THE POST

College: **College of Humanities http://humanities.exeter.ac.uk/**

Post: **Associate Research Fellow in Tropical Remote Sensing/Botany**

Reference No: **P46649**

Grade: **E**

Reporting To: **Associate Professor José Iriarte**

This full-time post is available on a fixed term basis from 1st July 2014 to 30th June 2017 in the College of Humanities, Department of Archaeology.

This Associate Research Fellow post is part of the ERC funded project PAST 'Pre-Columbian Amazon-Scale Transformations'.

Job Description

Main purpose of the job:

The successful candidate will contribute to cross disciplinary research on the nature and scale of pre-Columbian land use and its modern legacy on Amazonian forests. PAST will investigate the influence of the late pre-Columbian (1000-1492 A.D.) land use on Amazonian forests, the impact of the 1492 Columbian Encounter (CE) and its modern legacy through the comparative study of pre-Columbian land uses in different regions of Amazonia. This innovative, international, interdisciplinary project will integrate a range of state-of-the-art techniques in archaeology, archaeobotany, paleoecology, soil science, botany, landscape ecology and remote sensing to address four major research questions:

1) What was the nature and geographic scale of environmental disturbances produced by different Amazonian archaeological cultures across the basin during the Late Holocene?

2) What was the chronology, and underlying drivers (e.g., political, demographic, climatic), of the development and demise of these late-Holocene pre-Columbian cultures?

3) How did the Columbian Encounter affect the environments and these different cultures?

4) Did pre-Columbian land use have a lasting effect on modern forest structure, composition and successional trajectories? And how can knowledge of the ecological impact and legacy of late pre-Columbian groups inform modern conservation and sustainable agricultural practices for the future of the Amazon and other tropical regions in the world?

The successful candidate will have a strong remote sensing and tropical forest ecology background to contribute with research questions 1 and 4. Field experience is highly desirable as well as the capacity to operate high-tech instrumentation.

Main duties and accountabilities:

1. Undertake research to contribute to the *historic landscape characterization component* of the project including:

- Supervise floristic inventories carried out by field botanists to reconstruct forest structure and composition in the different areas of the Amazon investigated by the project
- Carry out the statistical analysis of forest inventory data recovered from the sample plots in the different areas of the Amazon investigated by the project

- Carry out acquisition of remote sensing data in collaboration with INPE (National Institute for Space Research) researchers in Brazil
- Undertake the integration of remote sensing data with field data and analysis
- Writing up research work for publication;
- Developing research objectives and proposals for own or joint research;
- Making presentations at national and international conferences and similar events;
- Dealing with problems which may affect the achievement of research objectives and deadlines;
- Analysing and interpreting the results of own research and generating original ideas based on outcomes;
- Using new research techniques and methods;
- Using initiative and creativity to identify areas for research, developing new research methods and extending the research portfolio;
- Using creativity to analyse and interpret research data and draw conclusions on the outcomes.

2. To contribute to teaching and to be involved in the assessment of student knowledge including assisting in the supervision of student projects and in the development of student research skills.

3. To work in collaboration with colleagues as appropriate to the field of study including:

- Contributing to collaborative decision making within the research group;
- Liaise closely with the Exeter-based archaeobotany and palaeoecology PDRAs to closely integrate palaeoecological, archaeological, forest inventories and remote sensing data.
- Preparing papers and presenting information on research progress and outcomes to bodies supervising research, e.g. steering groups.

4. To communicate complex information, orally, in writing and electronically.

5. To prepare proposals and applications to external bodies, e.g. for funding and contractual purposes

6. To contribute to the planning of research projects.

7. To use research resources, laboratories and workshops as appropriate and to take responsibility for conducting risk assessments, reducing hazards and for the health and safety of others.

8. To monitor research budgets as appropriate.

9. To engage in continuous professional development and to be responsible for continually updating knowledge and understanding in field of study or specialism and for developing skills..

This job description summarises the main duties and accountabilities of the post and is not comprehensive: the post-holder may be required to undertake other duties of similar level and responsibility.

Person Specification

	Essential	Desirable
Attainments/Qualifications	PhD or equivalent in a related field of study.	
Skills and Understanding	Sufficient knowledge in the discipline and of research methods and techniques (acquisition and analysis of remote sensing data, LANDSAT, MODIS, GIS, statistical analysis of floristic inventories) to work within established research programmes.	Expertise in acquisition and analysis of LIDAR data. Experience in operating high-tech instrumentation. Knowledge of data collection with UAVs is highly desirable. Knowledge of Portuguese. Knowledge of tropical ecology. Knowledge of Amazonian palaeoecology and archaeology.
Prior Experience	Experience of conducting risk assessments and understanding of health and safety legislation.	Expertise in the interpretation of remote sensing data, in particular with LANDSAT and MODIS. Expertise in carrying out statistical analysis of botanical inventories in tropical forests. Expertise in the supervision of botanical inventories. Publications in international journals. Experience in conference presentation.
Behavioural Characteristics	Excellent written and verbal communication skills. Availability to travel and ability to communicate with locals in a foreign language. Able to communicate material of a specialist or highly technical nature. Able to manage research and administrative activities and to balance the competing pressures of research and administrative demands and deadlines. Able to liaise with colleagues and students. Able to build contacts and participate in internal and	

	external networks for the exchange of information and collaboration. Able to identify potential sources of funding. Actively participate as a member of a research team. Engage in continuous professional development. Understand equal opportunity issues as they may impact on areas of research content.	

Informal Enquiries
Before submitting an application you may wish to discuss the post further by contacting Prof. José Iriarte (e-mail J.Iriarte@exeter.ac.uk or telephone 01392 724513).

Additional Information Relating to the Post

Salary
The starting salary will be £25,760 within the Grade E band (£25,014 - £28,972), depending on qualifications and experience.

An increment will be payable on 1 August each year until the top of the scale is reached (subject to being in post for 6 months and satisfactory performance). The scale will be subject to a cost of living review each year.

Hours of work
Hours of work will be 36.5 hours per week (full-time) but staff at this level may be required to work additional hours to meet the requirements of the role.

Annual Leave
The annual leave entitlement for full-time appointments is 41 days per calendar year (pro rata for part-time appointments). For further information see our website http://www.admin.ex.ac.uk/personnel/leave.shtml.

Probationary Period
The appointment will normally be subject to a probationary period of one year.

References & Medical Clearance
All appointments are subject to satisfactory reference and medical checks and individuals will be required to complete a medical assessment form before appointment is confirmed. Applicants should note that the University normally contacts referees for short-listed applicants without further advice to applicants. When advising of referees, if they are resident overseas, please ensure you supply fax numbers and/or email addresses enabling us to contact them (if necessary) without delay.

Right to Work in the United Kingdom
If you do not have the right to work in the UK, this appointment will be subject to the University successfully obtaining a Certificate of Sponsorship under the UK's Points Based System for migrant workers and to you obtaining Entry Clearance/Leave to Remain.

For further information, see the Home Office website at http://www.ukba.homeoffice.gov.uk/. In particular you are encouraged to undertake a self assessment of your eligibility to work in the UK using the link to *www.ukba.homeoffice.gov.uk/pointscalculator*.

Terms & Conditions
The Terms and Conditions of Employment can be viewed on line by visiting http://www.exeter.ac.uk/staff/employment/conditions/terms/

Pensions

Membership of the Universities' Superannuation Scheme (USS) is automatic provided that you meet the qualifying criteria for membership. The USS is a contracted-out scheme. USS scheme has two sections: Final Salary and Career Revalued Benefits; which section you will be eligible for will depend on any previous membership of USS. An information leaflet concerning the qualification rules for both the sections is enclosed; more detailed information about the USS scheme structure can be found at www.uss.co.uk. **IF you have been in USS before, you are strongly requested to contact the Pay and Benefits Office as soon as you can so that possible membership of the Final Salary benefits section can be investigated.** The University, as your employer, contributes such sums as will be required to maintain the full benefits of the scheme. You may opt out of the scheme; if you wish to do so, you should contact the Pay and Benefits Manager, Mrs Alison Rose (01392 263088/email a.j.rose@exeter.ac.uk) for further information.
Further information about Pension Salary Exchange is available from the Human Resources website www.admin.exeter.ac.uk/personnel or from the Pensions Office.

Relocation

You may be able to claim relocation expenses in accordance with the University's Relocation Assistance Scheme. The maximum allowance that you can reclaim under the Relocation Assistance Scheme, if eligible, is 10% of salary.

Short-listing Information

We will acknowledge your application by email. The University of Exeter recognises the time and effort taken to apply for a position and will contact you by email to inform you of results of shortlisting

Application Procedure and Interview Information

The closing date for completed applications is Monday 5th May 2014. Interviews are expected to take place in May 2014.

Data Protection Act (1998)

The information contained within your application is being requested to enable the University to make employment decisions and meet statutory obligations. Any information provided to the University in this context will be treated confidentially and used only by manager(s), member of the University, Human Resources, Superannuation and Payroll during the course of your employment. Where the application relates to a post which is externally funded this information may be passed onto the relevant funding body.