



**JUNIOR RESEARCH FELLOW: CRITICAL ZONE RESEARCH**  
(3-year contract)  
**ENVIRONMENTAL HUMANITIES SOUTH**  
**FACULTY OF HUMANITIES**



**Environmental Humanities South**  
**Faculty of Humanities, University of Cape Town**

**UCT's Carnegie Funded Developing Emerging Academic Leaders Awards**  
**(DEAL 3)**

and

**Critical Zones Africa South & East (CzASE Studies) funded by Science For Africa via the DELTASII Africa Programme**

invite applications for a

**JUNIOR RESEARCH FELLOWSHIP IN CRITICAL ZONE RESEARCH**

The University of Cape Town's Environmental Humanities South invites applications for a three-year Junior Research Fellow post, funded jointly through the UCT Carnegie DEAL 3 award scheme and the CzASE Studies - Critical Zones Africa South & East research programme funded by Science For Africa Foundation under the DELTASII Africa Awards.

The Junior Research Fellow post will be awarded as a three-year appointment at the University of Cape Town, with a further period renewable on condition of satisfactory progress and available funding. The project will end on 30 November 2027.

The Junior Research Fellow will be responsible for developing Critical Zones rapid appraisal techniques that take into account the material effects of socio-natural relations and activities in the critical zone, the thin zone of habitability at any point on the Earth's surface where life is made possible by the flows and relations from aquifer to cloud. The fellow will primarily be responsible for supporting country teams to assemble comparative datasets of study sites. These will include:

- landscape assessments using geospatial tools and historical Earth imagery
- land-atmosphere relations, including air pollution, evaporation and rainfall data sets
- hydrogeological flows, both surface water and groundwater
- soil types and soil quality data
- available ecological datasets at study sites
- cartographic resources.

The Fellow will be supported by a wider team including specialists in soil science; agroecology; environmental chemistry, regional planning, infrastructure studies and a range of social sciences.

We are looking for an energetic, generous, collaborative and collegial researcher who is committed to transdisciplinary research and comfortable developing participatory research designs and questions in collaboration with regional communities and local governance structures.

The appointee will be part of an active and lively team committed to developing an African environmentalism in a project spanning six African countries, with partners at the universities of Addis Ababa, Dar es Salaam, Zimbabwe, Cape Town, Eduardo Mondlane and the Lilongwe University of Agriculture and Natural Resources. The appointee should be able to work with minimal to modest levels of supervision, and will have the opportunity to develop a lab of Masters and/or PhD students to be co-supervised with partner university leads on their research sites. The Fellow will be expected to assist in day-to-day academic activities and management tasks in a fast-growing and relatively new research team.

The appointee will be based full-time in the EHS offices at UCT, and will work closely with Prof Steve Banwart at Leeds School of Earth and Environment and Prof Lesley Green at EHS, UCT (the Award PI).

**Requirements:**

- The Fellow should have a PhD in Physical Geography with demonstrated cartographic and geospatial skills including ArcGIS and QGIS; an interest in and familiarity with Critical Zone scholarship, and a familiarity/willingness to engage with African post-colonial and decolonial research.
- A minimum of 2 years and a maximum of 5 years relevant postdoctoral experience. As the intention is to provide opportunity for researchers who have completed a postdoctoral fellowship but are not yet independent PIs in their own right, past experience as a postdoctoral fellow is expected. In its absence, a motivation will be considered.
- Geospatial, cartographic and quantitative skills.
- Field research experience involving collaborative research designs.
- Ability to travel.

**Advantages:**

- Teaching experience in tertiary education.
- Experience in dissertation supervision.
- Familiarity with archiving and data management.
- Fluency in an African language spoken in Southern and/or East Africa.
- Publications in a cognate field
- Professional Membership of a geographical society.

**Responsibilities:**

- Lead a research hub that advances the understanding of Critical Zone sciences and their integration with socio-technical aspects of peri-urban areas, under the supervision / mentorship of senior academics, and in dialogue with the wider CzASE team.
- Advise and assist CzASE social scientists to engage with physical geography datasets and landscape studies, including supplying cartographic services to the team.
- Participate in collaborative research and co-authorship on the CzASE project with African university partners
- Co-supervise one Masters and/or PhD student per partner research team.
- Assist in the identification of research funding opportunities, and co-author research grants applications in the first year of appointment, that includes the cost of their annual salary (in which case UCT funds will be kept in reserve for the Principal Investigator (PI) to consider continuation when the external grant is concluded).
- Participate in undergraduate and postgraduate teaching and postgraduate (co-)supervision, provided it advances the independence of the Fellow and provided this is not at the detriment of the research project.
- Be present in EHS offices daily during core work hours. Flexible hours are subject to agreement and regular review.
- Assist with the organisation and running of networking events for EHS and CzASE.
- Publish research outputs in accredited journals and / or peer-reviewed books. DEAL 3 and SFA expects Fellows to lead-author at least 1 peer-reviewed paper per year, and co-author at least a further 1 paper per year, including with graduate students.
- DEAL 3 expects Fellows to conduct 1 international university visit or 1 conference presentation per year, with at least 1 international conference presentation during the tenure.
- Adhere to the University of Cape Town's research policies.
- Adhere to the Science For Africa research and publication policies.
- An annual mid-year and end-of-year progress report will be required from each awardee, to be submitted to the PI and the UCT Carnegie Project Administrator.

The annual remuneration package, including benefits, is between R544 062 and R700 000 (post is funded from research funding) depending on qualifications and experience.

Enquiries should be addressed to Prof Lesley Green at [lesley.green@uct.ac.za](mailto:lesley.green@uct.ac.za) with the subject head 'JRF CRITICAL ZONE RESEARCH'.



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**To apply**, please e-mail the below documents in a **single pdf file** to Ms Tracy Moore at [recruitment05@uct.ac.za](mailto:recruitment05@uct.ac.za)

- UCT Application Form (download at <http://forms.uct.ac.za/hr201.doc>)
- Motivation letter that speaks to the specific requirements of the position
- A maximum of 3 publications/writing samples
- Curriculum Vitae (CV)

Please ensure the title and reference number are indicated in the subject line.

An application which does not comply with the above requirements will be regarded as incomplete.

Only shortlisted candidates will be contacted and may be required to undergo an assessment.

**Telephone:** 021 650 5405

**Website:** <https://humanities.uct.ac.za/envhumsouth/czase>

**Reference number:** E230364

**Closing date:** 29 January 2024

*UCT is a designated employer and is committed to the pursuit of excellence, diversity, and redress in achieving its equity targets in accordance with the Employment Equity Plan of the University and its Employment Equity goals and targets. Preference will be given to candidates from the under-represented designated groups. Our Employment Equity Policy is available at [www.hr.uct.ac.za/hr/policies/employ\\_equity](http://www.hr.uct.ac.za/hr/policies/employ_equity)*

UCT reserves the right not to appoint.