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Evidencing and ensuring impactful research from developer-funded archaeology

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Summary

The developer-funded (or contracting) sector of the archaeological profession produces the vast majority of datasets from investigations across the UK, and the formally published outputs from these projects are acknowledged as being of an academic standard. In this paper I examine some examples from my own work and assess their recordable research impact. I also look at the Research Excellence Framework (REF) 2021 submissions and note an almost total absence of datasets showing research collaborations with colleagues from within the contracting sector. This leads me to believe there are perhaps few opportunities for this type of collaborative project, and to think that REF submissions by higher education institutions (HEIs) tend to utilise datasets created by the developer-funded sector, rather than embarking on more meaningfully co-created models of research. I conclude therefore that the developer-funded sector should empower itself to lead the sector in designing a new research and impact landscape whereby new paradigms are established that respond to the environments within which our work materialises. (NB This paper is not about grey literature.)

1. Introduction

The legislation within which the developer-funded sector of the UK archaeological profession operates provides the expectation that results of projects 'proportionate to their importance' will be made publicly available (UK Government 2023). The drive to provide public benefit through this work is central to the mission of the contracting sector, although precisely how, and what, this might be remains a matter of debate and acknowledged to be often unsuited to the realities of practice (Nixon 2017 , 15; Fredheim and Watson 2023 , 22–2). The decision-making process that leads projects through the analysis and publication stages originates in *Management of Archaeological Projects 2* (hereafter MAP2; English Heritage 1991), revised in the *Management of Research Projects in the Historic Environment* (Historic England 2015b) with some procedural amendments for nationally significant infrastructure projects, although the stages are broadly the same. Only those with archaeological remains deemed to be suitably significant or holding sufficient research potential will be subject to detailed analysis and publication, and the widely accepted method of dissemination of this material is generally a monograph or journal article considered to be of academic standard. The decisions over the specific potential and significance of the archaeology will be made by the contractor (often steered by a consultant) and curator, on the basis of its potential to contribute to research agendas, taking into account specialist input, background research and likely academic interest. The dichotomy that arises from

academic-standard publications being considered as public benefit is the focus for this paper, in which I seek to evaluate the research impact of some typical professional outputs and determine whether the persistently utilised concept of academic standard remains relevant for work conducted within the planning system, intended for public use. Nor does the contracting sector fully adhere to academic standards of publication, with inconsistent peer review of monographs further complicating the picture (as noted by Bryant *et al*. 2024 , 8). The challenges of measuring and evidencing impact from our work (and that of other humanities research) is recognised by the British Academy (2023), and we have struggled to understand how to marry the need for synthesis with a growing understanding that archaeological value for communities may actually reside at a very local scale, and therefore perhaps at a different level of significance than that which we have traditionally used to judge whether sites are worthy of further work. It is likely that we have a long way to go before we can amend some of our professional traditions in favour of a more popular approach to communicating the things we uncover.

Having reflected on the contribution to knowledge of professional outputs, and seeking to avoid offence, I have chosen to assess the research impact of a selection of my own publications. In chronological order these are: a Museum of London Archaeology (MOLA) monograph (Watson with Heard 2006), a MOLA Studies Series volume (Watson 2015), a local journal article (Watson 2014), a jointly authored period-based national journal article (Watson and Pearce 2010), an international journal article (Watson 2019), an article published online (Watson 2021), and a jointly authored article in a special issue of an international journal (Watson and Fredheim 2022).

2. The current context

The process by which an archaeological project conducted through the English planning system is determined to be worthy of publication, as opposed to a grey literature archive report, is outlined in the professional standards for excavation (CIfA 2020 , 2023), with a cross-reference to guidance provided initially in MAP2 (English Heritage 1991). There are minor variations in the legislation of the devolved nations of the UK, but the overarching understanding is that the degree to which the archaeology encountered requires further analysis is decided by the contractor undertaking the work, usually after communication with the regional curatorial and often with significant input from a consultant, employed by the client (the developer, or construction management firm acting on their behalf). The problems with this interim stage have been discussed across the sector (Trow 2018; Wills 2018), as has the need for renewed consideration of what better received or more useful methods of publication might look like (Wills 2018 , 36; Jones *et al*. 2001; CBA 2024). This paper concentrates on those projects that are selected for analysis and publication; for a discussion of 'grey literature' see, for example, Evans (2015), Donnelly (2016) and CIfA (2021). Nor is the thorny issue of archived data and how to best provide access to this tackled here, but see the pages of the Archaeological Archives Forum (n.d.) and CIfA (2021). The 21st Century Challenges to Archaeology project, led jointly by Historic England and the Chartered Institute for Archaeologists (CIfA), is tackling publication and synthesis (Wills 2018 , 32–37). These aspects of our practice are necessarily slightly different in the way they consider public benefit, and their nuances need to be acknowledged because they have been developed without a great deal of public input thus far. The newly instigated Public User Needs Survey will inform this issue (CBA 2024).

3. A few examples

The first aim of this paper is to clarify the research impact of professional outputs intended to be of academic standard, which currently is assessed predominantly using quantitative

measures, if at all. Taking the MOLA monograph (Watson with Heard 2006) and Study Series volume (Watson 2015) first, these are distributed by MOLA to some relevant libraries, a subset of the full list available via the JISC Library Hub. At the time of writing (February 2025) over 200 universities have reported to this database, some of them being colleges with larger institutions, such as Oxford, Cambridge and Durham. MOLA will send publications to universities, learned societies and other specifically relevant libraries such as those at the Bishopsgate Institute and the British Museum.

Borrowing and readership statistics are not available from the JICS Library Hub and need to be obtained from the individual libraries, if they maintain such data. Each library has to search their databases by title, and readership statistics will only be recorded for volumes that are on 'open' shelves, which is not in fact generally the case for monographs and volumes of the type being considered here. The very fact that they are held on closed shelves, in basements and in reference sections, tells its own story: that they are not often used and not considered popular reference volumes. The online accessibility is relevant, as the way in which students undertake research has largely become an online phenomenon, even if they still prefer to be physically located within a library setting (Cox and Benson-Marshall 2021 , 25–26). The serendipity of browsing shelves should not be underestimated, however, which is why I have recorded the shelf location of volumes: if the books are in closed areas, there will be no chance of stumbling across a potentially useful reference or case study. Obviously, some of the libraries have restricted access (e.g. Historic England and the British Museum), but generally the public are able to book a research visit.

Table 1: Library and online access metrics for selected volumes, data collected June 2024

Volume	Form	University libraries (number, location)	Other libraries (number, location)	Online, open access	Shelf location (if provided)	Online access metrics[1] as recorded in Feb 2025
Watson with Heard (2006)	Monograph	9 across UK[2]	9 across UK[3]	No	12 open; 4 closed; 1 not known	11 Google Scholar citations
Watson (2015)	Study Series	6 across UK[4]	8 across UK[5]	No	12 open; 2 closed	2 Google Scholar citations
Watson (2014)	Local journal article	N/A	N/A	Yes	N/A	3 Google Scholar citations
Watson and Pearce (2010)	Period-based national article	N/A	N/A	No	N/A	Journal metrics: 350 views, 19 citations, 3 Altmetric citations, 15 Google Scholar citations
Watson (2019)	International journal article	N/A	N/A	No	N/A	577 pdf downloads; 246 online views; 19 Altmetric citations, shared via social media 22 times, 17 Google Scholar citations
Watson (2021)	Online article	N/A	N/A	Yes (funded by EAC)	N/A	13 Altmetric citations, shared on social media 18 times, 6 Google Scholar citations

Watson and Fredheim (2022)	International journal special issue	N/A	N/A	Yes (funded by University of York)	N/A	14 Altmetric citations, shared on social media 19 times, 1637 views (reported by the journal), 5 Google Scholar citations. Metrics provided by MDPI: 1638 views, 560 downloads (June 2024)

[1] Via views and downloads (journals), and Altmetric and citation tools (Scopus, Web of Science, CrossRef)
[2] Birkbeck University of London, University of Bradford, University of Cambridge, Durham University, University of Glasgow, University of Oxford, Trinity College Dublin, University College London (UCL), University of York
[3] British Library, British Museum, Historic England, Institute of Classical Studies, The London Library, National Library of Scotland, National Library of Wales/Llyfrgell Genedlaethol Cymru, National Museums Scotland Library, Society of Antiquaries of London
[4] University of Bradford, University of Cambridge, Durham University, University of Oxford, UCL, University of Edinburgh
[5] Bishopsgate Library, British Library, British Museum, Historic England, Institute of Classical Studies, National Library of Scotland, National Library of Wales/Llyfrgell Genedlaethol Cymru, Society of Antiquaries of London

The books are sold at events and conferences, as well as via the MOLA website for publications. Sales are recorded (Table 2), and there are some clear indications of which volumes could be considered 'best sellers': predominantly those that provide detailed illustrated catalogues of specific artefact types (e.g. Egan 2005; Tomlin 2016) (these are also used by special interest groups such as metal detectorists and the re-enactor community) and those that report on cemetery excavations with integrated bioarchaeological specialist information, particularly for the medieval and post-medieval periods (e.g. Fowler and Powers 2014; Connell *et al*. 2012; Grainger *et al.* 2008). This genre includes thematic, synthetic and reference volumes (e.g. Gilchrist and Sloane 2005; Walker 2012). There is also extensive interest in volumes reporting on sites associated with William Shakespeare (e.g. Bowsher 2012) and those that have had a significant community component (e.g. Cohen and Wragg 2017); both these latter examples have been sold out in hard copy for some time.

Table 2: Print and sales figures for selected MOLA volumes (although this is not the full picture as it does not separate out the volumes distributed to libraries. See Providing access)

Volume	Print run	Volumes distributed/sold
Watson with Heard (2006)	500	247 (approx.)
Watson (2015)	500	486 (approx.)

4. Providing access

There is no standardised deposition location for books, as seen by the variable access to the two Roman volumes (Watson with Heard 2006; Watson 2015) in Bishopsgate and London libraries, where you would perhaps expect to find them (Table 1). Of relevance is the manner in which people are increasingly accessing research materials online; with university libraries providing online access to full manuscripts for download, there is less need for researchers to be physically present to study (Cox and Benson-Marshall 2021 , 16). Adopting this method provides clear benefits for those with access needs or distance learners in particular, and a hyper-linked manuscript allowing cross-referencing between figures, text and tables is obviously beneficial. It would also embed the concept of freely available research materials, which is an issue we have yet to solve. An online book funded by Bloomberg on the

Bloomberg excavations (MOLA 2017) is freely available, although citation metrics are not available because of the lack of a digital object identifier (DOI). In common with other independent research organisations, such as the Royal Botanic Gardens Kew, the National Trust and the British Museum, MOLA has recently undertaken a partnership with the British Library to provide online access to materials via a research repository, currently in beta-testing phase but due to incorporate access to much of our outputs, including primary data from fieldwork (MOLA n.d.). At the time of writing (February 2025), the online library now contains 1506 pieces of content, including some client reports and the first wholly online MOLA monograph with a DOI (Brigham and Watson 2024), with no apparent impact caused to these resources hosted by the British Library by a cyber hacking incident (British Library 2024).

Other major contracting organisations have recently provided online libraries. Oxford Archaeology now provides links to externally hosted journal articles and downloadable monographs from throughout its entire history (Oxford Archaeology n.d.), an incredibly valuable resource to researchers. It also provides client reports that are otherwise lodged with the Archaeology Data Service (ADS). Similarly, Wessex Archaeology offers an open library (Wessex Archaeology n.d.b) that provides freely downloadable monographs, and 154 reports, presumably choosing not to offer access to those replicated on ADS. Both these provisions are testament to a large amount of work behind the scenes, and it is hoped that the relevant organisations will keep an eye on numbers of downloads.

Elsewhere in the sector, Cotswold Archaeology (n.d.) provides its grey literature online, with a map showing the locations in the reports, which is a useful addition, although an advanced search using specific keywords did not turn up a major excavation I am personally familiar with, so the system is clunky. Headland Archaeology's publication page offers a couple of free pdf versions of its publications (Headland Archaeology n.d.), and dead links to Oxbow and the Society of Antiquaries of Scotland for others, as well as links to purchase others on Amazon. AOC Archaeology likewise provides pdf versions of some monographs, links to purchase options for others (some of which are dead) and a series of their grey literature reports, but there is not a searchable library facility (AOC Archaeology 2024). They do have a series of digital outputs on their website however. The frequency of dead links amongst this selection suggests that these areas of organisations' websites are not regularly monitored.

The various metrics for recording digital access and citations are not ideal for our sector, given that much of our formally published output is not allocated a DOI, so tracking their passage through the online research environment is difficult. Unhelpfully, we retain a reluctance to use DOIs even when provided (and they are provided for grey literature reports published by ADS), a situation that editors, managers and authors need to work together to turn around. Nor is there space here for a full analysis of cited works, in terms of how widely they are further used and the implications this might have for impact of professional outputs (cf. Sinclair 2022). However, many journals have a more effective digital distribution and their online presence makes them more accessible than library-held monographs.

5. Journals as outlets

Period-based journals can be particularly effective at disseminating widely results and papers based on developer-funded archaeology. *Britannia*, for example, the journal of the Society for the Promotion of Roman Studies, has an international circulation of over 8000 (both individual and institutional) and also provides some articles open access. By way of example, their website records that two of the most downloaded articles in July 2023 were papers by colleagues working in the contracting sector on projects funded by developers, or

on material that had originated from these projects (Wiseman *et al.* 2021; Redfern *et al.* 2017). As seen with the monographs, articles with a focus on bioarchaeology are widely read and appear to have a persistently applicable research interest. A glance at the metrics for an article by my MOLA colleagues, Chinnock and Marshall (2021), records impressive statistics of over 5480 views and 740 pdf downloads, and Altmetric recorded it as the highest scoring paper from *Britannia* in 2021. A useful comparison to this is another colleague's journal paper, Jeffries (2020), detailing the social history implications of a ceramic assemblage from the Spitalfields environs, at the eastern boundary of the City of London. In this, Jeffries refers to the infamous Ripper murders but weaves a narrative that avoids glorification, using the archaeologically excavated material culture to reconstruct the area during a tumultuous period. This is a paper that should have been far more widely read and is just one example of how access to our outputs is restricted by the location of their publication in geographically specific journals, with a lack of digital access for a period of years. The implication I take from this is that we should move away from print-only or restricted access journals and in-house monographs for particular types of project, and publish in journals with open access as standard to ensure a wider readership. Here I must acknowledge that I am falling for the attractions offered by the 'prestige' or 'high impact' journals, which corresponds with expectations of the Research Excellence Framework (REF) (Sinclair 2022), but if we are aiming for 'academic standard' then surely it is worth submitting papers to outlets with higher (international) readerships such as *Antiquity* (e.g. Watson 2019) if we have the appropriate material. One might expect that an online freely accessible paper (e.g. Watson 2021) would receive much higher citations and views, but this does not appear to be the case here, perhaps due to the relatively niche subject matter (other *Internet Archaeology* papers receive very high readerships, although this can be related to those that also receive exposure in the media; Judith Winters, pers. comm.).

An analysis by Sinclair (2022) indicates the breadth, depth and complexity of archaeological research, although he also highlights the lack of developer-funded reporting and publications in his dataset, due to its invisibility from online bibliographic metric systems. If we are to assess our research impact in ways similar to those used by academia, we need to be highlighting our web-based outputs by identifying metadata [at a very basic level this might be an Open Researcher and Contributor ID (ORCID)] (ORCID n.d.) so that they can be encompassed by searches of bibliometric databases. We are excluding ourselves and our work from impact metrics by failing to use these standard identifiers.

Perhaps one of the least comfortable issues surrounding access to research from developer-funded work is that we tend to charge fairly large purchase prices for monographs. Several of the online libraries offered by the contractors mentioned above (including MOLA) provide links to purchase options for such material. These often approach standard academic prices, beyond the reach of a field archaeologist certainly and probably also an interested member of the public. The cost of production has usually already been funded through the planning condition placed on the client, so this charging represents a skewed (but common) idea of worth: that the published work needs to be paid for in order to be of academic quality. This is also holding our sector back from reaching a far greater readership. Ironically, of course, most contracting employees do not have institutional access to journals or other published material, and field-based or remote colleagues will not have ready access to hard copies held in office libraries.

6. Should we adopt academic methods of reporting impact?

Colleagues in academia are well used to considering the impact of their research, with the REF system embedded in metrics and used for funding decisions within a highly competitive market. Impact is defined therein as 'an effect on, change or benefit to the economy, society,

culture, public policy or services, health, the environment or quality of life, beyond academia' (REF 2014). Usefully, Mattingly and Foster (2023) have summarised the approach of the REF2021 archaeology sub-panel, and their emphasis on partnerships, to expand the impact of research is notable. The case studies featured to accompany their article illustrate a wide range of collaboration, influence and creative methodologies at play in this complex impact landscape. However, none of the examples used is of collaborations with the contracting sector, nor are there obvious links to practice beyond developing policy or delivering training (Mattingly and Foster 2023 , 45). A deeper dive into the REF2021 case studies does provide more examples, and it may not be a surprise to find that those rare university departments with surviving contracting sections use their active fieldwork teams' expertise in their case studies. The University of Leicester is one of these, describing the contribution of their commercial arm, University of Leicester Archaeological Services (ULAS), to the scholarly reputation of the department as 'fundamental' (University of Leicester 2021 , 1). Likewise, the University of Cambridge uses its contracting section, the Cambridge Archaeological Unit (CAU), in one of its REF submissions, described as a 'key research arm' (University of Cambridge 2021 , 1), with the impact on local economic development plans and significant changes to the commercial practice of quarrying after the Must Farm excavations aspects of their work that expand the definition of research (University of Cambridge 2021 , 4). Beyond these two examples of universities with contracting sections, it becomes harder to find clear links within the REF reports, indeed some case studies misrepresent the contracting sector badly, for example this poorly worded summary, albeit from a chemistry department: 'Archaeological analysis has been legally required in the UK as a part of all commercial developments since the early 1990s ...' (University of Bristol 2021). A renowned public archaeology project from the University of Oxford merely notes the inclusion of 'heritage professionals from Oxford Archaeology' (University of Oxford 2021 , 1), although there is perhaps work to be done on the part of the contractors themselves to articulate their professional contribution more meaningfully.

There are case studies that have worked closely with curatorial services to have an impact on practice (e.g. University of Glasgow 2021). However, generally speaking the REF2021 archaeology case studies do not show a depth of engagement with the contracting sector beyond utilising the results of its fieldwork, described as 'extracting' in the REF panel reports (REF 2022 , 67). However, the REF process provides us with some useful steers: impacts are societal, cultural, environmental, legal, technological, health, political and economic, and all these are helpful ways in which we can think about our impact more specifically beyond the generic term of 'research' (there were no 2021 archaeological submissions under the last four of those categories above). There are also aspects of this that show how previously disparate areas of archaeology are increasingly moving together without any overt structural redirection, in that the academic sector is increasingly required (and happy) to provide evidence of their impact on local communities. There is much to be wary of within the REF system, however, and each cycle brings more evidence (albeit anecdotal) that academics dislike the requirements. Watermeyer *et al.* (2022) have coined the term 'affective auditing' for the REF system, which deftly communicates the toll placed on academics who must engage with an unpopular and draining system.

Looking forward, the REF system is under review for the 2028/9 round (UKRI 2023). We await further details of how the review might manifest itself in ways that could draw in the contracting sector but there is to be 'increased emphasis on research culture', more opportunity to report on impact created through 'an inclusive, diverse and collaborative research system', and an acknowledgement of 'practice-based research' (all quotes from REF 2029). This all seems positive, in that sector can work out how to maximise the

potential, wrangle public and private funding in combination, and establish appropriate research aims at project design stage to ensure societal impact.

If the aim of some archaeological research is (in part at least) to change how either our sector or wider society thinks, feels or behaves, then clearly we need to move beyond reporting bibliometric data to considering whether we have achieved this. The last two papers I used as examples (Table 1) were intended to encourage behavioural change in my sector and potentially, therefore, there would be some credit for initiatives that have been instigated since, although without that bibliographic citation this would still be open to challenge. There is currently no widely accepted way of evidencing 'societal impact' beyond participant reporting in REF case studies.

As part of my UK Research and Innovation (UKRI) funding, I and my research team commissioned the services of Impact Social Value Reporting to allow us to record and report on how our work impacts on the intended beneficiaries (Impact Reporting n.d.). This system broadly follows those used within construction and other sectors, which focus heavily on procurement and supply chain behaviours, but is flexible enough to allow us to include new metrics and new workflows, such as research-led outputs. This is currently experimental but is intended to provide a new model for reporting social and economic impact through archaeology, whereby we consider how our work has affected communities, clients and colleagues. We can use regional, national or international frameworks such as local plans (e.g. Tower Hamlets 2020) or The United Nations (UN) Sustainable Development Goals (United Nations 2021) to report progress. An additional research-specific aspect of this work is including communities in the research, thereby enabling the impact on them to be measured and evaluated.

The impact on knowledge that developer-funded archaeology has made has been widely celebrated (Historic England 2015a ; Historic Environment Forum 2023, 64; British Academy 2016), but it is unclear how much of this has been adopted into public discourse. Examples could be the population data we now have regarding all periods of the past, but particularly mobility in the prehistoric periods (e.g. Historic England 2015a , 8–10; Hey 2021), and we claim that Britain is one of the best understood provinces of the Roman Empire (Historic England 2015a , 20). Understood by us as archaeologists certainly, but we do not really fully understand how far this knowledge has percolated through to school curricula or into the general knowledge of the wider population. It is a rare find indeed that ends up in the commonly distributed curricula with the embedded educational impact that it will provide. A notable example is the Amesbury Archer, a richly furnished Bronze Age burial found during housing development work near Salisbury (Wessex Archaeology n.d.a). The discovery of the archer and the well-recounted tale of that discovery resulted in his addition into the National Curriculum for Key Stage 2 (ages 7–11) (Harris 2023), which in turn led to a plethora of online and other educational materials from organisations including the BBC and *The Times Educational Supplement*. These are likely to have been supported by the production of an illustrated book for children that unusually communicated the complexity and international aspects of the archer to a young audience (Brayne 2016).

7. Identifying research impact

Research has been considered a core public benefit of our work, but, as has been argued by Fredheim and Watson (2023 , 20–21), this concept is poorly defined and often mistaken for professional obligation, given that the planning framework operates as a public service in the UK, so people can assume that outputs from that system are naturally providing public benefit. As I tend to disagree with this narrow interpretation, I see the benefit that might come from research if it is considered to be less about the outputs *per se*, and more about

the research-led process by which the impact is created. This means the involvement of people as key collaborators, the use of new technologies, the addition of creative practice, and any other method by which one might make impact. This is where the societal impact might become apparent, where previously it has been so difficult to identify, and in fact there has been progress in these areas, but we have not been consistent in reporting on it or evaluating its success. Contracting archaeology has long attempted to identify as an academic pursuit when in fact much of our work is not research-led in the same way that a research excavation would be, and the lack of cross-sector collaboration and data sharing has been an issue without resolution for so long that it seems worth considering alternatives.

In a project design sense, setting impact mechanisms and establishing metrics by which you measure success requires a longitudinal approach. We need to be setting our aims at the earliest stages of a project and sticking to them in order to evidence impact. These aims should incorporate a combination of scales that encompass archaeological and/or societal aims: local, to reflect the impact of development on local communities; regional, to reflect research agendas and landscape-scale study; and national or wider, to reflect the structures development works within, such as the aforementioned UN Sustainable Development Goals, which should be applied more rigorously in a UK context (United Nations 2021). We should also avoid the assumption that impact will include the wider public developing knowledge of facts and figures that are familiar to us; the reality is that research impact is far more nuanced and often due to tacit knowledge, i.e. cannot be formally measured or acknowledged, but instead becomes known through a famous case study, repetition or participation. Tacit knowledge is also fundamental to archaeological research impact, as it incorporates a degree of participation that other academic areas may not be able to provide.

8. Towards a new impact model for developer-funded archaeology projects and publications

I propose that contracting archaeology avoids falling into the various publication pitfalls of other occupations and, as a relatively young sector, takes the opportunity to divert to a new path. Developing new approaches tends to involve extensive consultation, during which the potential of singularly meaningful ideas can be watered down. It is also true that guidance and procedures can stagnate rather than innovate, given that, as soon as they are put down on paper, they suffer the same fate as previously: of becoming reference items rather than opportunities for reflection and reinvention.

The complex challenge of providing public benefit through archaeology can take many forms, but it is likely (in my opinion) that current methods are not embedding this in our work outputs. To really appreciate the urgent need and moral obligation, we need to revise our methods and, ideally, consult with our intended audiences as to what they would find usable and useful. It might be that none of our current methods is either usable or useful, but we need to be ready for that conversation. Ultimately the issue of 'research-driven archaeological projects providing public benefit' (Wills 2018 , 35) might in itself be further confusing the issue. Do these two things combine to form a whole? Or should they be separated to allow archaeology to define which one (or ideally which aspects of which one) we are aiming for from specific projects? The impact of our work should be seen through the prism of the beneficiaries, and that will generally be the wider public, ideally defined further within project designs. Research aims for these projects might focus on impacts on this wider public, rather than solely on chronological narratives. We often rail that we cannot influence how people actually think about archaeology, that its central technical aspects get sidetracked in favour of artefact-focused stories of treasure and discovery. But this denies the fact that there is generally a reasonable standard of understanding amongst some communities, for example those who might utilise archaeology to try and stop developments

in their local area (known colloquially as NIMBYs: 'not in my back yarders'). This is surely a major impact of our work, whether it is an intended one or not. Mitchell *et al.* (2022) identify this as tacit knowledge and acknowledge that, while it is very hard to measure, it might be one of the most impactful areas of research, particularly for occupations involving some form of 'performance' (here meaning observed specific behaviours such as excavation).

The principal planning framework within which developer-funded archaeology operates is one of local scale and, when combined with regional research frameworks, this naturally leads to the revision of site-specific strategies according to the significance and research priority of the archaeology expected within a locality. Rigid adherence to standard expectations of sampling strategies (for example) could result in potentially 'redundant information' (Holbrook and Fulford 2018 , 5–6), but an innovative rethinking of research in this context could mean sites and areas considered less significant for their archaeological potential might be used instead for wellbeing- or societal-led research, utilising archaeology as a process rather than as an end result, to provide impact in ways that can be measured, and which would serve as advocacy for the value of archaeology itself. This would enable us to consider local community research interests alongside traditional ones, and open up the processes themselves of both fieldwork and analysis to incorporate wider research themes.

By way of example, and with the obvious benefit of hindsight, if some of the projects identified in Table 1 (Watson with Heard 2006; Watson 2014; Watson 2015) had taken a different approach, their research impact would have perhaps been greater. The research aims for these could have included how the findings contributed to wider public benefit outcomes, such as contributing to educational curricula, expanding general knowledge of specific aspects such as migrant activity within the pre-Boudican Roman horizons, for example (as multi-phase intra-site volumes tend to lose these details), or providing input to local cultural heritage, tourism or health and wellness initiatives. These publications could now be made free and openly accessible, with a DOI on downloadable pdfs. In future we could consider publishing only discrete aspects of a project and providing online datasets for the rest. As a contracting sector, we have not been radical enough in how we visualise this public benefit concept, although there have been exemplar research projects showing how many of our standard methodologies can incorporate participatory or inclusive design and practice [for example, geoarchaeology (Tully and Allen 2017), fieldwork (York Archaeology n.d.) and archiving (Corsini and Davis 2010)]. As a concluding note, the High Speed Two (HS2) Historic Environment Research and Delivery Strategy did include research aims that strayed from the norm, including community engagement thematic aims (HS2 Ltd 2017 , 60–63). It is as yet unclear how these will be drawn into the post-excavation and dissemination phase, as that has not yet commenced, but impact evaluation seen on HS2 previously has been traditional in method and scope (Fredheim and Watson 2023 , 58–9) so it is to be hoped that this next phase will open up a wider conversation.

9. Some final recommendations

- Consider the archaeological process itself as a critical source of research impact, and consider using this to provide public benefit for communities, through participation or creative activities using the archaeological project.
- Use an expanded definition of impact in our contracting projects: how does the archaeology expected and/or discovered potentially contribute to local or regional plans to improve the societal, cultural, environmental, health or economic situation for local communities?

- Consider publishing material that might have been grey literature previously but that, when taken with other nearby projects, provides a regional or thematic synthesis of interest to a wider audience. Local partners can be sought for this, for example libraries and council leafleting.

To be clear, none of these proposals requires a major overhauling of any of the current systems in place. This is Carver's (2011) 'social context' brought into the contracting sphere, where the level of funding, the inherently local context for archaeological work on development sites and regularity of projects, should all be utilised to encourage a new way of thinking about how 'research' works within the developer-funded system and how to maximise its impact.

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Bibliography

AOC Archaeology 2024 'Publications', AOC [website]. https://www.aocarchaeology.com/publications [Last accessed: 11th February 2025]

Archaeological Archives Forum. n.d. 'The Forum', AAF [website]. https://archives.archaeologyuk.org/ [Last accessed: 10 July 2023]

Bowsher, J. 2012 *Shakespeare's London Theatreland: Archaeology, History and Drama*, London: MOLA.

Brayne, J. 2016 *Archer, Journey to Stonehenge*, Wiltshire: Small Boat Books

Brigham, T. and Watson, B. 2024 *Early Roman Waterfront Development: Excavations at Regis House, City of London, 1994–6*, London: MOLA. https://doi.org/10.48583/j7n8-vh88

British Academy 2016 *Reflections on Archaeology*, London: British Academy. https://www.thebritishacademy.ac.uk/publications/reflections-archaeology [Last accessed: 10 July 2023]

British Academy 2023 'British Academy and Academy of Social Sciences join forces to reveal the impact of the arts, humanities, and social sciences across the UK', British Academy News [website] 26 January 2023. https://www.thebritishacademy.ac.uk/news/british-academy-and-academy-of-social-sciences-join-forces-to-reveal-the-impact-of-the-arts-humanities-and-social-sciences-across-the-uk/ [Last accessed: 12 July 2023]

British Library 2024 'Cyber-attack update', British Library [website]. https://www.bl.uk/cyber-incident/ [Last accessed: 12 July 2024]

Bryant, S., Evans, C., Gosden, C., Cummings, V., and Gardner, A. 2024 'The Promotion of Archaeological Syntheses', Paper produced for 21st Century Challenges in Archaeology, https://historicengland.org.uk/content/docs/research/promotion-archaeological-syntheses/ [Last assessed: 11th February 2025]

Carver, M. 2011 *Making Archaeology Happen: Design vs Dogma*, California: Left Coast Press

Council for British Archaeology (CBA) 2024 'Trowel and Error', CBA [website]. https://www.archaeologyuk.org/our-work/projects/trowel-and-error.html [Last accessed: 11th February 2025]

Chinnock, C. and Marshall, M. 2021 'An unusual Roman fettered burial from Great Casterton, Rutland', *Britannia* **52**, 175–206. http://dx.doi:10.1017/S0068113X21000076

CIfA 2020 'Standard and Guidance: Appendices', CIfA [website], London: Chartered Institute for Archaeologists (CIfA). https://www.archaeologists.net/sites/default/files/CIfAS%26GAppendices_2.pdf [Last accessed: 29 June 2023]

CIfA 2021 '21st Century Challenges for Archaeology', CIfA [website], London: Chartered Institute for Archaeologists (CIfA). https://www.archaeologists.net/projects/21st-century-challenges-archaeology [Last accessed: 12 July 2023]

CIfA 2023 'Universal Guidance for Archaeological Excavation', CIfA [website], Reading: Chartered Institute for Archaeologists (CIfA). https://www.archaeologists.net/sites/default/files/Universal%20guidance%20for%20archaeological%20excavation.pdf [Last accessed: 14 September 2024]

Cohen, N. and Wragg, E. 2017 *The River's Tale: Archaeology on the Thames Foreshore in Greater London*, London: MOLA.

Connell, B., Gray Jones, A., Redfern, R. and Walker, D. 2012 *A Bioarchaeological Study of Medieval Burials on the Site of St Mary Spital: Excavations at Spitalfields Market, London E1, 1991–2007*, MOLA Monograph Series **60**, London: MOLA

Corsini, A. and Davis, G. 2010 *Volunteer Inclusion Programme*, Museum of London: Renaissance London

Cotswold Archaeology. n.d. 'Archaeological Reports Online', Cotswold Archaeology [website]. https://reports.cotswoldarchaeology.co.uk/ [Last accessed: 12 July 2024]

Cox, A. M. and Benson-Marshall, C. 2021 Drivers for the Usage of SCONUL Member Libraries, SCONUL Research Project. Sheffield: University of Sheffield. https://www.sconul.ac.uk/knowledge-hub/space-and-design/resources-and-links/ [Last accessed: 29 June 2023]

Donnelly, V. 2016 *A Study in Grey: Grey Literature and Archaeological Investigation in England 1990 to 2010*, DPhil Thesis, University of Oxford. https://ora.ox.ac.uk/objects/uuid:9dc84f2d-af55-4d77-ae18-12fe2eefde1b

Egan, G. 2005 *Material Culture in London in an Age of Transition: Tudor and Stuart Period Finds c 1450–c 1700 from Excavations at Riverside Sites in Southwark*, MoLAS Monograph Series **19**, London: MoLAS.

English Heritage 1991 *Management of Archaeological Projects 2*, London: Historic Buildings and Monuments Commission for England,

Evans, T.N.L. 2015 'A reassessment of archaeological grey literature: semantics and paradoxes', *Internet Archaeology* **40** https://doi.org/10.11141/ia.40.6

Fowler, L. and Powers, N. 2014 *Doctors, Dissection and Resurrection men: Excavations in the 19th Century Burial Ground of the London Hospital, 2006*, MOLA Monograph Series **62**, London: MOLA.

Fredheim, H. and Watson, S. 2023 *Understanding Public Benefit from UK Development-led Archaeology*, London: MOLA. https://doi.org/10.48583/jjhm-je58

Gilchrist, R. and Sloane, B. 2005 *Requiem: The Medieval Monastic Cemetery in Britain*, London: MoLAS.

Grainger, I., Hawkins, D., Cowal, L. and Mikulski, R. 2008 *The Black Death Cemetery, East Smithfield, London*, MoLAS Monograph Series **43**, London: MoLAS.

Harris, R. 2023 'The Amesbury Archer', Historical Association [website]. https://www.history.org.uk/publications/resource/10613/the-amesbury-archer [Last accessed 11th February 2025]

Headland Archaeology n.d. 'Publications', Headland Archaeology [website]. https://headlandarchaeology.com/about-us/publications/ [Last accessed: 12 July 2024]

Hey, G. 2021 'Transforming our understanding of the human past – the results of development-led archaeological investigation', Historic England [website], 18 January 2021. https://historicengland.org.uk/whats-new/debate/understanding-human-past/ [Last accessed: 11 July 2024]

Historic England 2015a *Building the Future, Transforming our Past: Celebrating development-led archaeology in England, 1990–2015*, Swindon: Historic England. https://historicengland.org.uk/images-books/publications/building-the-future-transforming-our-past/building-future-transforming-past/ [Last accessed: 12 July 2023]

Historic England 2015b *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide* [Edmund Lee, re-issue of a 2006 document], London: Historic England.

Historic Environment Forum 2023 'Historic Environment Overview 2022–23', Historic England [website]. https://historicengland.org.uk/content/heritage-counts/pub/2023/historic-environment-overview-2022-23/ [Last accessed: 12 September 2023]

Holbrook, N. and Fulford, M. 2018 'Relevant beyond the Roman period: approaches to the investigation, analysis and dissemination of archaeological investigations of the rural settlements and landscapes of Roman Britain', *Archaeological Journal* **175**(2), 214–230. https://doi.org/10.1080/00665983.2017.1412093

HS2 Ltd 2017 *Historic Environment Research and Delivery Strategy: Phase One* https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/642655/hs2_phase_one_historic_environment_research_and_delivery_strategy.pdf [Last accessed 11th February 2025]

Impact Reporting n.d. 'Social Value Reporting Software', Impact Reporting [website], Manchester: Impact Social Value Reporting Ltd. https://impactreporting.co.uk/social-value-measurement-tool/ [Last accessed: 23 July 2023]

Jeffries, N. 2020 'Looking beyond the Ripper: reconstructing Dorset Street and White's Row, Spitalfields, London E1, an archaeological history of two East End streets, 1673–1927', *London and Middle Archaeological Society Transactions* **71**, 267–349. https://www.lamas.org.uk/archives/23-transactions/298-transactions-vol71.html

Jones, S., MacSween A., Jeffery, S., Morris, R. and Heyworth, M. 2001 *From the Ground Up The Publication of Archaeological Projects: A User Needs Survey*, York: Council for British Archaeology.

Mattingly, D. and Foster, S. 2023 'This is archaeology: impacting heritage, landscapes and lives', *British Archaeology*, January-February 2023, 44–51. https://www.archaeologyuk.org/resource/open-access-article-this-is-archaeology-impacting-heritage-landscapes-and-lives.html [Last accessed: 23 July 2023]

Mitchell, V.-W., Harvey, W. S. and Wood, G. 2022' Where does all the 'know how' go? The role of tacit knowledge in research impact', *Higher Education Research & Development* **41**(5), 1664–1678. https://doi.org/10.1080/07294360.2021.1937066

MOLA. 2017 *Archaeology at Bloomberg*, London: MOLA. https://www.londonmithraeum.com/about/ [Last accessed: 23 July 2023]

MOLA. n.d. 'Research Repository', MOLA [website], London: MOLA. https://mola.iro.bl.uk/?locale=en [Last accessed: 11 October 2023]

Nixon, T. 2017. *What about Southport? A report to CIfA on progress against the vision and recommendations of the Southport Report (2011), undertaken as part of the 21st-century challenges in archaeology project*. PDF [Last accessed: 12 July 2024]

ORCID. n.d. 'About ORCID', ORCID [website] https://info.orcid.org/what-is-orcid/ [Last accessed: 11th February 2025]

Oxford Archaeology n.d. 'Knowledge Hub' OA [website] , Oxford: Oxford Archaeology Ltd. https://knowledge.oxfordarchaeology.com/explore [Last accessed: 11 July 2024]

Redfern, R., Marshall, M., Eaton, K. and Poinar, H. 2017 "Written in bone': new discoveries about the lives and burials of four Roman Londoners', *Britannia* **48**, 253–277. https://doi.org/10.1017/S0068113X17000216

REF 2014 'Research Excellence Framework Impact', Bristol: Research England. https://re.ukri.org/research/ref-impact/ [Last accessed: 12 July 2023]

REF 2022 'Overview Report by Main Panel C and Sub-panels 13 to 24', Bristol: Research England. https://2021.ref.ac.uk/media/1912/mp-c-overview-report-final-updated-september-2022.pdf [Last accessed: 12 July 2023]

REF 2029 'Guidance, Section 1: Overview', https://2029.ref.ac.uk/guidance/section-1-overview/#section-key-changes-for-ref-2029 [Last accessed 11th February 2025]

Sinclair, A. 2022 'Archaeological research 2014 to 2021: an examination of its intellectual base, collaborative networks and conceptual language using science maps', *Internet Archaeology* **59**. https://doi.org/10.11141/ia.59.10

Tomlin, R. 2016 *Roman London's First Voices: Writing Tablets from the Bloomberg Excavations, 2010–14*, MOLA Monograph Series **72**, London: MOLA.

Tower Hamlets 2020 Tower Hamlets Local Plan 2031: Managing Growth and Sharing Benefits, London: Tower Hamlets Council. https://www.towerhamlets.gov.uk/lgnl/planning_and_building_control/planning_policy_guidance/Local_plan/local_plan.aspx [Last accessed: 11 July 2024]

Trow, S. 2018 'Archaeology and the state we're in: defining a role for Historic England in the archaeological practice of the twenty-first century', *The Historic Environment: Policy & Practice* **9**(2), 83–101. https://doi.org/10.1080/17567505.2018.1456718

Tully, G. and Allen, M. J. 2017 'Participatory augering: a methodology for challenging perceptions of archaeology and landscape change', *Public Archaeology* **16**(3–4), 191–213. https://doi.org/10.1080/14655187.2018.1496519

UK Government 2023 *National Planning Policy Framework*, London: Ministry of Housing, Communities and Local Government. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1182995/NPPF_Sept_23.pdf [Last accessed: 12 July 2023]

UKRI (UK Research and Innovation) 2023 'Early decisions made for REF 2028', News, 15 June 2023, UKRI [website] https://www.ukri.org/news/early-decisions-made-for-ref-2028/ [Last accessed 11th February 2025]

United Nations 2021

Sustainable Development Goals

, New York: United Nations. https://sdgs.un.org/goals [Last accessed: 20 March 2024]

University of Bristol 2021 'Organic Residue Analysis Delivers a Step Change in Knowledge Generation from Commercial Archaeology', Impact Case Study Database: REF2021 [website]. https://results2021.ref.ac.uk/impact/dd3c6992-45a5-4842-b049-a3a4c20a8c13?page=1 [Last accessed: 12 July 2023]

University of Cambridge. 2021 'Archaeology, Development and the Public in the East of England: The Cambridge Archaeological Unit, Impact Case Study Database: REF2021 [website]. https://results2021.ref.ac.uk/impact/32bfa746-fc31-46fd-83c9-829ce802cebd?page=1 [Last accessed: 12 July 2023]

University of Glasgow 2021 'Setting Scotland's first national Archaeology Strategy', Impact Case Study Database: REF2021 [website]. https://results2021.ref.ac.uk/impact/46257d0c-5e07-4eed-a6f2-18a84b40c394?page=1 [Accessed: June 2023]

University of Leicester 2021 'Roman Worlds for Diverse Communities: Bringing Archaeology and Classics to New Audiences', Impact Case Study Database: REF2021 [website]. https://results2021.ref.ac.uk/impact/59acf68b-7162-4427-aeb7-1c2cc6d879eb?page=1 [Last accessed: 12 July 2023]

University of Oxford 2021 'Archeox: Developing Archaeological Understanding and Heritage Capacity in the East Oxford Community', Impact Case Study Database: REF2021 [website]. https://results2021.ref.ac.uk/impact/f291d2a1-d5e8-442e-86fd-e303c4f13f62?page=1 [Last accessed: 12 July 2023]

Walker, D. 2012 *Disease in London, 1st–19th Centuries: An Illustrated Guide to Diagnosis*, MOLA Monograph Series **56**, London: MOLA.

Watermeyer, R., Derrick, G.E. and Batalla, M. B. 2022 'Affective auditing: the emotional weight of the research excellence framework', *Research Evaluation* **41**(4), 498–506. https://doi.org/10.1093/reseval/rvac041 [Last accessed: 12 July 2023]

Watson, S. 2014 'Excavations at 6-12 Basinghall Street and 93-95 Gresham Street, City of London, EC2', *London and Middle Archaeological Society Transactions* **65**, 185–220.

Watson, S. 2015 *Urban Development in the North-West of Londinium: Excavations at 120-122 Cheapside to 14-18 Gresham Street, City of London, 2005–7*, MOLA Archaeology Studies Series **32**, London: MOLA.

Watson S. 2019 'Whither archaeologists? Continuing challenges to field practice', *Antiquity* **93**(372), 1643–1652. https://doi.org/10.15184/aqy.2019.141

Watson, S. 2021 'Public benefit: the challenge for development-led archaeology in the UK', *Internet Archaeology* **57**. https://doi.org/10.11141/ia.57.1

Watson, S. and Fredheim, H. 2022 'Value from development-led archaeology in the UK: advancing the narrative to reflect societal changes', *Sustainability* **14**, 3053. https://doi.org/10.3390/su14053053

Watson S. and Pearce, J. 2010 'Taverns and other entertainments in the City of London? Seventeenth- and 18th century finds from excavations at Paternoster Square', *Post-Medieval Archaeology* **44**(1), 172–208. https://doi.org/10.1179/174581310X12662382629337

Watson, S. with Heard, K. 2006 *Development on Roman London's Western Hill: Excavations at Paternoster Square, City of London*, MoLAS Monograph **32**, London: MoLAS.

Wessex Archaeology. n.d.a 'The Amesbury Archer', Wessex Archaeology [website], Salisbury: Wessex Archaeology. https://www.wessexarch.co.uk/our-work/amesbury-archer [Last accessed: 12 July 2023]

Wessex Archaeology. n.d.b 'Open Library', Wessex Archaeology [website], Salisbury: Wessex Archaeology. https://wessexarchaeologylibrary.org/ [Last accessed: 11 July 2024]

Wills, J. 2018 *The World after PPG16: 21st Century Challenges for Archaeology*, London: Chartered Institute for Archaeologists (CIfA). https://www.archaeologists.net/sites/default/files/projects/21st-century%20Challenges%20for%20Archaeology%20project%20report%20October%202018.pdf [Last accessed: 12 July 2023]

Wiseman, R., Neil, B. and Mazzilli, F. 2021 'Extreme justice: decapitations and prone burials in three late Roman cemeteries at Knobb's Farm, Cambridgeshire', *Britannia*, **52**, 119–173. https://doi.org/10.1017/S0068113X21000064

York Archaeology. n.d. 'Archaeology on Prescription' [website], York: York Archaeology. https://community.yorkarchaeology.co.uk/index.php/archaeology-on-prescription/ [Last accessed: 12 July 2023]