



SEAHA

CENTRE FOR DOCTORAL TRAINING IN
SCIENCE AND ENGINEERING IN
ARTS HERITAGE AND ARCHAEOLOGY

SEAHA Studentship: Online Collections Modelling Tool

The EPSRC Centre for Doctoral Training in Science and Engineering in Arts, Heritage and Archaeology at University College London, University of Oxford and University of Brighton (www.seaha-cdt.ac.uk), in collaboration with the Smithsonian Institution's Museum Conservation Institute (www.si.edu/mci), National Archives, Kew (www.nationalarchives.gov.uk) and the company Lichtblau e.K. (www.lichtblau-germany.com/), are seeking applications for one fully funded studentship on the topic "Online Collections Modelling Tool". Funded by the Engineering and Physical Sciences Research Council (EPSRC) through the Centre for Doctoral Training and co-funded by the Smithsonian Institution, the four year doctoral research programme will be supervised jointly by UCL Centre for Sustainable Heritage (www.bartlett.ucl.ac.uk/graduate/csh/csh-home/), UCL Department of Electronic and Electrical Engineering (www.ee.ucl.ac.uk), Smithsonian Institution's Museum Conservation Institute (www.si.edu/mci), National Archives, Collection Care (www.nationalarchives.gov.uk/about%5Ccollection-care.htm) and Lichtblau e.K. (www.lichtblau-germany.com/).

In the last decade, environmental and energy concerns have led to widespread re-examination of scientific evidence supporting environmental guidelines for heritage collections. Computational modelling is seen as a key tool to provide such evidence, as it enables the examination of environmental scenarios and evaluation of probable conservation outcomes. The Collections Demography project (<https://www.youtube.com/channel/UC4rzFAdZV6k6AH9Cnc2O0BVQ>) examined relationships between the environment, collection material properties and user attitudes to collections and synthesized this knowledge in a number of new modelling approaches. These were aligned with newly developed environmental management guidance (BSI PAS 198). To enable widespread use of such knowledge in support of preventive conservation, this prestigious studentship will develop an online software platform that incorporates user requirements and is supported by a wide range of case studies. The doctoral project will address the following research questions:

- (i) What decision making tools are required by the conservation community in support of environmental management decision making?
- (ii) Can an open software platform be developed on the basis of existing computational collection models, enabling users to interactively upload, visualise and examine data?
- (iii) Can case studies be developed promoting the development of environmental guidelines and development of new knowledge and research?

The research project will require the use of an exciting range of research and development methods, from coding and software development, computational analysis and mathematical modelling, to user engagement using quantitative survey methods, while developing an excellent understanding of preventive conservation. Extended stays at the Smithsonian Institution's Museum Conservation Institute are planned. This exceptionally interdisciplinary project will enable you to seek employment in any number of multidisciplinary environments: from academia to conservation, including engineering and industry.

As a SEAHA student, you will have unparalleled access to research infrastructure and expertise across three universities and almost 50 heritage, research and industrial partners. In addition to the university doctoral training requirements, SEAHA students take part in an exciting range of cohort

SEAHA is a Doctoral Training Centre at University College London (UCL), University of Oxford, and University of Brighton. SEAHA is funded by the Engineering and Physical Sciences Research Council (EPSRC).



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activities, ranging from residential events and group projects, to conferences and careers events. Please visit the SEAHA website (www.seaha-cdt.ac.uk) for details.

You will have a good first degree in a relevant discipline: preferably engineering, physics, but also material science or chemistry, conservation or heritage science. For further details contact Dr. Matija Strlic, m.strlic@ucl.ac.uk.

The SEAHA Studentship will cover home fees and a stipend of up to a maximum of £16,726 per year (current rate) for eligible applicants (<http://www.seaha-cdt.ac.uk/opportunities/eligibility-criteria/>), and a substantial budget for research, travel, and cohort activities.

The application should include:

- A covering letter clearly stating your motivation
- The UCL graduate application form which can be downloaded via UCL's web site: <http://www.ucl.ac.uk/prospective-students/graduate/apply/apply-now/ucl-graduate-application-form.pdf>
- Two academic references
- A copy of your degree certificate(s) and transcript(s) of degree(s),
- Proof of meeting the UCL English language proficiency requirements where necessary. For SEAHA candidates, an advanced level certificate is normally required (details of English language proficiency requirements can be found at <http://www.ucl.ac.uk/prospective-students/graduate/apply/english-language/index>)
- A short research proposal (max. 2000 words) written by taking into consideration the above research questions.

The award will be subject to Grant Agreement between UCL, Smithsonian Institution, National Archives, and Lichtblau e.K.

The applications should not be submitted by UCL online admissions system. Instead, they should be sent directly to:

SEAHA Manager
manager@seaha-cdt.ac.uk
UCL Centre for Sustainable Heritage
Faculty of the Built Environment
UCL
14 Upper Woburn Place
London WC1E 0NN

UCL Taking Action For Equality.

Application deadline: Monday 11th July; Interviews: 18th July.

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