

Postdoctoral position in Archaeological Urban Data Analysis at the Social Resilience Lab, Department of Culture, Cognition and Computation, Aarhus University

The Social Resilience Lab, School of Culture and Society, and ERC project The Model City invite applications for a three-year fixed-term postdoctoral position in Archaeological Urban Data Analysis. The three pillars of this position consist of 1. scholarly work on large-scale comparative data collection and analysis, 2. continuous integration into the academic community and 3. personal and professional development.

The appointment begins on the 1st of January 2025 or as soon as possible thereafter. We acknowledge that imposter syndrome is a widespread phenomenon in academia, but it should not deter potential applicants from putting themselves forward for this role. Should you have any doubts or require further information, Dr. I. Romanowska (iromanowska@cas.au.dk) is available for informal discussions regarding the potential fit for the position.

In its pursuit of academic excellence, The Faculty of Arts is committed to creating an inclusive working environment and therefore encourages all qualified candidates to apply, regardless of personal background, gender, sexual orientation, age, disability, ethnicity etc.

Research context

We are looking for an innovative scholar with a background in archaeology, history or digital humanities preferably with a specialization in the analysis of large-scale datasets.

The position is associated with an ERC Starting Grant Project 'The Model City. Drivers and mechanisms of long-term urban evolution', which will investigate urban resilience by studying historical trajectories of past cities. Through mass aggregation and analysis of a wide sample of archaeological and historical data, it seeks to answer why some cities thrive while others fail, identifying factors that predict city persistence and evaluating social, environmental, and economic mechanisms that influence urban resilience. The scope of this position encompasses aggregating and synthesizing large amounts of Past Urban Data and applying advanced analytical methods to investigate the fundamental forces governing urban systems' long-term dynamics. The project team will be comparing data from the Roman Empire, Classic Mesoamerica, and Medieval Northern Europe, with a view to identifying common causes of urban collapse and mechanisms that enabled past cities to survive over centuries.

The successful applicant is expected to participate in project activities related to data collection, data management, and analysis and will support other team members in tasks related to data handling. They will be mainly supported by the PI and a research engineer but also working along other members of the lab.

The position

1. The successful applicant will be expected to develop the urban data research line within the framework provided by The Model City project, this will include such tasks as identify and collect relevant data and datasets following codesigned protocols, apply standard computational data analysis techniques and develop new ones tailored to the research questions at hand handle large amounts of data in a robust and sustainable manner, using computational solutions understand and apply data management standards and open science principles
2. The successful applicant will be expected to engage in standard scholarly activities, such as, present their research at international meetings publish results in peer-reviewed, international scientific journals contribute to the organisation of research workshops and international conferences
3. The successful applicant will be expected to actively participate in the life of The

Application Deadline:
18 September 2024

Faculty:
Faculty of Arts

Institute/Faculty:
School of Culture and Society

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Vacant positions:
1

Hours per week:
37

Number of months:
36

Expected date of accession:
01/01/2025

Social Resilience Lab, engage with a wider academic community and to continue their development as an internationally competitive researcher, by

- working independently on core research tasks and handling a gradually increasing degree of autonomy
- contributing to other projects and collaborating with other members of The Social Complexity Lab including across disciplines
- participating in continuous professional development opportunities.

Support, both peer-support and mentoring, in terms of the technical and scholarly tasks as well as personal and professional development will be provided to ensure optimal conditions for a thriving professional period.

Teaching

The position will involve a limited amount of teaching as agreed upon with the Head of the Department and the project PIs.

Knowledge exchange

The successful applicant will be expected to exchange knowledge with various sectors of society and to contribute actively to public debate in areas related to the position.

Qualifications and the selection process

Applicants for this position must hold a PhD degree or equivalent qualifications in archaeology, history, urban studies, geography, classics, digital humanities or a related field.

Applicants are asked to submit the following documents:

- an example of their work in which they present a data analysis pipeline developed by them. This can take a form of a Jupyter Notebook, R Markdown or equivalent. It should include a short introduction specifying the research questions and methods used.
- a cover letter stating the relevant experience and projects and motivation for applying for the position [maximum two pages],
- a cv and a list of publications,
- a maximum of two relevant publications.

The selection process will consist of the following steps

- **Initial assessment review:** Shortlisted applications will be evaluated to assess the candidates' academic qualifications, research experience, and relevant skills.
- **Interview with Appointment Committee:** Selected candidates will then meet with the appointment committee for an evaluation of their expertise and potential contributions to the School.
- **Possible second interview:** Selected candidates will be invited for a second interview to discuss their vision, research interests, and fit within the team.
- Final candidates will be asked to provide details of up to three referees for a **reference check**.

Applicants must document (essential):

- doctoral-level experience in handling humanities, archaeological, or historical data to a high scientific standard,
- good level of knowledge of at least one general-purpose programming language, such as Python, R or similar,
- familiarity with at least one of the Project's research areas (the Roman Empire, Classic Mesoamerica, and Medieval Northern Europe),
- fluency in written and spoken English,

- description in cover letter or CV of team-playing skills, the ability to constructively collaborate, experience in interdisciplinary work and collegiality

Applicants should highlight (beneficial):

- an interest in urban phenomena, resilience and
- knowledge of GIS, Network Science, aoristic methods and general statistics
- activity in an academic network relevant to the project goals
- familiarity with databases, openlicences, APIs
- a working-level knowledge of Spanish and/or German (given the case studies)

*The research activities will be evaluated in relation to the actual research time. We therefore encourage applicants to specify any periods of leave they may have had without research activities (e.g. maternity/paternity leave), so we can subtract these periods from the span of their academic career when evaluating their productivity.

*Please upload a maximum of two publications alongside your application.

*Only submitted publications will be assessed; a list of publications is not sufficient. As a result, applications without submitted publications will not be assessed.

*Professional references or recommendations should not be included. Applicants who are selected for an interview may be asked to provide professional references.

*The application must be submitted in English

For further information about the position, please contact project PI Dr Iza Romanowska (iromanowska@cas.au.dk)

*For more information about the application and the employment procedure, please contact HR supporter Gerd Cecilie Bech Thomsen (gebeth@au.dk).

International applicants

International applicants are encouraged to check [Family and work-life balance](#) and [Attractive working conditions](#) for further information about the benefits of working at Aarhus University and in Denmark, including healthcare, paid holidays and, if relevant, maternity/paternity leave, childcare and schooling. Aarhus University offers a broad variety of services for international researchers and accompanying families, including a [relocation service](#) and career counselling for expat partners. For information about taxation, see [Taxation aspects of international researchers' employment by AU](#).

The work environment

This position will be based in the newly established Social Resilience Lab - a fresh and dynamic research group whose aim is to leverage historical and archaeological data to explore the sources of resilience across a vast range of past and present societies against stresses (such as climate change) and shocks (e.g. natural catastrophes).

The benefits of the position include:

- pursue visiondriven world-class research as a team
- ample professional development opportunities including cuttingedge management paradigms, processes and software
- a working environment that upholds values such as worklife balance, kindness, putting people over product, aiming to create an environment in which all of its members can thrive
- high level of independence and authority over one's tasks, timelines and processes
- Appointment shall be in accordance with the collective labour agreement between the Danish Ministry of Taxation and the Danish Confederation of Professional Associations.

School of Culture and Society

At the School of Culture and Society, the object of research and teaching is the interplay between culture and society in time and space:

- From the traditional disciplines of the humanities and theology to applied social research
- From Antiquity to the issues facing contemporary societies
- From local questions to global challenges

The school's ambition is to produce compelling research with an international resonance as well as to offer teaching and talent development of the highest quality. The school has a broad cooperative interface with society as a whole, both in Denmark and abroad, and contributes to social innovation, research communication and further and continuing education.

For further information about the school, please see <http://cas.au.dk/en/>.

Qualification requirements

Applicants should hold a PhD or equivalent academic qualifications.

Formalities

The Faculty of Arts refers to the Ministerial Order on the Appointment of Academic Staff at Danish Universities ([the Appointment Order](#)).

- Appointments shall be in accordance with the [collective labour agreement between the Danish Ministry of Taxation and the Danish Confederation of Professional Associations](#).
- Further information on qualification requirements and job content may be found in the [Memorandum on Job Structure for Academic Staff at Danish Universities](#).
- Further information on the application and supplementary materials may be found in [Application Guidelines](#).
- The application must outline the applicant's motivation for applying for the position, attaching a curriculum vitae, a teaching portfolio, a complete list of published works, copies of degree certificates and examples of academic production (**mandatory, but no more than five examples**). Please upload this material electronically along with your application.

Aarhus University also offers a junior researcher development programme targeted at career development for postdocs at AU. You can read more about it here: <https://talent.au.dk/junior-researcher-development-programme/>

If nothing else is noted, applications must be submitted in English. The application deadline is at 11.59 pm Danish time (same as Central European Time) on the deadline day.

Aarhus University's ambition is to be an attractive and inspiring workplace for all and to foster a culture in which each individual has opportunities to thrive, achieve and develop. We view equality and diversity as assets, and we welcome all applicants.

Shortlists may be prepared with the candidates that have been selected for a detailed academic assessment. A committee set up by the head of school is responsible for selecting the most qualified candidates. See this link for further information about shortlisting at the Faculty of Arts: [shortlisting](#)

Faculty of Arts

The Faculty of Arts is one of five main academic areas at Aarhus University.

The faculty contributes to Aarhus University's research, talent development, knowledge exchange and degree programmes.

With its 550 academic staff members, 240 PhD students, 9,500 BA and MA students, and 1,500 students following continuing/further education programmes, the faculty constitutes a strong and diverse research and teaching environment.

The Faculty of Arts consists of the School of Communication and Culture, the School of Culture and Society and the Danish School of Education. Each of these units has strong academic environments and forms the basis for interdisciplinary research and education.

The faculty's academic environments and degree programmes engage in international collaboration and share the common goal of contributing to the development of knowledge, welfare and culture in interaction with society.

Read more at arts.au.dk/en

The application must be submitted via Aarhus University's recruitment system, which can be accessed under the job advertisement on Aarhus University's website.

Aarhus University

Aarhus University is an academically diverse and research-intensive university with a strong commitment to high-quality research and education and the development of society nationally and globally. The university offers an inspiring research and teaching environment to its 38,000 students (FTEs) and 8,300 employees, and has an annual revenues of EUR 935 million. Learn more at www.international.au.dk/