

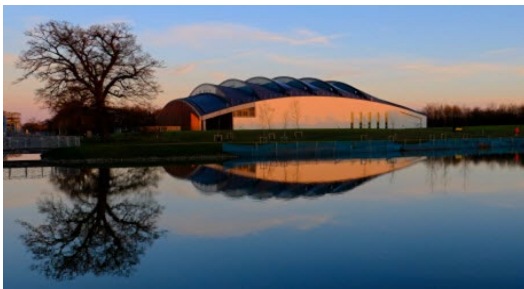


UNIVERSITY OF
CAMBRIDGE

Research Assistant in Archaeometallurgy

McDonald Institute for Archaeological
Research

Closing Date: 30 May 2025
Job Reference: JC45852



Research Assistant

Salary:

Research Assistant £32,546-£35,116 per annum

Contract:

Fixed term until 30 September 2026

Location:

Cambridge

Faculty / Department:

McDonald Institute for Archaeological Research

Responsible to:

Prof Marcos Martinon-Torres

Working Pattern:

Full Time

Purpose of the role

The McDonald Institute for Archaeological Research invites applications for a fixed-term Research Assistant in Archaeometallurgy. The post holder will work as part of the ERC Advanced Grant funded project: *Reverse Engineering Collective Action: Complex Technologies in Stateless Societies (REVERSEACTION)* led by Prof Marcos Martinón-Torres (PI).

This is a unique opportunity to join a leading team of archaeological scientists and other researchers, and to be exposed to a great variety of research materials, methods, questions and approaches in a multinational environment. We seek a rigorous, creative and collaborative researcher who is keen to both benefit from, and contribute to, our critical mass.

The post holder is expected to work primarily at the McDonald Institute in Cambridge but also including other Departments and possible research trips to Colombia. Key responsibilities will include the metallographic and SEM-EDS characterisation of pre-Hispanic gold artefacts from Colombia, as well as the analysis of these and other data derived from the analysis of goldwork, and assistance with the interpretation and reporting of these analyses. The ability to work as part of a diverse team, sharing ideas and data, is essential.

Starting date: 1 July 2025, or as soon as possibly thereafter.

The funds for this post are available until 30 September 2026 in the first instance.

Key responsibilities

The Research Assistant in Archaeometallurgy will contribute to our ongoing characterisation of pre-Hispanic gold artefacts from various regions of Colombia in order to reconstruct technological traditions, raw materials circulation, and cross-craft interactions. We employ techniques such as optical microscopy, pXRF, SEM-EDS and LA-ICP-MS, and plan to include Pb and Cu isotope analysis. They will work closely with other team members in Cambridge and Colombia. The main duties of the Research Assistant will involve:

1. Preparation of metallographic sections of archaeological gold and gold-alloy artefacts, and subsequent analysis by optical microscopy and SEM-EDS
2. Depending on skills and project needs, contribution to further characterisation and/or data analyses of trace elements (by LA-ICP-MS) and Pb and Cu isotopes
3. Synthesis of previous research and data on gold archaeometallurgy in South America, from this project and others, with particular emphasis on technology and raw materials sourcing.
4. Organisation of relevant datasets in a shared MySQL database
5. Data analysis and visualisation
6. Participate in project meetings, research trips and other relevant knowledge exchange activities as agreed with the PI.



Person Profile

Applicants should have a degree in archaeology, materials science, or a related field, excellent organisation skills and attention to detail, ability to work on their own initiative and multi-task as part of a team, familiarity with field of metallurgy, data management and analysis, and excellent written and oral communication skills. Candidates should be committed to open science and to improving inclusion and diversity in research.



Background and Context

Funded by the European Research Council (ERC), REVERSEACTION is a five-year (2021-2026) collaborative research project that investigate the production and organisation of luxury technologies in archaeological societies without coercive authorities. To this aim, it combines archaeological science methods (geochemistry, microscopy, environmental archaeology, isotopic analyses) with social anthropology and experimentation. The core ERC team (the PI, four post-doctoral researchers, one research assistant, and the project coordinator) are based at the University of Cambridge, working closely with a network of international researchers, consultants and craftspeople, with a strong base in Colombia, where the bulk of the research materials are held. Additional collaborations take place in various locations around the world.

While this post is attached to the REVERSEACTION project, the role holder will be expected to become an active member of the broader archaeological science community at Cambridge.



Person Specification

Criteria	Essential	Desirable
Undergraduate degree in archaeology, materials science, or a related field	✓	
Expertise in the preparation and analysis of metallographic samples	✓	
Independent use of SEM-EDS for reproducible microscopic and microchemical characterisation, and data interpretation	✓	
Excellent communication skills, including the ability to produce technical reports	✓	
Competence in the design and use of databases	✓	
Readiness to spend periods of time abroad in collaborative academic and social environments, including trips to Colombia	✓	
Familiarity with relevant R packages for data visualisation and analysis		✓
Master's degree in archaeological science, materials science, or a related field		✓
Familiarity with sample preparation, characterisation and/or data analysis from Cu and Pb isotopes		✓
Familiarity with the archaeology of South America and the Caribbean		✓
Working knowledge of Spanish		✓
Knowledge of the geology and metallurgy of gold and gold alloys		✓
Experience with LA-ICP-MS		✓

Behavioural Attributes

This section summarises the behavioural attributes (or competencies) that we expect the role holder to be able to demonstrate, at what level and whether this is an essential or desirable requirement. Full definitions are at: <https://www.hr.admin.cam.ac.uk/policies-procedures/behavioural-attributes>

Please review these and provide specific examples in your application of how you have demonstrated these attributes in your work, education or other experience. It will assist your application if you explain the situation, what you did and what the outcomes were.

Attribute	Level
Valuing Diversity	A
Achieving Results	A
Communication	A
Innovation and Change	B
Negotiating and Influencing	C
People Development	C
Relationship Building	B
Strategic Focus	C

Professional Services Values

Developed by professional services staff, our values underpin everything we do. By living the values in the work we do, we hope to foster an environment where staff feel empowered. The values encourage staff to; work together and share skills to create a sense of community, act with integrity, take an inclusive and fair approach and develop honest and open relationships that are underpinned by our shared values. We encourage applicants to consider these values within their application.



Faculty of Human, Social, and Political Science

The Faculty of Human, Social and Political Science has four Departments: Archaeology (including the McDonald Institute for Archaeological Research), Social Anthropology (including the Museum of Archaeology and Anthropology), Sociology and POLIS (Politics and International Studies). The Faculty has over 450 staff (of whom around 90 are established University Teaching Officers) and more than 1,100 students of whom roughly half are undergraduate and half are postgraduate. The departments are in various locations, including Downing Street, Fitzwilliam Street, 17 Mill Lane, the Sidgwick Site, and Storey's Way.

The McDonald Institute for Archaeological Research

The McDonald Institute for Archaeological Research is part of the University of Cambridge's Department of Archaeology. Based on the Downing Site in Cambridge's historical city centre, the McDonald Institute serves as an interdisciplinary hub to further research by Cambridge archaeologists and their collaborators into all aspects of the human past. It does so by providing a shared intellectual home, offering Cambridge archaeologists a programme of seminars, workshops, conferences, publications and research grants. The building also provides laboratory space for a wide range of archaeological research which crosses continents, periods and approaches in its exploration of the diversity of the human past.

The McDonald supports archaeological fieldwork, archaeological science, material culture studies, and archaeological theory in an interdisciplinary framework. It produces the [Cambridge Archaeological Journal](#) and publishes the [McDonald Institute Monographs](#)



The School of Humanities and Social Sciences

The School of the Humanities & Social Sciences is a diverse community of academics, students and staff from across all of our related subjects. Cambridge's reputation for excellence rests upon our outstanding teaching and our world-class research. The Institutions of the School support scholars who are leading authorities in their fields, and are home to innovative and collaborative research projects which continue to push the boundaries of our knowledge and refine how we think and see the world.

About the School

The six Schools of the University are administrative groupings of related subjects. The Council of each School acts as a coordinating organisation for the group, managing and prioritising requests from Faculties and Departments for consideration by the General Board.

The following institutions are within the scope of the Council of the School of the Humanities and Social Sciences:

Faculty of Economics
Faculty of Education
Faculty of History
Faculty of Law
Department of Archaeology
Department of History & Philosophy of Science.
Department of Land Economy
Department of Politics and International Studies.
Department of Social Anthropology
Department of Sociology
The Institute of Criminology

The School's total annual expenditure from grants, fees, research grants and contracts and other sources is about £65m. The institutions in the School employ about 1000 staff (academic, assistant and contract). The School has more than 5,000 students, undergraduates and postgraduates, over a quarter of the University's total student population. The post holder will be an integral member of the School Office team.

The Council of the School is chaired by the Head of School, fulfilled by an appointment of a senior academic and supported by a Deputy Head with an education portfolio. The School Office is currently based at 17 Mill Lane, in central Cambridge.



Terms of Appointment

Tenure and probation

Appointments will be made on a fixed-term basis until 30 September 2026 when the funds for the project end.

Appointments will be subject to satisfactory completion of a six-month probationary period.

Hours of Work and Working Pattern

The hours of work for the position are Full time, 37 hours a week

Pension

You will automatically be enrolled to become a member of USS (Universities Superannuation Scheme) – a hybrid pension scheme. For further information please visit:

www.pensions.admin.cam.ac.uk

Annual leave

Full time employees are entitled to annual paid leave of 41 days inclusive of public holidays. For new part-time employees, annual leave will be pro rata'd based on days worked.

General information

Pre-employment checks

Right to work in the UK

We have a legal responsibility to ensure that you have the right to work in the UK before you can start working for us. If you do not have the right to work in the UK already, any offer of employment we make to you will be conditional upon you gaining it.

Health declaration Once an offer of employment has been made the successful candidate will be required to complete a work health declaration form.

Qualifications: The person specification for this position lists qualifications that are essential and/or desirable.

Please note that if you are offered the post you will be asked to provide your relevant original certificates of these qualifications.

References: Offers of appointment will be subject to the receipt of two satisfactory references.

Equality and Diversity

We particularly encourage women and /or candidates from Black, Asian and Minority Ethnic background to apply for this vacancy as they are currently under-represented at this level within our University.

Information if you have a disability

The University welcomes applications from individuals with disabilities. We are committed to ensuring fair treatment throughout the recruitment process. We will make adjustments to enable applicants to compete to the best of their ability wherever it is reasonable to do so and, if successful, to assist them during their employment. Information for disabled applicants is available at

www.admin.cam.ac.uk/offices/hr/staff/disabled

We encourage you to declare any disability that you may have, and any reasonable adjustments that you may require, in the section provided for this purpose in the application form. This will enable us to accommodate your needs throughout the process as required. However, applicants and employees may declare a disability at any time.

If you prefer to discuss any special arrangements connected with a disability, please contact the Department Administrator, who is responsible for recruitment to this position.

The University

The University of Cambridge is consistently ranked one of the best universities in the world, achieving academic excellence through its Faculties, Departments and other Institutions, together with the 31 Colleges.

The University is renowned for its record of discovery and innovation. It is one of the great institutions, with a regional, national and global reach, attracting the very best and brightest minds. Our staff and students shape the world around us for the better: we attract and partner with like-minded people.

Whether contributing to the development of new anti-cancer drugs, adding to the understanding of how black holes are formed, revolutionising the study of ancient settlements, convening academic expertise to offer solutions to the climate crisis, or analysing public attitudes towards democracy around the world, the University's research is remarkable in its breadth, quality and impact. The University also sits at the heart of Europe's largest technology cluster and has catalysed more than 1,500 high-tech companies. And yet what inspires our 24,000 students and 13,000 staff is not what has already been achieved, but what is possible in the future.

The education and experience of our students, based on a partnership between the University's academic Departments and Faculties and the 31 Colleges, is second to none. Every student is a member of one of the Colleges, each a community of students, academics and staff drawn from across the University's comprehensive range of subject areas.



The University is a self-governing community, with a system for decision-making that provides a high degree of accountability and transparency to its members. Each Department and Faculty is part of one of six academic Schools, but each of them, and each individual academic, has a great deal of autonomy. The Colleges are independent and self-governing, working in a symbiotic relationship with the University.

The University has a number of Institutions that are independent of any Faculty or Department and are not part of the academic Schools. These include the Institute of Continuing Education (which provides high-quality education to adults throughout their lives), the Fitzwilliam Museum, Kettle's Yard (an historic house and gallery that holds important collections of modern art) and the University Library. In addition to their diverse contributions to University and public life, these non-School Institutions are also important centres of teaching and research.

Cambridge University Press & Assessment provides academic publishing, examinations and learning materials worldwide, supporting the dissemination of research, academic development at school and in higher education, and international student mobility. Legally, the Press & Assessment is a department of the University. It provides very important funds to invest in the academic purposes of the University.

The University has made truly remarkable contributions to the sum of human understanding, with breakthrough ideas and discoveries that have changed the way we understand ourselves, our planet, and the universe around us. Yet the global and national contexts in which it operates are fast-changing and increasingly filled with uncertainty. In a world that is becoming - politically, economically, socially, and technologically – ever more interconnected but even less equal, the University's mission – “to contribute to society through the pursuit of education, learning and research at the highest international levels of excellence” – has never been more relevant.



About Us

The University is one of the world's leading academic centres. It comprises 150 faculties and departments, together with a central administration and other institutions. Our institutions, museums and collections are a world-class resource for researchers, students and members of the public representing one of the country's highest concentrations of internationally important collections.

The University has an annual income of £2 billion. Research income, won competitively from the UK Research Councils, the European Union (EU), major charities and industry, exceeds £500 million per annum and continues to grow.

The Colleges and the University remain committed to admitting the best students regardless of their background and to investing considerable resources both in widening access and financial support. The 31 Colleges are self-governing, separate legal entities which appoint their own staff. Many academic staff are invited to join a College as a Teaching Fellow, which provides a further social and intellectual dimension. The Colleges admit undergraduate students, provide student accommodation and pastoral support and deliver small group teaching for undergraduates. .

The University awards degrees and its faculties and departments provide lectures and seminars for students and determine the syllabi for teaching.

Our instinct for seeking out excellence and setting up enduring and mutually beneficial collaborations has led us to establish strategic partnerships across the globe. Whether it is the successful Cambridge-Africa Programme involving universities in Ghana, Uganda and elsewhere on the African continent; or the close association with the government of India to pursue new research in crop science; or the creation, with Germany's Max Planck Institutes, of a Cambridge-based centre for the study of ethics, human economy and social change – international partnerships are now an inextricable part of the University's make-up.

“Through its outstanding education, research and innovation, the University of Cambridge has made – and continues to make – a lasting contribution to human knowledge and is flourishing. By working at the University of Cambridge, you will be joining a vibrant community of students, scholars and professional services staff committed to supporting and enhancing the University's mission to contribute to society.”

*Professor Deborah Prentice,
Vice Chancellor 2023*



Working at the University

Working at Cambridge you will join a diverse, talented and innovative community, with more than 24,000 students and over 13,000 staff from all walks of life and corners of the world.

The University continually explores strategies to attract and retain the best people. It is committed to supporting its staff to achieve their best. We are a fair, diverse and inclusive society and we believe our staff are our greatest asset. There is strong commitment to developing institutional leadership and supporting and encouraging staff development at all levels.

The University offers a variety of roles including academic, research, professional, managerial and support roles. We also offer extensive benefits and excellent learning opportunities within a stimulating working environment.

The University's estate is undergoing the most significant transformation in its history. Cambridge has been able to create a science and technology campus to the west of the city centre, and is expanding further to the north west of Cambridge including investing in affordable homes for University key workers and community facilities. Even with their continued development, the University remains within walking or cycling distance across the campus. The University is a major partner on the Cambridge Biomedical Campus and continues to redevelop its historic city centre sites demonstrating a clear determination to ensure that we can offer the best facilities and opportunities for our staff and students.



Equality, Diversity and Inclusion

The University has built its excellence on the diversity of its staff and student community. We aim to be a leader in fostering equality and inclusion, and in promoting respect and a sense of belonging for all. We encourage applications from all sections of society. All appointments are made on the basis of merit. We have an Equal Opportunities Policy, along with a range of diversity groups, including the Women's Staff Network, Race Equality Network and LGBT+ Staff Network. More details are available here:

<http://www.equality.admin.cam.ac.uk/>

The University has a bronze Race Equality Charter award, with a framework for improving the representation, progression and success of minority ethnic staff and students within higher education. Furthermore, the University's silver Athena swan award recognises and celebrates good practice in recruiting, retaining and promoting gender equality.

Living in Cambridge

Cambridge is rich in cultural diversity. From beautiful University and College buildings, museums and art galleries, quaint gardens and punts on the River Cam, to a vibrant restaurant and café scene, our employees are surrounded by the wonderful features of this unique city.

You can find a wide-range of high street shops and 3 shopping centres, with independent alternatives at the historic market and nestled within the passageways in the city centre. You will find a cinema, bowling alley, a nightclub and various live performances at the Cambridge Leisure Park, with further entertainment options at the Corn Exchange, Arts Theatre and the ADC Theatre. Further information can be found on the Visit Cambridge website.

If you prefer the faster pace of life, London is a 45-minute train journey away. For those travelling from overseas, Stansted Airport is just 45 minutes away and Heathrow Airport under 2 hours away. The University is a short distance from a host of other attractions such as Ely Cathedral, Newmarket Races and various wildlife parks and stately homes. Cambridge is also within easy reach of the beautiful Broads and coastlines of Norfolk and Suffolk.

Relocation Support

The University recognises the importance of helping individuals to move and settle into a new area. We provide support and guidance to those relocating internationally or domestically to take up a post at the University of Cambridge, liaising with other University offices and selected partners to ensure comprehensive relocation support is available. This includes: accommodation, childcare, schools, banking, immigration and transport. If you would like further information, please visit <https://www.accommodation.cam.ac.uk/RelocationService/>. The Shared Equity Scheme and the Reimbursement of Relocation Expenses Scheme provide financial assistance to qualifying new members of staff with the costs of relocating to Cambridge.

Accommodation Service

The University Accommodation Service helps staff, students and visiting scholars who are affiliated to the University in their search for suitable accommodation in Cambridge. The dedicated accommodation team can provide access to a wide range of University-owned furnished and unfurnished properties, and has a database of private sector accommodation available for short and long-term lets. For further information and to register with this free service please visit:

<https://www.accommodation.cam.ac.uk/>

What Cambridge can offer

We offer a comprehensive reward package to attract, motivate and retain high performing staff at all levels and in all areas of work.

The University offers a wide range of competitive benefits, from family leave entitlement, to shopping and travel discount schemes. Our generous annual leave package contributes to the positive wellbeing of our University employees. Sabbatical leave enables academics to focus on research and scholarship, whilst still maintaining their full salary. The University also has a [career break scheme](#) for academic and academic-related staff, with additional flexible working policies for all other staff.

Pay and benefits

The University salary structure includes automatic service-related pay progression in many of its grades and an annual cost of living increase. In addition to this, employees are rewarded for outstanding contribution through a number of regular pay progression schemes. The University offers attractive pensions schemes for employees, with an additional benefit of a salary exchange arrangement providing tax and national insurance savings.



CAMbens employee benefits

The University offers employees a wide range of competitive benefits, known as CAMbens. CAMbens offers something for everyone across a range of categories, including:

- Financial Benefits, including shopping discounts (both local and national) and a Payroll Giving scheme;
- Relocation and Accommodation Benefits, including relocation assistance and interest-free Rental Deposit Loans;
- Travel Benefits, including Cycle to Work, discounts on train season tickets and interest-free Travel to Work loans;
- Family Friendly and Lifestyle Benefits, including support with childcare and family friendly policies;

Health and Wellbeing Benefits, including a University Staff Counselling Service, discounts at the University Sports Centre, and other local gyms, and healthcare schemes.



What Cambridge can offer

Family-friendly policies

The University recognises the importance of supporting its staff. We have a range of family-friendly policies to aid employees' work-life balance including a generous maternity, adoption and shared parental leave entitlement of 26 weeks' full pay, and paid emergency leave for parents and carers.

Other family-friendly support includes:

Our highly regarded workplace nurseries, a childcare salary exchange scheme and a high-quality holiday Playscheme are available to help support University employees with caring responsibilities (subject to demand and qualifying criteria). Further childcare information can be found here:

<https://www.childcare.admin.cam.ac.uk/>

The Newcomers and Visiting Scholars Group (<https://www.nvs.admin.cam.ac.uk/>) is an organisation within the University that welcomes the partners and families of visiting scholars and new members of the University. Run by volunteers, the group offers opportunities to visit interesting Cambridge venues, learn about the community, take part in social events and gain local knowledge while developing a strong support network of both residents and other newcomers.

Your wellbeing

The University's Sport Centre, Counselling Services and Occupational Health are just some of the support services available to University employees to promote their physical and mental wellbeing. The University delivers The Festival of Wellbeing annually, which is a programme of stimulating talks and activities, which aim to promote wellbeing and good mental and physical health. The University also hosts the [Cambridge Festival](#), which is a great opportunity to get your first taste of public engagement, through volunteering, supporting hands-on activities or proposing a talk.

Development opportunities

We support new employees to settle in through various activities as well as supporting their professional and career development on an ongoing basis. Our Personal and Professional Development (PPD) team provide development opportunities for all University employees, including face-to-face sessions, online learning modules and webinars. All employees also have unlimited access to LinkedIn Learning to support their development. Both new and existing employees can undertake funded Apprenticeships, which lead to a range of vocational and professional qualifications. We offer reduced staff fees for University of Cambridge graduate courses and the opportunity to attend lectures and seminars held by University departments and institutions. A range of University training providers also offer specialist learning and development in their own areas e.g. teaching and learning, digital literacy, finance, health and wellbeing, safety.



How to apply

Applications should be submitted online via the University of Cambridge jobs page www.jobs.cam.ac.uk by clicking “Apply online” in the job advert. You will need an email address to register for our online system.

Please ensure that you upload your Curriculum Vitae (CV) and a covering letter, which clearly addresses how you meet each of the selection criteria outlined above, in the Upload section of the online application, together with the details of two referees. If you upload any additional documents which have not been requested, we will not be able to consider these as part of your application.

Applicants will be assessed in the first instance on their written applications, and how well these demonstrate that the selection criteria in the Person Profile are met by the candidate. Selected candidates will then be called for an interview, which may include some practical test.

Conversations about flexible working are encouraged at the University of Cambridge. Please feel free to discuss flexibility prior to applying (using the contact information below) or at interview if your application is successful.

Informal enquiries are welcomed and should be directed to Prof. Marcos Martinon-Torres m.martinon-torres@arch.cam.ac.uk

If you have any queries regarding the application process, please contact the HR team on hr@hsps.cam.ac.uk

The closing date for applications is: 30 May 2025

The interview date for the role is: Mid-June 2025

