

Faculty: Marie-Claire Beaulieu, Associate Professor, School of Arts & Sciences and Jennifer Burton, Professor of the Practice, School of Arts and Sciences

Project Locations: Medford, MA and St. Andrews, Scotland

Dates: mid-May – late August, 2019

Project Title: Bird Stories, Then and Now

Project Details: Project Leaders Marie-Claire Beaulieu (Associate Professor, Department of Classics) and Jennifer Burton (Professor of the Practice, Department of Drama and Dance) offer a project that invites the public to engage with the fields of classics and ornithology via films and Open Linked data content inspired by D'Arcy Thompson's *Glossary of Greek Birds* (1896 and 1936). The Global Research Assistant will be working with Beaulieu and Burton to create mini-documentary films on birds, scientists, and stories linked to D'Arcy Thompson's *Glossary*. International travel will include research and filming trips to towns in Scotland, where D'Arcy Thompson lived and worked.

The *Glossary* surveys birds mentioned in ancient literature and mythology and gives modern scientific identifications of the birds. Each entry offers the opportunity to delve into scientific facts such as bird characteristics and behavior as well as into the significance of birds in mythology and folklore. This project offers a way for the public to get reliable information about ancient mythology via an attractive, modern medium and to experience the deep interconnection of humanities fields with scientific disciplines such as biology. Birds are the perfect catalysts for this cross-disciplinary exploration since they are an object for science to study, but also evocative symbols of the human relationship with nature. A team of Tufts scholars has been working on this project since 2017 under Marie-Claire Beaulieu's leadership. The work is outlined on the project website: <http://sites.tufts.edu/ancientbirds/>. Michael Reed (Biology) has provided advice and leadership for ornithology, explicating the scientific aspect of the *Glossary* and identifying the most interesting birds to feature in films. Marie-Claire Beaulieu has been responsible for planning and implementing the data preparation and analysis which is needed to make the text of the *Glossary* available online. Indeed, D'Arcy Thompson assumed that his readers would know both Latin and Greek, so he regularly cites ancient sources without translations, which is being added. In addition, careful data modeling is being done to enable computerized analysis of the text and the output of attractive graphs and other visualizations that bring out the significance of the materials. In collaboration with Anthony Bucci (Computer Science), Beaulieu is currently exploring Formal Concept Analysis (<http://sites.tufts.edu/ancientbirds/formal-concept-analysis/>). The technique can help identify common characteristics among different objects, for instance, among all the birds associated with the goddess Athena, and to draw conclusions about the Greek perception of this goddess. Visually, this will be represented as an interactive relationship graph on which users can click to explore a particular feature of birds (e.g. color, habitat, etc.) or their mythological associations (e.g. deities, stories, metamorphoses, etc.), and then read the original text of the *Glossary* or ancient texts about these birds. Jennifer Burton has been responsible for the planning and production of our short film series, the first of which is now available on our website (<http://sites.tufts.edu/ancientbirds/videos/>). This film was produced by Burton along with her Summer Scholar Katherine Toll in 2018. Burton and Beaulieu traveled to the University of St Andrews in Scotland first in October 2017 and again June 2018 (with Katherine Toll) to start gathering footage and to make connections on the ground with archivists and museum curators. The University of St Andrews is home to the D'Arcy Thompson Archive, located at St Andrews University in Scotland, where Thompson taught zoology (<https://www.st-andrews.ac.uk/library/specialcollections/collections/archives/themanuscriptcollections/personal/thompsondarcywentworth1860-1948/>). This archive contains over 30,000 items which are still in the process of being fully

catalogued and studied. Our films and our website draw extensively on the archival materials we were able to view, and there is much more work to be done on this front, due to the size of the collection and the depth of the material to be covered.

Tasks and Responsibilities of Research Assistant:

- Strong interpersonal skills, as it is expected that work will be done as a team
- Problem solving skills in technical areas and other areas of film production
- Skills in framing, lens choice, and other areas of cinematography
- Competency in sound recording for video
- Advanced skills in editing in Adobe Premiere Pro, including basic color correction and sound/music mixing

Description of Field Site:

The main field site is the seaside town of St Andrews, Scotland. It is 30 miles from the capital city of Edinburgh, and is known for its university, natural scenery, charming shops and restaurants, and picturesque 12th and 13th century ruins (as well as its golf courses).

Housing in Scotland:

University housing at University of St. Andrews