

Institution: University of Lincoln
Unit of Assessment: 15 Archaeology
<p>1. Unit context and structure, research and impact strategy</p> <p>Context and Structure</p> <p>The Archaeology Unit of Assessment (UoA) at the University of Lincoln lies in the School of History and Heritage, part of the College of Arts. At the time of REF 2014 Lincoln employed no staff specializing in Archaeology. Since that time the University of Lincoln has made a major investment in this field with the appointment of three staff in Archaeology to form a new specialism. That reflects inclusion of Heritage as one of the six University research themes (see Institutional Environment Statement). Archaeology does not form a separate degree course, but contributes to research and teaching within the School of History and Heritage. It is one of a range of disciplines, including Conservation and Art History, which operate in an interdisciplinary manner to inform the broader study of the past within the School. The particular focus of the Archaeology staff is the historic period broadly defined, covering the Roman period to present, with a focus on the Middle Ages in North-West Europe, one of the areas of strength of the broader School. There are 3 FTE academic staff in REF 2021: Lewis (Prof) was appointed in 2015, Wallace (SL) in 2016 and Gardiner (Assoc Prof) in 2017.</p> <p>Achievement of Research Strategy</p> <p>As noted above, the first member of staff in Archaeology was appointed in 2015 and there was no previous REF submission for Archaeology UoA; consequently, this section discusses the strategy established and followed since that time. The research strategy of Archaeology at Lincoln in this REF cycle was:</p> <ol style="list-style-type: none"> 1. To support the University's 'local to global' research themes with their particular commitment to the local community of Lincolnshire, while identifying the global significance, and enhancing social and cultural life both within and beyond our immediate community. Archaeology has established close links with the Society for Lincolnshire History and Archaeology, and other local volunteer groups, and with Lincolnshire County Council, applying its specialist knowledge to understanding the historic landscape (Lincolnshire Wolds Landscape Network), buildings and supporting the county's Extensive Urban Survey. Research has drawn from studies in the locality to explore wider issues, including medieval settlement dynamics (Lewis) and Roman urban-rural interaction (Wallace). 2. To foster emerging research strengths in archaeology of the historic period, rural settlement, the archaeology of buildings, community archaeology, heritage and wellbeing, and to carry out world-class research in these areas. This was done by seeking external funding to support fieldwork and community work. Gardiner obtained AHRC funding for fieldwork in Shetland and Orkney. Lewis has obtained a series of grants (detailed below) to examine the perceived value of heritage and apply that knowledge to communities to help them develop greater cohesion. That work includes an assessment of the value of heritage in Lincolnshire and a commission from Historic England to assess wellbeing outcomes from Heritage at Risk projects. Internal University funding led to the purchase of laser scanners to aid recording building plans and elevations. 3. To compliment the strength of the School in the historical study of the later Middle Ages, through the use of interdisciplinary approaches. Archaeology has worked collaboratively with colleagues in Conservation (applying laser scanning technology to objects and buildings) and History (combining the evidence from written sources and the historic environment). The School's research strength in the Middle Ages led to the establishment of a Medieval Studies Research Group to which Archaeology has contributed seminar speakers. <p>Achievement of Impact Strategy</p> <p>This section discusses the impact strategy developed with the appointment of Archaeology members of staff. Lewis was appointed to Archaeology as a Professor for the Public Understanding of Research with the specific brief to engage hard-to-reach groups, particularly using the medium of Archaeology. PEARL (Public Engagement for All in Research at</p>

Lincoln) was established in 2017 led by Lewis. PEARL supports broad academic engagement with the public through small project grants (31), an annual conference, resources, guidance and training. It supports national initiatives such as Pint of Science, Being Human and Café Scientifique.

Lewis has developed her work to examine the potential of heritage in community-building. Shortly after her appointment, Lewis assessed the value local people and visitors placed upon the Lincolnshire's heritage with funding from Arts Council England. She extended the work of the Higher Education Field Academy to Lincolnshire and worked with the community of a council estate in Gainsborough funded by AHRC. Her lighter administrative and teaching load reflects the importance given to that outward-facing role. The result has been that value of heritage and activities related to it are now widely appreciated. Her work in this field has contributed the two impact case studies for this submission. The first arises from the work undertaken in a late 20th-century council estate showing the use of communal spaces for play. The other used archaeology to develop local identity and well-being.

Gardiner has worked with the University company, Lincoln Conservation, applying archaeological approaches to the recording, interpretation and conservation of buildings on behalf of the Heanage Estate, the National Trust and Fenland District Council, leading to a new understanding of structures. The work of Lincoln Conservation forms the Impact Case Studies in another UoA. **Wallace** has supported Wings to the Past, a community archaeology project funded by the Armed Forces Covenant with geophysical survey of the site of the excavation run by **Lewis**.

The work of developing impact in Archaeology is supported by two Impact Support Administrators within the College of Arts.

Research and Impact Strategy for the next five years

During the next REF cycle, we will strengthen Archaeology by stressing Community, Internationalization and Interdisciplinarity and through the acquisition of increased grant money from both UKRI and other sources (target £0.65m).

1. Our commitment to **Community** will build upon the University's 'local to global' vision which prioritizes research that is locality relevant and has global significance, drives economic development and enhances social and cultural life. We will continue to work with groups, both in Lincolnshire and elsewhere, to strengthen their ability to do practical work in their areas, understanding and appreciating the significance of their heritage, and conserving their remains. To do this, we will (i) collaborate with our local and regional communities to ensure they benefit from our research and we deliver on our commitments as a civic university. (ii) We will ensure our research connects with and benefits more disadvantaged communities, in the UK and beyond, and (iii) ensure our research delivers specific identifiable benefits to heritage, including to curators, policy-makers, owners and consumers of heritage. Specifically, we will help local groups to identify resources within their community and, where appropriate, use grants from public bodies and charities. We will continue to communicate the results of our research in local lectures and field days. We will assist bodies, such as the National Trust, English Heritage, the Landmark Trust and local authorities, to understand and look after properties in their care. We will measure our success through the recognition of the University as a regional leader in heritage.

2. Our work has increasingly developed an **International** aspect with the application of methods of investigation developed in the UK to areas elsewhere. We have begun this process with the Community Archaeology in Rural Environments grant and network which applies the technique of test-pitting throughout Europe, using it as a means to connect communities to their heritage. We will further develop international work with continuing co-operation with Deutsches Schiffahrtsmuseum, and the University of Tübingen, in the new AHRC-funded project on international trade with the Northern Isles of Scotland. We will seek further contacts with other international bodies. We will evaluate our success over the next cycle by the quantity of international interaction we achieve.

3. We will work with colleagues in the University on **Interdisciplinary** projects using archaeological methods to develop novel insights into artefacts, buildings and landscapes, and their change through time. We will seek opportunities to work closely with our colleagues in History to look at the complex relationship between documentary sources and

material culture. We will use equipment available within the School to develop the application of digital scanning to the investigation and display of artefacts and of buildings, and surveying equipment from Geography to record landscapes. We will do this by working through University Research Themes groups to seek out colleagues in other disciplines to work on common problems. Our level of interdisciplinary activity will be evaluated by looking at the number of joint projects undertaken and the significance of the outcomes.

4. To facilitate these aims, we will build on successes in attracting external research **Income** and seek further sources of grant money and commercial contracts to undertake research and impact-related work in the broad areas of Archaeology and Heritage. We will use the School's commercial arm, Lincoln Conservation with its 3 FTE staff, to bid for contracts and undertake commercial work, augmenting externally funded work with university-supported research. We will further develop the research opportunities which arise out of this commercial work. We aim to attract at least £0.7m in external research funding over the REF cycle.

5. We will attract a body of PhD research students, either to work on Archaeology or on interdisciplinary topics with an archaeological component. We aim to have 3 FTE self-funded students by the end of the next cycle.

Specifically, we will work to establish Archaeology at Lincoln as a recognized centre, both locally and internationally, for the study of the historic landscape.

To achieve these aims we will seek to appoint a further member of staff in Archaeology during the next REF cycle to develop the study of archaeology since AD 1500. We will work with colleagues at Lincoln Conservation to expand its digital capability to support our research and impact.

Approach to Interdisciplinary Research

Based in the School of History and Heritage, Archaeology was developed as part of the University's commitment to interdisciplinary working. It was created to strengthen the work of the School which included not only the study of written History, but also the areas of Art History, Ancient History and Conservation. The appointment of **Gardiner** was specifically associated with the integration of practical Conservation undertaken by the University-company, Lincoln Conservation, into the wider research work of the School. In practical terms, the interdisciplinary approach has meant that detailed recording of buildings using laser-scanning has augmented research in the history of architecture (Art History), the archaeological study of buildings has been given depth by the application of Architectural Paint Research (Conservation), and the distribution of seal matrices has aided an understanding of the use of seals on documents (History). For example, a scanned survey of a National Trust house at Gunby (Lincs.) allowed its archaeological study and subsequently the recognition of its origin as a *cottage ornée*. Outside the School, Archaeology has collaborated with Design to investigate post-war Council housing estates. As a small group, Archaeology has obtained grants to work with external groups with complementary strengths. **Gardiner** has obtained grants to work with the historians and specialist archaeologists at the Deutsches Schiffahrtsmuseum and the University of Highlands and Islands. **Lewis** has had grants to work with (i) University colleagues in Business/Tourism, Computer Science, Design, Geography, Health/Social Care and Psychology, and (ii) scholars in the Netherlands, Poland and the Czech Republic to introduce participative community archaeology and collaborated with psychologists to measure its social impact.

Progress towards Open Research

Archaeology participates in the University's arrangements for Open Access for research outputs, and all outputs submitted were part of the University Repository in keeping with the OA policies. The University Repository ensures that research outputs are uploaded once embargo restrictions are lifted in compliance with UKRI requirements. Beyond this, during this REF cycle both **Lewis** and **Gardiner** have edited volumes which have been made available free to download in their entirety. We will continue to seek funding in bid proposals to provide Gold Access to our publications. We will seek to migrate the digital records of Access Cambridge Archaeology to a Lincoln server to allow it to be augmented with further community archaeology datasets and the data to be made publicly available.

Support for Research Integrity

The UoA's approach to research integrity is governed by the Concordat to Support Research Integrity and the University's Code of Practice for Research (see institutional Environment Statement). The University instituted a new ethical approval procedure in 2018. All research projects undertaken by staff or PGR students must receive acknowledgement of a Project Registration Form, or a favourable opinion from a University or external ethical review committee. Ethics and research integrity are a standing item on the School Research Group, which oversees research in the School of History and Heritage, the site of the Archaeology UoA. The School Director of Research and the Research Office ensure that all grant applications from members of the UoA are in line with the legal and ethical requirements of the award-making body, including proper governance and transparency.

**2. People
Staffing**

Three staff in Archaeology have been appointed since 2015 to provide an interdisciplinary character to the wider study of the historic past within the School of History and Heritage. Two of the appointments have been of staff at mid- or late career stage, while the third was an ECR. The aim has been to provide a body of experience in this new UoA, while planning for the future. The appointments have led to a strong emphasis on rural settlement with **Lewis** and **Gardiner** specializing in the later Middle Ages, while **Wallace** works on the Roman period. All have a similar geographical emphasis on England, though **Gardiner** also works in Ireland and Scotland. This clear focus of research has allowed us to establish a particular expertise supported by a strong commitment to field survey. The obvious gap in coverage of the archaeology of the historic period is for the centuries after AD 1500. During the coming REF cycle we will appoint a further member of staff with expertise in that period not only to support research and teaching, but also strengthen community engagement. We will work with Lincoln Conservation to appoint a further member of staff with digital expertise.

Staff Development and Strategy

All staff are supported by local mentors throughout their careers and are encouraged in their career development through Individual Research Plans (IRPs) and appraisal, aiding staff in setting goals and identifying the resources they need. Excellence in research is rewarded through promotion. Regular workshops are held on the promotions process and staff are encouraged to take part in the University's Pipeline Mentoring Programme (see institutional Environment Statement).

The workload allocation of Early Career Researchers reflects their career position with a reduced teaching load, protection from major administrative roles, and one-to-one mentoring to ensure ECRs can integrate into the University's research culture. ECRs are provided with early opportunities to deliver seminar papers in the School research seminar series, to join the supervision team of PGR students along with more experienced staff and to apply for research leave. In addition, all Teaching and Research (TR) staff have access to the competitive College-level Research Resources Allocation Fund, to which applications can be made three times a year (see 'Infrastructure and Facilities' below) to support research trips, conference attendance and impact activities, nationally and internationally. Grants (total £5.0k) were given to Archaeology staff for activities as diverse as fieldwork in Scotland (**Gardiner**) and conferences in Louisiana, Croatia and Ireland (**Lewis, Wallace**).

All TR staff have one day every week set aside for research and impact activities. In addition, staff with particular research duties – for example, acting as Principal Investigator on a research grant – or who are developing a major impact project are given an allowance in their workloads.

TR staff (including part-time staff) are eligible to apply for the College of Arts competitive research leave scheme, providing periods of leave, usually of one semester. There is no rota; each year, applications are judged at College level against a clearly-stated set of criteria, that are weighted towards the completion of research and impact projects. During the current REF period **Wallace** was granted one semester of leave in 2020 to speak and visit museums in

Denmark, Belgium and France. Staff are supported by mentors to develop their careers and through an annual IRP can work towards agreed goals.

Support for PGR Students

No PGR students have been allocated to this UoA during the current cycle. **Gardiner** acts as a second supervisor to two PGR students studying historical subjects to encourage the development of interdisciplinary aspects of their research. All PGR students have the university required two supervisors, and more where additional specialists are required, who provide the university statutory meetings on a monthly basis. All supervisors receive the university's mandatory training in supporting and guiding their doctoral students.

During the next REF cycle, the UoA will work towards building a PGR community in conjunction with colleagues in History by encouraging masters students with an interest in material culture to continue their studies. We aim to have 3 FTE students by the end of the next cycle.

Equality, Diversity and Inclusion

The University adopts a pro-active approach to EDI (detailed in the Institutional Environment Statement) and demonstrated by the establishment of the Eleanor Glanville Centre, a central department for diversity and inclusion, which combines academic research with professional practice. The University EDI Forum includes representation from our staff support networks, established to meet the needs of groups with protected characteristics, and with particular life challenges. These include the Disabilities Staff Network; iCAN — Living with Cancer; the International Staff Network; LGBTQ+ Staff Network; People of Colour (POC); The Carers and Parents (CaP) Club; Women in Science, Engineering & Technology (WiseLincoln). Religion-based networks are currently being established (e.g. the Muslim Staff Network). An annual Lincoln Inclusion & Diversity Conference (LID) provides further opportunity for staff to openly discuss EDI issues with Senior Leadership Team and to share best-practice across the institution.

The support for EDI is demonstrated in practical measures. Support for staff and PGRs returning from leave (sickness, parental) through the Pipeline Mentoring Scheme and the Academic Returners' Research Fund (AR2F) is covered in the University environment document. All staff may request flexible working and line managers are encouraged to respond positively and to agree mutually accepted solutions. Staff are also introduced to the University's Wellbeing services at induction and through mandatory training. This service is available through drop-in sessions, but may also be accessed remotely. The University is a Mindful Employer signatory and is committed to a positive and enabling attitude to mental health issues that staff may face. At School level all staff receive equality and diversity training. Equality and Diversity is a standing issue on the agendas of History and Heritage's School Management Team meetings and for whole School termly meetings. The University has Athena Swan Bronze status and is an institutional member of the Race Equality Charter (see Institutional Environment Statement). The School is working towards Athena Swan Bronze status. At School level, a Race, Ethnicity, and Equality (REE) Working Group was formed in January 2019 and has been active in organizing events and raising awareness. The Group worked with first-year students to develop a Respect Charter. The School organizes annual events to mark LGBT+ History Month and co-operates with the Eleanor Glanville Centre to contribute to Black History Month.

Of the three staff in the UoA, two identify as female and one as male. One of the three originates outside the UK. In future appointments the UoA will bear in mind the racial and ethnic representation to ensure that a wide range of experience is represented.

The selection of staff outputs for inclusion in REF was based on a rigorous process that involved not only an internal panel with an independent Chair (from another College in the University), but also external assessment. The procedures for staff to declare individual circumstances are described in the University Environment Statement.

3. Income, infrastructure and facilities

Income

UoA15 at Lincoln has attracted £198k in external grant funding over the period since 2015. Grants from RCUK included 3 grants from AHRC for work on the Middlefield estate, the

Community Archaeology in Rural Environments (Horizon 2020 JPI award) and the Looking in from the Edge projects, and 2 grants from ESRC for Public Engagement for All in Research in Lincoln. Amongst other grants received were those from Arts Council England, the Deutsches Forschungsgemeinschaft via the Zentrum für Baltische und Skandinavische Archäologie, the Roman Research Trust, Historic England and from Lincolnshire County Council. The greater part of the research income has been for projects investigating and supporting community involvement in heritage, which is reflected in the Impact Case Studies. Other funding has supported fieldwork for research. The diverse sources of external funding portfolio reflect our aims to develop public engagement with heritage and to build international networks, while emphasizes academic excellence.

Grants applications are mentored by the School Director of Research or another appropriate senior colleague. A College-level system of reviewing proposed bids ensures that they all receive appropriate guidance. Staff must submit an intention to submit form which alerts their School Director of Research to their bidding proposal and allows assessment and guidance at the start of the bidding process. All bids are blind peer reviewed (by one reviewer for bids up to £50k and by two peer reviewers for bids over that amount). At College level, away days have also provided intensive workshops on writing bids with experienced mentors available to guide those making their first bidding attempt. The University's Research Office provides one-to-one guidance on costings for bids and through its on-line research bidding scheme guides staff through the process of completing on-line bidding systems.

Infrastructure and facilities

Archaeology benefits from a strong system of research management which operates at University and School level. At an institutional level, support is provided through the University Research Office which offers advice and peer review on external bids, identifies potential partners for collaborative research, maintains a centralized online awards management system (Worktribe) of bid activity, and costs research proposals to provide value for money. The College of Arts has a dedicated Research Officer to assist in applications. Grants are managed through a College Post-Award Officer. Research bids with a commercial dimension are supported by a Business Development Officer and managed through a University-owned company, Lincoln Conservation, which is located within the School. The College of Arts supports research financially through its Research Resources Allocation Fund (RRAF) three times yearly. All staff are encouraged to make research bids and are well-supported in doing so (see above). A two-stage procedure involves initial scrutiny at school level followed by consideration by the College awards committee; a parallel fund is available exclusively to PGRs.

Archaeology draws upon the range of facilities available in the School of History and Heritage. Considerable investment has been made in digital recording equipment: a Faro Scene and a Leica BLK360 laser scanners used for site, object and building recording. A Matterport infrared scanner is also used for the interiors of buildings. Artec Leo, Spider and Eva handheld scanners, as well as a Faro Freestyle scanner are used for recording artefacts. A range of microscopes are available within the School for artefact study, including a Leica DM2700M digital microscope using visible and UV light and a Motic BA31Pol polarized light microscope. A range of software is available on dedicated computers, including Faro Scene, Agisoft for creating DEMs using photogrammetry, AutoCAD, ArcGIS and Illustrator. Outside the School, staff have utilized dGPS equipment housed in Geography and have access to a range of analytical equipment in the University's Joseph Banks Laboratory for NMR, ICP-OES, FTIR, AAS, GC-MS, GC-FID, HPLC, AAS, Raman, FTIR, UV spectroscopy, Ion Chromatography, XRD, SEM.

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

Research collaborations, networks and partnerships

Our mission to promote interdisciplinarity and wider contacts has led to a series of collaborations in national and international research projects. **Gardiner** has worked with the Rundale Group at the University of Maynooth and the DFG's Harbours of the North Atlantic (HaNoA) project, participating in fieldwork in Norway, Iceland, the Faroes and Greenland. He established a joint project with Shetland Amenity Trust to look at medieval settlement and with the University of Highlands and Islands and the University of Tübingen to consider trade in the Scottish

Northern Isles. **Lewis** established a European network for looking at the value to communities of local archaeology, working with Exeter to measure the results. **Wallace** has continued to work with former colleagues at Cambridge.

Relationships with users, beneficiaries and society

Archaeology staff at Lincoln are committed to identifying and promoting the benefits of its research beyond HE, both in the wider community, but also in the scholarly world. **Lewis** has a prominent public profile and has appeared on BBC Radio Three in the 'Free Thinking' series and on Radio Four on the 'Today' programme and 'Making History' series. She has also featured on television on the BBC1 'Breakfast' programme and BBC4 'Too much, Too young' programme. She has contributed written articles to the *AHRC Magazine*, *British Archaeology*, *Daily Telegraph* and *Lincolnshire Life*. The results of research project, '(Re-)Creating Middlefield's Utopia', led to exhibitions at Gainsborough and Lincoln. **Lewis** also contributed displays in 2016 and 2017 to the LiGHTS Expo public exhibition. She advised a deputation from Nigeria on community archaeology in Igboukwu, with the community at Clare (Suffolk) to develop a plan for the archaeological investigation of the castle and with the Great Chishill church project to write a new history of the parish. She worked with the Council for British Archaeology to develop the online learning tool, Dig School. **Gardiner** advised the Weald and Downland Museum on the reconstruction of a Saxon house and spoke at its opening.

Staff have also been extensively involved in giving lectures to the general public and non-specialist audiences. Amongst these are papers by **Lewis** to the Doncaster Heritage Festival, Discovering Collections, Discovering Communities (organized by TNA), and Schools History Project and by **Gardiner** to the Manorial Documents Register (TNA) and Holleyman Lecture at the University of Sussex.

Wider contributions to research base

Members of the Archaeology are encouraged to make a major contribution to committees and advisory boards at a national and international level, and receive a work-loading allowance for doing so. **Lewis** and **Gardiner** have been members of the Peer Review College of the AHRC. **Lewis** has acted as Advisory Panel member for RCUK (Public Engagement) and a peer reviewer for Medical Research Council. **Gardiner** has acted as referee for the British Academy, Fulbright Commission, Irish Research Council, Rannís (Icelandic research fund), National Science Center Poland and the Royal Irish Academy. Staff have acted as PhD external examiners at the universities of De Montfort and Sheffield (**Lewis**), Bradford, Exeter, Leicester, Nottingham, NUI Galway, Oxford, Trinity College Dublin and University College Cork (**Gardiner**). They have served on the editorial boards of *Journal of the North Atlantic* and *Vernacular Architecture* (**Gardiner**) and British Archaeological Reports (Roman series) (**Wallace**). Finally, they have also acted as peer reviewers for publishers and academic journals, including *Antiquity*, Archaeopress, BAR Publishing, *Cambridge Archaeological Journal*, *Journal of Field Archaeology*, *Public Archaeology*, Routledge, and *Quaternary International* (**Lewis**); *Archaeological Journal*, Archaeopress, Historic England, *Journal of Irish Archaeology*, de Gruyter, *Journal of Material Culture*, *Landscape History*, *Medieval Archaeology*, National Museum of Denmark, *Neue Studien zur Sachsenforschung*, Oxford University Press, *Post-Medieval Archaeology*, *Proceedings of the Royal Irish Academy C*, *Urban History*, *World Archaeology* (**Gardiner**); and Bloomsbury (**Wallace**).

Invited keynote lectures have been given to academic audiences at, amongst others, the universities of Hertford, Leeds Trinity, Leiden, Salento, Westminster, Worcester and York, at the Hungarian National Museum, (**Lewis**); Trinity College Dublin (**Gardiner**). Other notable invited lectures have been given at the Moscow Archaeological Institute (**Lewis, Gardiner**); Russian Academy of Sciences, Ghent, Harvard, Suzdal (Russia) and Washington (USA) (**Lewis**). **Lewis** assisted with the development of the East Midlands Regional Research Framework, the manifesto for medieval European archaeology developed by Medieval Europe Research Committee and acted as Scientific Advisor for a research programme by the University of Amsterdam. **Gardiner** advised Transport Infrastructure Ireland on the significance of archaeological discoveries from the NRA roads programme.

Conferences were organized at Lincoln by **Lewis** for the Medieval Settlement Research Group, Society for Medieval Archaeology, Society for Landscape Studies and AHRC Connected Communities Heritage Network.

Lewis is vice-chair of the trustees of the Council for British Archaeology a former president of the Society for Medieval Archaeology and President of the Medieval Settlement Research Group; **Gardiner** is vice-president of the Royal Archaeological Institute and Ruralia (Jean-Marie Pesez Conferences on Medieval Rural Archaeology) and a member of council of the Medieval Europe Research Committee.