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Published on H-Sci-Med-Tech (November, 2023)

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Erika Jones is curator of navigation and oceanography at Royal Museums Greenwich (UK), and her current volume is a richly illustrated and meticulously researched archival study of the records of the HMS *Challenger*. The author argues that while the structure of the British Empire enabled this ambitious project to proceed as charged, existing and impromptu scientific networks were critical to the success of the voyage’s mission to collect, process, interrogate, and document the rich global oceanic resources accumulated during the years 1872–76. *The Challenger Expedition: Exploring the Ocean’s Depths* offers photographs, illustrations, and contemporary narratives that reveal to today’s readers the staff and crew’s responses to multiple and unanticipated contingencies that shaped the outcome of the project. The legacy of the *Challenger* expedition for twenty-first-century ocean research, Jones asserts, is most apparent in the 1895 publication of the two concluding volumes of the naturalists’ multipart report, in which a new editorial staff expanded the publication scope to include international and commercial deep-sea survey samples. Understanding the impact of this and other responses to change is crucial to our present-day appreciation of the scale of the four-year circumnavigation and subsequent post-voyage data analysis, which produced a global profile of the ocean environment.

Jones is not the first scholar to evaluate the HMS *Challenger* and its indelible legacy on marine science in the 150 years since its launch. Most recently, Doug Macdougall’s *Endless Novelties of Extraordinary Interest: The Voyage of H.M.S. Challenger and the Birth of Modern Oceanography* (2019) and *Full Fathom 5000: The Expedition of the HMS Challenger and the Strange Animals It Found in the Deep Sea* (2022) by Graham Bell frame the voyage as the process of discovery and exploration. Jones’s contribution is the presentation of what she terms “an ocean story with key terrestrial elements” (p. 11). Sea and land narratives intersect through the author’s exploration of six discrete objects. Deftly shifting from broad-view perspectives to detailed case studies, and back again, this object-based investigation offers
evidence of the ways in which the built environment—including Royal Navy bases, newly constructed train lines, museum laboratories, and printers’ workshops—functioned to support the activities onboard the repurposed, steam-powered exploratory vessel.

The first chapter, “The Nineteenth-Century Drive to Explore the Deep Sea,” sets the stage for the Challenger Expedition with an overview of nearly fifty years of vessel-based data collection. Ocean geographic mapping provides one unifying structure to this inventory. Jones outlines explorations to the Northwest Passage and South Magnetic Pole, and Pacific voyages in the Northern and Southern Hemispheres, designed to aid commercial and military maritime transit. Additional themes include technological advances that aided the collection of biotic and abiotic specimens and supported naval wartime communications. The author presents this chronology of ocean voyages in order to assert that despite a half-century of British, French, and American military, scientific, and commercial investigations, debates remained concerning the extent to which marine life existed in extreme environments of depth, light, and temperature.

The HMS Challenger expedition was proposed during the early 1870s in response to international interest in deep ocean regions, and the Royal Navy refitted the military vessel for scientific exploration, as Antony Adler has noted, in a manner that provided space for marine study while at sea. [1] In chapter 2, “From Warship to Research Vessel: HMS Challenger,” Jones introduces the ship itself as the first object. Compelling contemporary photographs from the archives of the National Maritime Museum, Greenwich, London, animate these spaces with images capturing life aboard the Challenger—including group portraits of the ship’s musical band with members drawn from naval and science teams paired with images of the coal stokers—and richly underscore the collaborations and cooperation required on a personal level to accomplish the project mission to acquire knowledge of the deep ocean regions and secure British scientific prestige.

The Challenger scientists and naval teams modified or repurposed objects to conduct their collection tasks more efficiently. Here, too, Jones integrates archival photographs and maps to craft a cultural history that demonstrates the relevance of “often-hidden work, technologies and people” in a manner of interest to scholars and students alike (p. 11). The newly designed Baillie Sounding Machine, constructed at drydocks and delivered to the vessel via Royal Mail steamships, provided essential sounding depth data critical to the mapping of proposed telegraph cable routes. The quotidian specimen bottle acquired new significance in light of the magnitude of dredged marine animals—five thousand containers, each requiring five gallons of alcohol preservative were sorted, labeled, and transported to Scotland for processing. Jones examines the extent to which handwritten labels on one of many surviving Challenger collection containers, with its well-preserved bivalve clam specimen, played a critical role in discussions regarding the distribution of marine life around the globe. The final three objects in Jones’s analysis offer historical context for the process of data collection and, critically, the distribution of the resulting data. Photographs taken on the vessel and at various ports-of-call document the untold and otherwise undocumented participation of individuals throughout the global voyage. The fate of post-voyage sea urchin specimens illustrates international collaboration and compromise during the arduous task of sorting and classifying marine life. The post-expedition Challenger publication history spanned two decades, and the cooperation of countless individuals produced volumes which, Jones asserts, came to “define oceanography as a new scientific field” as they endeavored to produce a profile of the ocean floor (p. 10).
Using six objects in conjunction with detailed archival documents from the National Maritime Museum, Jones offers a compelling portrait of the *Challenger* as an innovative investigation of the ocean environment. Yet the value of the book is the promise that still more stories can be told about the voyage and its role in the history of oceanography. *The Challenger Expedition: Exploring the Ocean’s Depths* attests to the merits of preserving and situating museum objects in historical context. This project would have benefited from a more straightforward acknowledgement within the body of the text of her research process and skillful integration of rich and varied source documents. Readers who mine the author's footnotes, note accession numbers, and track archival folder numbers will encounter multiple opportunities for continued study and avenues for investigation. Jones asserts, in the context of international conversations occurring at the outset of the *Challenger* report project, that “what science knew was limited by the small number of species discovered so far,” and this observation holds equally true for the extent of HMS *Challenger* archival documentation analyzed in preparation for the 150th anniversary of the voyage (p. 177). *The Challenger Expedition: Exploring the Ocean’s Depths* is a catalyst and an invitation to investigate primary source documents to understand how the field of oceanography developed at the intersection of marine and terrestrial environments, and why.

Note


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