Assistant Professorship in Archaeological Simulation at the Social Resilience Lab, Department of Culture, Cognition and Computation, Aarhus University

The Social Resilience Lab, School of Culture and Society, project SCEATTAS and project ERC Model City, invite applications for a position as **Assistant Professor in Archaeological Simulation**. The position will commence on the **1st of January 2025** or as soon as possible thereafter.

This assistant professorship is a full-time, four-year training position that involves research and very limited teaching at the BA and MA level, and includes an obligatory course in university teaching for assistant professors (if this has not yet been obtained).

Place of employment: Aarhus University, Social Resilience Lab, Jens Chr. Skous Vej 4, Aarhus, Denmark.

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 Tom Brughmans (t.b@cas.au.dk) is available for 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.

The position
The position will be associated with the Social Resilience Lab at the School of Culture and Society, and is a research position with limited teaching.

The position is offered with a view to attracting talented applicants with an excellent and well-documented track record in innovative and internationally recognised research in computational archaeology, computational social science, cultural evolution, complexity science or similar and a specialisation in agent-based simulation. It is expected that the successful candidate will have experience at a doctoral level and shows readiness to transition to a new career stage and a more independent position.

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 vision-driven world-class research as a team

- ample professional development opportunities including cutting-edge management paradigms, processes and software

- a working environment that upholds values such as work-life 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.

Research
The successful applicant will be the core team member of the agent-based simulation arm of the Social Resilience Lab, and thus lead all simulation aspects of several projects, from conceptualisation, model development and implementation to analysis of the results and publication. The range of projects currently in the pipeline includes cultural innovation and diffusion, urban evolution, pedestrian mobility and democratic

institutions. The position thus requires flexibility in the research context and experience in working across disciplines. Specifically, the first two years of employment will be dedicated to simulation studies of the emergence of monetisation in early medieval Scandinavia in the context of the project 'SCEATTAS Dark Age Economics' (directed by Dr Thomas Birch, Moesgaard Museum). The next two years will be dedicated to simulation studies of the long-term development of urban systems in the context of the ERC project 'Model City' (directed by Dr Iza Romanowska, Social Resilience Lab). The successful candidate will be expected to contribute to core activities at the School of Culture and Society and Aarhus University in general, and to strengthen the Social Resilience Lab's research activities and output in particular. They will be expected to take an interest in interdisciplinary research collaboration within the Department of Archaeology, Moesgaard Museum, the Center for Humanities Computing, the Department of History and Classical Studies, and beyond.

The successful applicant will also be expected to manage existing and develop new research projects with internal and external partners, support more junior team members as a mentor and advisor, and to raise external research funding. The successful applicant will receive dedicated support to pursue these activities from the Lab's and School's administrators, colleagues and consultants. This position involves largely independent work with a high degree of autonomy to deliver academic outputs at the highest level of scholarly excellence. A strong commitment to the long-term vision of the Lab and its success in close collaboration with the Lab's PIs is crucial.

The applicant's research credentials, practical computational skills, and publication record within the field, will be assessed not just on existing publications and other research contributions but also on research potential.

*Past research achievements will be assessed based on the active research time of the applicant in question. We therefore ask applicants to specify any career breaks they have had (for instance due to maternity/paternity leave) in order to gauge their research productivity.

Education
The successful applicant will be required to do limited teaching and supervision on computational methods in the Humanities at BA and MA levels of the School's degree programmes and will be expected to have some teaching experience at university level or show a willingness to develop pedagogical competence. Furthermore, experience in delivering technical content to non-technical audiences will be considered an advantage.

Knowledge exchange
It is expected that the successful applicant will engage in knowledge exchange as described in the strategy for the Faculty of Arts https://arts.au.dk/om-arts/strategi-arts-2020-2025/, for instance research cooperation with private companies, government consultancy, cooperation with civil society partners or the public dissemination of knowledge. Applicants should document any prior experience within the field of knowledge exchange.

Qualifications
Applicants must hold a PhD or equivalent qualification in archaeology, history, classics, digital humanities or social sciences (with a strong computational component) or computer science, physics, complexity science or statistics (with a strong focus on humanities, archaeological or historical applications) or a related discipline. They must also be able to document the following:

- A successful delivery of at least one simulation project from the initial stages of conceptualisation to publication.
- An internationally oriented research profile documented through relevant academic publications, and possibly other research contributions, at the international level, representative of a doctoral level.
- High level of computational skills, including programming in at least one general purpose language (Python, Java, C++, R).
- Data science competency, including handling large volumes of data and development of bespoke statistics to answer research questions. Experience with HPC will be beneficial.
- Experience in handling humanities, historical and archaeological data and liaising

with context specialists to understand data limitations, collection biases and standards.

A proven track record of working in interdisciplinary teams and combining approaches, methods and concepts from across disciplines.

- Experience of or interest in active participation in international research collaborations
- Experience of or interest in obtaining external research funding

*Only submitted publications will be assessed, and no more than 5 can be submitted; a list of publications is not sufficient. As a result, applications without submitted publications will not be assessed.

*References or recommendations should not be included with the application. Applicants who are selected for a job interview may be asked to provide professional references.

Language and further information
Applicants must be able to teach and supervise in English at university level.

*If the successful applicant is not fluent in Danish, s/he will be expected to acquire the language within a period of approximately two years. Free language classes are provided by Aarhus municipality.

In order to maintain and develop the Lab's research environment, the person appointed is expected to be present at the Lab on a daily basis.

Selection process
The selection process for the position of Assistant Professor in Archaeological Simulation is comprehensive and involves multiple phases to ensure we find the most qualified candidate. The steps are as follows:

- **Initial assessment Review**: The submitted application packages will be evaluated to assess the candidates' academic qualifications, research experience, and relevant skills.
- **Technical Skills Assessment**: Shortlisted candidates will undergo a technical assessment to evaluate their programming and data handling capabilities. This will involve an assignment equal to approx. 4 hours commitment and one hour walkthrough.
- **Interview with Appointment Committee**: Candidates will then meet with the appointment committee for an evaluation of their expertise and potential contributions to the School.

- **Interview with Lab PIs**: Successful candidates will be invited for an interview with the Lab PIs to discuss their vision, research interests, and fit within the team.

- Only candidates who pass the final stage will be asked to provide details of up to three referees for a **reference check**.

* Please note that unfortunately, the university is not able to offer compensation for the time involved in the preparation of the application materials and participation in the selection process.
*Applications must be uploaded in English.

For further information about the content of the position, please contact Tom Brughmans t.b@cas.au.dk, one of the PIs of the Social Resilience Lab.

International applicants
International applicants are encouraged to read about the attractive working conditions and other 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 wide variety of services for international researchers and accompanying families, including a relocation service and an AU Expat Partner Programme. For information about taxation, see Taxation aspects of international researchers' employment by AU.

The 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.

Aarhus University offers a broad variety of services for international researchers and accompanying families, including relocation service and career counselling to expat partners: Relocation Services for Professors and Postdocs at Aarhus University (au.dk). Please find more information about entering and working in Denmark here: http://international.au.dk/research/.

Formalities

- Faculty of Arts refers to the Ministerial Order on the Appointment of Academic Staff at Danish Universities (the Appointment Order).

- Appointment 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.

If nothing else is noted, applications must be submitted in English. 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, the Danish School of Education, and the Centre for Teaching Development and Digital Media. 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/