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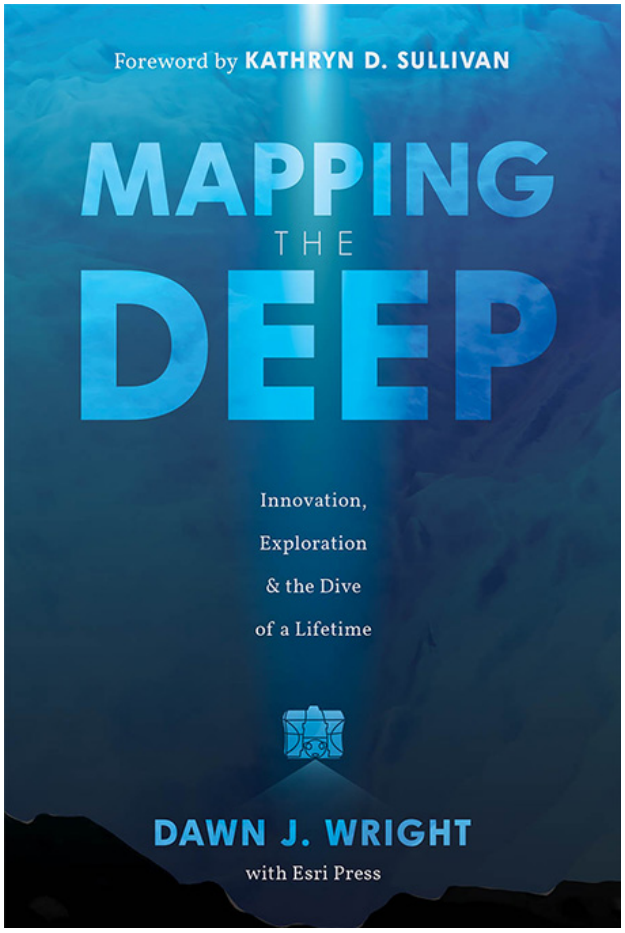
Book review: Mapping the Deep: Innovation, Exploration & the Dive of a Lifetime

reviewed by Neah Ingram-Monteiro



Wright, Dawn J. *Mapping the Deep: Innovation, Exploration & the Dive of a Lifetime.* Redlands, Calif.: Esri Press, 2024. 173 p. $26.99. ISBN: 9781589487888.

With a 2030 goal for mapping the world's seafloor, and 75 percent yet to be mapped, ocean science has a lot of momentum. *Mapping the Deep* is a highly

visual, narrative telling of the people and technologies involved in mapping the ocean floor. The storytelling brings to life the motivations that led up to the subtitular “dive of a lifetime”—the author’s July 12, 2022 dive to Challenger Deep, the deepest point on Earth. Through the book’s eight chapters, readers are taken through Wright’s educational journey from her childhood in Baltimore and Hawaii and into oceanography and GIS in the 1980s. In 1991, she became the first Black woman to dive to the ocean floor. Today, Wright is the chief scientist of Esri. Though anchored around Wright’s experience, much of the book is an engaging introduction to how and why scientists map the ocean floor, from the history of studying Challenger Deep (chapter 3) to the development of research vessels (chapter 4) and the other first five women to dive to Challenger Deep (chapter 5); to a history of catastrophic accidents (chapter 5), and the why and how of ocean mapping more broadly (chapters 6–8).

The book embodies an idea of Wright’s that who does the mapping matters alongside why and how mapping is done. It places Wright’s life’s work in the context of several threads, including among key women in marine mapping and oceanography. One of these is cartographer Marie Tharp, whose story is also told in Hali Felt’s 2012 book*, Soundings: The Story of the Remarkable Woman who Mapped the Ocean Floor*, published by Henry Holt and Company. As a woman, Tharp wasn’t allowed on research vessels until the late 60s; Wright and her contemporaries have faced some such gatekeeping, but the book is full of people who have intentionally invited in women scientists as collaborators. Within a few years of Wright’s dive to Challenger Deep, other contemporaries with business at the bottom of the ocean also made the dive. These include oceanographer-astronaut Kathryn Sullivan (who also wrote the introduction for this book); climber Vanessa O’Brien, the first woman to climb to Earth’s highest peak and dive to its deepest point; marine botanist Nicole Yamase, the first Micronesian person to make the dive. Challenger Deep is in Micronesian territorial waters, and as the first Pacific Islander to make the dive, Yamase is also connected to generations of knowledge holders with Traditional Knowledge of the ocean.

While much of the content in this book is available elsewhere — in recorded interviews, scholarly journal articles, news articles, and other books — this assembling is unique and offers a cohesive gathering of stories and visuals that are highly relevant in the current moment. Particularly appropriate for lower-level undergraduates, community college students, and high school students, this book is an appropriate addition to academic and school library collections. This title should

be included on lists of women of color in STEM, GIS, mapping, oceanography, science communication, sustainability, UN SDGs, and marine and coastal sciences. It is excellent as an introductory text and accessible for readers outside of academic contexts, as well.

Though primarily written narrative, the text is supported by over one hundred graphics, including photos of historic moments, illustrations demonstrating relative depths, and a handful of maps—Spilhaus projected maps, bathymetric lidar, and hand drawn maps of importance to Wright's story. There is also an ArcGIS Hub at mappingthedeepbook.com with additional videos, podcasts, and interactive content.

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