

Job title	Fixed Term Research Assistant/Associate in Computational and Evolutionary Archaeology
Grade	Research Assistant, Grade 5 Research Associate, Grade 7
Salary range	Grade 5: £26,715 - £30,942 per annum Grade 7: £32,816 - £40,322 per annum
Staff Group	Research
Department / Institution	McDonald Institute for Archaeological Research

Role Summary

Applications are invited for a 30-month, full-time, Research Assistant/Associate.

Starting Date: 15th February 2021 or as soon as possible thereafter.

Background and Context

“Demography, Cultural change, and the Diffusion of Rice and Millet during the Jomon-Yayoi transition in prehistoric Japan (ENCOUNTER)” is a five-year, ERC-funded research project (<https://www.encounterproject.info/>) led by Dr Enrico Crema and based in the McDonald Institute for Archaeological Research, University of Cambridge. The ENCOUNTER integrates and synthesizes the rich archaeological record from the Japanese island by using innovative computational and quantitative methods to investigate why the adoption of rice & millet farming and the associated cultural package brought by migrant communities in the few centuries of the 1st millennium BC was characterised by a different local responses.

The project is currently at its second year, and is examining this pivotal moment in Japanese prehistory by reconstructing population dynamics, crop productivity, and changes in subsistence strategy. We are seeking a Research Assistant/Associate to help collate and analyse material cultural datasets from Japanese excavation reports and assess patterns of their spatial variation, with an emphasis on the detection of marked discontinuities (i.e. cultural boundaries). The role holder will in particular: 1) assess the patterns of cultural connectivity during the Final Jomon period and the extent by which this can predict the *tempo* and the *mode* of the spread of Yayoi cultural elements; 2) determine patterns of cultural trait co-occurrence during the Yayoi period in relation to the dynamics of crop dispersal inferred by other members of the ENCOUNTER team.

Job description

The Research Assistant/Associate will be required to carry out varied tasks, including:

- Collate, synthesise, and codify culture traits from excavation reports and academic articles.
- Develop (along with the PI) new statistical and computational techniques inspired from landscape genetics to analyse cultural datasets.
- Curate relevant aspects of the project database and Github repository.
- Carry out statistical and computational analyses, occasionally helping other members of the project.
- Taking the lead in writing up relevant aspects of the project’s research for publication.
- Helping support other project members with varied contributions as needed to other project publications.

Qualifications and Experience

Appointment at Research Associate level is dependent on having a relevant PhD, including applicants who have submitted their thesis but not yet received their PhD (in which case appointment will initially be made at Research Assistant and amended to Research Associate when the PhD is awarded).

The salary for the Research Associate starts at £32,816 - £40,322 per annum, if you have not yet received your PhD you will be appointed as a Research Assistant and the salary will be starting at £26,715 - £30,942 per annum until the PhD is awarded.

The role holders would possess some research experience with sufficient breadth/depth of specialist knowledge in the discipline and of research methods and techniques to work within established research programmes.

Selection criteria

Essential

- Familiarity in using evolutionary spatial methods to analyse cultural and archaeological datasets, with a particular focus on methods aimed to look at their spatial and temporal variation.
- Ability to carry out advanced statistical analyses and programming using R statistical computing language.
- Demonstrable ability to develop tailored analytical solutions for specific problems.
- Experience working with archaeological databases.
- Willingness to learn new computational and statistical techniques.
- Willingness to spend time abroad for data collection.

Desirable

- Experience with Git repositories.
- Familiarity with Japanese archaeology.
- Familiarity with Japanese language.
- A demonstrable track record of working in large and scientifically diverse projects.
- Strong sense of order, ability to work systematically, good team player.
- Ability to complete tasks in accordance with a realistic timetable.

Work Environment

The Department of Archaeology at Cambridge comprises approximately 35 permanent academic staff, 50-60 postdoctoral researchers, and nine major laboratories, as well as the world-renowned McDonald Institute, Duckworth Laboratory and Cambridge Archaeological Unit. The McDonald Institute hosts an exceptionally dynamic community of internationally leading researchers, resident and visiting. Laboratories, library and other resources are world-class in quality and extent. The Department currently teaches approximately 70 undergraduates across several Triposes (Archaeology, Human Social and Political Sciences, Psychological and Behavioural Sciences, and Natural Sciences), and some 150 graduate students (reading for Masters and doctoral degrees). The resultant community is one of the most vibrant and interdisciplinary of its kind in the UK and internationally, and Cambridge is consistently ranked as among the best in the world across the breadth of the Department's constituent fields.

Terms and Conditions

Location	McDonald Institute for Archaeological Research, Downing Street; we acknowledge that the University may be closed or have limited access, or there may be health or family related reasons why working in other locations is necessary, and it should be possible to carry out most or all of the relevant duties in a remote location.
Working pattern	Full time, 37 hours per week
Hours of work	Your exact hours of work should be agreed between you and your PI
Length of appointment	This is a fixed term appointment for 30 months
Probation period	6 months
Annual leave	Full time employees are entitled to annual paid leave of 41 days inclusive of public holidays. This entitlement is pro rata in the holiday year of commencement of employment and in the year your employment terminates.
Pension eligibility	Universities Superannuation Scheme (USS). Pension scheme details, including information about the legal requirement for the University to automatically enrol its eligible jobholders into a qualifying workplace pension scheme from 1 March 2013, is available at: http://www.pensions.admin.cam.ac.uk/ .
Retirement age	The University does not operate a retirement age for research staff.

Screening Check Requirements

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. If you need further information, you may find the Right to Work page within the 'Applying for a job' section of the University's Job Opportunities pages helpful (please see <http://www.jobs.cam.ac.uk/right/have/>)

Application Process

To submit an application for this vacancy, please click on the link in the 'Apply online' section of the advert published on the University's Job Opportunities pages. This will route you to the University's Web Recruitment System, where you will need to register an account (if you have not already) and log in before completing the online application form.

Applicants should submit a cover letter detailing how the relevance and appropriateness of their training, research background and experience meet the advertised specifications, how they meet the qualifications and their motivation for applying for the position. This should be accompanied by the following supporting documents:

- A Curriculum Vitae minimally indicating educational background and degrees, publications, grant track record and previous relevant research experience
- Digital copies of at least ONE of your publications that best illustrates your suitability for the advertised post.
- The names and contact details of **two** professional referees who can comment on the applicant's academic experience and research outputs.

The closing date for applications is 18th December 2020. If you have any questions about this vacancy please contact Dr Enrico Crema (erc62@cam.ac.uk).

General Information

The University of Cambridge

The University of Cambridge is one of the world's oldest and most successful Universities, with an outstanding reputation for academic achievement and research. It was ranked first in the 2011 QS World University Rankings and its graduates have won more Nobel Prizes than any other university in the world. The University comprises more than 150 departments, faculties, schools and other institutions, plus a central administration and 31 independent and autonomous colleges.

The University and the Colleges are linked in a complex historical relationship. The Colleges are self-governing, separate legal entities which appoint their own staff. They admit students, provide student accommodation and deliver small group teaching (supervisions). The University awards degrees and its faculties and departments provide lectures and seminars for students, determine the syllabi for teaching and conduct research.

There is much more information about the University at <http://www.cam.ac.uk/univ/works/index.html> which we hope you will find helpful.

The Department of Archaeology

The Department of Archaeology has approximately 35 academic staff with specialist interests in Archaeology, Biological Anthropology, Assyriology and Egyptology. The Department, along with Social Anthropology, Sociology, and Politics and International Relations, forms the Faculty of Human, Social and Political Science. In addition to a large number of post-doctoral research associates and PhD students, there are a number of Junior Research Fellows working in Cambridge, attached to colleges, who contribute to the life of the Department. The Department of Archaeology includes the McDonald Institute for Archaeological Research, the Leverhulme Centre for Human Evolutionary Studies and the Duckworth Laboratory.

Research and teaching in Biological Anthropology covers all the main fields of the discipline, and the current recruiting initiative is aimed at strengthening these. Major fields of research currently active include human evolutionary studies, behavioural ecology, cultural evolution and population dynamics, and human health and disease, past and present. The research and teaching in Biological Anthropology is closely aligned with that of the broader Department of Archaeology, particularly in Archaeological Science, Bioarchaeology and Palaeolithic studies.

There is a strong and large graduate body in the Department. The MPhil cohort is between 35-40, while the PhD body comprises more than 90 research students. MPhil and PhD students are admitted by the Department which arranges all their teaching and supervision. Lectures are open, so that students can take advantage of courses offered at several levels. There are three Biological Anthropology-based masters programmes – Human Evolutionary Studies, Applied Biological Anthropology, and Biological Anthropological Science (the last is entirely by research thesis).

What the University can offer you

One of our core values at the University of Cambridge is to recognise and reward our staff as our greatest asset. We realise that it is our people who have built our outstanding reputation and that we will only maintain our leading position in the academic world by continuing to attract and retain talented and motivated people. If you choose to come and work with us, you will find that we offer:

- **Excellent benefits** – You will be eligible for a wide range of competitive benefits and services, including numerous discounts on shopping, health care, financial services and public transport. We also offer defined benefits pension schemes and tax-efficient bicycle, car lease and charity-giving schemes.

We will help you balance your home and work life by providing you with generous annual leave entitlement and procedures for requesting a career break or flexible working arrangements if you need them. You will also have access to a range of well-being support services, including in-house Occupational Health and

Counselling services. If you have childcare responsibilities, you may also benefit from the enhanced maternity/adoption pay, two nurseries and a holiday play scheme that we provide.

We are keen to welcome new employees from other parts of the UK and other countries to Cambridge. If you will be relocating to Cambridge on a centrally funded appointment of two years or more, you may be eligible for our relocation expenses scheme. The University Accommodation Service (<http://www.accommodation.cam.ac.uk/>) will also be available to help you find suitable rented accommodation and to provide advice on renting arrangements and local facilities, if required. In addition, certain academic and academic-related appointments are eligible for the Shared Equity Scheme which offers financial assistance with the purchase of living accommodation.

- **A welcoming and inclusive environment** - We will help you settle into your new role and working environment through a central University induction event, local induction activities and our online induction package. Where appropriate to your role, you will have a probation period to provide a supportive framework for reviewing your progress and discussing your training and development needs.

If you are relocating to Cambridge, you and your family will be welcome to attend the Newcomers and Visiting Scholars Group, which provides an opportunity to find out more about Cambridge and meet other people new to the area.

- **Extensive development opportunities** - The encouragement of career development for staff is one of the University's core values. We put this into practice through various services and initiatives, including:
 - A wide-range of training courses and online learning packages.
 - The Staff Review and Development (SRD) Scheme, which is designed to enhance work effectiveness and facilitate career development post-probation.
 - Leave for career and personal development, including long-term study leave for assistant staff and sabbatical leave for academic staff.
 - The CareerStart@Cam programme, which supports assistant staff roles without higher education qualifications to develop their skills, experience and qualifications. Assistant staff may also apply for financial assistance for study which results in a qualification.
 - Reduced staff fees for University of Cambridge graduate courses.
 - The opportunity to attend lectures and seminars held by University departments and institutions.
 - Policies and processes dedicated to the career development of researchers and the implementation of the principles of the Concordat, which have led to the University being recognised with an HR Excellence in Research Award by the European Commission.

You can find further details of the benefits, services and opportunities we offer can be found in our CAMBens Employee Benefits web pages at <http://www.hr.admin.cam.ac.uk/pay-benefits/cambens-employee-benefits>. A range of information about living and working in Cambridge is also available to you within the University's web pages at <http://www.jobs.cam.ac.uk/> and <http://www.hr.admin.cam.ac.uk/hr-staff/information-staff>

Equality of Opportunity at the University

We are committed to a proactive approach to equality, which includes supporting and encouraging all under-represented groups, promoting an inclusive culture and valuing diversity. We make selection decisions based on personal merit and an objective assessment against the criteria required for the post. We do not treat job applicants or members of staff less favourably than one another on the grounds of sex (including gender reassignment), marital or parental status, race, ethnic or national origin, colour, disability (including HIV status), sexual orientation, religion, age or socio-economic factors.

We have various diversity networks to help us progress equality; these include the Women's Staff Network, the Disabled Staff Network, the Black and Minority Ethnic Staff Network and the Lesbian, Gay, Bisexual and Transgender Staff Network. In addition, we were ranked in the top 100 employers for lesbian, gay and bisexual (LGB) staff in Stonewall's Workplace Equality Index 2013 and we hold an Athena SWAN silver award at organisation level for promoting women in Science, Technology, Engineering and Medicine.

We are supportive of staff with caring responsibilities, such as through our flexible working, career break and returning carers schemes. We encourage individuals to include details of any breaks in employment due to

caring responsibilities in applications for employment so that these can be taken into consideration in assessments made, where appropriate.

Information if you have a Disability

The University welcomes applications from individuals with disabilities and 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 <http://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, Katia or Agnieszka on hspshr@hermes.cam.ac.uk. Alternatively, you may contact the HR Business Manager responsible for the department you are applying to via hrenquiries@admin.cam.ac.uk