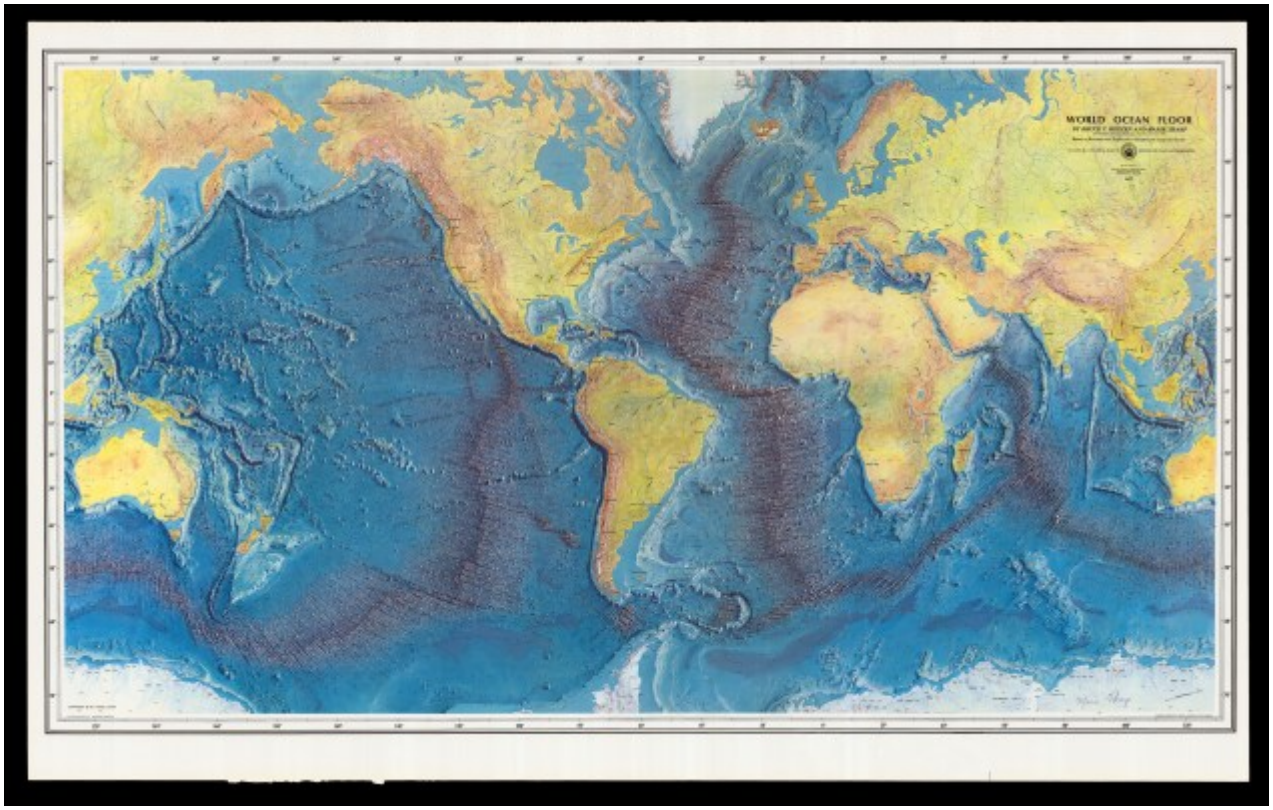

Colour printed panoramic map, signed by Marie Tharp lower right.

THE FIRST MAP TO SHOW THE ENTIRETY OF THE WORLD'S OCEAN FLOORS, SIGNED BY ITS CREATOR: MARIE THARP

World Ocean Floor ... Based on Research and Exploration Initiated and Supported by the United States Navy Office of Naval Research. Mercator Projection. Submarine Depths in Corrected Meters. Land Elevations in Meters.

Author
THARP, Marie; Bruce C. HEEZEN; and Heinrich C. BERANN

Publication date
1977 [but 1982].

Publisher
Copyright Marie Tharp. Film Work by MCP Co.,

Publication place
Milwaukee, Wisconsin,

Physical description
Colour printed panoramic map, signed by Marie Tharp lower right.

Dimensions
609 by 965mm (24 by 38 inches).

Notes
The first complete physiographic map of the world's ocean floor:" a God's eye view of the entire earth that came to be an icon of twentieth-century planetary exploration" (Doel, Levin, Marker), and

the culmination of thirty years of accumulated bathymetric data, reprinted to coincide with 'The Ocean Floor: Bruce Heezen Commemorative volume' (1982), edited by R. A. Scruiton and M. Talwani. First published shortly after the death of Bruce Heezen in 1977.

The fourth in Tharp and Heezen's physiographic diagrams of the world's ocean floors, their magnum opus is preceded by maps of the North and South Atlantic, and the Indian Oceans. Their first map was published as an accompaniment to the Bell Telephone System's 'Technical Journal' (1957), followed by a Geological Society of America edition in 1959.

First published in 1977, the original artwork for this map, painted by Heinrich Berann (1915-1999), is now in the Library of Congress. It clearly depicts for the first time, all the ridges ridges and continental plates of the whole earth, including the Mid-Atlantic Rift Valley, that Marie first observed in the 1950s. As detailed contour maps of the ocean floor were classified by the U.S. Navy, this physiographic panorama enabled Tharp and Heezen to publish their data, and to reach a wider audience who could visualize the seafloor, as a result.

The choice of Berann was made by Tharp, who recognized the similarity of the ocean terrain to that of mountainous regions on land. She greatly admired the way that these were captured by Berann, who first caught the attention of the artistic world with his prize-winning panorama map of the newly opened 'Großglockner Hochalpenstraße' mountain pass in Austria in 1934. This was followed in 1937 by his famous depiction of the 'Jungfraubahn' mountain railroad in Switzerland. Between 1956 and 1998 he created the panoramic views of the snowcapped resorts for the Winter Olympics; the Alps; the Himalayas; and the floors of the world's oceans for Heezen and Tharp.

Bruce Heezen (1924-1977) and Marie Tharp (1920-2006) met at Columbia University in 1948, where they worked for Maurice "Doc" Ewing (1906-1974), drafting and plotting ocean floor profiles. Starting with sounding data collected between 1946 and 1952 on cruises of the 'Atlantis', supplemented by data from USN 'Stewart', which in 1921 had been the first Navy ship to take a continuous sounding track across the Atlantic, and then information from a newly invented Precision Depth Recorder installed on the 'Vema', Tharp and her colleague Hester Haring, plotted topographical profiles on a mapsheet: "Eventually, after the plotting, drawing, checking, correcting, redrawing and rechecking were done, I had a hodgepodge of disjointed and disconnected profiles of sections of the North Atlantic floor… After another six weeks to arrange and piece together the profiles in proper order from west to east, I completed six more-or-less parallel, transoceanic profiles of the North Atlantic. I noticed immediately the general similarity in the shape of the ridge in each profile. But when I compared the profiles, I was struck by the fact that the only consistent match-up was a V- shaped indentation in the center of the profiles. The individual mountains didn't match up, but the cleft did, especially in the three northernmost profiles. I thought it might be a rift valley that cut into the ridge at its crest and continued all along its axis. When I showed what I found to Bruce, he groaned and said, "It cannot be. It looks too much like continental drift". At the time, believing in the theory of continental drift was almost a form of scientific heresy. Almost everyone in the United States thought continental drift was impossible. Bruce initially dismissed my interpretation of the profiles as "girl talk".

Bibliography

Provenance
Provenance:
Marie Tharp (1920-2006)

Price:

Inventory reference: 17991