

Borgese, whose utopian political views half a century later turned her into a fierce protector of the oceans in the early years of the environmental movement (p. 147).

Adler concludes his account in the present day, underscoring just how many of the pressing problems in the news—the need to develop technologies for cleaning oil spills or collecting garbage from ocean trenches—have a longer history. He closes with a call to protect our shared ocean resources, even though the general public may still have difficulty imagining them. Adler asserts that the humanities have a key role to play in the oceanic turn. Historians can write accounts that demystify the ocean depths; museums can show us how tightly intertwined humans and the seas continue to be. No matter who funds the science of the sea, we all benefit from harnessing the power of imagination.

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## The global adventure of science: Einstein, Eddington and the eclipse

Ana Simões | Ana Matilde Sousa

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“The evenings at *S. Antonio* were very pleasant, sitting on the balcony with white clothes, with the sea just in front of us.” —Arthur Stanley Eddington

The observations of the deflection of starlight by the gravitational field of the sun during the now-legendary total solar eclipse of 1919 were a milestone in the history of science. The observations were pursued by two British expeditions, one to the city of Sobral in north-eastern Brazil, the other to the equatorial island of Principe just off the West African coast, then part of the Portuguese colonial empire. The expedition to Principe included the astrophysicist Arthur Stanley Eddington, a staunch supporter and advocate of Einstein's new theory of gravitation. The British expeditions' confirmation of the theory of a Jewish-German professor soon became a shining symbol of the internationalism of science, just after the end of the devastating Great War that had torn nations apart.

Many books, articles, and essays have been dedicated to this important event, in particular during the centennial year of this crucial confirmation of Einstein's general theory of relativity, but this one is special. The book by Ana Simões and Ana Matilde Sousa comprises a historical essay and a graphic novel, both dedicated to travel impressions from these famous expeditions. It is the result of the cooperation between a distinguished historian of science and an accomplished artist and author of graphic novels. The essay and the graphic novel each remain true to their genre: The essay by Ana Simões, one of the most succinct accounts of the events available, provides dense historical context and explanations at the forefront of current scholarship. The graphic novel by Ana Matilde Sousa features an

impressionistic style, with colours reflecting the exotic atmosphere of the locations visited by the expedition, and images often blurred as if generated by an optical time machine that equips us to capture visual images of the past. All texts are presented in both English and Portuguese.

Together, the two texts lead us to a new understanding of the expeditions that transformed Einstein into an emblematic scientist of the 20th century. This epochal event is not simply presented as a pinnacle of advanced European science, but rather as the result of global cooperation in extremely challenging times. We are introduced to an adventure with global dimensions that involved not only British academia, but also Portuguese and Brazilian institutions and scientists, local technicians and workers, colonial plantations, steamship services, and religious issues. The many political and cultural facets of the expeditions are brought to the fore, together with their manifestations in the local circumstances that could favour or hinder the expeditions' progress.

The two authors have examined numerous personal documents and contemporary publications, from academia as well as the local press. This thorough investigation has led to a dense narrative that draws the reader into a truly adventurous story, but one that serves as a reminder of what remains concealed in contemporary accounts. They present us with a world that is still deeply rooted in 19th-century colonialism—considering, for example, the role of “slave cocoa” in Principe's economy—but also with a world ready to renew the mission of science as a bridge-builder between different cultures and nations. This book is a true jewel, to be recommended to historians, to scientists, and to the broader public alike, and in particular to those who are fascinated, as I am, by the powerful imagery of graphic novels— particularly when they are so deeply rooted in historical knowledge as is this wonderful book.

Jürgen Renn

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