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The past, present and future of rescue archaeology in England

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1. Introduction

The present system is a lightly regulated commercial model primarily mediated by local government through the planning system. This system has evolved over time since the late 19th century as a consequence of sporadic government intervention. The fundamental structures of the present system have been in place since 1990. Within this, licences to undertake archaeological fieldwork are not normally required except on a small number of protected sites (nationally important 'Listed Buildings' and 'Scheduled Ancient Monuments'). Under most circumstances, only the permission of a landowner is required to be allowed to undertake archaeological fieldwork. In addition, the practice of archaeology is not regulated in England: anyone can call themselves and practice as an archaeologist, and need not be a member of any professional or otherwise regulated organisation.

The English archaeological community is numerically small, numbering a few thousand, although well represented in the media and thus in the national consciousness. The most recent survey (Aitchison, Edwards 2008, p. 11) estimated the archaeological workforce of the whole of the UK to be 6865 in the financial year 2007-08. However, more recent figures collected by the UK's Institute of Archaeologists (IfA) noted a drop in this figure down to 5946 in October 2011, although an improvement

dossier

on earlier in that same year, when the figure was 5772 in April 2011 (Geary, Tindall 2011, p. 8). Aitchison and Edwards (2008) also note relatively poor pay and working conditions (including poor job security), a problem particularly noted by Everill (2009).

2. A short history and development

The history and development of rescue archaeology (better termed 'cultural resource management' (CRM) in this context) in England and indeed in the whole of the UK is one of accidental development: unplanned and sporadic since the first formal legislation to protect historic sites was put in place through the Ancient Monuments Protection Act of 1882. Even allowing for such limited protection as various laws provided for the historic environment (especially historic buildings) across the early and mid twentieth century, up until the mid 1980s there was effectively no legal protection for most archaeology in England. With a few exceptions the owners of land could do what they liked with historic materials on their property and, so long as they had permission from the landowner to be there and thus did not break broader laws of trespass and theft, so could anyone visiting a property. Although technically the Ancient Monuments Protection Act of 1882 protected some sites, in reality this and similar laws were regularly flouted.

Following the upheaval of World War Two and its aftermath, more and more archaeological sites began to be discovered around the country. Some of these sites were discovered as a result of research, but an increasing number of discoveries came about as a result of accident, during new road or building construction, or in the course of major 'landscape' works such as dam construction and even new farming techniques such as the introduction of fully mechanised 'deep' ploughing, which led to countless sites being discovered. The post-war rebuilding of many historic cities following the aerial bombardment of the war also led to such discoveries, as ruins were pulled down and new buildings, requiring deeper foundations, were constructed in their place. The understanding of the ancient origins and layout of cities such as London were transformed as a result of such discoveries. Meanwhile, post-war urban planners were also taking their toll on such heritage, as new road schemes, grids and even entire new urban landscapes were laid out (Rahtz 1974; Jones 1984). This 1960s focus on 'domestic' archaeology also saw new approaches to the new types of sites being discovered, indeed, an expansion of what society as a whole understood to be 'archaeology' (Flatman 2011, pp. 11-25).

By the later 1960s, the often senseless destruction of historic sites led to the rise of what became know as 'rescue' archaeology. At the forefront of highlighting the problem of such destruction in the UK were two organisations, 'RESCUE: the British Archaeological Trust' (founded 1971) and 'Save Britain's Heritage' (founded 1975). Philip Rahtz's famous book *Rescue Archaeology* (1974) brought the plight of archaeological sites under threat to a wider audience, and poet John Betjeman's involvement in the campaigns to save Euston Arch and St Pancras Railway Station in London similarly brought to light similar threats to historic buildings, especially those of more recent construction such as the Victorian period (Jones 1984; Delafons 1997). Central to this process was lobbying to enhance the legal protection of historic sites. In the UK, a series of Historic Buildings Councils (one each for England, Scotland and Wales) were created via the Historic Buildings and Ancient Monuments Act (1953), the forerunners of the modern national heritage bodies in the UK of English Heritage, Historic Scotland and Cadw that were established under the terms of the National Heritage Act (1983).

Even given such guardianship, archaeology remained woefully underprotected and under-funded in the 1970s and 1980s until the formal rise of 'polluter pays' principles in the late 1980s and early 1990s - the principle that those activities and organisations adversely impacting on an historic site should pay for monitoring, study, protection and preservation whether 'in situ' (being left in place) or 'by record' (destroying the site but creating an extensive documentary archive of what was previously there). Such a principle had its origins in much earlier, similar statutory protection for significant 'natural' rather than 'historic' environment sites and features such as parks and gardens, 'green belt' sections of countryside on the fringes of cities and important woodlands, coastal and other major landscape features. Such principles first emerged in the US in the 1960s and 1970s, through such laws as the National Historic Preservation Act (1966), the National Environmental Policy Act (1969), the Archaeological Resources and Historic Preservation Act (1974) and the Archaeological Resources Protection Act (1979). In the UK, the arrival of similarly dedicated protection for historic sites only came about in the 1990s thanks to a series of related pieces of government policy, Planning Policy Guidance Notes No. 15 (Planning and the Historic Environment, 1994) and No. 16 (Archaeology and Planning, 1990) in England and Wales, Planning Advice Note No. 42 (Archaeology, 1994) and National Planning Policy Guideline No. 5 (Archaeology and Planning, 1998) in Scotland, and Planning Policy Statement No. 6 (Planning, Archaeology and the Built Heritage, 1999) in Northern Ireland. Until the appearance of such laws, such rescue archaeology was largely undertaken by the UK's lively 'voluntary' archaeological sector, unpaid groups working at speed in advance of development. Only with the laws of the 1990s was the principle of statutory payment for work on historic sites in advance of development finally enshrined – in the UK's case on all land, irrespective of government, private or other ownership – that led to the formalisation of the 'cultural resource management' (CRM) archaeology environment of the present, alongside its corollary, the 'curatorial' archaeological community charged with monitoring such work. In 2010, PPGs 15 and 16 in England and Wales were then replaced with one overarching but essentially similar piece of guidance covering the entire 'historic environment' (i.e. archaeological sites, historic buildings, and historic parks, gardens and landscapes), PPS (Planning Policy Statement) 5: Planning for the Historic Environment. Similarly, also in 2010 in Scotland, PAN 42 and NPPG5 were replaced with Scottish Planning Policy, an overarching planning framework in which heritage is one component (as advised by the Scottish Historic Environment Policy (SHEP) of 2009). In turn, in March 2012 PPS 5 was replaced by the National Planning Policy Framework (NPPF) in England and Wales only.

Archaeology in England also began to undergo change from the 1960s onwards due to broader social factors. Central to this was the rise of the 'new' universities - linked to new social mobility, itself the result of the population explosion of post WW2 - and within these a vast increase in the number of university departments in, and courses on, archaeology. Until the 1960s there were both very few courses on, as well as jobs in, archaeology; after the 1960s there were more of both. Particularly in the UK, the changes discussed above also created a greater need for professional CRM archaeologists to advise on work in relation to development; the new demand for university courses similarly created a greater need for professional academic archaeologists based in universities to teach and undertake research. While at first a mutually agreeable situation, the realities of the different pay, working conditions and social status of these different types of archaeologists soon began to lead to a literal split, reflecting the existing split in conditions and locations, of the practice, methods and theories of archaeology. The uneasy relationship between CRM archaeologists on the onehand and academic archaeologists on the other is something that is returned to later in this paper, and has its origins in this period. While all within the discipline agree that archaeology is, broadly, a social science tasked with studying the surviving physical remains of past societies, there can be no doubt that for certain sectors of the archaeological community the primary focus is upon research into these materials and the understanding these provide of their parent societies, while for other sectors of the archaeological community the primary focus is on managing and maintaining these historic materials (sometimes referred to as historic resources, and by default who 'owns' these, either the items or data relating to them). In truth, all archaeologists are involved, or at least should be, in all of these different processes.

At the time of writing in the spring of 2012, both the management frameworks and commercial environment of CRM in England are under review. The reforms of 1990 onwards created a new professional environment for archaeologists that consolidated many of the structures first established in the 1970s and 1980s. At the height of the nowrecognised boom years of the early 2000s, nearly 7000 archaeologists were employed in CRM archaeology in the UK. However, the global economic crash of 2007 onwards, and the subsequent recession in the UK economy that is still underway (with its 'austerity' financial regime implemented by the government from May 2010 onwards) has seen a reduction in the size of the archaeological workforce down to some 6000 individuals (Aitchison 2009; Geary, Tindall 2011). As discussed below, the government is also mid-way through a reform of the planning system that is likely to weaken the legal protection of the historic environment (including archaeological sites, the NPPF or National Planning Policy Framework replaced PPS5 in March 2012), with a relaxing of planning regulations in relation to development through a proposed 'presumption in favour of sustainable development' that would replace the present system's 'presumption in favour of preservation in situ' of historic sites. 2012 onwards is likely to be a watershed date for rescue archaeology in England, with a decline in overall levels of protection (and thus employment) back to a system similar to that in place prior to 1990, with a greater reliance upon voluntary sector archaeologists as part of the government's push towards 'localism' through the Localism Act of 2011, part of Prime Minister David Cameron's 'Big Society' agenda to transform British society. Meanwhile, as discussed elsewhere in this paper, other ongoing reforms of the higher education system of England and Wales will also impact upon the teaching of archaeology, with additional potential negative impacts on the skills-set of archaeologists, voluntary or otherwise.

3. Specific laws

The primary laws relating to archaeology in England are the Ancient Monuments and Archaeological Areas Act (1979, protecting or 'scheduling' nationally important archaeological sites) and the consolidated Town and Country Planning Acts (1990, especially the Listed Buildings (Conservation Areas) Act (1990) (protecting or 'listing' nationally important historic buildings: see Barber *et alii* 2008; Hunter, Ralston, 2006; McGill 1995). These laws protect those sites of the highest, national significance, but only account for at most 5% of the heritage of the country, sites that are known, identified as nationally important and protected accordingly. The National Heritage Act (1983) is also of note here, in that it established the national heritage management framework currently in place, creating the national level body English Heritage that advises and also acts on behalf of the government through its parent body the Department for Culture, Media and Sport (DCMS).

The primary laws relating to specifically 'rescue' archaeology in England - covering the c. 95% of sites not protected by the laws discussed above - are the National Planning Policy Framework (NPPF) (2012) and the Treasure Act (1996, relating to discoveries of precious metal identified as 'treasure' under law). As noted above, the National Planning Policy Framework (NPPF) replaced PPS5 in March 2012 as part of the wider reforms of the Localism Act (2011). This law only applies to 'terrestrial' sites maritime archaeology has a different management regime, as outlined below. All 'planning' level heritage management comes under the mantle of, not the DCMS but rather another government department – the Department for Communities and Local Government (CLG). A third government department also has a role here – the Department for the Environment, Food and Rural Affairs (DEFRA) as regards environment / countryside management, for example through various other, less well-known, laws that protect specific site types or apply only under particular management regimes, for example the Hedgerow Regulations (1997) as regards those particular historic environments.

Confusing the situation, there are specific provisions as regards 'maritime' archaeology - primarily submerged archaeological sites, including the UK (national) Protection of Wrecks Act (1973), the Protection of Military Remains Act (1984, with specific regard to war graves, on land or underwater, of any nation with the UK) and the Merchant Shipping Act (1995). In addition, none of the 'planning' level laws discussed above apply in the marine zone, where a separate 'marine consent regime' applies under the control of the Marine Management Organisation (MMO) exists, following European level Environmental Impact Assessment criteria. This is particularly the case as regards marine licensing in relation to developments such as marine aggregates extraction and projects such as wind and tidal energy installations, where the Crown Estate (which regulates the development of the sea bed on behalf of the government across the UK irrespective of national boundaries) often has the final say in any planning decisions. Under such circumstances in the marine zone, a series of 'Marine Mineral Guidance Notes' (MMGs) apply, akin to the NPPF on land, especially MMG1:

Extraction by Dredging from the English Seabed (2002) and MMG2: the Control of Marine Minerals Dredging from British Seabeds (2007).

Finally, it should be noted that England, as part of the UK, has European-level treaty commitments especially as regards [a] the European Convention on the Protection of the Archaeological Heritage (Revised) (1992, the Valetta Convention), [b] The European Landscape Convention (2000, the Florence Convention) and [c] the Council of Europe Framework Convention on the Value of Cultural Heritage for Society (2005, the Faro Convention). There are also wider European level influences on English law, such as environmental impact regulation (EIA) regulations as regards the management and monitoring of the historic environment, also similarly heritage management provisions as regards agri-environment schemes to ensure that historic sites are protected through farm development.

4. Management commitments

The present heritage management regime of England is a confusing one. The under-regulated, commercial nature of most archaeological work - some 95% of all work undertaken - means that government, at a variety of different levels and through a variety of different organisations and laws - has an overarching monitoring role, but there is considerable variation in the scale and extent of such monitoring. In particular, with no centralised management organisation of the type common in federal government systems, English Heritage has an extremely limited purview except as regards nationally important sites. Further exasperating this situation, the government abolished all forms of regional planning and management in the Localism Act (2011), removing this intermediate level of decisionmaking and oversight between central and local government. As a consequence, the majority of government heritage management comes instead at the local level, through local government planning authorities via the planning / development control system discussed above (fig. 1). The fragmented nature of English local government means that there is an exceptional array of variation in the provision of such local government heritage services, even though a national body exists (the Association of Local Government Archaeological Officers - ALGAO) to try to ensure national parity in management. As of the spring of 2012 national standards of guidance and practice for local government archaeologists were in the process of being developed by the Institute for Archaeologists (IfA), in-line with other standards and guidance already in place. However, since membership of the IfA is not a compulsory requirement for any archaeologists practicing in the UK, such standards only have a limited power.



Fig. 1. Site visits play a major role in the work of local government archaeologists, to provide advice and check on standards and progress. Here, Tony Howe (on the righthand side), one of the county archaeological officers of Surrey in southeast England, undertakes a monitoring visit to a partially excavated Saxon burial at Fetcham, Surrey in 2010 (copyright of Tony Howe, 2010).

Local government archaeological managers monitor developments in advance of and during constructions works when informed of such developments through the statutory planning development control system. This means everything from piecemeal housing and industrial development through major housing and infrastructure developments, road, rail, air and sea facilities, energy and mining developments, etc. such monitoring is undertaken in respect of the responsibilities laid out in the NPPF (figs. 2-3). However, such local government officers do not undertake active archaeological work themselves- such work is provided on a commercial competitive tender system in which private archaeological 'contract' or 'consultancy' firms are hired by developers to undertake such work on their behalf. Such firms are not tied to any government-enforced national standards, and can be selected by developers entirely on the basis of their cost / quality, a situation that tends to drive down the quality of archaeological fieldwork and the pay and conditions of contract archaeologists alike. Membership of the national body the Institute for Archaeologists (IfA) is encouraged but not required within such commercial firms. Such firms are also represented at the national level by the sector lobby organisation FAME (Federation



Fig. 2. Many CRM archaeology projects follow the routes of new pipelines, roads or other long-distance developments, surveying the route in advance. Here, CRM archaeologists work along the route of a pipeline in southeast England (copyright of Archaeology South East / UCL 2010).

of Archaeological Managers and Employers). As noted above, there is no 'licensing' of archaeology / archaeologists in this situation: anyone can tender for archaeological work in relation to development and indeed, more widely, so long as they have the permission of (or are) the landowner or undertake archaeological work irrespective of any related development, so long as the wider requirements of the planning system are met. For a detailed explanation of how this system operates, see Flatman (2011, pp. 84-107, 127-150).

The university archaeology sector in England is lively and active, but has no formal role in the management of archaeology. It is also notable how little fieldwork is conducted on domestic sites by such universities, with the funding and research environment favouring international, collaborative fieldwork abroad. Ongoing changes to the funding structure of English and Welsh universities (but not those in Scotland), especially a new fee structure as of the autumn of 2012 mean that the future of the UK's higher education archaeological community is uncertain, although this sector remains a major international training ground in archaeology, with a larger number of international postgraduate archaeology students – numbering thousands every year – receiving their training in British universities.



Fig. 3. CRM archaeologists often work in response to tight timetable of industry, and extremes of weather must be allowed for within this. Here, archaeologists work on through the winter of 2009-10 on the site of a housing development in southeast England (copyright of Archaeology South East / UCL 2010).

The 'voluntary' sector remains a major feature of English archaeology, both research and rescue archaeology. Three distinct groupings can be identified within this:

Group 1: 'local' voluntary sector archaeological organisations feeding a generally regionally or subject-specific community (e.g. particular areas of the UK or special interests such as industrial archaeology). Membership of such organisations is primarily drawn from 'non professional' archaeologists who wish to learn about or participate in archaeology as a leisure pursuit. A survey conducted by the UK Heritage Lottery Fund in 2010 demonstrates the significance of such groups: over 2000 separate community archaeology groups with over 200,000 members were recorded in the survey, with 'Heritage Open Days' (an annual national fortnight of public heritage events) involving over 400,000 volunteers working at over 4,000 historic sites to attract over one million visitors (Flatman 2012, p. 293). Such groups undertake a wide variety of usually small-scale archaeological fieldwork, primarily research-led work on private land, but including at times 'rescue' fieldwork, especially small trial trenches or 'watching briefs', for example on minor extensions to private properties or on work on church

lands that are exempt from the planning system through the system of 'Ecclesiastical Exemption' (Bianco 2006).

Group 2: 'national' voluntary sector organisations, usually with their roots in training or campaigning (e.g. the Council for British Archaeology (CBA), the Nautical Archaeology Society (NAS) and RESCUE: the British Trust for Archaeology). Membership of such organisations is traditionally drawn both from 'non professional' archaeologists (Group 1 above) and also from professional archaeologists (Group 3 below). Organisations such as the CBA in particular play a crucial role as an 'umbrella' organisation representing the interests of 'archaeology' as a whole to the public / media / government through the publication of such popular media like the monthly magazine *British Archaeology*. The CBA plays an especially important role lobbying the government for reform to the planning system to improve regulations as regards heritage.

Group 3: 'national' voluntary sector learned societies, primarily the Society of Antiquaries of London (SAL) and other bodies such as the Prehistoric Society. Membership of such organisations is traditionally drawn primarily from professionals who earn their living working as archaeologists, and often requires members to be elected by their peers on the basis of their professional standing and publication / fieldwork record. Such organisations are responsible for much publishing in archaeology, especially of specialised journals. Such groups often undertake lobbying of government on behalf of heritage, as their membership includes many senior institutional and academic figures, including several members of the House of Lords, the upper legislative body of the British Parliament.

5. Relationship between costs and results

There are five major funding streams of archaeology in England. Of these, developers (funding reactive 'rescue' archaeology through the development control system of PPS 5, and consequently contributing to the costs of both local government and also CRM archaeologists) are by far the most important source, paying – directly or indirectly – for some 95% of all archaeological fieldwork undertaken. The remaining four funding streams are then English Heritage (funding strategic investment in archaeology under the terms of the National Heritage Protection Plan (2011) via funding from central government; the Heritage Lottery Fund (funding voluntary and local government sector community-led projects through the proceeds of the National Lottery); research councils (especially the Arts and Humanities Research Council (AHRC) and Economic

and Social Research Council (ESRC) (funding university-led proactive research archaeology via funding from central government) and the voluntary sector (funding proactive research archaeology via investment income and the funds derived from their membership). Of the latter, this comprises everything from donations in the millions of pounds made by major national charities such as the Leverhulme Trust, to donations of only tens of pounds by small local voluntary organisations.

The reactive, competitive tendering system of English CRM archaeology discussed in this paper, in which developers not archaeologists or government officials are in the lead, means that there is a strong correlation between costs and results in the key sector of development-led archaeology. The present system allows developers to purchase archaeological expertise on the basis of cost not quality. This has a series of consequences:

Some developers choose to purchase a high quality (and thus higher cost) archaeological 'product' — to invest in archaeology because of the long-term benefits of project security (essentially risk management) that they gain from this, as well as additional benefits such as enhanced public relations that stem from paying for a high-quality service. However, the majority choose to purchase such an archaeological 'product' wholly or in large part on the basis of the lowest competitive tender prices that they receive on a project-by-project basis. This has created a long-term 'price war' in the CRM archaeology community, forcing down overall prices for work and impacting upon both the quality of archaeological work undertaken as well as on the pay and working conditions of the archaeologists undertaking such work (Flatman 2011, pp. 30-36).

The competitive tendering system has created a series of sub-groups of CRM archaeology that win/loose from this system. 'Winners' include archaeological consultants who serve as 'middle men' between developers and CRM archaeology firms, acting on behalf of developers to lead a development involving archaeology through every step of the planning process. Such groups are often criticised for seeming to serve the interests of developers more than archaeology. Meanwhile, a major group of 'losers' in this system are 'freelance' (self-employed) archaeologists, often individuals, especially those offering specialist technical expertise such as scientific analysis, dating, environmental sampling, etc., who often find themselves most threatened by a cost-driven process.

The competitive tendering system exasperates existing gaps in the planning system as regards the payment for specific aspects of an archaeological project by developers or government. Of particular note are [a] HERs; [b] Archives and [c] Public Archaeology. As regards [a] HERs or 'Historic Environment Records', these are the local repositories of archaeological and other historic information, maintained by local government to inform the planning system as well as to serve as a research archive. The NPPF is not clear on the formal responsibilities of local government to maintain these – and the specialist staff that they need to have in support. The NPPF is similarly unclear if developers should pay any contribution towards the costs of maintaining HERs. The consequence of this uncertainty is tremendous variation around the country as regards the contents, accessibility and guality of HERs. As regards [b] Archives, the NPPF is similarly unclear who should pay for the long-term archiving of the results of archaeological fieldwork undertaken in the course of development, both paper archives and archives of recovered historic materials. Most of these archives are, consequently, maintained by local government, but recent cutbacks in government funding have meant that this is not a cost easy to bear at that level any more. In addition, local archives around the country are known in many cases to be at or close to full capacity - there is thus a crisis in archiving with no clear route to finance the new/expanded archives that are needed. Finally, as regards [c] Public Archaeology, the NPPF is unclear as regards the requirements of developers to pay for or allow either public access to / outreach upon archaeological fieldwork being undertaken during a development, nor clear as regards their requirements to pay for post-excavation analyses and formal publication of results. The competitive tendering system exasperates this problem, with savings often being made to reduce tender prices by reducing the guantity and guality of post-excavation work undertaken. The overall consequence is that while the actual archaeological fieldwork undertaken in the course of development may be of a good quality, the follow-up work that turns such fieldwork into an accessible pool of information for the meaningful study of the past is often lacking.

6. Weak and strong points of the present system

Weak points

As discussed above, there are numerous problems with the CRM 'competitive tender' system currently in place in the UK, especially the lack of clarity about archiving, post-excavation and public archaeology funding. This issue is exasperated by the lack of formalisation — anyone can work as or call themselves an archaeologist in England, and without any nationally enforced standards by any 'heritage police', the quality of rescue archaeological fieldwork varies widely. To add to this, there is then the particular problems of local authority variation, with limited statutory

requirements to maintain suitably trained and expert archaeological staff to monitor and enforce the NPPF and no standards and guidance for such groups work either (i.e. the problem of 'who watches the watchers').

A broader issue is the occasionally fraught relationship between 'commerce' and 'academia' (Bradlev 2006). As discussed above. English - indeed, all British - archaeology has in large part fragmented into two groups who have little to do with one-another, the reactive 'commercial' CRM and government sector and the proactive 'academic' university and museums research sector. This leads to a lack of co-ordination and communication as regards research, especially a lack of linkage between regional and national perspectives (and so connections to European and wider international research agendas) and the implementation of research designs. There is a similar lack of coordination – of both management and research – between the cultural and natural environment communities, and especially the terrestrial and marine cultural/natural communities. This is a consequence of the structure of the British government, which places such communities under the purview of different government departments, rather than holistically perceiving of and so managing these communities together under a broader 'environmental' remit, as is the case in many other nations.

Two other issues are worthy of discussion here. The first of these is that of the hotly disputed Portable Antiquities Scheme (PAS), the voluntary scheme to record portable antiquities discovered by members of the public, especially metal detectorists. It should be noted here that metal detecting is legal in England on most sites with the permission of the landowner, except on a few protected sites, primarily Scheduled Monuments. Many archaeologists and also metal detectorists alike are deeply against the scheme – archaeologists because they argue that it runs contrary to good archaeological practice (including the UK's treaty obligations under the terms of the Valetta Convention), and metal detectorists because they consider the scheme to be the 'thin end of the wedge' of state control on the practice, in line with many other nations. The PAS has significant support at the highest levels of government, however, and regularly gains significant media coverage, so it is unlikely to be stopped or reformed in the near future. Many archaeologists would in particular like for the reporting of finds by metal detectorists to be mandatory under the scheme, but such a requirement would be hotly contested by the metal detecting community (Thomas, Stone 2009). The second issue worthy of discussion is the even thornier question of whether the principle of 'preservation in situ', enshrined in most European and indeed international heritage law, is working or not, generally on land and especially underwater in relation to rescue archaeology. The current CRM archaeology model in England regularly leaves materials 'in situ', but there are ongoing debates about the effectiveness and indeed validity of this as a process. Many historic sites left 'in situ' are either compromised by nearby developments (i.e. surrounding building foundations, sub-surface cabling and pipe works, etc.), or else are left exposed and open to environmental degradation and/or human intervention (especially in the marine zone). The orthodoxy of the concept of in situ preservation as an absolute necessity, however, has meant that some heritage managers are afraid to implement different management regimes even when the types of negative impact outlined above are visibly occurring on in situ archaeology. The reality is that the blanket implementation of this concept needs to be re-thought and a more nuanced approach to longterm site management introduced.

Strong points

The concept of 'polluters pay' lies at heart of the current rescue archaeology system in the UK, and that is a strong point in its favour, as is the position of archaeology firmly embedded within the wider planning system, with HERs in place to inform robust decision making. Such a reactive system has strong counterparts around the world and comes at a low cost to citizens. Developers are obliged to fund archaeological evaluation / mitigation via requests to be awarded planning permission, and this makes the system, it can be argued, fair, transparent and proportionate. Although there is a lack of clarity as regards standards, and the competitive tending system exasperates this system's tendency to drive down quality, overall, this model works in general well both for people and for archaeology, and meets both European and wider international best practice and guidance. The presence of key sector groups such as EH to offer strategic leadership, the IfA to provide guidance on standards, and the CBA to provide community connections, also means that there is a clear social network and political framework in British archaeology that enables strong communication. As a consequence, the UK is in some cases is a world-leader in innovative heritage management, and is certainly a major player in the provision of international training in not only archaeological but also broader historic site management.

The other strong point of English rescue archaeology is its long history of voluntary sector involvement, matched a strong media presence and interest. These two factors, which are not shared by archaeology in all other countries, means that there is a general popular interest in and support for archaeology in England. Such interest translates into a political influence beyond the archaeological community's physical size or economic impact — the British archaeological community 'punches above its weight' in terms of political interest thanks to media interest and popular support. A similarly long history of publication and of the innovative presentation of its results via media in many different formats is central to this strong popular presence. TV shows like 'Time Team' regularly have millions of viewers and have led, across the last twenty years, to a visible rise in university courses in archaeology in England, as well as to these general levels of support for archaeology witnessed, and within this a widespread popular understanding of the basic tenets of archaeological enquiry and research.

7. Quality and value of the scientific results and products

Two recent rescue archaeology management scenarios in England highlight the possibilities of fieldwork that is both cost-effective and which results in high-quality scientific results and products.

Heathrow Terminal 5

The management of the archaeology of the specific, large-scale development project of Heathrow airport's terminal 5 extension to the west of London between 1998 and 2006 demonstrated the possibility of extensive pre-development fieldwork, forward planning and collaboration between developers and archaeologists that blended the best of both 'research' and 'rescue' archaeology, avoiding many of pitfalls common to the normal rescue archaeology process in England (fig. 4). The project, at the time one of the largest in Europe, saw collaboration between two of the UK's major CRM archaeology firms, Oxford Archaeology and Wessex Archaeology, to provide the extensive fieldwork and post-excavation analyses of the site, the two organisations operating jointly under the name of Framework Archaeology. The result was a project that was timely and cost-effective (and thus well-received by the developer), and yet particularly beneficial to archaeology, with extremely high-quality scientific fieldwork and extensive as well as speedy publication (Brown, Lewis, Smith 2006; Framework Archaeology 2010).

Aggregates Levy Sustainability Fund

The provision of the now defunct 'Aggregates Levy Sustainability Fund' (ALSF) was a funding stream for 'rescue' archaeology in relation to the commercial exploitation of 'aggregates' (e.g. sand, gravel, etc.



Fig. 4. Heathrow Terminal 5 was one of the biggest construction projects in the world. Excavations by Framework Archaeology in advance of the construction works uncovered almost 9000 years of history. Here, 6000 years separates the cursus, a Neolithic ceremonial way, from the airliner flying above. The excavation took place between two of the busiest runways in the world (copyright of Framework Archaeology, 2011).

used in construction) that ran between 2002 and 2011. Across this period, it provided tens of million of pounds of funding to British archaeology. Crucially, unlike the majority of rescue archaeology, projects funded under the ALSF scheme (managed by English Heritage) were proactive, in advance of development. This meant that research priorities (for archaeologists and developers alike - for example, in the development of refined marine exclusion zones around areas of archaeological significance) could be prioritised, as could technical / scientific innovation in the identification, mapping and prioritisation of archaeological resources. ALSF projects were usually collaborative from the outset, and often involved the use of 'legacy' data - existing datasets already held by developers that were re-examined for archaeological data, making their use extremely cost-effective. This combination of collaboration and cost-effectiveness, paired with a commitment to public relations and media engagement, resulted in a range of outstanding projects (Flatman, Doeser 2010: Flatman *et alii* 2008).

8. Future perspectives

The 'Southport Review' of 2011 (Southport 2011) considered the structure and priorities of rescue archaeology in the UK and is an excellent 'marker' for anyone wishing to consider in-depth the possible future of this sector in England. The review highlights the possibilities of a reformed process of CRM archaeology under PPS 5, in which fieldwork quality (and fieldworkers pays and conditions) and crucially also 'research' activity are not inevitably sacrificed in order to meet the pricing commitments of competitively tendered commercial archaeological services in response to 'rescue' archaeological discoveries. Time will tell how successful the proposals of the Southport Review will be in the medium-long term.

In the short-term, external changes to the planning system brought in by the Conservative-Liberal coalition government since their election in May 2010 are likely to have a greater immediate impact. The introduction of a reformed planning system through the NPPF (a form of laissezfaire economic management designed to boost the economy through the removal of barriers to development and investment) from mid 2012 onwards is likely to reduce the protection of archaeological sites and provision of local government archaeological monitors, while leading to a simultaneous increase in the number of sites discovered. This will have an immediate benefit for 'commercial' archaeologists employed to investigate such sites and mitigate for the impact of development on archaeology (more such archaeologists will need to be employed to explore the larger number of sites), but will likely lead to the partial or total loss of some potentially nationally or even internationally important historic sites. There is also likely to be a corresponding drop in the employment opportunities of local government archaeologists, as the new 'streamlined' planning system is used to justify further cutbacks in the provision of local government archaeological advisors. The net result of the NPPF is unlikely to be good either for archaeology or for archaeologists. There is also likely to be considerable tension between the immediate-term impacts of this process of government deregulation in the NPPF and the medium-term impacts of another key government priority - its localism agenda as enshrined in the Localism Act (2011), which places much greater planning control in the hands of local communities. The NPPF is likely to encourage development through its streamlined planning system, but the Localism Act is equally likely to stall development through its commitment to local communities having a greater say in what is (and crucially is not) built in their neighbourhood, a process likely to block many developments. The conflict between these sometimes conflicting ideologies - of laissez-faire free-market deregulation on the one hand and of enlarged local community control and social responsibility on the other hand — lie at the heart of the compromise of the current coalition government, split as it is between those keen to boost economic development at all cost (in order to get the UK out of the current recession) and those keen to place greater power in the hands of communities and individuals. The wider historic environment is likely to become a minor battleground in this ideological battle.

Finally, one other political conflict is likely to further confuse the management of rescue archaeology in England, indeed in the whole of the UK. This is the position of the UK in Europe. The current government is split on the 'European guestion', with some (the hard right of the Conservative side of the coalition) fiercely anti-European and keen to reduce and/or wholly renounce the UK's existing European Union treaty commitments. This 'side' is currently winning thanks to the support of the Prime Minister David Cameron. As against this, others (a mixture of centrist Conservatives and the majority of their coalition partners in the Liberals) are broadly pro-European and would not wish to withdraw from the UK's current commitments or future possible closer working within the European Union, including joining the single currency zone. The outcome of this long-running internal battle inside British politics is impossible to quess - either the nature or the date of its outcome. Its roots lie deep in Britain's post-war post-colonial reform and European connections, a process still ongoing. In the short-medium term, one impact is likely to be considerable confusion as regards the UK's heritage treaty responsibilities, its commitments as regards the Valetta, Florence and Faro Conventions to name but three of the dozens of such heritage conventions that the UK is a signatory of. There is an argument that the UK is already in partial contravention of some of these treaty responsibilities (especially the Valetta Convention): the planned and ongoing reforms of the NPPF of 2012 and Localism Act of 2011 may further contravene these commitments, although to 'prove' this in law and then identify and enforce any possible penalties would prove exceptionally time-consuming and are unlikely to ever occur. How the UK will engage with its European archaeological partners, both reactively in relation to such convention requirements and proactively as regards more general collaboration in the field of heritage management, remains to be seen, and is a key concern to many British archaeologists.

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