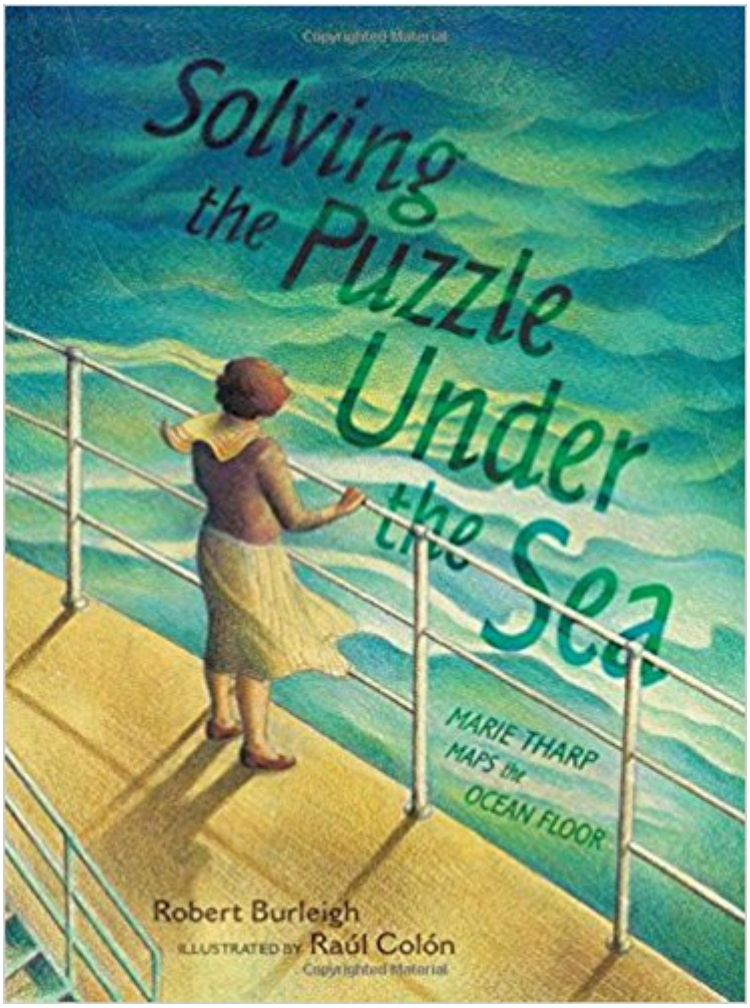
Solving The Puzzle Under The Sea: Marie Tharp Maps The Ocean Floor



Synopsis

Filled with gorgeous illustrations by acclaimed artist RaÃºl ColÃ n, this illustrated biography shares the story of female scientist, Marie Tharp, a pioneering woman scientist and the first person to ever successfully map the ocean floor.Marie Tharp was always fascinated by the ocean. Taught to think big by her father who was a mapmaker, Marie wanted to do something no one had ever done before: map the bottom of the Atlantic Ocean. Was it even possible? Not sure if she would succeed, Marie decided to give it a try. Throughout history, others had tried and failed to measure the depths of the oceans. Sailors lowered weighted ropes to take measurements. Even today, scientists are trying to measure the depth by using echo sounder machines to track how long it would take a sound wave sent from a ship to the sea floor to come back. But for Marie, it was like piecing together an immense jigsaw puzzle. Despite past failures and challengesâ ”sometimes Marie would be turned away from a ship because having a woman on board was â œbad luckâ •â ”Marie was determined to succeed. And she did, becoming the first person to chart the ocean floor, helping us better understand the planet we call home. Award-winning author Robert Burleigh tells her story of imagination and perseverance. Beautifully illustrated by RaÃºl ColÃ n, Look Up! is a book that will inspire readers to follow their dreams.

Book Information

Lexile Measure: 0750 (What’s this?)

Hardcover: 40 pages

Publisher: Simon & Schuster/Paula Wiseman Books (January 5, 2016)

Language: English

ISBN-10: 1481416006

ISBN-13: 978-1481416009

Product Dimensions: 8.5 x 0.5 x 11.5 inches

Shipping Weight: 1.6 pounds (View shipping rates and policies)

Average Customer Review: 4.5 out of 5 stars 10 customer reviews

Best Sellers Rank: #74,855 in Books (See Top 100 in Books) #33 inÂ Books > Children’s Books > Education & Reference > Science Studies > Nature > Oceans & Seas #37 inÂ Books > Children’s Books > Education & Reference > Science Studies > Nature > Water #90 inÂ Books > Children’s Books > Biographies > Science & Technology

Age Range: 4 - 8 years

Grade Level: Preschool - 3

Customer Reviews

Gr 2â “4â ”In this excellent biography of scientist Marie Tharp, Burleigh, writing in the first person, allows this adept geologist and oceanographic cartographer to tell her own story. Map lover Tharp became one of the 20th century’s most important scientists, despite working in a field that greatly favored men. With fellow geologist Bruce Heezen, she mapped the world’s oceans. ColÃ n’s signature softly hued, textured watercolors greatly enhance the text. One image depicts a research ship in the water upon which scientists took measurements called soundings to chart the ocean’s depth. The writing is accessible and immediate, and though Burleigh acknowledges that Tharp was a woman working in a man’s field, he casts her story in a happy light. A biographical page is appended, as well as thorough back matter. VERDICT A finely told, beautifully illustrated biography that saves a world class scientist from obscurity.â ”Anne Chapman Callaghan, Racine Public Library, WI

Working in a time when womenwere still unwelcome in her field, Marie Tharp maps the ocean floor andprovides convincing evidence for the previously rejected hypothesis ofcontinental drift. Burleigh’s choice to write in Tharp’s voice makes thedetermined geologist’s story feel immediate, focusing tightly on her map thatrevealed the spreading Atlantic sea floor. He notes obstacles she overcame: aperipatetic childhood; gender discrimination; the superstition, still prevalentin 1948, that women were unlucky on ships; and disagreements about the drifttheory even with her friend and colleague Bruce Heezen. There’s a shortdescription of Tharp’s mapmaking process and a triumphant conclusion when thefinal, color version is published. But it’s ColÃ n’s watercolor-and-pencilillustrations that bring her story alive. Readers see the map-loving child,ships taking the soundings that provided her data, the cartographer with pencilin hand, both graphing and drawing, and, in a wordless double-page spread, theexciting revelation of the rift in the middle of the Mid-Atlantic Ridge. Thedistinctive combed swirls of ColÃ n’s art masterfully suggest light on aseascape, and people are realistically depicted. Backmatter includes more ofTharp’s story, useful vocabulary, bibliography and Internet links, and even"things to wonder about and do." An ideal introduction to a lesser-knownscientist and an important understanding about how the Earth works.(Informational picture book. 5-9) (Kirkus Reviews *STARRED* October 1, 2015)Though her discoveries were pivotal to the theory of plate tectonics, geologist and cartographer Marie Tharp is still relatively unknown. In this picture-book biography, Burleigh presents Tharpâ ™s story in her own enthusiastic, imagined voice. â œMaps. I love them!â • she exclaims before describing her life and accomplishments. In a conversational tone, she discusses her curiosity, her struggles to be

accepted in the boysâ ™-club atmosphere of 1950s research labs, her dogged determination to work in science, her belief in her sea-floor-mapping project, and her satisfaction at seeing her beautiful map gracing the walls of schools and museums. Along the way, she explains depth soundings, cartographic concepts, and plate tectonics. ColÃ nâ ™s soft colored-pencil illustrations are a wonderful match for ocean scenes and frequent maps, and a few helpful diagrams further illustrate concepts... very worthwhile. Further reading and some provocative critical-thinking questions close out the volume. â " Sarah Hunter (Booklist December 1, 2015)Gr 2-4â “In this excellent biography of scientist MarieTharp, Burleigh, writing in the first person, allows this adept geologist andoceanographic cartographer to tell her own story. Map lover Tharp became one ofthe 20th-centuryâ ™s most important scientists, despite working in a field thatgreatly favored men. With fellow geologist Bruce Heezen, she mapped the worldâ ™soceans. ColÃ nâ ™s signature softly hued, textured watercolors greatly enhance thetext. One image depicts a research ship in the water upon which scientists tookmeasurements called soundings to chart the oceanâ ™s depth. The writing isaccessible and immediate, and though Burleigh acknowledges that Tharp was awoman working in a manâ ™s field, he casts her story in a happy, upbeat light. Abiographical page is appended, as well as thorough back matter. VERDICTA finely told, beautifully illustrated biography that saves a world classscientist from obscurity. (School Library Journal *STARRED REVIEW* December 2015)The duo behind Look Up!: Henrietta Leavitt, Pioneering Woman Astronomer spotlights another groundbreaking woman scientist: Marie Tharp, the oceanographic cartographer whose mapping of the Atlantic seafloor yielded key evidence confirming the theory of continental drift. Tharp holds the narrative reins here, and her voice, as imagined by Burleigh, generally rings true. As an adolescent, she describes her passion for maps and imagines one speaking to her: â œHave an adventure. Explore. Discover something newâ •â ”a bold challenge for a young woman in the 1930s. Burleigh also touches on the discrimination Tharp faced. Applying for a position as a scientist, she is informed: â œWe donâ ™t need any more file clerks.â • A sexist boss wonâ ™t let her join ocean expeditions: â œHaving a woman on a ship is bad luck.â • (No sources are provided for these quotes.) Burleighâ ™s writing is clear, conversational, and lyrical on occasion. He handles the science content well; itâ ™s never too dry or overly technical. He also portrays scientists realistically, actively engaged in and arguing about their work. ColÃ nâ ™s illustrations, a textured wash of sea- and earth tones, are thoughtful and attractive and accurately reflect the time period. A final, memorable spread shows a contemporary girl looking over her shoulder at Tharp; itâ ™s a subtle nod to Tharpâ ™s importance as a role model, as well as to the importance of other women scientists, past, present, and future. Back matter includes further biographical details, a glossary of

science vocabulary, a bibliography, websites (one with a slight error), and related activities. (The Horn Book Magazine January/February 2016)Burleighand ColÃ n follow 2013â ™s Look Up! with the story of another female scientist,Marie Tharp. Raised by a mapmaker, Tharp developed an early interest inexploring uncharted land; her passion eventually led her to the oceans.Burleigh gives readers an up-close view of Tharpâ ™s experiences and hunchesthrough a first-person perspective: â œCould the seafloor really be mapped? Ithought soâ ”and I wanted to give it a try!â • Despite discrimination she faced asa woman, Tharp became an accomplished scientist, mapping the Atlantic usingsoundings and helping advance the theory of plate tectonics. ColÃ nâ ™s warmwatercolor-and-pencil art brings warmth and energy to the pages through histhatched and wavelike textures, while an afterword provides further detailabout Tharpâ ™s undertaking. Ages 4â “8. (Publishers Weekly December 14, 2015)

This book is exceptional in many ways.It tells the story of one of the twentieth century's great scientists, Marie Tharp. More particularly, it gives us a glimpse of her most significant scientific contribution, the mapping of the world's oceans.One might think that I'm obviously not going to give the book a bad review because Marie Tharp shares my surname, but (1) Marie Tharp didn't actually write the book, and (2) I'd be more likely to thrash a mediocre book involving my surname than play nice.The content was fascinating, especially because I'd never heard of Marie Tharp until now. Burleigh does a good job of laying out the story, providing some history of Tharp's childhood and then a chronology of her education and research, culminating in her discovery of a way to map the ocean floors. I especially like the way that Burleigh opened the story writing as Tharp in present tense and then continued in her voice to tell the story in past tense for the remainder. RaÃºl ColÃ n's illustrations have a mid-twentieth-century feel to them that enhances the story and pulls readers in.Now for the not so great. I found the writing a bit troubling at times. The word choices and syntax seem appropriate for the stated age range (4Ã¢Â Â“8), but some style choices made the prose stilted and unnecessarily wordy, as well as conveying secondary meanings that may not have been intended. It's in such places that Burleigh's decision to write the story from Tharp's point of view starts to unravel and risk contradicting one of the story's main themes.For instance, in one scene Tharp seems offended that a potential employer believes she is applying for a file clerk job and only capable of performing such a job. But is that the messageÃ¢Â Â”that being a file clerk is a crappy job? Or should it be (in the spirit of nonbinary multioccupationalism) that she was denied equal opportunity for the job she really wanted because of sexist attitudes? I'm not suggesting how it would be rewritten, but I believe the way it was done is sloppy.Early on, Tharp graduates from

college and tells us that she is now a young scientist. Then later, after she begins to make her great discovery, she notes, "I am scientist at last." No, you already were based on the earlier statement. Unless you've decided that the "bigness" of a discovery determines the "scientific-ness" of it (it doesn'tÃ¢Â Â"statistical validity after rigorous attempts to prove one's own hypotheses wrong determine scientific worthÃ¢Â Â"a lost opportunity to share something about scientific validity with readers).And I'm not sure that calling her colleague her friend, which in some ways minimizes the importance of her position, is a great approach unless countered by a notation that white men often were credited with achievements made by women and people of color during this time in our nation's history. Her "colleague" could just as easily have been her beard (in a nonsexual way, of courseÃ¢Â Â"I know the analogy is reversed and out of context, but it seemed fitting). There's nothing wrong with any of this from a purely technical standpoint, but when reading the book I occasionally had "hmmm . . ." moments that set off my continuity radar.The extra biographical information, glossary, and activities at the end of the book were especially strong points. A child could spend hours researching and learning more about Marie Tharp, oceans, cartography, and science generally. And although I generally believe that writers don't need to go out of their way to create female characters for female readers (considering that most authors are females and most readers are females, that sort of happens naturally, whereas boys are the ones who never become readers at all), this is a case where it's absolutely welcomeÃ¢Â Â"in science.All in all, a strong if somewhat spotty book with excellent rereadability. Burleigh is at his best when speaking directly to the reader about interesting facts and activitiesÃ¢Â Â"not so much when it comes to some of the subtleties of secondary and tertiary layering.

Bought it for grandchildren, the oldest is crazy about maps (age7) His sister at 5 needs to learn that women can do anything. And their mother, who was a meteorologist, was the one that told her parents about plate tectonics when she was in grade school. Dad, another meteorologist, fishes with a fish finding camera. Basically it was neat for anyone on the list. Did make me wonder if she ever married? Super book!

There are too few books for girls on accomplished female scientists. Most people have no idea who Marie Tharp was and what she achieved. This book explains it well and the art is wonderful. Highly recommended.

The book was very informative.

Lovely book, which I have placed in my Little Free Library, where I try to include books about strong women in science.

Great book came on time

Good book

Summary: Marie Tharp fell in love with maps when she and her family moved from place to place for her fatherÃ¢Â Â™s job. After attending 17 different schools, she studied geography in college, then got a job at Lamont Geological Laboratory at Columbia University. Looking for a groundbreaking idea to work on, she teamed up with her colleague Bruce Heezen to map the ocean floor. For 20 years, from 1957 to 1977, Heezen collected data on many ocean trips, and Tharp turned the data into maps of the floors of the oceans. Along the way, she discovered a deep rift in the Atlantic Ocean which helped support the theory of continental drift. Her maps have been used in schools and museums around the world. End matter includes more information about Marie Tharp, a glossary and bibliography, and a page entitled, Ã¢Â ÂœThings to Wonder About and DoÃ¢Â Â•. 40 pages; grades K-4.Pros: The first person narration imbues the story with MarieÃ¢Â Â™s own energy and enthusiasm. ColonÃ¢Â Â™s illustrations beautifully capture the light and colors of the seas and the intricacies of TharpÃ¢Â Â™s maps.Cons: The continents are moving an inch or two every year?!

Atlas Large Scale Edition) Coral Reef Fishes: Caribbean, Indian Ocean and Pacific Ocean Including the Red Sea (Princeton Pocket Guides) African Ocean Blues: Tales of landscapes and winds, of islands and people. On a sailing boat, from the Red Sea to the Indian Ocean. International Travel Maps China, Scale 1:3,800,000: Changchun, Beijing, Xian, Wuhan, Shanghai, Hong Kong, Taipei, Yellow Sea, East China Sea, South China Sea, Seoul, Delhi, Calcutta, Hanoi: Itmb China 2008 Lost Liners: From the Titanic to the Andrea Doria The Ocean Floor Reveals Its Greatest Ships The Magic School Bus on the Ocean Floor Disney Moana Ocean Explorers (Floor Coloring Pad) Soundings: The Story of the Remarkable Woman Who Mapped the Ocean Floor Under the Sea: An Adult Coloring Book Adventure with Mysterious Ocean Life, Lost Fantasy Realms, and Enchanting Underwater Seascapes Life Under The Sea: Ocean Kids Coloring Book (Super Fun Coloring Books For Kids) (Volume 28) Ocean Coloring Book For Adults ~ 36 Whimsical Designs for Calm Relaxation: Nautical Coloring Book/Under the Sea Coloring Book Coloring Books For Teens: Ocean Designs: Zendoodle Sharks, Sea Horses, Fish, Sea Turtles, Crabs, Octopus, Jellyfish, Shells & Swirls; Detailed Designs ... For Older Kids & Teens; Anti-Stress Patterns