

Institution: University of Chester
Unit of Assessment: C15 Archaeology
1. Unit context and structure, research and impact strategy

1.1 Unit Context and Structure

1.1.1. Unit Context

The University of Chester is among the youngest and most energetic centres for archaeological research in the UK, comprising 6 FTE staff situated in the Department of History and Archaeology, part of the School of Humanities within the University's Faculty of Arts and Humanities. Building on our first-ever REF return in 2014, a revised research strategy supported early career staff, fostered collaborative and interdisciplinary research activities, desk-, library-, lab- and field-based research and supported doctoral researchers. Archaeology and Heritage at Chester has demonstrated vitality in innovative approaches to research, the range and volume of research conducted, and through demonstrable long-term research sustainability over the course of the audit period in terms of research activity. The many connections between teaching and research shine through many of our research outputs and endeavours, rendering our activities sustainable within a teaching-focused HE institution. As a small unit that has consistently excelled in academic research, archaeologists at Chester are now a well-established research unit of national and international renown. The unit is sustained by the University's investment of QR funding. The unit is recognised for its international standing and its academic and public benefit for the city and region.

1.1.2 Unit Structure

The Chester archaeologists' expertise and investigations are far-ranging, diverse and with multiple interdisciplinary dimensions. We tackle the European and British Mesolithic (**Dr Amy Gray Jones, AGJ** and **Dr Barry Taylor, BT**), Iron Age and Roman Britain (**Dr Caroline Pudney, CP**), Early Medieval Britain and Europe (**Professor Meggen Gondek, MG** and **Professor Howard Williams, HW**), the archaeology of the recent and contemporary past (**HW**) and heritage studies (**Dr James Pardoe, JP**). Meanwhile, our key thematic and methodological strengths are palaeoecology and human-environment relations (**BT**), human osteoarchaeology (**AGJ**), mortuary archaeology (**AGJ/HW**), the archaeology of memory (**MG/HW**), material culture analysis (**CP**), public archaeology (**CP/HW**) and literary heritage (**JP**).

Archaeological research at Chester has built substantially in quality and quantity since 2014, incorporating established staff (**MG, JP** and **HW**), those transitioning from early-career researcher (ECR) to mid-career researcher (MCR) (**BT, AGJ**), and one ECR colleague (**CP**). In addition to expanding our research across our fields of expertise, we have cultivated a vibrant postgraduate research (PGR) community and incorporated undergraduate (UG) and taught postgraduate (PGT) students into our research strategy, thus demonstrating vitality and sustainability year-on-year.

1.1.3 Research Clusters

A triad of research clusters have been established which encapsulate and support our disciplinary and interdisciplinary research endeavours, fostering collaboration and inclusion within a Departmental research context involving staff in History, Heritage and Archaeology as well as postgraduate researchers, and both postgraduate and undergraduate students. All staff's research activities cross-cut these clusters, thus enhancing our research synergies and endeavours.

- Giving Voice: Diverse Narratives of People, Places, and Objects,
- Memory and Mortality: Death, Burial and Commemoration,
- People and Place: Past Landscapes and Environments.

1.2 Research and Impact Strategy

The key components of this strategy devised for the 2014–2020 period are:

Unit-level environment template (REF5b)

1. Tailoring support for researchers in fostering and sustaining appropriate disciplinary and interdisciplinary research projects and collaborative work (see section 1.2.1);
2. Supporting and mentoring researchers (including ECRs especially) to develop a range of appropriate research outputs pertinent to their work and carefully pitched in terms of venue and format (see section 1.2.2);
3. Utilising departmental, faculty and University funding to support research leave and activities, including fieldwork, post-excavation analysis, and conference/workshop attendance and organisation (see section 1.2.3).
4. Encouraging researchers to apply for external research grants to enhance and extend their capabilities to conduct research (see section 1.2.3);
5. Integrating research into all aspects of teaching, and supporting the involvement of, and collaboration with, undergraduate and postgraduate students in staff research (see section 1.2.4);
6. Deploying and enhancing our research facilities, including the archaeology laboratory, dedicated workspace and equipment for post-excavation analysis, experimental archaeology and photogrammetric recording, fieldwork and survey equipment, and IT and library resources (see section 1.2.4).
7. Pursuing research of public benefit and social impact across individual and collaborative endeavours (see section 1.2.5)

1.2.1 Research Projects and Collaborations

Collaboration has been a strategic imperative connecting together our 7 research aims, exemplified (for example) with **HW**'s Co-Investigator role in a prestigious ECR-funded *Past in its Place* project resulting in both single-authored and collaborative research outputs in high-profile venues, and **BT**'s collaborative role on the ERC-funded *PostGlacial* project, where he co-directed excavations and co-authored the resulting monographs (see also sections 3.1, 4.1 and 4.2).

We have sustained and developed a range of intra- and interdisciplinary collaborations through our research with specialists in other subjects and colleagues in Archaeology within the University of Chester, and across the UK, NW Europe, Fennoscandia and the USA. This was part of a strategy to foster collaborations in relation to bespoke staff-specific research objectives, but also to foster and sustain impact narratives both within and beyond the higher education (HE) sector linked to social responsibility (see sections 4.2 and 4.3). Specific examples include:

AGJ: Supported by the research strategy, internal collaborations with colleagues in Education, Mathematical and Physical Science, Sports and Exercise have been sought, meanwhile external collaborations with the Universities of Oxford, York, Durham and Manchester and collaboration with the Lancashire Wildlife Trust have been sustained, resulting in the following projects:

- *Humans and Environmental Change in the British Mesolithic* (2014–; with **BT**);
- *Mesolithic Maritime Identities of the Inner Hebrides (Small Isles)* (2014; with **BT** and Dr S. Piper (Durham/York));
- *Experiencing the Stone Age: enhancing the public understanding of the Mesolithic* (2017–; with **BT**, Museum of Liverpool and Lancashire Wildlife Trust);
- *Ways of Knowing the World in the European Mesolithic* (2018–; with **BT** and Dr N. Overton (Manchester));
- *Social Identity and Skill in the Mesolithic* (2018–; with **BT**).

MG: Co-founder and co-director of the internationally highly reputed Rhynie Environs Archaeology Project (REAP), a sustained collaboration with co-director G. Noble (University of Aberdeen) 2004–present.

CP: Building on her expertise in Iron Age and Roman archaeology for western Britain and her previous work in governmental archaeology, the following collaborative projects have been developed with partners in the heritage sector:

- *Llanmelin Community Project* (2011–; with Cadw, local schools, HMP & YOI Parc, and Shirenewton Local History Society)
- *Hen Caerwys* (2012–present; with Cadw and Clwyd-Powys Archaeological Trust)
- *Limestone Enclosures Project* (2019–; With Archaeological Survey West and Cadw)

Unit-level environment template (REF5b)

- *The Western Frontier of Britannia* (2017–present; with Amgueddfa Cymru)
- *In the Footsteps of Trebellius Maximus* (2020–present; with Wrexham Museum)

BT: In addition to internal collaborations as with **AGJ**, external collaborations with Cambridge, Durham, Newcastle and York have been developed and sustained:

- *POSTGLACIAL European Research Council-funded* (2014–; with Professor N. Milner (York) and Dr C. Conneller (Newcastle));
- *Humans and Environmental Change in the British Mesolithic* (2014–; with **AGJ**);
- *Mesolithic Maritime Identities of the Inner Hebrides (Small Isles)* (2014–; with **AGJ**);
- *Experiencing the Stone Age: enhancing the public understanding of the Mesolithic* (2017–; with **AGJ**);
- *Ways of Knowing the World in the European Mesolithic* (2018–; with **AGJ** and Dr Nick Overton (Manchester));
- *Social Identity and Skill in the Mesolithic* (2018–; with **AGJ**);
- *Vale of Pickering Early Mesolithic Landscapes Survey and Excavation Report* (2018–2020; with Prof. Paul Lane (Cambridge)).

HW: Building on expertise in early medieval archaeology and archaeologies of memory, long-term collaborations with a range of other institutions and organisations have been developed:

- *Project Eliseg*. Co-directed with N. Edwards (Bangor) and G. Robinson (Bangor), 2010–present;
- *The Past in its Place*. CI on European Research Council funded research project. PI: Philip Schwyzer and CI: Nicola Whyte, University of Exeter, 2012–2016;
- Research collaborations leading to co-edited and co-authored projects with colleagues at the universities of Chester, Manchester, UEA, Helsinki and Oklahoma;
- Co-founder and co-convenor of the *Offa's Dyke Collaboratory* (2017–): a significant new research networking initiative working with the Offa's Dyke Association, the Wye Valley AONB, RCAHMS, Clwyd-Powys Archaeological Trust, English Heritage, Cadw and a host of other regional partner organisations and involving the creation of a website with a blog and resources, a series of public and specialist talks, workshops and conference sessions, an open-access annual academic peer-reviewed journal - the *Offa's Dyke Journal* (2019–) as well as public engagement activities.

1.2.2. Research Outputs

The Research Coordinator (**HW**) has actively mentored staff through individual meetings and through group research meetings. This has been particularly constructive in selecting and prioritising the research activities of the ECR/ECR-MCR staff members. This successful strategy enabled all staff to develop REF-quality outputs and projects (Section 1.1.2).

The Department's research leave scheme, supported by QR funds, in addition to external grant-funded research leave gained by **BT** and **HW**, has afforded regular half-year leaves throughout the audit period. Most staff have benefitted from at least one year of research leave over the audit period. This has allowed them to complete grant applications (**AGJ**, **CP** and **BT**) and deliver ongoing projects as well as to produce research articles and book chapters of significance to personal career development and research profiles (**AGJ**, **BT**, **CP** and **HW**). Furthermore, edited collections and special journal editions have arisen from national and international conference sessions organised by **HW**, thus raising the reach and reception of research, notably incorporating student participation (e.g. see the University of Chester Archaeology Student Conferences, 4.6).

1.2.3. Research Grant Applications

One aim of the research strategy has been to support, in addition to utilising effectively internal funds, applications for research grants. Successful smaller grants demonstrate our successes, including those to the NERC radiocarbon fund, and Prehistoric Society Research Fund by ECRs (**AGJ** and **BT**) and the Roman Society/Roman Research Trust (**CP**). Further unsuccessful applications to The British Academy/Leverhulme Trust (Small Grants Fund), the National Geographic Fund and the Leverhulme Trust were submitted. Meanwhile, ongoing externally-funded projects have been

delivered during the audit period by senior researchers (**HW**). The *Past in its Place* project (2012–2016) (Co-Investigator: **HW**) funded Dr Patricia Murrieta-Flores as a postdoctoral researcher.

Staff have also acted as project partners in successful bids to the National Lottery Heritage Fund to support impact activity (**AGJ, BT**), both as part of a Stage 1 development bid (2017-18) and a Stage 2 delivery bid (2020-2025). **BT** also received grant income through collaboration with the University of Cambridge and Historic England for his role in the *Vale of Pickering Early Mesolithic Landscapes Survey and Excavation Report* project (2018-20), which provided teaching cover to allow participation in the project. Internal grants from the Faculty of Arts and Humanities Research Fund have also been invaluable in supporting and sustaining research (**AGJ, CP, BT, HW**). Together this experience is set to inform new funding applications, and the Faculty will also provide mentoring and funding to support grant capture during the next REF cycle.

1.2.4 Research-Led Teaching

We have sustained and enhanced the integration of our research expertise with our class-, lab- and field-based Archaeology teaching with improved facilities (in 2014–15, the Department established a new Archaeological Science Laboratory following a successful bid to the University Capital Fund costing £170,000 in terms of set-up and equipment (see 3.2.5). This has been achieved by matching our undergraduate modules very closely to our research expertise and activity. Examples include the level 5 *Reconstructing Past Environments* module, where students analyse and interpret environmental samples collected during staff fieldwork projects, and the results feed back into ongoing work at the site. Similar integration of teaching and research can be seen in undergraduate modules exploring (for example) early medieval stone monuments, human remains, Romano-British archaeology and Viking archaeology. Furthermore, the Archaeology Dissertation module has been refined to require level 6 students to consider how their research connects explicitly to our Departmental research clusters as well as our individual expertise in Archaeology and Heritage. This has led some students to undertake dissertation projects directly linked to staff fieldwork and research.

One distinctive synergy of teaching and research directly speaks to the University's Citizen Student strategy. From 2016, through the undergraduate Archaeology and Contemporary Society module, Archaeology students are facilitated in organising an original public archaeology-themed open day conference with the external partnership of the Grosvenor Museum Chester (CWAC Museums). Each of these annual events has been developed into an academic book lead-edited by **HW**:

- Williams, H, Wills-Eve, B. and Osborne, J. (eds) *The Public Archaeology of Death* (Sheffield: Equinox, 2019)
- Williams, H., Pudney, C. and Ezzeldin, A. (eds) *Public Archaeology: Arts of Engagement* (Oxford: Archaeopress, 2019);
- Williams, H. and Clarke, P. *Digging into the Dark Ages: Early Medieval Public Archaeologies* (Oxford: Archaeopress, 2020).
- Gleave, K., Williams, H. and Clarke, P. (eds) *Public Archaeologies of Frontiers and Borderlands* (Oxford: Archaeopress, 2020)

This sustained research-led teaching also applies to our three distinctive taught postgraduate Archaeology degrees, each with unique foci coupled to our research expertise and activities: the MA Archaeology and Heritage Practice (from 2012), MA Archaeology of Death and Memory (from 2012) and Past Landscapes and Environments (from 2016). Together with a burgeoning community of MRes and MPhil/PhD researchers (section 2.2.1), we have steadily and sustainably developed a vibrant graduate research environment, having recruited 54 PGT and 11 PGR students since 2014. In the audit period, we have supervised to completion 8 research degrees: 2 x MRes Archaeology (Christopher Matthews, Roger Lang), 2 x MPhil Archaeology (Jonathan Colley, Alison Smithson) and 4 x PhD Archaeology or Heritage (Chris Green, Joanne Kirton, Ruth Nugent, Rachel Swallow).

1.2.5 Research Impact and Engagement

Archaeology researchers at Chester have a long-established public engagement philosophy, delivering sessions for schools, public and society talks, liaising with and supporting community groups, and engaging with individuals and groups beyond academia via digital media. Two specific

areas of public engagement work have been developed as impact narratives. The first, *Medieval Monuments in the Marches*, builds on our research expertise in monuments and memory, including *Project Eliseg* and the *Offa's Dyke Collaboratory* (HW) and intends to benefit local communities throughout the Anglo-Welsh borderlands with information and resources regarding early medieval monuments and landscapes, thus linked to the University's foundational values and mission values to 'advance knowledge and enhance practice in the service of society'.

The second impact narrative, *Experiencing the Stone Age*, relates to our expertise in Mesolithic archaeology and palaeoecology, building on a Heritage Lottery-funded partnership with Lancashire Wildlife Trust on the *Mesolithic and Modern Life, showcasing past present and future* project at Lunt Meadows (Merseyside) (AGJ/BT). Here, AGJ and BT provided academic input, arising from their research outputs, to a project that seeks to engage multiple audiences (including adults not in education, and Key Stage 1 & 2 primary pupils) with the natural environment and prehistoric heritage of a new nature reserve at Lunt Meadows. This involved consulting local stakeholders, and piloting and evaluating educational resources and outreach activities (development stage 2017–18), and designing, developing, and delivering a programme of resources, training, and outreach activities as part of a five-year delivery stage (2020–2025).

1.3 Future Objectives Beyond REF 2021

Priorities to date have until now been defined by the fact that half of the archaeology section at Chester has been comprised of ECRs (see 2.1). Informed and directed by the research strategy (section 1.1), the following future objectives have been established moving beyond REF 2021 which reflect the maturing standing of its researchers as middle- and senior-career researchers. We aim to thus develop more ambitious objectives in terms of character and scale and measure our success against these objectives.

1.3.1 Sustained Larger Research Projects

To build on and render our existing strengths sustainable, we aim to:

- Convert currently successful, but relatively small-scale, projects to more substantial ones through collaboration with internal partners and external organisations.
- Continue to develop current, large scale field- and desk-based projects.

1.3.2. Pursuing Distinctive and Innovative Research Outputs

To improve further on the strength of our submission to REF 2021, we aim to:

- Continue to support staff in producing high profile and prestigious publications to major international peer-reviewed journals by maintaining research days and research leave and mentoring staff;
- Encourage selected staff to produce monographs and edited books that make a significant and distinctive contribution to their research fields, aware that in the field of Archaeology edited collections have a clear and enhanced role in collaborative and synthetic work. The mentoring role of the Research Coordinator (HW) will be instrumental in this aspiration.

1.3.3 Grant Applications

To replicate and consolidate our success in research funding, we aim to support and encourage staff:

- To apply for more substantial funding (FEC) to support research by providing teaching opportunities for junior researchers to allow established researchers to focus on research, post-doctoral researchers, PhD studentships as well as the costs of fieldwork and analysis;
- Continue to apply for small grants, and to make use of internal funding opportunities where appropriate.

1.3.4 Research Impact and Engagement

To develop our expertise in impact and engagement, we aim to maintain and refine our existing strong links with:

- Local, regional and national education bodies;
- National and regional charities and heritage bodies supporting the historic environment.

This will be a monitored dimension of the Research Coordinator role in liaison with individual staff aimed at enabling us to enhance the public benefit and social impact of our research.

2. People

2.1 Staffing Strategy and Development

The Research Coordinator mentors staff outputs, grant applications and other activities. The Department supports research leave, especially fostering ECRs who have been rapidly afforded research leave after appointment to develop grant applications and deliver research outputs.

This small unit maintains a twofold future aspiration for its staffing strategy;

- Retaining our current 6 FTE Archaeology staff free from secondment or significant administrative roles will provide the necessary environment for fostering and extending our research activities and endeavours.
- Given our track record of high-quality research demonstrated by the quantity and quality of its outputs and the clear vision for enhancing these, the unit will plan to create a business plan consolidating our sustainable staffing and research.

2.1.1 Staffing, Gender and Age Structures

Our staff members make use of the flexible working offered by the University to support those with family and caring responsibilities (**MG**, **HW**). We are currently proud that we possess an even gender split and there is clear range in staff career situations, with two of the six staff transitioning from ECR status during the REF 2021 audit period (**AGJ** and **BT**) and one just after the end of the audit period (**CP**: September 2020).

2.1.2 Research Staff Management

Archaeology research is line managed by the Director of the School of Humanities and the Head of Department. The Director chairs our termly School Research Advisory Group comprising Research Coordinators from History, Archaeology, Theology and Religious Studies, English Languages and Literature, and Modern Languages. The Head of Department oversees our annual Personal Development Plan (PDP) process: she meets with individual staff members to review the year's achievements and set the next year's objectives, including in research. The Archaeology researchers are led by one Research Coordinator (**HW**). Together with the Head of Department, the Research Coordinator chairs an annual Research Away Day, holds Annual Research Meetings with each individual to discuss strategy and progress on outputs, interdisciplinary projects, grant applications, impact, and public engagement. Their meetings and events are fed back into the annual PDP meetings.

The effectiveness of these structures is visible in a number of ways. The annual Research Away Days have produced our Departmental research strategy document, our new Research Clusters, one of which builds on the existing MA Archaeology of Death and Memory, and another directly correlates with the MA Past Landscapes and Environment.

2.1.3 Research Staff Support and Promotions

These structures are employed to govern the strategic deployment of research funding. REF 2014 QR funds are used to support periods of research leave and to fund teaching relief for all Archaeology researchers. One of the Archaeology research team is supported for a six-month period of Research Leave each academic year. This scheme is administered through a formal application process to the Head of School and Head of Department, with the Research Coordinators providing information to inform their decisions. This has enabled us to ensure the quality and timeliness of research outputs and activities, which has produced tangible results in our increased number of quality outputs, our sustained grant capture (Section 1.2, Section 3), and our increased international and national recognition (Section 4). This has also helped to foster and tailor support for researchers at different stages of their career facing different circumstances relating to gender and age (below and Section 2.3). In parallel to this scheme, Archaeology researchers are apportioned one day of teaching relief each week to support on-going research, impact, and engagement activities. These structures are also employed to support Archaeology researchers in those research elements required for

promotion applications, notably research outputs and grant applications. For example, **CP** has used her ECR research leave to complete and publish 4 peer-reviewed journal articles during the audit period addressing her work in public archaeology and Iron Age/Roman archaeology and supporting her promotion to Senior Lecturer.

In the audit period, four members of staff have received promotions resulting from their administrative, teaching and/or research achievements: **MG** (promoted to Professor of Archaeology and Head of Department in 2016), **AGJ** (promoted to Senior Lecturer A in 2015 and then to Senior Lecturer B in 2020), **CP** (promoted to Senior Lecturer in 2018), **BT** (promoted to Senior Lecturer in 2015).

2.1.4 Research Staff Collaborations

Archaeology researchers are developing distinctive research collaborations within the University. Notably **AGJ** and **BT** are working with the Faculty of Education, as part of impact activity, with Department of Mathematical and Physical Science on analytical methods, and Department of Sports and Exercise Science in developing new ways of understanding the effects of subsistence activity on body development and social identity in the Mesolithic.

2.1.5 Early Career Research Support

Chester's REF 2014 Archaeology submission was an even split of established and ECR researchers. The current audit period has allowed consolidation and support for those ECR researchers through mentoring by the Research Coordinator, resulting in all three ECRs transitioning and securing promotions, as well as delivering REF-appropriate research outputs. Our successful mentoring programme and the framework provided by developing Faculty and University initiatives in supporting staff development such as regular research workshops will continue allowing staff to develop and grow.

2.2 Postgraduate Research (PGR) Training and Supervision

2.2.1 PGR Management

Since REF 2014, Archaeology at Chester has extended its recruitment and support for Archaeology and Heritage PGT students (56 graduating across the cycle) and PGR (8 to completion across the cycle), students being attracted to our distinctive and interdisciplinary PGT programmes and our individual research expertise. The doctoral degrees awarded, as reported in REF4a, are all PhDs and not research-based professional doctorates. Archaeology postgraduates at Chester are administered by the University's Registry Services and are overseen for teaching and supervision by a Faculty and Departmental PGR Tutor, the History MA and MRes Programme Leader, and their individual Research Supervisors. PGR Students are provided with a two-way representation structure, the PGR Forum: this enables PGR representatives to sit on the University and Faculty Research Committees. All PGR students are subject to a standard PGR Review Process, with the Annual Progress Review involving an evaluation of progress involving an independent reviewer. Thanks to this structure we have dramatically increased the MRes, MPhil and PhD award rate (see 2.2.2).

2.2.2 PGR Funding

To encourage our own students to pursue postgraduate study, they are entitled to a reduced fee on our postgraduate courses. At the same time, in recognition that many PGR students are now taking out loans and working alongside their PGR degrees, we encourage part-time study and our support structures mean that those studying in this way have been as successful as those studying full time. All students are encouraged to apply for a Faculty Fees Bursary to provide further financial support. A business/University of Chester match-funded PhD bursary saw our first Archaeology PhD to completion (Joanne Kirton, 2015), and the Leverhulme Trust funded *Speaking for the Dead* project involved Ruth Nugent's PhD (January 2016; fully-funded by the Leverhulme Trust). After the untimely death of a member of the Department in the run up to REF 2014, the University, Faculty, and Department took the opportunity to honour his name through the creation of three John Doran Memorial Scholarships: one of the three John Doran Scholars (Gary Duckers) was recruited to pursue an MPhil/PhD in Archaeology; they received a full fees and maintenance grant to enable

them to focus on their research full time. Further successful awards include Rachel Swallow (PhD, 2015) and Chris Green (PhD, 2019).

2.2.3 PGR Support and Training

All Archaeology PGR Supervisors and Students are required to complete a University and Departmental induction and training course. Supervisors are introduced to the University's policies, procedures, and resources, undergo regular training through workshops, and engage in teamwork with supervisors from other disciplines to address particular scenarios confronted as a research supervisor. Students complete a skills audit to identify their strengths and weaknesses and then access a series of workshops aligned with the Research Development Framework. To facilitate this, they are offered experience in teaching as Visiting Lecturers, particularly at the first year of the Undergraduate Archaeology Programme.

2.2.4 Postgraduate Research Community

A key result of the audit period has been a burgeoning postgraduate research community. A range of research activities encourage collaboration with and PGT but also UG students. The aforementioned University of Chester Archaeology Student conferences (section 1.2.1) are a key example, involving students as researcher/learners at public events and as contributors and editors to academic publications. The annual Theoretical Archaeology Group conference came to Chester for its 40th year for the first time (lead organised by **CP** and **HW**) and created a host of opportunities for UG, PGT and PGR students as volunteers, speakers and session organisers. We have repeatedly endeavoured to incorporate UG/PGT/PGR students as audiences and participants in the Departmental Research Seminars which involve invited speakers (nationally and internationally) addressing topics connected to the research clusters. Finally, we have endeavoured to foster student research outputs through co-editorships and co-authorships where appropriate (e.g. Williams, Kirton and Gondek 2015; Costello and Williams 2019).

2.2.5 PGR Trajectories

The effectiveness of this research training environment may be seen in the career trajectories of our undergraduate and graduate students. Former undergraduate students who produced outstanding dissertations have received MA and PhD scholarships at other institutions (e.g. Dr Jessica Murray, University of Oxford DPhil in Archaeology 'A GIS-based analysis of hillfort location and morphology' (part of The Atlas of Hillforts in Britain and Ireland project) 2018, graduated with first class BA (Hons) Archaeology degree in 2010), while our former PGR students have gained employment in the archaeology and heritage sector (Gary Duckers (Clwyd-Powys Archaeological Trust), Joanne Kirton (Council for British Archaeology) and Chris Matthews (Archaeological Survey West) and academia (Ruth Nugent, UKRI Future Leader's Fellow, Department of Archaeology, Classics and Egyptology, University of Liverpool; Rachel Swallow, Honorary Fellow and Digital Humanities Data Technician, Department of Archaeology, Classics and Egyptology, University of Liverpool).

2.3 Equality and Diversity

In the context of the gender (equal division) and generational balance amongst the Archaeology researchers (Section 2.1.1), the Department maintains a strong vision for equality and diversity, supporting the University's position on recruitment policies and supporting staff. Interview panels are purposefully gender diverse (and often chaired by the female Head of Department). Eligible staff have been supported to participate in the Aurora development initiative.

The Department encourages regular participation in the University's Diversity Festival and its special interest groups, such as the Parents' Network, Women's Network, LGBTQ+ Staff Group and others. The Workload Allocation Model has provided transparency in the division of administrative, teaching and research commitments, while options for flexible scheduling have supported staff with family commitments (a third of the team), facilitating research outputs and scholarship by all staff members. Caring responsibilities and other personal circumstances are recognised, and staff are supported in developing flexible working patterns when needed to continue to enable space for research activity and a healthier work-life balance, whilst also being encouraged to make use of the University's extensive network of support for mental health and wellbeing.

Unit-level environment template (REF5b)

Moreover, issues of equality and diversity are central to our research, including contributions to debates regarding the gender and ethnic identities of early historic Britain and Europe (**CP/HW**), as well as the potential social benefits of engagement with archaeology (**CP**).

3. Income, infrastructure and facilities

3.1 Income

3.1.1 External Project Funding

AGJ/BT: £4140 – *Humans and Environmental Change in the British Mesolithic* (Understanding the Early-Late Mesolithic transition in Britain: A Case study of from the Vale of Pickering) NERC/ORAU (2014-15; with **BT**). Other external income linked to the *Experiencing the Stone Age* project comprises £32,695 from the HLF (2017–18; with **BT**).

CP: £4520 – *In the Footsteps of Trebellius Maximus*. The Roman Research Trust (2020–21)

BT: £18,000 – *Vale of Pickering Early Mesolithic Landscapes Survey and Excavation Report*: English Heritage/University of Cambridge.

HW: £285,300, 2014–16 – Co-investigator, 2012–2016 *European Research Fund* with Philip Schwyzer and Nicola Whyte (Exeter). The Past in its Place: Histories of Memory in England and Wales. European Research Council under the European Union's Seventh Framework Programme (FP/2007-2013) / ERC Grant Agreement n. 284085+Employment of post-doctoral researcher (Dr Patricia Murrieta-Flores).

3.1.2 Internal Research Funding

Archaeology researchers have been regular recipients of internal research funding year on year from both Departmental funds but also from the Faculty Research Fund funds to support their fieldwork and other research endeavours. Faculty funds in the audit period have been:

AGJ: £1951 – *Humans and Environmental Change in the British Mesolithic* project (2016–17; with **BT**); £2922 – *Small Isles* project (2017-18; with **BT**); £469.20. *A passport to success? Enhancing awareness of skills and employability in archaeology undergraduates* (2018-19) £876 – *Ways of Knowing the World in the European Mesolithic* (2018-19)

CP: £2,000 *Hen Caerwys Project* (2015–16 and 2017–18); £ 1200 *Limestone Enclosures Project* (2018–19); £260 *Western Frontier of Britannia Networking Event* (2016–17).

BT: £1383 – *Small Isles Project* (2015–16); £1913 – *Small Isles Project* (2016–17); £1971 – *Humans and Environmental Change in the British Mesolithic* project (2017–18); £922 – *Small Isles Project* (2017–18); £1000 – *Social Identity and Skill in the Mesolithic* (2018–19).

HW: Faculty funds to support the indexing of his OUP co-edited monograph *Archaeologists and the Dead* (£500, 2015–16); to support the creation of the digital open-access *Offa's Dyke Journal* (£600, 2017–18); and to create a new heritage trail for Wat's Dyke in Wrexham linked to the Medieval Monuments and Memory in the Anglo-Welsh borderlands impact case study (2019–20);

3.2 Infrastructure and Facilities

3.2.1 University Research Infrastructure

The Department regularly works with the University's Research and Knowledge Transfer Department on grant applications to ensure appropriate costings and permissions.

3.2.2 Faculty and School Research Infrastructure

Infrastructure at a Faculty and School level directly shapes the Archaeology research strategy in the Department. The Faculty Research Advisory Group is chaired by the Deputy Dean of the Faculty of Arts and Humanities and the Research Coordinator (Williams) attends termly meetings. Through this structure, the School and Departmental Research Strategies have been formulated, the Faculty Research Grant Database has been established, the Faculty Research Events have been organised. To assist staff across the School in devising projects and writing grant applications, it supported a Digital Humanities Researcher (Murrieta-Flores, now Co-Director of Digital Humanities at Lancaster) on a fixed-term full-time contract (2017–2018).

3.2.3 University IT Facilities

The University's Learning and Information Services (LIS) manage the IT services that support staff research. All research staff receive up-to-date hardware and software including office PCs, and laptops, iPads and mobile PowerPoint projectors on loan. Select staff also use desktop publishing software in their research (**HW**), digital illustration software such as Adobe Illustrator and CAD (**CP**), and possess Agisoft Metashape Professional for use in their research (**BT**, **HW**). All research students are provided with access to computers in public spaces, workrooms, and study booths, including a dedicated PGR workroom exclusive to History and Archaeology researchers which creates a cross-disciplinary research environment linked to the research clusters (1.1). Through LIS, staff have obtained access to significant IT resources particular to their research needs, including GIS mapping software (ArcGIS) and GIS subscriptions (EDINA Digimap). Within LIS the University has invested an online repository – ChesterRep – as an outward facing resource in which researchers host their research to reach new audiences.

3.2.4 University Library Facilities

Archaeology research at Chester relies on access to a range of excellent research libraries and archives. Nine University Libraries housed across its campuses hold over 300,000 books, additional print journals and electronic subscriptions: for the Faculty LIS provides a team of six subject librarians through which we coordinate our undergraduate and graduate research training and place orders for books and electronic resources. From University funds, the Department receives an annual budget of about c. £15,000 for Library provision, from which we purchase specialist journal subscriptions and provide each member of staff with an annual Library budget of c. £1000. In addition, in 2019 the Department was awarded an extra £10,000 to spend on ebook provision to specifically enhance the teaching and research collection. Through the University Libraries, Archaeology researchers now have access to twelve major providers of international electronic e-book and journal collections, and a similar number of subscriptions to individual Archaeology journals, as well as the resources on the same scale for other allied disciplines (Anthropology, English Languages and Literature, History, Geography, Modern Languages, Politics, Psychology, Sociology, Theology and Religious Studies). Independent of the University Library the Department now houses its own History and Archaeology Library: this has expanded dramatically thanks to a generous bequest of the Philip Rahtz Library from his widow, Lorna.

3.2.5 Archaeological Laboratory Facilities and Equipment

Archaeology at Chester continue to possess individual offices to conduct their research. Also, there has been a significant enhancement to its laboratory and equipment facilities in this audit period. More subject-specific infrastructure and facilities available for research include two bespoke teaching and research lab spaces. The 'Archaeology Workroom' provides facilities and space for finds processing and analysis as well as other project work.

The McLay Laboratory for Archaeological Science, opened in 2014, is a fully equipped environmental archaeological workspace with low and high-power microscopy, the capacity for chemical and physical analysis of lake sediments, peat, and plant remains, as well as teaching and demonstration space.

In addition, the Department owns a range of field equipment for excavation and survey including mapping grade total stations and GPS units and geophysical equipment (a multiplex resistivity meter, a single fluxgate gradiometer and a double gradiometer array). Software and client capacity for analysis of remote sensing data, particularly LiDAR, is a growth area for the Department.

The latest initiative is the use of capital budget to acquire high-specification PCs and cameras to set up an Imaging Laboratory for student research projects and staff research using photogrammetric software on artefacts and monuments: plans have however been placed on hold due to the COVID-19 pandemic lockdown.

3.2.6 Local and Regional Resources

Within and around Chester, Archaeology researchers exploit close links with CWaC's Grosvenor Museum, including handling sessions of artefacts, the annual archaeology field school, and the annual student conferences (since 2016). The Department now holds an additional extensive book

Unit-level environment template (REF5b)

collection – Philip Rahtz Teaching Archive – generously donated by his widow, which promises to throw fascinating light on Prof Philip Rahtz’s role in the history of the establishment of archaeology as a University discipline in the twentieth century. We regularly work with heritage projects and organisations, currently serving as official partners of, and with MA student projects supporting Rheolwr Prosiect Fynnon Dyfnog/Dyfnog’s Well Project (2019–) and the Llanfyllin Workhouse Project, Llanfyllin Dolydd Building Preservation Trust (2019–).

4. Collaboration and contribution to the research base, economy and society

Chester’s archaeologists have worked in a prolonged and dedicated fashion to positively shape the discipline through their research and collaborations, working within and beyond academia. Indeed, collaboration has been integral to the sustainability and vitality of Chester’s archaeological research (see 1.2). Archaeology staff at Chester have made a sustained and significant impact on the discipline through their research, including fieldwork, national and international collaborations as well as positions of scholarly responsibility. This is also recognised through a host of memberships, honorary positions and invitations as keynote speakers. The Postglacial Project (**BT** as co-director and co-author) received the *British Archaeological Award* (2016) for best archaeological innovation, and *Current Archaeology*’s Research Project of the year (2020).

4.1 Research Collaborations and Networks

Most staff have pursued long-term research collaborations and contribute to research networks, including the *Rhynie Environs Archaeological Project* (**MG** with Dr Gordon Noble, University of Aberdeen, 2006–2017; now in writing up phase), co-directing excavations, and co-authoring research papers for the 2013–18 *Postglacial Project: Postglacial Hunter-Gatherer Lifeways* (**BT**, PI-Professor Nicky Milner, University of York); **AGJ/BT** operating as co-directors for the *Humans and Environmental Change in the British Mesolithic* 2016-present (with Dr A. Needham, University of York; Dr R. Bishop, University of Durham); likewise **AGJ/BT** have contributed collaboratively through the project *Mesolithic Maritime Identities of the Inner Hebrides* (Small Isles) 2015–present (with Dr S. Piper, University of York) and the *Ways of Knowing the World in the European Mesolithic* 2018–present (with Dr N. Overton, University of Manchester). **HW** has developed a series of collaborative research projects – *Early Medieval Stone Monuments* (Boydell, 2015, with Joanne Kirton (PGR, Chester) and Meggen Gondek (Chester)); *Archaeologists and the Dead* (OUP, 2016, with Mel Giles (Manchester)), *Cremation and the Archaeology of Death* (OUP, 2017; with Jessica Cerezo-Román (University of Oklahoma) and Anna Wessman (University of Helsinki)). Co-founder and co-convenor: Offa’s Dyke Collaboratory (working with Clwyd-Powys Archaeological Trust, Wye Valley AONB, RCAHMW and the Offa’s Dyke Association) (2017–present). Finally, **CP** has worked across sectors with museums and governmental archaeologists on the following projects: *In the Footsteps of Trebellius Maximus* (Wrexham Museum) Co-director. 2020–present; *Hen Caerwys* (Cadw, Clwyd-Powys Archaeological Trust) Co-director 2012 – present; *Llanmelin Wood Camp and the later Iron Age in SE Wales* (Cadw) Co-director 2012–present; *Western Frontier of Britannia* (Amgueddfa Cymru National Museum Wales, Cadw) – Project Partner 2016 – present.

4.2 Advisory and Third Sector Collaborations

The range of collaborations with, and advisory roles upon, third-sector and non-academic organisations is a striking feature of our unit. **AGJ/BT** are working with the Lancashire Wildlife Trust, project partners on the *Mesolithic and Modern Life, showcasing past present and future* at Lunt Meadows (2017-present). **HW** is working with the Offa’s Dyke Association, Clwyd-Powys Archaeological Trust and the Wye Valley area of outstanding natural beauty (AONB) to co-found and co-convene the Offa’s Dyke Collaboratory involving collaborations on conservation management plan for Offa’s Dyke and events, including 50th Anniversary Events of the ODA and serving as the ODA’s advisor on Wat’s Dyke (2017–present). **JP** has served as an advisor for the Association for Heritage Interpretation (AHI) (2015–17) as well as a Judge for their AHI Discover Heritage Awards (encouraging best practice across UK & Ireland in heritage interpretation practice; duties included being part of 5-person team who devised the criteria for judging and national panel judge for giving awards). His advisory roles also extend to (since 2009) the Heritage Skills for North West Heritage Skills Forum and the CWAC Heritage Group (again since 2009). His advisory roles reflect his

regional and national standing in heritage practice for the University of South Africa (Pretoria) International Projects Collaboration Team, the 'Pop-up Museums' & Chester Unlocked Project for Big Heritage - Big Ideas for Engaging People with the Past, which included placements for MA students, the Museum Talk Website (Talking about the UK's Museums & Heritage Sites), Chester Castle Project: CWAC, St Dyfnog's Well Restoration Project (includes MA work), and Llanfyllin Workhouse Project (includes MA work). **CP** has served as an advisor for the Minerva Shrine Project (Minerva Community Group with support from the National Lottery Heritage Fund), working with a local community group to help manage and interpret Chester's *in situ*, rock-carved Roman shrine to Minerva.

4.3 Membership of International and National Societies

In addition to various extensive society memberships, elected memberships including, Fellow of the Society of Antiquaries of Scotland (**MG**, 2009–present), Fellow of the Ancient Monuments Society (**JP**: 1990–present); Fellow of the Society of Antiquaries of London (**HW**: elected 2006). Contributions to scholarly societies include Council Member Society of Medieval Archaeology (**MG**: 2013–2016); **CP**: Committee Member and Outreach Officer (Archaeology Committee), Society for Promotion of Roman Studies (2019–present); Council Member, Chester Archaeological Society (2015–present);

4.4 Editorial Positions and Activities

Contributing significantly to the wider discipline **HW** was Honorary Editor for the Royal Archaeological Institutes *Archaeological Journal* 2012–2017 and is found and co-editor (together with Chester postgraduate researcher Liam Delaney) of the *Offa's Dyke Journal* 2019–present.

4.5 Examining

In addition to undergraduate external examining roles (**MG**: Glasgow; **JP**: Plymouth; **BT**: Worcester), **HW** has examined a series of postgraduate doctoral theses in the audit period (universities of Southampton, York, Birmingham, Bradford, Durham, Glasgow, Bergen and Gothenburg).

4.6 Public and scholarly engagement and networking

4.6.1 Digital public archaeology

Archaeologists at Chester not only work to disseminate their research by local, regional and national audiences through public lectures but also work to innovative with digital public engagement. Notably, **HW** writes the academic blog *Archaeodeath: The Archaeology and Heritage of Death & Memory* since June 2013. In the audit period he has composed c. 1,450 blog-posts. Together, his digital engagement comprises an average of 150,000 annual views, combined with a Twitter account with over 6,000 followers. **HW** has published a book chapter critically self-reflecting on the digital practice of blogging about archaeology (Williams, H. *Archaeodeath as digital public mortuary archaeology*, in Williams, Pudney and Ezzeldin (eds) *Public Archaeology: Arts of Engagement* (Oxford: Archaeopress, 2019).

4.6.2 Conference organisation

to promote and disseminate their research through conference organisation. Notably, in 2018, **CP** and **HW** lead-organised the 40th Theoretical Archaeology Group conference, 17–19 December 2018, University of Chester, attracting over 427 delegates from 180 institutions and organisations from the US, Canada, Argentina, Scandinavia, and mainland Europe as well as Ireland and the UK. **JP** helped organise the Shrewsbury HUB LGBT History Conference 2017, 17–19 Feb 2017. As part of his role as co-convenor of the Offa's Dyke Collaboratory, **HW** has organised a series of public-facing events, including the Offa's Dyke Collaboratory Inaugural Workshop, University Centre Shrewsbury, 28 April 2017 and *Offa's Dyke Heritage* (Offa's Dyke Centre, Knighton. 23rd March 2018).

The University of Chester Archaeology Student Conferences (see section 1.2.1) serves as student formative activities but also public-facing academic events hosted by the Grosvenor Museum; to date five have taken place, facilitated by **HW** as part of a core final-year module:

Unit-level environment template (REF5b)

- *Dead Relevant? Mortuary Archaeology in Contemporary Society*, Grosvenor Museum, Chester, The 2016 University of Chester Archaeology Student Conference, 19 April 2016
- *Archaeo-Engage – Engaging Communities in Archaeology*, Grosvenor Museum, Chester, The 2017 University of Chester Archaeology Student Conference, 5 April 2017.
- *Digging into the Dark Ages*, the 3rd University of Chester Archaeology Student Conference, Grosvenor Museum, 13 December 2017.
- *The Public Archaeology of Frontiers and Borderlands*, the 4th University of Chester Archaeology Student Conference, Grosvenor Museum, 20 March 2019.
- *The Public Archaeology of Treasure*, the 5th University of Chester Archaeology Student Conference, Grosvenor Museum, 31 January 2020.

4.6.3 Conference Session Organising

Archaeology researchers have been active in organising a host of significant national and international conference sessions, such as **BT** and **AGJ** co-organising (with Dr N. Overton, Manchester) the TAG Deva session: *Relational Approaches to Past Hunter-Gatherer Worlds*, 17th–19th December 2018 and **BT** (with Dr N. Overton, Manchester) organising *The Watchful World: Animate Environments in Hunter-Gatherer Archaeologies*, TAG conference, University of Manchester.)), 15th–17th December 2014. **HW** organised *Dykes through Time: Rethinking Early Medieval Linear Earthworks*, TAG: Theoretical Archaeology Group Conference, Cardiff University 18–20 December 2017 and sessions at TAG2015, the European Association for Archaeologists Annual Conference, Istanbul, 10–14 Sept. 2014 and the Nordic TAG conference, Stockholm University, 22–26 April 2014.

4.6.4 Paper presentations

Staff in the Department have contributed towards the discipline through a range of prestigious conferences. **MG**, for example, presented the invited talk ‘Pagan & Christian, Practice & Belief in a Pictish Landscape’ at the *Converting Landscapes, Real and Imagined, in the Insular World* conference, Bangor, March 22–23, 2013, subsequently published as: Gondek, M. 2017. Pagan and Christian, practice and belief in a Pictish landscape, in N. Edwards et al. (eds) *Transforming Landscapes of Belief in the Early Medieval Insular World and Beyond: Converting the Isles II* Turnhout: Brepols, pp. 351–379. **MG** also delivered the keynote: ‘For those about to rock: carved stone monuments, materiality and landscape in early medieval Scotland’ at the Landscape Archaeology Conference, Newcastle and Durham, UK. 17–20 September 2018. Another example is **AGJ** presenting ‘Death and burial in the British Mesolithic: 10 years on’ at the Theoretical Archaeology Group Annual Conference, University of Manchester (2014) leading to publication as: Cobb, H. and Gray Jones, A. (2018). Being Mesolithic in life and death. *Journal of World Prehistory* 31(3): 367–383. **JP** delivered 5 conference presentations at national and international level, including the keynote paper ‘Whose Heritage Is It Anyway’ in collaboration with Shropshire Museum Service, 25 Oct 2016 at the Fortress Salopia Symposium, University Centre Shrewsbury, 2016 and the talk ‘UK Literary Houses and the Home’ at the 2nd Biennial Interdisciplinary Conference on Themes Surrounding the Home, University of South Africa, Pretoria, 2014. **CP** presented 7 conference presentations at national and international venues including a presentation at the Manchester Theoretical Archaeology Group conference in 2014 which led to her chapter published in the 2019 *Public Archaeology: Arts of Engagement* edited collection. **BT** presented 10 conference papers during the audit period including the keynote lecture ‘Bringing the world together: Star Carr and an archaeology beyond the human’ at the Cambridge Annual Student Archaeology Conference, 14 September 2018. During the audit period, **HW** presented 43 conference papers including no less than 14 keynote and invited lectures across the UK at conferences and workshops as well as at prestigious conferences at the Free University of Brussels, Belgium and the University of Leiden and the University of Gröningen in the Netherlands.