



## The Arecibo Antenna

**Helias Doundoulakis**

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*The Arecibo Antenna is a humane account of the people behind an engineering marvel.*

With memoir elements, Helias Doundoulakis's *The Arecibo Antenna* is the exciting history of the construction of the world's most powerful radio telescope.

During World War II, Doundoulakis had family members who worked as OSS spies. Later, he and his brother, George, graduated from college in the postwar era, entering the workforce as engineers. But a deal between Cornell and the defense department impeded their plans for a suspension system for the Arecibo telescope's massive dish.

Doundoulakis learned that a rival firm had been chosen to design the telescope, instead of his team, but using designs similar to theirs. Following some legal maneuvering, and with the help of William Casey, the future director of the CIA, he and three other people nonetheless completed the creation of the vital components for what became the world's largest telescope. In this book, he shares the technical information that went into that project, surrounding this scientific history with drama from his own story, too.

Despite being the history of a complex mechanical structure used to measure astrophysical phenomena, the book's language is clear and nontechnical. Its copious illustrations combine photographs of the people and places mentioned throughout with technical diagrams of the inventions described.

The book is also effective at capturing the eccentricities and personalities of the scientists, engineers, spies, and college presidents who contributed to the telescope's construction, and to Doundoulakis's tale. Its language in such arenas is often confessional—both thorough and considered, with an impulse to get the facts down right. There's some grandiosity involved here: "it is a freeing experience to speak one's mind without apology," Doundoulakis writes, "a divine birthright of every human being ... whatever happens, I have left this testimonial for posterity ... This is my parting shot."

Though most rooted in Doundoulakis's own observations and primary knowledge, the book includes references to outside works, too, as well as reproducing patents, letters, and legal documents that validate its various claims. It asserts that much of this information has never been available to the public before, and it works to afford credit to those who were responsible for the technological achievement, but whose names have been obscured. However, the book includes theological arguments early on that are an odd fit with the bulk of its work. Its attacks on atheism and agnosticism are distracting to its ultimate goals.

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MATT BENZING (June 21, 2022)

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