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IRIS Graduate Student Summer Fieldwork Award Report

I spent June and July of 2019 conducting archival research for my dissertation on the intellectual history of coral reefs. The IRIS Fieldwork award allowed me to visit six different archives in England, France and the Netherlands, where I made tremendous progress on collecting archival data for my project. My dissertation, "The Living Sea: Marine Algae, Symbiosis, Coral Reefs and Transnational Science 1880-1930," asks how scientists came to view reefs as living, productive ecosystems. In the nineteenth century, reefs were considered mainly as geological formations that threatened shipping, but by 1930, scientists treated them as ecological communities. I identified a group of scientists whose work provided the empirical evidence for this shift, and the research I conducted this summer allowed me to visit the various archives where these scientists' personal archives were kept. Many of these scientists participated in oceanographic expeditions to coral islands, and I was also able to gather the documents pertaining to these scientific expeditions as well. These collections are two of the main sources for my project, and the archival research from this summer will supply the data for all five body chapters of my dissertation.

In London, I conducted research at the British Natural History Museum and the Royal Society archives. At the Natural History Museum, I found materials from two of the women scientists who participated in a correspondence network that is central to my dissertation: Anna Vickers, and Ethel Barton Gepp. Archival documents and personal information about women scientists in this period are notoriously hard to find (because they often were not saved) and the materials from the Natural History Museum will help me piece together the life stories and scientific contributions of these two figures. I also found important information on the Great Barrier Reef expedition (1928-1929), including the files of the leader of the expedition C.M.

Yonge. This expedition was important to coral reef research for its experimental work on endosymbiotic algae and marks the point in time when the idea of coral reefs as living communities became an accepted and popular viewpoint. These documents will inform the last chapter of my dissertation, when the concept of symbiosis returns to focus on the animal organism. In addition, I found museum plans for updated educational displays, including blueprints and memos regarding an idea to rearrange the coral gallery exhibit following the Great Barrier Reef Expedition. These provide further material evidence for the changing concept of coral reefs as communities that I chronicle in my work.

I also visited the Royal Society Archives in London. The Royal Society funded the Funafuti coral drilling expeditions in the late 1890s and the planning documents at the archives hold key information to their scientific goals. Namely, the documents I found show that these were primarily geological expeditions—signifying the non-biological focus in coral reef research at the end of the nineteenth century. Another important actor in my dissertation, Stanley Gardiner, was a Fellow of the Royal Society and some of his documents are held there. His work history connects to both the Funafuti Expedition and the Great Barrier Reef Expedition, and his correspondence connects him to a number of my other actors. The Funafuti Expedition serves as an important starting point to my dissertation, and the archival materials I located at the Royal Society archives inform both my introduction and first chapter.

In the Netherlands, I studied documents at the Gemeente Stadsarchieven (city archives) in Amsterdam and Alkmaar. In Amsterdam, I found documents related to the Dutch Siboga Expedition, Anna Weber-van Bosse and Max Carl Wilhelm Weber (the expedition leaders), and the Snellius expedition (1929-1930). These Dutch expeditions are key to my project and have not been included in the history of science literature on marine biology. The Siboga expedition (1899-1900) marks a distinct turn towards the biological in the scientific study of coral reefs, and

took place just a few years after the Funafuti Expedition. Anna Weber-van Bosse and Max Weber are central actors in my dissertation, because their work connects many of the transnational actors working on algae and coral reefs. The Snellius Expedition was contemporaneous with the Great Barrier Reef Expedition, and shows both continuity and change in the goals of oceanographic expeditions from the 1890s to the late 1920s. The Siboga Expedition archives informs my third chapter, and the Webers work is central to chapters two, three and four. The Snellius expedition, and its biologist Hilbrand Boschma, are important in chapter five.

In France I visited the Marine Biological Station Archives in Roscoff (in the Brittany region of Northwestern France) and the Botanical Library at the Museum d'Histoire Naturelle in Paris. Roscoff contains great biological diversity, particularly in terms of algae, and many marine scientists studied there. The Station was built in 1872, and the archives provided me with many insights into who studied there, and their procedures for conducting research. In addition, I conducted oral history interviews with residents of Roscoff who were familiar with two key algologists in my dissertation, Anna Vickers and Natalie Karsakoff. In Roscoff, I was able to interview the great-grand niece of Vickers, and see her family photo albums. In Paris at the Botanical Library I found the archival collections of Eduoard Bornet, an important algologist who corresponded with Weber-van Bosse, Karsakoff, and Vickers. These archives contributed to my understanding of the lives of the women algologists (the subject of chapter two and four), and their scientific ideas and practices.

This research trip was a great success; I found the materials that will inform the bulk of my dissertation. I am eternally grateful to the IRIS for funding my trip.