



## Impact Statement

Motiejus Butkus, Grade 8

***A Glimpse from the Ocean***, 2026

Colored pencil, watercolor, ink on paper, 16.5 x 23.5 inches

Vilniaus jėzuitų gimnazija, Vilnius, Lithuania

Unsung Hero: Marie Tharp

Marie Tharp was a geologist and cartographer whose maps changed how we see the world. The moment I saw her paintings and read her mind-blowing story on the ARTEFFECT website, I instantly knew I wanted to visualize her in my artwork. I want to change the fact that Marie Tharp is an unsung hero. This drawing is a way for me to share her story and impact on the world.

Marie Tharp was born in 1920. As a child, she often accompanied her father on his fieldwork, which sparked her interest in mapmaking. Later in her life, she earned degrees in English and music, then studied petroleum geology and mathematics. She built an impressive range of skills, which helped her cartographic career. By 1948, Tharp was looking for her next career step and began working for Maurice Ewing in the Lamont Geological Observatory. While there, she met Bruce Heezen with whom she worked for a significant part of her career. The reason for having a male colleague was that, at the time, shipmen were superstitious and didn't let women go on expeditions with them. Marie plotted the ocean floor using Bruce's data, obtained from the newly developed SONAR. After analyzing her maps, she realized that all her height maps showed the same dip. She concluded that there must be a rift running along the ocean floor. Her colleague was skeptical that a rift would indicate a coincidental drift, which was an unpopular geological theory at the time. She was told to redo her work. But even after redoing it, it still showed the same rift. Another one of her colleagues, Howard Foster, had been mapping earthquake activity in the same area, so they overlaid the posters and..... It was a perfect match! Even Bruce was convinced the rift existed, and so did the continental drift.

Marie and Bruce started publishing papers and giving talks about the discovery, but the scientific community was unconvinced. For proof, skeptical scientists turned to the newly developed underwater camera. The photos undeniably showed proof of the Mid-Atlantic Ridge and its valley. In the end, Marie's work proved the coincidental drift theory once and for all. After that, Marie continued her work with her partner to cover a vast amount of the ocean with astonishingly accurate maps.

While learning about Marie Tharp, I was amazed by everything she accomplished. Everything from the diversity of her education to the vastness of her maps and their impact. To paint the background, I referred to actual sections of the Mid-Atlantic Ridge maps, creating a sort of collage. While researching her cartographic process, I discovered that making these maps required far more than simply translating data onto

paper. Tharp had to apply advanced mathematical calculations to compensate for the gaps.

I don't really like putting my paintings into words. But I'll at least try. The painting depicts Marie herself, looking straight at us. Her clearly skilled hand is drawing the map. However, she isn't looking away; her gaze is locked on us, as if trying to figure something out. She's trying to figure us out. We, the viewers, are the ocean waiting to be uncovered. Until now, we were unknown, but now we are exposed. She's trying to map the ocean- a seemingly impossible task. But little by little, she's succeeding, covering vast waters with this map. Look in her eyes, burning with curiosity, and you'll see her determination not only to uncover more but also to share her discoveries with others, ultimately changing people's perceptions of the world. I used akvarel paper for this piece. At first, I put on a layer of yellow akvarel wash. Then, I mixed different-colored inks to resemble a map. For the map, I used white ink, thinning it in some parts to create a fading effect. To create the face, I blocked the main colors with watercolors. After it dried, I applied another layer, working it in bit by bit. Then, for the facial details, I used colored pencils, making the face even bolder.

Now, for the impact on my life...She was with me for the past few months. I consistently worked on the piece, discovering a lot about her and the world. She simply inspires me so much. Just think about it, despite all struggles in life, not being able to go on expeditions, not being appreciated by the scientific community, Marie still managed to change the world in a really incomprehensible way, in a way that other scientists rarely achieve. I can see a lot of myself in her. It really aches my heart that she is unheard of, so this competition is a door for her recognition. So, please, give her the recognition she deserves.