



Impact Statement

Myka Wilkes, Grade 10

***The World Through Her Eyes*, 2026**

Brass, copper, nickel sculpture, 12.5 x 11.5 x 6.5 inches

Harrington High School, Bryn Mawr, PA

Unsung Hero: Marie Tharp

Marie Tharp was a cartographer and oceanographer who grew up with a love for mapping the unknown. I chose her not only because of the way she pushed boundaries during her time, but the way in which she loved her craft. She was resilient, yes, but also dedicated in a way that allowed her to change the way we viewed our world forever. Marie Tharp reminds us that the boundaries we face do not define us, the reasons we chose to overcome them do.

Tharp expunged one of the most monumental myths of her time, proving the theory of continental drift with her findings, which allowed new studies to thrive. Continental drift is the theory that the Earth's crust is broken into plates that are in constant motion. Previously, the scientific community believed that because they could not feel the Earth's crust moving, it wasn't. The largest part of these incorrect beliefs that Tharp rectified was the idea that the ocean floor was flat and lifeless. Not only was she among the first people to successfully map the ocean floor, but she did also it without ever going to sea herself. Because of sexist beliefs of the time, Tharp could not join her peers on the open ocean. However, she was still able to take the data sets she was given, lifeless dots on a page which were collected from a sonar in bits and pieces. Through her eyes the data turned into a map of the biggest living thing known to humankind, the earth itself. I used online copies of her original maps, and other biographies to get a better picture of her life's work.

The final design was not my first idea. When I started, I did not understand where I wanted to go with the project. I was stuck thinking about the boxes Tharp was stuck in, instead of what she was able to do despite them. Marie Tharp's work is incredible, she was given numbers and created art, scientifically accurate art. I was captivated by the stark difference of the data she was given and her final product. So, I used that. Half of my project is solid textured metal, shaped similarly to the Mid-Atlantic ridge, the one of the largest in the world; it connects with other ridges to break up the crust's tectonic plates. I used hinges to allow for motion like that of the plates on the ocean floor and to represent the movement and space Tharp created to allow new ideas to bud. I formed the metal half of my piece so that it is flowing with the curves of the shoulder and body to represent the accuracy and naturality that Tharp's discoveries convey. The second half of my project is a representation of the data set she was given. I used chain and jump rings to continue the lines from the ridge shape in the metal, but in a much flatter way. The jump ring's connections to the base chain are not only a representation of how the data was collected, but also to show the restraints that came with collecting numbers instead of images. The project being split into these two halves is representative of the partnership that made

Marie's work possible. I wanted to use different metals (copper, brass, nickel) to have a visual separation between the molded metal and the chain links. This separation symbolizes the main difference between Tharp and her colleagues. For many, including her peers, the numbers were just numbers, but she was able to see more than what was in front of her and morph it into what was there.

Thinking about Marie Tharp's life changed the way I viewed my own. My original interpretation was focused on her limitations rather than her strength, and I realized this was also how I was looking at myself. I was giving power and meaning to my limitations, rather than focusing on the reasons I had to overcome them. I think the same thing goes for everyone. I hope that when people look at my work, even without knowing Tharp's story, they can understand the juxtaposition between the flatness of the chains and rings, and the more freeing nature of the formed metal.