

Institution: University of EXETER
Unit of Assessment: ARCHAEOLOGY
<p>a. Context: Ensuring that academic research benefits wider society is a core feature of Archaeology at Exeter. The department has developed a culture which has achieved impacts locally, nationally and internationally through longstanding and newly developing relationships with diverse external partners. The main beneficiaries of this research have been national government and non-governmental agencies, local authorities, museums, conservation charities, community groups and the public in Britain and abroad. The impact falls into three categories:</p> <p>1. Impact on policy and strategy in the sustainable management and preservation of heritage: Exeter's research has informed the development of heritage management strategies at national and local levels. Research by Van de Noort and Rippon has raised awareness of the importance of wetland archaeology within public bodies and helped transform policy and strategies on the sustainable management of wetlands. Van de Noort co-wrote the English Heritage <i>Strategy for Wetlands</i> (2008), and Rippon won an AHRC KTF (£67k) (2009-10) to work with Essex County Council and RSPB in the development of a new 1,500ha nature reserve (see Case Study). Elsewhere, Harding's work on illicit antiquities was published in a British Academy Policy Paper (2011) and has contributed to the debate which the Ministry of Justice and Department for Culture, Media and Sport are conducting about the UK's place in the international antiquities trade, and the role of public bodies and private individuals in dealing with antiquities that have no provenance. Lazzari's work (facilitated by a £32k AHRC networking grant) with the provincial authority for culture and tourism in Argentina, and the indigenous community of Quilmes, has supported the process of the return of the management of a nationally important archaeological site to the care of the native community. Oltean made a major contribution to the creation of European standards on education in aerial archaeology for non-academic audiences through the European Archaeological Council and Aerial Archaeology Research Group Working Party on Education in Aerial Remote Sensing for Archaeology, and in her participation in the EU-funded <i>Archaeolandscapes</i> project (2011-15). Morkot is part of the Western Marmarica Coastal Survey (Libya) that is working with local authorities to ensure the sustainable management of heritage.</p> <p>2. Impact on society, culture and creativity: Exeter's philosophy towards public engagement routinely includes community involvement in traditional field-based projects. For example, in 2011-12, excavations at the Roman fort at Calstock and planned medieval town of Bere Alston in the Tamar Valley (Cornwall/Devon) involved 53 adult volunteers, 36 primary school children, and 400+ visitors. In 2012-13, the excavations at the Romano-British settlement at Ipplepen (Devon) attracted 1,850 visitors and 62 volunteers (13 international). Particularly distinctive aspects of our work are: (1) embracing the entire historic environment such as Creighton's £159k AHRC KTF with the Poltimore House Trust (Devon) that involved local schools and community groups in the investigation of the historic landscape associated with a country house; 2,127 members of the public participated in 86 training and outreach events, while a partnership with the social enterprise Forward25 provided workplace experience for local unemployed people; (2) the use of construction-as-performance in museums (see AHRC KTF in Case Study), and experimental archaeology more generally (eg Juleff's public iron smelting trails in Sri Lanka and displays, with full-scale furnace reconstructions, in the National Museum, Colombo, and the Martin Wickremasinghe Folk Museum); and (3) the use of innovative digital technologies such as Hurcombe's AHRC/EPSRC (£8k) project 'Touching the Untouchable: Increasing Access to Archaeological Artefacts by Virtual Handling' and subsequent AHRC Development Grant (£71k) 'Touching the Past' that used modern technologies to provide touch experiences for museum visitors (including a 'proof of concept' public event at the National Museums Scotland). Knüsel's 'Gristhorpe Man Project' forms the centrepiece of the Rotunda Museum in Scarborough using innovative technologies such as talking facial reconstructions (runner-up in the British Science Association Festival of Science Presentation of Heritage Awards 2008). Knüsel's AHRC Knowledge Exchange Hub grant (£50k) enabled him to use advanced digital technologies in the presentation of the Ivory Bangle Lady at the Yorkshire Museum.</p> <p>3. Using an understanding of the past to develop a more sustainable future</p> <p>An emerging theme is using our understanding of the past (through archaeology) to enable modern communities to develop sustainable forms of landscape exploitation. This is reflected in Van de Noort's research into understanding climate change, Rippon's multi-agency work on historic landscapes (see Impact Case Study), Juleff's collaboration with the Institution of Engineers Sri</p>

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Lanka and their promotion of ancient wind-powered technology to inspire new initiatives in renewable power generation nationally in Sri Lanka, and Iriarte's multi-agency work in Amazonia with OXFAM, the Foundation for the Sustainable Development of the Beni, and Museo de Historia Natural in Santa Cruz in Bolivia, to improve the sustainability of local farming by using traditional field systems (supported through £250k from the Leverhulme Trust, and £32k from CNRS).

b. Approach to impact: Archaeology at Exeter has a clear strategy for ensuring that its research benefits the non-academic world through clearly identifying pathways to impact, developing strategic links with selected external organisations, and obtaining funding from a wide variety of sources (incl. three AHRC KTFs, an AHRC KE Hub grant, and contract research). This approach draws upon the model provided by the Wetland Archaeology group since the 1990s who used their internationally recognised expertise to work with English Heritage and other agencies to develop strategies for the sustainable management of wetlands, and each of our current research groups (Bioarchaeology, Landscape Archaeology, and Material Culture & Social Agency) now have their own strategy for developing knowledge exchange, supported by the following approach:

i. Support for staff in identifying and achieving impact has been provided by successive **Directors of Research** (Coles, Rippon, and Iriarte) who have led by example in obtaining substantial external funding explicitly for impact related activity. All staff have an **Academic Lead** who offers mentoring on developing knowledge exchange, and the need to identify and engage with potential beneficiaries before the grant application stage. All grant applications undergo **Internal Peer Review** where particular attention is given to the pathways to impact. Impact is a specific topic for discussion during staff **Performance & Development Review** with their Academic Lead. Strongly impact-related projects are the subject of **Departmental Research Seminars**, ensuring that it is regarded as a core part of the Department's research culture. Staff in Archaeology are supported by the University's **Research and Knowledge Transfer Office**, which helps academics realise the potential impact of their research through bespoke workshops and mentoring sessions tailored to the needs of specific disciplines. Their skills were particularly important in bringing together the partner organisations in the three AHRC KTFs. The Director of Research in Archaeology also works closely with the University's **Impact Strategy Group** (academics and external users who advise on enhancing impact nationally and internationally).

ii. Providing resources and infrastructure is also crucial. Impact activities are recognised in staff **workload allocation** and can form the criteria for applying for study leave. Staff apply to the College of Humanities' **Impact Fund** for small pump-priming grants to help facilitate impactful work, recipients including the Wetland Archaeology research group (£1.5k) and the Poltimore House project (£1.5k). Archaeology also works very closely with the College of Humanities and University **Press Offices** whose skills in coordinating press releases with publication, and dealing with demands from a wide variety of media in a very short space of time, have been crucial in maximising the impact of stories both internationally (e.g. Outram's research on horse domestication, and Van de Noort/Hurcombe/Harding's launch of a reconstructed Bronze Age Boat) and locally (e.g. Oltean's and Rippon's excavations on Roman sites in Devon and Cornwall). The Department's **Facebook page and Twitter** feed ensure timely dissemination of news.

iii. Spreading the message of the importance of impact to PGRs and ECRs is achieved through the Researcher Development Programme that considers the importance of knowledge exchange and how it can be achieved, while the Departmental seminar series covers perceptions of archaeology in the media and examples of impactful projects. Supervisors encourage this awareness and offer individual advice on the potential impact of students' research, as well as drawing them into engagement activity with end-user groups. ECR Smart's fieldwork in the Tamar valley (Cornwall/ Devon) involved extensive community participation (see above).

c. Strategy and plans: All the support mechanisms at discipline, College and University level will continue post-REF, and will enable existing partnerships with end-users to be developed, and new collaborations to be established. Clear pathways to impact will be embedded within future research grant applications that are supported by mentoring and Internal Peer Review. Workload models will recognize the importance of impact alongside pure research. Pump-priming funding will be available through the College Impact Fund. Following its success with AHRC KTFs, Archaeology at Exeter is an integral part of the AHRC **Research and Enterprise in Arts and Creative Technologies Hub**, one of four new KE Hubs in 2012-16 that will create c.70 knowledge exchange projects between Humanities researchers and UK creative industry partners and businesses (eg Knüsel's work with the Yorkshire Museum: see above). Future areas of particular impact will be:

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Impact on policy and strategy in the sustainable management and preservation of heritage

Bradley's research into the peopling of the New World (*Across Atlantic Ice*) is already impacting on the teaching of early human history in the USA. This research has also highlighted the importance of inter-tidal and sea-bed archaeology in the Americas which is beginning to impact upon coastal heritage management policy. Oltean is advising the National History Museum of Transylvania and the Ministry of Culture in Romania on the application of remote sensing to the management of the Dacian Citadels in the Orastie Mountains World Heritage Site, and preparations for WHS status for the Roman frontier in Romania. Comparative study of policies and management of, and public attitudes towards, moveable antiquities in SW Britain and South India (funded by Nehru Trust) will inform Portable Antiquities Scheme policymakers in UK and heritage policymakers in India. Dennell is a member of ICOMOS and is particularly working on increasing WHS in eastern Asia.

Impact on society, culture and creativity

Archaeology at Exeter remains committed to public engagement and its fieldschool at Ipplepen (Devon) organized with the PAS/British Museum will continue to work with local community groups. The use of experimental archaeology in engaging the public will include the outcome of Hurcombe's 'Dialogues with Science' module (£134k) within the EU funded OpenArch Project (2012-15) that will enhance scientific rigour within experimental and open-air archaeological museums across Europe. Lazzari's work on archaeology, material culture and heritage in the context of re-emerging indigenous identity in Argentina will inform public policy on indigenous heritage in S America. Creighton is working with University of Exeter historian Henry French to develop their successful AHRC KFT with the Poltimore House Trust through establishing a partnership project with the National Trust in order to enhance public engagement with heritage. Hurcombe and Van de Noort are both currently working on construction-as-performance projects involving replica ancient boats that will start in 2014 (eg at the British Museum: see Case Study).

Using an understanding of the past to develop a more sustainable future

Iriarte's research on the controversial question of whether pre-1492 Amazonia was not in fact a pristine forest has major implications for informing conservation strategies in lowland South America. Current grants (eg £1.2m AHRC-FAPESP award in 2013) and pending applications have clear pathways embedded within them to enable work with local and national conservation bodies to help ensure more sustainable farming practices are adopted. Rippon is working on developing a concept of 'landscapes of recreation' as a way of integrating sustainable tourism in particular places that have been used in the past for leisure activity. Juleff is working with environmental engineers in Sri Lanka exploring new ways to generate power using data from her research.

d. Relationship to case studies: The selected Case Studies reflect how supporting impact is firmly embedded within our research culture. The first - ***Sustainable Management of Wetland Environments*** - illustrates the longevity of Exeter's research influencing policy and strategy in the sustainable management and preservation of wetland heritage. It is based on research and a collaboration with English Heritage that started in the 1990s and which included a substantial period of research leave for Coles to develop her work on heritage management, illustrating our long established recognition that activity with a significant non-academic benefit deserves such support. The effective partnership with EH was continued by Van de Noort (through contract research), while Rippon broadened the range of partners through an AHRC KTF. Strategic use of workload allocation has also enabled him to be relieved of other responsibilities to carry out further contract research for non-academic beneficiaries, which includes the Olympic Legacy Company and multiple projects for Essex County Council. An example of public engagement and impact on society, culture and creativity, ***Transforming Museums Through Experimental Maritime Archaeology*** illustrates the value of experimental archaeology and 'construction-as-performance' in living exhibitions within a gallery setting. The aim was to strengthen the connections between modern communities and their maritime heritage using the construction of a replica Bronze Age boat at the National Maritime Museum Cornwall. The use of what today are little-known technologies intrigued the public and drew them into the archaeological evidence-base for the project, and the process of construction-as-performance greatly enhanced the normal exhibition experience. This has built up the Museum's research capacity and relationship with its local community and visitors from further afield, and so enhanced its sustainability. The project was designed to serve as a model that other museums could adopt, and this has already been achieved through a similar boat reconstruction in Finland, and plans for further projects in the UK (at the British Museum and in Cornwall), and Italy.