

international community of readers.

The work is an adventure in the variety of languages used by seafarers and boatbuilders. The text is at the high level needed to express complex technologies and abstruse ideas. For example, before the use of plans, it was necessary for the expert boatbuilder to develop a perfect mental picture of the construction prior to beginning. The glossary is taken from another publication of the Texas A&M University Press's nautical archaeology series, *Wooden Ship Building and the Interpretation of Ship Wrecks* by Richard Steffy (2017). Inclusion of archaic Norsk, French, and Latin nautical terms would have been useful since most captions are not in English.

This work is a tour de force in every respect, an obvious labour of love on the part of a lot of talented and resourceful people. In the case of the authors, it is the result of a 50-year collaboration and was executed by a team of people, including the translation and publication in a wonderful format by the Ed Rachal Foundation and Texas A&M University Press, which added resources and passion to the final product. Acknowledgements outline the credentials of members of the publication team. Guilia Boetto, who is credited with "constant collaboration in completing the file of illustrations relating to ancient Mediterranean nautical archaeology," is Director of Research at Centre national de la recherche scientifique (CNRS) at the Centre Camille Julien Aix Marseille University. It also thanks the contributors to the project, including the government of France, which helps account for this opulent yet affordable production. Anyone interested in history should read this work. Scholars in history, economics, archaeology, naval architecture will want this outstanding book in their library.

Ian Dew

Thunder Bay, Ontario

Queeney, Tim. *Rope: How a Bundle of Twisted Fibers Became the Backbone of Civilization*

St. Martin's Press (Macmillan Publishers), 2025

332 pp., notes, bibliography, index

ISBN 9781250346452 (hardcover) US\$27.00; 9781250346469 (e-book)

US\$13.99

In the maritime context sailors have given rope, or lines as they are nautically known, special names reflecting their various functions. Sails are raised and lowered by halyards, sheets operate the sails, and sometimes wild spinnakers

are controlled by guys. These lines can be knotted for specific uses or in some cases joined together. Tim Queeney, an avid sailor who teaches celestial and radar navigation, is a pilot especially on Maine's coastal waters around his home. In addition, this relatively young "salt" has sailed tall ships of many sizes on various waters, meaning he thoroughly "knows the ropes."

The book begins with essays focused on how ropes are made, taking the reader on a literary ropewalk. Rope is made of a group of yarns, plies, fibers, or strands that are twisted in either "S" (counterclockwise) or "Z" (clockwise) rotations, configurations that add tensile strength. Common natural fibers typically found in rope are manila, hemp, linen, cotton, jute, and sisal. Each of these filaments imparts positive and negative physical properties to the finished product. The author goes on to discuss how rope was an indispensable tool that contributed to the rise of civilization. It was used to domesticate animals for work such as carrying burdens or plowing fields to raise crops and these products were collected and/or stored in twine-woven carriers.

The author then takes the reader back in history, pointing out that papyrus ropes were used to hold the planks of vessels together rather than nails. These Nile and Red Sea ships were ultimately used to move the great stones that built the pyramids. Queeney speculates about how the ancient Egyptians may have accomplished these feats of construction, cleverly employing ropes to assist them. Next, we are taken on a wild Pacific Ocean voyage where catamarans and outriggers held together and controlled by coconut fiber ropes enabled the various Asian peoples and later the Polynesians to populate islands and spread their different oceanic cultures. As the western world emerged from the Middle Ages and into the Renaissance, lashed-wood scaffolding and cranes operated by treadwheels were deployed to lift large blocks to great heights. These ropes enabled craftsmen to build the walls and ceilings of the great gothic cathedrals. Moving to the other side of the world, the author reminds the reader that the Incas of South America used rope in a special way, knotting cords in what was called *kipu*, a unique physical language of knots. This was their method of transmitting information, and the author speculates that this may have been the beginning of a primitive communications network.

Queeney then takes his readers back to sea with the development of sophisticated sailing vessels, both on wooden and steel Cape Horners, each requiring miles of rope rigging on tall masts and attached to swinging yards to allow the ships to function on long ocean voyages. This is followed by a discussion of the huge vessels used to lay trans-oceanic cables of steel wire which made it possible to transmit telegraph messages between North America and Europe. Just prior to World War II, new synthetic materials were discovered

and supplemented the standard natural fibers of rope. These were still plaited but had novel physical properties that allowed for a variety of products that were stronger, lighter, shock-resistant, and more impervious to rot; some could be used for parachute cords and glider towlines.

The narrative then changes to cover a fascinating array of eclectic topics. Queeney discusses net construction and rope used for punishment, such as in restraints, various kinds of whips, slip knots, and finally executions via the hangman's noose. The author talks about cable cars whose grips clutched continuously moving underground ropes, hemp houses and hoists for scenery in theaters, lariat roping in the cattle industry, spelunking and underground rigging in vast caves, Double Dutch jump roping, and even daring tight and loose ropewalking. Finally, he goes "high tech" by discussing how esoteric neutrino research in the frozen Antarctic uses rope technology. He then explains how the invention of synthetic-fiber wire rope and other complex rope materials were used to support the parachute for the Curiosity rover's landing on Mars. Finally, he looks to the future and the quest to find tether cables of graphene rope-like materials that could be used to support elevators into space.

As Queeney philosophizes, "Rope's Helix of twisted strands seems to have been incorporated into the DNA of human knowledge... In some respects, rope's very ubiquity made it disappear into the background. It was everywhere in society but taken as such a basic element that when pyramids are the topic, stones are the focus. Or when the discussion touches on the history of ships sailing the world, spices and empires capture the debate... The many fibers that come together and [metaphorically] act as one to do good or to impart ill mimic how people do the same. People acting together must choose how they'll impact the world around them" (286-287).

Since *The Northern Mariner* is focused on maritime history, *Rope* spotlights that theme but obviously transcends it. This is an absorbing read and unusually compelling. As one proceeds through the various chapters, one finds unexpectedly fascinating anecdotes related to rope and rope making. For example, an altercation between some eighteenth-century Boston ropewalk workers and a British soldier circuitously led to the Boston Massacre, an event that helped spark the Revolutionary War. In summary, Tim Queeney's *Rope* is instructive and perhaps a unique literary voyage enabling the reader to view the maritime and wider world from a different perspective. This well-written work is highly recommended to *TNM* readers as intellectually enlightening as well as entertaining.

Louis Arthur Norton
West Simsbury, Connecticut