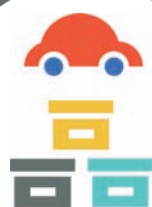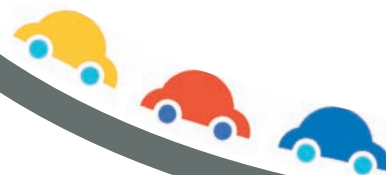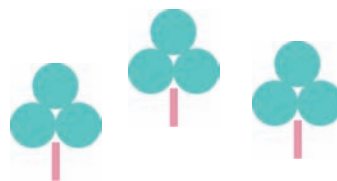# Understanding Public Benefit from Development-led Archaeology

Harald Fredheim and Sadie Watson

UK Research and Innovation

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Preface

I have always believed in the power of archaeology to educate, entertain and transform, however individual encounters might occur. It matters not how you frame your own participation, all the fundamental reasons for seeing the value in looking into the past to better understand how we live today are of relevance. The rigour and depth offered by archaeological methods are profoundly transferable and provide the framework within which we can progress our work towards a more socially responsible and participatory occupation. The political background to this is one of embedded inequality but as archaeology is by its very nature a political endeavour, in the last years of my fieldwork career I came to understand the influence of my own work and redirect my efforts towards making a more positive impact.[1]

This literature review is intended to provoke meaningful discussions on how we can better ensure public benefit from development-led archaeology. It sets the course for the rest of this research project[1], providing the theoretical and pragmatic background to the direction the work will follow. This document is predominantly aimed at archaeologists, framed largely within our position as contractors on development projects. Specific challenges within the wider spheres of heritage management and historic building conservation are not discussed at length, to avoid confusing our primary focus which is based on my own career within the commercially competitive structures provided by planning guidance. These frameworks identified the idea of *preservation in situ* as the priority, whereby only archaeology impacted by development is excavated, defined as *preservation by record*. There are reviews underway of the current planning system in England but the central challenge remains. Issues surrounding the denial of research- and quality-led work by this system are touched on here but our review expands upon these problems to incorporate other complexities such as how to square our belief that knowledge creation is a key public benefit, while acknowledging a perceived lack of focus over what knowledge is created and how it is used or shared. The lack of definitive impact reporting for this knowledge creation is a recurring theme.

The discussions here are largely framed within the context of English frameworks and practice, as differences in operating systems between the four home nations of the UK rendered analysis within this single document difficult. Having said that, the overarching challenges are universally applicable. We have become experts at operating within construction projects, but this still doesn't sit well with many archaeologists; this document expands on the reasons for this discomfort. Construction provides the framework within which the vast majority of archaeological work is undertaken and as a sector it has a more established understanding of the obligation to provide public benefit or social value. I make no apology for taking a pragmatic approach to existing funding models, the power inherent in project initiation and close collaboration with the construction sector, all of which have been a source of frustration throughout my career.

There are other voices we should be listening to, requiring a meaningful commitment to hearing what they say and acting upon that to divert our outcomes where needed. The implication for meaningful contributions from archaeology is clear, if it is framed as providing positive impetus for change and innovation. This is really about embedding the value that archaeology can provide into contexts beyond our traditional environments which requires a dynamic change in how we frame our work and benefits arising from it. I believe that this review provides that stimulus.

How can change happen? This review provides the framework within which change can be developed. Further work could be a balance between pragmatic business decisions and optimistic creativity but should always involve an interrogation of accepted procedures and approaches to justify decisions about impact and benefit. Doubtless we do need to reassess what we think archaeology is, or could be. This will be challenging and unsettling. In a developing profession we have been keen to retain the structural frameworks that protect our work. Of course it is these structures that we need to adapt, which will require bravery and inventive approaches.

Crucial to any progressive action is the need to meaningfully evaluate its impact, and this document concludes with provocations as to why we need to assess the efficacy and benefit of all aspects of our work. It requires us to take an outcome-led approach to project management from the very outset and to appreciate that those outcomes shouldn't always be determined by archaeologists.

The next phase of our work will open up this debate for further input. We have invited various publics to contribute their views on our work and through this will design approaches for further consideration.[1]

Lastly, a word about the principal author Dr Harald Fredheim, who has infused this review with both his academic rigour and his belief in archaeology as a potential force for good. This document is much the better for that.

Dr Sadie Watson
UKRI Future Leader Fellow

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[1] If you would like to be keep up to date with news of the project please sign up here: https://ow.ly/sQwh50JBl9S
    https://www.mola.org.uk/archaeology-and-public-benefit-ukri-future-leaders-fellowship

Introducing the structure and content of the report

The academic literature on the relationship between archaeology and the public, often termed public archaeology, has grown exponentially over the past few decades. The main purpose of this literature review report is not to attempt to document and synthesise this field, though much of the literature we do cite, especially in Part 1, can be classed as public archaeology. Instead, the focus of this report is to outline current thinking in the published literature relating to the idea of public benefit – both within archaeology and in a series of other disciplines that we refer to as 'comparators' in this report. As we outline on the following pages, while much of the literature on public archaeology is related to the idea of public benefit, most published work in the field does not address the concept explicitly. As a result, we decided to not conduct a 'systematic' review of publications on public archaeology and instead write a 'narrative' review that synthesises current thinking around a series of key ideas that we believe, taken together, shed light on implicit understandings of public benefit.[2] Our focus is on the UK, and England in particular, but we draw on international literature, especially in helping us consider how we might think differently.

By reflecting critically, and explicitly, on how we think about public benefit as archaeologists, we hope this review can play a part in moving our thinking in this area forward together. As such, the primary purpose of this document is internal – to develop our own understanding of what public benefit could mean in the context of development-led archaeology and inform the future work of the UKRI Future Leaders Fellowship. Our secondary and tertiary audiences are our colleagues within archaeology and beyond who share our belief that our practices should deliver public benefit and that in order to maximise benefits to various publics, we must first transform what we understand public benefit to mean and then learn to measure and evaluate the benefits we deliver in order to identify how we can improve. We believe that without understanding there can be no improvement and so this is where we must begin.

Following this introduction and a brief note on terminology, the remainder of this report is divided into three Parts. Part 1 synthesises literature relating to how public benefit is understood and evaluated within archaeology, with a particular focus on the development-led sector. It is worth noting that while the vast majority of archaeological work in the UK is funded by developers or infrastructure grants, most of the published literature is written by academics, who do not work in this sector. It is fair to say that development-led archaeology is underrepresented as both a source of data and topic of discussion in this literature. Crucially, most of the literature that explicitly addresses archaeology and public benefit focuses on community archaeology, which is generally considered to have little in common with development-led archaeology. Nevertheless, we attempt to highlight ideas from community archaeology that we find helpful in thinking about how development-led archaeology might attempt to foreground public benefit. Part 1 begins with an introduction to development-led archaeology, followed by thematic sections on understanding public benefit, publics and evaluation that are interspersed by spotlights on

2   Greenhalgh, Thorne, and Malterud, 'Time to Challenge the Spurious Hierarchy of Systematic over Narrative Reviews?'

sector bodies, charitable and non-charitable archaeological organisations and the evaluation framework developed by DigVentures. In each of the thematic sections, the published literature has been organised into a 'textbook answer' and 'critics corner' that give rise to a 'key question', to which we respond with a series of 'ideas' that in turn raise several 'questions we are taking forward'. In this way, we hope to represent the nature of the ongoing dialogues and debates around the topics we touch on and position this report as one that moves these conversations forward and invites further reflection and debate without attempting to impose definitive answers.

In Part 2 we provide a series of two-page snapshots from comparator fields of practice, in which we attempt to briefly introduce how they understand and evaluate public benefit before offering short reflections on how each might help shape our approaches to maximising public benefit in development-led archaeology. The comparators we introduce are infrastructure, construction and housing, ecosystem services, arts and culture, wellbeing, international development and higher education. Each of these fields have substantial bodies of published literature that arguably warrant a report of this size. As a result, what we attempt to do in Part 2 is not to summarise the academic literature on each of these topics, but instead provide the briefest of introductions, in order to provide a broader context for how we might approach developing frameworks and practices for embedding the delivery and measurement of public benefit in our own work.

Having looked inward in Part 1 to challenge our implicit assumptions about archaeology and public benefit and looked outward in Part 2 to comparator fields in order to broaden our perspectives and learn from experience with public benefit in other disciplines, we turn in Part 3 to considering how we can embed archaeological perspectives on public benefit in the broader systems of practice development-led archaeology sits within. We do this by reflecting on Sadie's experience of attempting to embed archaeology, and herself, in the work of two major infrastructure and construction initiatives, High Speed Two and the Construction Innovation Hub. We draw on these experiences to illustrate the importance of having strong understandings both of how archaeology can deliver public benefit and of the public benefit frameworks within which the infrastructure and construction sectors operate in order to advocate for archaeology to have a larger role in shaping how public benefit is understood and delivered. In doing so, we outline how the work of this Future Leaders Fellowship will be moving forward to measure, maximise and transform public benefit from development-led archaeology and invite you to join us in working toward this end.

A note about terminology

Archaeologists are masters in the use of acronyms and our work is peppered with technical language. There are a few phrases we want to define as much for ourselves as for our readers, to explore how the use of these can be a barrier to our understanding of the contexts within which we operate.

Traditionally **archaeology** itself is often defined as the study of material remains of past human activity, leading to increased understanding of the past. What some of us believe we are actually doing as archaeologists is studying people, using a wide range of techniques adapted in collaboration with many other disciplines to create an impression of how we have lived and continue to live within a world that has been shaped by people. The only limits to the potential of this are placed on archaeology by those who practice it. Archaeology is a crucial tool by which the historic environment is transported into the myriad benefits it provides.

When we talk about **development-led archaeology** we are talking about work that happens during the planning process, and the figure on pages 12–13 shows how a standard project will progress through this system. The relevant planning guidance is Planning Policy Guidance 16,[3] updated in the National Planning Policy Framework.[4] These frameworks place requirements on developers to ensure that any buried archaeology, historic buildings or other aspects of heritage are studied, removed if necessary and reported on, all to be funded by the developer whether this is a private company, a public sector department or an individual. This system provides us the chance to record, excavate and analyse archaeology on construction sites, and theoretically applies equally to office blocks in urban centres and private conservatory extensions, if archaeology is encountered. The system of excavation and recording prior to its destruction has been termed **preservation by record**. The alternative is **preservation in situ**, whereby archaeology is protected on the site, with engineering solutions required to facilitate this. The onus is placed on preservation rather than removal by excavation. This means that in practice, archaeology preserved in situ may not be of particular significance but is nevertheless protected to avoid its destruction. This often results in partial excavation, with deposits and features being removed where they occur within the development footprint and left untouched where they don't.

This system has been framed as **mitigation** – the provision of alternative ways of 'preserving' archaeology through excavation, recording and archiving. This denies the fact that excavation is destructive and it is impossible to mitigate this destruction. Recently sector terminology has started to evolve towards an understanding of **offsetting**, whereby we acknowledge that we can't replace excavated material through records, but instead are attempting to provide some from of compensation for the loss through the interpretative process of archaeology. This concept should require us to justify destructive excavation through a considered and honest appraisal of how the archaeological work will offset destruction, in terms of how meaningful the benefit created by the offsetting is intended to be. This of course includes **knowledge creation** but as this document shows, we think that we should also consider other ways of thinking about what archaeology can provide.

[3] DoE, *Planning Policy Guidance 16*
[4] HCLG, *National Planning Policy Framework*

The use of the word **public** is loaded with implications and can be problematic. Here we use **publics**, to illustrate the fact that we are not referring to only one constituency, and that publics can be communities of place, communities of interest, communities linked by shared background, belief, language, occupation or indeed any other shared circumstances.

When we talk about **public benefit** we intend that its definition is a socially inclusive legacy, however this is achieved. In the context of charitable organisations this can be specifically identified (for example in relation to one of the groups of publics mentioned above) or it can relate to the functions of an organisation, for example the provision of educational materials or health services. In archaeology the term has been taken to refer to knowledge gain through archaeology, but there is clearly room for significant expansion beyond this focus as our document shows.

For the purposes of this review, and for the UKRI research more generally, public benefit is very much considered to be **social value** provision. Social value is defined as social, environmental and economic benefit.

The debate over **public benefit** is inevitably bound up within the wider contexts of **public engagement** and **public archaeology**, neither of which are really the focus of this document. Public engagement suggests a passive role on the part of the public, that they are being 'engaged with' rather than participating themselves in a meaningful way. Public archaeology should mean archaeology undertaken by, and for, the public. We accept that there are alternative definitions of both terms and have defined them here for the purposes of this document.

Understanding and evaluating public benefit in development-led archaeology

Textbook answer summaries of how we understand the official or mainstream sector position

Critics corner syntheses critiques archaeologists have offered of established theory and practice relating to each topic

Ideas from the archaeological literature we find helpful for moving the conversation forward

Unresolved questions we invite you to consider along with us
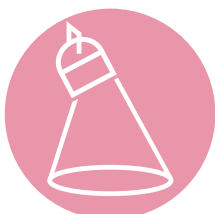
Spotlight on various sector organisations and an aspect of their work

1 Developer appoints **consultant**, who approaches **local authority archaeologist** and invites **contractors** to tender.

2 **Contractors** tender, often separately, for each part of the process.

3 **Contractor** performs desk-based assessment.

4 **Local authority archaeologist** reviews the desk-based assessment prepared by the **contractor** with reference to the Historic Environment Record. **Local authority archaeologist** outlines the need for archaeological investigations. A Written Scheme of Investigation outlines the proposed archaeological approach.

5a **Contractor** performs evaluation and site investigation to determine archaeological potential.

6 **Local authority archaeologist** reviews **contractor's** evaluation report, adds any new information to the Historic Environment Record and outlines the need for further archaeological work. A new written Scheme of Investigation outlines the proposed archaeological approach.

7a **Contractor** performs watching brief, managed by **consultant** and monitored by **local authority archaeologist**, leading to construction or full excavation.

7b **Contractor** conducts excavation, managed by **consultant** and monitored by **local authority archaeologist**, who reviews and signs off on completed excavation in preparation for construction.

5b

Construction commences if **local authority archaeologist** is satisfied desk-based assessment demonstrates no need for evaluation.

8a

Construction commences following watching brief.

10

Construction commences while reporting is ongoing.

9

Local authority archaeologist adds any new information to the Historic Environment Record and reviews the Post Excavation Assessment, in which the **contractor** evaluates the realisation of research aims as established in the Written Scheme of Investigation. An Updated Project Design outlining further research, analysis and dissemination is prepared by the **contractor** in association with the **consultant** based on the findings of the excavation.

8b

Contractor finds archaeology during watching brief and conducts excavation.

11

Contractor performs post-excavation analysis and dissemination.

A visual introduction to development-led archaeology in England

Development-led archaeology

Since 1990, with the introduction of Planning Policy Guidance 16, archaeology has been a material consideration in planning and developers have been responsible for funding archaeological investigations in order to mitigate their impact through the paradigm of preservation by record. PPG16 was introduced to reduce the risks of unexpected costs for developers and public scrutiny of politicians.[5] With the introduction of Planning Policy 5, *Planning for the Historic Environment* in 2010, archaeology was integrated with the built historic environment and a new emphasis was placed on offsetting negative impact through public benefit provision in place of mitigation through preservation by record.[6] As a result, developers hire archaeologists to consult on pre-application planning and to satisfy planning conditions set by local authority planning teams, which include conservation officers and archaeologists. The quality of the archaeological work conducted by contractors is monitored by local authority archaeologists, who ensure that planning conditions are met, and by consultants working for developers, who make sure the work is to an acceptable standard and represents value for money.[7] We also include infrastructure projects funded by government in what we mean by 'development-led archaeology' in this report. While the process for infrastructure projects is slightly different to that of the planning system, the archaeological work is largely the same and is conducted by the same archaeological consultants and contractors. The majority of archaeologists in the UK work within development-led archaeology and conduct the vast majority of archaeological investigations.[8]

New knowledge

↓

New research questions

↓

Evidence-gathering and recording

↓

Analysis and synthesis

↓

New knowledge

The archaeological research cycle, adapted from Thomas[9]

5   Pitts and Thomas, *Building the Future, Transforming Our Past*, 30
6   Southport Group, *Realising the Benefits of Planning-Led Investigation*, 3, 6, 14; Orange and Perring, 'Commercial Archaeology in the UK', 138; Wills, 'The World after PPG16', 6; Thomas, 'It's Not Mitigation!', 332
7   Thomas, 'Comment: Rescue Archaeology the French Way By Jean-Paul Demoule', 237–38; CIfA, *Standard and Guidance for Archaeological Advice*, 15; CIfA, *Standard and Guidance for Commissioning Work*, 9
8   Aitchison and Rocks-Macqueen, *State of the Archaeological Market 2019*
9   Thomas, 'It's Not Mitigation!', 338

Most archaeologists think the goal of archaeology is to generate knowledge but it is overwhelmingly performed as a service to developers to comply with planning regulations.[10] The primary driver of the development-led market is to cost-effectively meet planning conditions, not to deliver the best archaeological research.[11] As a result, the most enduring criticism of development-led archaeology is that its primary purpose is not research but clearing land for development.[12] Archaeologists from around the world have shown how competitive tendering drives down wages and causes a series of interrelated problems.

Critics argue that the philosophy of preservation by record, which continues to underpin development-led archaeology despite shifts from mitigation to offsetting and value-adding in policy,[13] has distilled archaeology into a standardised and technified practice that provides large amounts of data for undefined future research. It has also allowed developers to divide up the archaeological process between different contractors, separating field archaeologists from interpretation and estranging archaeology from society.[14] One significant consequence of this model is that development-led archaeology produces huge archaeological archives for long-term storage, future use and meta-analyses that developers do not fund, exacerbating long-standing and increasingly pressing problems for archaeological curators and archives.[15]

Concerns have been raised about the impact of the development-led model on archaeologists themselves, through increased bureaucratisation, precarious and itinerant employment, poor pay and career prospects – and the implications for the diversity of the discipline and quality of the work.[16] The degree of public benefit delivered has also been questioned. While development-led archaeology does produce public benefit, this is arguably due to archaeologists' ability to resist the system rather than the design of the model itself. While there are examples of good practice, these are not representative of most projects and there appears to be a growing consensus that development-led archaeology on the whole could do far better.[17] Statistics such as that archaeological non-profits, which employ half the archaeologists working in the development-led system, spend only 2.1 % of their turnover on 'community, public archaeology and educational work' are rightly raising questions.[18]

[10] Wilkins, 'Designing a Collaborative Peer-to-Peer System for Archaeology', 35

[11] Demoule, 'Rescue Archaeology: The French Way', 173–74; Southport Group, *Realising the Benefits of Planning-Led Investigation*, 2, 24; Hamilakis, 'Archaeology and the Logic of Capital', 724; Zorzin, 'Dystopian Archaeologies', 792; Orange and Perring, 'Commercial Archaeology in the UK', 144, 149; Nixon, *What about Southport?*, 2; Parga Dans, 'Heritage in Danger', 115; Parga Dans and Alonso González, 'The Unethical Enterprise of the Past'; Weekes et al, 'Alienation and Redemption', 11–12

[12] Demoule, 'Reply to Roger Thomas', 239; Parga-Dans, Barreiro, and Varela-Pousa, 'Isomorphism and Legitimacy in Spanish Contract Archaeology', 297; Gnecco, 'Development and Disciplinary Complicity', 286

[13] Orange and Perring, 'Commercial Archaeology in the UK', 144; Nixon, *What about Southport?*, 2; Fulford and Holbrook, 'Relevant Beyond the Roman Period', 215; Thomas, 'It's Not Mitigation!', 335–36

[14] Hamilakis, 'Archaeology and the Logic of Capital', 727; Rocabado, 'Neoliberal Multiculturalism and Contract Archeology in Northern Chile', 787; Zorzin, 'Dystopian Archaeologies', 807; Gnecco, 'Development and Disciplinary Complicity', 281–82, 287; Watson, 'Whither Archaeologists?', 1647; Weekes et al, 'Alienation and Redemption', 9; Wilkins, 'Designing a Collaborative Peer-to-Peer System for Archaeology', 36; Society of Antiquaries of London, 'The Future of Archaeology in England', 4

[15] Merriman and Swain, 'Archaeological Archives', 262; Southport Group, *Realising the Benefits of Planning-Led Investigation*, 18; Demoule, 'Rescue Archaeology: A European View', 618; Howell and Lord Redesdale, 'The Future of Local Government Archaeology Services', 4, 11; Morrison, Thomas, and Gosden, 'Laying Bare the Landscape'; Trow, '25 Years of Development-Led Archaeology in England', 64; Boyle, Booth, and Rawden, 'Museums Collecting Archaeology'; Parga Dans, 'Heritage in Danger', 114

[16] Demoule, 'Rescue Archaeology: The French Way', 173; Hamilakis, 'Archaeology and the Logic of Capital', 726–27; Zorzin, 'Dystopian Archaeologies', 804–5

[17] Southport Group, *Realising the Benefits of Planning-Led Investigation*, 7, 11, 18; Nixon, *What about Southport?*, 2; Orange and Perring, 'Commercial Archaeology in the UK', 144; Wilkins, 'A Theory of Change and Evaluative Framework', 77–78

[18] Aitchison and Rocks-Macqueen, *State of the Archaeological Market 2019*, 29; Wilkins, 'Designing a Collaborative Peer-to-Peer System for Archaeology', 36

Key Q

Should there be a national/public archaeology service funded by a developer tax? How can we maximise public benefit within the current system?

We choose to focus on what archaeologists can do to maximise public benefit within the current system and demonstrate our worth to both developers and publics instead of relying on legal frameworks that mandate our involvement.[19] The current political climate is more likely to deregulate archaeology further than to bring it within public spending.[20] As archaeologists, collectively we have agency in shaping how our own sector is regulated, both through our professional bodies and through peer-pressure and criteria for holding each other in high esteem.[21]

We believe the key to maximising public benefit from archaeology lies in viewing development-led archaeology as an **opportunity**. Development-led archaeology emerged out of rescue archaeology and has inherited its overarching mentality of threat and loss. Within this paradigm, development is a threat to archaeology, while archaeology is an obstacle to development; archaeology is a resource to archaeologists, but a burden to museums and archives.[22] The shift from mitigation to offsetting positions archaeology as an opportunity to generate public benefit that there would otherwise be no budget for, and calls for pragmatic approaches to maximising public benefit through investigation, analysis, dissemination and reuse.[23]

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[19] Parga Dans, 'Heritage in Danger', 117; Watson, 'Whither Archaeologists?', 1649

[20] Howell and Lord Redesdale, 'The Future of Local Government Archaeology Services', 7; Hamilakis, 'Archaeology and the Logic of Capital', 730; Trow, '25 Years of Development-Led Archaeology in England', 62, 65–66; Nixon, *What about Southport?*, 3; Parga Dans, 'Heritage in Danger', 118

[21] Fulford and Holbrook, 'Relevant Beyond the Roman Period', 221; Belford, 'Ensuring Archaeology in the Planning System Delivers Public Benefit'

[22] Merriman and Swain, 'Archaeological Archives', 264

[23] Merriman and Swain, 264; Nixon, *What about Southport?*, 8; Parga Dans, 'Heritage in Danger', 119; Brophy, 'Delivery: Putting Public Benefit at the Heart of What We Do', 1–2

[24] CIfA, 'Guidance on Written Schemes of Investigation', 21

[25] Fulford and Holbrook, 'Relevant Beyond the Roman Period', 227

[26] Southport Group, *Realising the Benefits of Planning-Led Investigation*, 25, 26, 30; Nixon, *What about Southport?*, 2; CIfA, *Standard and Guidance for Commissioning Work*, 8

[27] Connaughton and Herbert, 'Engagement Within', 309

Local authority archaeologists play a key role in regulating development-led work. Maximising public benefit requires local authority archaeologists to demand demonstrable public benefit as part of Written Schemes of Investigation (WSI) and to enforce their delivery. Yet the bar for demonstrating public benefit in WSIs remains low and unclear, despite modifications to CIfA guidance made in response the Southport Group.[24] Local authority archaeologists need support from the rest of the sector to be able to demand public benefit delivery without being perceived as barriers to development.

The extent to which individual archaeologists or archaeological companies can change the sector is limited, highlighting the role of professional bodies such as CIfA, ALGAO and FAME (see page 18). While methodological innovation is important, analytic syntheses of reports from development-led archaeology has highlighted the need for standards for analysis and publication.[25] In order for a fragmented sector under increasing financial pressure to maximise delivery of public benefit in practice, archaeologists require clear requirements and guidance from their professional bodies about different archaeologists' responsibilities for delivering public benefit.

Archaeological consultants must advise developers to choose tenders that provide the best return of research and public benefit and that consider contractors' track records in delivering public benefit as well as cost effectiveness, as is required by the CIfA standard.[26] In order for consultants to provide such advice, contractors must outline how their plans for delivering public benefit provide added value to developers, using value frameworks developers understand. Crucially, contractors must integrate delivering public benefit in their core practice, to close the gap between high-level ideals and the day to day realities of 'logistics, client needs and regulators' minimal standards.'[27]

Q Why have public-benefit focused policy and guidance changes not led to changes in practice?

Q What do archaeologists in different roles actually think about public benefit?
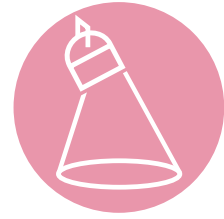
Q How can public benefit be maximised at each stage of the archaeological process?

Q To what extent do the different timelines, geographic scales and workflows of infrastructure and development-led archaeology impact public benefit delivery?

Developer-led sector bodies

The Chartered Institute for Archaeologists was founded as the Institute for Field Archaeologists in 1982 before being awarded Chartership having 'demonstrated pre-eminence, stability, permanence, and service of the public interest' in 2014.[28] With over 3000 members,[29] CIfA is the largest archaeological body in the UK and is led by an advisory council, a board and other committees, all made up of elected members. As a professional body, CIfA is focused on professional standards and accredited members are accountable to a code of conduct.[30] The CIfA Standards and Guidance for Archaeological Work were established following the introduction of development-led archaeology in 1990, as a first step toward self-regulation in an unregulated environment and have been updated many times since, now covering most aspects of development-led practice.[31]

The Federation of Archaeological Managers and Employers is a trade association for development-led archaeology and is the self-proclaimed 'voice of commercial archaeology.'[32] Originally established in 1975 as the Standing Conference of Archaeological Unit Managers, their focus is on business practice. FAME is managed by a board of elected members but does not speak on behalf of their members in the same way as CIfA. Rather, FAME aims to influence change in the management of the historic environment sector according to their vision of striving 'for a business environment where archaeological organizations can operate safely and sustainably ... so that collectively we can conserve and advance knowledge of the past for the benefit of society.'[33]

The Association of Local Government Archaeological Officers represents and awards membership to all archaeologists working for local authorities and national parks in the UK, with each authority granted one vote within ALGAO. Founded in 1996, it has had national associations in each of the devolved nations since 2006. First and foremost, ALGAO works to promote and advocate for local authority historic environment services, strengthen and support statutory frameworks and to advocate for high standards within the profession, principally through adherence to CIfA Standards and Guidance.[34]

As the three key membership bodies for professional archaeologists, CIfA, FAME and ALGAO all play a role in self-regulating the sector and are interested in expanding their public benefit remit while retaining their core principles. CIfA maintain that the key to delivering public benefit is professionalism, as outlined in a briefing note released in 2020 and Professional Practice Paper co-created with HS2 archaeologists and the team behind this report.[35] A new Standard for Community Archaeology is also expected. This movement towards a clear acknowledgement of the obligation to provide public benefit from archaeological work has been welcomed and a gradual reassessment of the existing Standards and Guidance is surely anticipated, to further embed concepts of participatory research and open practice into the frameworks of our profession.

The focus FAME places on business practice inevitably narrows the influence they can have over their members' work. While their vision is founded on their ultimate intention to 'conserve and advance knowledge of the past for the benefit of society', public benefit and the provision thereof appears to largely be viewed as a natural consequence of a stable business environment.

One of the ALGAO working groups focuses on community engagement and they have co-written a best practice guide with the Heritage Lottery Fund, to ensure that community projects are undertaken with curatorial advice and expertise.[36] Members of ALGAO have been vocal in their support for increasing public benefit from archaeology. The insertion of planning conditions and other statutory instruments that require developers and their archaeological contractors to undertake meaningful public-facing work is still relatively uncommon, but this seems set to change.

In terms of further sector self-regulation, one potential way forward could be to enforce public benefit delivery, either through CIfA Standards and Guidance and the Code of Conduct, or through additional requirements in tenders and specifications. The provision of guidance and case studies of how public benefit could be foregrounded in the day-to-day delivery of development-led archaeology would certainly be welcomed as there currently appears to be general support for embedding more overtly public-facing practice into both our statutory instruments and our professional obligations.

[28] CIfA, 'Our Royal Charter'

[29] CIfA, 'Annual Review 2019/2020', 4

[30] CIfA, 'Code of Conduct'

[31] CIfA, 'CIfA Regulations, Standards and Guidance'; DoE, *Planning Policy Guidance 16*; Hinton, 'What the Dickens Happened to the IFA?', 296

[32] FAME, 'Who We Are'

[33] FAME, 'What We Do'; FAME, 'FAME Ltd Rules (June 2017)', 1

[34] ALGAO, 'About ALGAO'

[35] CIfA, 'Delivering Public Benefit from Archaeology'; CIfA, 'Professional Practice Paper: Delivering Public Benefit'

[36] ALGAO, 'Community Engagement'

Archaeology and public benefit

Archaeologists usually foreground knowledge generation as the primary reason for, and benefit from, development-led archaeology.[37] At the turn of the century, Nick Merriman and Hedley Swain summarised that archaeology had been seen to deliver public benefit by preserving archaeological sites, objects and records for future generations, noting that both public benefit and the future generations are vaguely defined.[38] Since then, bodies such as Historic England, the National Lottery Heritage Fund and the Chartered Institute for Archaeologists have attempted to foreground a wider range of benefits.[39] CIfA emphasise that archaeologists' ability to 'create benefits for both society and the economy is a core basis for CIfA's incorporation by Royal Charter' and identify a number of 'core principles archaeologists can use to design benefits' and that 'public benefit can be created through:'

- **Knowledge gain:** Advancing understanding about the past and contributing to the sum of knowledge.
- **High quality research outputs:** Publications, exhibitions, accessible archives or events engage people, generate interest in, and concern for, the historic environment and inspire social or cultural benefits.
- **Interpretation:** Inspiring people through stories.
- **Improvements to quality of place:** Lasting positive impacts on the landscape, changes in management practices or valuation of particular landscapes.
- **Community:** Developing community values, through increased pride and sense of place. Increasing understanding of areas as well as other people.
- **Health & well-being:** Tangential therapeutic or social benefits from participation.
- **Skills:** From teamwork to technical skills.
- **Economy and tourism:** Exhibitions, sites turned into visitor centres etc.
- **Innovation:** New approaches to engagement and knowledge exchange & design ideas for the future.[40]

These ways that archaeology can contribute to public benefit suggest that public benefit is derived from the historic environment itself, knowledge gained and shared through scientific investigations and through public participation at various stages of the archaeological process. CIfA's strategic plans expect archaeologists to be able to bring real benefits to people's daily lives and manage these expectations through professional standards.[41]

[37] Demoule, 'Rescue Archaeology: The French Way'; Demoule, 'Rescue Archaeology: A European View'; Southport Group, *Realising the Benefits of Planning-Led Investigation in the Historic Environment*, 25; Thomas, 'It's Not Mitigation!', 333; Belford, 'Ensuring Archaeology in the Planning System Delivers Public Benefit'; Society of Antiquaries of London, 'The Future of Archaeology in England', 3

[38] Merriman and Swain, 'Archaeological Archives', 249

[39] Clark and Maeer, 'The Cultural Value of Heritage'; Maeer, Robinson and Hobson, 'Values and Benefits of Heritage'; Historic England, 'Heritage Counts'

[40] CIfA, 'Archaeology and Good Planning', 4; CIfA, 'Delivering Public Benefit from Archaeology'

[41] CIfA, 'CIfA Strategic Plan 2020–30: An Opportunity to Comment'; IfA, 'Institute for Archaeologists Strategic Plan: Summary Document'; Southport Group, *Realising the Benefits of Planning-Led Investigation*, 27; Orange and Perring, 'Commercial Archaeology in the UK', 140

Reflecting on thirty years of research on heritage work and public benefit, Adrian Oliver, Secretary General of ICAHM-ICOMOS, writes that archaeologists still struggle to demonstrate the lasting public benefit of their work beyond simply communicating information.[42] Peter Gould and Paul Burtenshaw similarly claim that archaeologists lack the necessary theoretical and ethical frameworks to deliver public benefit.[43] In 2011, the Southport Group recognised that development-led archaeology does not always produce the maximum public benefit or produce the knowledge professionals would like, but was hopeful that the introduction of PPG5 in 2010 would pave the way for developer-led archaeology to focus more explicitly on public benefit.[44] Nevertheless, in 2017, reflecting on progress made since Southport, Taryn Nixon highlighted that these hopes had not been realised, an assessment echoed by Hilary Orange and Dominic Perring, reminding us of the doubts Tim Schadla-Hall cast on the very assumption that legal protections and mitigation approaches for archaeological resources operate in the public interest.[45] A 2015 survey conducted for the EU-funded NEARCH project found that less than 10 per cent of the public identified 'contributing to the local or national economy', 'participating in the sustainable development of an area' and 'contributing to the quality of life' as main roles of archaeology, despite repeated claims from sector bodies that archaeology delivers these impacts.[46] Kenny Brophy has also recently questioned whether knowledge generation and preservation by record, the traditional rationales for developer-led archaeology can deliver meaningful social benefits.[47]

> " A great deal of archaeological work takes place in the context of the planning framework with little apparent public benefit and ... there is often no planning requirement to demonstrate that any public value has been added. "
>
> Taryn Nixon 2017, 15

Spanish archaeologist Eva Parga Dans has analysed the boom and bust of the development-led archaeology sector in Spain over the two first decades of the 21st century, concluding that the sector was unable to sustain itself, precisely because it did not demonstrate its public value in practice. It did not deliver public benefits in ways that allowed it to remain financially viable and instead continued to rely on abstract narratives about the value of archaeology and heritage, which did not sustain the sector when the construction bubble burst.[48] North and South American archaeologists have also argued that archaeological ethics and concerns about sustainability almost exclusively refer to the archaeological record itself, and lament the lack of engagement with and awareness of the wider social impact of the sector.[49]

[42] Olivier, 'Socialising Heritage', 17

[43] Gould and Burtenshaw, 'Archaeology and Economic Development', 3

[44] Southport Group, *Realising the Benefits of Planning-Led Investigation*, 7

[45] Nixon, *What about Southport?*, 15; Orange and Perring, 'Commercial Archaeology in the UK', 144; Schadla-Hall, 'Editorial: Public Archaeology', 148

[46] Martelli-Banégas, Panhard, and Favré, 'Image of Archaeology in UK', 65

[47] Brophy, 'Delivery: Putting Public Benefit at the Heart of What We Do', 1

[48] Parga-Dans, Barreiro, and Varela-Pousa, 'Isomorphism and Legitimacy in Spanish Contract Archaeology'; Parga Dans, 'Heritage in Danger'; Parga Dans and Alonso González, 'The Unethical Enterprise of the Past'; Burtenshaw, 'Cultural Capital'

[49] Gnecco, 'A World Full of Adjectives', 1664; Hutchings and La Salle, 'Sustainable Archaeology'; Moshenska and Burtenshaw, 'Commodity Forms and Levels of Value in Archaeology'

Key Q

Why do some archaeologists claim archaeology delivers public benefit while others claim it doesn't? What does public benefit even mean?

Clearly, in some cases different archaeologists mean quite different things when they talk about public benefit, but the answer isn't quite that simple. Traditionally, the primary purpose of archaeology has been to generate information, with knowledge creation seen as its primary value. Public benefit asks archaeologists to justify their practice in other terms, often leading to pushback against interference with the scientific process and concerns about the consequences of making archaeology 'useful'.[50]

Archaeologists discussing public benefit are often defensive, listing different benefits archaeology 'can' deliver by pointing to specific projects that have foregrounded public benefit. These examples of good practice are then used to bolster the assumption that professional standards guarantee public benefit. However, presented case studies are often exceptional projects that have few similarities with most development-led investigations, while professional standards say little about delivering public benefit and certainly do not require archaeologists to apply the approaches used in public benefit case studies.[51]

[50] González-Ruibal, 'Ethics of Archaeology', 348; Stahl, 'Assembling "Effective Archaeologies" toward Equitable Futures', 38

[51] Minnis et al, 'Answering the Sceptic's Question'; Little, 'Public Benefits of Public Archaeology'; CIfA, 'Archaeology and Good Planning'; CIfA, 'Delivering Public Benefit from Archaeology'

[52] Nixon, *What about Southport?*, 15

[53] Olivier, 'Socialising Heritage', 28

[54] Southport Group, *Realising the Benefits of Planning-Led Investigation*, 13, 25; Orange and Perring, 'Commercial Archaeology in the UK', 150

[55] Moshenska and Burtenshaw, 'Commodity Forms and Levels of Value in Archaeology', 84

[56] Karl, 'Authority and Subject', 254

The disconnect between high-level narratives about the public benefit of archaeology and the realities of the day-to-day archaeological work done on the ground urgently needs to be addressed. All too often, our discussions about public benefit are in response to external pressure to justify our practice, instead of a constructive process of holding each other accountable to what we believe archaeology should do. Archaeologists could be required to deliver public benefit, but for that to work, the requirement must come from within the sector and be for a form of public benefit that is suited to the realities of practice.[52]

Yet, as a number of archaeologists have argued, for too long the benefits we have believed in have been self-serving and placed the archaeological record and discipline above people and the planet. Adrian Olivier argues we must go beyond justifying scientific and academic outputs or simply sharing results with the public. Instead he suggests that public values must drive archaeological practice for results to be transformed into something members of the public recognise as interesting and meaningful.[53] Archaeologists have for some time recognised that conventional publication may not always be the most effective means of meeting public benefit goals,[54] yet we still know little about what members of the public actually want from archaeology.[55]

We seem to be in a position where we know archaeology is falling short of delivering the public benefit it could. We think that public benefit is delivered if we do archaeology well, but our descriptions of what it means to do archaeology well rarely say much about public benefit. It is true that local authority archaeological services need to be better resourced and that we need an archaeological market that rewards best value over lowest cost. We don't suggest that these needs are not relevant to maximising public benefit. Yet, how can we even begin to talk archaeology delivering real benefits to people's daily lives without engaging with publics and asking what they consider beneficial?[56]
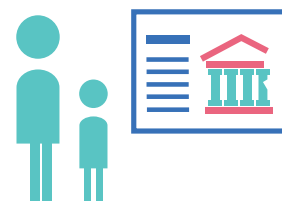
Q What are the different dimensions of public benefit that archaeology can deliver at each stage of the development-led process?
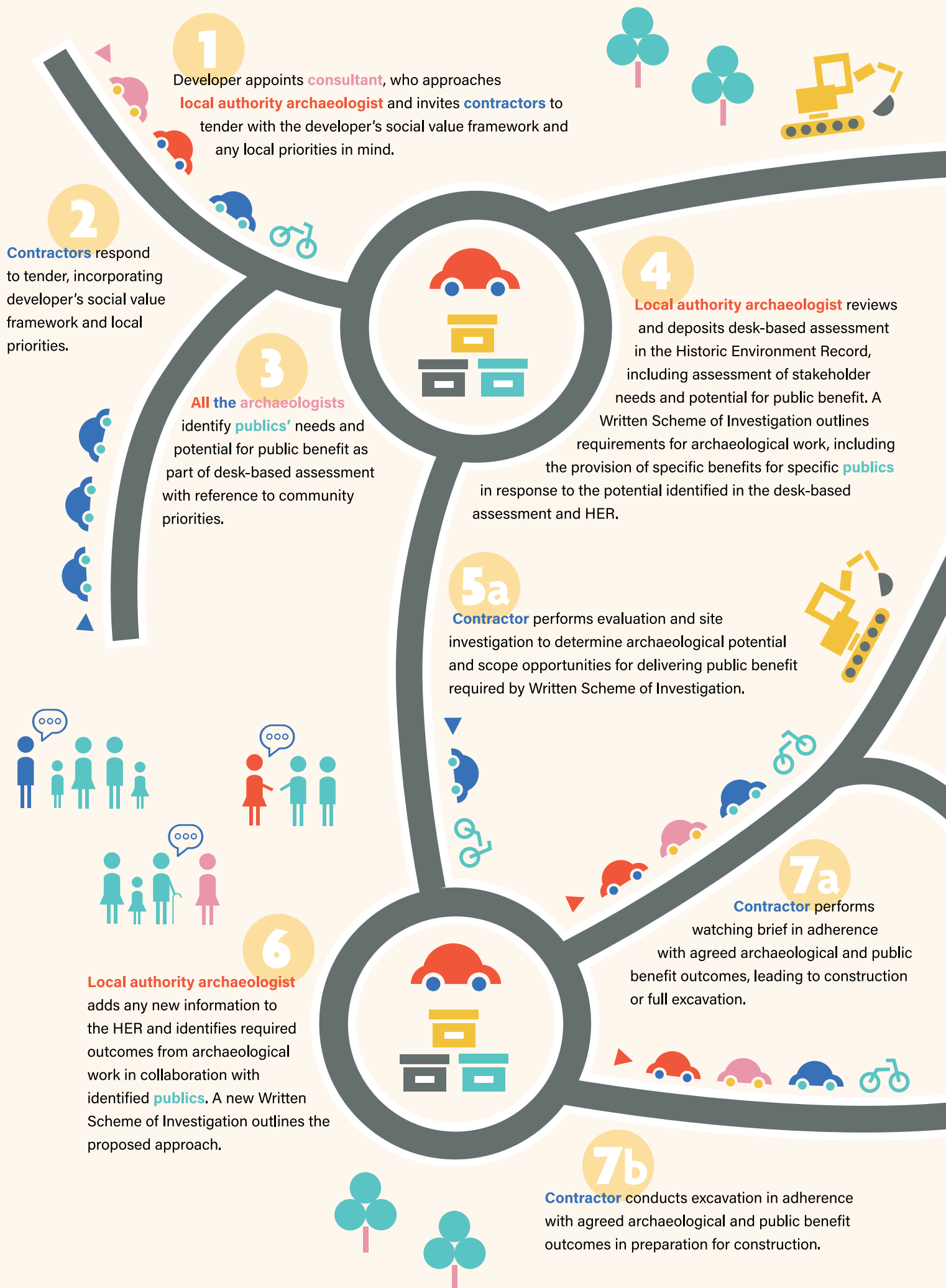
Q How can archaeologists know whether development-led projects are benefitting people's daily lives?

Q Can development-led archaeology be useful, intellectually rigorous and independent all at the same time?
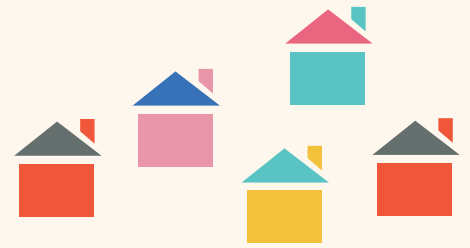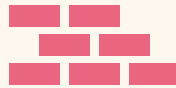
1
Developer appoints **consultant**, who approaches **local authority archaeologist** and invites **contractors** to tender with the developer's social value framework and any local priorities in mind.

2
Contractors respond to tender, incorporating developer's social value framework and local priorities.

3
All the archaeologists identify **publics'** needs and potential for public benefit as part of desk-based assessment with reference to community priorities.

4
Local authority archaeologist reviews and deposits desk-based assessment in the Historic Environment Record, including assessment of stakeholder needs and potential for public benefit. A Written Scheme of Investigation outlines requirements for archaeological work, including the provision of specific benefits for specific **publics** in response to the potential identified in the desk-based assessment and HER.

5a
Contractor performs evaluation and site investigation to determine archaeological potential and scope opportunities for delivering public benefit required by Written Scheme of Investigation.

6
Local authority archaeologist adds any new information to the HER and identifies required outcomes from archaeological work in collaboration with identified **publics**. A new Written Scheme of Investigation outlines the proposed approach.

7a
Contractor performs watching brief in adherence with agreed archaeological and public benefit outcomes, leading to construction or full excavation.

7b
Contractor conducts excavation in adherence with agreed archaeological and public benefit outcomes in preparation for construction.

5b

Construction commences if **local authority archaeologist** is satisfied desk-based assessment demonstrates no need for evaluation.

8a

Construction commences following watching brief.

10

Construction commences while reporting is ongoing.

9

Local authority archaeologist adds any new information to the HER and reviews the post excavation assessment, in which the contractor evaluates the realisation of research aims and public benefit outcomes as established in the WSI. An Updated Project Design is co-created by **all the archaeologists** and participating **publics**, outlining further analysis and dissemination.
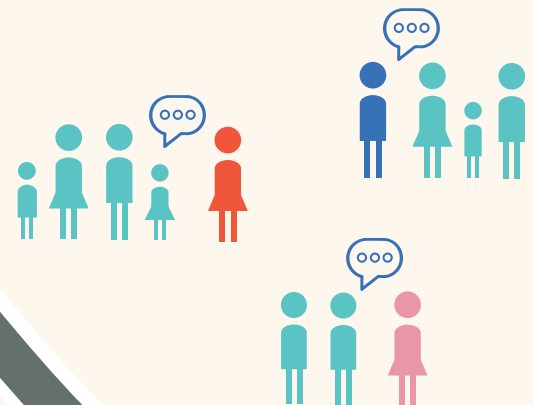
8b

Contractor conducts excavation in adherence with agreed archaeological and public benefit outcomes.

11

Tasks identified in the UPD are undertaken and evaluated collaboratively to ensure meaningful legacy.

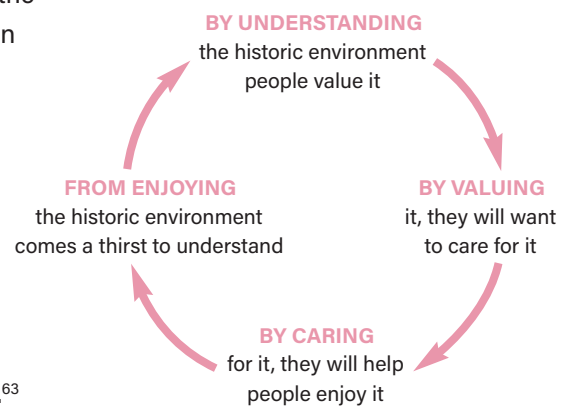## Making space for publics in development-led archaeology in England

Archaeological publics

In 2015, Historic England marked the 25 year anniversary of development-led archaeology in the UK with a publication celebrating that 'development-led archaeology excites people's interest in their local heritage, and it is changing our national story.'[57] A group of leading UK archaeologists, writing in a joint publication for the British Academy, similarly claim that development-led archaeology provides opportunities all over the UK for people 'of all ages and levels of experience.'[58]

A series of surveys of public attitudes toward the historic environment, commissioned by English Heritage and Historic England over the past couple of decades, have consistently shown high levels of support for heritage. These results are corroborated by the DCMS' annual Taking Part survey, which has shown overwhelmingly positive attitudes toward heritage. Alongside these more general surveys, the Council for British Archaeology surveyed community archaeology groups in 2010 and 2018 and the EU-funded NEARCH project commissioned a survey of a representative sample of UK adults' attitudes toward archaeology in 2015, which also showed high levels of general support.[59]

Yet these and other surveys have also consistently shown that the demographic most engaged and concerned with archaeology in the UK is ageing and ethnically homogenous.[60] This observed lack of diversity reflects wider trends in the cultural sector as well as the professional archaeological workforce.[61] The 'heritage cycle' is an established model for building public support and engagement for heritage, which continues to underpin public-facing archaeological work.[62] Such public archaeology generally sets out to promote, communicate, open up and invite participation in archaeological processes and discoveries in order to foster public support for archaeology.[63]

BY UNDERSTANDING
the historic environment
people value it

BY VALUING
it, they will want
to care for it

BY CARING
for it, they will help
people enjoy it

FROM ENJOYING
the historic environment
comes a thirst to understand

The heritage cycle, adapted from Thurley[64]

[57] Pitts and Thomas, *Building the Future, Transforming Our Past*, 6

[58] British Academy, *Reflections on Archaeology*, 29

[59] Thomas, 'Community Archaeology in the UK'; Frearson, 'Supporting Community Archaeology in the UK'; Martelli-Banégas, Panhard, and Favré, 'Image of Archaeology in UK'

[60] MORI, 'What Does "Heritage" Mean to You?'; MORI, 'London's Heritage'; Frearson, 'Supporting Community Archaeology in the UK', 13, 26

[61] Rosemberg et al, 'Assessment of the Social Impact of Volunteering in HLF-Funded Projects', 1–4, 29–30; Grima, 'Presenting Archaeological Sites to the Public', 91; Aitchison and Rocks-Macqueen, 'Archaeology Labour Market Intelligence', 10

[62] Thurley, 'Into the Future'; English Heritage, 'Making the Past Part of Our Future'; May, 'Heritage, Endangerment and Participation', 73–74; CIfA, *Standard and Guidance for Archaeological Advice*, para. 11.3

[63] Merriman, *Public Archaeology*; Matsuda and Okamura, 'Introduction: New Perspectives in Global Public Archaeology'; Richardson and Almansa-Sánchez, 'Do You Even Know What Public Archaeology Is?'; Moshenska, *Key Concepts in Public Archaeology*

[64] Thurley, 'Into the Future', 26

Archaeologist Sarah May has pointed out that the 'heritage cycle' is a deficit model.[65] Deficit model is the term commonly used to describe the mistaken belief that publics do not share professional values and concerns simply because they lack knowledge and understanding. It has consistently been debunked in the field of science communication over the past three decades, where research has shown that increased knowledge and understanding does not necessarily lead to increased support for science, yet continues to guide practice.[66] Researchers in museums and archaeology have also cautioned against this way of understanding publics who choose not to engage with heritage.[67] Because it assumes publics will share our views and interests if only we can communicate them well enough, deficit models lead us to mistakenly believe we do not need to first understand publics in order to meet their needs.

In the first editorial of *Public Archaeology*, published in 2000, Neil Ascherson reiterated Tim Schadla-Hall and Nick Merriman's concerns that archaeology knew little about 'the archaeology public' and that archaeologists should not assume that the popularity of archaeology means 'that people support the things archaeologists do.'[68] Despite Ascherson's call for the newly established journal to rectify the issue, more recently, Gabriel Moshenska and various colleagues have echoed Ascherson's assessment, lamenting the lack of data and noting that archaeologists generally appear ignorant of, and often uninterested in, what publics want from archaeology.[69] Surveys such as the EU-funded NEARCH project have not done much to change this picture, instead highlighting that what we know about public attitudes toward archaeology in general has little to do with development-led archaeology.[70]

Critics argue that the focus on a faceless 'general public' and poorly defined 'future generations' leave archaeologists in a situation where they primarily work for their own benefit.[71] This is because, as Anne Pyburn has expressed, the general public 'is an imaginary group whose interests and reactions cannot be evaluated.'[72] This is corroborated by community heritage programmes such as CITIZAN, where participants are described as wanting 'very different things' to one another,[73] raising the question of who actually benefits from archaeology in meaningful ways.[74] In a think piece for a series of workshops delivered by CIfA on re-imagining Scottish archaeology, Kenny Brophy outlines his research with Mar Roige Oliver into the public benefit of archaeological investigations at 116 schools in Scotland. He explains that archaeological reports were published, but have not been used to benefit pupils, teachers or parents, and as a result are only benefitting archaeologists.[75]

65 May, 'Heritage, Endangerment and Participation', 73
66 Ziman, 'Public Understanding of Science'; Evans and Durant, 'The Relationship between Knowledge and Attitudes in the Public Understanding of Science in Britain'; Irwin and Wynne, *Misunderstanding Science?*; Lock, 'Deficits and Dialogues'; Simis et al, 'The Lure of Rationality'; Suldovsky, 'In Science Communication, Why Does the Idea of the Public Deficit Always Return?'
67 Macdonald, *Behind the Scenes at the Science Museum*, 49; Merriman, *Public Archaeology*, 5–6; Dawson, 'Reimagining Publics and (Non) Participation', 773–75; Dawson, *Equity, Exclusion and Everyday Science Learning*, 27; Fredheim, 'Decoupling "Open" and "Ethical" Archaeologies', 10–13
68 Ascherson, 'Editorial', 4; Merriman, 'Museums and Archaeology', 23; Schadla-Hall, 'Editorial: Public Archaeology', 155
69 Moshenska and Burtenshaw, 'Commodity Forms and Levels of Value in Archaeology'; Bonacchi and Moshenska, 'Critical Reflections on Digital Public Archaeology'; Moshenska, *Key Concepts in Public Archaeology*, 13–14; Roberts, 'The Practice of Community Archaeology in the UK', 226
70 Martelli-Banégas, Panhard, and Favré, 'Image of Archaeology in UK', 35–42, 65
71 Merriman and Swain, 'Archaeological Archives', 249; Schadla-Hall, 'Editorial: Public Archaeology', 149; Högberg et al, 'No Future in Archaeological Heritage Management?'; Harrison et al, *Heritage Futures*; Brophy, 'Delivery: Putting Public Benefit at the Heart of What We Do'
72 Pyburn, 'Archaeology by, for, and about the Public', 298
73 Band, 'CITIZAN 2015–2018 and 2019–2021', 405
74 Funari, 'Public Archaeology from a Latin American Perspective', 239; Simpson and Williams, 'Evaluating Community Archaeology in the UK'
75 Brophy, 'Delivery: Putting Public Benefit at the Heart of What We Do', 3

Key Q

How can understanding various publics help archaeologists deliver public benefit?

Archaeology in the UK enjoys strong public support, but this support has increasingly significant demographic gaps. Reflecting on the increasing number of Black archaeologists in the United States, Maria Franklin and colleagues note the impact of researching 'African diasporic communities in the past with an eye toward social justice in the present.'[76] This focus on social justice, in particular, is largely absent in development-led archaeology, which tends to avoid engaging with issues in the present and instead focus on the past.[77] Most people do not know that development-led archaeology exists, and for public support to move from outrage over the loss of high-profile assets to emotional investment in daily archaeological practices, we must emphasise the creative potential of archaeology to engage with publics' daily needs.[78]

Most foundationally, moving beyond deficit models for archaeology involves shifting our understanding of public benefit from what archaeologists think publics should want from archaeology to the outcomes publics themselves identify as beneficial.[79] We must move from asking whether '"the public" understand what we mean by public benefit' to ensuring engagement delivers benefits publics value.[80] Community engagement only delivers public benefit if publics find it beneficial, and if they do, there is no need for archaeologists to convince them they should value archaeology. Instead, the imperative is to understand publics, their needs and how archaeology can meet them.[81] Canadian archaeologists Sean Connaughton and James Herbert have usefully compared working on a development-led project to being an uninvited guest, in order to illustrate the respect archaeologists should have for the publics we hope to benefit.[82]

76 Franklin et al, 'The Future Is Now', 755; Agbe-Davies, 'Black Scholars, Black Pasts'
77 Gnecco, 'Development and Disciplinary Complicity', 289; Högberg, 'The Past Is the Present', 43–44
78 Brophy, 'Delivery: Putting Public Benefit at the Heart of What We Do', 1–3; Leslie, 'Delivering Archaeology', 3; Olivier, 'Socialising Heritage', 18
79 Karl, 'Authorities and Subjects?', 254
80 CIfA, 'Appendix 4 Workshop Summary Feedback', 3
81 Roberts, 'The Practice of Community Archaeology in the UK', 230, 238; Orange and Perring, 'Commercial Archaeology in the UK', 149; Ellenberger and Richardson, 'Reflecting on Evalution in Public Archaeology', 82; Oliver, 'Socialising Heritage', 28
82 Connaughton and Herbert, 'Engagement Within', 329–30
83 González-Ruibal, González, and Criado-Boado, 'Against Reactionary Populism'
84 Bonacchi and Moshenska, 'Critical Reflections on Digital Public Archaeology'; Roberts, 'The Practice of Community Archaeology in the UK'
85 Fulford and Holbrook, 'Relevant Beyond the Roman Period', 220; Wilkins, 'Designing a Collaborative Peer-to-Peer System for Archaeology', 35–36
86 Perry, 'Why Are Heritage Interpreters Voiceless at the Trowel's Edge?'
87 Wakefield, 'Digital Public Archaeology at Must Farm'
88 Barclay and Brophy, '"A Veritable Chauvinism of Prehistory"'

Unlike what some archaeologists have suggested, respecting publics does not involve disrespecting archaeological expertise, making archaeology subject to the whims of populism or giving up archaeologists' intellectual independence and critical voice.[83] Development-led archaeology will always be led by professional archaeologists and archaeological expertise is necessary for archaeological work to deliver a full range of public benefits. Tellingly, despite the ideals of shared authority and co-production, research has shown that publics often prefer professionals to take on positions of leadership in community archaeology and may prefer less hands-on roles.[84] Arguably, it is the philosophy of preservation by record, not the push for public benefit, that poses the real threat to archaeological expertise. The separation of specialist analysis from fieldwork caused by the closed pipeline workflow of development-led archaeology has limited the implementation of learning from innovative and widely celebrated projects such as Heathrow Terminal 5.[85] By contrast, proponents of public benefit call for more specialist involvement at all stages of the archaeological workflow and active involvement with the interpretive process across the project team.[86]

Deficit models equate public engagement and participation with public benefit and have arguably contributed to a reliance on evaluation processes in the sector that focus on the number of 'bums on seats' and the most basic digital metrics. Basing engagement strategies on metrics might at first glance appear to be an evidence-based approach to foregrounding publics' wants and needs. Yet, perhaps counterintuitively, how likely someone is to interact with something is a poor measure of how beneficial it is, with Christopher Wakefield identifying 'reach' as a measure of visibility rather than engagement.[87] Gordon Barclay and Kenneth Brophy have recently highlighted how the impact agenda in higher education can be seen to have shaped archaeological research and encouraged the promotion of sensationalist and divisive interpretations through the media.[88] Archaeologists hoping to deliver public benefit must therefore look beyond what is popular when designing research and engagement strategies and develop evaluation frameworks that reward and encourage meaningful interactions and public benefits.
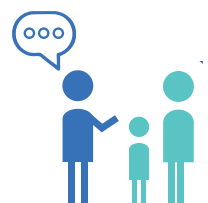
Q How can archaeologists best value their own expertise and respect publics' wants and needs when designing meaningful interactions that deliver public benefit in development-led investigations?

Q How can development-led archaeologists develop the relationships necessary to deliver public benefit through short-term projects?

Q Do archaeologists have the necessary skills to consistently deliver public benefit or do we need new specialists and how could such specialists best be utilised within the archaeological workflow?

Charitable and non-charitable archaeologies

Many archaeological organisations that tender for development-led work are registered charities. Charities must only have charitable purposes and they must be for the public benefit. The *Charities Act* lists a range of charitable purposes, including the advancement of education and the advancement of arts, culture heritage or science, which some archaeological charities have adopted as their charitable purposes. However, the *Act* specifies that it should not be assumed that these purposes necessarily are for the public benefit.[89] As a result, the Charity Commission provides guidance on interpreting the public benefit requirement, which outlines that the requirement has two aspects, both of which must be met: the 'benefit aspect' and the 'public aspect'. The benefit aspect requires charities to have purposes that are beneficial, while the public aspect demands that benefits from the stated purpose must accrue to the general public or a large enough part of it.[90]

The Charity Commission's guidance on the public benefit requirement explains that in most cases it is 'clear' whether or not the public benefit requirement is met. For example, a charity providing emergency aid following a natural disaster would not have to prove their benefit. However, charities with purposes relating to architecture, art and education may be required to provide evidence of the architectural, artistic and educational merits of their collections or practices. The guidance goes on to describe that even when it is not possible to quantify or measure benefits, it should be possible to identify and describe them.[91] Charities must produce annual reports that outline their charitable purposes and what they have done during the year to carry them out.[92]

Guidance also stipulates that charities should 'know who can potentially benefit from your charity's purpose' and 'give proper consideration to the full range of ways in which you could carry out your charity's purpose.' Trustees must also ensure that if their charity charges for their services, the charity is run in a way that does not exclude those who are poor, understood as 'charges that someone of modest means will not find readily affordable.'[93] While archaeological organisations are unlikely to be challenged on their claims that they deliver public benefit, the Charity Commission's guidelines pose a series of questions that will help guide archaeologists' efforts to measure and maximise public benefit from development-led archaeology if they wish to take that challenge seriously. However, charitable status is not universal across UK archaeological organisations, with a variety of business models providing a diversity of focus.

89 *Charities Act*, paras 1–4
90 Charity Commission, 'The Public Benefit Requirement', 5
91 Charity Commission, 6–7
92 Charity Commission, 'Reporting', 6
93 Charity Commission, 'Running a Charity', 9–10, 16

The charitable objects of Museum of London Archaeology is to 'benefit the public through education in archaeology and the historic environment.' The 2018 MOLA strategic plan identifies MOLA's purpose as being to generate archaeological knowledge through research and to deliver public benefit by sharing it. MOLA does this by performing development-led archaeological investigations, publishing results in books, articles and other pieces of writing and through delivering grant-funded community archaeology programmes such as the Thames Discovery Programme and the Coastal and Intertidal Zone Archaeology Network.[94]

In addition to 'the advancement of education,' Wessex Archaeology identifies 'the advancement of the arts, culture, heritage and science' as one of its charitable objects. Wessex Archaeology promotes the public-facing part of their work as 'enriching lives through heritage,' which they perform through sharing results with diverse audiences, delivering public education in 'science, the arts, culture, and heritage' and attempting to promote social cohesion and wellbeing in the communities where they work. They report doing this through publications, learning activities for schools, facilitating public participation in heritage and developing partnerships to pursue heritage as a tool for social prescribing.[95]

Headland Archaeology is one of the largest privately-owned companies in the sector. 'Founded to deliver profitable archaeological work to the highest standard,' their messaging is clear that 'clients come first.'[96] Their latest annual report refers to business strategies at length with community aspects referred to within specific case studies. Perhaps because this report is aimed at shareholders and business clients, their HS2 case study makes no reference to the public benefit intentions of the project.[97] This might reflect the 2019 acquisition of HA by RSK Group Ltd, given that in 2017 HA did acknowledge the important public benefit aspect of a previous project, the M74 in Glasgow.[98]

Pre-Construct Archaeology are another large archaeological company, run from multiple office locations across the UK.[99] Their 'origins as a private organisation enabled them to bring competition to the market' which illuminates the decision to form a company rather than a charitable trust.[100] There is no distinct focus on public or outward-facing practice on their website but various site open days are outlined in the news section.[101]

[94] MOLA, 'Report and Financial Statements', 5
[95] Wessex Archaeology, 'Report and Financial Statements', 2–4
[96] Headland Archaeology, 'Our Culture and Core Values'
[97] Headland Archaeology, '2019 Annual Report', 29, 38
[98] Headland Archaeology, 'Winning Hearts and Minds'
[99] PCA, 'Meet the Team'
[100] Brown, 'Pre-Construct Archaeology', 10
[101] PCA, 'PCA News'

Evaluating public benefit from development-led archaeology

The quality of archaeological work has been an enduring concern for archaeologists, well aware of the irreversible nature of the excavation process. This concern with quality has often been connected to the final publication, firstly that it must be completed and secondly that it must be of an acceptable standard.[102] Within the development-led system, it is the responsibility of local authority archaeologists to monitor the quality of all stages of archaeological work and sign off on the completion of planning conditions.[103] This assessment should be made in response to the Written Scheme of Investigation, which, according to the CIfA Standard, should 'contain enough detail [about research aims] to provide a benchmark against which the results of the work may be measured.' In fact, this is the reason why the Written Scheme of Investigation is required in response to project briefs provided by local authority archaeologists: 'No investigation should take place on the basis of a brief alone, as it could not achieve the appropriate standard, there being insufficient detail against which to measure performance.'[104]
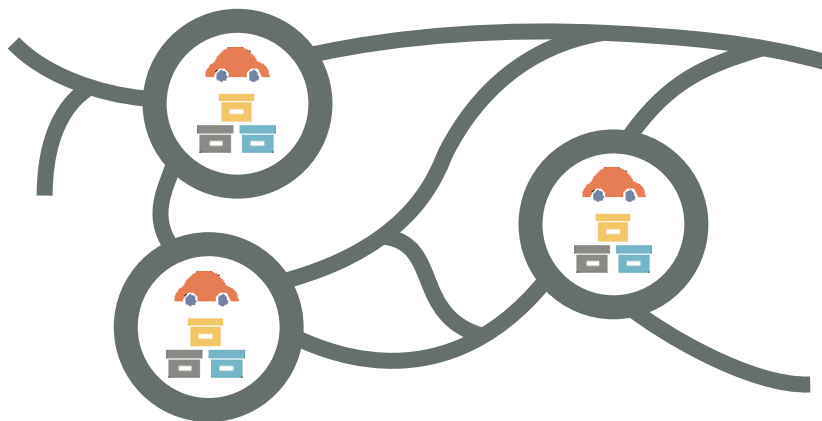
Evaluations of the quality of archaeological work are therefore bespoke to each project and often undertaken informally though the project, which explains why details on how the quality of archaeological work should be evaluated is not specified in CIfA standards. The informal nature of the evaluations of development-led projects means formal reports are not available for review. Archaeological projects funded through the National Lottery Heritage Fund are subject to NLHF evaluation and reporting criteria and are often cited as the most likely source of evaluation reports of public-facing archaeological work, yet these reports are usually not publicly available either.[105]

The overarching message from critics of evaluation in archaeology is that we lack robust evaluation data, both for effective advocacy and to improve practice.[106] In part, these critiques relate to the methods of evaluation, whether the lack of consistent methodologies or an overreliance on either case studies or qualitative data. Yet the most damning critique is of the relative absence of published evaluations in the literature altogether. In his analysis of 191 articles published in *Public Archaeology*, which Neal Ascherson launched over 15 years ago with the expressed intention of uncovering what publics thought of archaeologists' work,[107] Peter Gould reports that only two were evaluations of public-facing archaeological work.[108] Articles by archaeologists such as Katharine Ellenberger, Lorna-Jane Richardson, Cath Neal, Chiara Bonacchi and Gabriel Moshenska corroborate this lack of published formal evaluations in development-led, community and digital public archaeology.[109]

As Ellenberger and Richardson have shown, there is little guidance on how to evaluate public benefit from archaeology and no such evaluations are required by professional organisations in the USA or UK, nor by most funders. Instead, all outreach and engagement initiatives are assumed to be inherently beneficial. The National Lottery Heritage Fund is a significant exception, though reports show that these projects are also generally poor at evaluation.[110] Furthermore, although a mandatory outcome for all NLHF projects is that 'a wider range of people will be involved in heritage,' there is no requirement to show that people have benefitted in any way.[111] Harald Fredheim has argued this lack of focus on evaluating participant experiences in archaeological public engagement efforts is a result of deficit models in the sector.[112] Further reinforcing this view is the fact that when evaluation is proposed it is often in order to show that engagement has changed participants' attitudes and behaviours to become advocates for archaeology, as suggested by the 'heritage cycle,' rather than to assess how participants have benefitted.[113]

The lack of focus on evaluation is not unique to the public-facing dimensions of archaeological work, nor, indeed, to archaeology itself. Reflecting on their use of data from development-led investigations in their research on rural Roman Britain, Michael Fulford and Neil Holbrook note that the shift from mitigation to offsetting in the National Planning Policy Framework since 2012 has not noticeably impacted fieldwork practice. In fact, they argue there is generally little evaluation of fieldwork and reporting methods in development-led archaeology nor of the usefulness of the results they produce, and like others highlight the competitive nature of development-led work as one explanation.[114]

102 Demoule, 'Rescue Archaeology: The French Way', 176
103 CIfA, *Standard and Guidance for Archaeological Advice*, para. 12
104 CIfA, *Standard and Guidance for Archaeological Excavation*, para. 3.2.3–3.2.4
105 Moshenska, *Key Concepts in Public Archaeology*, 13; Ellenberger and Richardson, 'Reflecting on Evaluation in Public Archaeology', 73–74; Gould, 'On the Case'
106 Simpson and Williams, 'Evaluating Community Archaeology in the UK'; Gould, 'On the Case'; Orange and Perring, 'Commercial Archaeology in the UK'; Ellenberger and Richardson, 'Reflecting on Evaluation in Public Archaeology'; Tully, 'Skills, Ethics and Approaches'; Wilkins, 'A Theory of Change and Evaluative Framework'; Brophy, 'Delivery: Putting Public Benefit at the Heart of What We Do'; Ripanti, 'Toward an Intermediate Level'; Wakefield, 'Digital Public Archaeology at Must Farm'; Dupeyron, 'Archaeological Heritage as a Resource for Development'
107 Ascherson, 'Editorial', 4
108 Gould, 'On the Case', 11
109 Ellenberger and Richardson, 'Reflecting on Evaluation in Public Archaeology'; Neal, 'Know Your Place?'; Bonacchi and Moshenska, 'Critical Reflections on Digital Public Archaeology'
110 Bagwell, Corry, and Rotheroe, 'The Future of Funding', 30; Gould, 'On the Case', 12
111 NLHF, 'Application Guidance'
112 Fredheim, 'Decoupling "Open" and "Ethical" Archaeologies'; Fredheim, 'Sustaining Public Agency in Caring for Heritage'
113 Simpson, 'Community Archaeology Under Scrutiny', 6; Tully, 'Skills, Ethics and Approaches', 43
114 Fulford and Holbrook, 'Relevant Beyond the Roman Period'; Ellenberger and Richardson, 'Reflecting on Evaluation in Public Archaeology', 73; Orange and Perring, 'Commercial Archaeology in the UK', 149; Band, 'CITIZAN 2015–2018 and 2019–2021', 402

Key Q

How can evaluation of public benefit productively be integrated in development-led archaeology?

There is a growing chorus of archaeological voices calling for a step change in practice and expectations of development-led archaeology, away from preservation by record, mitigation and tick-box mentalities and toward value-for money, new knowledge and public benefit.[115] CIfA's strategic plan views 'real benefits to people's daily lives' as the natural result of good archaeological practice,[116] yet as surveys have repeatedly shown, most people do not think of archaeology as being directly relevant to their lives.[117] Most evaluations in the sector are defensive and motivated by the need to justify public spending and do not contribute to developing practice. What a step change requires is an intention to foreground public benefit and frank evaluations of the benefits projects deliver to different publics.

Any attempt at evaluation must begin with defining aims against which projects can be evaluated.[118] For projects hoping to deliver public benefit, this involves defining the type of benefit that is to be delivered to which publics.[119] The planning system requires 'harm' to the historic environment to be compensated with public benefit, but does not define what public benefit means.[120] This gives local authority archaeologists who set planning conditions and contractors involved in drafting Written Schemes of Investigation scope to define the public benefit expected in any given case. However, archaeologists' ability to deliver forms of public benefit that publics actually recognise and value is dependent on first understanding publics' wants and needs. Delivering and documenting the delivery of such benefits represents a powerful opportunity to foster public support for development-led archaeology and to advocate for an expanded role for archaeology within the development process.[121]

115 Southport Group, *Realising the Benefits of Planning-Led Investigation*; Nixon, *What about Southport?*; Fulford and Holbrook, 'Relevant Beyond the Roman Period', 218; Brophy, 'Delivery: Putting Public Benefit at the Heart of What We Do'; Watson, 'Whither Archaeologists?'

116 CIfA, 'CIfA Strategic Plan 2020–30: An Opportunity to Comment', 2

117 Merriman, 'Museums and Archaeology', 23; Martelli-Banégas, Panhard, and Favré, 'Image of Archaeology in UK', 17

118 Gould, 'On the Case', 18; Ellenberger and Richardson, 'Reflecting on Evaluation in Public Archaeology', 79; Tully, 'Skills, Ethics and Approaches', 43; Wilkins, 'A Theory of Change and Evaluative Framework', 80; Little, 'What Can Archaeology Do for Justice, Peace, Community, and the Earth?', 15

119 Burtenshaw, 'A Reply to "What Is Public Archaeology?"'; Bollwerk, 'Co-Creation's Role in Digital Public Archaeology', 231; Orange and Perring, 'Commercial Archaeology in the UK', 149

120 HCLG, *National Planning Policy Framework*, paras 185, 195–196

121 Orange and Perring, 'Commercial Archaeology in the UK', 149

122 Nixon, *What about Southport?*, 13

123 Southport Group, *Realising the Benefits of Planning-Led Investigation*, 25; Parga Dans, 'Heritage in Danger', 115

124 RFA, 'Heritage Grants', 16–18; Gould, 'On the Case', 12

125 Moshenska, *Key Concepts in Public Archaeology*, 13; Tully, 'Skills, Ethics and Approaches', 43; Pyburn, 'Archaeology by, for, and about the Public', 300; Band, 'CITIZAN 2015–2018 and 2019–2021', 402

126 Ellenberger and Richardson, 'Reflecting on Evaluation in Public Archaeology', 78; Dupeyron, 'Archaeological Heritage as a Resource for Development'

127 Bollwerk, 'Co-Creation's Role in Digital Public Archaeology'; Ellenberger and Richardson, 'Reflecting on Evaluation in Public Archaeology'

128 Bollwerk, 'Co-Creation's Role in Digital Public Archaeology', 230; Tanner, 'Measuring the Impact of Digital Resources', 12

129 Bagwell, Corry, and Rotheroe, 'The Future of Funding', 30; Moshenska, *Key Concepts in Public Archaeology*, 37

Taryn Nixon has highlighted that what is lacking is evidence that is compelling to developers and that archaeological solutions centred around public benefit are in their own best interest.[122] Such evidence must be gathered within the development-led system in order to be directly applicable, yet winning tenders that could supply the necessary evidence within the least-cost dominated market represents a significant challenge.[123] Collecting and evaluating the necessary evidence also requires funding and research for the National Lottery Heritage Fund has shown that the quality of evaluation is related to the amount of earmarked evaluation funding.[124] Securing the necessary evaluation budget from clients represents a further challenge and such funds may need to be sourced elsewhere in order to provide the evidence to support future public benefit focused tenders. However, in the longer term, evaluation mechanisms that allow practitioners to learn from mistakes as well as best practice must also be established and the necessary funding for these allocated from core budgets.[125]

Despite calling for more evaluation in the sector, Ellenberger and Richardson stress that unless methodologies include reflexivity and mechanisms for changing practice in response to results, prioritising evaluation may not be worthwhile.[126] Due to the lack of evaluation in public-facing archaeological work, the literature on evaluating public benefit from archaeology recommends looking to other fields for methodologies.[127] Elizabeth Bollwerk, for example, highlights Simon Tanner's Balanced Value Impact Model, which sets out to measure impact of digital resources in the cultural sector, understood as 'a change in the life or life opportunities of the community for which the resource is intended.'[128] However, it is worth noting that archaeology is not the only field that has struggled to evaluate public benefit and that other fields, such as the broader cultural sector may not be as good at evaluation as we, or indeed they themselves, might think.[129]

Q Can a single public benefit evaluation framework evaluate the quality of all aspects of an archaeological project?
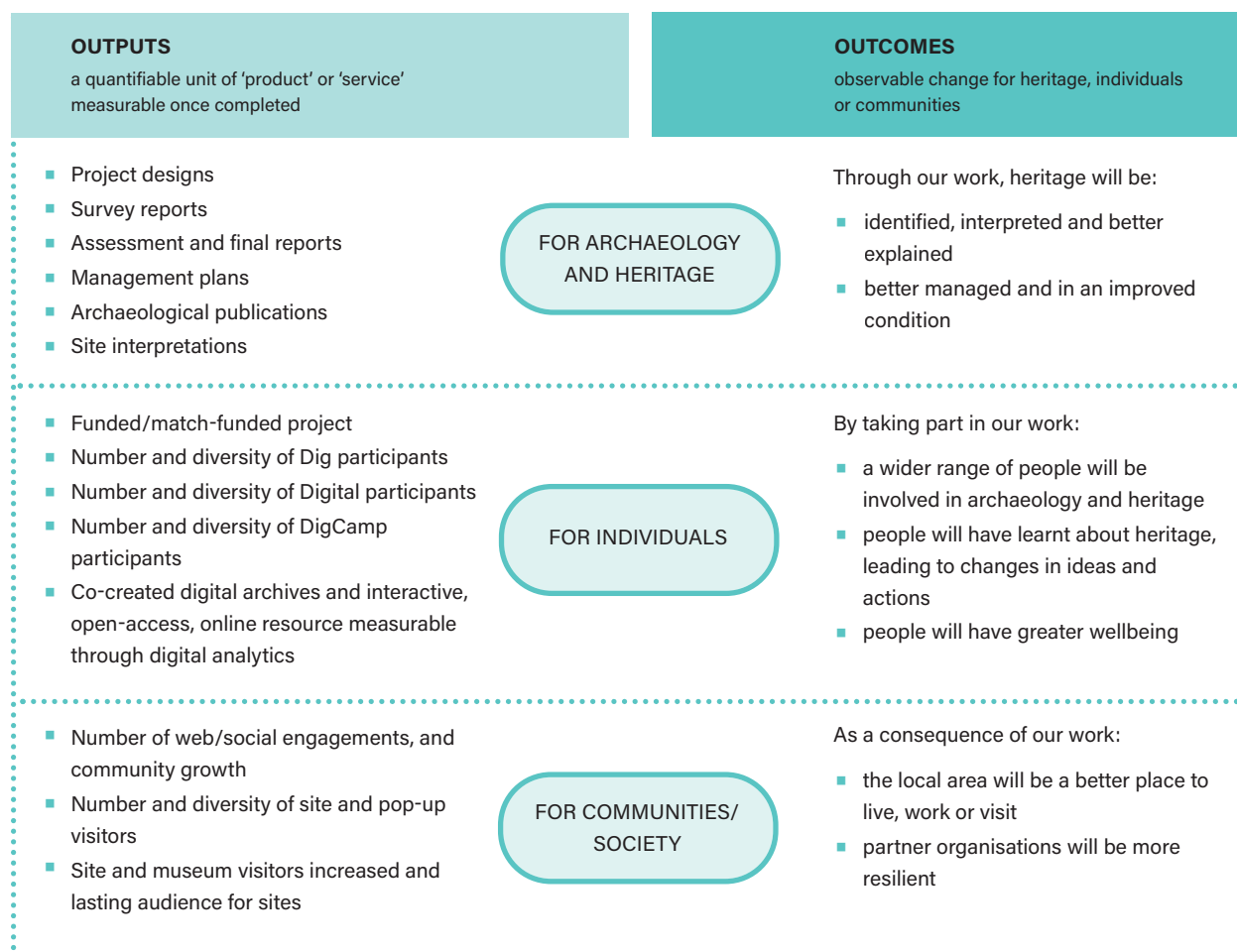
Q How can archaeological contractors embed evaluation in their core practice in ways that provide staff with opportunities to reflect on and share learning while also providing compelling evidence of public benefit to funders?
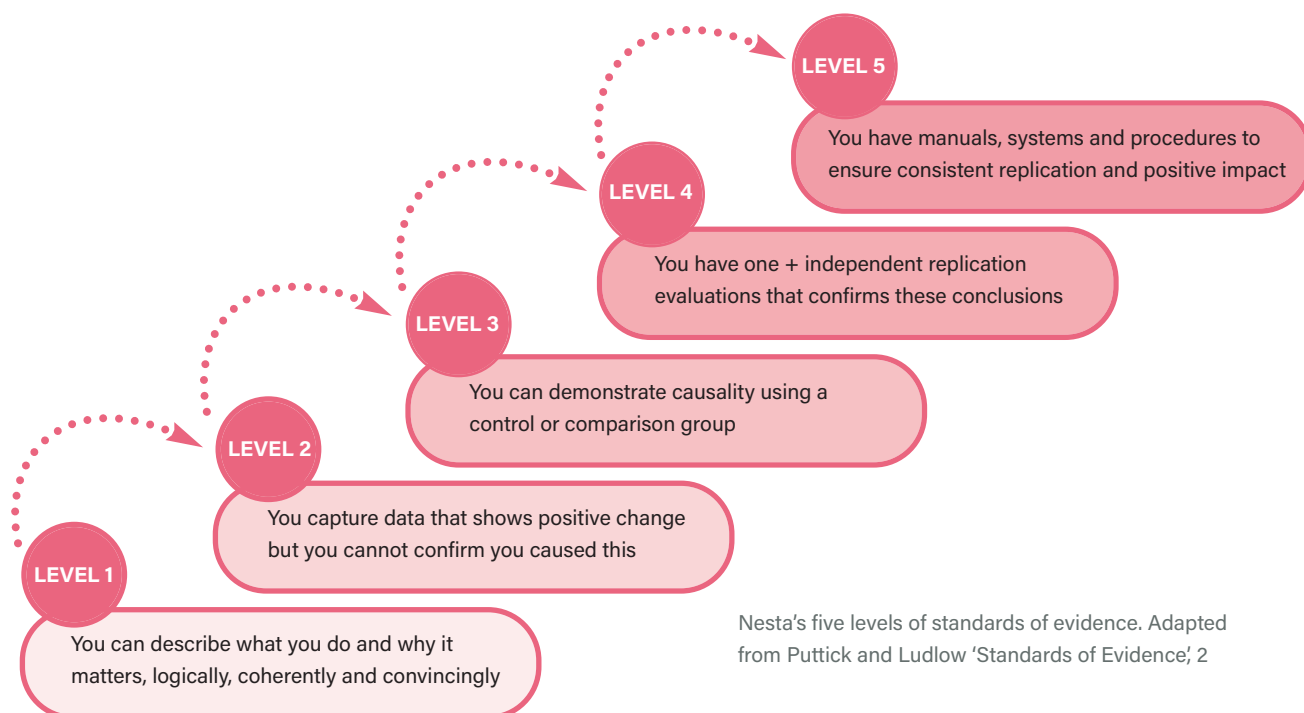
Evaluation at DigVentures

DigVentures is an archaeological social enterprise and CIfA accredited Registered Organisation, founded in 2011 with the intention of delivering community archaeology projects driven by crowdfunding and crowdsourcing.[130] While DigVentures originally initiated their own projects, they have more recently also begun to tender for contracts as an archaeological contractor, for example at Pontefract Castle. In 2019, Brendon Wilkins published DigVentures' new theory of change, an evaluation framework that draws on the National Lottery Heritage Fund's 'outcomes' and Nesta, the innovation foundation's, approach to evaluating social impact:

> In this scheme, outputs are a measurable unit of product or service, such as a community excavation; outcomes are an observable change for individuals or communities, such as acquiring skills or knowledge; and impact is the effect on outcomes attributable to the output, measured against two metrics: scale, or breadth of people reached; and depth, or the importance of this impact on their lives.[131]

OUTPUTS a quantifiable unit of 'product' or 'service' measurable once completed		OUTCOMES observable change for heritage, individuals or communities
- Project designs - Survey reports - Assessment and final reports - Management plans - Archaeological publications - Site interpretations	FOR ARCHAEOLOGY AND HERITAGE	Through our work, heritage will be: - identified, interpreted and better explained - better managed and in an improved condition
- Funded/match-funded project - Number and diversity of Dig participants - Number and diversity of Digital participants - Number and diversity of DigCamp participants - Co-created digital archives and interactive, open-access, online resource measurable through digital analytics	FOR INDIVIDUALS	By taking part in our work: - a wider range of people will be involved in archaeology and heritage - people will have learnt about heritage, leading to changes in ideas and actions - people will have greater wellbeing
- Number of web/social engagements, and community growth - Number and diversity of site and pop-up visitors - Site and museum visitors increased and lasting audience for sites	FOR COMMUNITIES/ SOCIETY	As a consequence of our work: - the local area will be a better place to live, work or visit - partner organisations will be more resilient

DigVentures have also published evaluations of their first project at Flag Fen and more recent work at Pontefract Castle, where they show how their evaluation of 'outcomes for heritage' meets the criteria for Nesta's level three, while their evidence for 'outcomes for people' and 'outcomes for communities' can more consistently be considered to meet the criteria for level two.[132] This is not to say that DigVentures' work has not developed considerably in this area, as a parallel reading of the two case studies demonstrates. Instead, it raises broader questions about the sector's ability to evidence the 'real benefits to people's daily lives' archaeologists claim to deliver and the standards such evidence should be evaluated against.[133]

LEVEL 5

You have manuals, systems and procedures to ensure consistent replication and positive impact

LEVEL 4

You have one + independent replication evaluations that confirms these conclusions

LEVEL 3

You can demonstrate causality using a control or comparison group

LEVEL 2

You capture data that shows positive change but you cannot confirm you caused this

LEVEL 1

You can describe what you do and why it matters, logically, coherently and convincingly

Nesta's five levels of standards of evidence. Adapted from Puttick and Ludlow 'Standards of Evidence', 2

DigVentures must be commended for developing and publishing an evaluation framework for public benefit from archaeological work. It is the only published framework of its kind for archaeology in the UK we are aware of and its existence allows us to consider how directly applicable existing frameworks are to development-led archaeological practice. Perhaps not surprisingly, DigVentures' own evaluations of their projects at Flag Fen in 2012 and Pontefract Castle in 2019 have highlighted that archaeologists have more robust procedures in place for evaluating the quality of archaeological investigations than the public benefit of their work. While infrastructures for the certification and peer review of archaeological work do exist, such frameworks and systems for quality control are generally vague or silent when it comes to evaluating public benefit. We also do not know of any archaeological projects whose evaluation of their public benefit delivery has included control groups, which is the defining characteristic of Nesta's level 3. Archaeologists may not believe the use of control groups to be appropriate in evaluating public benefit from individual projects, yet until robust public benefit evaluation is built into sector-wide accreditation, peer-review and benchmarking schemes, the lack of control groups leaves archaeologists unable to demonstrate that they have caused the benefits they claim to deliver.

130 Wilkins, 'DigVentures', 46; Westcott Wilkins, 'The "Real-Time" Team'; Westcott Wilkins, Wilkins, and Forster, 'Collaborative Archaeology'; Wilkins, 'A Theory of Change and Evaluative Framework', 80; Wilkins, 'Designing a Collaborative Peer-to-Peer System for Archaeology'
131 Wilkins, 'A Theory of Change and Evaluative Framework', 82
132 Wilkins, 85–86; Puttick and Ludlow, 'Standards of Evidence for Impact Investing'; Puttick and Ludlow, 'Standards of Evidence'
133 Wilkins, 'A Theory of Change and Evaluative Framework', 93–95; Ungemach and Wilkins, 'Public Impact'; Wilkins et al, 'Social Impact Archaeology'

Understanding and evaluating public benefit in comparator fields

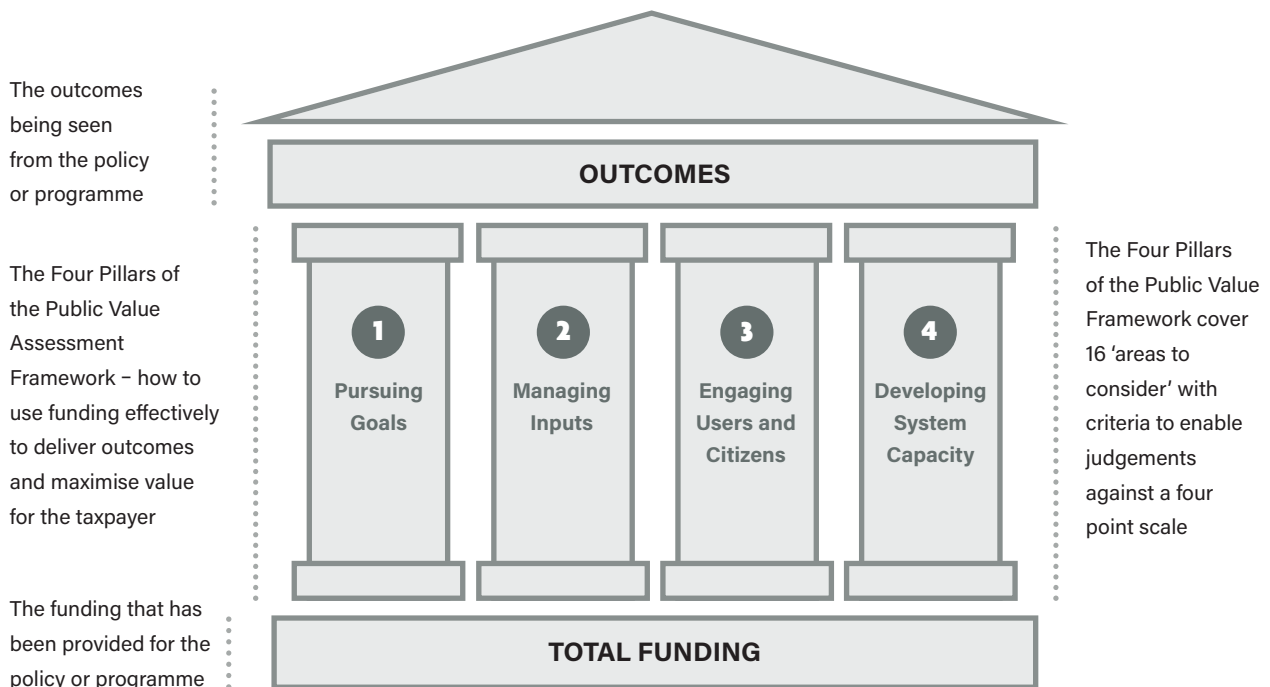Having outlined how public benefit is understood and evaluated within archaeology, we now turn to how other sectors approach similar questions in their own fields. We look at seven comparator sectors in turn, summarising how each understands and evaluates their impact and highlighting lessons for archaeology.

Infrastructure

Major transport infrastructure projects are funded through direct taxation and do not take place within the usual context of the planning control system. An Act of Parliament enables the relevant Whitehall Department to establish the company responsible for the project, who then employ contractors in complex tiered structures. The productivity and public value delivered by Departments is assessed according to the Public Value Framework, presented in Sir Michael Barber's 2017 report on delivering public benefit through public services.[134] The Department of Transport established High Speed Two Limited (HS2) through this process and as a result HS2 and all its contractors are subject to the Public Value Framework. The Framework is structured around four pillars, as illustrated below, where the strength of Pillar 1 depends on how clearly the goals of an expenditure are defined, how ambitious the goals are and the robustness of infrastructures for measuring success. Pillar 2 focuses on financial planning, while Pillar 3 focuses on public engagement, notably in order to generate public support and buy-in. The final pillar is concerned with capacity for innovation and learning, delivery, workforce and impact evaluation.[135] In addition, public sector projects are obligated to respond to the Public Sector Equality Duty. This requires public authorities and persons who exercise public functions to work to eliminate discrimination, advance equality of opportunity and foster good relations between people with and without protected characteristics by actively tackling prejudice and promoting understanding.[136]

The outcomes being seen from the policy or programme

The Four Pillars of the Public Value Assessment Framework – how to use funding effectively to deliver outcomes and maximise value for the taxpayer

The funding that has been provided for the policy or programme

OUTCOMES

1 Pursuing Goals

2 Managing Inputs

3 Engaging Users and Citizens

4 Developing System Capacity

TOTAL FUNDING

The Four Pillars of the Public Value Framework cover 16 'areas to consider' with criteria to enable judgements against a four point scale

The Public Value Framework, adapted from Barber[137]

The Barber Review does not introduce any new methods for evaluation but references the What Works initiative and high-level criteria for evaluating policy innovation. As a result, the primary method of evaluating infrastructure projects remains cost-benefit analysis, which has the potential to skew results in favour of economic parameters which rely on willingness to pay or competitive pricing. The willingness to pay metric is used within the Highways England (now National Highways) structure of evaluating projects. Strategic guidance outlines the complex modelling used to inform decisions based on impacts on specific criteria, including heritage.[138] Yet heritage impacts appear to be understood as impacts on the tangible historical environment itself, echoing general Environmental Impact Assessments, as opposed to anything more overtly aimed at the provision of public benefit. What the Barber Review does offer is a series of questions, including best/worst case scenario questions for each of the four pillars of the Public Value Framework.[139] The Historic Environment Research and Delivery Strategy (HERDS) developed for HS2 is one example of an archaeological research strategy that has been developed with the questions raised by the Public Value Framework in mind.[140] As we discuss on page 59, HERDS mirrors the overarching HS2 project in setting goals and facilitating public engagement to solicit public support for how those goals are being realised. However, it does not connect archaeology to the delivery of HS2's public benefit goals, nor does it attempt to develop more meaningful relationships with publics, beyond the Barber Review and HS2 public relations approach.

Archaeological organisations may be put off by the corporate public benefit frameworks developed for the infrastructure sector, yet in the absence of bespoke frameworks for archaeology, frameworks through which infrastructure companies are held accountable represent opportunities for archaeological organisations to both evidence public benefit and their value to infrastructure companies. Archaeological charities, in particular, should be leading the way in delivering public benefit. Instead, like other archaeological organisations, they argue that as sub-contractors, they should not be held accountable to public sector requirements such as the PSED. As a result, archaeology is not mentioned in Highways England's 2019 progress report, despite the inclusion of the A14 as a case study about 'how we're working with the community', [141] a project that included substantial archaeological investigations. Notwithstanding the limitations of public infrastructure spending assessments, there are nevertheless opportunities for archaeology to embed itself as a provider of public value, both of public benefit and as a contributor to the PSED obligations through our project outcomes.
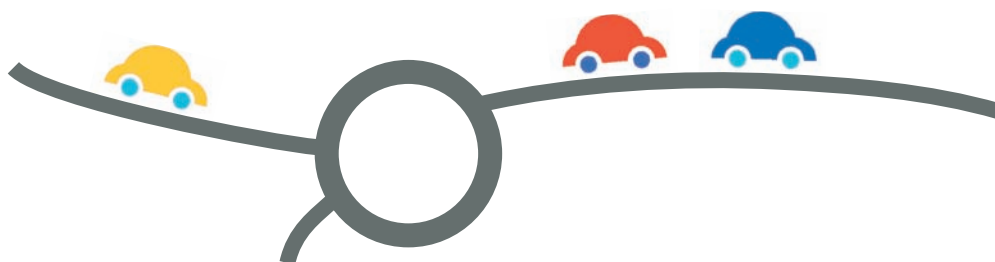
[134] Barber, 'Delivering Better Outcomes for Citizens'

[135] Barber, 29–36

[136] *Equality Act*, para. 149

[137] Barber, 'Delivering Better Outcomes for Citizens', 6

[138] Highways England, 'Highways England's Analytical Method to Inform Proposals for the Second Road Period (2020–2025)', 7; Highways England, 'Operational Metrics Manual', 40

[139] Barber, 'Delivering Better Outcomes for Citizens', 53–59

[140] High Speed Two, 'Historic Environment Research and Delivery Strategy: Phase One'

[141] Highways England, 'Our Road to Inclusion Gathers Pace', 9
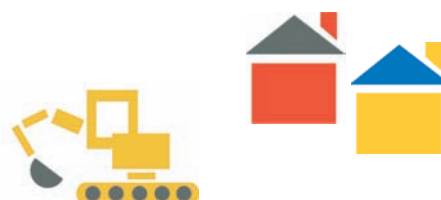
Construction and housing

The construction sector is the largest funder of archaeological work in the UK, with housing alone contributing a third of the £258m development-led archaeological market.[142] The Construction Sector Deal, developed and delivered by government in collaboration with the Construction Leadership Council, has identified the need for the sector to 'fulfil its potential to deliver wide-ranging social benefits.'[143] One of the steps taken to meet this need is the establishment of the Construction Innovation Hub (see pages 56–57).[144] The Social Value Act of 2012 places obligations on developers to contribute to wellbeing and adhere to social value frameworks.[145] The social value of each project can be defined on an individual basis specifically in relation to the scheme, although intended outcomes tend to include employment and skills, local procurement strategies and the creation of public spaces or buildings. The UK Social Value Bank tool developed by the Housing Associations' Charitable Trust (HACT) is one framework for measuring social value based on wellbeing, which follows HM Treasury Green Book guidelines and outlines financial values for wellbeing indicators in categories such as health, youth and local environment.[146] HACT have recently launched the 'Social Value Roadmap', which sets out their three stage plan to expand and improve the UK Social Value Bank, develop tools for its use and roll out a series of services, including social value assurance, audit, certification and benchmarking.
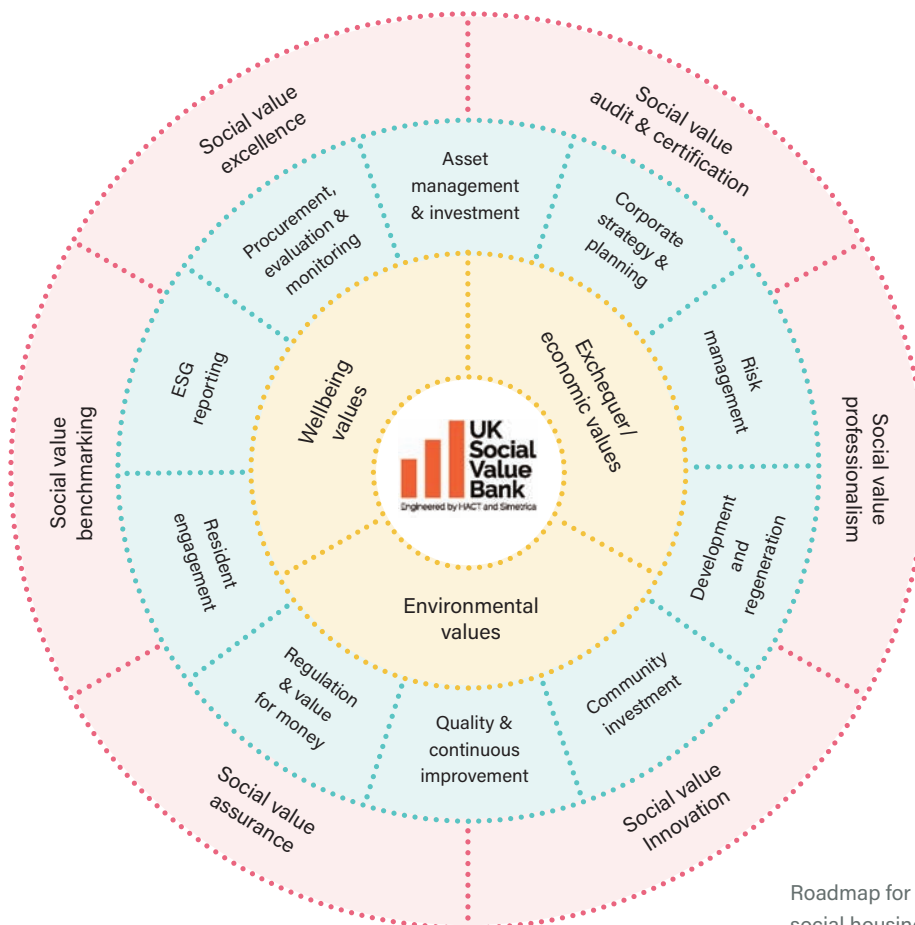
Roadmap for the future of social value in social housing, adapted from HACT[147]

The various outcomes listed in models such as the UK Social Value Bank are given a monetary value calculated from predetermined national themes, outcomes and measures (TOMS), which are drawn from a wide range of databases such as the Office for National Statistics.[148] These various amounts are then added up to provide the total social value for a property or project portfolio. Leading voices in wellbeing impact evaluation have cautioned that wellbeing valuation tools such as the UK Social Value Bank risk over-selling the economic worth of social value and trivialising the complexities of the subjective and highly personal nature of wellbeing.[149] Nevertheless, quantitative impact evaluations are favoured in the construction and housing sectors, whether monetary models such as the UK Social Value Bank or other rating and certification frameworks such as CEEQUAL, the sustainability assessment framework developed by the Institution of Civil Engineers.[150]

While there are challenges associated with the frameworks within which archaeology and construction co-operate, there has been a concerted effort to counter the narrative that archaeology restricts development or represents unnecessary costs.[151] This conversation is evolving within the context of the 2019 Planning White Paper, with significant implications for how public benefit (social value in the construction sector) from archaeology will be nurtured or neglected.[152] Nevertheless, these conversations are usually aimed at policy makers rather than colleagues in the construction sector. While archaeologists may not want to adopt the quantitative evaluation methods favoured by the construction and housing sectors, those who want to be involved earlier in the supply chain will need to familiarise themselves with these methods in order to show how archaeology can add value in ways that provide returns within construction sector frameworks. Certification frameworks such as CEEQUAL already account for the historic environment and while archaeological bodies such as CIfA might lobby for alternative factors to be included in these assessments, archaeological contractors might do well to consider how they can contribute to a wider range of categories, such as 'consultation and engagement' and 'wider social benefits.' These categories are separate to the historic environment in CEEQUAL and represent a potential way for archaeologists to add value at an earlier stage in the design of construction projects, while also embedding archaeological work in local communities.

[142] Aitchison and Rocks-Macqueen, *State of the Archaeological Market 2019*, 5, 20

[143] HM Government, 'Construction Sector Deal', 6

[144] Department for Business, Energy & Industrial Strategy, 'Construction Sector Deal: One Year On'

[145] *Public Services (Social Value) Act*

[146] Trotter et al, 'Measuring the Social Impact of Community Investment'; HM Treasury, 'The Green Book'

[147] HACT, 'A Roadmap for the Future of Social Value in Social Housing'

[148] Trotter et al, 'Measuring the Social Impact of Community Investment', 11

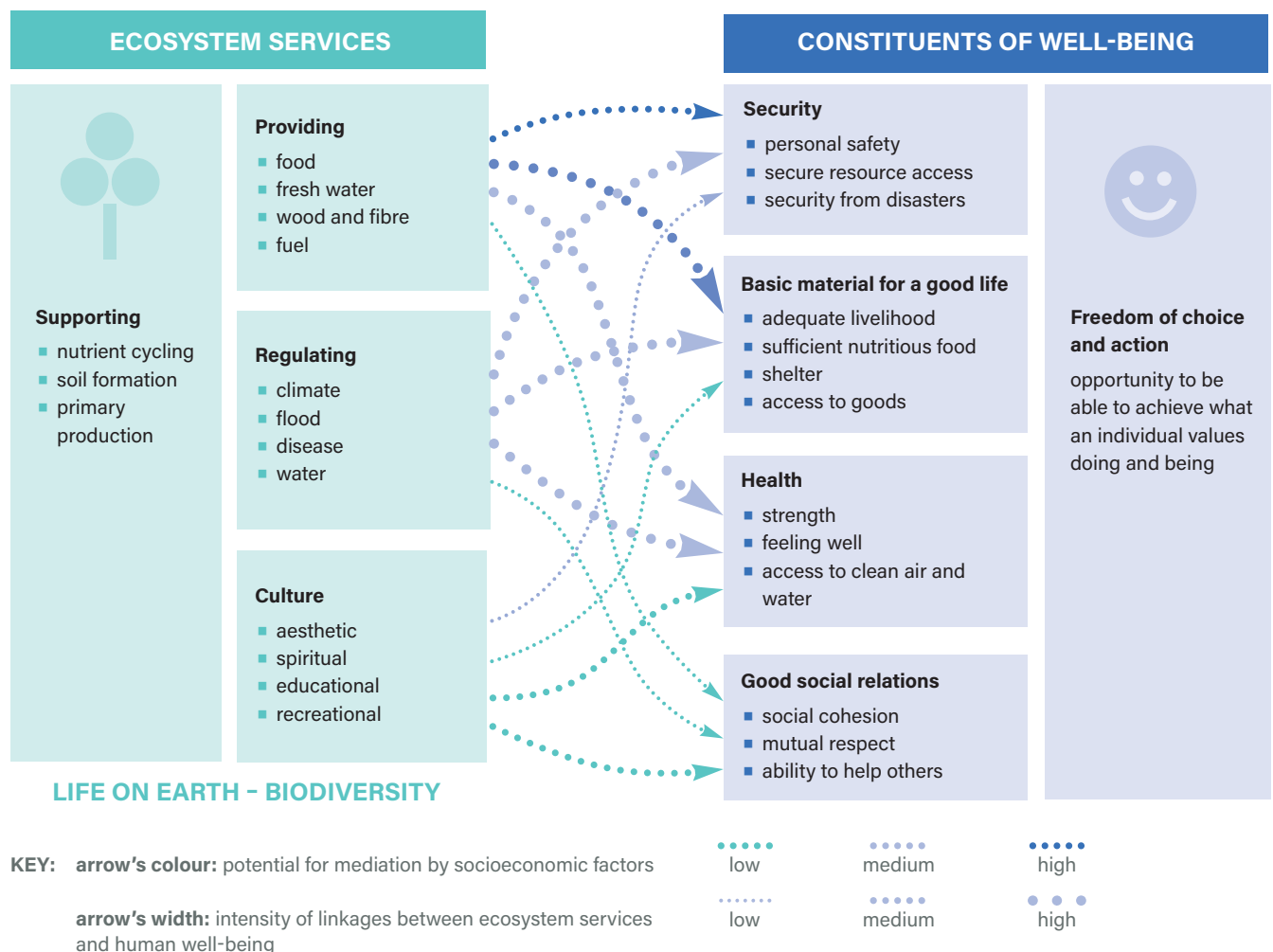[149] What Works Wellbeing, 'The Problem with Wellbeing Valuation'

[150] BRE Global Limited, *CEEQUAL Version 6*

[151] Rocks-Macqueen and Lewis, 'Archaeology in Development Management', 3

[152] Belford, 'Ensuring Archaeology in the Planning System Delivers Public Benefit'

Ecosystem services

The concept of ecosystem services became the cornerstone of the field of ecological economics in the late 1990s. It was popularised by two publications in 1997 and the United Nations Millennium Ecosystem Assessment between 2001 and 2005, as a response to the rapid depletion of natural capital. The Millennium Assessment defined ecosystem services as 'the benefits people obtain from ecosystems' and set out to investigate how changing ecosystems were impacting human wellbeing.[153] Since then, a number of classification systems for ecosystem services have been developed, such as the European Environment Agency's Common International Classification of Ecosystem Services (CICES).[154] The various classification systems offer slightly different definitions of ecosystem services, but they agree that the term refers to what ecosystems provide humans with, as distinct from how humans use those services. CICES focuses specifically on what it terms 'final services,' which are the services lying directly up against the 'production boundary' where humans use ecosystem services to provide goods and benefits. Lake water that is used directly for drinking is one example of a final service and fish in the lake used for recreational fishing is another. Regulating ecosystem services are especially significant in that they constitute services that may not be part of production chains, yet are essential for human life, such as climate, flood and disease regulation. The ecosystem services concept is integral to approaches to valuing nature.

ECOSYSTEM SERVICES

Providing
- food
- fresh water
- wood and fibre
- fuel

Supporting
- nutrient cycling
- soil formation
- primary production

Regulating
- climate
- flood
- disease
- water

Culture
- aesthetic
- spiritual
- educational
- recreational

LIFE ON EARTH – BIODIVERSITY

CONSTITUENTS OF WELL-BEING

Security
- personal safety
- secure resource access
- security from disasters

Basic material for a good life
- adequate livelihood
- sufficient nutritious food
- shelter
- access to goods

Health
- strength
- feeling well
- access to clean air and water

Good social relations
- social cohesion
- mutual respect
- ability to help others

Freedom of choice and action

opportunity to be able to achieve what an individual values doing and being

KEY: **arrow's colour:** potential for mediation by socioeconomic factors

low   medium   high

arrow's width: intensity of linkages between ecosystem services and human well-being

low   medium   high

The relationship between ecosystem services and wellbeing, adapted from the Millennium Ecosystem Assessment[155]
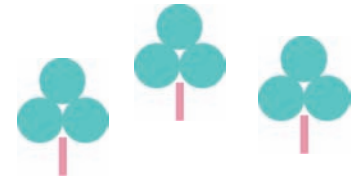
The United Nations' System of Environmental Economic Accounting (SEEA) provides one approach to measuring and evaluating ecosystem services, which uses the System of National Accounts to estimate the value of ecosystem services that contribute to gross domestic product. The SEEA Central Framework does not provide guidance on valuing ecosystem services that are not traded in markets, such as clean air, but encourages their measurement. Within ecosystem accounting, evaluation operates on two levels, measuring stocks and flows. Ecosystem assets are spatial areas that give rise to flows between different ecosystem assets as well as flows of ecosystem services that that are used by humans to increase wellbeing.[156] Evaluation tends to focus on measuring stocks and flows, rather than on exactly how specific ecosystem services contribute to different aspects of wellbeing.[157] The methods used for valuation include direct market as well as stated and revealed preference evaluations, which are borrowed from other disciplines.[158] Robert Constanza and colleagues stress that while 'there is not one right way to assess and value ecosystem services,' not to do so at all certainly is a wrong way and that recording ecosystem services even without valuation is often useful for impacting policy.[159]

There are many similarities between approaches to valuing nature and culture, and thereby also archaeology. Ecosystem services is founded on the logic of natural capital, which conceptualises ecosystems as being made up of stocks and flows.[160] This language of stocks and flows may be helpful to archaeologists when considering the public benefits of archaeological work.[161] Within the historic environment, archaeological sites are referred to as heritage assets, so it is natural to think of them as archaeological stocks. Grey literature, site reports and archaeological archives might also be considered stocks, from which benefits might flow to people in the future. One thing we must consider is whether simply transferring stocks of archaeological sites into stocks of grey literature, site reports and archives is a satisfactory outcome for development-led archaeology, or whether we should expect developers (and contractors) to invest more directly in delivering flows of public benefit that contribute to wellbeing through archaeological practices. The Millennium Ecosystem Assessment encourages us to question how development-led archaeology activates archaeological assets to contribute to improved security, material for good life, health, social relations and freedom of choice and action. Equally, we should consider how we can ensure that the stocks we do create through archaeological investigations are best positioned to deliver flows of benefits in the future.

[153] Millennium Ecosystem Assessment, *Ecosystems and Human Well-Being*, v; Costanza et al, 'Twenty Years of Ecosystem Services', 2
[154] Haines-Young and Potschin, 'Common International Classification of Ecosystem Services'; TEEB, *Mainstreaming the Economics of Nature*
[155] Millennium Ecosystem Assessment, *Ecosystems and Human Well-Being*, vi
[156] United Nations, *System of Environmental-Economic Accounting 2012: Experimental Ecosystem Accounting*, 17
[157] United Nations, *System of Environmental-Economic Accounting 2012: Central Framework*, 18
[158] DEFRA, *An Introductory Guide to Valuing Ecosystem Services*; Pascual et al., 'Ecological and Economic Foundations'
[159] Costanza et al, 'Twenty Years of Ecosystem Services', 3, 7
[160] HM Government, 'A Green Future'
[161] Sagger, Philips, and Haque, 'Valuing Culture and Heritage Capital'

Arts and Culture

The cultural sector has a long history of evaluating public benefit, often in response to funders' requirements or to justify government funding, with mixed success.[162] Eleonora Belfiore, perhaps the most prolific researcher on cultural policy and the value of culture in the UK since the turn of the century, has characterised the cultural sector's approach to articulating its value as a 'defensive instrumentalism,' because of its focus on the socio-economic value of arts and culture that is limited to narrow economic metrics. Her main critique is that the sector has become so caught up in defensive justifications and a focus on the methodology of evaluation, that it has overlooked engaging positively with what cultural value is and the politics of which publics participate and benefit.[163] The most prominent framework for understanding public benefit in the cultural sector is Arts Council England's Generic Learning Outcomes and Generic Social Outcomes, which organisations are encouraged to 'mix and match to demonstrate impact.' The Generic Learning Outcomes Checklist includes over thirty different potential learning outcomes, while the webpages for Generic Social Outcomes list fourteen social outcomes indicators, such as 'improving group and inter-group dialogue and understanding.'[164] The wide range of potential outcomes identified by the Arts Council reflects a broad sector providing a spectrum of different services.
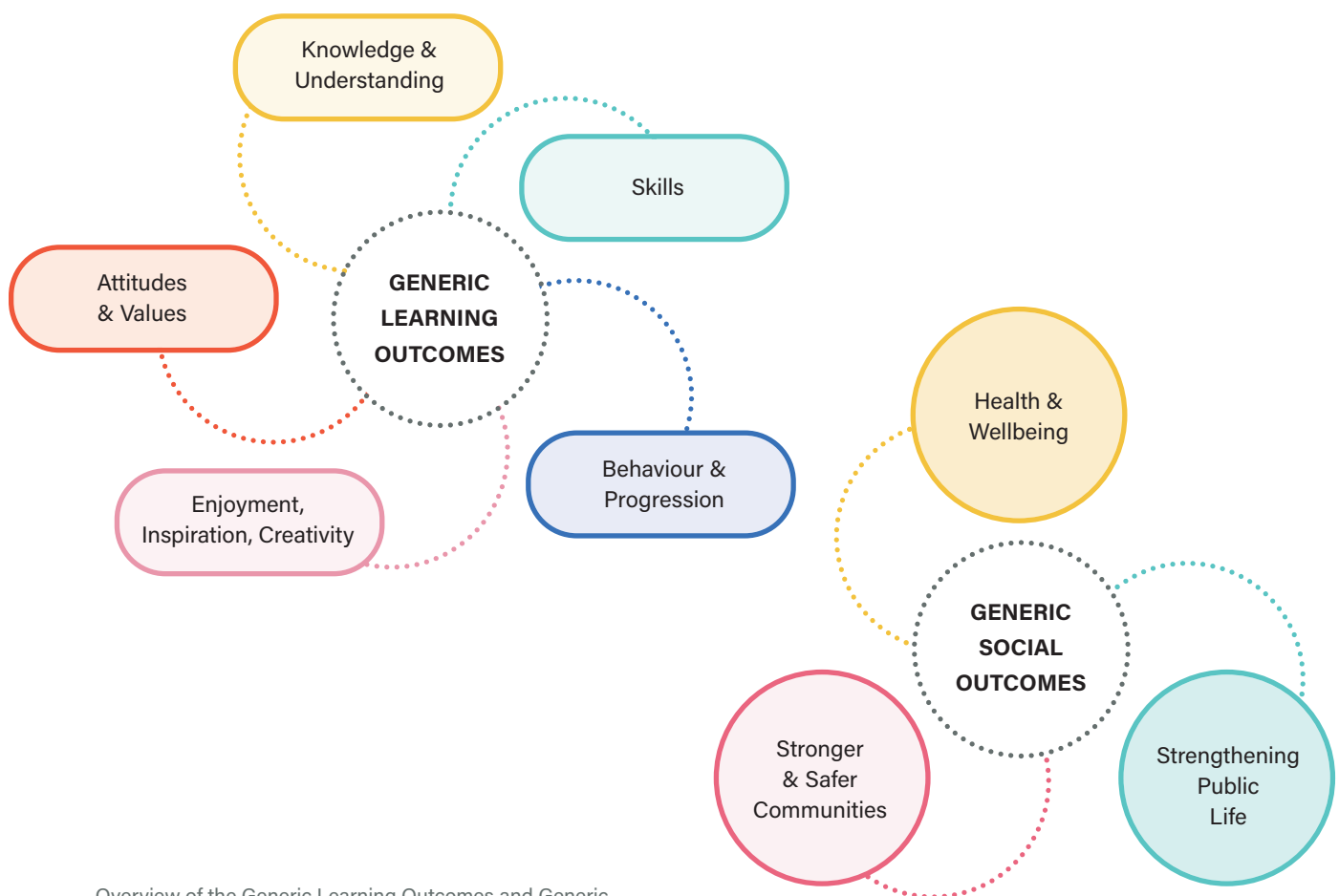
Overview of the Generic Learning Outcomes and Generic Social Outcomes, adapted from the Arts Council England[165]

In 2014, Arts Council England reflected that, despite the large body of research on the value of arts and cultural participation, 'most of the studies reviewed cannot establish causality between arts and culture and the wider social impacts.'[166] This situation is arguably largely unchanged, in part because demonstrating causality requires evaluating what wouldn't have happened without the programme or investment in question and necessitates different approaches. Larger meta-analyses of arts and culture programmes are hampered by retrospective evaluations and poor data quality. The issue here is not so much a lack of methods, but rather a lack of investment in planning and performing the necessary data collection and reporting, which leads Tamsin Cox and colleagues to question whether there is a general 'lack of curiosity about whether the project or programme funded has actually achieved the things it was funded for.'[167] Over the past decade, Arts Council England has invested in and trialled a standardised system for evaluating the quality of arts programming developed by Counting What Counts, which during the 2018–2020 funding cycle became a required reporting mechanism for higher band National Portfolio Organisations. Trials of this standardised quantitative approach to evaluation were met with mixed reviews from practitioners and academics and has not been taken forward following trials in Australia.[168]

Much of the discussion about the value of arts and culture in the first decade of the twenty-first century was caught up in debates about the distinction between 'intrinsic' and 'instrumental' values. There was a push-back against the perceived focus of government policy on the 'instrumental' values of what the culture sector does for society (education, jobs etc) as opposed to the 'intrinsic' value of art and culture on their own terms (inspirational, captivating etc).[169] However, as Lisanne Gibson and other researchers have argued, the policy focus on what investment in art and culture delivers is not new and there is little consensus around where the distinction between 'intrinsic' and 'instrumental' values should be drawn. This reflects real fault lines within the sector as to what the core purposes of cultural organisations are.[170] There are clear parallels to emerging discussions within archaeology and public benefit. For the time being, archaeologists are largely free to define their own objectives, metrics and evaluation methods. Research from arts and culture suggests that in order to make the most of this freedom, archaeologists should foster 'a frank culture of feedback within the organisation, with audiences, and with external stakeholders', actively engage with peer feedback, avoiding 'box-ticking' designed to satisfy funders. In other words, we should focus on developing evaluation strategies that empower us to improve our own practice.[171]

162 Burtenshaw, 'Cultural Capital'; Burtenshaw, 'Economics in Public Archaeology'
163 Belfiore, '"Defensive Instrumentalism" and the Legacy of New Labour's Cultural Policies'
164 Arts Council England, 'The Importance of GSOs'; Arts Council England, 'Generic Learning Outcomes Checklist'
165 Arts Council England, 'General Learning Outcomes'; Arts Council England, 'The Importance of GSOs'
166 Arts Council England, 'The Value of Arts and Culture to People and Society', 39
167 Cox, McGillivray, and McPherson, 'Making Sense of Multiplicity', 210; Gilmore, 'Evaluating Legacies'
168 Gilmore, Glow, and Johanson, 'Accounting for Quality'; Phiddian et al, 'Counting Culture to Death'; Arts Council England, 'Mandatory Requirements for National Portfolio Organisations Using the Impact & Insight Toolkit'
169 Crossick and Kaszynska, 'Understanding the Value of Arts & Culture'
170 Gibson, 'In Defence of Instrumentality'; Belfiore and Bennett, 'Rethinking the Social Impacts of the Arts'
171 Bailey and Richardson, 'Meaningful Measurement', 303–4

Wellbeing

Wellbeing has emerged as one of the primary lenses through which to consider public benefit, ranging from very broad definitions within Ecosystem Services (see pages 44–45) and other economic models, through community wellbeing and down to more specific considerations of individual mental and physical health.[172] In the UK, the Office for National Statistics has been measuring national wellbeing since 2010 according to a range of different 'indicators.'[173] Based on this programme, the What Works Centre for Wellbeing was commissioned to develop a new model and set of indicators for understanding wellbeing, which we have adapted and reproduced below. It is worth noting that when wellbeing is discussed in the cultural or archaeological sectors, this is usually with reference to the 'personal wellbeing' and 'health' domains of the What Works model, as in the case of Arts Council England's Generic Social Outcomes (see page 46), Historic England's work on wellbeing, and that of rehabilitation archaeology programmes.[174]
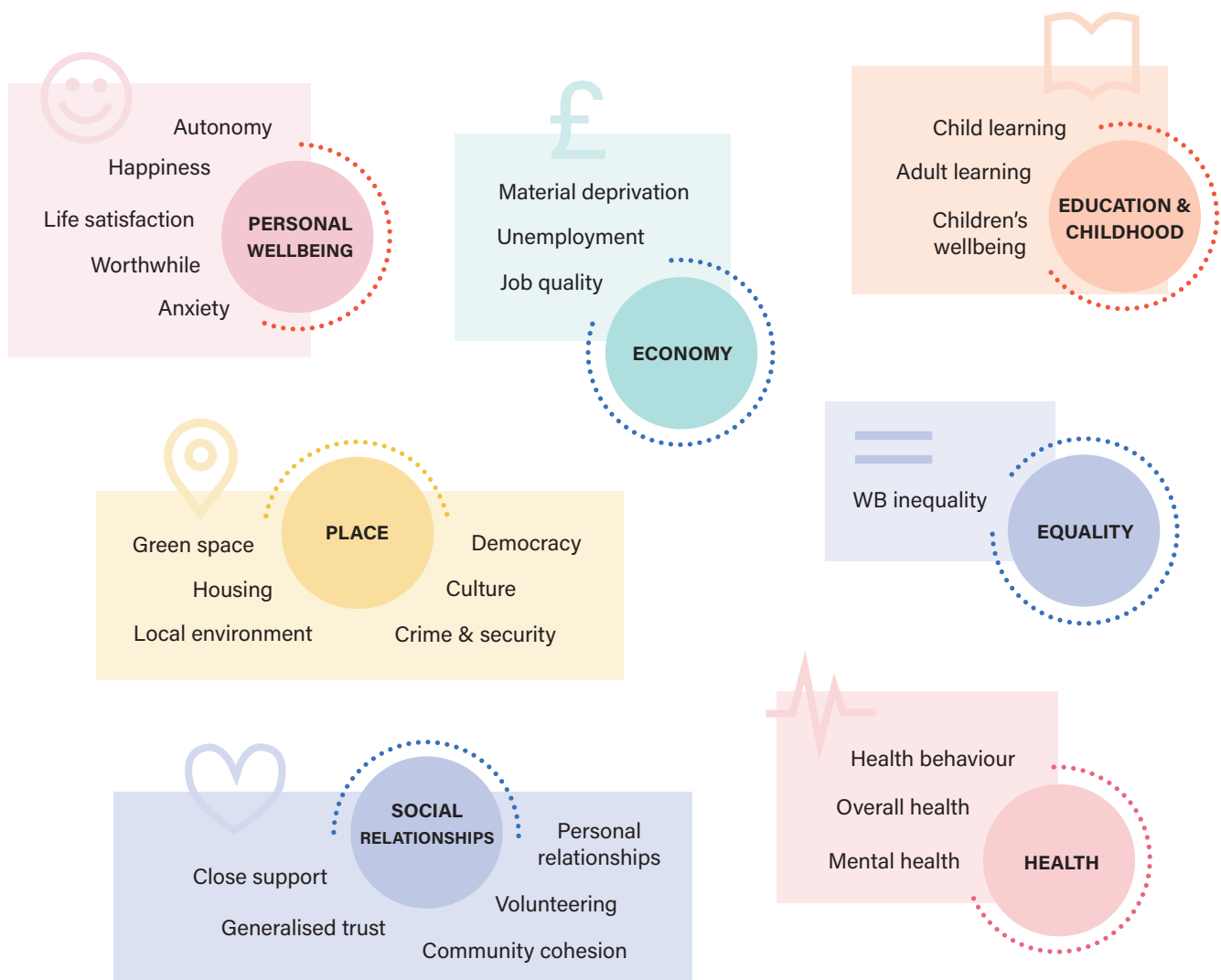
Overview of the What Works Centre for Wellbeing's framework consisting of 7 domains and 26 sub-domains of local wellbeing, adapted from Brown *et al.*[175] These indicators are an expansion on standard economic metrics, emphasising the wellbeing impacts of social contact, access to green spaces and cultural participation.

Given the broad scope of the wellbeing concept, it should be no surprise that different components of wellbeing are assessed following different methods. The ONS uses four survey questions to measure personal wellbeing that ask respondents to self-assess their overall satisfaction with their lives, how worthwhile the things they do in their life feel and how happy and how anxious they felt yesterday on scales from 0 to 10.[176] The larger data set for 'national wellbeing' is drawn from a range of different national surveys and statistics, some of which use self-reported metrics such as those for personal wellbeing and others that use other data sources on topics such as unemployment and greenhouse gas emissions.[177] The What Works Centre for Wellbeing identified ten criteria for indicators for evaluating wellbeing. Three that stand out are that indicators must be 'valid' in that they measure what they claim, that the data is readily 'available' and that there is a balance of 'subjective vs objective,' or qualitative and quantitative, measures.[178] Evaluation of wellbeing in cultural and archaeological projects has tended to focus on personal wellbeing and health, utilising quantitative self-assessments on standardised scales.[179] By comparison, Helen Chatterjee and colleagues have delivered a series of projects that also utilised qualitative or mixed methods and the Happy Museum Project provide a range of resources for different types of evaluation, including embedded and creative approaches.[180] Yet, despite the progress made in this field, reviews lament the lack of standardised definitions and methods, small sample sizes and lack of control groups.[181]

Wellbeing is one of the research themes for the newly founded Centre for Cultural Value. In her contribution to the Centre's series of 'essential reads,' Laila Jancovich highlights Nina Simon's *The Art of Relevance*, in order to move the conversation beyond personal wellbeing to include the wider place-based and social domains. She shares how Simon calls for a shift from identifying cultural value in the impact cultural institutions have on the individual people who visit to their wider social relevance, for example by providing spaces for difficult conversations and negotiating difference.[182] This matches up well with the Arts Council's generic social outcome indicator of improving dialogue and understanding, which sits under 'stronger & safer communities,' and is also a new focus of some archaeologists' public facing work, such as the EMOTIVE project.[183] There is clear potential for archaeology to deliver benefits across the full range of wellbeing domains as defined by the What Works Centre for Wellbeing. Aspects of this work is already underway in select case studies and should play an important role in creating holistic frameworks for public benefit from archaeology in the future.

172 Aked et al, 'Five Ways to Wellbeing'; Atkinson et al, 'What Is Community Wellbeing?'
173 Office for National Statistics, 'Personal Well-Being Frequently Asked Questions'; Office for National Statistics, 'Well-Being'; Office for National Statistics, 'Measures of National Well-Being Dashboard'
174 Monckton, 'Public Benefit as Community Wellbeing in Archaeology'; Everill, Bennett, and Burnell, 'Dig In'; Humphreys, 'Rehabilitation Archaeology'
175 Brown et al, 'Understanding Local Needs for Wellbeing Data,' 7–8
176 Office for National Statistics, 'Personal Well-Being Frequently Asked Questions'
177 Office for National Statistics, 'Measuring National Well-Being'
178 Brown et al, 'Understanding Local Needs for Wellbeing Data,' 6; Mulgan et al, 'Public Value,' 15
179 Everill, Bennett, and Burnell, 'Dig In,' 221
180 Morse and Chatterjee, 'Museums, Health and Wellbeing Research'; Thomson et al, 'Art, Nature and Mental Health'; Happy Museum Project, 'Tools'
181 Dowlen, 'Research Digest,' 8–9; Vidovic, Reinhardt, and Hammerton, 'Can Social Prescribing Foster Individual and Community Well-Being?'
182 Jancovich, 'Value(s) in Cultural Participation'; Simon, *The Art of Relevance*
183 Perry, 'The Enchantment of the Archaeological Record'; Perry et al, 'Shared Digital Experiences Supporting Collaborative Meaning-Making at Heritage Sites'; Katifori et al, '"Let Them Talk!"'; McKinney et al, 'Developing Digital Archaeology for Young People'
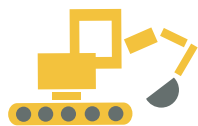
International development

International development and aid are highly controversial topics that operate within ongoing dynamics of international exploitation, inequality and neo-colonialism. It is worth noting that critical scholarship in this area is not merely concerned with how international development and affiliated heritage/archaeological projects should be performed and evaluated, but also whether they should be performed at all.[184] Despite this controversial context, international development remains an influential context for conceptualising and evaluating public benefit, never more so than since the United Nation's adoption of the Sustainable Development Goals (SDGs) in 2015. These 17 goals, expanded from the 8 Millennium Development Goals adopted in 2000, were used as the targets for the UK Global Challenges Research Fund (2016-2021). This led to researchers from across disciplines aligning their research with the SDGs and bidding for aid money to fund their research. A report on the heritage-related projects funded to meet the SDGs through this grant scheme has been published by Francesca Gilliberto at the University of Leeds.[185]

1 NO POVERTY	2 ZERO HUNGER	3 GOOD HEALTH & WELL-BEING	4 QUALITY EDUCATION	5 GENDER EQUALITY	6 CLEAN WATER & SANITATION
7 AFFORDABLE & CLEAN ENERGY	8 DECENT WORK & ECONOMIC GROWTH	9 INDUSTRY, INNOVATION & INFRASTRUCTURE	10 REDUCED INEQUALITIES	11 SUSTAINABLE CITIES & COMMUNITIES	12 RESPONSIBLE CONSUMPTION & PRODUCTION
13 CLIMATE ACTION	14 LIFE BELOW WATER	15 LIFE ON LAND	16 PEACE, JUSTICE & STRONG INSTITUTIONS	17 PARTNERSHIPS FOR THE GOALS	SUSTAINABLE DEVELOPMENT GOALS

The 17 Sustainable Development Goals adopted by the United Nations in 2015, adapted from the United Nations[186]

Unsurprisingly, there is no single measure of development that covers all of the SDGs, though the Human Development Index and its various augmentations have attempted to quantify and measure the quality of life on a national scale.[187] Drilling down, each of the SDGs do have a set of bespoke targets and indicators. For example, one of the seven targets for 'No Poverty' is that there should be no extreme poverty, defined as people living on less than 1.25 USD per day. The indicator for this target is the 'proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural).' [188] Defining goals, targets and indicators at this level of specificity provides clarity for what projects should attempt to achieve and how their achievements should be evaluated. Given that different projects aim to address different goals and targets, evaluation methods and metrics necessarily vary greatly. The International Initiative for Impact Evaluation provides examples of impact reports that evaluate the extent to which development projects meet their aims, by performing random sampling and using control groups.[189] By comparison, evaluations of archaeological and heritage projects are generally less rigorous and where they do take place, tend to rely on anecdotal case studies or small sample sizes.[190]

In the SDGs, the field of international development provides archaeology with a framework for what it might mean to take CIfA's goal of bringing 'real benefits to people's daily lives' seriously.[191] It also provides examples of what it might look like to evaluate projects against the SDGs' goals, targets and indicators. As Agathe Dupeyron and Peter Gould note, there are also lessons to be learnt from development studies on how to design and evaluate small sample sizes, which could potentially be very valuable for evaluating archaeological projects.[192] However, a critical reading of Giliberto's review of heritage projects operating within contexts of international development suggests that while heritage researchers are eager to claim the relevance of their projects to delivering SDGs, projects are rarely designed to evidence their impact with regard to the indicators underpinning the SDGs.[193] This highlights the practical distance between highlighting links between archaeology and public benefit and developing archaeological practices that are designed to deliver and evidence public benefit in practice. Development-led archaeological units interested in aligning their projects with public benefit goals would do well to recognise the scale of this challenge, though some of the goals should certainly be achievable, for example Goal 4 ('Quality Education') for archaeological units that are educational charities.

184 Cooke and Kothari, *Participation: The New Tyranny?*; Mawuko-Yevugah, *Reinventing Development*; Buba, 'Aid, Intervention, and Neocolonial "Development" in Africa'; Basu and Modest, *Museums, Heritage and International Development*; Abu-Khafajah and Miqdadi, 'Prejudice, Military Intelligence, and Neoliberalism'; Labadi, *The Cultural Turn in International Aid*; Meskell, 'Imperialism, Internationalism, and Archaeology in the Un/Making of the Middle East'
185 Giliberto, 'Heritage for Global Challenges'
186 United Nations, 'Sustainable Development Goals Kick off with Start of New Year'
187 United Nations Development Programme, *The next Frontier*, 227, 245, 261
188 United Nations, 'End Poverty in All Its Forms Everywhere'
189 Beam et al, 'Impact Evaluation of the Phillipine Special Program for Employment of Students'
190 Dupeyron, 'Archaeological Heritage as a Resource for Development'; Giliberto, 'Heritage for Global Challenges'
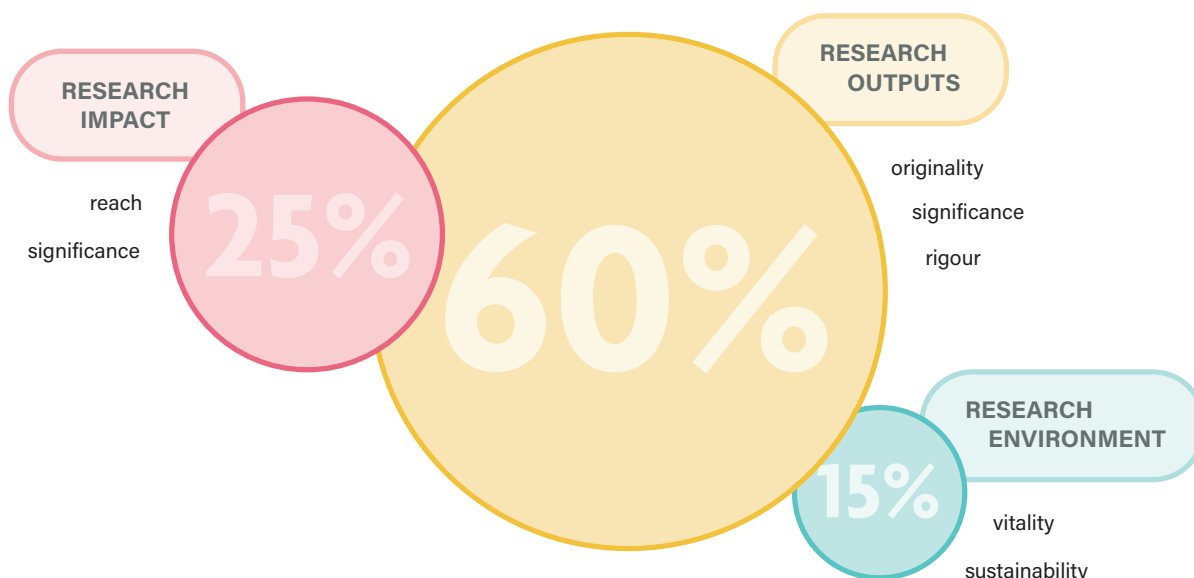191 CIfA, 'CIfA Strategic Plan 2020–30: An Opportunity to Comment', 2
192 Dupeyron, 'Archaeological Heritage as a Resource for Development'; Dupeyron, 'Capturing the Impacts of Archaeology for Development'; Gould, 'On the Case'
193 Giliberto, 'Heritage for Global Challenges'

Higher Education

The quality of the work conducted by the UK Higher Education sector is evaluated through three distinct frameworks, the Research Excellence Framework (REF), the Teaching Excellence Framework (TEF) and the Knowledge Exchange Framework (KEF). Of these, the REF is the most direct comparator to assessing the quality of archaeological knowledge generated through development-led archaeology as the TEF assesses teaching rather than knowledge generation. The metrics used for the first KEF exercise in 2021 were predominantly based on the proportion of grant funding that was secured in partnership with non-academic institutions and the success rate of start-ups and spin-outs.[194] The first REF took place in 2014, replacing previous modes of assessment and incorporating a new focus on non-academic research impact worth approximately £1.6 billion.[195] Submissions to the REF are judged on three distinct elements. These are 'outputs', 'impact' and 'environment', which are each assessed according to generic criteria by expert panels across 34 subject areas called 'units of assessment.' As of REF21, Archaeology constitutes its own unit of assessment with a dedicated sub-panel of expert archaeologist assessors, which sits within Main Panel C for the Social Sciences.[196]

RESEARCH IMPACT

reach

significance

25%

60%

RESEARCH OUTPUTS

originality

significance

rigour

RESEARCH ENVIRONMENT

15%

vitality

sustainability

Elements and criteria for assessments of submissions to REF21, based on information from the Research Excellence Framework[197]

194 Research England, 'Knowledge Exchange Framework'
195 King's College London and Digital Science, 'The Nature, Scale and Beneficiaries of Research Impact', 12–14
196 Research Excellence Framework, 'Panel Criteria and Working Methods', 17
197 Research Excellence Framework, 'Guidance on Submissions'

Submissions to the REF are assessed and allocated a quality score ranging from unclassified (or zero) to four-star. Main Panel C, which includes Archaeology, assigns star grades to research outputs based on their novelty, significance as a point of reference, level of influence on the intellectual agenda, rigour of research design and execution and the significance of generated data sets.[198] REF does not use journal impact factor or the reputation of publishers in any part of assessments and the sub-panel for archaeology does not use citation data as part of their assessment.[199] REF recognises impacts on 'the economy, society, culture, public policy or services, health, the environment or quality of life,' but not on other research.[200] Research impact is reported through five-page case studies that clearly identify beneficiaries and the relationship between researchers, research and impact, and are backed up by precise and relevant indicators for impact that are verifiable and independently corroborated.[201] Public engagement may be included as a route to impact, but is not considered evidence of impact.[202] The REF recognises the expanded timeframe for impact and while impacts must have taken place during the 7-year assessment window, they may be based on research conducted over the past 20 years.

The REF is an important comparator for thinking through what an assessment of quality within development-led archaeology might look like, but there are also many important differences. While the REF excludes impacts on research and foregrounds 'influencing industry practice,'[203] a framework for development-led archaeology arguably should include impacts on higher education. In terms of methods of assessment, it is also worth noting that impact was a new inclusion in 2014 and academics are in many cases playing catch-up with how impact is measured and evaluated in other sectors.[204] While REF2014 case studies included several types of evidence, the most cited type of evidence was individual testimonials, more than half of which did not go beyond endorsements and case studies rarely identified the demographics reached.[205] Despite such weaknesses, the REF has spurred research on impact, with Mark Reed and colleagues highlighting key observations such as the distinction between research being 'necessary' (i.e. a contributing factor) and 'sufficient' (on its own) to cause impact and that while causal chains for impact may be long, the strength of the chain is only that of the weakest link.[206] Impact case studies submitted to the REF have also highlighted that impact and impact evaluation must be bespoke to projects, with more than half of REF2014 impact case studies reporting unique pathways to impact,[207] and that tracing longer-term impacts requires a shift in cultures of evaluation,[208] which will be even more challenging for development-led archaeology, given its project-based nature. Another important element to the REF that development-led archaeology might consider is its open access policy for published articles, for example through publishing monographs open access.[209]

198   Research Excellence Framework, 'Panel Criteria and Working Methods', 37–38
199   Research Excellence Framework, 'Panel Criteria and Working Methods', 51
200   Research Excellence Framework, 'Guidance on Submissions', 7
201   Research Excellence Framework, 'Panel Criteria and Working Methods', 58
202   Research Excellence Framework, 'Panel Criteria and Working Methods', 54–55
203   Hewlett, Bond, and Hinrichs-Krapels, 'The Creative Role of Research', 13
204   Hart, Northmore, and Gerhardt, 'Auditing, Benchmarking and Evaluating Public Benefit', 10–11; Research Excellence Framework, 'Panel Criteria and Working Methods', 78–79
205   Hewlett, Bond, and Hinrichs-Krapels, 'The Creative Role of Research', 38–39, 43
206   Reed et al, 'Evaluating Impact from Research'
207   King's College London and Digital Science, 'The Nature, Scale and Beneficiaries of Research Impact', 71; Hewlett, Bond, and Hinrichs-Krapels, 'The Creative Role of Research', 23
208   Hewlett, Bond, and Hinrichs-Krapels, 'The Creative Role of Research', 45–47
209   Research Excellence Framework, 'Guidance on Submissions', 26–27

# Towards a pragmatic way forward for public benefit in development-led archaeology

Having outlined how public benefit is understood and evaluated within archaeology and a series of seven comparator sectors, we now turn to how we might use this information to move forward. We begin with two case studies, in order to learn from ongoing experiences of attempting to embed archaeology in construction and infrastructure projects' social value frameworks. We then turn to how we feel development-led archaeology can most productively move toward maximising public benefit delivery.

Construction Innovation Hub

As we outline on pages 42–43, the relationship between development-led archaeology and the construction sector cannot be overstated. Archaeological units rely upon the sector for their income and each financial recession has severe impacts on archaeologists' work and thus our potential contribution to society. In the fairly recent past the precarity of this relationship has led to mass unemployment and abandoned projects across archaeology.[210] As a result, archaeologists often feel unable to fundamentally improve our futures, yet the nature of this relationship is not necessarily set in stone.

In 2018, the Transforming Construction Alliance were awarded a £72 million grant by Innovate UK (now part of UKRI) to deliver what would later become known as the Construction Innovation Hub.[211] It brings together leading academics and industry partners through the UK Research and Innovation Industrial Strategy Challenge Fund in order to 'transform the UK construction industry.'[212] As part of her UKRI Future Leaders Fellowship, Sadie Watson has reached out to the Construction Innovation Hub and is embedding herself in their programme. Prior to this, there were no archaeologists involved in the programme to transform the construction industry and archaeology was not on the Hub's radar. Here we reflect on the Construction Innovation Hub's value framework and Sadie's experience of attempting to situate archaeology within it, which remains an ongoing process.
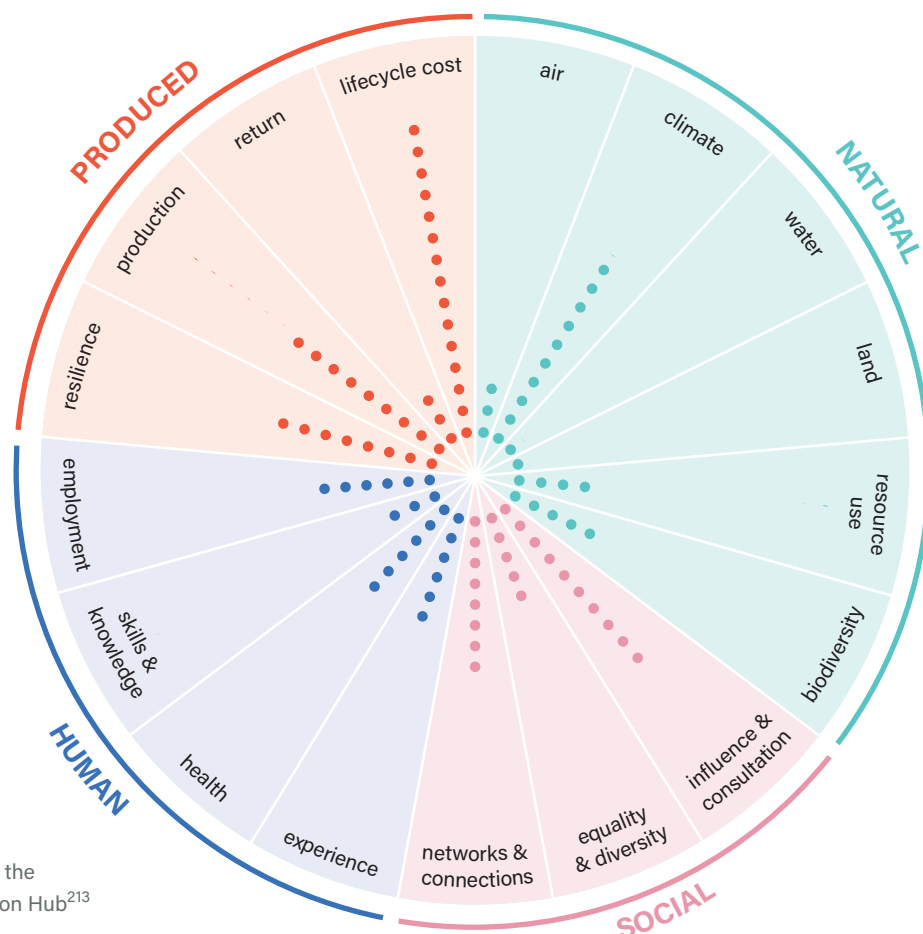
An example project profile, showing how values should drive all stages of a project, adapted from the Construction Innovation Hub[213]

The Construction Innovation Hub has four core themes: value, digital, manufacturing and assurance. While there is much to interest archaeologists in each of these, we will be focusing on the value workstream. The system presented by the value team provides a structure within which value-based projects should be articulated, evaluated and reported. The approach of considering the whole life of a project will reduce risk, level out potential financial imbalances and is intended to provide better outcomes for communities affected by development. The proposed model focuses on highlighting a broad range of metrics measured across the lifecycle of a construction project, divided up across natural, social, human and produced capital.[214] Initial consultation by the value work stream team, which includes the Royal Institute of British Architects, Royal Institute of Chartered Surveyors and Social Value UK, found there was support across construction for a value-led approach. Crucially, a sector report also recognises that realising the benefits of this approach requires 'involving members of the supply chain early on in the procurement but also project outset.' [215] It also introduces scholarship arguing that communication and accountability are integral to innovation, while highlighting a stark lack of visibility of delivery models and commercial strategies moving down the supply chain.[216]

The Construction Innovation Hub partners have been very welcoming and interested in the potential connections between the proposed value framework and what development-led archaeology could deliver for clients. However, Sadie has also experienced, once again, how low down the supply chain of contractors archaeology is perceived to lie, with partners viewing the work we do as mitigation rather than adding value. Her efforts have focused on raising the profile of archaeology and highlighting how it could fit into and contribute to the proposed value framework. This has already had some impact on what has gone out for review, a crucial contribution given that the archaeological sector is unlikely to ever be included among formal consultees. There is potential here for archaeology to help steer some of the work on social and human capital of the Construction Innovation Hub value framework and feed back high quality case studies with robust evidence that demonstrate how archaeology can deliver some of clients' deliverables and add value in these areas. This is a proactive way that archaeology can respond to the call the Hub's research is making for embedding value-led decision making throughout supply chains and procurement systems.

While archaeologists may not want to adopt the proposed value framework wholesale, it is certainly worth considering how a public benefit framework could be developed for archaeology where parts of the archaeological framework feed seamlessly into contractors' frameworks. The framework proposed by the Construction Innovation Hub is unlikely to be immediately adopted by contractors, yet it represents emerging thinking that is likely to guide future practice. While we are right to be wary of the ability of a sector that has always been driven by lowest cost to change, we would do well to engage when major sector bodies are making a concerted effort to try. High Speed Two is another example of how the wider construction and infrastructure sectors are moving toward foregrounding their efforts to be more socially responsible, which we now turn to next.

210   Aitchison and Locock, 'Hard Times'
211   Walters, 'Transforming Construction Alliance Secures Funding'
212   Transforming Construction Alliance, 'Who We Are'; UK Research and Innovation, 'What Is the Industrial Strategy Challenge Fund'
213   Construction Innovation Hub, 'Our Core Themes'
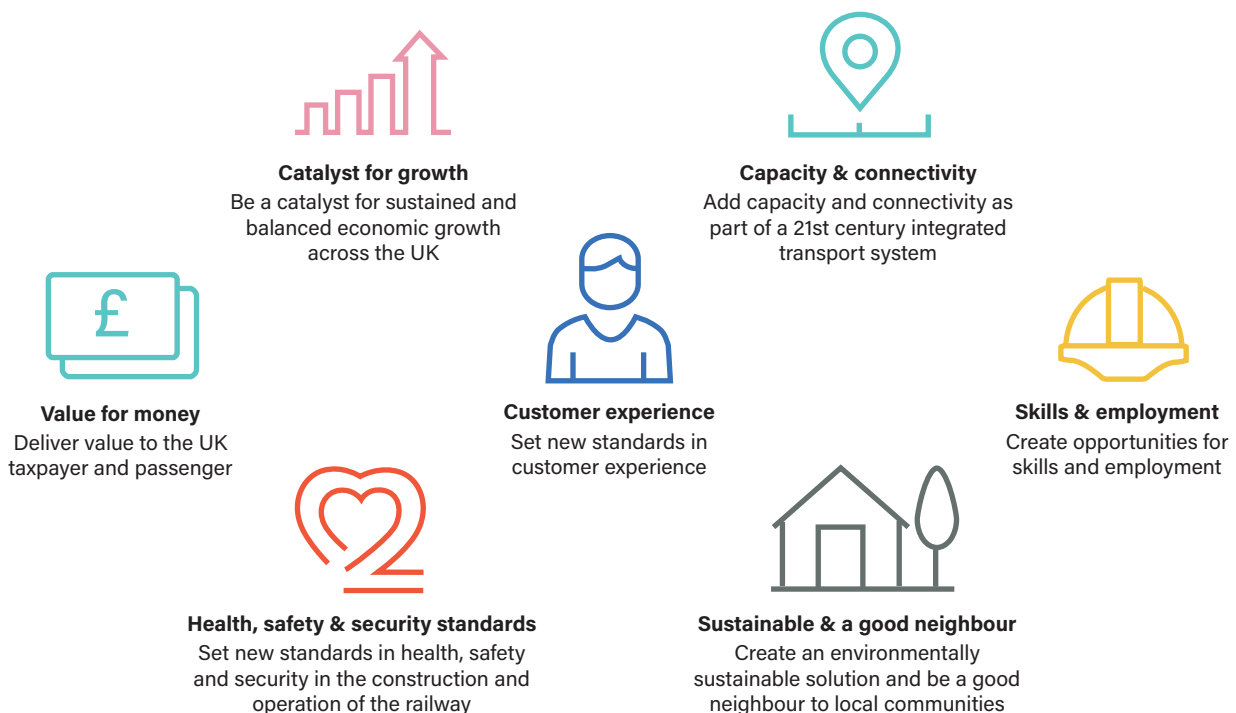214   Construction Innovation Hub, 'Value Toolkit Overview', 8
215   Construction Innovation Hub, 'Market Enablers Interim Report', 4, 20
216   Construction Innovation Hub, 20, 22

High Speed Two

High Speed Two (HS2) is a multi-billion infrastructure project building a new high-speed rail network between London, Birmingham and the north-west. Projects of this complexity are delivered by non-departmental public bodies (HS2 Ltd in this case), sponsored by the Department for Transport. This overarching body procure and manage a supply chain of contractors responsible for all the works, involving a myriad of organisations. Archaeological firms appointed by principal contractors are required to deliver technical archaeological services as well as subsequent public engagement programmes. HS2 Ltd take on the role of the archaeological curator, albeit with close cooperation with existing local authority curators and oversight from Historic England and undertaken within a bespoke research framework, the HERDS (Historic Environment Research and Delivery Strategy), which was produced with reference to relevant research frameworks. HS2 Ltd is a very useful exemplar of the challenges and opportunities associated with navigating major public projects with an internationally significant archaeological component, albeit still only one aspect of the overall scheme.

The HS2 historic environment programme operates within a framework of legislation, commitments, undertakings and assurances. A key document is the Heritage Memorandum which sets out the Secretary of State's commitment to the historic environment and the approach to the works. There is also a specific objective with the HS2 Environmental Policy which states the project will reduce harm to the historic environment and deliver a programme of heritage mitigation including knowledge creation through investigation, reporting, engagement and archiving, with the primary objective of archaeological work framed within the context of successful mitigation of environmental impact, with knowledge creation a consequence of that. The idea of archaeological work acting as an enabler of other benefits is seen at a more project-specific level, in design documents prepared by the supply chain.

Catalyst for growth
Be a catalyst for sustained and balanced economic growth across the UK

Capacity & connectivity
Add capacity and connectivity as part of a 21st century integrated transport system

Value for money
Deliver value to the UK taxpayer and passenger

Customer experience
Set new standards in customer experience

Skills & employment
Create opportunities for skills and employment

Health, safety & security standards
Set new standards in health, safety and security in the construction and operation of the railway

Sustainable & a good neighbour
Create an environmentally sustainable solution and be a good neighbour to local communities

High Speed Two's seven strategic goals. Adapted from High Speed Two[217]

High Speed Two identifies its three measurable benefits as rail capacity, economic connectivity and zero carbon travel. Within HS2 Ltd, the Benefits Realisation team communicate and promote these benefits as key drivers of project design, management and implementation. The project is also guided by a set of seven strategic goals sitting below the primary benefits, as illustrated by the figure above. The primary archaeological contributions to the benefits programme are framed within the strategic goal of being 'sustainable and a good neighbour.'

The role archaeology is given within the HS2 community engagement strategy mentions archaeology's contribution to building 'respectful, long term community relationships' through open days, online provision and other educational activities.[218] Knowledge gain and improvement in industry standards are considered part of the legacy, with influential innovation achieved during the groundworks phase, with advances made in occupational health and scientific techniques for example. Generally, the archaeological process itself (whether non-intrusive surveys, trial trenching, archaeological excavation and recording) is not seen to be providing benefits, instead the benefit will come from the evidence recovered. This is a customary distinction.

The HERDS foregrounds three overarching focus areas for the archaeological work: 'creating knowledge, not information,' 'involving people' and 'establishing a lasting legacy.' These areas of focus are subsequently attached to seven headline objectives. These objectives call for archaeological work conducted as part of HS2 to be sector leading, with a steer away from 'preservation by record' toward 'investigation with purpose,'[219] and promise engagement with communities at an early stage with outputs that address audiences' needs. Public benefit is derived from engagement with interpretations of the material remains of the past.[220] The approach to evaluation of public engagement adopted by MOLA Headland Infrastructure, one of HS2's archaeological contractors, centres around questions asked about how an event has impacted participants' perceptions of archaeology, which closely mirror those asked about their perceptions of HS2.

What we observe in the case of HS2 is that while the HERDS clearly could contribute to most of HS2's seven strategic goals it was not overtly framed as doing so in the various origin documentation. With the Historic Environment team embedded across the hierarchy they have been able to communicate the benefits provided by the archaeological works to all departments, including the Benefits and Innovation teams. We suggest that the case of HS2 illustrates how archaeologists could seek to leverage their position and agency within development projects to maximise benefit to archaeological knowledge and archaeologists, operating in specialist areas that perhaps have not been our natural collaborators, but where we should be striving to influence.

As a flagship archaeological programme, we hope that HS2 Ltd will influence the wider sector and encourage the embedding of public benefit as a key outcome from the outset. As this work progresses, we will be reflecting on how archaeologists can use the scale of these programmes to facilitate approaches that may be perceived to carry greater risk, through incorporating local community input into standard project designs for example. Our research has highlighted the opportunities offered by all stages of the archaeological process to provide benefit, and that to consistently rely on mitigation as a tenet might prove limiting. These are not issues that are specific to HS2 or infrastructure more generally, but to explore them will lead us further along a path to widening participation and a better articulation of the benefits our work can provide.

[217] High Speed Two, 'HS2 Getting on Board with Local Businesses'
[218] High Speed Two, 'Being a Good Neighbour', 4–5; High Speed Two, 'Community Engagement Strategy'
[219] High Speed Two, 'Historic Environment Research and Delivery Strategy: Phase One', 2
[220] High Speed Two, 17–20

Towards a public benefit framework for development-led archaeology

In this final section of our report, we attempt to outline how we join together the disparate threads of our review on understanding and evaluating public benefit. Rather than dictating how to approach future work in delivering benefits to publics, we will focus on how what we have learned from this review could shape future endeavours. That said, we obviously hope our thinking will inspire your own and we would love to hear from you if it does. This section represents our personal and professional opinions, so has been composed in a way that reflects that.

When we say we want to maximise public benefit from development-led archaeology, what we mean by this is that we want to do development-led archaeology in ways that take CIfA's goal of delivering 'real benefits to people's daily lives' seriously.[221] Drawing on lessons from the cultural sector, we believe this requires not taking the benefits of our work for granted, but instead instilling a sense of curiosity and prioritising formative (or internal) evaluation in how we plan our work.[222] This is because the primary concern of the UKRI project is to become better at working in ways that deliver real benefits rather than to convince anyone else that our work is beneficial.[223] This is not to say that projects to create standard definitions and methods or to deliver case studies with larger sample sizes and control groups would not be worthwhile, but arguably these are tasks for separate research projects rather than for the everyday practice of archaeological contractors, consultants or local authority archaeologists.

We argue that archaeologists who want to work formatively toward maximising public benefit would do well to begin by asking 'value to whom' or 'for whose benefit'?[224] While we refer to 'publics' in this report in order to highlight that many different publics may be impacted by our work, individual projects must be as specific as possible about who we are aiming to benefit, in which ways, how we will know whether we are successful and how we can improve. For our work to be beneficial in practice, the publics we aim to benefit must have a voice in this process, highlighting the importance of formative evaluation. Such formative evaluation becomes especially important in cases where the tight timeframes of development-led archaeology make dialogue at the project design phase difficult.

Conducting this review has reinforced for us that our ability to maximise public benefit delivery is dependent on the validity of our approach to evaluation. First and foremost, we need to be confident that we have ways of monitoring whether our efforts are delivering the impacts we intend. Our comparator summaries, in particular the pages on Wellbeing (48–49), highlight the importance of choosing indicators that are both valid and available,[225] yet our disappointment with the Knowledge Exchange Framework for Higher Education (see pages 52–53) emphasises the danger of availability outweighing validity concerns when deciding what to measure. We want to foreground evaluation metrics that speak to the significance of engagements – or how meaningful interactions are – rather than only their visibility or reach.[226]

In line with our focus on internal and formative evaluations that are bespoke to each organisation and project, we feel very wary of advocating for frameworks of public benefit to be imposed on archaeologists. Nevertheless, we see the current situation, in which sector bodies claim that archaeology done to professional standards delivers public benefit without the standards for professional practice saying anything about public benefit, as completely unacceptable. Similarly, we believe change is necessary in the documentation surrounding individual projects. While we believe that the most successful development-led archaeology, in terms of public benefit provision, will be driven by contractors' internal motivations, requirements set by local authority archaeologists in briefs and written schemes of investigation and by consultants in calls for tenders represent significant sticks and carrots with which archaeologists can keep each other accountable. Making such documents publicly available, along with explicit identifications of the forms of public benefit specific publics can expect to enjoy as a result of the archaeological work would reinforce accountability and transparency further, while potentially also providing a new avenue for advocacy.

[221] IfA, 'Institute for Archaeologists Strategic Plan: Summary Document'; CIfA, 'CIfA Strategic Plan 2020–30: An Opportunity to Comment', 2
[222] Cox, McGillivray, and McPherson, 'Making Sense of Multiplicity', 210; Bailey and Richardson, 'Meaningful Measurement', 303–4
[223] NCCPE, 'EDGE Self-Assessment Matrix'; Reed et al, 'Evaluating Impact from Research'
[224] Hart, Northmore, and Gerhardt, 'Auditing, Benchmarking and Evaluating Public Benefit', 9
[225] Brown et al, 'Understanding Local Needs for Wellbeing Data', 6; Mulgan et al, 'Public Value', 15
[226] Wakefield, 'Digital Public Archaeology at Must Farm'

As we have stressed throughout this report, development-led archaeology is closely connected to the construction, housing and infrastructure sectors, but this has always been something of an arranged and loveless marriage. Clients may not appreciate the value of archaeology and archaeologists worry about their complicity in environmental impacts, gentrification and greenwashing. We do not seek to downplay the fraught nature of this relationship but do believe there is much to be gained from doing more to connect our efforts to deliver public benefit with clients' social value frameworks. These frameworks are currently being developed and archaeologists are largely not involved in these processes. A willingness to learn from other fields of practice should prepare archaeologists to approach the broader public benefit work of the sectors we are embedded within with confidence. By highlighting our public benefit delivery in terms that resonate with our clients' social value frameworks, archaeologists can both demonstrate our worth in ways that may help us secure increased influence higher up the supply chain and ultimately help shape the construction sector's social value models to be more accommodating of the benefits archaeologists could help provide in the future.

Yet, most archaeologists are trained to deliver knowledge generation, not public benefit. This is not to say that knowledge generation cannot be part of public benefit, but as we have shown throughout this review, there is growing discontent with the assumption that it necessarily is. We need a clearer understanding of the relationship between knowledge generation and public benefit. As we highlight in our discussion of ecosystem services (see pages 44–45), we feel there may be some value in thinking of the development-led archaeology that leads to archaeological sites being transformed into archaeological reports and archives as a process by which archaeological 'stocks' are transferred from one form to another. Yet within this way of understanding the archaeological process, it is reasonable to expect that flows of benefits should be delivered to publics in the present in *addition* to any deferred benefits made possible through archaeological reporting. Knowledge generation in the form of published books and articles may constitute a component of public benefit, but those benefits are unlikely to accrue primarily to the publics who are most directly impacted by the development the archaeological work has been commissioned to offset. If archaeologists are to recognise the implications of acting as uninvited guests,[227] we must accept the responsibility to consider the directions in which the benefits from our work flow, especially when we are working within larger development and infrastructure projects that disproportionately disadvantage specific publics.

227 Connaughton and Herbert, 'Engagement Within', 329–30

Much work remains to be done, especially in making sure that the benefits from archaeological work accrue to a larger and more representative proportion of the population. In raising this point we want to stress that it is not simply an issue of telling people archaeology is of benefit to them,[228] and that it must involve taking seriously the possibility that archaeologists may not currently be best placed to work in ways that accrue benefits to broader demographics. There is a very real risk that the conceptual breadth and flexibility of a concept such as public benefit can lead to a complacency of specificity. Public benefit should be genuinely meaningful to specific publics, but it doesn't need to be complicated.
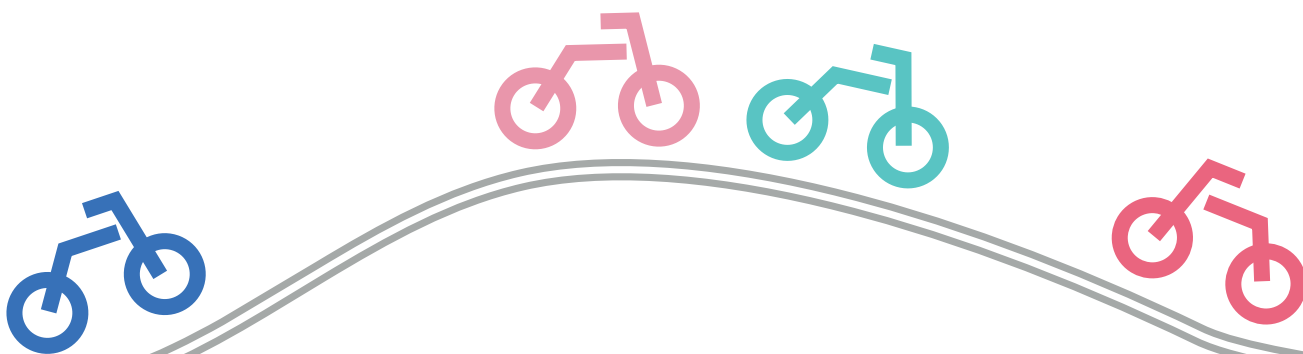
Arguably we complicate public benefit when we approach the topic by insisting that anything we do as archaeologists is of public benefit, rather than by asking how we can adapt our existing practices to ensure that they are as beneficial to specific publics as possible. This is a challenge we hope you will join us in taking on. We're only just getting started!

Harald Fredheim and Sadie Watson

[228] Dawson, 'Reimagining Publics and (Non) Participation'; Dawson, *Equity, Exclusion and Everyday Science Learning*

References

Abu-Khafajah, Shatha, and Riham Miqdadi. 'Prejudice, Military Intelligence, and Neoliberalism: Examining the Local within Archaeology and Heritage Practices in Jordan'. *Contemporary Levant* 4, no. 2 (3 July 2019): 92–106. https://doi.org/10.1080/20581831.2019.1667667

Agbe-Davies, Anna S. 'Black Scholars, Black Pasts'. *SAA Archaeological Record* 2, no. 4 (2002): 24–28

Aitchison, Kenneth, and Martin Locock. 'Hard Times: Archaeology and the Recession'. *The Archaeologist* Spring 2009, no. 71 (2009): 10–11.

Aitchison, Kenneth, and Doug Rocks-Macqueen. 'Archaeology Labour Market Intelligence Profiling the Profession 2012–13'. Sheffield: Landward Research, n.d.

———. *State of the Archaeological Market 2019*. Federation of Archaeological Managers and Employers, 2020

Aked, Jody, Nic Marks, Corrina Cordon, and Sam Thompson. 'Five Ways to Wellbeing'. The New Economics Foundation, 2008. https://neweconomics.org/uploads/files/five-ways-to-wellbeing-1.pdf

ALGAO. 'About ALGAO'. Association of Local Government Archaeological Officers, 2020. https://www.algao.org.uk/about

———. 'Community Engagement'. Association of Local Government Archaeological Officers, 2020. https://www.algao.org.uk/localgov/community

Arts Council England. 'Arts Council England – Mandatory Requirements for National Portfolio Organisations Using the Impact & Insight Toolkit; Financial Year 2021–22'. Impact & Insight Toolkit, 2021. https://impactandinsight.co.uk/supportv1/mandatory-evaluation-guidance-21-22/

———. 'General Learning Outcomes'. Arts Council England. Accessed 1 January 2021. https://www.artscouncil.org.uk/measuring-outcomes/generic-learning-outcomes#section-2

———. 'Generic Learning Outcomes Checklist'. Arts Council England. Accessed 1 January 2021. https://www.artscouncil.org.uk/measuring-outcomes/generic-learning-outcomes#section-8

———. 'The Importance of GSOs'. Arts Council England. Accessed 1 January 2021. https://www.artscouncil.org.uk/generic-social-outcomes/importance-gsos#section-1

———. 'The Value of Arts and Culture to People and Society: An Evidence Review'. Arts Council England, 2014. https://www.artscouncil.org.uk/exploring-value-arts-and-culture/value-arts-and-culture-people-and-society

Ascherson, Neal. 'Editorial'. *Public Archaeology* 1, no. 1 (January 2000): 1–4. https://doi.org/10.1179/pua.2000.1.1.1

Atkinson, Sarah, Anne-Marie Bagnall, Rhiannon Corcoran, Jane South, Sarah Curtis, Salvatore di Martino, and Gerlinde Pilkington. 'What Is Community Wellbeing?: Conceptual Review'. What Works Wellbeing, 2017. https://whatworkswellbeing.org/resources/what-is-community-wellbeing-conceptual-review/

Bagwell, Sally, Dan Corry, and Abigail Rotheroe. 'The Future of Funding: Options for Heritage and Cultural Organisations'. *Cultural Trends* 24, no. 1 (2015): 28–33

Bailey, Jackie, and Lance Richardson. 'Meaningful Measurement: A Literature Review and Australian and British Case Studies of Arts Organizations Conducting "Artistic Self-Assessment"'. *Cultural Trends* 19, no. 4 (December 2010): 291–306. https://doi.org/10.1080/09548963.2010.515004

Band, Lara. 'CITIZAN 2015–2018 and 2019–2021, a Community Archaeology Project Past and Future: Successes, Challenges, Potential Solutions'. *European Journal of Post-Classical Archaeologies* 9 (2019): 399–409

Barber, Sir Michael. 'Delivering Better Outcomes for Citizens: Practical Steps for Unlocking Public Value'. London: HM Treasury, 2017. https://www.gov.uk/government/publications/delivering-better-outcomes-for-citizens-practical-steps-for-unlocking-public-value

Barclay, Gordon J, and Kenneth Brophy. '"A Veritable Chauvinism of Prehistory": Nationalist Prehistories and the "British" Late Neolithic Mythos'. *Archaeological Journal*, 23 June 2020. https://doi.org/10.1080/00665983.2020.1769399

Basu, Paul, and Wayne Modest, eds. *Museums, Heritage and International Development*. Abingdon: Routledge, 2015

Beam, Emily, Leigh Linden, Stella Quimbo, and Heather Richmond. 'Impact Evaluation of the Phillipine Special Program for Employment of Students'. Impact Evaluation Report. New Delhi: International Initiative for Impact Evaluation (3ie), 2018. https://www.3ieimpact.org/evidence-hub/publications/impact-evaluations/impact-evaluation-philippine-special-program

Belfiore, Eleonora. '"Defensive Instrumentalism" and the Legacy of New Labour's Cultural Policies.' *Cultural Trends* 21, no. 2 (June 2012): 103–11. https://doi.org/10.1080/09548963.2012.674750

Belfiore, Eleonora, and Oliver Bennett. 'Rethinking the Social Impacts of the Arts.' *International Journal of Cultural Policy* 13, no. 2 (2007): 135–51

Belford, Paul. 'Ensuring Archaeology in the Planning System Delivers Public Benefit.' *Public Archaeology*, 13 October 2020, 1–26. https://doi.org/10.1080/14655187.2020.1833525

Bollwerk, Elizabeth. 'Co-Creation's Role in Digital Public Archaeology.' *Advances in Archaeological Practice* 3, no. 3 (2015): 223–34

Bonacchi, Chiara, and Gabriel Moshenska. 'Critical Reflections on Digital Public Archaeology.' *Internet Archaeology*, no. 40 (2015). https://doi.org/10.11141/ia.40.7.1

Boyle, Gail, Nick Booth, and Anooksha Rawden. 'Museums Collecting Archaeology (England) REPORT YEAR 3: November 2018.' Society for Museum Archaeology, 2018

BRE Global Limited. *CEEQUAL Version 6: UK & Ireland Projects*. Watford: BRE Global Limited, 2020

British Academy. *Reflections on Archaeology*. London: British Academy, 2017

Brophy, Kenny. 'Think Piece for the Re-Imagining Scottish Archaeology Workshops: Delivery: Putting Public Benefit at the Heart of What We Do.' Chartered Institute for Archaeologists, 2019. https://www.archaeologists.net/projects/re-imagining-scottish-archaeology-structure-funding-and-delivery-workshop-series-and-report

Brown, Gary. 'Pre-Construct Archaeology: A Child of PPG 16.' *The Archaeologist* Spring 2016, no. 98 (2016): 9–10

Brown, Helen, Saamah Abdallah, Ruth Townsley, Liz Zeidler, Sara MacLennan, and Ingrid Abreu Scherer. 'Understanding Local Needs for Wellbeing Data: Measures and Indicators.' What Works Wellbeing, 2017. https://whatworkswellbeing.org/resources/understanding-local-needs-for-wellbeing-data/

Buba, Imrana Alhaji. 'Aid, Intervention, and Neocolonial "Development" in Africa.' *Journal of Intervention and Statebuilding* 13, no. 1 (2019): 131–38

Burtenshaw, Paul. 'A Reply to "What Is Public Archaeology?"' *Present Pasts* 1, no. 1 (2009): 49. https://doi.org/10.5334/pp.7

———. 'Cultural Capital: A Manifesto for the Future.' *Public Archaeology* 9, no. 4 (2010): 239–42

———. 'Economics in Public Archaeology.' In *Key Concepts in Public Archaeology*, edited by Gabriel Moshenska, 31–42. London: UCL Press, 2017

Charities Act, 2011

Charity Commission. 'Public Benefit: Reporting (PB3).' Charity Comission, 2017

———. 'Public Benefit: Running a Charity (PB2).' Charity Comission, 2017

———. 'Public Benefit: The Public Benefit Requirement (PB1).' Charity Comission, 2017

CIfA. 'Annual Review 2019/2020.' Chartered Institute for Archaeologists, 2020. https://www.archaeologists.net/sites/default/files/CIfA%20Annual%20Review%202020.pdf

———. 'Appendix 4 Workshop Summary Feedback.' Chartered Institute for Archaeologists, 2020. https://www.archaeologists.net/sites/default/files/projects/Appendix%204%20Summary%20Feedback.pdf

———. 'Archaeology and Good Planning', 2020

———. 'CIfA Regulations, Standards and Guidance.' Chartered Institute for Archaeologists, 2020. https://www.archaeologists.net/codes/cifa

———. 'CIfA Strategic Plan 2020-30: An Opportunity to Comment', 2020

———. 'Code of Conduct.' Chartered Institute for Archaeologists, 2014. https://www.archaeologists.net/sites/default/files/CodesofConduct.pdf

———. 'Delivering Public Benefit from Archaeology.' Chartered Institute for Archaeologists, 2020. https://www.archaeologists.net/sites/default/files/news/Public%20benefit%20leaflet.pdf

———. 'Our Royal Charter.' Chartered Institute for Archaeologists, 2020. https://www.archaeologists.net/charter

———. 'Professional Practice Paper: Delivering Public Benefit', 2021. https://www.archaeologists.net/sites/default/files/Delivering_public_benefit.pdf

———. 'Spotlight on... CIfA Guidance on Written Schemes of Investigation.' *The Archaeologist* Winter 2018, no. 103 (2018): 20–21

———. *Standard and Guidance for Archaeological Advice by Historic Environment Services*. Reading: Chartered Institute for Archaeologists, 2020

———. *Standard and Guidance for Archaeological Excavation*. Reading: Chartered Institute for Archaeologists, 2020

———. *Standard and Guidance for Commissioning Work or Providing Consultancy Advice on Archaeology and the Historic*

Environment. Reading: Chartered Institute for Archaeologists, 2020

Clark, Kate, and Gareth Maeer. 'The Cultural Value of Heritage: Evidence from the Heritage Lottery Fund.' *Cultural Trends* 17, no. 1 (March 2008): 23–56. https://doi.org/10.1080/09548960801920302

Connaughton, Sean P, and James Herbert. 'Engagement Within: An Anthropological Exploration of First Nations Engagement and Consulting Archaeology Within a Transnational Corporation.' *Archaeologies* 13, no. 2 (2017): 306–43

Construction Innovation Hub. 'Market Enablers Interim Report.' Construction Innovation Hub, 2020. https://constructioninnovationhub.org.uk/wp-content/uploads/2020/12/Market-Enablers-Interim-Report_Preview.pdf

———. 'Our Core Themes: Value', 2020. https://constructioninnovationhub.org.uk/value/

———. 'Value Toolkit Overview.' Construction Innovation Hub, 2021. https://constructioninnovationhub.org.uk/value-toolkit/

Cooke, Bill, and Uma Kothari, eds. *Participation: The New Tyranny?* London: Zed Books, 2001

Costanza, Robert, Rudolf de Groot, Leon Braat, Ida Kubiszewski, Lorenzo Fioramonti, Paul Sutton, Steve Farber, and Monica Grasso. 'Twenty Years of Ecosystem Services: How Far Have We Come and How Far Do We Still Need to Go?' *Ecosystem Services* 28 (December 2017): 1–16. https://doi.org/10.1016/j.ecoser.2017.09.008

Cox, Tamsin, David McGillivray, and Gayle McPherson. 'Making Sense of Multiplicity: Evaluating Scotland's Cultural Olympiad.' *Journal of Policy Research in Tourism, Leasure and Events* 6, no. 3 (2014): 201–14

Crossick, Geoffrey, and Patrycja Kaszynska. 'Understanding the Value of Arts & Culture: The AHRC Cultural Value Project.' Swindon: Arts and Humanities Research Council, 2016. https://ahrc.ukri.org/documents/publications/cultural-value-project-final-report/

Dawson, Emily. *Equity, Exclusion and Everyday Science Learning: The Experiences of Minoritised Groups*. Abingdon: Routledge, 2019

———. 'Reimagining Publics and (Non) Participation: Exploring Exclusion from Science Communication through the Experiences of Low-Income, Minority Ethnic Groups.' *Public Understanding of Science* 27, no. 7 (2018): 772–86

DEFRA. *An Introductory Guide to Valuing Ecosystem Services*. London: DEFRA, 2007

Demoule, Jean-Paul. 'Reply to Roger Thomas.' *Public Archaeology* 2, no. 4 (January 2002): 239–40. https://doi.org/10.1179/pua.2002.2.4.239.

———. 'Rescue Archaeology: A European View.' *Annual Review of Anthropology* 41 (2012): 611–26

———. 'Rescue Archaeology: The French Way.' *Public Archaeology* 2, no. 3 (2002): 170–77

Department for Business, Energy & Industrial Strategy. 'Construction Sector Deal: One Year On.' Department for Business, Energe & Industrial Strategy, 2019. https://www.gov.uk/government/publications/construction-sector-deal/construction-sector-deal-one-year-on#:~:text=The%20government%2C%20working%20in%20partnership,use%20of%20digital%20and%20offsite

DoE. *Planning Policy Guidance 16, Archaeology and Planning*. London: Department of the Environment, 1990

Dowlen, Robyn. 'Research Digest: Culture on Referral.' Centre for Cultural Value, 2020. https://www.culturehive.co.uk/CVIresources/culture-on-referral-research-digest/.

Dupeyron, Agathe. 'Archaeological Heritage as a Resource for Development: Definitions, Issues, and Opportunities for Evaluation.' *Public Archaeology*, 2020. https://doi.org/10.1080/14655187.2020.1808922

———. 'Capturing the Impacts of Archaeology for Development: Opportunities and Challenges in Evaluating the Sustainable Preservation Initiative in Peru.' *Progress in Development Studies* 21, no. 2 (April 2021): 161–80. https://doi.org/10.1177/14649934211016700

Ellenberger, Katharine, and Lorna-Jane Richardson. 'Reflecting on Evaluation in Public Archaeology.' AP: *Online Journal in Public Archaeology* 8 (2018): 65–94

English Heritage. 'Making the Past Part of Our Future: English Heritage Strategy 2005–2010.' English Heritage, 2005. https://historicengland.org.uk/images-books/publications/eh-strategy-2005-2010/making-past-part-of-our-future/

Equality Act, 2010. https://www.legislation.gov.uk/ukpga/2010/15/contents

Evans, Geoffrey, and John Durant. 'The Relationship between Knowledge and Attitudes in the Public Understanding of Science in Britain.' *Public Understanding of Science* 4, no. 1 (1995): 57–74

Everill, Paul, Richard Bennett, and Karen Burnell. 'Dig in: An Evaluation of the Role of Archaeological Fieldwork for the Improved Wellbeing of Military Veterans.' *Antiquity* 94, no. 373 (February 2020): 212–27. https://doi.org/10.15184/aqy.2019.85

FAME. 'FAME Ltd Rules (June 2017).' Federation of Archaeological Managers and Employers, 2017. https://famearchaeology.co.uk/wp-content/uploads/2019/07/FAME-Rules-FINAL-20.06.2017.pdf

———. 'What We Do.' Federation of Archaeological Managers and Employers, 2020. https://famearchaeology.co.uk/what-we-do/

———. 'Who We Are.' Federation of Archaeological Managers and Employers, 2020. https://famearchaeology.co.uk/what-we-do/who-we-are/

Franklin, Maria, Justin P Dunnavant, Ayana Omilade Flewellen, and Alicia Odewale. 'The Future Is Now: Archaeology and the Eradication of Anti-Blackness.' *International Journal of Historical Archaeology* 24, no. 4 (December 2020): 753–66. https://doi.org/10.1007/s10761-020-00577-1

Frearson, Debbie. 'Supporting Community Archaeology in the UK.' Council for British Archaeology, 2018

Fredheim, L Harald. 'Decoupling "Open" and "Ethical" Archaeologies: Rethinking Deficits and Expertise for Ethical Public Participation in Archaeology and Heritage.' *Norwegian Archaeological Review* 53, no. 1 (2 January 2020): 5–22. https://doi.org/10.1080/00293652.2020.1738540

Fredheim, Leif Harald. 'Sustaining Public Agency in Caring for Heritage: Critical Perspectives on Participation through Co-Design.' PhD, University of York, 2019. http://etheses.whiterose.ac.uk/26742/

Fulford, Michael, and Neil Holbrook. '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, no. 2 (2018): 214–30

Funari, Pedro Paulo A. 'Public Archaeology from a Latin American Perspective.' *Public Archaeology* 1, no. 4 (January 2001): 239–43. https://doi.org/10.1179/pua.2001.1.4.239

Gibson, Lisanne. 'In Defence of Instrumentality.' *Cultural Trends* 17, no. 4 (2008): 247–57

Giliberto, Francesca. 'Heritage for Global Challenges: A Research Report by PRAXIS: Art and Humanities for Global Development.' Leeds: University of Leeds, 2021. https://changingthestory.leeds.ac.uk/2021/02/09/praxis-publication-launch-heritage-for-global-challenges-feb-2021/

Gilmore, Abigail. 'Evaluating Legacies: Research, Evidence and the Regional Impact of the Cultural Olympiad.' *Cultural Trends* 23, no. 1 (2014): 29–41

Gilmore, Abigail, Hilary Glow, and Katya Johanson. 'Accounting for Quality: Arts Evaluation, Public Value and the Case of "Culture Counts".' *Cultural Trends* 26, no. 4 (2017): 282–94

Gnecco, Cristóbal. 'A World Full of Adjectives: Sustainable Archaeology and Soothing Rhetoric.' *Antiquity* 93 (2019): 1664–65

———. 'Development and Disciplinary Complicity: Contract Archaeology in South America Under the Critical Gaze.' *Annual Review of Anthropology* 47 (21 October 2018): 279–93. https://doi.org/10.1146/annurev-anthro-102317-045752

González-Ruibal, Alfredo. 'Ethics of Archaeology.' *Annual Review of Anthropology* 47 (2018): 345–60

González-Ruibal, Alfredo, Pablo Alonso González, and Felipe Criado-Boado. 'Against Reactionary Populism: Towards a New Public Archaeology.' *Antiquity* 92, no. 362 (April 2018): 507–15. https://doi.org/10.15184/aqy.2017.227

Gould, Peter G. 'On the Case: Method in Public and Community Archaeology.' *Public Archaeology* 15, no. 1 (2016): 5–22

Gould, Peter G, and Paul Burtenshaw. 'Archaeology and Economic Development.' *Public Archaeology* 13, no. 1–3 (2014): 3–9

Greenhalgh, Trisha, Sally Thorne, and Kirsti Malterud. 'Time to Challenge the Spurious Hierarchy of Systematic over Narrative Reviews?' *European Journal of Clinical Investigation* 48, no. 6 (2018). https://doi.org/10.1111/eci.12931

Grima, Reuben. 'Presenting Archaeological Sites to the Public.' In *Key Concepts in Public Archaeology*, edited by Gabriel Moshenska, 73–92. London: UCL Press, n.d.

HACT. 'Together, We Can Do More: A Roadmap for the Future of Social Value in Social Housing.' Housing Association's Charitable Trust, 2020. https://hact.org.uk/sites/default/files/HACT_SV_Roadmap.pdf

Haines-Young, Roy, and Marion Potschin. 'Common International Classification of Ecosystem Services (CICES) V5.1: Guidance on the Application of the Revised Structure.' Fabis Consulting, 2018

Hamilakis, Yannis. 'Archaeology and the Logic of Capital: Pulling the Emergency Break.' *International Journal of Historical Archaeology* 19, no. 4 (2015): 721–35

Happy Museum Project. 'Tools.' The Happy Museum, 2021. https://happymuseumproject.org/resources/tools/

Harrison, Rodney, Caitlin DeSilvey, Cornelius Holtorf, Sharon Macdonald, Nadia Bartolini, Esther Breithoff, Harald Fredheim, et al. *Heritage Futures: Comparative Approaches to Natural and Cultural Heritage Practices*. London: UCL Press, 2020

Hart, Angie, Simon Northmore, and Chloe Gerhardt. 'Briefing Paper: Auditing, Benchmarking and Evaluating Public

Engagement.' National Co-ordinating Centre for Public Engagement, 2009. https://www.publicengagement.ac.uk/sites/default/files/EvaluatingPublicEngagement_1.pdf

HCLG. *National Planning Policy Framework*. London: Ministry of Housing, Communities and Local Government, 2019

Headland Archaeology. '2019 Annual Report.' Headland Archaeology, 2020. https://headlandarchaeology.com/wp-content/uploads/2020/09/Annual-Report-2019-Headland-Archaeology.pdf

———. 'Our Culture and Core Values.' Headland Archaeology, 2020. https://headlandarchaeology.com/about-us/values/

———. 'Winning Hearts and Minds – Community Engagement and Public Archaeology.' Headland Archaeology, 2017. https://headlandarchaeology.com/winning-hearts-and-minds-community-engagement-and-public-archaeology/

Hewlett, Kirstie, Katherine Bond, and Saba Hinrichs-Krapels. 'The Creative Role of Research: Understanding Research Impact in the Creative and Cultural Sector.' King's College London, 2017. https://www.kcl.ac.uk/cultural/resources/reports/171020-thecreativeroleofresearch-web2.pdf

High Speed Two. 'Being a Good Neighbour: Our Progress.' Birmingham: High Speed Two, 2019. https://assets.hs2.org.uk/wp-content/uploads/2020/05/22153137/24136_HS2_CE_6month-report_Jul-Dec2019_CS1350_WEB.pdf

———. 'Community Engagement Strategy.' Birmingham: High Speed Two, 2018. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/773683/HS2_Community_Engagement_Strategy_FULL_HiRes_WEB.pdf

———. 'Historic Environment Research and Delivery Strategy: Phase One.' Birmingham: High Speed Two, 2017. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/642655/hs2_phase_one_historic_environment_research_and_delivery_strategy.pdf

———. 'HS2 Getting on Board with Local Businesses.' HS2, 2020. https://www.hs2.org.uk/in-your-area/hs2-and-your-business/hs2-getting-on-board-with-local-businesses/

Highways England. 'Highways England Operational Metrics Manual June 2020.' Guildford: Highways England, 2020. https://highwaysengland.co.uk/media/n4tak3gk/ris2-omm-final-shared-for-publication-14-july.pdf

———. 'Highways England's Analytical Method to Inform Proposals for the Second Road Period (2020-2025).' Guildford: Highways England, 2017. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/666877/Highways_England_s_analytical_methods_to_inform_our_proposals_for_the_second_Road_Period.pdf

———. 'Our Road to Inclusion Gathers Pace: Public Sector Equality Duty Annual Progress Report April 2018 – March 2019.' Guildford: Highways England, 2019. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/836552/Public_sector_equality_duty_annual_progress_report_2018-19.pdf

Hinton, Peter. 'What the Dickens Happened to the IFA?' In *Great Excavations Shaping the Archaeological Profession*, 289–99. Oxford: Oxbow and Oakville, 2011

Historic England. 'Heritage Counts', 2021. https://historicengland.org.uk/research/heritage-counts/

HM Government. 'A Green Future: Our 25 Year Plan to Improve the Environment.' Defra, 2018. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf

———. 'Industrial Strategy: Construction Sector Deal.' London: HM Government, 2018. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/731871/construction-sector-deal-print-single.pdf

HM Treasury. 'The Green Book: Central Government Guidance on Appraisal and Evaluation.' London: HM Treasury, 2020. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/938046/The_Green_Book_2020.pdf

Högberg, Anders. 'The Past Is the Present – Prehistory and Preservation from a Children's Point of View.' *Public Archaeology* 6, no. 1 (2007): 28–46

Högberg, Anders, Cornelius Holtorf, Sarah May, and Gustav Wollentz. 'No Future in Archaeological Heritage Management?' *World Archaeology* 49, no. 5 (20 October 2017): 639–47. https://doi.org/10.1080/00438243.2017.1406398

Howell, John, and Lord Redesdale. 'The Future of Local Government Archaeology Services: An Exploratory Report Comissioned by Ed Vaizey, Minister for Culture, Communications and Creative Industries, and Conducted by John Howell MP and Lord Redesdale', 2014

Humphreys, Stephen. 'Rehabilitation Archaeology.' American Veterans Archaeological Recovery, 2021. https://americanveteransarchaeology.org/rehabilitation-archaeology/

Hutchings, Richard M, and Marina La Salle. 'Sustainable Archaeology: Soothing Rhetoric for an Anxious Institution.'

Antiquity 93 (2019): 1653–60

IfA. 'Institute for Archaeologists Strategic Plan: Summary Document', 2010

Irwin, Alan, and Brian Wynne, eds. *Misunderstanding Science? The Public Reconstruction of Science and Technology*. Cambridge: Cambridge University Press, 1996

Jancovich, Leila. 'My Essential Reads: Value(s) in Cultural Participation'. Centre for Cultural Value, 2020. https://www.culturehive.co.uk/CVIresources/my-essential-reads-values-in-cultural-participation/

Karl, Raimund. 'Authorities and Ubjects? The Legal Framework for Public Participation in Austrian Archaeology'. *European Journal of Post-Classical Archaeologies* 9 (2019): 219–56

———. 'Authority and Subject (in the Archaeological Discourse in Austria and Germany)'. *Archaeologies* 16, no. 1 (April 2020): 137–58. https://doi.org/10.1007/s11759-020-09393-9

Katifori, Akrivi, Sara Perry, Maria Vayanou, Angeliki Antoniou, Ioannis-Panagiotis Ioannidis, Sierra McKinney, Angeliki Chrysanthi, and Yannis Ioannidis. '"Let Them Talk!": Exploring Guided Group Interaction in Digital Storytelling Experiences'. *Journal on Computing and Cultural Heritage* 13, no. 3 (5 October 2020): 1–30. https://doi.org/10.1145/3382773

King's College London, and Digital Science. 'The Nature, Scale and Beneficiaries of Research Impact: An Initial Analysis of Research Excellence Framework (REF) 2014 Impact Case Studies'. Bristol: Higher Education Funding Council of England, 2015. https://apo.org.au/sites/default/files/resource-files/2015-03/apo-nid69942.pdf

Labadi, Sophia, ed. *The Cultural Turn in International Aid: Impacts and Challenges for Heritage and the Creative Industries*. Abingdon: Routledge, 2019

Leslie, Alan. 'Think Piece for the Re-Imagining Scottish Archaeology Workshops: Delivering Archaeology'. Chartered Institute for Archaeologists, 2019

Little, Barbara J. 'Public Benefits of Public Archaeology'. In *The Oxford Handbook of Public Archaeology*, edited by Robin Skeates, Carol McDavid, and John Carman, 2012. DOI: 10.1093/oxfordhb/9780199237821.013.0021

———. 'What Can Archaeology Do for Justice, Peace, Community, and the Earth?' *Historical Archaeology* 43, no. 4 (2009): 115–19

Lock, Simon J. 'Deficits and Dialogues: Science Communication and the Public Understanding of Science in the UK'. In *Successful Science Communication: Telling It Like It Is*, edited by David J. Bennett and Richard C. Jennings, 17–30. Cambridge: Cambridge University Press, 2011

Macdonald, Sharon. *Behind the Scenes at the Science Museum*. Oxford: Berg, 2002

Maeer, Gareth, Amelia Robinson, and Marie Hobson. 'Values and Benefits of Heritage: A Research Review', 2016, 36

Martelli-Banégas, Delphine, Isabelle Panhard, and Tiphaine Favré. 'Image of Archaeology in UK – 2015: Study Report – General Public'. Harris Interactive, 2015. https://archaeologydataservice.ac.uk/archives/view/nearch_2017/downloads.cfm

Matsuda, Akira, and Katsuyuki Okamura. 'Introduction: New Perspectives in Global Public Archaeology'. In *New Perspectives in Global Public Archaeology*, edited by Katsuyuki Okamura and Akira Matsuda, 1–18. London: Springer, 2011

Mawuko-Yevugah, Lord. *Reinventing Development: Aid Reform and Technologies of Governance in Ghana*. Farnham: Ashgate, 2014

May, Sarah. 'Heritage, Endangerment and Participation: Alternative Futures in the Lake District'. *International Journal of Heritage Studies* 26, no. 1 (2 January 2020): 71–86. https://doi.org/10.1080/13527258.2019.1620827

McKinney, Sierra, Sara Perry, Akrivi Katifori, and Vassilis Kourtis. 'Developing Digital Archaeology for Young People: A Model for Fostering Empathy and Dialogue in Formal and Informal Learning Environments'. In *Communicating the Past in the Digital Age: Proceedings of the International Conference on Digital Methods in Teaching and Learning in Archaeology (12–13 October 2018)*, edited by Sebastian Hageneuer, 179–95. London: Ubiquity, 2020

Merriman, Nick. 'Museums and Archaeology: The Public Point of View'. *The Museum Archaeologist* 13 (1987): 10–24

———, ed. *Public Archaeology*. London: Routledge, 2004

Merriman, Nick, and Hedley Swain. 'Archaeological Archives: Serving the Public Interest?' *European Journal of Archaeology* 2, no. 2 (1999): 249–67

Meskell, Lynn. 'Imperialism, Internationalism, and Archaeology in the Un/Making of the Middle East'. *American Anthropologist* 122, no. 3 (September 2020): 554–67. https://doi.org/10.1111/aman.13413

Millennium Ecosystem Assessment, ed. *Ecosystems and Human Well-Being: Synthesis*. Washington, DC: Island Press, 2005

Minnis, Paul E, Barbara J Little, Robert Kelly, Scott E Ingram, Dean Snow, Lynne Sebastian, and Katherine A Spielmann. 'Answering the Sceptic's Question.' *The SAA Archaeological Record* 6, no. 5 (2006): 17–20

MOLA. 'Museum of London Archaeology: Report and Financial Statements Year Ended 31 March 2019.' London: MOLA, 2019

Monckton, Linda. 'Public Benefit as Community Wellbeing in Archaeology.' *Internet Archaeology*, no. 57 (2021). https://doi.org/10.11141/ia.57.12

MORI. 'London's Heritage.' London: English Heritage, 2002. https://web.archive.org/web/20050302051904/http:/www.english-heritage.org.uk/Filestore/policy/pdf/MORIREPORT1.pdf

———. 'What Does "Heritage" Mean to You?' Ipsos MORI, 2000. https://www.ipsos.com/ipsos-mori/en-uk/what-does-heritage-mean-you

Morrison, Wendy, Roger M Thomas, and Chris Gosden. 'Laying Bare the Landscape: Commercial Archaeology and the Potential of Digital Spatial Data' 36 (2014). https://doi.org/10.11141/ia.36.9

Morse, Nuala, and Helen Chatterjee. 'Museums, Health and Wellbeing Research: Co-Developing a New Observational Method for People with Dementia in Hospital Contexts.' *Perspectives in Public Health* 138, no. 3 (May 2018): 152–59. https://doi.org/10.1177/1757913917737588

Moshenska, Gabriel, ed. *Key Concepts in Public Archaeology*. London: UCL Press, 2017

Moshenska, Gabriel, and Paul Burtenshaw. 'Forum Commodity Forms and Levels of Value in Archaeology: A Response to Gestrich.' *Present Pasts* 3, no. 2 (2011): 83–84

Mulgan, Geoff, Jonathan Breckon, Mariola Tarrega, Hasan Bakhshi, John Davies, Halima Khan, and Annie Finnis. 'Public Value: How Can It Be Measured, Managed and Grown?' Nesta, 2019. https://www.nesta.org.uk/report/public-value/

NCCPE. 'EDGE Self-Assessment Matrix.' NCCPE, n.d. https://www.publicengagement.ac.uk/sites/default/files/publication/nccpe_edge_tool.pdf

Neal, Cath. 'Know Your Place? Evaluating the Therapeutic Benefits of Engagement with Historic Landscapes.' *Cultural Trends* 24, no. 2 (2015): 133–42

Nixon, Taryn. *What about Soutport? 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*, 2017

NLHF. 'Application Guidance: National Lottery Grants for Heritage from £3,000 to £10,000 and £10,000 to £100,000.' Heritage Fund, 2020. https://www.heritagefund.org.uk/funding/application-guidance-national-lottery-grants-heritage-ps3000-ps10000-and-ps10000-ps100000

Office for National Statistics. 'Measures of National Well-Being Dashboard.' Office for National Statistics, 2019. https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/measuresofnationalwellbeingdashboard/2018-04-25

———. 'Measuring National Well-Being: Domains and Measures.' Office for National Statistics, 2019. https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/datasets/measuringnationalwellbeingdomainsandmeasures

———. 'Personal Well-Being Frequently Asked Questions.' Office for National Statistics, 2018. https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/methodologies/personalwellbeingfrequentlyaskedquestions

———. 'Well-Being.' Office for National Statistics, 2021. https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing

Oliver, Adrian. 'Socialising Heritage: Polity and Practice.' *European Journal of Post-Classical Archaeologies* 9 (2019): 9–34

Orange, Hilary, and Dominic Perring. 'Commercial Archaeology in the UK: Public Interest, Benefit and Engagement.' In *Key Concepts in Public Archaeology*, edited by Gabriel Moshenska, 138–50. London: UCL Press, 2017

Parga Dans, Eva. 'Heritage in Danger. The Collapse of Commercial Archaeology in Spain.' *Archaeological Dialogues* 26, no. 2 (December 2019): 111–22. https://doi.org/10.1017/S1380203819000217

Parga Dans, Eva, and Pablo Alonso González. 'The Unethical Enterprise of the Past: Lessons from the Collapse of Archaeological Heritage Management in Spain.' *Journal of Business Ethics*, 10 April 2020. https://doi.org/10.1007/s10551-020-04504-6

Parga-Dans, Eva, David Barreiro, and Rocío Varela-Pousa. 'Isomorphism and Legitimacy in Spanish Contract Archaeology: The Free-Fall of an Institutional Model and the Caveat of Change.' *International Journal of Heritage Studies* 22, no. 4 (2016): 291–301

Pascual, Unai, Roldan Muradian, Luke Brander, Michael Christie, Hans Cornelissen, Florian Eppink, Joshua Farley, et al. 'The Economics of Valuing Ecosystem Services and Biodiversity.' In *The Economics of Ecosystems and Biodiversity: Ecological and Economic Fundations*, edited by Pushpam Kumar, 185–258. London: Earthscan, 2010

PCA. 'Meet the Team.' Pre-Construct Archaeology, 2020. https://www.pre-construct.com/meet-the-team-2/

———. 'PCA News.' Pre-Construct Archaeology, 2020. https://www.pre-construct.com/category/news/

Perry, Sara. 'The Enchantment of the Archaeological Record.' *European Journal of Archaeology*, 2019, 18

———. 'Why Are Heritage Interpreters Voiceless at the Trowel's Edge? A Plea for Rewriting the Archaeological Workflow.' *Advances in Archaeological Practice* 6, no. 3 (August 2018): 212–27. https://doi.org/10.1017/aap.2018.21

Perry, Sara, Maria Roussou, Sophia S. Mirashrafi, Akrivi Katifori, and Sierra McKinney. 'Shared Digital Experiences Supporting Collaborative Meaning-Making at Heritage Sites.' In *The Routledge International Handbook of New Digital Practices in Galleries, Libraries, Archives, Museums and Heritage Sites*, edited by Hannah Lewi, Wally Smith, Dirk vom Lehn, and Steven Cooke, 143–56. Abingdon: Routledge, 2020

Phiddian, Robert, Julian Meyrick, Tully Barnett, and Richard Maltby. 'Counting Culture to Death: An Australian Perspective on Culture Counts and Quality Metrics.' *Cultural Trends* 26, no. 2 (2017): 174–80

Pitts, Mike, and Roger M Thomas. *Building the Future, Transforming Our Past: Celebrating Development-Led Archaeology in England, 1990–2015*. London: Historic England, 2015. https://historicengland.org.uk/images-books/publications/building-the-future-transforming-our-past/

Public Services (Social Value) Act, 2012. https://www.legislation.gov.uk/ukpga/2012/3/enacted

Puttick, Ruth, and Joe Ludlow. 'Standards of Evidence: An Approach That Balances the Need for Evidence with Innovation.' London: Nesta, 2013. https://www.nesta.org.uk/report/nesta-standards-of-evidence/

———. 'Standards of Evidence for Impact Investing.' London: Nesta, 2012. https://www.nesta.org.uk/report/standards-of-evidence-for-impact-investing/

Pyburn, K Anne. 'Archaeology by, for, and about the Public.' *European Journal of Post-Classical Archaeologies* 9 (2019): 291–301

Reed, Mark S, Marie Ferré, Julia Martin-Ortega, Rachel Blanche, Ruth Lawford-Rolfe, Martin Dallimer, and Joseph Holden. 'Evaluating Impact from Research: A Methodological Framework.' *Research Policy* 50, no. 4 (May 2021). https://doi.org/10.1016/j.respol.2020.104147

Research England. 'Knowledge Exchange Framework: Decisions for the First Iteration.' Research England, 2020. https://re.ukri.org/sector-guidance/publications/knowledge-exchange-framework-decisions-for-the-first-iteration/?_gl=1*1fm2z0a*_ga*MjAwNzgxNDgxNi4xNjI2NzA3OTMw*_ga_68WFDT4956*MTYyNjcwNzkyOS4xLjEuMTYyNjcwODA0MS4w

Research Excellence Framework. 'Guidance on Submissions.' Research Excellence Framework, 2019. https://www.ref.ac.uk/publications/guidance-on-submissions-201901/

———. 'Panel Criteria and Working Methods.' Research Excellence Framework, 2019. https://www.ref.ac.uk/publications/panel-criteria-and-working-methods-201902/

RFA. 'Heritage Grants: A Review of the Self-Evaluations and Outcomes of 326 Completed Projects Funded during Strategic Plan 3.' National Lottery Heritage Fund, 2018. https://www.heritagefund.org.uk/publications/heritage-grants-programme-evaluation-and-outcomes-review

Richardson, Lorna-Jane, and Jaime Almansa-Sánchez. 'Do You Even Know What Public Archaeology Is? Trends, Theory, Practice, Ethics.' *World Archaeology* 47, no. 2 (15 March 2015): 194–211. https://doi.org/10.1080/00438243.2015.1017599

Ripanti, Francesco. 'Toward an Intermediate Level: Making the Most of Evaluation in Italian Community Archaeology.' *Public Archaeology*, 2020. https://doi.org/10.1080/14655187.2020.1761089

Roberts, Hayley. 'The Practice of Community Archaeology in the UK: A Model for Best Practice Based upon Case Studies from Dorset and Cambridgeshire', 2016, 276

Rocabado, Patricia Ayala. 'Neoliberal Multiculturalism and Contract Archeology in Northern Chile.' *International Journal of Historical Archaeology* 19 (2015): 775–90

Rocks-Macqueen, Doug, and Ben Lewis. 'Archaeology in Development Management: Its Contribution in England, Scotland & Wales.' Landward Research, 2019. https://www.algao.org.uk/sites/default/files/documents/Archaeology_in_Development_Management.pdf

Rosemberg, Cristina, Richard Naylor, Ulrike Chouguley, Lucy Mantella, and Kate Oakley. 'Assessment of the Social Impact of Volunteering in HLF-Funded Projects: Yr 3.' BOP Consulting, 2011. https://www.heritagefund.org.uk/sites/default/files/media/research/social_impact_volunteering_2011.pdf

Sagger, Harman, Jack Philips, and Mohammed Haque. 'Valuing Culture and Heritage Capital: A Framework towards Informing Decision Making.' Department for Digital, Culture, Media & Sport, 2021. https://www.gov.uk/government/publications/valuing-culture-and-heritage-capital-a-framework-towards-decision-making/valuing-culture-and-

heritage-capital-a-framework-towards-informing-decision-making

Schadla-Hall, Tim. 'Editorial: Public Archaeology'. *European Journal of Archaeology* 2, no. 2 (1999): 147–58

Simis, Molly J, Haley Madden, Michael A Cacciatore, and Sara K Yeo. 'The Lure of Rationality: Why Does the Deficit Model Persist in Science Communication?' *Public Understanding of Science* 25, no. 4 (May 2016): 400–414. https://doi.org/10.1177/0963662516629749

Simon, Nina. *The Art of Relevance*. Museum 2.0, 2016. http://www.artofrelevance.org/

Simpson, Faye. 'Community Archaeology Under Scrutiny'. *Conservation and Management of Archaeological Sites* 10, no. 1 (February 2008): 3–16. https://doi.org/10.1179/175355208X404303

Simpson, Faye, and Howard Williams. 'Evaluating Community Archaeology in the UK'. *Public Archaeology* 7, no. 2 (May 2008): 69–90. https://doi.org/10.1179/175355308X329955

Society of Antiquaries of London. 'The Future of Archaeology in England: A Manifesto'. Society of Antiquaries of London, 2020. https://www.sal.org.uk/wp-content/uploads/2020/12/Future_of_Arch.pdf

Southport Group. *Realising the Benefits of Planning-Led Investigation in the Historic Environment: A Framework for Delivery*, 2011

Stahl, Ann Brower. 'Assembling "Effective Archaeologies" toward Equitable Futures'. *American Anthropologist* 122, no. 1 (March 2020): 37–50. https://doi.org/10.1111/aman.13365

Suldovsky, Brianne. 'In Science Communication, Why Does the Idea of the Public Deficit Always Return? Exploring Key Influences'. *Public Understanding of Science* 25, no. 4 (May 2016): 415–26. https://doi.org/10.1177/0963662516629750

Tanner, Simon. 'Measuring the Impact of Digital Resources: The Balanced Value Impact Model', 2012. https://www.kdl.kcl.ac.uk/fileadmin/documents/pubs/BalancedValueImpactModel_SimonTanner_October2012.pdf

TEEB. *Mainstreaming the Economics of Nature: A Synthesis of the Approach, Conclusions and Recommendations of TEEB*. The Economics of Ecosystems & Biodiversity. Geneva: UNEP, 2010

Thomas, Roger. 'Comment: Rescue Archaeology the French Way By Jean-Paul Demoule'. *Public Archaeology* 2, no. 4 (January 2002): 236–38. https://doi.org/10.1179/pua.2002.2.4.236

———. 'It's Not Mitigation! Policy and Practice in Development-Led Archaeology in England'. *The Historic Environment: Policy & Practice* 10, no. 3–4 (2019): 328–44

Thomas, Suzie. 'Community Archaeology in the UK: Recent Findings'. Council for British Archaeology, 2010

Thomson, Linda J, Nuala Morse, Esme Elsden, and Helen J Chatterjee. 'Art, Nature and Mental Health: Assessing the Biopsychosocial Effects of a "Creative Green Prescription" Museum Programme Involving Horticulture, Artmaking and Collections'. *Perspectives in Public Health* 140, no. 5 (September 2020): 277–85. https://doi.org/10.1177/1757913920910443

Thurley, Simon. 'Into the Future: Our Strategy for 2005–2010'. *Conservation Bulletin* 49, no. Summer 2005 (2005): 26–27.

Transforming Construction Alliance. 'Who We Are'. Construction Innovation Hub, 2019. https://constructioninnovationhub.org.uk/who-we-are/

Trotter, Lizzie, Jim Vine, Matt Leach, and Daniel Fujiwara. 'Measuring the Social Impact of Community Investment: A Guide to Using the Wellbeing Valuation Approach'. London: Housing Associations' Charitable Trust, 2014. https://www.hact.org.uk/measuring-social-impact-community-investment-guide-using-wellbeing-valuation-approach

Trow, Steve. '25 Years of Development-Led Archaeology in England: Strengths, Weaknesses, Opportunities and Threats'. In *Recent Developments in Preventive Archaeology in Europe: Proceedings of the 22nd EAA Meeting in Vilnius, 2016*, 55–68. Ljubljana: Ljubljana University Press, 2016

Tully, Gemma. 'Skills, Ethics and Approaches: An Introduction to the Basics of Participatory Archaeology'. *European Journal of Post-Classical Archaeologies* 9 (2019): 35–60

UK Research and Innovation. 'What Is the Industrial Strategy Challenge Fund'. UK Research and Innovation, 2021. https://www.ukri.org/our-work/our-main-funds/industrial-strategy-challenge-fund/what-is-the-industrial-strategy-challenge-fund/

Ungemach, Johanna, and Brendon Wilkins. 'Public Impact'. In *Gatehouse Project, Pontefract Castle Community Archaeology Project: Assessment Report*, edited by Chris Caswell, 28–33. Barnard Castle: DigVentures, 2020

United Nations. 'End Poverty in All Its Forms Everywhere'. Department of Economic and Social Affairs: Sustainable Development, 2021. https://sdgs.un.org/goals/goal1

———. 'Sustainable Development Goals Kick off with Start of New Year'. United Nations, 2015. https://www.un.org/sustainabledevelopment/blog/2015/12/sustainable-development-goals-kick-off-with-start-of-new-year/

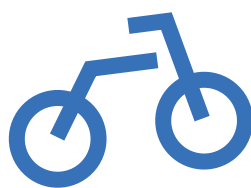———. *System of Environmental-Economic Accounting 2012: Central Framework*. New York: United Nations, 2014

———. *System of Environmental-Economic Accounting 2012: Experimental Ecosystem Accounting*. New York: United Nations, 2014

United Nations Development Programme. *The next Frontier: Human Development and the Anthropocene*. Human Development Report 2020. New York, NY: United Nations Development Programme, 2020

Vidovic, Dragana, Gina Yannitell Reinhardt, and Clare Hammerton. 'Can Social Prescribing Foster Individual and Community Well-Being? A Systematic Review of the Evidence'. *International Joundal of Environmental Research and Public Health* 18, no. 10 (2021): 5276. https://doi.org/10.3390/ijerph18105276

Wakefield, Christopher. 'Digital Public Archaeology at Must Farm: A Critical Assessment of Social Media Use for Archaeological Engagement'. *Internet Archaeology*, no. 55 (2020). https://doi.org/10.11141/ia.55.9

Walters, Angela. 'Press Release: Transorming Construction Alliance Secures Funding'. Centre for Digital Built Britain, 2018. https://www.cdbb.cam.ac.uk/news/2018NovPR_TCA_CIH

Watson, Sadie. 'Whither Archaeologists? Continuing Challenges to Field Practice'. *Antiquity* 93, no. 372 (December 2019): 1643–52. https://doi.org/10.15184/aqy.2019.141

Weekes, Jake, Sadie Watson, Lacey Wallace, Francesca Mazzilli, Andrew Gardner, and Alberti, Marta. 'Alienation and Redemption: The Praxis of (Roman) Archaeology in Britain'. *Theoretical Roman Archaeology Journal* 2, no. 1 (2019): 1–17

Wessex Archaeology. 'Report and Financial Statements for the Year Ended 31 March 2019', 2019

Westcott Wilkins, Lisa. 'The "Real-Time" Team: The Future of Fieldwork'. *Current Archaeology* May 2015, no. 302 (2015): 36–40

Westcott Wilkins, Lisa, Brendon Wilkins, and Manda Forster. 'Collaborative Archaeology: Professional Standards and Non-Expert Participants in Archaeology'. *The Archaeologist* Spring 2017, no. 101 (2017): 12–14

What Works Wellbeing. 'The Problem with Wellbeing Valuation'. What Works Wellbeing, 2018. https://whatworkswellbeing.org/blog/wellbeing-should-we-really-be-using-it-to-monetise-non-market-activities/

Wilkins, Brendon. 'A Theory of Change and Evaluative Framework for Measuring the Social Impact of Public Participation in Archaeology'. *European Journal of Post-Classical Archaeologies* 9 (2019): 77–100

———. 'Designing a Collaborative Peer-to-Peer System for Archaeology: The DigVentures Platform'. *Journal of Computer Applications in Archaeology* 3, no. 1 (2020): 33–50

———. 'DigVentures'. *The Archaeologist* Winter 2013, no. 90 (2013): 46–47

Wilkins, Brendon, Chris Caswell, Maggie Eno, Jodie Hannis, Maiya Pina-Dacier, Harriet Tatton, and Johanna Ungemach. 'Social Impact Archaeology: Pontefract Castle and the Gatehouse Project'. *Internet Archaeology*, no. 57 (2021). https://intarch.ac.uk/journal/issue57/18/full-text.html

Wills, Jan. 'The World after PPG16: 21st-Century Challenges for Archaeology', 2018, 49

Ziman, John. 'Public Understanding of Science'. *Science, Technology and Human Values* 15, no. 1 (1991): 99–105

Zorzin, Nicolas. 'Dystopian Archaeologies: The Implementation of the Logic of Capital in Heritage Management'. *International Journal of Historical Archaeology* 19, no. 4 (December 2015): 791–809. https://doi.org/10.1007/s10761-015-0315-4

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