21st-century Challenges for Archaeology

Challenges for archaeological publication in a digital age
Who are we writing this stuff for, anyway?

Background briefing

Online discussion on **29th and 30th November** will focus on how we can secure and enhance the public and academic benefits of archaeological publication at a time when most archaeological fieldwork is carried out by the commercial sector and when digital technologies are challenging traditional models of dissemination.

The challenges of archaeological publishing are not new. Indeed, it would seem that our publishing has been facing a crisis at least since the 1970s when the Frere Report of 1975 attempted to address it. The issue was again revisited by a joint working party of the Council for British Archaeology and the Department the Environment, chaired by Barry Cunliffe, which reported in 1983. Another committee, convened under the auspices of the Society of Antiquaries, tried to address the issue in its report of 1992 – now with the added complexity of developer-funded investigation. In 1998, in the face of concerns about both 'grey literature' and formal publication, the CBA was commissioned to carry out a wide ranging survey of publication and make recommendations based on user needs. The report, published in 2003, can be seen at: http://intarch.ac.uk/journal/issue14/puns_index.html and the recommendations are attached to this programme as Appendix 1.

All this and more is admirably summarised in a short essay by Julian Richards which can be seen at: http://intarch.ac.uk/journal/issue15/7/jr1.html, and is attached as Appendix 2.

Notwithstanding this continued scrutiny by the profession, on the topic of publication the 2011 report by the Southport Group concluded:

> 'Looked at through the lens of Total Economic Value, there appears to be an over-reliance on publication in what were described to us as 'large dusty academic journals', with a lot of technical detail but very limited public readership. These generate high use value for scholars but very little for the public at large.
>
> Moreover, for about 5% of archaeological digs there is also a monograph produced, usually by the organisation that did the excavation. These beautifully printed volumes have a very small audience – with somewhere between 250 and 500 copies printed depending on the size and amount of people involved with the project. Another issue around publication is the long delay between the initial investigations and the final output, be it publication or museum display. Not only does the analytic process from excavation to publication and/or deposition often take years, but the amount of emerging material is so large it is difficult for those even within the field to keep up with it.'

While the profession continues to consider how best to record and report its fieldwork outcomes, the wider world of academic publication also continues to evolve. Government has embraced 'open access' for publicly funded research; the death of the monograph is considered either imminent or much exaggerated; libraries are considering whether to alter radically collection policies; academics are allegedly writing more than can be assimilated; and Research Councils and others are investing in new thinking on the Academic Book of the Future, see: https://academicbookfuture.files.wordpress.com/2017/06/academic-books-and-their-futures_jubb1.pdf

Themes and questions

While clearly important, 'open access' has been much discussed elsewhere and has ramifications far beyond archaeology. It is therefore proposed that this discussion should focus on the following questions:

1. How much do we know about our profession's usage of publications? Do the findings and recommendations of the 2001 *From the Ground Up* report still apply? Have they been implemented?

2. Do we need a new and more prescriptive professional standard and guidance for grey literature reports and for our academic publication channels?

3. Is our profession clear when and why we publish reports as grey literature; on-line; as journal articles or as monographs? Who decides and on what basis?

4. Are we clear on the boundary between 'publication' and 'archive' and does this need to change? And do we know how to create a usable digital documentary archive and have we adequate professional standards and guidance in place?

5. If we can access most information on line, what should the 'main' report on an archaeological intervention comprise? Evidence, synthesis or a popular account? Should any of it be in hard copy?

6. Does professional or popular hard copy publication derived from excavation reporting still have a role to play? If so, what, why and how?

7. How can we improve public engagement with what we are writing without neglecting our professional and academic responsibilities to publish?

8. If we were to start again what would be our ideal form(s) of archaeological publication?

Appendix 1

Recommendations from '*From the ground up. The Publication of Archaeological Projects: a user needs survey'*. CBA 2003

1: Clarify vocabulary
'Publication' is often used to mean 'printed report', while 'dissemination' has become a synonym for 'publication' – a sense that is obsolescent in the digital age. We recommend that as far as possible 'publication' is used to mean the completion and issue of a substantive report, regardless of medium.

2: **The form and scale of publication should be governed by the significance and scale of results**
The report highlights the fallacy of 'preservation by record', whereby a printed report was expected to contain all information necessary to reconstruct the deposits or fabric which had been disaggregated. The survey also indicates that published reports are never going to provide enough detail to satisfy all needs (cf Recommendation 3). Indeed, it emerges that many fieldwork publications provide too much detail for the general reader, and too little for the specialist. In the abstract, it is difficult to disagree with a conclusion of an important 1991 Society of Antiquaries report (*Archaeological publication, archives and collections: towards a national policy*) that print publication must be selective, and that selectivity should be based on the principle that '*the form and scale of [a] publication should be commensurate with what the results have to offer rather than a mechanistic process which is applied regardless of the quality and potential of the data concerned.*' We recommend that this be accepted. In practice this will require a more clear-cut, knowledgeable, and hence respected, peer-review system than always obtains at present.

3: Multiple forms and media of dissemination should be used, as appropriate for a given project
The survey reveals that fieldwork publications are used for many different reasons, and that each constituency has its own spectrum of needs. While this may seem self-evident, the practical implication of the truth that a single print publication for one project cannot usually satisfy even a majority of expectations has not hitherto been acknowledged. For the future, we recommend that a suite of means be employed, each tailored to particular purposes or audiences, which in the aggregate could be regarded as 'publication'. The balance of means would vary from project to project, but could include:
    summary announcement whilst work is in progress and/or shortly after completion (cf Recommendation 4)
    synthetic journal article or monograph, of concise form
    internet publication either alongside or instead of the above
    electronic availability of detailed and well-indexed structural and specialist reports
    all project archives to be placed on the Internet
Taken together, such means offer the opportunity to reverse the threat of attenuated publication which has resulted from the pressures of print costs, while providing wider and

easier access to material, catalogues and specialist discussion. The main foreseeable risk lies in the diffuseness that could result if each element were to be pursued on its own. Layered or multi-media publication will accordingly require special attention to overall structure, to ensure coherence, not only in content but also in referencing and recognised means of citation. We recommend that experimental projects be set in hand forthwith.

4: New and better means be found for tracking work in progress and providing summary notice of recent work

The survey finds a near universal suspicion that more is being done, published or archived than any individual can reasonably ascertain from existing sources, and that there is geographical limitation in what is regularly scanned. In 1991 the lukewarm reception accorded to the Society of Antiquaries' idea of an annual compendium was in part the result of a feeling that such a publication would be expensive (demanding either a high subscription or subsidy), cumbersome, incomplete, difficult to sustain, and to some extent duplicatory. An electronic compendium could be a different story. Among other things, such a system, if adequately resourced, could:

> list fieldwork and other research in prospect and progress, for all branches of the discipline
>
> index its listings to assist rapid interrogation from any standpoint (eg, by period, historical theme, scientific or artefactual specialism)
>
> be regularly and rapidly updated, enabling anyone to ascertain the stage to which a given project has progressed
>
> indirectly, assist peer pressure to ensure that publication is prompt and adequate
>
> overcome some of the problems associated with grey literature and archives: for example, by signposting where they are, or how they can be obtained or accessed
>
> provide an electronic gateway to archives which themselves are electronically available or indexed
>
> answer enquiries from those who do not themselves have electronic access
>
> be cross-referenced with the British & Irish Archaeological Bibliography
>
> be available for quarrying by the editors of existing annual regional or thematic listings (that is, the system would be designed to complement existing services, not compete with them)
>
> assist the news media
>
> broker research connections and contacts
>
> enable English Heritage's assessment gazetteer to be discontinued
>
> be susceptible to technical development without loss of continuity

The realisation of these and other strengths would obviously require the co-operation of the discipline, and be proportional to the extent to which comprehensive coverage could be achieved. However, the advantages would be so large (and the survey reveals an immense sense of need in this area) that we believe such support could be relied upon. This is a proposal that would help everyone, including specialist sectors, universities, and independents as well as professionals.

It remains a question whether such a tracking system would best be established by the upgrading of an existing service, through a new universal consortium, or through the partial

amalgamation or patching together of a number of current initiatives such as OASIS (Online Access to the Index of Archaeological Investigations), DAPPER (Digital Archive Pilot Project for Excavation Records) and Archaeological Investigations Project.

5: Funding and editorial policy be refocused to encourage the production of more synthetic fieldwork publications, with integration of description and interpretation, greater integration of structural and artefactual evidence and greater attention to narrative style

This recommendation will be controversial in that it requires a departure from the orthodox model. Nevertheless, the survey indicates that the present situation is itself far from satisfactory. A concerted policy shift is required to bring about change. This should only take place alongside the use of the additional means of making detailed information about specific categories of data available to researchers (as outlined in Recommendation 3 above and 7 below).

Such changes may well require corresponding changes in fieldwork practice (eg, recording strategy or working relationships between fieldworkers and specialists), and a full consideration of such issues should accordingly take place in advance of policy implementation. For example the survey disclosed a widespread perception that not all excavators display the same degree of pithiness that they expect from specialists. Better balance, to be achieved through stronger academic focus, is called for, and must begin with the assimilation of specialist considerations at the stage of research design.

Such changes would also impact on opportunities for career development and the acquisition of scholarly esteem through publication. We therefore emphasise the needs to encourage multiple authorship by specialists and directors (which the steps proposed in Recommendation 3 would assist), and/or to promote new prestigious formats for dissemination. Funding agencies, larger units, universities and independents all have a part to play in encouraging the integrated reports that many would like to read but few actually write.

6: Funding and editorial policy should facilitate and encourage authors to consider electronic publication either instead of or in conjunction with print publication
(cf Recommendation 3)

7: Detailed structural and specialist reports be published on the Internet

One of the survey's significant findings is that while archaeology relies heavily on specialists, the specialists themselves feel their work to be increasingly squeezed. Moreover, while the discipline as a whole is calling for greater integration in the writing of reports, and the study of assemblages as distinct from nineteenth century classifications based on material alone, this is not widely reflected in what is actually being written. New means of making detailed structural and specialists reports available are required – a need that is well answered by electronic media. It is important that this should not take place *ad hoc*. Rather, we propose the establishment of a specific forum, where work can be indexed and accessed with ease, and where peer review ensures that such publications provide improved means of attracting academic recognition.

8: Archives be made available on the Internet
The survey found strong support for the mounting of all archives on the Internet, supported by wellindexed and queryable databases. Funding agencies and local authorities should consider making this mandatory for projects within their remits. These should be integrated with electronic publication of reports (cf Recommendation 6).

9: Systematic attention be paid to editorial training, with consideration given to more extensive funding of editorial posts
Kenneth Aitchison's *Profiling the Profession* survey (CBA/English Heritage/IFA 1999) reveals archaeology's editorial community to be startlingly small, and (in professional terms) for the most part either relatively low paid and junior, or honorary and hardpressed. Aside from the fact that this amounts to an inbuilt production bottleneck, reports will only improve in content, structure and articulation (all things which colleagues say they would like to see) if the editorial aspects of their production are considered much earlier in the report-producing process, and if experienced editors are on hand to ensure that such consultation translates into better-written, better-focused publications. The central funding, if only for a limited time, of a modest number of additional editorial posts at strategic points in the discipline would help to strengthen and bring prestige to an area of archaeology which is at present dangerously fragile, and improve the mentoring of upcoming colleagues. More systematic attention to editorial training would also be desirable, and some university teaching about the writing of excavation reports – especially issues of structure, balance and the basics of clear style – would pay dividends for the discipline as a whole.

10: Financial support for local, regional and national society journals be increased
The survey highlights the immense value of local, county, national and thematic journals. Such periodicals are vehicles for publication with associated peer review systems, editorial provision and audiences. It is easy to take them for granted, yet without them the discipline would struggle. It would be just as easy to assist them, for example to ascertain what kinds of help honorary editors most need (in some cases, indeed, whether it is realistic to expect that they should remain honorary). While this lies towards the margins of what the survey investigated, we detect signs of strain in this area. It would be in the mutual interests of societies and funding agencies to review their relationships.

11: There should be a fundamental review of commercial assumptions
The survey demonstrates little correlation between publication sales and publication use. Admittedly, the survey's citation study was disappointing, but enough has been gleaned to explode the fallacy that small sales figures automatically equate with low usage. Although it did not emerge from the survey, we also draw attention to the fact that the costs of producing and distributing a technical publication may be trivial in comparison with the preceding costs of fieldwork and analysis – so much so, indeed, that if dissemination of knowledge is the underlying aim, it would arguably be as reasonable to give the publication away as to sell it. A root-andbranch review of commercial assumptions is called for.

12: National agencies should review their responsibilities for addressing the consequences of commercially driven archaeology

Much of the fieldwork currently being reported upon is development-driven. The principle of 'commensurate publication' (cf Recommendation 2) is not always easy to realise in the commercial context, where some developers have their own views about the extent of their responsibilities, and local planning authorities may feel inhibited in what they can insist upon. We recommend that national agencies, particularly English Heritage (as the adviser of DCMS) should shoulder more responsibility for addressing these issues, which ultimately stem from PPGs 15 and 16, and their derivatives. In part this means seeking to establish a climate in which both contracting and curatorial archaeologists are in a position to urge publication that is intellectually appropriate and publicly satisfying.

13: Funding bodies and peer-review panels should acknowledge the interdependency between publication and the scholarly development of individuals in their careers

This issue is fundamental to the well-being and productivity of the discipline. Change can appear to be threatening, and it is important that the changes recommended above should be perceived by fieldworkers and specialists alike as supportive and progressive rather than cautious or undermining. It is for those who commission or influence the commissioning of fieldwork to ensure that this is the case.

14: National agencies should develop management frameworks and funding structures to facilitate the production of regional, period and thematic works of narrative synthesis

The survey highlights concern about the relationship between fieldwork publications and the production of broader works of synthesis. Given that there are increasing pressures on archaeologists' time, increasing volumes of new material being produced through commercial funding, and growing difficulties in finding out about or accessing this material, this is not surprising. We argue that the discipline can no longer rely on those sectors traditionally concerned with synthesis – notably university archaeologists – to answer this need. Alongside personal research, therefore, we point to the necessity for national agencies to support initiatives for the systematic production of regional, thematic and period syntheses.

15: The conclusions and recommendations contained within this report should be widely disseminated throughout the archaeological discipline

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Appendix 2

Publication and archiving, **Julian Richards 2004**

There is a tension in the publication of archaeological fieldwork results between a synthetic readable account, accessible to the intelligent layperson which 'tells a story', and the scientific presentation of interpretation backed up by supporting data. One school of thought, often credited to Pitt-Rivers and described as the Cranborne Chase tradition, believes that the published excavation report is the factual and complete record of a site:
'A discovery dates only from the time of the record of it, and not from the time of its being found in the soil' (Pitt-Rivers, cited in Wheeler 1954, 182).
For Pitt Rivers, publication provided an objective record of what had been discovered and it was the archaeologist's duty to publish in tremendous detail, as demonstrated by his own four massive volumes on the excavations he conducted on his estate (Pitt-Rivers 1887-98).

On the other hand a different emphasis is visible in Flinders Petrie:
'To empty the contents of notebooks on a reader's head is not publication. A mass of statements which have no point, and do not appear to lead to any conclusion or generalisation, cannot be regarded as efficient publication' (Petrie 1904).

Notwithstanding this early plea for synthetic publication it was the Cranborne Chase tradition that was to have the greatest influence on publication trends, although the tension between brief synthetic publication and full data presentation has periodically re-emerged. Throughout the first half of the 20th century, publication was seen as an integral part of the excavation process. In much of the literature there was little mention of archiving: the only record considered effective was full publication — the published report and the archive were regarded as one and the same thing (Jones *et al*. 2001, Section 2).

During the 1960s and 1970s, however, British archaeology had to face up to a growing publication crisis. Against a background of massive growth in public spending on archaeology there was increasing archaeological activity and rescue excavation, a growing post-excavation and publication backlog, and soaring publication costs. The Frere Report (1975) attempted to address the crisis. It endorsed the traditional view that archaeologists are under an obligation to produce a full record of their excavations but accepted that, given the crisis, publication in printed form of all the details of a large modern excavation is no longer practicable (Frere 1975, 2). The Frere Report advocated a rationalisation of recording and publication. Four levels of recording were held to characterise the successful completion of an excavation (Frere 1975, 3):

    Level I — the site itself and the excavated finds
    Level II — the site notebooks, on-site recording forms, drawings, finds records, photographs etc.
    Level III — the processed complete archive: full illustration and description of structural, stratigraphic and artefactual/environmental data

Level IV — a synthetic description with supporting illustrations

Hitherto, full Level III publication had been the norm, at least in theory, but refined publication at Level IV was now recommended, on condition that a Level III report was produced for archiving and was readily available on request. It was recognised that selectivity at Level IV would require a higher standard of archiving than was often practised, with all excavation records being properly organised, curated and accessibly housed. Consideration was also given to other, cheaper, forms of dissemination at Level III on request. In essence, the Frere Report responded to the publication crisis by advising a reduction in the amount of material that would go into print in monographs and journals, coupled with an improvement in the organisation and curation of archives.

The Frere Report was the first attempt by a state heritage body to address systematically the principles and methods of publication. With hindsight, it can be argued that Frere did not constitute a radical departure from traditional practices. All that the Report advocated was an uncoupling of an accepted standard of record (known as the Level III report) from the process of formal publication (Level IV). It was a pragmatic response to the costs of formal publication and the pressures on publication outlets (Jones *et al*. 2001). Theoretical doubts were expressed which challenged some of the assumptions underlying Frere, including the idea of *preservation by record*:
'there is no way whereby a reader can assess and verify the skill of the excavator in recognising, dissecting and recording the primary data. It is the inevitable limitation of excavation as a means of recovering evidence that what is destroyed unnoticed is gone for ever. In simple logic we can never know what the excavator has failed to recognise, or what he fails to tell us about' (Alcock 1978, 3).

Although Frere's recommendations were very influential on archaeological practice it is arguable whether they had much impact upon the backlog brought about by increasing numbers of large projects. Indeed, the high standard of preparation required by Level III meant that in many cases *more* time was required for post-excavation work than had been allocated before. The continued publication crisis led Tom Hassall to suggest that the balance between publication and archive might shift totally in favour of the archive:
'...professional advancement and success in the future ... may depend on non-publication, but deliberate non-publication backed up by a total and readily accessible archive...' (Hassall 1984, 151).

The backlog problem refused to go away, and a joint working party of the Council for British Archaeology and the Department the Environment was convened under the chairmanship of Barry Cunliffe. With an emphasis on the importance of an accessible archive, and on targeted research and publication, the Report (1983) marked a departure both from the traditional model, with its ideal of full excavation and full publication, and the Frere Report, which had confined the latter to Level III. The detailed description of the evidence was to be reduced to a summary, with detail confined to microfiche. The report had considerable impact but its implementation was problematic and was rejected by the CBA's own Council.

With the benefit of hindsight it seems that one of the main problems was practical and stemmed from difficulties with the technology of the 1980s. At that time no archive could truly be accessible, and the use of microfiche was universally loathed. Another difficulty was increasing theoretical debate about whether the full report actually represented a complete factual account of the site. Barrett (1987) argued that the publication crisis extended beyond report production to the ways in which archives and reports could be used and re-used. Although it may be impossible to judge an excavator's general competence from a published report, it is possible:

'for the reader to undertake a critical analysis of the internal logic of the report, examining the linkages between the assumptions employed, the stated record of observations, and the interpretative account.'

Hodder (1989) regretted that reports had become impersonal objective accounts of data. He argued that since the excavation process is interpretative from start to finish, personal factors which lead to the interpretation should, as far as possible, be written into the report rather than kept out of it. In other words, there should be *greater* integration between description and interpretation. Another perspective, criticising the use of synthetic reports as the main format of dissemination of archaeological knowledge was provided by Shanks and Tilley (1987). They argued that such reports represented exercises in *domination and control* by individuals seeking to impose their view of the past on their readers. It was therefore crucial to find ways to make data available to give a wider audience the opportunity to create their own interpretations.

One further Committee, convened under the auspices of the Society of Antiquaries, tried to address the publication/archives problem. *Archaeological Publication, Archives and Collections: Towards a National Policy* (Carver *et al*. 1992) was written within the context of the introduction of developer-funding. It was becoming apparent that the majority of small-scale archaeological interventions conducted under PPG16 did not warrant publication, although they might at some stage contribute to broader syntheses, so long as there was some provision for the significance of their results to enter the public and academic domains (Darvill and Russell 2002). The Society of Antiquaries Report also took account of those developments in theoretical thinking which reflected a move away from the Cranborne Chase tradition and away from *preservation by record*:

'since the record is selective and therefore incomplete and post-excavation analysis must also, of necessity, be selective, the excavation report can only be a contemporary statement reflecting on aspects of the site: it cannot be an immutable and complete truth.' (Carver *et al*. 1992, 2.2.1).

The Committee took the Cunliffe Report one stage further and recommended that dissemination should normally be in the form of a published summary report and an accessible site archive. Once more, however, technology lagged behind and lacked the means of providing access to an archive with links between it and the summary publication. The report was effectively shelved.

Meanwhile, the publication crisis also became an archiving crisis as museums were expected to receive the physical archives from the backlog projects. There was a growing feeling that archives were important, but that their content and accessibility required reassessment (McAdam 1999). However, a survey conducted on behalf of English Heritage and the Museums and Galleries Commission revealed that museums had also reached breaking point; most were running out of storage space, few could provide facilities for access, and almost all reported low levels of usage (Merriman and Swain 1999, 259-60).

In 1998 the CBA was commissioned to carry out a wide ranging survey of publication. This ran in parallel to the Digital Data Survey conducted by ADS, and also focussed on user needs. Its recommendations reflect the fact that technology has moved on, and whilst they again focus on reducing the scale of conventional publication the PUNS Report recommends alternative means of electronic publication and the dissemination of archival and specialist material in electronic format as a means round the practical problems. The introduction of digital technology provides an opportunity to shift away from pure synthesis towards making archaeological data accessible digitally (Gaffney and Exon 1999). Three recommendations (Jones *et al*. 2001, Section 6) are of particular relevance in the context of this article.

Recommendation 3 recognises that there are different user groups for different aspects of a report and suggests multiple forms and media of dissemination should be used, as appropriate for a given project. These might include a summary account produced during the project or immediately after; a synthetic journal article or monograph; Internet publication either alongside or instead of the above; and electronic availability of detailed and well-indexed structural and specialist reports. Recommendation 3 also concludes that all project archives should be placed on the Internet.

Recommendation 7 also notes that new means of making detailed structural and specialists reports available are required, a need which is well answered by electronic media, notably the Internet. The CBA argue that it is important that this should not take place *ad hoc* and propose the establishment of a specific forum, where work can be indexed and accessed with ease, and where peer review ensures that such publications provide improved means of attracting academic recognition.

Recommendation 8 also reflects the fact that the survey found strong support for the mounting of all archives on the Internet, supported by well-indexed and queryable databases. It recommends that all archives be made available on the Internet and suggests that funding agencies and local authorities should consider making this mandatory for projects within their remits, integrated with electronic publication of reports.

Simultaneously, English Heritage published a follow-up report to the original English Heritage/Museums and Galleries Commission archives survey, making a number of recommendations to take things forward (Perrin 2002). The report recognises 'the potential of digital information to open up archaeology' (Perrin 2002, 6). One immediate result has been the establishment of an Archaeological Archives Forum with representatives from all

the key stake-holders. The Museum of London has demonstrated what is possible with the opening in February 2002 of its London Archaeological Archive and Research Centre.

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