

Candidate Information

Position:	Research Fellow Archaeological Science (RICHeS Scientist)
School/Department:	School of Natural and Built Environment
Reference:	25/112704
Closing Date:	Monday 28 July 2025
Salary:	£39,922 - £42,302 per annum.
Anticipated Interview Date:	Monday 11 August 2025
Duration:	5 years

JOB PURPOSE:

The RICHeS Scientist will be a highly productive, ambitious and collaborative member of the RICHeS Heritage Science team based in Archaeology and Palaeoecology at Queen's University Belfast. They will collaborate with partners and external stakeholders to provide access, advice and conduct defined research relating to heritage materials and their wider context in our world class laboratories. The primary responsibility of this role will be in materials characterisation, including isotope geochemistry, chemical and elemental analysis, and the development of mass spectrometry techniques as a part of the RICHeS programme (<https://www.riches.ukri.org>).

The successful candidate will be a heritage science specialist and will join the RICHeS project based in the 14CHRONO Centre (<https://14chrono.org>) and the Institute for Heritage and Environmental Science (<https://www.qub.ac.uk/schools/NBE/Research/facilities-infrastructure/HeritageandEnvironmentalScience/>) at QUB. Their work will cross-cut two core areas of research: (i) radiocarbon dating and isotope geochemistry; and (ii) material, elemental and chemical characterisation and analysis. They will be a key member of the QUB-based consortium, helping to provide access and advice to external stakeholders, including the wider UKRI/AHRC RICHeS community. Liaising with partners (e.g. National Museums Northern Ireland) and external stakeholders to capitalise on research opportunities, they may assist in the development of research funding proposals and the planning and delivery of associated research activities.

Successful applicants will have responsibilities in independent and directed research, supervision of technical analysis, assisting in the planning and day-to-day management of RICHeS facilities, collaborations, and outreach. They will join at an exciting time, with Archaeology and Palaeoecology offering laboratories with a globally strong reputation and leading-edge capacities in radiocarbon dating, bio-geochemistry, materials analysis, chemical characterisation, conservation and heritage science. These state-of-the-art laboratories and facilities include over £6m of recent investment in areas of geochronology, isotope geochemistry, material and chemical analysis (including XRF, X-ray Imaging, Micro-CT, SEM, LA-ICP-MS, TQ-ICP-MS and Microprobe).

MAJOR DUTIES:

1. Conduct research and analysis within materials characterisation techniques and broader heritage science applications.
2. Assist in developing reference datasets as directed by the PI and project team for the analysis and characterisation of materials.
3. Undertake advanced characterisation and analysis of samples and collections in collaboration with partners and external stakeholders.
4. Assist in planning, and where appropriate, delivery and write-up of results
5. Carry out analyses, critical evaluations, and interpretations of existing datasets, and to review and synthesise existing literature within relevant fields.
6. Produce high-quality research outputs consistent with project aims and commensurate with career stage. This will include collaborating and co-authoring with Co-PIs and project partners (as appropriate) on outputs.
7. In consultation with the project team, promote research milestones and outputs at national and international conferences and through social media (where applicable).
8. Assist in the preparation of funding proposals and applications to external bodies.

9. Engage and advise heritage stakeholders on access, sampling and results of same.
10. Undertake supplementary duties relevant to the success of the project, including administrative duties and additional training and development activities as required.

ESSENTIAL CRITERIA:

1. Have a PhD in materials characterisation.
2. Specific, relevant* research experience to include:
 - An established expertise and proven portfolio in materials characterisation.
 - Technical expertise in chemical and elemental analysis, isotope geochemistry and/or mass spectrometric methods.
 - Post-doctoral research experience in archaeological or heritage science.
 - Proven ability to publish in national/international journals (commensurate with stage of career).
 - Working effectively as part of a research team in the development and promotion of the heritage science.
 - Track-record of independent research and/or significant contributions to team-led research, including high-level outcomes/outputs.
3. Ability to contribute to broader management and administrative processes.
4. Contribute to the School's outreach programme by links with industry, community groups etc.
5. Practical problem solving skills, independence of thought and initiative.
6. Ability to assess and organise resources.
7. Ability to communicate complex information in English effectively in oral and written format.
8. Ability to build relationships to develop internal and external networks.
9. Commitment to continuous professional development.

DESIRABLE CRITERIA:

1. Doctorate in Archaeological Science or closely cognate discipline.
2. Experience of technical report writing and publication of same.
3. Experience of leading write-up of research results.
4. Knowledge of wider leading-edge advancements and applications in heritage science.
5. Track-record of working with archival materials and sampling for radiocarbon dating and materials analysis.
6. Experience of delivering collaborative results at international conferences (appropriate to career stage).
7. Familiarity with thermogravimetric analysis.
8. Experience of managing budgets and research finances.
9. Experience of engaging with external stakeholders.
10. Experience of trouble-shooting and maintenance of technical apparatus.
11. Experience of integrating and dissemination multi-proxy data.

ADDITIONAL INFORMATION:

Informal enquiries can be directed to: Dr Patrick Gleeson - p.gleeson@qub.ac.uk.