

The ESEH-Gale Non-Residential Fellowship in Digital Environmental History

One of the most exciting opportunities the Society was able to offer to its membership in the past year was the ESEH-Gale Non-Residential Fellowship in Digital Environmental History. The fellowship has provided four early-career scholars with a bursary over six months and allowed them to freely access various Gale digitised archives. Furthermore, fellows have been provided with training and software to make the best of this opportunity. The ESEH Grant Committee was granted full freedom of choice, to guarantee the highest scientific quality to the whole endeavour. The grantees have been:

- **Vanessa Bateman** (Trent University), ‘Screening Wildlife: A History of Citizen Filmmaking and Conservation in Canada, the United States, and Caribbean, 1910–1960’,
- **Elizabeth Hameeteman** (TU Berlin), ‘Salty Business: Desalination and its Developmentalist Legacies in the (Post) Colonial World’,
- **Gilberto Mazzoli** (University of Konstanz), ‘Ecology on Wheels: Mapping Mobile Environmental Knowledge in the US, 1892–1964’, and
- **Yotam Tsal** (Tel Aviv University), ‘The Inter-Imperial al-Tahtawi Archive: Placing Egyptian, British and French Natures in Dialogue’.

At the recent ESEH conference in Uppsala, two of the fellows presented their work in a dedicated panel coordinated by Gale. Here we want to present brief summaries of the fellows’ research, presented in their own words, exemplifying the full breadth of possibilities in digital environmental history. The full reports for all projects will soon be made available on the ESEH website.

Vanessa Bateman

As a recipient of the ESEH-Gale Fellowship, I proposed to explore a focused section of my broader research project, *Birds in Focus and Frequency: A Media History of Conservation* (BIRDS). This project investigates how visual media intersected with grassroots environmentalism throughout the twentieth century, with particular attention to early ornithological photography, 16-mm film lectures, and the evolution of sound and colour technologies. BIRDS is guided by two central questions: What real-world impacts do visual representations have on the animals and environments they depict? And how might visual culture serve as a catalyst for environmental political action?

During the fellowship, I (initially) concentrated on how 16-mm wildlife film lectures functioned as a grassroots medium for conservation messaging. Prior to the widespread use of synchronised sound, these lecture-films combined silent footage with live narration, creating an immersive and persuasive form of storytelling. From 1943 to 1961, the National Audubon Society’s

Audubon Screen Tours brought these performances to hundreds of thousands of viewers annually across the US, Canada and the Caribbean – reaching an estimated 500,000 people per year by 1960.

Recognising the challenges of researching ephemeral live performances and poorly preserved early film materials, I turned to the Digital Humanities to ask: how can digital tools help us better understand the elusive nature of 16-mm film lectures? I'm especially interested in using non-traditional methods to uncover historical data embedded in these films and their makers, and to examine their 'historical afterlives' as unexpected archives of environmental knowledge. Beyond the fellowship and book project, a long-term goal is to reimagine these lectures through experimental forms of repeat-photography.

As someone new to Digital Humanities, I soon realised that my fellowship project required tools and resources beyond those available through the Gale Digital Lab, leading me to pivot mid-way through. Instead of producing a final digital project, I reflected on my experience in a post for the *Gale Review Blog*, titled 'From the Physical-to-Digital Archive and Back: A Gale Fellow's Account of Trials and Errors',¹ where I shared the value of projects that evolve – or don't go according to plan. Despite the shift, the training and resources I accessed through Gale allowed me to experiment with new ways to digitally organise and analyse my research, laying a foundation for future work in this space.

Elizabeth Hameeteman

During my ESEH-Gale Non-Residential Fellowship in Digital Environmental History, I explored how digital tools can expand archival research on the history of desalination. Until then, my work relied mostly on traditional archival practices: following paper trails, taking notes by hand, and reconstructing stories from scattered documents. The fellowship invited me to try a different approach. Using Gale's collections and the Gale Digital Scholar Lab, I examined how desalination was promoted as a postwar development strategy across colonial and postcolonial contexts. Rather than working within a single archive, I could move across newspapers, government publications, and institutional reports from multiple regions and languages. Tools such as n-gram analysis, entity recognition, and topic modelling highlighted recurring terms like 'development' and 'modernisation', while also drawing my attention to silences—moments when desalination might have been expected but was absent from the record.

The project's initial scope was intentionally broad, designed to see what themes and connections might emerge: tracing how colonial powers promoted desalination in overseas territories and how newly independent states later adopted it as part of their strategies for sovereignty and growth. At stake were questions about politics and technological choice: why governments invested

1. <https://review.gale.com/2025/05/06/a-gale-fellows-account-of-trials-and-errors/>

in desalination, what promises it carried, and how these visions circulated in the postwar world. Yet what proved most transformative was not the data itself but what surfaced between the lines.

Among the documents I encountered – though not directly tied to my original case study – was a 1959 White House memo on a desalination project in Tunisia. I knew the project, but the memo revealed U.S. involvement was deeper than I had thought. It prompted me to reflect on the political logics of desalination in newly independent states and, more significantly, led me to a broader realisation: solar desalination – a once-promising but ultimately sidelined technology – remains critically underexplored. What began broadly became a launching point for a more focused trajectory on this history. This new direction emerged from the fellowship's space for reflection, highlighting how digital methods can not only reveal new sources but also open pathways to rethink overlooked futures.

Gilberto Mazzoli

'Ecology on Wheels: Mapping Mobile Environmental Knowledge in the United States, 1892-1964' investigates how the rise of automobiles influenced ecological sciences and fostered the production of environmental knowledge. This project, part of the ERC project 'Off the Road: The Environmental Aesthetics of Early Automobility' at the University of Konstanz, explores two main and related areas: field science and roadkill.

Automobiles revolutionised field science by enabling ecologists, botanists, zoologists and geologists to access remote areas quickly, transforming field practices and knowledge production. For example, cars allowed zoologists to measure bird flight speeds and botanists to understand vegetation patterns through extensive travel. The project also examines roadkill, highlighting how the advent of motorcars led to new encounters between humans and wildlife. Natural scientists began studying vehicle-induced wildlife mortality, influencing road construction and the development of wildlife crossings and road signs.

Spanning from the introduction of cars in 1892 to the Wilderness Act of 1964, this research uses text- and data-mining tools to analyse historical sources and aims to create a series of interactive maps to visualise the impact of automobiles on the production of environmental knowledge. Roadkill has been the focus of the first outcome of the project presented at the ESEH conference: an interactive map realised with Google My Maps and a Story Map on the Esri ArcGIS platform.

The term roadkill began to be used in 1943, when it first appeared in *The Ecological Monographs*. However, natural scientists had been researching the issue since 1925, using terms such as 'automobile and animal mortality'. Based on 22 scientific papers on roadkill published between 1925 and 1943 in journals such as *Science*, *The Wilson Bulletin*, *The American Midland Naturalist*, *The Auk*, *The Journal of Wildlife Management* and *The Ecological Monographs*, the first map visualises parts of the routes along which many natural scientists

drove while counting roadkill.² The Story Map, by contrast, provides an in-depth look at the automobile trips of Dayton Stoner, the US zoologist who first identified the automobile as a danger to wildlife in a 1925 scientific paper and who continued to publish on the topic in the following years.³

Yotam Tsal

In 1826, Muhammad Ali Pasha, the Ottoman governor of Egypt, dispatched a small group of young scholars to Paris under the leadership of the imam and writer Rifa‘a al-Tahtawi. Their five-year sojourn became a formative moment of cross-cultural engagement: they attended lectures at universities, visited botanical gardens and natural history museums, translated European texts into Arabic, and immersed themselves in intellectual and social circles across France.

The mission has often been interpreted through the lenses of intellectual reform or political modernisation, but this project reconsiders it as a site of exchange centred on the natural world. This research examines how al-Tahtawi and his companions encountered European natural knowledge, critiquing, appropriating and reshaping it as they saw fit. It asks: what meanings did natural history, agriculture and animal life carry in this moment of imperial convergence, and how were these meanings refracted through colonial hierarchies and local ambitions? Framed against the backdrop of French colonial expansion in North Africa, the Egyptian mission is re-situated within the broader workings of nineteenth-century scientific imperialism, in which knowledge of plants, animals and environments played a decisive role.

The digital component of this project builds what I call the ‘Inter-Imperial al-Tahtawi Archive’, a corpus assembled from RetroNews, Gale’s British Library Newspapers, and Nineteenth-Century UK Periodicals. My dataset includes 294 articles – 163 in English and 131 in French – covering the Egyptian mission and its aftermath, alongside 8,557 English-language items from 1827 reporting the celebrated arrival of a giraffe in Paris – a diplomatic gift from Muhammad Ali to Charles X that contemporaries linked directly to the expedition.

N-gram analysis, topic modelling and sentiment mapping provided insight into how French and British newspapers narrated Egypt, its people and its natural world, and how discussions of nature and science became intertwined with representations of cultural difference. Ultimately, this project seeks to foreground the environmental and natural historical dimensions of al-Tahtawi’s journey, offering a new perspective on the entanglement of scientific exchange, imperial ambition and cross-cultural critique.

Compiled by WILKO GRAF VON HARDENBERG

2. https://www.google.com/maps/d/u/0/viewer?mid=1GeCh_JRkfCqLBKTD5BBPK4jTwvtITQ8&hl=en&ll=37.47662731130738%2C-91.16219385&z=4
3. <https://storymaps.arcgis.com/stories/93fc6adc29c34fbc95274c9c492e1b60>