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## Mapping the Ocean Frontier

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**“There’s truth to the old cliché that a picture is worth a thousand words and that seeing is believing.”**

// Marie Tharp

# MAPPING THE OCEAN FRONTIER



In 1977, oceanographers Bruce Heezen and Marie Tharp dazzled the world with one of the most awe-inspiring atlases ever created: the first comprehensive map of the ocean floor. Tharp made the science of bathymetry, or measuring the ocean depths, visible by comparing sonar data collected by Heezen and others on a uniform scale. To make her findings more accessible, Tharp drew three-dimensional maps, sketching the ocean floor as if it were cleared of water. Tharp uncovered an underwater terrain filled with mountain ridges, abyssal plains, and rift valleys.

Heezen and Tharp’s most significant and controversial discovery was their observation that the Mid-Atlantic Ridge coincided with valleys and undersea earthquakes. Suggesting that the ocean floor was spreading supported heavily-debated theories of continental drift. Their maps inspired new research in the emerging field of plate tectonics.