system via the ADS Grey Literature Library and searchable through the Heritage Gateway.
- 9. The county council wide digital archiving policies for Norfolk, Suffolk and Cambridgeshire are at best nascent. However, there may be scope to use county council wide facilities for archiving once they are in place.

### With thanks to:

East Anglian Archaeology Journal
NPS Property Consultants Ltd (formerly Norfolk Archaeological Unit)
Norfolk County Council
Suffolk County Council
Cambridgeshire County Council
Cambridge Archaeological Unit
Oxford Archaeology East



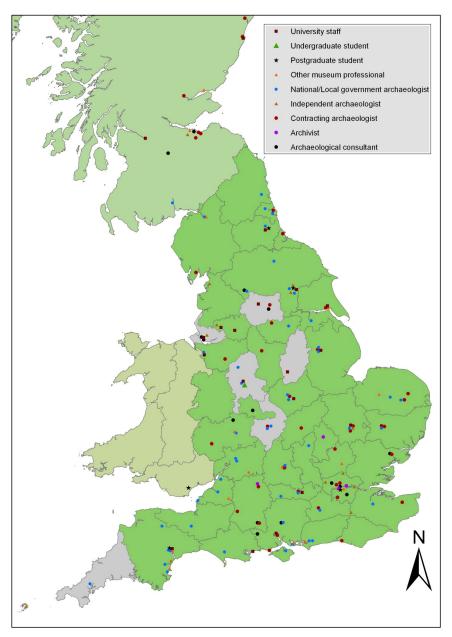


Figure 6.1: Most respondents were based in England or Scotland. The grey areas in England mark the areas not yet signed up to the use of the OASIS form.

One of the mainstays of the GLADE project was the design and circulation of a questionnaire on the collection, use and archiving of archaeological grey literature across the sector. A copy of the questionnaire can be found at Appendix 1. The survey (which utilised 'Survey Monkey' software) was available at <a href="http://www.surveymonkey.com/s/GGZCYFS">http://www.surveymonkey.com/s/GGZCYFS</a> from 15<sup>th</sup> February 2010 until 15<sup>th</sup> March 2010. Requests for people to complete the survey were sent to the following email lists:

- HERForum
- OASIS Users
- Britarch
- SMA list

- FISH list
- Internal EH users
- A list of 400+ academics created from internet trawls for details of academics engaged in UK based research.

Over the period that the survey ran there were a total of 222 responses, 8 of these were uncompleted and/or from outside the UK, so the following results are based on the 214 complete responses.

The prize of an Apple iPod touch 16GB Digital Player was won by Dr Ben Edwards of the University of Liverpool.

### Aims and objectives of the survey

The survey took a 'broad brush' approach in an attempt to judge how much grey literature is in existence in digital form and what users and potential users thought about its reuse value.

# The Online Survey – Results and Comment

### **Section 1.1 Respondent Roles**

The survey respondents were asked if they were responding as an individual or on behalf of an organisation. 93 (43%) responded as individuals and 121 (57%) responded on behalf of an organisation.

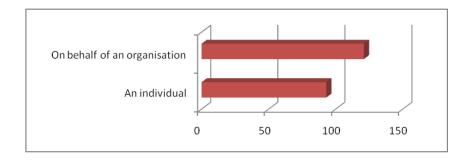


Figure 6.2: Showing the breakdown of the respondents as individuals or on behalf of organisations.

### **Section 1.2 Respondent Roles**

This question asked what was the respondent's primary role as an archaeologist.

Archaeological consultant	17 (8%)
Archivist	5 (2%)
Contracting archaeologist	47 (22%)
Independent archaeologist	15 (7%)
Local/National government archaeologist	67 (31%)
Other museum professional	19 (9%)
Postgraduate student	9 (4%)
Undergraduate student	1 (0.5%)
University staff	34 (16%)

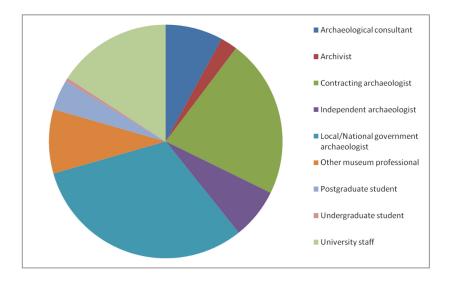


Figure 6.3: Showing the proportion of respondents by sector.

The split in the makeup of the respondents can be seen in Figure 6.3. Unlike some other surveys, there seems to be a relatively large proportion of respondents from the academic sector, this may be to do with the direct mailing about the survey which was undertaken.

### 1.5 Although firm categorisation is difficult, would you describe your work mainly as:

Humanities-based	76
Science-based	13
Fieldwork-based	66
Other, please specify	59

Broadly speaking the survey showed that those working in local government were primarily interested in the archaeology of their local area. With that exception the spread of interests from the respondents encompassed the UK as a whole and in terms of period and speciality ranged from the archaeology of death and religion in the Neolithic, to modern day data management.

### Section 2: Creation, submission and deposition of archaeological grey literature

### 2.1 What kinds of archaeological information do you produce through your work?

70 (38%) of the respondent s said that they did not produce grey literature, the rest, 144 (62%) commented that they did produce grey literature. The 38% who did not produce grey literature corresponds with the number of local authority archaeologists and those working for national agencies and museums who responded to the survey.

# 2.2 Within your organisation, or individually, do you keep grey literature reports primarily in digital form?

Of the 214 respondent, 55 (26%) replied that they did not keep grey literature in a primarily digital form, 114 (53%) replied that they did keep grey literature primarily in a digital form. 45 respondents did not know.

Breakdown of these results by sector	No	Yes
Archaeological consultant	3	12

Archivist	0	3
Contracting archaeologist	9	35
Independent archaeologist	3	9
Local/National government archaeologist	21	22
Other museum professional	7	6
Postgraduate student	3	5
Undergraduate student	0	1
University Staff	9	21

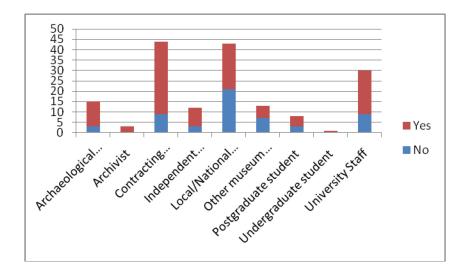


Figure 6.4: Showing the breakdown by sector of those that keep grey literature in digital form and those who do not.

It is interesting to see the high proportion of archaeological consultants and contracting archaeologists who keep grey literature in digital form. It is higher than the local and national archives, perhaps reflecting different working practises and access to digital infrastructure.

# 2.3 If Yes, in what formats do you keep your reports (tick all relevant formats):

PDF	110
Microsoft formats	100
OpenOffice	7
Wordperfect	1
RTF	10
Plain Text	8
XML	4
Other	17

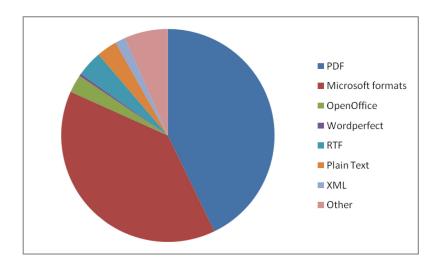


Figure 6.5: showing the breakdown of formats used in the creation of grey literature reports.

The 'Other' category included non-text based formats such as CAD, GIS and image based formats (TIF and JPEG) all of which go towards making up a grey literature report and may be components of a final report. Most respondents chose more than one format. It is interesting to note the popularity of the pdf format; for long term preservation this file format is not ideal, however it may be the case that the grey literature report is created in MS word from which the pdf is created, i.e. there may be some double counting in the figures.

### 2.4 Approximately how many reports do you hold in digital form only?

There were 138 responses to this question

0	23
Less than 100	79
100-500	22
Over 500	14

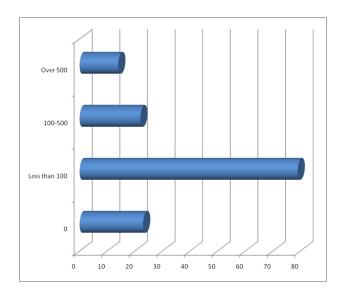


Figure 6.6: Showing the breakdown of the number of respondents and the amount of grey literature they hold in digital format.

Those organisations that hold more than 500 reports in digital format include:

Norfolk Landscape Archaeology

**English Heritage NMRC** 

Archaeological Management Services Ltd t/a Foundations Archaeology

Oxford Archaeology (South)

York Archaeological Trust

**Archaeology South East** 

Oxford Archaeology (East)

**AOC Archaeology Group** 

Wessex Archaeology

Aberdeen City Council

**Highland Council** 

A pottery specialist

Bournemouth University (AIP)

It may be, given the nature of answers to previous sections, that many of these organisations also hold the same data in paper form too.

### 2.5 Approximately how much digital data (including grey literature) do you hold?

Less than 1Gb	24
1Gb – 10Gb	24
10Gb-100Gb	34
100Gb-1Tb	34
Over 1Tb	13
I don't know	33
No answer	52

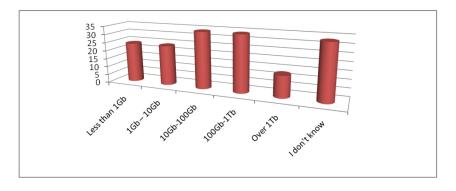


Figure 6.7: Showing holdings of digital data.

# 2.6 Do you have grey literature reports that are not kept in digital form?

112 (52%) respondents said that they did have grey literature that was not held in digital format, with 53 (25%) respondents saying that they did not have any grey literature that was not held in digital format. N.B. there may cases where grey literature reports are held in both digital and hard copy. It is noticeable that the sector where most data is not kept in digital form is the local and national governmental bodies.

Yes	No
6	5
11	6
2	1
22	20
37	5
10	1
5	2
1	0
18	13
	6 11 2 22 37 10 5

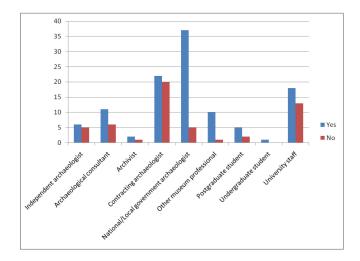


Figure 6.8: Showing by sector) where grey literature reports are held in paper form.

# 2.7 If yes, do you have any plans to scan/digitise these reports in the future?

Of the 114 respondents, 54 (47%) had plans to digitise some of their paper grey literature holdings, the other 60 (53%) had no such intentions.

# 2.8 Approximately how many reports do you hold in paper form only?

49 (44%) of respondents to this questions held less than 100 grey literature reports in paper form only, 34 (30%) held between 100-500 reports in paper form only and a significant 29 (26%) respondents held over 500 reports in paper form only.

Less than 100	49
100-500	34
Over 500	29

# 2.9 How often have you used the OASIS system to report your fieldwork and send grey literature reports?

On many occasions	58
Once	13
Never, but I am intending to do so soon	23
Never, I have no intent of doing so	14

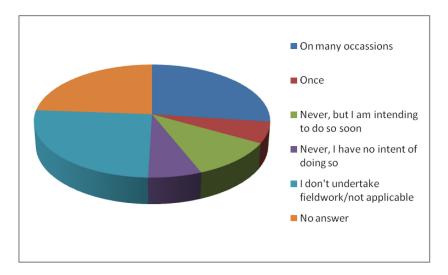


Figure 6.9: Showing the frequency of use of OASIS

# 2.10 In preparing reports do you generally use a consistent structure or template for the content of the report? (Tick most frequent option)

No, I generally tailor the report structure to the particular project	31	14%
Yes, I generally use guidelines provided by the IfA or other professional association to structure reports	21	10%
Yes, I generally use guidelines provided by English Heritage or another national agency to structure reports	15	7%
Yes, I generally use my own / employing organisations template	70	33%
Yes, I generally use the brief provided by the local authority or project manager to structure the report.	5	2%
Not answered	72	34%

# Section 3: Archiving your digital grey literature and other data

# 3.1 How do you store digital data?

USB	19	6%
CD/DVD	50	15%
Tape/cartridge	1	0.3%
It's on my computer	34	10%
Hard disc and back up on CD/DVD	50	15%
Hard disc and back up on tape/cartridge	11	3%

Hard disc and back up on institutional network/server/external hard		
drive	150	45%
Not Applicable	17	5%

Depending on whether these processes are solutions

# 3.2 How do you plan to store digital data in the future?

This was a comments section, and was filled out pretty randomly. 165 people answered this, compared with the 214 that answered the parent question above, perhaps indicating a lack of intention, understanding or knowledge of their organisational policy.

# 3.3 How do you ensure long term security of physical media (e.g. DVDs)?

Unable to answer	33	
No security of physical media	98	54%
We don't use physical media	36	20%
Humidity Control	20	11%
Anti static protection	14	8%
Protected against magnetic interference	19	11%
Heat resistant container	13	7%
Fire resistant container	25	14%

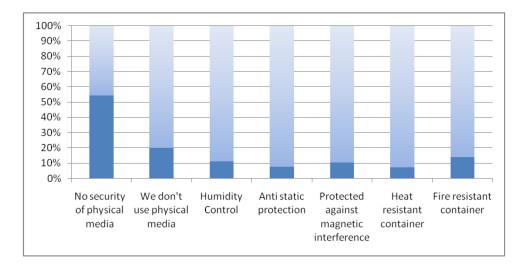


Figure 6.10: Showing the breakdown of the means of physical security of data.

	No of response	Total number of respondents for this	
Of those who answered "No security"?	to this question	sector	% of sector
Archaeological consultant	6	17	35.29%
Archivist	2	5	40.00%
Contracting archaeologist	22	47	46.81%
Independent archaeologist	10	15	66.67%
National/Local government archaeologist	27	67	40.30%
Other museum professional	5	19	26.32%
Postgraduate student	5	9	55.56%

### 3.4 What is your policy regarding the long term security of the digital data?

Did not answer	15
None at present	48
Institutional server/network is regularly backed up	113
Decided on project to project basis	15
Printouts made of all relevant information	21
Copied to CD/DVD	24
Files migrated to new hardware, software not checked	12
Files migrated to new hardware checked for software compatibility	8
Other	13

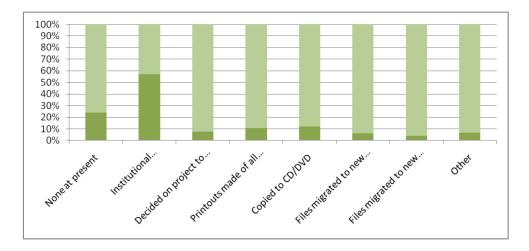


Figure 6.11: Showing methods used to ensure long term security f the digital data.

This was a multiple choice and some people selected more than one option, reflecting a range of practices at the same organisation. The majority of the 'other' comments reflected people who did not consider their role to be concerned with keeping digital objects, examples are quoted below:

# 3.5 Either individually or as an organisation do you have security software to protect against viruses and malware etc.?

<sup>&</sup>quot;I archive it with ADS"

<sup>&</sup>quot;We don't see ourselves as an archive - and recommend that any digital data that needs to be archived is sent to an appropriate digital archive repository (e.g. the ADS)"

<sup>&</sup>quot;Given to client or governing body"

<sup>&</sup>quot;deposit with trusted digital repository"

<sup>&</sup>quot;Deposition in trusted archive"

<sup>&</sup>quot;Copies sent to local and national SMR"

Yes	196
No	3
Did not answer	7

# 3.6 In general, who has the right to access the digital datasets that you hold?

No answer	13
Everyone	83
All archaeologists	14
Research/teaching only	17
No access, internal use only	87

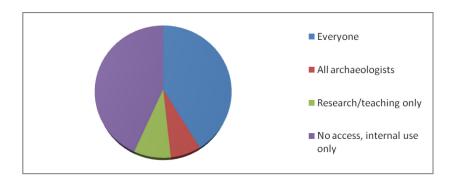


Figure 6.12: Showing rights to access the digital datasets.

# **3.7 How many** people other than yourself or members of your organisation have accessed that data in the last year?

No answer	10
None	64
1-10 people	82
10-50 people	27
Over 50 people	31

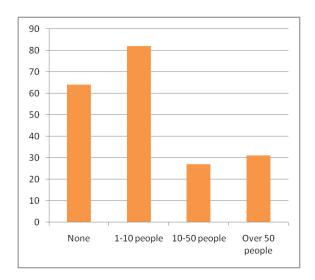


Figure 6.13: Showing the number of people accessing datasets in the last year

# 3.8 How often have you deposited data in a digital archive (this may be any secure storage medium which enables others to access your data set(s) via the internet)?

Frequently via the OASIS system	45
Frequently <b>not</b> via the OASIS system	20
Less than 10 times	35
Never, but I am intending to do so soon	30
Never, I have no intention of doing so	19
Never, but I'm interested in finding out more about it	51
No answer	14

# 3.9 In which digital archive or repository have you deposited digital grey literature reports?

The Archaeology Data Service	67
A university institutional repository	17
London Archaeological Archives and Record Centre (LAARC)	12
National heritage body (English Heritage)	35
Local county council (Historic Environment Record)	80
Archaeological unit archive	33
Other	51
No answer (interpreted as not applicable)	31
	-

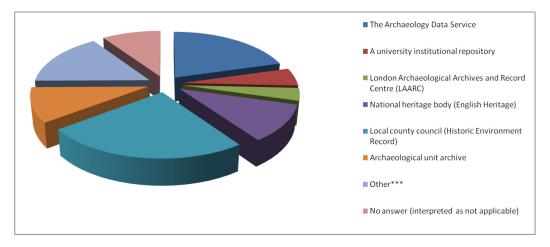


Figure 6.14: Showing the use of archives and repositories.

# 3.10 How familiar are you with the term 'digital archive' – and your understanding of that:

I know exactly what it refers to and am aware of the relevant standards	
(such as the Open Archival Information System -OAIS)	71
I understand what a digital archive is but I'm not sure how they work	108
I am unsure about what the term refers to but would like to find out more	14
I am unsure about what the term refers to and don't think it applies to my	
work	1
No answer	20

# 3.11 How familiar are you with the term 'metadata':

I know exactly what it refers to and have applied metadata to my own data	
sets	91
I understand what 'metadata' is but have never created it myself	66
I am unsure about what the term refers to but would like to find out more	39
I am unsure about what the term refers to and don't think it applies to my	
work	4
No answer	14

3.12 Within the context of digital resources, a 'thesaurus' refers to a list of commonly-agreed terms which may be used throughout a data set to standardise terminology in order to ensure consistency of understanding and usage. If you have applied such thesauri in the production of grey literature, which of the following have you used (tick as many as appropriate):

RCHME thesaurus of Monument Types	106	55.21%
MDA Archaeological Object Name	55	28.65%
A thesaurus specific to my organisation	29	15.10%
A thesaurus of terms developed by myself, based on my own		
experience	23	11.98%
Other, please specify	34	17.71%
I have never used a thesaurus of archaeological terms in my		
data	37	19.27%
No answer	22	

Section 4: Your use of archaeological grey literature

# 4.1 To what extent do you make use of grey literature generated by others as part of your work?

I frequently do	102
I sometimes do, it depends on the nature of what I'm working on	97
I rarely do as I generally produce all my own data	9
I don't use grey literature at all	2
I don't use it because I can't find it/access it	2
No answer	2

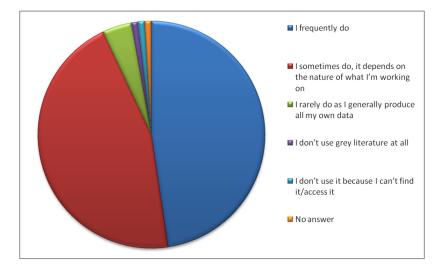


Figure 6.15: Showing the use of grey literature generated by others.

# 4.2 Which sources of information for maintaining an overview of recent work in your area of interest do you use? (tick all appropriate boxes)

Relevant journals / magazines	167	210
Publications on specific subjects / regions / periods (syntheses)	149	210
Historic Environment Records	141	210
Colleagues / friends	140	210
Internet sites	134	210
National Monuments Records	116	210
ADS Grey Literature Library	110	210
Abstracting / bibliographic publications (e.g. British & Irish		
Archaeological Bibliography)	92	210
Publications containing lists and / or brief reports (e.g.		
Archaeological Investigations Project)	90	210
Email bulletin boards	42	210
No answer	4	

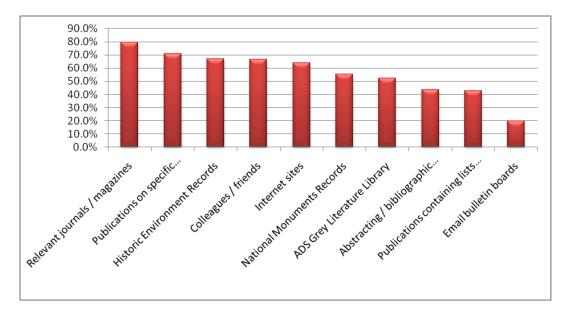


Figure 6.16: Showing the range of sources of information used to maintain an overview of work.

# 4.3 Do you feel that you have access to enough grey literature to achieve the aims of your research/fieldwork?

Yes	84
No	55
Only in conjunction with other sources	70
No answer	5

			Only in conjunction	
			with other	No
	Yes	No	sources	answer
Archaeological consultant	7	4	6	0
Archivist	3	0	2	0
Contracting archaeologist	11	15	21	0
Independent archaeologist	3	7	5	0
Local/National government archaeologist	39	10	18	0
Other museum professional	8	2	5	4
Postgraduate student	2	3	3	1
Undergraduate student	1	0	0	0
University Staff	10	12	12	0

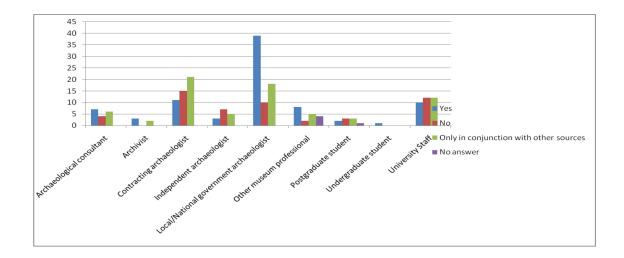


Figure 6.17: Showing responses about access to grey literature in order to achieve the aims of research/fieldwork.

# 4.4 As part of your work/research, if you use *online* resources – internet sites, search engines, portals or other sources – to access data generated by others, how frequently would you say you do this?

I always use online resources wherever possible	91
I look online first, but use print versions and traditional archives	
most of the time	65
I look to traditional resources first, but occasionally use online	
resources	53
I never use online resources	0
No answer	5

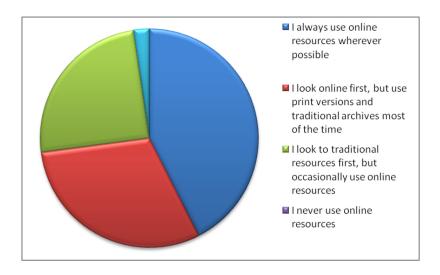


Figure 6.18: Showing the use of online resources.

# 4.5 When you do use the internet to access primary data, which of the following do you use most frequently as a first 'port of call'?

Archaeology Data Service	43
Council for British Archaeology	2
Commercial contractor/consultancy website	2
Gazetteer of Archaeological Investigations in England	2
Google	42
Heritage Gateway	29
Local Historic Environment Record	44
Local museum/society website	2
National Monuments Record (England)	15
Other(s) (please specify)	18
Site/research project website	6
University repository	4
No answer	5

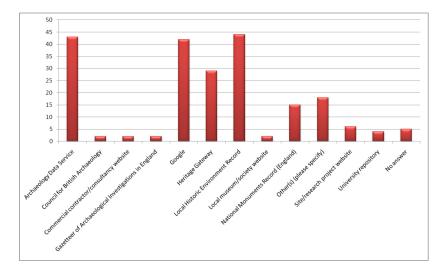


Figure 6.19: Showing 'first port of call' for on line resources.

# 4.6 Specific uses of fieldwork publications

# 4.6.1 and 2 In the last 12 months, how many 'traditional' published fieldwork publications / grey literature reports have you used?

	Published	<b>Grey literature</b>
None	8	3
Less than 10	58	59
10 – 20	50	46
20 – 50	52	39
50 – 100	26	20
Over 100	15	42
No answer	5	5

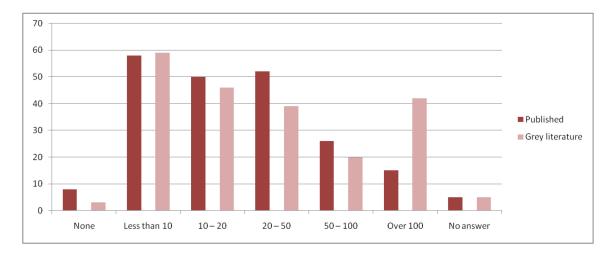


Figure 6.20: Showing the use of published fieldwork publications / grey literature reports in the last 12 months.

# 4.6.3 In your experience with using grey literature, how do you rate the general *quality* of the information provided in the following areas (rate each of the following 1= Poor to 4 = Very Good)

	Poor	OK	Good	Very good
Site location information	12	86	78	32
Circumstances that led to the investigation	14	108	65	21
Participants in the investigation	39	103	51	15
Methods used	14	113	64	17
Presentation of results	24	107	64	13
Interpretation or assessment of				
significance of results	49	100	50	9
Maps, drawings, illustrations	13	111	65	19
Bibliography	30	107	57	14
Location of the archive	67	99	30	12

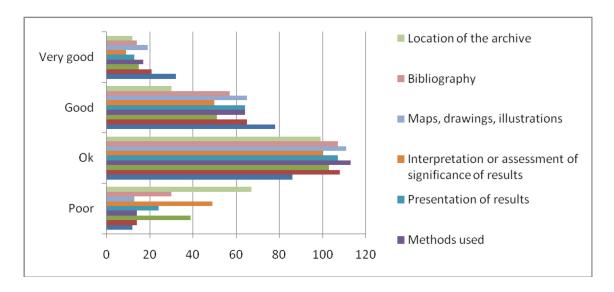
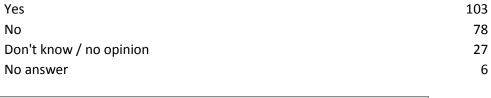


Figure 6.21: Showing the rating of the general *quality* of the information provided.

# 4.6.4 Do you think that the quantity of 'grey literature' fieldwork publications being produced constitutes a problem for the discipline?



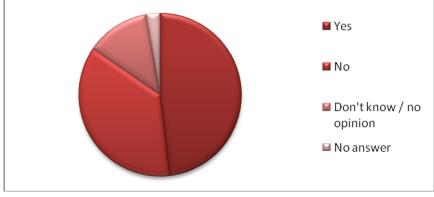


Figure 6.22: Showing perceptions about the quantity of grey literature being produced.

# 4.6.5 Do you think that grey literature reports represent an appropriate means of disseminating information? If not how should such dissemination be achieved?

Yes	152
No	35
Don't know / no opinion	21
No answer	6

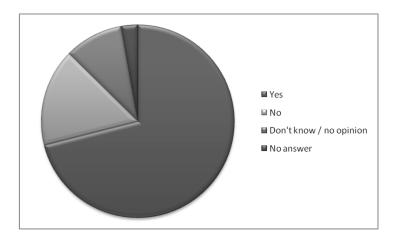


Figure 6.23: Showing perceptions about whether grey literature reports represent an appropriate means of disseminating information.

The respondents were asked how best dissemination of grey literature could be achieved; their comments are detailed in appendix 1.

### **Section 7: Bibliography and Figures**

Condron F et al (1999) Strategies for Digital Data: Findings and recommendations from Digital Data in Archaeology: A Survey of User Needs, Archaeology Data Service.

Darvill T and Russell B (2002). *Archaeology after PPG16: archaeological investigations in England* 1990 - 1999, Bournemouth University and English Heritage

Jeffery S et al (2009) *The Archaeotools project, faceted classification and natural language processing in an archaeological context*. UK e-Science All Hands Meeting 2008, Philosophical Transactions of the Royal Society A, **367**, 2507-2519 doi:10.1098/rsta.2009.0038

Jones S et al (2001) From the Ground Up; the publication of archaeological projects: a user needs survey, Council for British Archaeology.

Hull D, (2006) The Source to Output Repositories project: Archaeology. University of York.

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Bradley R (2006). Bridging the two cultures – commercial archaeology and the study of Prehistoric Britain, *Antiquaries Journal 86, 1-13.* 

Brookes, S, (2003), Trent Valley 2002: Trent Valley GeoArchaeology Bibliographic Database accessed at http://ads.ahds.ac.uk/catalogue/specColl/trentvalley eh 2004/ on 02/02/2010

ADS Unpublished Fieldwork Reports (Grey Literature Library) accessed at http://ads.ahds.ac.uk/catalogue/library/greylit/index.cfm on 02/02/2010

### List of the figures and tables

- 3.1: Interplay of creation, dissemination and archive of grey literature.
- 3.2: showing the two metadata sets, entered by hand through OASIS (circled in red) and created by NLP (circled in green).
- Table 4.1: Unpublished reports from the Parish of Willington South Derbyshire.
- 4.1: Checked reports from Shardlow and Great Wilne by category.
- 4.2: Chart showing reports recorded in NMR/AIP and SMR by category.
- 6.1: Most respondents were based in England or Scotland. The grey areas in England mark the areas not yet signed up to the use of the OASIS form.
- 6.2: Showing the breakdown of the respondents as individuals or on behalf of organisations.
- 6.3: Showing the proportion of respondents by sector.

- 6.4: Showing the breakdown by sector of those that keep grey literature in digital form and those who do not.
- 6.5: Showing the breakdown of formats used in the creation of grey literature reports.
- 6.6: Showing the breakdown of the number of respondents and the amount of grey literature they hold in digital format.
- 6.7: Showing holdings of digital data.
- 6.8: Showing (by sector) where grey literature reports are held in paper form.
- 6.9: Showing the frequency of use of OASIS.
- 6.10: Showing the breakdown of the means of physical security of data.
- 6.11: Showing methods used to ensure long term security f the digital data.
- 6.12: Showing rights to access the digital datasets.
- 6.13: Showing the number of people accessing datasets in the last year.
- 6.14: Showing the use of archives and repositories.
- 6.15: Showing the use of grey literature generated by others.
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- 6.17: Showing responses about access to grey literature in order to achieve the aims of research/fieldwork.
- 6.18: Showing the use of online resources.
- 6.19: Showing 'first port of call' for on line resources.
- 6.20: Showing the use of published fieldwork publications / grey literature reports in the last 12 months.
- 6.21: Showing the rating of the general *quality* of the information provided.
- 6.22: Showing perceptions about the quantity of grey literature being produced.

### Appendix 1

Significant findings still need to be published, either via traditional means or online. Grey literature is almost never written with dissemination in mind, so is not usually fit for this purpose.

Summary volumes - we have Discovery and Excavation in Scotland (DES) which has become the traditional method of recording surveys and interventions

See above responses, but the HER should be the primary means of disseminating this data or via ADS or similar service.

Grey literature probably isn't the perfect vehicle, although I can't think of a suitable alternative

They are a terrible way to disseminate information as they are not disseminated! Worse than this, I have been recently involved with an important site where the unit simply ran out of money, and the vital final report was never written! Trying to get the information from them was like getting blood out of a stone. Many archaeological units push to get their 'grey literature' reports published in local journals, which is progress, but these reports do not make good papers as they stand and would ideally have substantial revision in prose and presentation.

More online access, and ensure archives are deposited with the suitable repository within a specified time limit.

Grey literature is not of the same quality as published reports. Often very site specific and not put in broader context. Grey literature is used as a cost saving measure by archaeological units. Difficult to access. Grey literature could be approriate if access made easier and more comprehensive.

Often it is a first look at the data and is done in a very short timescale and may not have had time to look at the 'bigger picture'.

That is not to say the grey literature report should be done away with though Results need more peer review. Field archaeological reporting standards need to be raised

It is not true dissemination as the information is not widely available. Grey literature is not a form of dissemination, it is a form of archive creation.

Because not advertized or visible- could and should be vital, ADS has begun work on this, to be encouraged and developed- easy access will make grey lit useful, otherwise waste of space.

They do not go beyond the basics- we came, we dug, here is the interpretation and some things we found. In essence limited analysis or syntheses

We need synthesis - for example, 1000s of ha of RB settlement in the M1 corridor has been cleared by archaeologists but there does not appear to be any overview - what have we learnt from all this excavation? Regional summaries tend to be better

often the standard of my particular interest 14C results in inadequate, or often not available in grey documents

digital would help but only to clear standards so that different groups of data can be compare, eg standard csv 'fields' otherwise it could just be as inaccessible

I see grey literature as a basic summary of the information contained in the site archive. The grey literature is the doorway into the HER.

Mandatory publication of field projects as a requirement of development briefs, through either paper-based full publication, or through PDFs on-line

Not sure whether to say 'yes' or 'no'. They would work with the right amount of

accessibility but at the moment that is not there, so they are not really disseminating anything very much. On-line access to the entire content of all grey literature reports would turn this into a 'yes'.

Dissemination is not their primary function. A product designed for the task would be superior.

Not for all sites. The greater problems are sites which do merit easy accessible hard publication- those with at least regional contribution to a greater understanding of a specific theme- for example Mesolithic/Neolithic transition- but lack of journal space either precludes or seriously delays such publication

Some sythesis is needed. There is such a huge quantity of grey literature reports and within these only some of the information is pertinent.

HERs are a better means to filter and disseminate significant information.

In an ideal world all fieldwork, even with negative results would be published somewhere, even if it's just a note in a local journal.

They are currently not accessible enough to disseminate the required information.

The method is fine for some projects, but too often the results of projects which require conventioan publication never see the light of day

It's better than nothing.

Knowledge of its exitence can be limited

On line site and excavtion register with updated results

Shoudl be more published reports

Needs to be published more accessibly.

standardised world digital report series

Online

Mainly too technical, lacking publicly accessible summaries. Variety of formats

Online at the very least

Grey reports are all too often inacessible. OASIS is far from comprehensive and is less than easy to use. HERs seem often to actively restrict access to reports, claiming that they are 'copyright' - seemingly with no actual notion of the scope, meaning and significance of the law on copyright. This needs to be changed as a matter of urgency. Furthermore, the notion that we can all easily travel to a distant HER to read a report is absurd - who has the time or money to do that on a regular basis? At present we seem to be reverting to a version of the medieval practice of having single copies of books kept in remote monasteries to be consulted by occasional travelling scholars. This is nothing short of absurd in the 21st century. Get it all on the internet as soon as possible and then maybe we can do more than just pile up data.

But briad dissemination of information is not the primary purpose of grey literature. There are regional and county archaeological notes which do this admirably in my area published by the CBA local group and County Archaeological Society.

Yes - but we must ensure that enough time and resources are given to ensure that the grey literature is of a high standard.

Grey literature reports are okay for disseminating general information about a site, but they may not always be easily accessible to researchers. Online dissemination of grey literature provides a solution to this problem however.

I do think its Icoation needs to be better adveritsed

I see no alternative, apart from "full publication" of all sites, which is of course unsustainable.

### See above.

Yes providing it is made accessible via the web, and there are resources for making old hard copy only reports accessible in the same way.

These reports are produced for commercial clients, but are normally lodged in HERs in reasonable time. Oasis can be used if contractors wish to disseminate digitally.

I think the system could work better - it's very difficult to find things in ADS even when you know they are there - if ADS were more searchable life would be much easier, as it is I have given up using it.

But with much better indexes and search abilities

If greay literature reports are produced with care - with adequate post-excavation (or equivilent) funding having been set aside for this work, they are excellent resources for research, it is the shoddiness of some reports that risks future interpretation of past archaeological works.

When made freely available through ADS what could be better? At NA we also provide photocopies or pdf copies, usually free of charge, to anyone wanting to use our reports. Try tracking down articles in county journals and getting hold of a copy without havinf to buy a complete volume for £15 or more.

Now that grey literature is available over the internet, it is an excellent means of getting the info out to people.

But making available in an on-line form would greatly help (as with increasing nos. in ADS)

But only when made available (esp via OASIS)

But we need a mandatory on-line repository. OASIS is expected but sadly cannot, through current funding etc., be policed to ensure it is complete

Much of what is dealt with is not individually worthy of more detailed publication but is worth recording fully. Anything briefer would potentially loose important information.

Data from these reports is entered into the HER and made more accesible that way - although problem with backlogs.

Grey literature reports should be made available in a centralised (or regional) digital archive

Better disseminated in some form rather than none at all.

If properly used and resourced, can be made to work.

Grey literature in itself is good, but needs to be more accesible

Grey lit = primarily data, with little synthesis. . What we are short of is synthesis and easier digital access to both synthesis and data.

Yes but perhaps more attention cold be given to publicising contents and location, and new additions to the main repositories

Only for small-scale development-led field work. Larger work needs 'proper' publication. Non-development led work is now the biggest problem of non-publication (eg Universities and amateurs)

Particularly suitable for 'negative' results where all that is required is basic information. More significant sites usually go to publication anyway so can be accessed through that means

there are required planning documents but much more needs to be done to make those documents which have become 'public' are immediately published on the internet although more resources are needed to acheive a more accurate and speedy representation.

so long as - as above

With qualifications. Would love to publish everything but not possible. Particular concern about degree of abbreviation of finds reports in all means of reporting.

Appropriate to size/scale

It's not a great way but at least it gets work onto the radar so that it can be followed up

but only if the resulting base line data is made widely available pro forma format including a map!

Within professional unit archaeology and planning. It is used to a greater or lesser extent by universities and researchers outside the commercial sector depending on the personal knowledge of how the system works. Universities do not teach undergraduates how archaeology 'works' in the UK, from planning application to publication.

Provided that they are available and properly referenced, many reference given by HER's are wrong and even when I go direct to the source to request a report it is often not forthcoming. With my own work it can be a problem getting the client to agree to work being placed onto OASIS or given to the HER as it is often sensitive/confidential work done pre-planning.

Easily available on a website

It could be if it were presented on-line and HERs etc linked to the site where it was.

Especially for low significance projects. They should not be seen as a substitute for full publication however.

Providing they are readily available to access

Yes, but indexes should be easily available e.g. HER, ADS, OASIS

Publishing is preferable, but if grey literature is used, it should always go into online storage and local archives/HER's (preferably searchable online) to be catalogued and made accessible.

can be appropriate, depends on the results.

As long as the reports are accessible, then they are a good way of writting up results of excavations, specialist reports etc.., as they can have a rapid turn-around time.

And no... But with good metadata and with access to raw data in digital form it would be. This sort of thing: http://mapdata.thehumanjourney.net/vgswandb\_map.html only more complete (and with other specialist equivalents) would be a really useful way of making everything associated available

Could always be improved however

Yes, they serve a purpose but should not be the only means of dissemination.

Traditional publication is simply impossible. What is needed is an archive or repository, with accessible indexes and full content.

I do, but I think that grey reports should be available much more easily online, via HERs.

Grey literature reports represent an appropriate means of disseminating information. However, an increasing problem is that digital data needs to be appropriately archived.

So long as available

Yes - they form a core of archaeological data which is often not available elsewhere.

but there needs to be a means of pulling the results together in a a synthesis on a

# regular basis or as results prompt re-interpretation/new understanding

Vast majority of projects don't require further dissemination and with online resources such as the Heritage Gateway and county journal round-ups - this serves the vast majority of projects. Where further dissemination is required - this is undertaken (either in county or national journals).

# Only if they are accessible online

and yes I believe that this would be an appropriate way of dissemination, people just need a way of finding out where this stuff is.

Not everything is fully publishable and grey literature provides a suitable format.

Yes the quantity of archaeological reports generated by development related precludes the majority of it being published. But the profession need some method of producing digests which would make dissemination more effective.

They should be accessible through all Historic Environment Records. We probably need better standards, enforcement and methods for ensuring that the digital data is deposited with the HERs.

as long as at the very least adequate metadata is available, but by preference central archiving (e.g. OASIS)

# Through HERs

It's appropriate to its role in the development control process where site specific information is needed to make decisions on planning applications. It's less useful for wider dissemination where syntheses are needed.

Depends on the project - needs depsoition in suitabel repositories

provided they end up in the OASIS record and accessible through the Heritage Gateway and, where they exist, individual HER websites