

A STUDY OF THE BIBLE'S NAUTICAL TERMINOLOGY
IN LIGHT OF RECENT ARCHAEOLOGICAL FINDINGS
WITH PASTORAL APPLICATIONS

BY
PHILIP M. HUNTER

A THESIS SUBMITTED TO THE FACULTY IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF DIVINITY

PROF. JOHN BRUG, ADVISOR
WISCONSIN LUTHERAN SEMINARY

MEQUON, WISCONSIN

11 MARCH 2014

Abstract

An understanding of the nautical terms in the Bible will help pastors teach biblical narratives and imagery. Just as sailors gain a new appreciation for God's gifts on the sea each time they cast off the dock lines, so through this thesis students of Scripture will gain a more precise and contextual appreciation for God's words about the sea and sailing, which will equip them to communicate biblical maritime passages more accurately and vividly.

This thesis approaches the topic from three different angles, so readers will gain a range of insight for improving their understanding of biblical sailing. The first part of the paper is a summary of recent discoveries in nautical archaeology. This fledgling science has exponentially expanded the topic's knowledge base in the past twenty-five years. Pastoral study resources published before these discoveries lack the crisp detail with which we now see the ships of Scripture. Secondly, this thesis provides an exhaustive index of Greek and Hebrew nautical terminology in Scripture, allowing readers to study and compare linguistic nuances. Finally, a thought-provoking appendix contains reflections submitted by lay and ordained WELS sailors.

Contents

Introduction	1
Literature Review	2
Aids to Navigation	5
I. Archaeological “Point of Sail”	5
How big were the boats in the Bible?	7
How fast did they sail?	15
Where did they sail?	18
How dangerous was sailing in Scripture?	21
What kind of fish did they catch?	25
What other details might I notice while sailing on a biblical boat?	28
II. Lexicographic “Point of Sail”	34
Summary of Hebrew Nautical Terminology in the Old Testament	34
Hebrew Nautical Terminology in the Old Testament—References and Notes	36
Summary of Greek Nautical Terminology in the New Testament	49
Greek Nautical Terminology in the New Testament—References and Notes	52
Conclusion	67
Bibliography	69
Appendix. Experiential “Point of Sail”	72
Devotional Thoughts—Old Testament Accounts	72
Devotional Thoughts—New Testament Accounts	74
Sailing Wisdom and General Devotional Thoughts	77
<i>Sailing the Scriptures</i> Bible Study	81

Introduction

“The ability to steer well—called helmsmanship—is a quality that cannot be learned from a book or in a classroom. However, understanding the basic principles of boat handling will make it easier for you to perform in a variety of situations. It is important to realize that boats are nearly as individualistic as people...[Therefore,] the secret of good helmsmanship is to know your boat.”¹ These words from a leading reference work on boating safety speak to the necessity of familiarity for safe handling of a boat. This thesis sets out to apply the same principle to the Lutheran pastor’s understanding of the seagoing vessels in the Bible. He is better suited to communicate scriptural sailing accounts if he has done some study in the area. As the inspired writer puts it, “If anyone speaks, he should do so as one who speaks the very words of God.”²

A correlation exists with other unfamiliar disciplines in the Bible. Consider the many lines of work which are uncommon or nonexistent in twenty-first century America. When was the last time you interacted with a shepherd, centurion, slave, Pharisee, prophet, high priest, king, gleaner, kinsmen-redeemer, or tax collector? How much experience do you have with building an altar, digging a well, yoking oxen, stoning a lawbreaker, being chained in prison, or attending a wedding feast like those in Cana or in the parable of the virgins and their oil? These customs are uncommon, if not extinct, and that fact presents the Bible-believing pastor with challenges: How do I interpret such a passages in a way that is faithful to both broad and narrow contexts? How do I faithfully communicate to my modern hearers the words’ originally intended meaning?

To date no single work for the pastor’s study exists which compiles in one place the most significant findings of nautical archaeology, lexicographic studies on nautical terminology, and devotional ideas. To fill this gap on the shelf, this paper will explore scriptural sailing from three angles of study—three “points of sail”: archaeology, terminology, and experience.³

The first point of sail heads at an angle into the freshening new breeze of underwater archaeology. Especially intriguing for students of the Bible, “experts estimate that shipwrecks

¹ Elbert S. Maloney, *Chapman Piloting, Seamanship, and Small Boat Handling, 65th ed.*, (New York: Hearst, 2006), 175.

² 1 Peter 4:11 (NIV ©1984)

³ The term ‘points of sail’ refers to a boat’s direction in relation to the wind. Novice sailors learn early on to picture a clock (or circle) around a boat, with the wind at various times striking the boat from the different hours (or angles). Points of sail are named, such as “beating” (heading into the wind), “reaching” (wind perpendicular to the boat), and “running” (wind coming from behind the boat).

lie submerged about every 300 feet along Israel's coast."⁴ These wrecks, however, were nearly impossible to explore until the second half of the 20th century. This now-possible field of study excites archaeologists, historians, and museum curators:

It was only in 1960 that the first underwater excavation led by an archaeologist-diver occurred... Since this pioneering excavation, underwater archaeology has developed alongside land archaeology as an independent scientific discipline... Traditional patterns of stormy winters and placid summers in the Mediterranean, new ecological conditions, recently developed archaeological tools like the airlift for digging underwater sand, and diving equipment that allows longer, deeper dives, have all combined to produce the fruitful new discipline of underwater archaeology.⁵

The second point of sail, a collection and study of biblical sailing terminology, blows from astern and steadily pushes along our understanding of biblical boats. Many terms are quite common and clear and simply help us build a marine vocabulary. For help with the more obscure terms, we look for help to context, secular occurrences, inscriptions, iconographic discoveries, and archaeology.

The third point of sail makes use of wind blowing over the side, as present-day Christian sailors impart to us their experiences on the water to help us relate with similar experiences in the biblical record.⁶ You can read these in the first appendix to this thesis. The second appendix contains a Bible study on this topic.

As you take up this thesis focusing on one small slice of biblical culture and seek to communicate biblical maritime passages more accurately and vividly, I pray God blesses your ministry. I pray you communicate both the deep saving truths and the specific historical details of God's Word faithfully and contextually. I pray the Holy Spirit works in your heart and the hearts of your hearers a continuous sense of awe at the Lord's interaction with people and a sense of appreciation for preserving among us to this day the holy record of God's revelation.

Literature Review

Books have had a hard time keeping pace with discoveries in the world of biblical boats. The selection of books in English on the topic was severely limited for most of the twentieth

⁴ Osnat Misch-Brandl, "Ancient Seafarers Bequeath Unintended Legacy," *Biblical Archaeology Review*, 11 (Nov/Dec 1985), 40.

⁵ *Ibid.*, 41.

⁶ If reading about these experiences piques your interest in spending time on the water propelled only by God-given wind, send me a note. I'll take you out and show you the ropes. My email address is philhunter15@gmail.com

century. For example in the BDAG entry for ὑποζώννυμι (which is an obscure word meaning “supports or undergirdings” to be passed under a boat to keep it together in a storm), the lexicon lists ten sources, six of which have never been translated from German, five of which were written before the sinking of the *Titanic*, and nine of which were written before World War II. (BDB is even more dated.) The only recent source cited in the above BDAG entry, however, was worth its weight in books. *Ships and Seamanship in the Ancient World*, published in 1973, was the first of Lionel Casson’s two excellent handbooks on ancient nautical history. His 1994 work, *Ships and Seafaring in the Ancient World*, is less technical, although either one would receive my vote for the one book on the subject all pastors should own.

F.F. Bruce (author of the NICNT Acts commentary) is the commentator with the sharpest insights into the seafaring world of the New Testament. Most commentators hesitate to use the words ‘nautical term’ unless it is obvious, but Bruce notes quite frequent use of sailing jargon.

Galilean fisherman Mendel Nunn (1918-2010), author of *The Sea of Galilee and Its Fishermen in the New Testament*, was one of the foremost scholars and authors regarding fishing and travel on the Sea of Galilee. Although he found the Gospel accounts of fishing and sailing on Galilee to be thought-provoking and insightful, he nevertheless repeatedly placed his experience above the testimony of Scripture by constantly emending the biblical accounts of miracles to fit his own observations. His books provide much valuable information regarding the Sea of Galilee, but his low view of Scripture and his challenges to its accuracy are disappointing. Pastors should be prepared to give an answer to his challenges, which will be detailed in this thesis. However, no other authors can match his first-hand experience on the lake. The only downside is that I had to order his books from Israel. The dollar is strong, though, so buy now if you are interested in fishing or refuting his skepticism.

The best books on the market in the category of nautical archaeology are written by Shelley Wachsmann. He is a professor at Texas A&M University and coordinates the Nautical Archaeology program at that school. His book with the greatest impact on biblical scholarship is his memoir of the recovery and restoration of the Sea of Galilee Boat (or ‘Jesus Boat’), *The Sea of Galilee Boat: An Extraordinary 2000 Year Old Discovery*. He refrains from stating his faith, but he handles the Bible respectfully and conservatively. Its downside is that the book ends before the restoration is fully completed (which it has been by now). A sequel with additional information would tie up loose ends.

For the lexicography section of this thesis, both electronic and hardcover resources were used. To compile your own list of nautical terms in Hebrew and Greek, I recommend taking notes in *The Theological Wordbook of the Old Testament* and *The Theological Dictionary of the New Testament*, noting in them your additional findings from other credible lexicons, particularly *Greek-English Lexicon of the New Testament: Based on Semantic Domains* by Louw and Nida and *Dictionary of Biblical Literature with Semantic Domains*, both Hebrew and Greek.

The journals to scan for water-related discoveries in connection with the biblical record are *Archaeological Odyssey* and *Biblical Archaeology Review*. The top periodicals which report from the field are *Nautical Archaeology*, published in the UK, and the *Institute of Nautical Archaeology Quarterly*, which is published by Texas A&M University Press. *The International Journal of Nautical Archaeology* and the *INA Annual* and are the respective professional publications of these groups. Read these journals with caution, since some archaeologists begin digging with the intention of disproving the biblical account regardless of what they find.

Finally, a quality Bible encyclopedia or dictionary is invaluable for those interested in learning more about particular ports of Israel, various bodies of water, recent archaeological findings, and references to more scholarly works on each topic. One I used extensively was *Jesus and His World: An Archaeological and Cultural Dictionary*⁷ by John Rousseau and Rami Arav. The book presented thorough, recent, and well-cited research in all the sections I was hoping and included great maps and pictures, but its applications for each encyclopedic entry are labeled ‘Implications for Jesus Research’ and approach every aspect of Jesus’ life skeptically. The book’s acknowledgements include the Fellows of the Jesus Seminar and the participants of the Historical Jesus Section of the Society of Biblical Literature. These two groups of fading prominence led the most recent charge against the historical accuracy of the New Testament. Seek out encyclopedic reference materials that present accurate, up-to-date information while also treating the Bible as God’s inerrant Word.

⁷ Consider this passage, following the article on the Sea of Galilee on page 248. “In looking at the world of Jesus form [sic] textual and archaeological data, it appears that he was a fisherman or artisan who became an itinerant healer, exorcist and preacher...Yet the information given in Matthew 13:55 and Mark 6:3 about Joseph and Jesus being artisans or construction workers can not [sic] be lightly discarded...Before he began his ministry, he may have gone fishing with his friends Peter, Andrew, James, and John, for it is unthinkable that he appeared suddenly with no prior contact in their lives and asked them immediately to leave their families and work...The question of who Jesus was demands more extensive research, involving all areas of social science and focusing on the years 10 to 30 C.E.”

Aids to Navigation⁸

The study of sailing in Scripture is based on certain presuppositions. The following paragraphs lay out Christian principles for approaching this topic of this thesis.

First, Holy Scripture is accurate and inerrant. Both the words on the page and the message they communicate are historically true. This presupposition, called a high view of Scripture, is certainly not universally accepted in the world of biblical research and archaeology.

Second, the purpose of studying marine navigation during this era is neither to save souls nor to vindicate the biblical account. Our interest stems from the fact that much of the Bible happened on or along bodies of water. Rivers and seas appear in the first and last chapters of the Bible. The Word-made-flesh chose to dwell among men in a sailing culture, so let's study it.

A third presupposition of this thesis is that the pastor is a storyteller, and as such he should relate biblical accounts to his hearers both vividly and faithfully. The following observations are corollaries of this statement: First, a vague knowledge of the context and details of an account leads to vague storytelling. Second, although complete understanding of the situation may not be possible, a better understanding of an account's historical context, terminology, and archaeology equips a pastor to communicate the account better.

Finally this thesis proceeds on the presupposition that the experiences and knowledge of modern sailors can connect these old, old stories to modern listeners and engage their interest. The Word of God works both supernaturally and psychologically, and from a psychological perspective the stories and reflections of modern sailors can tie seamlessly into the inspired, true, and efficacious accounts of Scripture.

I. Archaeological "Point of Sail"

A few fun afternoons aboard a clean, white Catalina 22⁹ during elementary school years introduced me to the world of sailing with friends and family. Through classes at Wisconsin Hoofers Sailing Club and the American Sailing Association I have earned a globally-recognized certificate to charter vessels up to 50 feet. For nearly a decade I have owned a fifteen foot Chrysler Mutineer, which I tow behind my 4-cylinder vehicle to various lakes across Minnesota and Wisconsin. I have been blessed to have sailed dozens of sailboats ranging in size from ten to

⁸ Aids to Navigation (or ATONs) include fixed and floating buoys, beacons, fog signals, day marks, lighthouses, and other markers and guides intended to assist boaters. See chapter 14 of *Chapman Piloting*, 473ff.

⁹ A popular, mass-produced 22-foot-long fiberglass sailboat.

fifty feet on the Gulf of Mexico and Atlantic Ocean, Lake Superior, and smaller inland lakes. Not one of those trips has been necessary.

Never have I set sail in search of a new land or for military, commercial, or even transportation purposes. Every journey I have ever made in a sailboat could have been accomplished more quickly in a car. The sailing I do is recreation. It is a new skill to learn, a core exercise, a friendship-building activity, a sport, and a form of relaxation. Sailing in the Midwestern United States in the twenty-first century is a hobby, and the boats reflect that reality. We are accustomed to hulls produced in assembly lines, sails designed on computers, clean cabins, spacious cockpits, gimballed cup holders,¹⁰ and plenty of electronic creature comforts.

The boats mentioned in Scripture were different. Their designs and materials, their capacities and colors, their sizes and purposes were useful in their ancient context but far different from the pleasure craft you can observe crisscrossing your local body of water.

At the same time, you could also set down this paper after you are done, watch an afternoon of races at your local sailing center, and return home noting quite a number of similarities. The wind and water are the same as they were in biblical times. Though the technology to do so is different, the goal is still to move upwind, downwind, and across the wind in a vehicle with no other form of propulsion than the nature God provides. The sails look similar from a distance. A tall pole supports the sails, and some cables support the tall pole. The wind makes the boat tip one way, and the waves make it tip another. The sailors frequently move to positions on the opposite side of the boat, and sometimes they become ill. Everyone is happiest when the bottom stays down and the rocks and reefs stay away. Something sticks off the back end of the boat and seems to help with turning. Some other things get tossed off and tied up when the sailors want to stop in a certain place. Some boats have an auxiliary method of propulsion for times when the wind stops blowing. The boats are various sizes, depending on the intentions and the bank accounts of the owners, who have named and decorated their purchases.

Balance these similarities and differences when communicating to your hearers the details of boats in the Bible. The vessels described on the pages of Scripture are neither so much like our current boats that a complete understanding can be reached through an afternoon sail on this author's Chrysler Mutineer, nor are they so alien to our understanding that they require descriptions borrowed from science fiction novels. Underwater archaeology has presented

¹⁰ 'Gimballed' parts are designed to keep items vertical at all times, even when the boat is heeling (tipping).

physical answers to many questions regarding scriptural sailboats. Here are six important sailing questions and the most recent archaeological progress toward their answers.

How big were the boats in the Bible?

Boats served different purposes in different regions, and new boatbuilding techniques developed at different rates in different parts of the world. Because the Bible describes events spanning several thousand years and occurring on three continents, many of these questions require chronological, sequential or a spatial (geographic) answers. To best suit the needs of the intended readers of this thesis, the boats of Scripture will be grouped in the following broad categories, with a few exceptions: Noah's ark and Egyptian (Early Old Testament); Phoenician (Middle and Late 1200-500); Babylonian, Assyrian, and Greek (Late Old Testament); Galilean (New Testament); and Roman (New Testament).

Of all the boats in the Bible, the ark is the strangest in form and function, yet also a vessel about which we know extremely specific dimensions. Genesis 6:15 lists God's instructions: 300 cubits (450 feet) long by 50 cubits (75 feet) wide by 30 cubits (45 feet) high.¹¹ "The ark's length-to-beam ratio is 6:1. This suggests adequate stability for moderate sea states."¹² It was essentially a barge or life raft, since it had no steering mechanism. Of course, there was no land toward which to steer. With the account of the ark the Lord satisfies our curiosity about the dimensions of at least one type of biblical boat. More importantly, this boat was big enough to save a remnant of eight people, along with every kind of bird and land animal.¹³

Egyptian "pot boats" made of clay,¹⁴ or slender canoe-like rafts made of reeds bound together were long a means of transportation along the Nile, but they were too flexible and delicate for travel on the high seas.¹⁵ River sailing is obviously more restrictive than open water sailing, but Egypt's geography had inherent advantages, "offering a broad and clear run of some 500 miles from the beginning of the delta near Cairo to the First Cataract at Aswan. Moreover, since the prevailing wind...here blows against the flow of the water, the river offers an easy ride

¹¹ Some scholars debate which of the various ancient cubits was intended. The Pentateuch is consistent in its terminology and there is no reason to introduce complications such as a unit other than the standard 18-inch cubit. See Alfred J. Hoerth, *Archaeology & the Old Testament*, (Grand Rapids: Baker Books, 1998), 171 and note.

¹² Jake Gerlach, 2014. Interview by author. Online. November 10. Jake is a graduate of the US Naval Academy (naval architecture major) and nuclear submarine engineer.

¹³ 1 Peter 3:20

¹⁴ Lionel Casson, *Ships and Seafaring in Ancient Times*, (Austin: University of Texas Press, 1994), 10.

¹⁵ See Isaiah 18:2. Compare the swift birch bark canoes of northeastern tribes of Native North Americans.

both ways: boatmen drift downstream or, if the wind is particularly strong, run out the oars to help the current move them; when ready to return, they raise sail and get wafted back home.”¹⁶

“The Egyptians do not appear to have been explorers. They were content to ply three main routes: In the Mediterranean to the Syro-Canaanite coast [on military campaigns] and in the Red Sea to Punt and to the southwest coast of Sinai [both for trading purposes]. There is no concrete evidence at present to indicate that Egyptian ships sailed any farther during the Bronze Age [up to 1200 B.C.]” Later, “the Egyptians hired Phoenicians to do their seafaring for them.”¹⁷

Egypt’s own seafaring industry expanded in the Eighteenth Dynasty, during the reign of the Pharaoh of the Exodus, Thutmose III. He made war against Syro-Canaanite enemies in his thirtieth year, likely 1449 B.C., and according to the hieroglyphic record this was the first campaign in which Pharaoh and his armies sailed to make war. He had captured a couple ships in his campaign the year before and had a chance to try them out on the way back to Egypt. “Thutmose soon realized the advantages of transporting his army by sea and improved the logistics involved by organizing and stockpiling the ports on the Syro-Canaanite coast” during his campaign the next year.¹⁸ The same Pharaoh later “had entire boats carried overland on wagons in order to permit his army to cross the Euphrates (“that great river which lies between this foreign country and Naharin [that is, the Mitanni Kingdom of the northern Levant]”).”¹⁹

What Thutmose III possessed in eagerness to build ships, he lacked in the raw materials for shipbuilding, so “a main incentive for the Egyptians to venture out into the Mediterranean was the need for high-quality wood for ship construction and other purposes. Such wood was unavailable in the Nile valley during the Pharaonic period but common in Lebanon.”²⁰

No papyrus boat has survived to this day—only artistic depictions of them in murals. However in the past century archaeologists have discovered the remains of several Egyptian wooden boats. They were not searching underwater, however. The ancient Egyptians buried several ships, which were recently discovered in pits around the Great Pyramid of Cheops at

¹⁶ Casson, *Seafaring*, 13.

¹⁷ Shelley Wachsmann, *Seagoing Ships & Seamanship in the Bronze Age Levant*, (College Station, Texas: Texas A&M University Press, 1998), 327.

¹⁸ *Ibid.*, 10.

¹⁹ Shelley Wachsmann, *The Gurob Ship-Cart Model and its Mediterranean Context*, (College Station, Texas: Texas A&M University Press, 2013), 159.

²⁰ Wachsmann, *Seagoing Ships*, 327.

Giza. One was excavated and put together piece by piece: “The vessel [*Cheops I*] was found disassembled, rather like a model kit, with all the parts in place...The ship is built of Lebanese cedar...The vessel is 43.4 meters (142.3 feet) long and has a beam [that is, width] of 5.9 meters (19.3 feet).”²¹

A shipwreck off Uluburun, Turkey, “is without doubt the single most significant key to understanding Bronze Age seafaring.”²² “In 1982 off the southern coast of Asia Minor a wreck was discovered that dates from about 1350 BC. Divers have removed enough of the cargo to reveal that some of the bottom planks have been preserved.”²³ Although only a few fragments of the hull have been found intact (under the protection of metal cargoes), the way the ship’s timbers lock together give evidence of a more advanced understanding of shipbuilding than many scholars had been willing to grant 18th Dynasty Egyptians. “The excavators believe the ship was about fifteen meters [49.2 feet] long.”²⁴

The Uluburun wreck provides valuable insight into the type of ship that was commonly found moving materials around the Mediterranean Sea during the time of the Old Testament. Even more valuable for Old Testament study are two possibly Phoenician vessels discovered in 1999 off the coast of Ashkelon, Israel, by a team of archaeologists and oceanographers, including Robert Ballard (who discovered the *Titanic* in 1985). The search for and examination of the wreck benefitted from its proximity to Ashkelon, site of the ongoing Leon Levy Expedition led by archaeologists Lawrence Stager and Daniel Master.²⁵ The project report explains the adventure to recover parts of the wreck and then summarizes its archaeological import from a secular perspective.²⁶ “The amphoras associated with the shipwreck appeared to

²¹ Ibid., 219.

²² Ibid., xi. A ninth grade world history curriculum has been designed around this wreck. If you are interested, here is the link to more information: <http://sara.theellisschool.org/~shipwreck/ulusplash.html>

²³ Casson, *Seafaring*, 35.

²⁴ Ibid., 217.

²⁵ Visit digashkelon.com to learn more about this active excavation and training site sponsored by the Harvard Semitic Museum, Troy University, Boston College, and Wheaton College.

²⁶ Robert D. Ballard, Lawrence Stager, et al., “Iron Age Shipwrecks in Deep Water off Ashkelon, Israel.” *American Journal of Archaeology* 106, No. 2 (April 2002): 151-168.

be from the 8th century B.C.”²⁷ Six recovered cooking pots also date to the eight century, along with a (grinding) mortar, and a fancy pitcher.²⁸

These seemingly obscure details ought to intrigue students of the Bible. More than one Old Testament prophet spoke about such ships, and one prophet, Jonah, rode aboard one in the first chapter of his book. How big was his “ship of Tarshish”?²⁹ Until the discovery of the Uluburun wreck and the two Phoenician wrecks mentioned above, little could be said in the way of a response apart from a handful of murals obviously drawn by non-sailors (as demonstrated in the section below regarding decoration) and speculation based on the biblical text: It was big enough that it carried some cargo (which was thrown overboard to increase the ship’s buoyancy in the storm) and “Jonah had gone below deck where he lay down and fell into a deep sleep.”³⁰ Clearly now is a groundbreaking time in Old Testament research, when some of our questions regarding ancient seafaring are finally able to be answered on the basis of concrete evidence.

Archaeological evidence from the second century A.D. supports written claims of Roman skill at building both massive grain ships and smaller craft with some unique innovations. Italian construction workers unearthed a Roman fishing boat, called *Fiumicino 5*, with “an overall length of 5.2 m. [17 feet]. The beam measures 1.5 m. [4.9 feet], while the amidship depth measures 55 cm. [1.8 feet].³¹ The unique feature of this craft, which otherwise looks like a wooden canoe, is an open-topped box integrated into the hull and coated in lead, which served as an 80-gallon live well, perfectly suited for delivering the freshest fish to market.³²

²⁷ Ibid., under “Cargo.” These jars deserve more than one sentence. The Ballard and Stager (ibid.) report tells more. Notice how much amphoras remind you of another type of shipping container less than 60 years old: The five-gallon bucket: “Our amphoras contained an average of 17.8 liters [4.8 gallons] of liquid. They averaged 68.8 cm (27 in) in height and 22.3 cm (8.8 in) in width. But these averages do not do justice to the standardization of these amphoras. The complete amphoras that we recovered had a standard deviation of less than 2 cm (¾ in) in height and around 1cm (0.4 in) in width. This narrow range indicates considerable standardization in manufacture, a characteristic typical of every aspect of these amphoras. These exacting tolerances were necessary for intricately stacking more than four hundred amphoras in the hold of a ship... These amphoras are purpose-built maritime containers. They are built to be easily stacked in the hold of a ship, to have consistent capacity, and to be easily tied down using special handles... We would argue that these jars were produced in one or more of the Phoenician port cities heavily involved with the maritime trade of the 8th century, Tyre being the primary port in Iron Age II.”

²⁸ Ibid., under “Galley.”

²⁹ Jonah 1:3. See notes on *Tarshish* in the Hebrew section of the terminology study in Part II.

³⁰ Jonah 1:5

³¹ A bit longer, narrower, and deeper than my boat, it resembles a similar model, the Chrysler Buccaneer.

³² Giulia Boetto, “Roman Techniques for the Transport and Conservation of Fish: The Case of the *Fiumicino 5* Wreck,” In *Connected By the Sea: Proceedings of the Tenth International Symposium on Boat and Ship Archaeology*, Lucy Blue, ed. (Roskilde, Denmark: 2003) 123.

On the other extreme, the Greek satirist Lucian wrote about a massive ship called *Isis* which had pulled into the local harbor. Most modern scholars now reject the traditional idea that Lucian was inventing a boat in his imagination. It seems he was truly reporting a real ship he observed. “I say, though, what a size that ship was! 180 feet long, the man said, and something over a quarter of that (45 feet) in width; and from deck to keel, the maximum depth, through the hold, 44 feet. They were saying she carried as much corn as would feed every soul in Attica for a year.” He then describes its mast, stays, lines, figureheads, anchors, tiny tiller, and red sails.³³

Historians and curators have attempted to calculate the capacity of a ship like the *Isis* on the basis of overall length, beam (width), and draft (depth), but the results vary wildly. The capacity of a cargo boat depends greatly on how much of the boat sits below the waterline. For this reason, boat length is often listed as two separate numbers: The overall length (LOA) and the length of the waterline (LWL). Lucian, Herodotus, and other writers do not relate such specific details, so until naval archaeologists discover such a ship on the seafloor, everyone on land can only guess. “The cargo of such a vessel might weigh as much as 100-500 tons.”³⁴

Consider the labor, time, and expense involved with moving even 100 tons of grain by cart from Egypt all the way around the sea to Rome. One historian has estimated such an effort “would require more than 5000 animals, and the same number to accompany them (for the traders to ride). Such a caravan would take two or three months to reach its destination. Obviously, as international trade increased, the preference was for maritime transport.”³⁵

Although not specifically mentioned in the New Testament, ships in many cultures also served a cultic (religious) purpose. The annual opening of the sailing season in spring inspired pagan (especially Roman) ceremonies celebrating prosperity, fertility, and safe travel. “Also known by its Latin name, *Nagidium Isidis*, the *Ploiaphesia* festival celebrated the opening of the sailing season. The festival took place in many Mediterranean locations on March 5. The earliest reference to the *Ploiaphesia*, from Eretria in Euboea, dates to the first century B.C.... The *Ploiaphesia/Navigium Isidis* ceremony included a cultic parade that culminated in the launching of a fully provisioned ship [of Isis].”³⁶ Why the Egyptian goddess Isis? She was represented as

³³ Lucian, *The Ship: Or, The Wishes*, Kilburn, K, transl., Loeb Classical Library. (Cambridge, MA: Harvard University Press, 1959), 431ff.

³⁴ Avshalom Zemer. “Shipwrecked Cargoes.” The Haifa Museum, (March 31, 2001).

³⁵ Ibid.

³⁶ Wachsmann, *Ship-cart*, 155.

“standing on a ship’s bow while using her hands to spread her veil like a sail (which she is credited with inventing).” This festival survived in the Christian era and allegedly its influence can still be seen in springtime customs. According to one historian, “Although the word ‘carnival’ is commonly believed to derive from the Latin for ‘flesh’ (*carne*) and ‘to put away’ (*levare*), referring to the advent of Lent, its meaning has also been derived from the Latin terms *carrus* and *navalis*, meaning ‘ship-cart’ of Isis used in the *Navigium Isidis*.”³⁷ Etymologists are not united on this theory, nor that the boats on wheels involved in this festival led to the concept behind parade “floats” in modern carnivals.

One final archaeological discovery of a large ancient ship took place in another body of biblical water we have not yet mentioned. “A sturdy 100-foot-long Roman trading vessel bound for India foundered off the Red Sea port of Quseir, Egypt. The ship settled 200 feet below the surface, where it remained undisturbed until a group of British and American archaeologists discovered it in 1993.” The head of the Egyptian branch of the Institute of Nautical Archaeology (INA) “believes the ship was part of a fleet sent by the emperor Augustus, who seized control of Egypt after the naval battle of Actium in 31 B.C., to control trade in the Indian Ocean.”³⁸

Finally, fishing boats are the vessels most relevant to the study of many books of the Bible. Isaiah, Jeremiah, Amos, Habakkuk and Job all speak of fishermen and their work. Although some fisherman worked the Mediterranean coast (at Joppa/Jaffa there has been found the inscribed gravestone of one of them),³⁹ from Matthew 4 through John 20 the Gospels are replete with fishing activity and voyages via fishing boats on the Sea of Galilee. Jesus and his disciples were most involved with fishing on this small inland lake.

God has preserved in his Word very few details about the boats involved in first century fishing. Thankfully he recently allowed archaeologists to discover one boat preserved under the lakebed on the northwestern shore of the Sea of Galilee. This one vessel goes a long way toward answering our questions about these boats. Shelley Wachsmann and a team of archaeologists excavated, preserved, studied and have now displayed a one-of-a-kind find variously called the

³⁷ *Ibid.*, 157,158.

³⁸ David S. Reese, “2,000-Year-Old Merchantman Excavated in the Red Sea” *Archaeology Odyssey* 5 (Jan/Feb 2002): 17.

³⁹ Henri Daniel Rops, *Daily Life in the Time of Jesus* (NY: Hawthorn, 1962), 235.

Kinneret Boat, the Galilee Boat, or the Jesus Boat. “This was the first time an ancient boat had been discovered in the Kinneret.”⁴⁰

The excavations began in the winter of 1986 after a drought exposed the outline of a boat sunk in the mud, and they lasted for eleven days during which the team dug out the boat, encased it in foam, floated it to a new location, and dropped it with a crane into a conservation pool in which it sat steeping in a preservative wax until the late 1990s.

On the basis of the shipbuilding techniques, Carbon-14 dating, and the potsherds found in the hull, experts state confidently that “this boat lived her life from about 100 B.C. to 67 A.D.”⁴¹ Though it is possible that this boat was seen, touched, built, or owned by the disciples or even Jesus, such a claim would only be speculative.

Before I list its dimensions, take a guess. How big was the boat in which (you imagine) Jesus slept and then stood and calmed the sea? What size was the fishing boat out of which Peter climbed onto the firm footing of a wave? What kind of boats did the disciples leave behind when Jesus called them, only to later commandeer them later when the Savior had need of them?

The closest answer we can give on the basis of archaeological evidence relies on this sunken hull cobbled together from seven different types of wood, lacking its deck, mast, tiller, and sails, and only put on display fourteen years ago. Still, it provides us a reference point. “The boat is 26 ½ feet long, 7 ½ feet wide, and 4 ½ feet high. It has a rounded stern and a fine bow... The boat must have had a long life, for it had been repeatedly repaired.”⁴² It certainly had a mast, judging from the “four nail holes where the mast block had been connected to the keel. The impression of the mast block was still visible on top of the keel.”⁴³ This amazing wreck sheds insight even on the crew.

Josephus mentions that at the battle of Migdal, in which he was a commander, he gathered “all the boats he could find on the lake—some two hundred and thirty, with no more than four sailors each...in addition to a helmsman/captain.”⁴⁴ An additional find, a mosaic in a

⁴⁰ Wachsmann, Shelley. “The Galilee Boat—2000-Year-Old Hull Recovered Intact,” *Biblical Archaeology Review* 4:05 (Sep/Oct 1988): 18-33.

⁴¹ Wachsmann, Shelley. *The Sea of Galilee Boat: An Extraordinary 2000 Year Old Discovery*. (New York: Plenum Press, 1995), 348-349.

⁴² Wachsmann, *Hull Recovered Intact*, about three-quarters of the way through the article.

⁴³ *Ibid.*, about three-quarters of the way through the article.

⁴⁴ Wachsmann, *Extraordinary Discovery*, 313.

house at Migdal, on the west side of the lake, portrays a sailboat with a pointed bow and high-curving stern bearing what at first look like three sets of oars on its left side (requiring a total of six rowers). However, the rear-most set of oars is too far back and at too shallow an angle to the water to perform the same function, and an extra course of mosaic stones at its end indicate that this “oar” was actually a rudder. “Such a vessel would have required a minimum of four rowers and a helmsman or captain at the quarter rudder: a crew of five men.”⁴⁵ Wachsmann, on the basis of passages from Mark and John, calculates in his book about the discovery and initial research of this boat that Zebedee’s boat and Peter’s boat carried crews of at least five men while they worked. “As more hands were needed to man the nets than just the rowing and steering crew, the two additional men do not change the conclusion that [the boats mentioned in the Gospels] also the same type of boat [as the one he excavated].” In answering the question of whether Jesus and all of his disciples could have fit on just one of this type of boat, Wachsmann approached the topic with an unbiased eye:

When I began studying the Gospels to collect material on seafaring on the Kinneret in antiquity, I would search for the passages where Jesus is referred to as sailing with the Twelve. I read carefully through all four Gospels—and finished without finding a single reference. I reread them, convinced that I had missed something, but again to no avail. I was surprised when I eventually realized that, although the concept of Jesus sailing with the twelve Apostles in a boat on the lake is a deeply ingrained popular Christian belief and sanctified in Christian art, nowhere do the Gospels specifically refer to Jesus sailing together with the twelve Apostles [but only with *disciples*].⁴⁶

Since the term “disciples” usually encompasses more people than the term “apostles,” it seems strange that the writers would use it to refer to a small group of people other than the Twelve crossing the lake in a boat with Jesus. John 6:16 and 24 are hardly reasonable with this interpretation: The crowd (of “disciples” in a very broad sense) was desperate to talk with Jesus or even an apostle, but they were unable to find them, since the group had departed the night before in one boat. In the archaeologist’s final estimation, though, such a distinction proved unnecessary. After consulting with an anthropologist to determine the average weight of Galilean fishermen in Jesus time, he calculates (to give room for error) “the weight of 15 men. It worked out to slightly less than a ton—a burden that our boat could have easily carried, even though the boat would probably have been a bit crowded. Thus we had an answer to that most

⁴⁵ Ibid., 306.

⁴⁶ Ibid., 314.

often posed question. Had Jesus wished to sail with only the twelve Apostles in a vessel like the Kinneret boat, yes, they could all have been easily accommodated. And then some.”⁴⁷

For several years, my family has partnered with another family to own, moor, and maintain an O’Day 272,⁴⁸ and sailing that boat has been fun. *Second Wind* has been the site of meals, countless evening sails, Bible studies, fireworks viewing parties, and sleepovers with friends. Fifteen people could fit on it, but that would be quite a feat.⁴⁹ Of course, the more people in your boat (or car for that matter), the less buoyant and maneuverable it is.

Most modern boats are required to display plates indicating a maximum capacity and weight. “To estimate the maximum number of persons who can safely ride in a boat on a calm day, multiply the length by the width and divide this by 15, and round the result down to the nearest whole number.”⁵⁰ Regardless of what any plaque says, it should be noted that the captain must decide on the basis of his boat’s design what the upper limit of bodies should be for the safety of his crew and his vessel. My Chrysler Mutineer bears a plaque listing a recommended maximum capacity of 4.76 persons at 150 pounds per person. I have learned from experience that exceeding the recommendation and loading six or seven MLC students onboard results in sluggish control, a lack of power, and a deeper draft (that is, we sat much lower in the water, which increases the likelihood of a grounding). However, crew size and boat size are never mentioned as a factor in any of the dangerous boating scenes we find in the Bible, except when the miraculous catch of fish was so great that the boats began to sink.⁵¹

As a final note, if you have not yet used the equation above to calculate the recommended capacity of the Galilee Boat, it is exactly what you might have assumed all along: Thirteen.

How fast did they sail?

⁴⁷ Ibid., 317.

⁴⁸ A 27-foot-long fiberglass, mass-produced sailboat.

⁴⁹ I imagine two in the front berth, one in the head, four around the table in the cabin, two standing in the galley, one in the rear berth, and four in the cockpit, though that doesn’t count anyone standing on the topside of the boat. By this point, the Dane County Sheriff’s lake patrol unit would be highly suspicious and would probably check to ensure we had enough lifejackets on board.

⁵⁰ Gary Jobson, *Sailing Fundamentals* (New York: Fireside, 1998), 28.

⁵¹ Luke 5:7

“The question so put is meaningless,” wrote nautical historian Lionel Casson.⁵² Whether it be a horse-drawn chariot, a car, or a fighter jet, analysts can calculate speed in ways that remove most of the variables (for example, Motor Trend reported that the 2015 Ford Mustang GT generates 435 horsepower and 400 pound-feet of torque, achieving a 0-to-60 mph time of 4.4 seconds and the quarter mile in 12.8 seconds⁵³). How do such statistics apply to boats? What are the ideal conditions for testing? “The speed of a sailing ship depends first and foremost on the direction of the wind and varies drastically with it...No doubt, in any crossing, the nature of the vessel, whether fast or slow, and the force of the wind had a certain effect. But never as much as the wind direction; this sets the basic speed, and other factors cause only variations.”⁵⁴

Casson’s comprehensive handbook on ancient sailing (which is nearly fifty years old), predates the bulk of the findings of underwater archaeologists. That fact is inconsequential, however, as sunken ships are not much use in calculating speed. Instead, Casson made use of all available travelogues of the classical writers: Pliny, Xenophon, Sulpicius Severus, Strabo, Thucydides, Plutarch, Lucian, Lucan, Marcus Diaconus, Aristides, Procopius, Polybius, Livy, Herodotus, Caesar, and also several legs of Paul’s missionary journeys. By mapping out the mileage of the routes they report and dividing it by the number of days (or fractions of days) the voyage took, he calculated overall speeds for every crossing of the Mediterranean found in extant classical literature.⁵⁵ Two points must be clear before presenting his findings. First, his findings, and much of ancient Mediterranean scholarship, is built on the assumption that “the same winds prevail today as in the days of the ancients.”⁵⁶ Second, he insists that “compared with the winds, other factors were minor: the Mediterranean’s currents are in general too feeble,

⁵² Lionel Casson, *Ships and Seamanship in the Ancient World*. (Princeton: Princeton University Press, 1973), 281.

⁵³ Impressive, I know. Christian Seabaugh, “First Test: 2015 Ford Mustang GT,” Website of MotorTrend Magazine, (accessed October 22-November 30, 2014).

⁵⁴ Casson, *Seamanship*, 282.

⁵⁵ Find these in chapter twelve of Casson, *Seamanship*, 281-299, along with a plethora of citations and an additional section on the speed of fleets.

⁵⁶ Casson, *Seamanship*, 282, note 47, though note that the only evidence cited is an observation that Admiral Nelson and Lucian experienced the same winds.

and its tides too faint, to be of significance,”⁵⁷ although it is worth mentioning that “most of the Mediterranean currents flow [counter]-clockwise,”⁵⁸ as did the ancient trade routes.

One important distinction which separates Casson from other authors, was his division of his speed calculations into two groups: Voyages made with favorable winds and those made against unfavorable winds. Casson notes that this distinction “has been overlooked by the many who provide a list of miscellaneous voyages and from it deduce—or let the reader deduce—what the “average speed” of ancient ships was.”⁵⁹

To summarize Casson’s conclusions, “under favorable wind conditions, ancient vessels averaged between 4 and 6 knots over open water, and slightly less while working through islands or along coasts.” Acts 28 tells of the final legs of Paul’s journey by sea to Rome: “After three months we put out to sea in a ship that had wintered in the island—it was an Alexandrian ship with the figurehead of the twin gods Castor and Pollux. We put in at Syracuse and stayed there three days. From there we set sail and arrived at Rhegium. The next day the south wind came up, and on the following day we reached Puteoli.”⁶⁰ One hundred seventy-five nautical miles can be covered in a 1.5 days at a rate of 5 knots per hour, or 5.75 mph, which is within Cassel’s ‘favorable wind’ range. In this situation the wind and intended destination aligned favorably.

On the other hand while they were returning from Macedonia during the third missionary journey, Paul and Luke “reached Troas in five days (Acts 20:6). The prevailing winds probably made the voyage longer than that from Troas to Neapolis which they had completed in two days about eight years previously [during the second missionary journey],”⁶¹ including an overnight stop at the island of Samothrace, according to Acts 16:11. Samothrace is equidistant from Neapolis and Troas (about sixty nautical miles from each). Obviously the 5 knot mark is again accomplished with two twelve-hour days, running before the wind, as the verb in Acts 16:11 indicates. The five-day journey to cover the same distance, however, also fits with Casson’s calculations that “ancient vessels averaged from less than 2 to 2½ knots against the wind.”⁶²

⁵⁷ Ibid., 273.

⁵⁸ Zemer, “Cargoes.”

⁵⁹ Casson, *Seamanship*, 282.

⁶⁰ Acts 28:11-13

⁶¹ F.F. Bruce, *Paul: Apostle of the Heart Set Free* (Grand Rapids: Paternoster Press, 1978), 340.

⁶² Casson, *Seamanship*, 291.

Where did they sail?

This question can be answered fairly simply for many of the boats in the biblical era. The ark floated wherever the water carried it. The Galilean fisherman sailed exclusively on the Sea of Galilee. Egyptian clay and papyrus boats stayed in the Nile delta. More mystery surrounds the bolder, trans-Mediterranean voyages that eventually formed a critical web of trade and communication for the Roman Empire. Egyptians, Canaanites, and especially the Phoenicians honed this risky trade in the centuries before Christ. The routes grew longer as shipbuilding skills developed to keep pace with increases in communication, trade, and military ambition.

From the Exodus into the time of the Judges “most routes followed—but probably did not hug—the coastline: The only truly open-water routes were the direct runs from the Aegean and Cyprus to Egypt. Under favorable conditions, the longest open-water route could be crossed in three to five days.”⁶³

As a side note, consider Egypt’s unique location with ports on two oceans. Ongoing excavations at Quseir (modern Al-Qusayr, about halfway down Egypt’s eastern coast) continue to sift through remnants of many ancient cultures. Egypt’s “other sea” should not be forgotten, especially in light of the 1993 discovery of a Roman merchant ship near Quseir, and ongoing work to locate the Roman harbor near the same city.⁶⁴ “Egypt’s ventures into the Red Sea required an incredible amount of effort even before the sea voyage itself began. The ships were built on the Nile, dismantled, hauled overland through the Eastern Desert, and rebuilt on the shores of the Red Sea... This process emphasizes the incredible (to our modern minds) value placed by the ancient Egyptians on the commodities available in Sinai and Punt [location unknown]. This effort expended in mercantile contacts in the Red Sea with Punt is paralleled in the later trading practices of Solomon and Hiram with the equally-elusive land of Ophir.”⁶⁵

Although the Assyrians and Babylonians used pontoons and rafts to transport troops across large rivers and rafts to ship lumber from Lebanon, their shipbuilding was neither impressive nor important. These civilizations blossomed in a region not particularly conducive to sailing, compared to the warm bays of the Aegean or the reed-lined irrigation trenches of the

⁶³ Wachsmann, *Seagoing Ships*, 331.

⁶⁴ Lucy Blue, “Locating the Harbour: Myos Hormos/Quseir al-Qadim: a Roman and Islamic Port on the Red Sea Coast of Egypt” *The International Journal of Nautical Archaeology* 36.2 (2007): 265-281.

⁶⁵ Wachsmann, *Seagoing Ships*, 327.

Nile delta. “The rivers of Mesopotamia had limited use as waterways. Not only are the northern stretches rocky and shallow but the prevailing wind of the region blows from the north, the same direction as the current; until the development of the steamboat, vessels got upstream only through the laborious process of being towed by teams trudging along the bank...It is no surprise that...the area produced merely undistinguished small craft.”⁶⁶

The Persian Empire’s military strategy relied on extensive use of ships, although the men who sailed them were Cypriots, Cretans, Phoenicians, and other peoples they had conquered. Herodotus, Aeschylus, and Thucydides relate sometimes-conflicting reports about the pivotal naval battle of Salamis. Both sides employed oar-and-sail-powered triremes (wooden battleships fitted with metal rams below the waterline), with the Persian fleet outnumbering the Greek navy in the narrow bay. The historians relate that the Persian soldiers could not swim, and when their fleet was thrown into utter confusion, their corpses covered the sea so that it could not be seen.⁶⁷

During the New Testament era “the transport of grain from Egypt, the chief granary of Rome, was of the highest importance; the shipping fleet devoted to it was organized for the service of the Roman state as early as the Ptolemaic period.”⁶⁸ Josephus said [Northern] Africa fed Rome for two-thirds of the year, while Egypt fed her the remaining third.⁶⁹ As A.H.M. Jones showed in a “famous calculation from evidence in Diocletian’s Edict on Maximum Prices, it was cheaper to ship grain from one end of the Mediterranean to the other than to cart it by land only 75 miles. Even if that calculation needs a little re-adjustment, it was imperative that grain be moved by water (whether river, canal, or the sea) for most of its journey if the cost and the duration of the journey were to be bearable.”⁷⁰

The above calculation explains how even the Sea of Galilee became a hub for maritime transport between the Decapolis east of Galilee and Tiberias on the Mediterranean. “This seafaring route was probably a branch of the Via Maris that connected Egypt and Syria. On this route travelers went from Damascus to Hippos and then, crossing the lake, to Tiberias and

⁶⁶ Casson, *Seafaring*, 13.

⁶⁷ Moises Coit Tyler, ed., *Ancient Oriental Nations and Greece*, In *Library of Universal History, Vol II*. (New York, R.S.Peale, J.A. Hill, 1899), 454,632.

⁶⁸ Bruce, *Paul*, 368.

⁶⁹ Rickman, Geoffrey, “The Grain Trade under the Roman Empire,” *The Seaborne Commerce of Ancient Rome: Studies in Archaeology and History: Memoirs of the American Academy in Rome* 36 (1980), 264.

⁷⁰ Rickman, “Grain Trade,” 262, note 7.

Ptolemais (Acco), or from Hippos to Sinaberis and to Scythopolis (Beth Shean).”⁷¹ It was a small shortcut, but it illustrates that replacing any amount of land shipping with sea transport made economic sense.

When you teach about this region, emphasize the commercial value of the Sea of Galilee. By providing food, water, jobs, and export goods (especially a popular salted fish and associated fish sauce), the lake was able to support a large population. Here you can also see its appeal as a mission field, and indeed after Jesus’ temptation, baptism, and John’s imprisonment, Jesus fulfilled an ancient prophecy by preaching along the north shore of the Sea: “Land of Zebulun and land of Naphtali, the Way of the Sea, beyond the Jordan, Galilee of the Gentiles—the people living in darkness have seen a great light; on those living in the land of the shadow of death a light has dawned.”⁷²

Keep in mind a few basic facts about this lake which served as the backdrop for so much of Jesus’ ministry. “The lake covers about 40,000 acres [62.5 sq. miles]. Its surface is 640 feet below sea level, and it reaches a depth of 150 feet.” The lake’s altitude (or rather, lack thereof)⁷³ exacerbates the impact of severe weather. When winds sweep down from the highlands surrounding the lake, or shoot through the two valleys on the west side, warm air and cold water mix rapidly to create sudden violent storms.

Today the Sea of Galilee is about 13 miles long north-to-south, and 8 miles wide east-to-west at its widest point, a little north of its center.⁷⁴ I emphasize that these are modern distances, which “do not correspond with those indicated by Josephus, who states that the lake was 15.6 by 4.5 miles. If his numbers are correct, the lake was longer and narrower in the first century, as many well be the case, because the northern shoreline is shaped by the buildup of alluvial deposits carried by the Jordan River.”⁷⁵ The buildup of sedimentation is the reason for much of the debate regarding the locations of ancient sites, such as the historic village of Bethsaida.

⁷¹ Rousseau, *Cultural Dictionary*, 247.

⁷² Matthew 4:14-15, quoting Isaiah 9:1,2

⁷³ Galilee is the world’s lowest freshwater lake, about 700 feet (1/8 mile) below sea level.

⁷⁴ 13 miles by 8 miles is the same size as the city of Milwaukee. Imagine a box from Hwy 45/Good Hope Rd. over to 43, south past Bayshore down to the airport, west to the Hale interchange and then 13 miles north up Hwy 45 to Good Hope again. A link to a map overlaying the Sea of Galilee’s dimensions atop the city of Milwaukee can be found at <http://mapfrappe.com/?show=24564>. I encourage you to use this tool and compare the lake to a feature of physical geography familiar to your hearers.

⁷⁵ Rousseau, *Dictionary*, 245-248.

I have never visited the Sea of Galilee, and perhaps you have not either, but by making comparisons to lakes we have seen, we can approximate its size and avoid making outrageous statements about time or distance involved in cross-lake trips. The body of water I know best is Lake Mendota, on the north side of Madison, WI. This beautiful lake is 15.3 sq. miles, with a maximum depth of 82 feet and a shoreline perimeter of 21 mi. Galilee is rounder than Mendota, so while Galilee's surface area is nearly four times greater, its shoreline is only 30% longer.⁷⁶

While Galilee is a large lake in the region and served a commercial purpose, the crucial superhighway in the region was, of course, the Mediterranean Sea. Recall that Paul sailed on two Alexandrian ships bound for Italy during his trip to Rome,⁷⁷ the first of which was carrying a supply of grain (later tossed overboard to lighten the ship) and was large enough to carry 276 people. Wheat "was by far the most important, and the cheapest, source of calories for the majority of the population... This fact gave a particular twist to the trade in grain because it led to the state taking an interest which was not typical of its attitude to most articles of commerce."⁷⁸

How dangerous was sailing in Scripture?

Ancient shipping routes display concern for both safety and expediency. On this topic, though, conventional wisdom misleads us. Many of us have the impression that ships either stayed within sight and (alleged) safety of land at all times, or they set off into the vast unknown of the sea, half expecting to drop off the edge of a flat world. It is possible that some sailors fell into these categories, but many more sailors noticed the curvature of the earth on the horizon or the earth's round shadow on the moon during lunar eclipses. They calculated more accurate and informed 'float plans' than we might imagine.⁷⁹

Sailors relying on celestial and line-of-sight navigation certainly feared the perils of the open sea, but they were also cognizant of the hazards closer to shore. "According to the records of the maritime insurers of Lloyds of London for ship losses during the mid-19th century... about 80 percent sank near coastal obstructions. An additional 10 percent wrecked in open water. The remaining 10 percent disappeared without a trace," and probably also sank in open (or "deep")

⁷⁶ An amusing side note, according to Rousseau, *Dictionary*, 246, citing Josephus and some Talmudic sources: "People in antiquity believed that the Jordan River not only poured its water into the Sea of Galilee at the north but actually drove it through the lake without mixing and emerged at the south."

⁷⁷ Acts 27:1-28:11

⁷⁸ Rickman. "Grain Trade," 262.

⁷⁹ A float plan is the intended course of a boat or ship.

waters after an encounter with severe weather, meaning ships in the mid-1800s were four times more likely to sink when they were close to shore than farther out at sea. Historians extrapolate backward that these numbers were “probably just as true in ancient times.”⁸⁰

The young science of underwater archeology has located wrecks in a ratio consistent with this theory. The discovery of several sunken ships from the Old Testament era in deep water debunks the idea that ancient mariners never left sight of shore. Robert Ballard and his collaborators in the span of a decade discovered “a late-fourth-century A.D. Roman ship about 2,600 feet below the surface of the Mediterranean between Tunisia and Sicily,” seven more wrecks on “nearby Skerki Bank, a mountain that rises from the sea floor to just a few yards below the surface (80 miles from the nearest land),” and in 1999 “what turned out to be the remains of a Hellenistic merchantman, dating around 200 B.C...in about 10,000 feet of water” as well as the aforementioned pair of 8th century B.C. Phoenician trading vessels.⁸¹ Regarding the last pair of ships, the fact that they were found “30 nautical miles from shore and on a straight line connecting Ashkelon with Egypt and distant Carthage further supports the proposal that ancient mariners commonly chose the more direct route than the one close to land.”⁸²

In fact, we can go another step and assert that ancient sailors may have preferred to stay out of sight of shore. “As any sailor will tell you, the last place a ship wants to be in a storm is near a rapidly approaching lee shore.”⁸³ Recall the panic of the sailors in Acts 27 and the countermeasures they took when their soundings revealed a rising seafloor. They were not seeking the safety of land; they were making every effort to stay far away.

Lest we give the wrong impression, “sailors enjoy one of the best safety records of any recreational activity. The U.S. Department of Transportation (Safety Branch) has rated sailing as the safest of all sports.”⁸⁴ That fact may even surprise sailors, but the training manual continues by citing the reason for sailing’s good track record: “Sailors take the time to prepare for potentially hazardous situations by knowing their own limitations and those of their boat and

⁸⁰ Shelley Wachsmann, *Archaeological Views: Archaeology Under the Sea*, *Biblical Archaeology Review* 32:06 (Nov-Dec 2006): 26.

⁸¹ Dan Davis, “Open Seas,” *Archaeological Odyssey* 6 (Jan-Feb. 2003): One quarter through the article.

⁸² Ballard, “Shipwrecks,” under “Oceanographic Results.”

⁸³ Wachsmann, *Archaeological Views*, 80.

⁸⁴ Jobson, *Fundamentals*, 91.

equipment. However, even the most knowledgeable sailor can be surprised by a gust of wind or a wave. For this reason, a good sailor anticipates difficult situations and prepares for them.”⁸⁵

Hesiod urged all sailors to prepare for these difficult situations by staying away from the sea “except for the fifty days after the summer solstice, in July and August... Vegetius, who speaks professionally, points out that the sailing season *par excellence* is from 27 May to 14 September, and that the outside limits are 10 March to 10 November. And, in point of fact, this is the way things were for the whole of the ancient period.”⁸⁶

The Memorial Day to Labor Day calendar sounds restricting, even to Midwestern ears. In the Northern United States, the fall months with their comparatively steady winds make for excellent sailing. However, Midwestern sailors are also aware that the season-ending date cited by Vegetius was the day the *Edmund Fitzgerald* wrecked on Lake Superior. Appropriate respect for the sea remains as imperative today as it was in ancient times. As *Sailing Fundamentals* warns, “High wind and large waves (heavy weather) lead to the majority of unsafe situations aboard a boat. Anticipation and preparation are required of the skipper and crew.”⁸⁷

Piracy is always a threat to sailors, though the threat is never mentioned in the Bible. The Phoenicians and the Greeks dominated the seas for most of the biblical era, though travel and trade on the ocean roads was free to anyone who would take the risk. Again, the most important factor in safe sea travel across the Mediterranean Sea was the wind. All journeys from east to west were difficult “due to the prevailing northwesterly winds, called Etesian (“annual”) Winds. These reliable winds were helpful for setting long-range shipping plans. There are many occasions when outbreaks of cold air from between north-west and north-east penetrate the region, resulting in very boisterous conditions and considerable seas, with severe squalls and thunderstorms which may develop rapidly with little warning.”⁸⁸ The spring and fall brought

⁸⁵ Ibid., 91.

⁸⁶ Casson, *Seamanship*, 270.

⁸⁷ Jobson, *Fundamentals*, 91. In January 2015, I travelled to Greece and Turkey on a Winterim course. We were scheduled to take a powerboat to the island of Patmos, but the excursion was cancelled due to bad weather. As disappointing as that was, it was certainly the wisest course of action. We would’ve spent four hours on a boat in open water in 40° temperature. Here was the report for that day: Winds from the NNW, 31 k, gusts to 40 k, 8-10’ waves, pressure 1012 and rising steadily.

⁸⁸ Seán McGrail, *Boats of the World: From the Stone Age to Medieval Times*, (New York: Oxford University Press, 2009), 92.

heightened variability from this steady pattern, and a “greater risk of gales than in summer”⁸⁹ forcing boats and their crews into harbors or the shelter of islands.

In addition to the damage the wind, rain, and waves could cause, the reason the Mediterranean in winter was considered the *mare clausum*⁹⁰ “was even more a matter of visibility: during the winter a much greater incidence of cloudiness obscures the sun by day and the sky by night, making navigation difficult in an age that did not have the mariner’s compass, and more often do scud and mist veil the cliffs, headlands and mountains, which, sighted far off, gave skippers fair warning to stay clear.”⁹¹

We can see evidence of the sailors’ senses being put to the test aboard the ship during Paul’s journey to Rome, which by the way took place in the risky season “after the Day of Atonement”:⁹² “During the fourteenth night after they left Fair Havens the sound of breakers off a rocky coast gave warning of approaching land, and successive soundings confirmed this.”⁹³ It should be mentioned here that the Acts 27 shipwreck narrative “has been described (and justly so) as ‘one of the most instructive documents for the knowledge of ancient seamanship.’”⁹⁴ If you have not read it in a while, stop right now and re-read the 27th chapter of the book of Acts, paying attention to the Luke’s inspired narrative, replete with nautical terminology. “Not only is Luke’s account of the voyage instructive in the matter of ancient seamanship; it is valuable also for its depicting of Paul’s personality in those trying circumstances which are apt to bring out a man’s real quality.”⁹⁵

In short, a defined “sailing season and [reliable] wind direction combined to give a definite pattern to ancient seaborne activity. Ships traveling in most southerly directions—e.g., from Italy or Greece to Africa, Asia Minor, Syria, Egypt—could generally count on a quick and easy downhill voyage. But they paid for this on the return, which had to be made in the teeth of the prevailing wind.”⁹⁶

⁸⁹ Ibid., 94.

⁹⁰ The closed sea.

⁹¹ Casson, *Seamanship*, 271-272.

⁹² Acts 27:9. According to Bruce, *Apostle*, 370, the date of this festival in A.D. 59 was October 5.

⁹³ Bruce, *Apostle*, 372.

⁹⁴ Ibid., 369.

⁹⁵ Ibid., 370.

⁹⁶ Ibid., 272.

Dangerous wind patterns also characterized the tiny Sea of Galilee, as the Gospels record. Partly this is due to geography: “Because two large valleys open on the west side, the lake is directly affected by the strong afternoon westerly breezes, especially in the summer. These breezes can come up quickly, and in a few minutes the lake can sometimes turn from a peaceful lagoon into a high sea with waves soaring over seven feet, making afternoon sailing extremely hazardous.”⁹⁷ The rapid mixture of air temperatures creates turbulence, and the same principle holds true regardless from which direction a new air mass arrives.

“During the winter a sudden easterly wind may blow [in from the desert] and bring high waves of six to seven feet. The fishers around the lake call it *sharkiyeh*, “easterly wind.” The wind is so powerful that many fish are cast onto shore and collected by the inhabitants. A similar phenomenon occurs during the summer after a particularly strong westerly wind. No experienced fisher would dare to sail in such a windstorm, especially when the fish market has been supplied with fish collected from the shores. Fishers, when caught up by the storm, would do whatever is possible to return to safe harbor.”⁹⁸

What kind of fish did they catch?

“Friends, haven’t you any fish?”⁹⁹ shouted the Lord across 100 yards of lake water. Their simple negative reply contained the frustration of a night’s worth of work with nothing to show for it. They fishermen were returning home defeated, without a fish in the boat. A simple (and familiar) command accompanied by a confident promise gave the disciples reason to stop their homeward progress and try one last cast of the net—this time off the boat’s port side. Shouts rang out, a splash of water sprayed the group, and 153 large fish trapped in a net squirmed in an attempt to hop out of the small boat. A miracle like this called for a celebratory breakfast, and for the third time the disciples had the chance to sit and visit with the risen Lord.

The topic of Galilean fish species and net casting is complex, but resources exist to inform us on both topics. Research papers and encyclopediae usually quote Mendel Nun, a Jewish man who moved to Israel at a young age and spent his life fishing on the Sea of Galilee. His many books and articles articulate clearly the differences between seine, trammel, and veranda nets, between bad and good fish, between large and small fish, and many other qualities of the eighteen species of fish in the lake and the various methods used to catch them. He notes that the fish caught by hook and line with the temple tax in its mouth must have been a barbel, a

⁹⁷ Rousseau, *Dictionary*, 246.

⁹⁸ *Ibid.*, 246-247.

⁹⁹ John 21:5

type of carp which gobbles anything it can find along the bottom, and could not have been, as Israeli menus promote, the more appetizing pan-fish called the musht, since this species only eats plankton.¹⁰⁰ The small fish in the miraculous feedings, he explains, were doubtless sardines, “the staple diet of the local population...which appear in large quantities and during a short season, [which] had to be preserved by salting.”¹⁰¹

Seine nets may be up to 1000 meters long and are placed horizontally to the shore. The crew utilizes a large boat, usually about 8 meters long and 2½ meters wide, which happens to be the size of the Galilee Boat). The team drags the net toward the shore, gathers and sorts the fish, then starts over again a short distance down the shore, “as often as eight times during a day’s fishing.”¹⁰² A hand-tossed, circular net twenty to thirty feet in diameter with weights around the perimeter is called a cast-net in English and was used by a sole fisherman to catch either large or small fish, depending on the size of the net’s holes.¹⁰³ Linen trammel nets were set from smaller boats (5 to 6 meters or 16 to 19 feet) in an arc along the shallow water, and then the fishermen would slap the water with oars to scare the fish into heading for deeper water.¹⁰⁴ This net used the fish’s momentum and desperation to trap it. To ensure that the linen filaments were invisible to the fish, the trammel was “lowered and hauled up ten to fifteen times during a night’s work... A good night’s catch may bring approximately 100 to 200 pounds of fish,” before it was washed, mended, and laid out to dry.¹⁰⁵ The veranda net system was a combination of the trammel deployed in a circle, surrounded by another net floating horizontally on the surface of the water to catch jumping fish, and a cast-net with sinkers thrown down into the middle of the circle.¹⁰⁶

For all Nun’s scholarship and experiential knowledge, a major drawback (in, for example, recommending his books to dads or sons in your congregation who like to fish and hunt) is that he has no compunction about declaring a biblical passage in error or inaccurate.

¹⁰⁰ Mendel Nun, *The Sea of Galilee and Its Fishermen in the New Testament*, (Kibbutz Ein Gev: Tourist Department and Kinnereth Sailing Co.: 1989). 45-48.

¹⁰¹ *Ibid.*, 49-51.

¹⁰² *Ibid.*, 18f. He interprets Habakkuk 1:15, Ezekiel 26:5; 26:14; 32:3; 47:10, and Matthew 13:47-48 as referring to the seine net, used at night to catch sardines and other large fish.

¹⁰³ *Ibid.*, 23-26.

¹⁰⁴ *Ibid.*, 28. He interprets Job 19:6, Ecclesiastes 9:12, Luke 5:6, and John 21:19 as referring to trammel nets catching schools of musht and mullet.

¹⁰⁵ *Ibid.*, 32,33.

¹⁰⁶ *Ibid.*, 34-36. He interprets Mark 1:16-18, and Matthew 4:19,20 as referring to cast-nets for small fish.

Often such an inaccuracy is only possible after Nun himself constructs the context and meaning of a passage; a natural reading would never result in such confusion. Regarding the parable of the seine net in Matthew 13:47-48, he quibbles with the clause “when it was full,” as though there were some period of waiting for the net to fill. “The basic feature of dragnet fishing is to start hauling immediately as soon as it is spread.”¹⁰⁷ The two are, of course, not incompatible. The team hauls in the net as soon as possible, and when they find it full of fish, they sort them. He reads details into the text, such as that the text of Jesus calling of his first disciples says that Peter and Andrew “had nothing to leave but their nets. But...[Simon, son of] Jonah’s family must have been wealthy, since they owned a house in Capernaum.”¹⁰⁸

Nun goes into great detail on the Luke 5 account of the miraculous catch of fish, but removes all traces of the supernatural. “While Jesus was preaching from the boat, he saw a school of musht nearing the shore, as often happens during the morning hours of the winter. Following Jesus’ command, Simon’s boat immediately takes off, the nets which had been already washed are re-arranged and lowered at the spot indicated by Jesus. The catch was enormously successful!...This is a true fisherman’s story, even if perhaps a trifle exaggerated.”¹⁰⁹

Noting discrepancies between the Luke 5 account and John 21, which he assumes “originate in the same source,” Nun identifies the net-placing method in John 21 as the veranda method.¹¹⁰ While most lexicographers fail to see a distinction between the two terms for ‘boat’ in this account, Nun presses the difference and advocates for two boats, the larger of which caught many fish and the smaller was being operated by Peter, who was diving for the contents of his cast net. To further confuse the issue, Nun declares that the 153 large fish were not those hauled in by the disciples in the larger boat, but by Peter alone in a small cast net, which Nun deems impossible. This is an unnecessary imposition on the text and raises more questions than it solves. It hardly makes sense to rationalize one supernatural act by replacing it with another.

Sadly, the world’s (now deceased) leading scholar on the creatures and conditions of the Sea of Galilee missed the point of those Gospel accounts. He merely appreciated them as good

¹⁰⁷ Ibid., 22.

¹⁰⁸ Ibid., 27.

¹⁰⁹ Ibid., 38-40

¹¹⁰ Ibid., 41-44.

stories, “in spite of the many stylistic changes which the original texts have undergone for theological or other reasons.”¹¹¹

Keep these final points in mind when evaluating explanations of the fishing and sailing accounts in Scripture: Even these details are inspired and inerrant. Reason must bow the knee to the eternal Word of God, even if it seems to conflict with your entire experience (in this case, many years on the water). Also, notice that many of the accounts Nun challenged on the basis of his many years of experience were miracles. These accounts were recorded precisely because what happened was *not* business as usual. If Mendel Nun found it hard to believe what happened, imagine the shock of the disciples, who saw these events and whose families had fished the lake for generations. Even the calling of the disciples involved a miracle in the heart that Nun could not fathom. The sailing accounts in the New Testament, except for the passing references to travel, are recorded because of their unique nature. They directed attention to Jesus. Attempts to explain them away rationally must fail. Remember this as you tell vivid stories about sailing: “The person without the spirit does not accept the things that come from the Spirit of God but considers them foolishness, and cannot understand them because they are discerned only through the Spirit.”¹¹² The Word of God alone can create such spiritual discernment.¹¹³

What other details might I notice while sailing on a biblical boat?

This final question covers over a multitude of ignorance. If a preacher wants to communicate the sailing accounts of Scripture to his hearers in an accurate and vivid way, he must possess a broad spectrum of sensory data which he can use to paint the scenes in true color. Although many of the details we would like to ascertain remain trapped under mud at the bottom of lakes and seas, we are not flying completely blind. Nautical archaeologists have dug up, dived for, and deciphered numerous objects of interest. Another advantage we have is that modern sailing is in many ways a vestige of the past. Much of sailing is inherently timeless. We end this section with a survey of boat construction, materials, parts, and other striking details.

¹¹¹ The closing words of the book cited above are especially disappointing: “Finally, let us not forget that Jesus and his disciples, the fishermen of the Sea of Galilee, were loyal Jews living in accordance with their religious laws, who at a time of great historical crisis followed a new leader to bring about redemption. It was only after the heroes of the gospels were long dead that Christianity began to evolve in different forms,” *Ibid.*, 60. No, He is risen!

¹¹² 1 Corinthians 2:14

¹¹³ John 6:63

Shipbuilding techniques were under development in the biblical era. The planks of many of the earliest boats were sewn together.¹¹⁴ In the early Old Testament era, the Egyptians used a method of raft- or boat-building called *wnh*, which “may mean planks used for hull [boards],” but “remains obscure, . . . because of problems of interpretation.”¹¹⁵ Linguists and archaeologists are now re-examining ancient texts to see what they can learn from and about the most recently found shipwrecks. These earliest ships of the Egyptians, Greeks/Minoans, Sea Peoples, and Syro-Canaanites/Phoenicians are the new frontier for nautical archaeologists. It is likely that the Uluburun shipwreck from the 8th century B.C. belongs to one of these cultures.

Civilizations around the Mediterranean eventually all arrived at a form of shipbuilding called “pegged mortise-and-tenon joinery.”¹¹⁶ This method made it possible for shipwrights to attach the narrow ends of thin boards. The closest comparison to something in modern culture is perhaps a wooden chair at your kitchen table. Picture how the beveled end (tenon) of each leg is inserted into a drilled-out hole (mortise) on the under-side of the seat. To keep the two pieces from separating (since the sides of the boat coming apart in the middle of a journey would be dangerous), imagine drilling a hole through the side of your chair—a hole that passes through the mortise and tenon. Then insert a wooden peg or dowel through both pieces to lock them together. This method was as tedious as it sounds, but the end result performed well on the high seas, especially when constructed with resinous (sappy) lumber and covered in an outer, waterproofing layer of pitch. These boats held together superbly, even without high tech epoxy and other modern coatings and adhesives.

Construction materials were as uniquely local as the boats themselves. The curator of Israel’s National Maritime Museum at Haifa summarizes how in each Mediterranean region “shipping developed according to special topographical conditions, the raw materials available for ship building and the conditions of the waterways in the area. The first papyrus boats were built along the banks of the Nile. The forests of the North provided wood for rafts and hollowed-out canoes which crossed the waters of the Mediterranean and laid the foundations for trade.”¹¹⁷

¹¹⁴ Ralph K. Pedersen, “Was Noah’s Ark a Sewn Boat?” *Biblical Archaeology Review*, 31:03 (May/June 2005). Cf. a recent news story on a sewn boat in Oman: <http://www.npr.org/blogs/parallels/2014/11/19/365215257/>

¹¹⁵ Wachsmann, *Seagoing Ships*, 330.

¹¹⁶ Wachsmann, *Hull Recovered Intact*, about one quarter of the way through the article.

¹¹⁷ Avshalom Zemer, *Ancient Shipping*, second paragraph.

When attempting to construct a kit-boat found in an Egyptian tomb, Richard Steffy, a pioneer of nautical archaeology, “discovered that short trees in Egypt made for short hull planks, each about 3 feet long. It took about an hour to put together six planks, of which there were about 1,000 total.” His eye for detail and determination earned him the nickname “the wood whisperer.”¹¹⁸ Such painstaking work was necessary to discover information like the species, source, and even the age of a ship’s timbers.¹¹⁹

Now let your mind’s eye glance up from the timbers of the hull to the system of ropes and cables attached to boat parts high above your head. “The first thing you do when you board an unfamiliar boat that you plan to sail is identify the *function* of the lines.” That piece of advice was given to me by my Coastal Cruising instructor in the Apostle Islands of Lake Superior. His point was that boats run many different configurations of ropes: Some for raising and lowering sails (halyards), some for changing the angle of the sails (sheets), and others that serve valuable purposes but are not included on every boat (topping lifts, boom vang, furling lines, etc.) Though these lines may look different and appear in different places on the boat, if you can identify the function of the line from the rather limited menu, a mess of confusing ropes quickly becomes familiar and beneficial.

Most of the parts of ancient boats are also parts included on my boat or any another modern, fiberglass, mass-produced recreational sailboat. Many parts, however, developed over a long period of time into their current forms. For example,

The boom-footed rig used during the Bronze Age in Egypt and the Syro-Canaanite littoral [i.e., coast] seems to have been virtually identical. The sail was spread by raising the yard to the masthead with a pair of halyards. The yard and boom were supported on a system of lifts; the boom was lashed to the mast. It was an awkward rig at best that only worked well with the wind nearly astern... Perhaps the most interesting aspect of the Late Bronze Age rig is the lack of shrouds for lateral support on seagoing ships. In their place, there evolved a system of cables that secured the lower part of the mast and which were anchored in some manner laterally inside the hull. Their lack of shrouds, sail plan, and

¹¹⁸ Maggie Kiely. 2013. "Former professor J. Richard Steffy's model ship finds new port at Texas A&M." *The Eagle (Bryan, TX)*, October 21. (accessed November 10, 2014). I would have liked to have met this man, who told the New York Times in 1992: “I like to think that shipbuilding was the most important early everyday technology. The Greeks and Romans built big and beautiful temples, but I think there’s really nothing like a ship, their ships.”

¹¹⁹ Consider the newborn science of dendrochronology, which compares the growth rings of a piece of wood with an existing record. See Wachsmann, *Extraordinary Discovery*, 349.

keel design indicate that sailors in this age “did not use the sail unless the wind was (nearly) directly astern.”¹²⁰

Much of the preceding paragraph describes modern sailboats, although we now benefit from several innovations that make sailing easier. Improved sails and sail materials are able to suspend the weight of a boom (the horizontal spar, usually made of aluminum or carbon, that runs along the bottom of the sail), and boats are able to sail at closer angles to the wind direction, often making headway with the wind less than 45 degrees in front of them.¹²¹ The cable system described above sounds both dangerous and difficult to use. To keep their masts vertical, modern boats use two, four, six, or more shrouds (also called stays, which are usually cables made of stainless steel) plus one or two additional wires running to the bow (front) and/or stern (back). A painting from the tomb of Kenamun in Thebes shows a system of “arc-shaped lifts” like those mentioned above, but these were strung up to the top of the mast, “thus defeating their purpose.”¹²² In other words, the painter was attempting to depict a glorious Syro-Canaanite ship, but ended up drawing essentially useless parts. This serves as a good reminder that images of ships are not “actual ships, but instead artists’ representations of them. These depictions can deviate from the original craft due to artistic conventions and individual artistic ability.”¹²³

The masts of early freighters, as depicted on Roman coins and reliefs often appear quite different than modern masts. The forward mast (if the ship has two, such as the large freighters like the one in which Paul and Luke were shipwrecked) tilts forward, over the bow (front) of the boat. “The foremast [“the *artemon* as the Greeks called it”] did not lose its forward rake (tilt) until close to the beginning of the fourth century AD.”¹²⁴ Therefore when you read Acts 27:40, you should picture the sailors running a small sail up a diagonal pole tilting out over the water.¹²⁵

An additional difference regarding the sail was the use of a yard, braces, and brails. A yard is “the spar [solid piece] along the head of a sail,” braces are “lines attached to the ends of

¹²⁰ Wachsmann, *Seagoing Ships*, 330,331.

¹²¹ In fact, the catamarans sailing in the America’s Cup this past year were able to sail at nearly 30 degrees to the wind, though such a course is slower in the long run than the speed advantage at 45 degrees.

¹²² Wachsmann, “*Ancient Ships: An Iconographic Tale*,” *Archaeological Odyssey* 6:01 (Jan.-Feb.2003), midpoint.

¹²³ Wachsmann, *Seagoing Ships*, 11,12.

¹²⁴ Casson, *Seafaring*, 46,115.

¹²⁵ According to F.F. Bruce, *The Acts of the Apostles*, 476, this was “by far the earliest instance of the word in Greek.”

the yard,” and brails are “lines for controlling the area of sail exposed to the wind.”¹²⁶ These are simply ways to raise, adjust, and reef [shrink] the mainsail. Modern sailboats keep the boom across the bottom of the sail fixed and simply raise and lower the fabric of the sail. To think that these ancient sailors raised the yard and sail and then adjusted both with pulleys but without modern carbon fiber ratcheting blocks and winches is a testament to sailors’ strength.

Anchors in biblical times looked quite different than the barbed ‘U’ with a cross on top than we often draw or imagine. In fact, modern sailboat anchors do not look much like that either. In Jesus’ day and before, anchors were extremely heavy, but more or less expendable. “[Weight anchors] were essentially large stone blocks with a hole bored through a corner.”¹²⁷ Later anchors included more bored holes into which seafloor-grabbing wooden poles or metal rods could be fitted. Chunks of stone are hard to date because often their only markings were a bored hole. Moreover they can last indefinitely and be handed down in a family business. Alternatively, some were dropped off the side as a weight-reducing measure (see Acts 27:40) or become entangled in some obstruction on the bottom. All this means that finding a stone anchor on the seafloor may not necessarily signal the discovery of a shipwreck, or even help to determine the age of a confirmed wreck.

To give some impression of the size and abundance of these anchors, Robert Ballard discovered eight of them on the two possibly-Phoenician wrecks off the coast of Ashkelon. “These anchors are of the most common ancient type, an apsidal stone with a single hole bored through it, a type found from the Bronze Age through modern times. Anchors of roughly the same length and width as our anchors vary between 176 and 881 pounds.”¹²⁸ “The Uluburun ship...carried no [fewer] than *twenty-four* stone anchors with a combined weight in excess of four tons!”¹²⁹ Stone anchors averaging 70 pounds have been found scattered on the bottom of the Sea of Galilee.¹³⁰ These are certainly similar to the anchors on the disciples’ fishing boats.

Hebrews 6:19 speaks of “an anchor for the soul, firm and secure,” which “enters the inner sanctuary behind the curtain.” Iron anchors had been around since the time of Herdotus in the

¹²⁶ Casson, *Seamanship*, 383,387.

¹²⁷ Wachsmann, *Seagoing Ships*, 331.

¹²⁸ Ballard, *Shipwrecks*, 22.

¹²⁹ Wachsmann, *Extraordinary Discovery*, 336.

¹³⁰ *Ibid.*, 37.

golden age of Greece, but were rare. By the end of the first century AD, though, they were commonplace around the Mediterranean shipping world.¹³¹ The vagaries of the authorship, date and recipients of the letter to the Hebrews make it difficult to answer what type of anchor 6:19 was intending. Was it iron or stone or poured lead encased in wood? Is it the weight of the anchor that makes it firm and secure or is it the superior holding ability of the iron u-shaped anchor? Either way this anchor holds fast, and the hope of our souls is firm and secure

As you scan the following charts, appreciate the breadth and detail of the Bible's nautical vocabulary. Use the References and Notes pages that follow each chart as a springboard for further study into the use and context of these inspired words.

¹³¹ Ibid., 342.

II. Lexicographic “Point of Sail”

Hebrew Nautical Terminology in the Old Testament

Boat Building

1	חָזַק	To bind, strengthen
2	חָמַר	To smear with tar
3	כָּפַר	To coat with tar

Boat Materials

4	אָבָה	Papyrus, reed
5	גִּמָּא	Papyrus, reed
6	גֹּפֶר	Gopher wood
7	תַּאֲשׁוּר	Wooden planking

Boat Parts

8	בִּדְק	Hull breach, seam
9	חֶבֶל	Mast
10	חָמַר	Pitch/tar
11	חֶבֶל	Rope(s)
12	כֹּן תָּרֵן	Mast
13	כֶּפֶר	Pitch/tar
14	מִכְסָּה	Awning, bimini
15	מִפְרָשׁ	Sail, unfurling
16	גַּס	Sail
17	צֹהַר	Roof
18	קֹו	Room, berth
19	קֶרֶשׁ	Frame/deck
20	תָּרֵן	Mast
21	מְשׁוֹט / מְשׁוֹט	Oar
22	חֶבֶל	Ropes

Boat situation

23	שָׂיַט	Rowing
24	מִפְלֹת	Shipwreck

Boat type

25	אָנִי	Merchant fleet
----	-------	----------------

26	אָנִי־שֵׁיט	Galley
27	דְּבָרוֹת	Float of logs
28	כֵּלִי	Vessel
29	סַפִּינָה	Sea-going vessel
30	צִי	Ship
31	שִׁבְיָה	Ship
32	תֵּבָה	Ark
33	צִי אֲדִיר	Magnificent ship

Boat Verbs

34	חָתַר	To row
35	יָרַד	To abandon ship
36	יָרַד	To board a ship
37	נָטַשׁ	To be loose/eased
38	פָּרַשׁ	To spread out
39	שׁוֹט	To row
40	עָבַר	To cross a river
41	חָבַל	To move across the water
42	סָחַר	To travel (on business)

Compass Direction

43	יָם	West
44	יָמִין / יָמִין	South
45	קִדְמָה	East
46	דְּרוֹם	South

Fishing

47	מִשְׁטָח	Spreading place (for nets)
48	חָרֵם	Net
49	מִצּוּדָה	Net

50	מִכְמָרֶת / מִכְמָרֶת	Casting net
51	צִלְצָל	Harpoon
52	שִׁבְיָה	Harpoon
53	אָפִיק	Scales

Fishing-verb

54	אָחַז	To catch (fish)
55	אָסַף	To gather
56	גָּרַר	To drag
57	דָּיַג	To fish
58	עָלָה	To haul up (nets)
59	שָׂרַץ	To swarm/teem

Fish-type

60	דָּג	Fish
61	לוֹיִתָּן	Leviathan
62	עַמְלִיץ	Shark
63	רָמָשׁ	Creepers, gliders
64	שָׂרַץ	Swarmers, teemers
65	תַּחַשׁ	Sea-cow, dolphin, porpoise
66	תַּנִּין	Long creature
67	שֹׁפַע יָמִים	Abundance of the sea

People

68	אִישׁ אָנִיָּה	Sailor
69	דִּיָּג	Fisherman
70	חֶבֶל	Sailor
71	מִלָּח	Sailor

72	רַב הַחֲבֵל	Captain
73	שׁוֹחֵה	Swimmer

Ports

74	מָחוּז	Port, marina
75	גְּבַל	Gebal (Byblus)
76	נָא	Thebes
77	צָר	Tyre
78	נֹף / מֶמְפִּיִּם	Memphis
79	צִידוֹן	Sidon
80	יָפוֹ	Joppa
81	תַּרְשִׁישׁ	Tarshish
82	אֵיל פְּאָרָן	Elat/El Paran
83	עֶצְיוֹן גְּבֵר	Ezion Geber
84	אוֹפִיר	Ophir

Rivers

85	יָאֵר	Nile or Tigris or large river
86	יַרְדֵּן	Jordan River
87	פְּרַת	Euphrates River
88	אָפִיק	Channel, stream
89	אָבֵל / אוֹבֵל	Canal
90	מִיכָל	Brook?
91	נַחַל	Wadi
92	נָהָר	River
93	קְדוּמִים	Raging, rushing
94	שֶׁטֶף	Torrent, flood
95	צְנוּר	Waterfall, waterspout
96	מָלֵא	To be at flood stage
97	יָצַק	To wash away

98	גָּרַף	To sweep away
99	גָּרַשׁ	To cast up/stir up

Sea Geography

100	לִבַּב יָמִים / לְבַיִם	The heart of the sea
101	יַבֶּשֶׁה	Dry ground
102	שֹׁפַת הַיָּם	Sea shore, riverbank
103	חוֹף יָמִים	Coast of the Sea
104	חֶבֶל הַיָּם	Region of the Sea
105	חוֹל הַיָּם	Sand of the Sea
106	לְשׁוֹן הַיָּם	Bay, gulf
107	מֵיָם עַד־יָם	From sea to sea
108	כָּסָה	To cover (with sea water)
109	חוֹף	Cove, coast
110	יָם	Sea
111	מְצוּלָה	Abyss
112	מַפְרָץ	Harbor, bay
113	מַיִם	Water
114	סוּף	Reed
115	אָפִיק	Depths of sea

Specific Seas

116	יָם כְּנָעַן	Sea of Galilee
117	יָם־סוּף	Red Sea/Gulfs of Suez, Aqaba
119	יָם־מִצְרַיִם	Sea of Egypt (Red Sea)
120	הַיָּם הַגָּדוֹל	Mediterranean Sea
121	יָם מֶלַח	Sea of Salt (Dead Sea)
122	יָם הָעֲרָבָה	Dead Sea (Sea of the Arabah)

Swimming

123	שָׁחוּ	Swimming
124	רָוָה	Drowning (fig)
125	טָבַע	To sink, drown
126	יָרַד	To go down (to sea)
127	שָׁחָה	To swim

Waves

128	מְשַׁבֵּר	Breakers
129	פְּחוֹז	Foamy
130	גָּל	Rollers

Winds

131	עָנָן	Cloud
132	דְּרוֹם	South wind
133	סוּפָה	Strong wind (Gale?)
134	קָדִים	East Wind
135	סַעַר / סַעְרָה	Storm
136	סוּפָה	Storm wind
137	רוּחַ	Wind
138	רוּחַ יָם	West Wind
139	עָיַם	Drying?
140	סָעַר	To grow stormy

Hebrew Nautical Terminology in the Old Testament—References and Notes

<i>Vocable</i>	<i>Gloss</i>	<i>References</i>	<i>Notes</i>
¹ חֲזַק	To bind, strengthen	Isaiah 33:24	Piel
² חֶמֶר	To smear with tar	Exodus 2:3	Moses' mother did this to Moses' basket to keep it waterproof. Note that both words for 'tar' use cognate accusatives.
³ כָּפַר	To coat with tar	Genesis 6:14	God commanded Noah to waterproof the ark by coating it with pitch.
⁴ אֲבָה	Papyrus, reed	Job 9:26	Light material for very fast boats on small body of water
⁵ גִּמְא	Papyrus, reed	Isaiah 18:2	Perhaps from a verb meaning 'suck up (water)', these reeds could be used as a material in the making of paper, or apparently boats. Isaiah speaks of Cushite envoys in these light-weight boats, and they're described as 'swift.'
⁶ גִּפְר	Gopher wood	Genesis 6:14	Unknown kind of wood commanded by God for Noah's use in building the ark. DBL has note (Holladay, KB3) that ancient versions translated it as a kind of finished timber, not a species of wood. BDB and others propose the first radical is actually a כ, and כָּפַר 'cover over' could indicate a resinous, sappy wood like pine or fir. The entry on קָן will explain an idea that 'rooms' is better translated 'reeds' and the gopher wood frames supported reeds woven between.
⁷ תַּאֲשׁוּר	Wooden planking	Ezekiel 27:6	Cypress or perhaps box, elm, or pine. Disagreement about the type of tree, but it is a particular species of tree from the 'coasts of Cyprus' used to make the deck/steps of the Tyre boat in Ezekiel 27. Later decorated with ivory. Bigger disagreement is word division: Should this word be 'the 'daughters of the Ashurites' (presumably the boat-builders) בְּתֵּאֲשׁוּרִי or 'with cypress wood' בְּתַאֲשׁוּר. Parallelism fits better with a phrase describing the origin of the lumber.
⁸ בְּדִק	Hull breach, seam	Ezekiel 27:9, 27	Term only used of a damaged area of Temple (before the repairs of both Joash and Josiah in 2 Kings 12 and 22) and of a wooden boat, referring to the likely areas of leaking (the joints and seams, especially if neglected or hit.) Term used in Ezekiel 27:27 as absolute in מְחַזְּקֵי בְּדִקְךָ 'your strengtheners of a breach'=shipwrights.
⁹ חֵבֶל	Mast	Proverbs 23:34	The Wise compare a drunk person to a person sleeping on the top of a mast while sailing in deep water and high waves. His tipping motions are exaggerated.
¹⁰ חֶמֶר	Pitch/tar	Exodus 2:3	Only used a few times to refer to readily available tar or bitumen, which was sticky and useful for various construction projects.
¹¹ חֵבֶל	Rope(s)	Isaiah 33:23	Generally anything used for binding, in many contexts. Here the cords, lines, and bindings used on a ship. Isaiah's ship metaphor says these ropes are slack and completely eased. The next lines describe slack in the stays supporting the mast and a still-furled sail.

- ¹² **כַּן תָּרֵן** Mast Isaiah 33:23 Construct chain. Literally 'base of their pole.'
 This word is usually used for a stand or a framework upon which things could be set. 'Foot' or 'base' might also work then, in fact 'mast foot' is a technical term referring to the very bottom attachment piece of a removable mast. This is intriguing, since most translations seem to ignore the detail in this verse. HCSB is an exception: "They cannot hold the base of the mast." They presumably refers to the ropes, though ropes are not attached to the base of a mast. Stays (side, fore and back) do function to hold the mast in place, but here perhaps the focus is not so much on the ropes as it is on the mast's general stability. The verb emphasizes strength more than security, otherwise 'they cannot secure the mast foot' would be conceivable. 'Make strong' is an awkward way of describing what ropes or even sailors do to a mast. I suspect the connection is more in line with the Aramaic **ܩܘܩ** "bind on or about" or "gird on" and Arabic **حَزَقَ** "hazaqa" bind, squeeze. The ship is in such disrepair that the stays intended to keep the mast in place are dangling down toward the deck, securing nothing, ensuring an imminent dismasting.
- ¹³ **כִּפָּר** Pitch/tar Genesis 6:14 Sticky material that kept the water out of the ark. Cf. **הֶמָּר** which was used to keep baby Moses' basket waterproof.
- ¹⁴ **מִכְסָּה** Awning/Bimini Ezekiel 27:7 One of four very different meanings of this word. A cloth cover to protect from sun and rain.
- ¹⁵ **מִפְּרֵשׁ** Sail, unfurling Ezekiel 27:7, Job 36:29. Linen canvas sheet on a boat. Use in Job 36 focus only on God's action of 'spreading out' clouds in the sky. Ezekiel is describing the Tyrian ship. LXX translates **στρωμνή** 'bed, covering' as in Gen 49:3, Est 1:6, Psalm 6:7, 63:7, Amos 6:4
- ¹⁶ **נֵס** Sail Isaiah 33:23, Ezekiel 27:7. From root **נסַּ** which occurs only twice and only in Hithpoel (Psalm 60:6 and Zechariah 9:16) meaning (probably) 'raised/conspicuous/displayed/ sparkling.' As a noun, according to TWOT, gen. Rallying point or standard which drew people together for action. In the camp of the Israelites this could be a signal pole or the flag upon such a pole. There are 21 occurrences, 16 of which refer to a 'banner' or 'standard.' Occurs 1x in Exodus (17:15, the name of an altar Moses built: "The Lord is my Banner"), 3x in numbers (21:8,9 of the pole on which Moses placed the bronze snake, and in 26:10 with the meaning 'sign'), 1x in Psalm 60:4, 10x in Isaiah, 5x in Jeremiah, and 1x in Ezekiel, where the prophet uses **מִפְּרֵשׁ** 'sail' first and seems to designate another boat part with **נֵס**. Does the Isaiah passage refer to a flag rather than a sail? According to Mishna, Bava Bathra 5a, the mast was an integral part of the boat. "If one sells a boat, the sale includes the mast, the flag, the shovels, and all things pertaining to the leading of the boat, but not the slaves, etc." That Jewish ships bore flags seems evident from tomb murals, cf. Encyclopedia Judaica VI p. 1335. The Targum speaks of colorful flags made of silk. - TWOT
- ¹⁷ **צֹהַר** Roof Genesis 6:16 The plural of a similar word means 'noon,' when the sun is overhead. Used only in God's command to Noah to put a hard cap on the ark to keep the rain out of it.

- 18 קֶן Room, berth Genesis 6:14 A part of a larger construction. Job 29:18 uses the word in a different sense: "I thought I would die in my 'room.'" According to the normal sense of this word, a berth or compartment was compared to a 'nest.'
- 19 קֶרֶשׁ Frame/deck Ezekiel 27:~^ Only prophetic use is Ezekiel 27:6, describing the high-quality wood used in the construction of the symbolic ship of Tyre. Exodus and Numbers use this word 50x in reference to the 'frames/boards' of the tabernacle.
- 20 תָּרֵן Mast Isaiah 33:23; Ezekiel 27:5 Impressive on both the Israelite and Tyrian vessels.
- 21 מִשׁוֹט or מְשׁוֹט Oar Ezekiel 27:6,29 An alternative means of (inboard) propulsion.
- 22 חֲבָל Ropes Isaiah 33:23 The tackling of a boat, used this way only in Isaiah 33.
- 23 שִׁיט Rowing Isaiah 28:15 (Kativ); 33:21 The action of moving through the water, propelled by powerful oars. According to TWOT, the focus is on people accomplishing the action, not the movement of the boat (it's goal oriented).
- 24 מִפְּלֹת Shipwreck Ezekiel 27:27 Only nautical use is in Tyrian ship's fate. Other glosses are 'downfall' (Proverbs 29:16; Ezekiel 26:15,18; 32:10); 'fallen tree' (Ezekiel 31:13); 'carcas' (Jdg 14:8), and 'falling' (Ezekiel 31:16).
- 25 אֲנִי Trading/galley ship/fleet of trading ships 1 Kings 9:26,27; 10:11; 22 (3x); 2 Chronicles 9:21; 20:36; Jonah 1:3-5; Daniel 11:40 Common word for ocean-going ship. Doesn't specify size, speed, capacity, or construction. Few good harbors on Israel's coast, but sea trade was possible via the Phoenicians. Philistines blocked sea access up to Solomonic times, who sent sailors out from the Gulf of Aqabah, not so much the Mediterranean. Used in other forms, such as a construct+man=sailor אִישׁ אֲנִיָּה in 1 Kings 9:27. Can denote a whole fleet or a navy (Daniel 11:40).
- 26 אֲנִי-שִׁיט Galley Isaiah 33:21 A ship of an oar must, from parallelism context, be a large ship that is unable to navigate shallow, rocky rivers. It needs room and deep water to maneuver.
- 27 דְּבָרוֹת Float of logs 1 Kings 5:9 Assembly of logs for towing to another location (from Lebanon south to location of David's choosing).
- 28 כֵּל Vessel Isaiah 18:2 Less a description of a boat than a rare word for a boat. This word has so many meanings and all are explained by context. Of its 319 OT uses, only one is a 'water vessel/container,' or a boat.
- 29 סְפִינָה Sea-going vessel Jonah 1:5 Large enough to sail on open seas and have some sort of arrangement of berths below deck, though not necessarily full cabins.
- 30 צִי Ship Numbers 24:24; Isaiah 33:21; Ezekiel 30:9; Daniel 11:30 The boat described by this word in the OT is able to cross the Mediterranean from Cyprus and either the Upper Nile or Red Sea to Cush. A monosyllabic word (like 'boat' or 'ship') seems to leave the door wide open for additional specificity by adding additional

words, though Isaiah is the only writer who does so, adding אָדִיר (mighty) as a description in 33:21.

- 31 שִׁבְיָה Ship Isaiah 2:16
- 32 תִּבְיָה Ark Genesis 6:14+25x; Exodus 2:3,5
- 33 צִי אָדִיר Magnificent ship Isaiah 33:21
- 34 חָתַר To row Jonah 1:3 Rowing with oars was viewed as the same action as digging--the verb is the same as Ezekiel's action prophecy in chapter 12 and action in vision in chapter 8. Amos 9 pictures men digging down to Sheol to get away from judgment, but this seems to be digging on land in verse 2. In verse 3, they hide from God's eyes at the bottom of the sea בְּקִרְקַע הַיָּם
- 35 יָרַד To abandon ship Ezekiel 27:29 Qal. Used once of the Tyre ship in Ezekiel. Does going down 'from boats' mean disembarking onto land or diving off into the water?
- 36 יָרַד To board a vessel Jonah 1:3 Qal. Jonah was later sleeping in a room on the boat, so this could be a going down into the cabin or simply an expression for boarding. When you board a sailboat, you step over the rail and 'down' into the cockpit.
- 37 נָטַשׁ To be loose/eased Isaiah 33:23 Nifal
- 38 פָּרַשׁ To spread out Isaiah 33:23 Qal cf. Assyrian parašu, fly (that is, spread wings"). The fishermen do the same thing with nets in Isaiah 19:8.
- 39 שׁוֹטַר To row Ezekiel 27:8,26 The verb חָתַר and the noun שִׁיט both refer to this action. Ezekiel uses this verb, which is closer to the related nouns
- 40 עָבַר To cross a river Isaiah 33:21 Qal. 'to pass through/over.' The Lord will not allow mighty ships to sail on the rivers and streams of Jerusalem, according to Isaiah 33:21. Metaphorical of other countries attacking or ruling over them?
- 41 חָבַל To move across the water Isaiah 33:21 Qal. Boats 'go' on the water. Can we say that this verb makes boats seem to 'walk' upon the water? Maybe 'travel' or 'move' is better.
- 42 סָחַר To travel (on business) Proverbs 31:14 The epilogue to the book of Proverbs compares the wife of noble character to "a ship of a merchant", using the Qal Active Participle of this verb meaning "to go about, travel about in trade." BDB offers the same word with two patachs as an alternative noun, meaning 'traffic, gain' but there doesn't seem to be much in favor of that pointing. It is good to compare Proverbs 3:14 to 31:18, though.
- 43 יָם West Genesis 12:8; Exodus 10:19; Numbers 2:18 Used over 70x referring to the direction, though twice to describe, oddly enough, the opposite of north (south), Psalm 107:3; Isaiah 49:12.
- 44 יָמִין or תִּימָן South Genesis 13:9; 48:13ff Exodus 14:22; Judges 3:21; 1 Samuel 6:12 Used over 150x to describe "right when facing east," or south. The country of Yemen displays the Arabic cognate. Ugaritic is also a cognate, although right for Egyptians facing upstream was to the West.

- 45 קְדָמָה East Exodus 14:21; Job 27:21; 38:24; Psalm 48:7; 78:26 The East wind brought hot wind from the desert, which was often destructive
- 46 דָרוֹם South Deuteronomy 33:23; Job 37:17; Ecclesiastes 1:6,11; Ezekiel 20:46; 40:24ff Another word for the South with 17 occurrences, used in connection with wind in both Ecclesiastes and Job. The rest of the occurrences are in Ezekiel, mostly giving directions regarding the temple vision, especially in chapters 40-42.
- 47 מְשֻטָח Spreading place (for nets) Ezekiel 26:5,14; 47:10 Refers to massively long nets being placed out for checking, mending, and readying for re-deployment on dry, flat ground. Mendel Nun: "A recurring picture for fishing villages."
- 48 חָרִים Net Ezekiel 26:5,14; 32:3; 47:10; Habakkuk 1:15-17 Related to roots meaning slit, perforated. Used nine times, seven of which are fish-related. Mendel Nunn has additional insights regarding various nets.
- 49 מְצוּדָה Net Ecclesiastes 9:12 Net is described as 'evil,' from the fish's perspective. The comparison here is that death and evil catch their victims unawares. Again this net does not seem to be dragged through the water behind a propelled boat, but rather the net falls down on the fish (because of weights around the edge), or perhaps the fish swim through it without seeing it.
- 50 מְכַמְרֵת or מְכַמְרֵת Casting net Habakkuk 1:15,16; Isaiah 19:8 Cf. חָרִים The two spellings of this word do not seem to be describing different purposes of the net. Habakkuk focuses on the Babylonian foe controlling and gathering the Israelites like fish in his net. Another type of net and hooks are mentioned earlier in verse 15 and also later in the chapter. Isaiah portrays Egyptian men spreading out their nets upon the top of the water, letting them sink, and drawing them in. There is no mention of them standing on a boat, however it should probably be assumed from their job title (fishermen) that they had a way to move about and cross the river.
- 51 צֶלְצֵל Harpoon Job 41:7 A fishing spear, useless against the Leviathan. Synonym שָׁבָה
- 52 שָׁבָה Harpoon Job 41:7 See previous.
- 53 אֲפִיק Scales Job 41:15 Job 41:15 uses this word to describe the back of the Leviathan: אֲפִיק מִגֵּן (channels of shields, which sound a lot like scales or some kind of very capable defense)
- 54 אָחַז To catch (fish) Ecclesiastes 9:12 Only fishing reference is in Nifal, so 'as fish are caught' in a (drag?) net. The substitute ram for Abraham's sacrifice was 'caught' in a thicket, and Job said God had "grasped me by the neck and shaken me to pieces" (16:12).
- 55 אָסַף To gather Habakkuk 1:15
- 56 גָּרַר To drag Habakkuk 1:15; Proverbs 21:7 To lead or drag away fish in a net

- 57 **דִּיג** To fish Isaiah 19:8; Jeremiah 16:16 (Qere) To catch fish using any method. Used figuratively for the deportation of Judah.
- 58 **עָלָה** To haul up (a net) Ezekiel 32:3 Translated with the causative sense of the Hifil.
- 59 **שָׂרַץ** To swarm/teem Genesis 1:21; Ezekiel 47:9
- 60 **דָּג** Fish Genesis 1:26,28; 9:2; Exodus 7:18; Numbers 11:5,22; Deuteronomy 4:18; 1 Kings 5:13; Job 12:8; Psalm 8:9; 105:29; Ecclesiastes 9:12; Isaiah 50:2; Ezekiel 29:4 (2x), 5; 47:9, 10 (2x); 38:20; Hosea 4:3; Jonah 1:17 (2x); 2:1,10; Habakkuk 1:14; Zephaniah 1:3. General term for any ocean-going creature, clean or unclean. Gate in Jerusalem named the Fish Gate (2 Chronicles 33:14; Nehemiah 3:3; 12:39; Zephaniah 1:10).
- 61 **לְוִיָּאֵתָן** Leviathan Job 3:8; Job 41:1; Psalm 41:1; 74:14; 104:26; Isaiah 27:1
6 occurrences, usually literal, but a couple times figuratively. Piecing together the descriptions, this real animal was a large reptile that lived in the sea or rivers or marshes and had frightening characteristics. Lotan in Ugarit is mythical. In the Bible the leviathan always appears with other beasts, like snakes תַּנִּינִי or sharks עַמְלִיץ or עֲבֵה־מֹות Behemoth. Crocodile? Snake?
- 62 **עַמְלִיץ** Shark Psalm 74:14 Conjecture by BHS. Involves a reconfiguration of Psalm 74:14b, changing לְעֵם לְצִיִּים to לְעַמְלִיץ יָם. The proposition apparently seeks to solve the problem of feeding crushed Leviathan heads to strong (acc. to the Syriac) or Ethiopian (acc. to the Septuagint) desert-dwellers, but that is not necessary. How much more destroyed can a sea creature be by the point it is being consumed in the desert?
- 63 **רָמָשׁ** Creepers, gliders Habakkuk 1:14; Psalm 104:25
- 64 **שָׂרַץ** Swarms, teemers Genesis 1:21; Ezekiel 47:10
- 65 **תַּחֲשׁ** Sea-cow, dolphin, porpoise Numbers 4 (7x); Exodus (6x); Ezekiel 16:10
- 66 **תַּנִּינִי** Long creature Genesis 1:21; Exodus 7:9,10,12; Deuteronomy 32:33; Nehemiah 2:13; Job 7:12; Psalm 74:13; 91:13; Isaiah 27:1; 51:9; Jeremiah 51:34; Ezekiel 29:3; 32:2 Snake? Crocodile? Something now extinct? Long fish, amphibian or reptile of some sort.
- 67 **שְׂפַע יַמִּים** The abundance of the sea Deuteronomy 33:19
- 68 **אִישׁ אֲנָיָה** Sailor 1 Kings 9:27 Construct chain. A man of a ship is a sailor. These were Hiram's men who sailed with Solomon's Israelite sailors.
- 69 **דִּיג** Fisherman Jeremiah 16:16 Person who catches fish using any method.
- 70 **חֹבֵל** Sailor Ezekiel 27:8,27,28,29; Jonah 1:6 Used of the skilled ship-handlers of Tyre. The word for rope is a segolate noun with the same root, so perhaps a bit of jargon for the “rope guy” or (as used in modern sailing to distinguish from the helmsman) the “crew.”
- 71 **מִלָּח** Sailor Jonah 1:5; Ezekiel 27:9 See above and cf. passages. Perhaps interchangeable, but the מִלָּח root has to do with all things salty (to salt, salt, saltiness).

In our culture, a longtime sailor is still called a “salt.” These are not necessarily old sailors, but Phoenicians with plenty of experience.

- ⁷² רַב הַחֵבֶל **רב החבל** Captain Jonah 1:6 The captain is the head of the ship and its sailors. It's possible the captain was also the owner of the ship. The captain of Jonah's ship was in great distress for his life, to the point that he himself woke Jonah to beg him to pray.
- ⁷³ שָׂהָה **שָׂהָה** Swimmer Isaiah 25:11 Qal Active Participle of the verb 'to swim'.
- ⁷⁴ מַחֲוֹז **מַחֲוֹז** Port, marina Psalm 107:30 Hapax. The sailors' goal, to unload their cargo and passengers. TWOT supposes that such a harbor may include a population center, wharf and shipyard.
- ⁷⁵ גְּבַל **גְּבַל** Gebal, Byblus Ezekiel 27:9 Between Tripoli and Beirut
- ⁷⁶ נָא **נָא** Thebes Jeremiah 46:25; Ezekiel 30:14; Nahum 3:8 City in Egypt, the city of the God No of Ammon. On the eastern bank of the Nile 400 miles south of Memphis
- ⁷⁷ צֹר **צֹר** Tyre 2 Samuel 5:1; 1 Kings 5:1; 7:13; 9:11-14; 10:22; 22:48; Ezra 3:7; Nehemiah 13:16 42 references in OT. By far the most are in Ezekiel, with 14, followed by Isaiah with 6. A main city-state of the Phoenicians in the area of Lebanon. The city center was situated on an island. Nebuchadnezzar was unable to capture the city, but in 332 over several months Alexander the Great built a road out to the island and captured the walled city. Its long breakwater gave it a well-protected harbor on an otherwise unfriendly coastline
- ⁷⁸ מֶמְפִּיִּם or מֶמְפִּיָּה **מֶמְפִּיִּם** Memphis Isaiah 19:3; Jeremiah 2:16; 44:1; 46:14,19; Ezekiel 30:13, 15,16; Hosea 9:6.
- ⁷⁹ צִידוֹן **צִידוֹן** Sidon Genesis (3x), also 3x in Judges, Isaiah, Jeremiah, Ezekiel; Joshua (2x); 1x in 2 Samuel, 1 Kings, 1 Chronicles, Joel, and Zechariah
- ⁸⁰ יָפוֹ **יָפוֹ** Joppa Joshua 19:46; 2 Chronicles 2:15; Ezra 3:7; Jonah 1:3
- ⁸¹ תַּרְשִׁישׁ **תַּרְשִׁישׁ** Tarshish 1 Kings 9:26; 10:22; 22:48,49; 1 Chronicles 1:7; 2 Chronicles 9:21; 20:36,37; Psalm 72:10; Isaiah 2:16; 23:1,14; 60:9; 66:19; Jeremiah 10:9; Ezekiel 27:12,25; 38:13; Jonah 1:3 It is certainly used to refer to a wealthy Phoenician mining port in Spain, and perhaps another place near India, since ships on the Red Sea are called 'Ships of Tarshish.' Perhaps, though, as Luther says, Tarshish was an alternate word for 'sea' (exclusively oceans). That would explain its more general use and denotes 'ships of Tarshish' as large, seaworthy vessels, not necessarily those made in, coming from, or going to a city named Tarshish. Luther: In Ps. 72:10 we read: “May the kings of Tarshish and of the isles bring tribute,” that is, the kings bordering on the great sea and the islands in it. The city of Tarsus is not a kingdom and has never had a king, to say nothing of many kings. See LW Vol. 19, pp. 43–44. A modern expression is parallel: The first commercial transpacific airliner was called a China Clipper—even though it connected San Francisco and Manila. It covered great distances quickly.

- ⁸² **אֵילַת גְּבֵר, עֵצִיּוֹן גְּבֵר, אֵילַת** Ezion Geber Deuteronomy 2:8; Numbers 33:35,36; 1 Kings 9:26; 22:49; 2 Chronicles 8:17; 20:36 This harbor on the coast of Edom, on the northern inlet of the Red Sea, became a hub for shipbuilding, successfully in Solomon's time, less so for Jehoshaphat.
- ⁸³ **אֹפִיר** Ophir Genesis 10:29; 1 Kings 9:28; 10:11; 22:49; 2 Chron 8:18; 9:10,21; Job 28:16; Psalm 45:10; Isaiah 13:12 The place Solomon's ships went when they left the harbor on the Gulf of Aqaba called Ezion Geber. They returned with many expensive products, such as gold, silver, ivory, and animals. Exact location (like 'Punt' of Egyptian history) is unknown. Notice that 'ships of Tarshish' (1 Kings 22:48) sailed here, supporting Luther's argument that Tarshish was simply an alternate word for sea, so 'ships of the sea' travelled here.
- ⁸⁴ **אֵיל פָּאֵרָן** Elat/El Paran Genesis 14:6; 36:41; Deut 2:8; 1 Kings 9:26; 2 Kings 14:22; 16:6 Town and harbor at the northern tip of the Elanitic Gulf of Red Sea near Solomon's ship plant at Ezion Geber.
- ⁸⁵ **יָאֵר** Nile or Tigris or large river Genesis 41:1+5x; Exodus 2:3+24x; also in 2 Kings, Job 28:10, Psalm 78:44; Isaiah 33:21+9x; Jeremiah; Ezekiel 9x; Daniel 12:5 (2x), 6, 7; Amos (4x); Nahum and Zechariah Of the 61 uses of this word in the OT, nearly all refer to the Nile and its tributaries. A few times it is used by Daniel regarding the Tigris, Isaiah uses it to describe a heavenly river, and Job uses it to talk about the water the flows through rocks underground.
- ⁸⁶ **יַרְדֵּן** Jordan River Genesis 13:10; Joshua 1:2; Judges 3:28 Nearly 200 occurrences, almost all articularized. From the root ירד which explains its name, 'the Descender'. Though all rivers are certainly 'descenders,' the Jordan descends from four streams beginning 230 feet above sea level into the Sea of Galilee at 690 feet below sea level south over 200 meandering miles (65 as the crow flies) to the Dead Sea, 1290 feet below sea level. See Edwin Yamauchi's informative article in TWOT. The Jordan has two dependable tributaries from the west and ten from the east. It averages only three to twelve feet deep, except at flood stage. About 60 sites can be forded.
- ⁸⁷ **פְּרָת** Euphrates River Genesis 2:14; 15:18; Deuteronomy 1:7; 11:24; Joshua 1:4; 2 Samuel 8:3; 2 Kings 23:29; 24:7; 1 Chronicles 5:9; 18:3; 2 Chronicles 35:20; Jeremiah 46:2, 6, 10; 51:63 Major river with headwaters in Turkey that feeds into the Persian Gulf.
- ⁸⁸ **אֶפְיָק** Channel, stream Job 6:15, Psalm 42:1; 126:4; Song of Songs 5:12; Joel 1:20; Isaiah 8:7. This is a small but permanently flowing body of water.
- ⁸⁹ **אָבֶל** or **אֹבֶל** Canal Daniel 8:2,3,6 Name of river/canal/(or possibly gate?) where Daniel was. Another form seems to mean stream/brook but is only used of 4 Trans-Jordan place names.
- ⁹⁰ **מִיכָל** Brook? 2 Samuel 17:20 Hapax, possibly a small stream that Ahimaaz and Jonathan were reported to have crossed. In any case, it would have been unfit for navigation.

- ⁹¹ נַחַל Wadi Genesis 32:24; Numbers 34:5; 2 Samuel 22:4 140x in OT. A river bed which may contain moving water of various depths, depending on recent rain and time of year. Usually does not flow year-round, so navigation is unlikely. The Kidron brook was a wadi, but the most famous was the נַחַל מִצְרַיִם which served as the dividing line between Egypt and Canaan.
- ⁹² נָהָר River Genesis 2:10 + 8x; 15x in Psalms; 21x in Isaiah; 13x in Ezekiel 120x in OT, in 25 books. Generally of rushing water, especially in poetic books, or specifically in reference to a particular major river (Ironically never of the Jordan, which is called 'the Jordan'). In addition to 'rivers' within rivers or the ocean, 'currents', as in Jonah 2:3, rivers may be natural or manmade, but always flowing. It refers to the Euphrates (Genesis 15:18; 31:21), the Tigris (Daniel 10:4), and the wadi of Egypt (with 'Mizraim' in Genesis 15:18), an ancient dividing line between Egypt and Palestine not to be confused with the Nile. Aram Naharaim (Aram of the Two Rivers) refers to the two upper branches of the Euphrates.
- ⁹³ קְדוּמִים Raging, rushing Judges 5:21 Description in the song of Deborah of the powerful action of the Kidron River, which washed away the enemy.
- ⁹⁴ שֹׁטָף Torrent, flood Jon 48:25; Psalm 32:6; Proverbs 27:4; Daniel 9:26; 11:22f.; Nahum 1:8; Isaiah 66:12 Moving water in a river or channel, especially after a rain, which causes trouble or is overwhelming. Can erode or engulf.
- ⁹⁵ צְנוּר Waterfall, waterspout Psalm 42:7 2 Samuel 5:8 uses this word to describe the water system of Jerusalem through which David conquered the city. Psalm 42 has generated several ideas for translation for this loud water-related phenomenon: Is it on a river or the ocean? Is the water going down or up? Is it a natural or supernatural storm?
- ⁹⁶ מָלָא To be at flood stage Joshua 3:15 Qal. Part of a phrase in Joshua 3:15 indicating that the Jordan was in a state unfit for fording: מָלָא עַל כָּל גְּדִיָּה
- ⁹⁷ יָצַק To wash away Job 22:16 Hofal. Eliphaz the Temanite describes how the force and pressure of the rushing water of a river נָהָר has always swept away the foundations of the wicked.
- ⁹⁸ גָּרַף To sweep away Judges 5:21 Deborah used the persistent current of a river to describe the way the local Kishon River swept away Sisera's troops.
- ⁹⁹ גָּרַשׁ To cast up/stir up Isaiah 57:20 (x2); Amos 8:8
- ¹⁰⁰ לְבַב יָמִים or לְבַיִם The heart of the sea Exodus 15:8; Proverbs 23:34; 30:19; Psalm 46:3; Ezekiel 27:4,25,26,27,28:2,8; Jonah 2:3
- ¹⁰¹ יַבְשָׁה Dry ground Gen 1:9-10; Exodus 4:9; 14:16,22,29; 15:19; Joshua 4:22; Nehemiah 9:11; Psalm 66:6; Isaiah 44:3; Jonah 1:13; 2:11
- ¹⁰² שֵׁפַת הַיָּם Lip of the Sea Genesis 22:17; Joshua 11:4; 1 Kings 5:9 BDB says this noun occurs as 'shore of the sea' eight times and the 'bank of a river' seven times. Taken from the image of lips on a face, the shore was seen as the outer boundary of the sea.
- ¹⁰³ חוֹף יָמִים Coast of the Sea Genesis 49:13; Joshua 9:1; Joshua 5:17; Ezekiel 25:16

- ¹⁰⁴ **הַיָּם הַיָּבֵל** Region of the Sea Zephaniah 2:5
- ¹⁰⁵ **חול הַיָּם** Sand of the Sea Genesis 22:17; 32:12; 41:49; Joshua 11:4; Job 6:3; Psalm 78:27
At least 15 of the 22 uses of 'sand' in the OT refer to 'sand of the seashore'
- ¹⁰⁶ **לְשׁוֹן הַיָּם** Tongue of the Sea Joshua 15:5; 18:19; Isaiah 11:15 It seems to refer to the narrowing of a large body of water into a bay. Used of the Dead Sea where the Jordan flowed into it and the Egyptian Gulf. From these sparse examples we can say it refers to a bay of a lake and a gulf of a sea.
- ¹⁰⁷ **מֵיִם עַד־יָם** From sea to sea Psalm 72:8; Amos 8:12; Zechariah 9:10 BDB sees further parallels in the following passages: Micah 7:12; Zechariah 14:8(x2) Joel 2:20(x2) Daniel 11:45
- ¹⁰⁸ **כָּסָה** To cover (with sea water) Isaiah 11:9, Habakkuk 2:14 Piel. Twice waters are described as 'covering' to/upon the sea. Context makes clear that the picture is of the violent motion of waves and river eddies. Used as symbolism of the way God will expose the wicked (Isaiah) and what will happen before he caused Judah to sink in the exile (Amos).
- ¹⁰⁹ **חוֹף** Cove, coast Genesis 49:13 (2x); Deuteronomy 1:7; Joshua 9:1; Judges 5:17; Jeremiah 47:7; Ezekiel 25:16. Derived from the hapax verb **הָפַף**, meaning 'surround, shelter, protect,' this word can either refer to the seashore (land next to or surrounding the water) or a coastal sanctuary (protected water near land). Not sure if etymologically related to 'cove' or 'cave' Compare with **מִפְרָץ**. Deborah says of Asher: **יָשַׁב לְחוֹף יַמַּיִם וְעַל מִפְרָצָיו יִשְׁכְּנוּ**
- ¹¹⁰ **יָם** Sea Genesis 1:10; Deuteronomy 32; Isaiah 19:5. Used over 300x. Simplest way of describing a body of water (not land). It can mean a lake, an ocean, a bay, gulf, inlet, or a river, or even the land alongside any of the above. Additionally, it refers to the Bronze Sea used for washing at the tabernacle and temple. Some see Psalm 74:13 as a reference to the pagan Ugaritic god Yam, but it could be a proper name for an unknown body of water.
- ¹¹¹ **מְצוּלָה** Abyss Ex 15:5; Neh 9:11; Job 41:31; Ps 68:22; 69:2,16; 88:6; 107:24; Jnh 2:3; Mic 7:19; Zech 10:11. This word, sometimes spelled with a shureq or a holem or without a vav, refers to 'the deep' as in the depths of the sea. It is difficult to get there and about as far away as you can get
- ¹¹² **מִפְרָץ** Harbor, cove, bay Judges 5:17 Inlet or area of deep water sheltered by the land, making landings easy. Does not necessarily include a marina or port. This is where Asher stayed by the ships.
- ¹¹³ **מַיִם** Water Genesis 1:2; Exodus 2:10 Used about 580x in OT. TWOT says "The scarcity of water in Palestine explains the numerous references in the OT to man's quest for water.' That may be a stretch. Water was not always an epic journey away, though we may characterize it this way. See excavations of pools and wells to gain an appreciation for just how much fresh water was available.

- ¹¹⁴ סוּף Reed Exodus 2:3,5; Isaiah 19:6; Jonah 2:5 A general term for marsh plants, or a designation for rushes or seaweed. TWOT says it is etymologically related to the Egyptian word for papyrus. This was the 'seaweed' wrapped around Jonah's head in his prayer (2:5).
- ¹¹⁵ אַפְיִק Depths of the sea 2 Samuel 22:16; Psalm 18:16 Though this word mostly (8x in Ezekiel and 1x in Joel) means a valley on dry land, it can mean the deep parts of the sea. Synonym of מַעְמָקִים?
- ¹¹⁶ יַם כְּנָרֶת Sea of Galilee Numbers 34:11; Deuteronomy 33:23; Joshua 12:3; 13:27
- ¹¹⁷ יַם־סוּף Red Sea Exodus 10:19; 15:4; Deuteronomy 1:40; Numbers 33:10-11; Psalm 106:9 This vocable can refer to the whole Sea or only one bay or gulf of it. It's likely that many coastal areas had 'reeds' or marsh plants. A particular seaweed could also have been a distinguishing feature. Scholars guess that the crossing either took place at the Bitter Lakes (northern crossing) or Lake Timsah (central crossing). For change from "reed" to "red" see Pliny, "Natural History" Bk VI, Section xxviii.
- ¹¹⁸ יַם־סוּף Gulf of Suez Numbers 33:10-11 See 'Sea of Egypt.'
- ¹¹⁹ יַם־מִצְרַיִם Sea of Egypt (Red Sea) Isaiah 11:15 The 'Sea of Egypt' was probably the Gulf of Suez, though Egypt made thorough use of all of their adjacent oceans. BDB notes that the Red Sea is named or referred to about 66 times, though many times the references are merely to 'the sea.'
- ¹²⁰ הַיָּם הַתְּגוּלָּה Mediterranean Sea Numbers 34:6,7; Joshua 1 14:12,47; Ezekiel 47:10, 15,19,20; 48:28. The Great Sea is the most frequent use of this vocable. It is also called הַיָּם הַאֲחֵרִיץ the 'sea behind' or יַם פְּלִשְׁתִּים the 'Philistine Sea' because of that nation's coastal location.
- ¹²¹ יַם מֶלַח Sea of Salt (Dead Sea) Genesis 14:3; Numbers (2x); Deuteronomy (3x); Joshua (5x); 2 Kings 14:25; Isaiah 16:8; Jeremiah 48:32; Ezekiel 57:18; Joel 2:20; Zechariah 14:8 About 20 references to the Dead/Salt Sea.
- ¹²² יַם הָעֲרָבָה Sea of the Arabah (or South Sea) Deuteronomy 3:17; 4:49 Joshua 3:16; 12:3 2 Kings 14:25 Another name for the Dead Sea, which lies in the south of Palestine. Other names for the Dead Sea are הַיָּם הַקֶּדְמוֹנִי the 'East Sea' (Ezekiel 47:18 Zechariah 14:8 Job 2:20) or simply יַם 'the Sea' (Isaiah 16:8 Jeremiah 48:32).
- ¹²³ שָׁחוּ Swimming Ezekiel 47:5 The action of moving through the water, propelled by one's arms and feet, generally in deep water, if you didn't know. מַיִם שָׁחוּ 'water of swimming' signifies water that is deep enough to swim in (over the head) or possibly even too dangerous to cross.
- ¹²⁴ רָחַף Drowning (fig.) Job 10:15 This verb can mean 'well-watered' (land), but if BHS note is right, it is used in Job 10:15 to mean 'feeling drenched or overwhelmed', though not necessarily with water. Job says he is 'drowning' in his affliction. Or is רָחַף correct? (cf. NIV footnote: Or and aware of). LXX translates with πλήρης.

- ¹²⁵ טָבַע To sink, drown Exodus 15:4; Jeremiah 38:22 To choke to death in water. Pharaoh's men drowned in the Red Sea.
- ¹²⁶ יָרַד To go down (to sea) Isaiah 42:10 Qal. Cf. Greek (go up) RSV and BHS change text to 'Let the sea roar' but there is no need to do that. 'Those going down to the sea' can be those descending geographically in elevation or just walking down the beach to the point where the sea meets the land.
- ¹²⁷ שָׁחָה To swim Isaiah 25:11, Psalm 6:6 Qal. The Hifil conjugation of the verb, 'cause to swim' means 'flood.'
- ¹²⁸ מְשַׁבֵּר Breaker 2 Samuel 22:5; Psalm 42:7; 88:6; 93:4; Jonah 2:3 These are dangerous waves for a sinner to handle, due to their rising and falling in already deep water. Except for Jonah, the uses are figurative. Jonah may be quoting one of the Psalms references, though in a literal context. Cf. the ominous 'breakers of death' מְשַׁבֵּר מָוֶת in 2 Sam 22:5.
- ¹²⁹ פִּחָז Foamy Genesis 49:4 Used figuratively in Jacob's 'blessing' of Reuben, who was reckless and foolish and defiled his father's bed. Recklessness or licentiousness fits the context, but what does it have to do with foam? TWOT: 'Pertaining to bubbles on top of a body of water as the result of turbulence, note: the froth may refer to the lack of principle (slippery) or impulsive (boiling).
- ¹³⁰ גֵּל Wave Job 38:11; Psalms 42:8; 65:8; 89:10; 107:25,29; Isaiah 48:18; 51:15; Jeremiah 5:22; 51:42,55; Ezekiel 26:3; Jonah 2:3; Zechariah 10:11 The connection between the various meanings of this word is the idea of a 'heap' or 'mound,' either of stones or ruins or water. Note how frequently it appears in poetic or prophetic writings, though it can be literal, as Jonah would testify.
- ¹³¹ עָנָן Cloud Job 26:8,9; 37:11,15; 38:9 About 80x in OT, with 60 references to the pillar of cloud that moved with the Israelite community through the desert. Ezekiel saw a windstorm coming from the north, along with a עָנָן גָּדוֹל 'great cloud'
- ¹³² דָּרוֹם South wind Deuteronomy 33:23; Job 37:17; Ecclesiastes 1:6,11; Ezekiel 20:46; 40:24ff Another word for the South with 17 occurrences, used in connection with wind in both Ecclesiastes and Job. The rest of the occurrences are in Ezekiel, mostly giving directions regarding the temple vision, especially in chapters 40-42.
- ¹³³ סוּפָה Strong wind (Gale?) Job 21:1; Psalm 83:15; Isaiah 5:28 Fifteen occurrences, six in poetry, nine in latter prophets. Can be straight-line or swirling.
- ¹³⁴ קָדִים East Wind Genesis 41:6,23,27; Exodus 10:13 (x2); 14:21; Job 15:2; 27:21; 38:24; Psalm 48:8; 78:26; Isaiah 27:8; Jeremiah 10:13; Ezekiel (52x); Hosea 12:2; 13:15; Jonah 4:8; Habakkuk 1:9 Eastern winds blow in from the desert, bringing dry hot air. In fact, it shriveled up the vine God had sent Jonah. The Arabic word for this wind is Sirocco, the name of a European model of Volkswagen.
- ¹³⁵ סַעַר or סְעָרָה Storm Job 38:1; 40:6; Psalm 55:8; 83:15; 107:25,29; 148:8; Isaiah 29:6; 40:24; 41:16; Jeremiah 23:19; 25:32; 30:23; Ezekiel 1:4; 13:11; Amos 1:14; Jonah 1:4, 12; Zechariah 9:14 Or 'gust, tempest.' A weather event consisting

of blowing or swirling wind and sometimes thunder and lightning. Focus is on danger and destruction. Can be figurative.

- ¹³⁶ סּוּפָה Storm wind Job 21:18; 27:20; 37:9; Psalm 83:15; Proverbs 1:27; 10:25; Isaiah 5:28; 17:13; 21:1; 29:6; 66:15; Jeremiah 4:13; Hosea 8:7; Amos 1:14; Nahum 1:3
- ¹³⁷ רוּחַ Wind Psalm 48:7 Air in motion, or 'wind', in its simplest meaning, takes on many connotations in 387 occurrences, including the Spirit of God, or the soul or consciousness of a human. 117x 'wind' (from east or north or the sea (west), four winds, during the day, during a storm).
- ¹³⁸ רוּחַ יַם West Wind Joshua 8:9,12,13
- ¹³⁹ עֵיִם Drying? Isaiah 11:15 Or glow, might (see variant). See TWOT 1611
- ¹⁴⁰ סָעַר To grow stormy Jonah 1:11; Isaiah 54:11 Its use in Jonah 1:11 describes a weather event consisting of clouds growing dark, wind and waves picking up, and rain beginning to fall. In Isaiah 54 means 'lashed by storms'--here of a city, but certainly could apply to anyone or thing beset by a violent storm. Often figurative (e.g., stormy of heart, such as the King of Aram in 2 Kings 6:11).

Greek Nautical Terminology in the New Testament

Boat Parts

1		
2	ἄγκυρα	Anchor
3	ἀρτέμων	Foresail
4	βοήθεια	Makeshift aids
5	ζευκτηρία	Rudder rope
6	μέρος	Side, part
7	πηδάλιον	Rudder
8	προσκεφάλαιον	Pillow/Cushion
9	πρύμνα	Stern
10	πρῶρα	Bow
11	σανίς	Board/plank
12	σκεῦος	Sea anchor
13	σχοινίον	Rope, cord
14	χαλινός	Tiller

Boat Types

15	κιβωτός	Ark (boat)
16	ναῦς	Boat, ship
17	πλοιάριον	Boat, ship
18	πλοῖον	Boat, ship
19	πλοῖον	Boat, ship
20	σκάφη	Skiff, dinghy

Boat Verbs

21	ἀνάγω	To put out to sea
22	ἀναφαίνω	To sight a place
23	ἀντοφθαλμέω	To head upwind
24	ἀπέρχομαι	To withdraw
25	ἀποπλέω	To sail away fr.
26	ἀποφορτίζομαι	To unload cargo
27	βασανίζω	To test/distress
28	βολίζω	To take soundings
29	διανύω	To complete/ continue a voyage
30	διαπεράω	To cross over (to other side of lake)
31	διαφέρω	To drift
32	ἔαω	To let/leave
33	ἐκβολή	To jettison
34	ἐκπίπτω	To run aground/fall off (modern sense?)
35	ἐκπίπτω	To fall off

36	ἐλαύνω	To row with oars
37	ἐλαύνω	To be driven along
38	ἐξωθέω	To beach/run aground
39	ἐπανάγω	To put out to sea
40	ἐπικέλλω	To run aground
41	ἐρείδω	To become stuck
42	εὐθύνω	To steer/hold one's course
43	εὐθύνω	To hold a straight course
44	καταβαίνω	To disembark
45	κατάγω	To take to shore
46	καταντάω	To come to/arrive at
47	κατέρχομαι	To arrive at
48	κατέχω	To hold one's course/head for
49	λαμβάνω	To take up
50	ναυαγέω	To suffer shipwreck
51	ναυαγέω	To suffer (fig) shipwreck
52	παραλέγομαι	To sail past/coast along
53	παραρρέω	To flow by/slip away (fig)
54	περιαιρέω	To remove (=weigh anchor or depart)
55	περικρατής	To be in control
56	περιπίπτω	To run aground
57	πλέω	To sail
58	προσανέχω	To approach (land)
59	προσεγγίζω	To approach (land)
60	προσκαρτερέω	To stand ready
61	προσορμίζω	To drop anchor
62	ὑποζώννυμι	To pass supports under
63	ὑπονοέω	To suspect (with intuition rather than much evidence)
64	ὑποτρέχω	To sail under the lee of
65	φέρω	To drive along
66	χαλάω	To let down raft
67	χράομαι	To deploy/use

Distances

68	ὄργυιά	Fathom
69	στάδιον	Stade (1/8 mile)

Fishing

70	κοινωνός	Partner
71	μέτοχος	Partner
72	κοιλία	Belly (of a fish)
73	λεπίς	Scales
74	ἄγγος, ἀγγεῖον	Basket (for fish)
75	ἀμφίβληστρον	Fish-net (casting)
76	ἄγκιστρον	Fish hook
77	δίκτυον	Fish-net (trammel)
78	λίνον	Fish-net (seine)

Fish

79	ἐνάλιον	Marine (creature)
80	ἐνάλιος	Belonging to the sea
81	ἰχθύδιον	Little fish
82	ἰχθύς	Fish
83	καλός	Good (to eat)
84	κῆτος	Huge fish
85	ὀπτός	Broiled (fish)
86	ὀψάριον	Fish (to eat)
87	προσφάγιον	Fish (to eat)
88	σαπρός	Bad (unclean or inferior fish)

Fishing Verbs

89	ἄλιεύω	To go fishing
90	ἀναβαίνω	To come up (a caught fish)
91	ἀναβιβάζω	To pull ashore (net or boat)
92	βάλλω	To let down fishing hook/nets
93	δελεάζω	To lure, entice
94	ζωγρέω	To capture alive (fish/men)
95	πιάζω	To catch (fish)
96	συγκλείω	To catch by enclosing
97	συλλέγω	To collect fish
98	συνάγω	To gather up (fish in net)
99	σύρω	To drag in (a net)
100	χαλάω	To let down nets

Nature

101	ἄστρον	Star
102	βρέχω	Rain
103	ὄψιμος	Late rains - April/May
104	πρόιμος	Early rains - Spring/Autumn

105	ὔδωρ	Water
106	ὑετός	Rain

People

107	ἄλιεύς	Fisher
108	εὐθύνων	Captain
109	κυβερνήτης	Captain
110	ναύκληρος	Ship owner
111	ναύτης	Sailor
112	πᾶς ὁ ἐπὶ τόπον πλέων	All who sail from place to place

Port Cities of the Sea of Galilee

113	Βηθσαιδά(ν)	Bethsaida
114	Γαδαρηνός	Gadara (Gergesa, Gerasa)
115	Γεννησαρέτ	Gennesaret (Ginosar)
116	Καφαρναούμ, Χοραζίν	Capernaum, Chorazin
117	Μαγαδάν, Δαλμανουθά	Magdala (Migdal, Magadan, Taricheae), Dalmanutha (Tabgha)
118	Τιβεριάς	Tiberias

Port Cities on the Mediterranean Sea

119	Σελεύκεια	Seleucia (Pieria)
120	Σαλαμίς	Salamis
121	Πάφος	Paphos
122	Πέργη	Perga
123	Ἀττάλεια	Attalia
124	Τρωάς, Σαμοθράκη	Troas Samothrace
125	Νέα πόλις, Φίλιπποι	Neapolis Philippi
126	Ἀμφίπολις, Ἀπολλωνία, Θεσσαλονίκη	Amphipolis, Apollonia, Thessalonica
127	Ἀθῆναι	Athens
128	Κόρινθος, Κεγχρεαί	Corinth, Cenchreae
129	Ἔφεσος	Ephesus
130	Καισάρεια ποτ ἢ Φιλίππου	Caesarea Maritima
131	Ἄσσος	Assos

132	Μιτυλήνη, Χίος, Σάμος, Μίλητος	Mitylene, Chios, Samos, Miletus
133	Κῶς, Ῥόδος, Πάταρα	Kos/Cos, Rhodes, Patara
134	Τύρος	Tyre
135	Πτολεμαῖς	Ptolemais (Akko, Acre)
136	Μύρα	Myra
137	Καλοὶ λιμένες, Φοῖνιξ	Fair Havens, Phoenix
138	Μελίτη	Malta
139	Συράκουσαι, Ῥήγιον	Syracuse, Rhegium
140	Ποτίολοι	Puteoli

River Types

141	πηγή	Spring
142	ποταμός	River
143	φρέαρ	Spring
144	χείμαρρος	Stream

Sea Geography

145	αἰγιαλός	Beach, shore
146	ἄμμος	Beach, sandy shore
147	βυθός	Sea
148	γῆ	Land (not sea)
149	θάλασσα	Sea
150	κόλπος	Bay
151	λιμὴν	Harbor, lake, pool
152	νησίον / νῆσος	Island
153	ξηρός	Dry (ground)
154	παραθαλάσσιος	Seaside, shore
155	πέλαγος	Sea
156	πόντος	Sea
157	τόπος διθάλασος	Reef, sandbar, point (of land)
158	χώρα	Land (not sea)

Specific Seas

160	Ἀδρίας	Adriatic Sea
161	ἐρυθρὰ θάλασσα	Red Sea
162	Πόντος	Black Sea

Swimming

163	ἀποπνίγομαι	To drown
164	βέβληται εἰς τὴν θάλασσαν	To throw into the sea
165	καταποντίζω	To drown/sink
166	πνίγομαι	To drown

Travel

167	πλόος	Voyage
-----	-------	--------

Waves

168	ἡχώ / ἦχος θαλάσσης	Sound of the sea
169	βία	Force (of waves)
170	κύματα	Waves
171	ἐπιβάλλω	To break over
172	καλύπτω	To cover
173	κλυδωνίζομαι	To be tossed about
174	συμπληρώω	To fill up (with waves)
175	ἄγρια	Wild (waves)

Weather Verbs

176	ἀνεμίζω	To be moved by wind
177 178	καταβαίνω	To fall (rain), To come down (storm)

Wind Directions and Compass Directions

179	ἀνατολή	East
180	ἄνεμοι	(The Four) Winds
181	βορρᾶς	North
182	δυσμή	West
183	μεσημβρία	South
184 185	νότος	South, south wind
186	πανταχόθεν	From every direction

Wind Types

187 188	ἄνεμος	Wind
189	εὐροκλύδων	Nor-easter
190 191	λαῖλαιψ	Gust/squall (of wind)
192	σεισμός	Storm
193	τυφωνικός	Hurricane-force wind

Greek Nautical Terminology in the New Testament—References and Notes

<i>Vocable</i>	<i>Gloss</i>	<i>References</i>	<i>Notes</i>
¹ ἄγκυρα	Anchor (fig)	Heb 6:19	“We have this hope as an anchor for the soul, firm and secure. It enters the inner sanctuary behind the curtain”
² ἄγκυρα	Anchor	Acts 27:29,30,40	Four anchors were lowered from the stern of Paul's Rome-bound ship, then the sailors pretended to lower more anchors from the stern while actually lowering the lifeboat. In verse 40, the anchors and rudder ropes were cut to minimize the ship's draft (how deep it sat in the water) as they headed for the beach.
³ ἀρτέμων	Foresail	Acts 27:40	See Casson '71, 240, n. 70.
⁴ βοήθεια	Makeshift aids	Acts 27:17	Naut. any aids to distressed ship (here undergirdings)
⁵ ζευκτηρία	Ropes/links/yokes	Acts 27:40	Aware of grounding, they 'untied the rudders' ropes'
⁶ μέρος	Side/part of boat	Jn 21:6	Instruction to let nets on starboard side. Superstition?
⁷ πηδάλιον	Rudder	Acts 27:40; James 3:4	Usually plural. Aware of grounding, they 'untied the rudders' ropes.' James uses this boat part in a simile: A small (ἐλάχιστος) rudder turns a large ship. Cf. tongue Cf. 'tiller' below
⁸ προσκεφάλαιον	Pillow/Cushion	Mk 4:38	Likely a sailor's cushion, though Shelley Wachsmann learned from a modern fisherman on the Sea of Galilee that modern ballast (sand)bags are called ‘pillows.’ BDAG references a few secular sources: See Dit., Syll. 736, 23. Cratinus Com. (V BC) 269
⁹ πρύμνα	Stern	Mark 4:38; Acts 27:29,41	The rear section of the boat's hull. The sailors lowered four anchors from here to slow them down as they approached land. Research the debate on this phrase. Later the stern of grounded ship was broken apart by the force of the waves. On Jesus sleeping in the stern, see Ael. Aristid. 44,13 K.-17 p.405.
¹⁰ πρῶρα	Bow	Acts 27:30,41	At first the sailors went here to escape by pretending to drop an anchor. Not long after, the bow stuck fast in a sandbar and wouldn't budge.
¹¹ σανίς	Board/plank	Acts 27:44	These boards were makeshift life preservers, provided by the remnants of the hull of the boat after it was smashed to pieces by the waves.
¹² σκεῦος	Sea anchor	Acts 27:17	This word usually means a container, dish, or vessel. Seems to have a nautical sense here, however, as a type of parachute or long cord (drogue) deployed behind a boat to slow it down, especially as it races down from the crests of waves. BDAG contains several (dated) resources regarding its secular use.
¹³ σχοινίον	Rope, cord	Acts 27:32	To secure the dinghy. Only other use in NT is when Jesus makes whip of these in Jn 2:15.
¹⁴ χαλινός	Tiller	James 3:3	A stick for steering the rudder, or a piece of equipment in some way attached to and involved with the turning of the rudder. Ships configure rudder parts in various ways.

- ¹⁵ κιβωτός Ark (boat) Mt. 24:38; Lk 17:27; Hebrews 11:7; 1 Peter 3:20 LXX transl. of Gen 7:7. barge/boat/ark כִּבְוֹת Same word as 'ark of covenant' in Greek, but not in Hebrew. Hebrews 11:7 refers to Noah in the hall of faith. 1 Peter 3:20 uses the flood's waters as a symbol of baptism.
- ¹⁶ ναῦς Boat Acts 27:41 Only of larger vessels. See Joseph Vi.165
- ¹⁷ πλοιάριον Boat (small?) Mk 3:9; 4:1,36; 5:2; Jn 6:22-24; 21:8 Syn. πλοῖον, so is 'small' antiquated? See Ael. Aristid. 50,35K=26 p.512 D. Jesus often preached with one of these nearby, ready for his travel. He preached from one of these to a large crowd, and then departed in it. Peter and Zebedee's fishing boats were these. In John 6, only one boat is on the shore the next day, leading the crowd to search for Jesus. πλοῖον appears to be used interchangeably with this term. Later in John, the disciples followed in a fish-laden boat behind swimming Peter.
- ¹⁸ πλοῖον Ship (large) Acts 20,13,38; 21:2-6; 27:2-44; 28:11; James 3:4; Rev 8:9; 18:19 Church greets Paul/Lk's ship at Tyre, and in an especially sensory-rich scene, they pray on beach.
- ¹⁹ πλοῖον Boat (on Galilee) Mt 4:1,21f; 9:1; 13:2; 14:22,32,34; 15:39; 16:5; Mk 1:19f; 5:18,21; 6:51,53,54; 8:10; Lk 5:2f; 8:22,37; John 6:19,21-24; 21:3 Boats are all over the NT, mostly on Sea of Galilee. Calling the first disciples away from their boats. Crossing the lake to and from Capernaum, Dalmanuth, Magadan, Garsenes, Gennesaret, going out to fish on Easter, teaching a large crowd, calling the first disciples, walking on the water.
- ²⁰ σκάφη Skiff, dinghy (pronounced DING-ee) Acts 27:16,30,32 Normally a dish/bowl/tub. Here 'lifeboat', usu. towed w/ painter. Is skiff the etymological relative it appears to be?
- ²¹ ἀνάγω To put out to sea Lk 8:22,37; Acts 13:13; 16:11; 18:21; 20:3,13; 21:1f; 27:2,4,12,21; 28:10,11 Lit. 'lead up' (from the perspective of standing on the shore, the sea appears to go 'up.') Luke is the exclusive NT user of this verb, in the Gospel in the account of calming the storm, then in Acts regarding 'putting out to sea' to go to Perga, to Samothrace, from Ephesus, to Syria/Macedonia, to Kos and Rhodes, under Cyprus, to Asia, to Crete, and from the island.
- ²² ἀναφαίνω To draw within sight of a place Acts 21:3 Lit. 'lighting up' Cyprus and leaving it behind. Cf. Lk 19:11
- ²³ ἀντοφθαλμέω To head into the wind Acts 27:15 Lit. 'look directly at' (someone's face, the sun, the truth). Fig. of a ship Paul's ship was in serious trouble when it lost its ability to head into the wind, possibly because it lost its keel and/or rudder in addition to storm sails or no sails.
- ²⁴ ἀπέρχομαι To withdraw Mt 8:18, Mk 6:32; 8:13 By boat to the other side of the lake or to a solitary place
- ²⁵ ἀποπλέω To sail away from Acts 13:4; 14:26; 20:15; 27:1 Only in Acts, from Seleucia to Cyprus, from Attalia to Antioch, from Miletus to Chios, and from Adramyttium to Rome.
- ²⁶ ἀποφορτίζομαι To unload cargo Acts 21:3 Nautical term simply to remove cargo or jettison it.

- ²⁷ βασανίζω To test/distress Mt 14:24; Mk 6:48 Both occurrences are in the account of Jesus walking on water. Matthew reports that the boat was 'tested by the waves' and Mark says the men were 'tested in their rowing.'
- ²⁸ βολίζω To take soundings Acts 27:28 (2x) Twice in Scripture and only twice outside of Scripture (Geoponica and Eustathius). A βόλος is a toss of the net and a βολή is a toss of a stone. The 'throwing' done by sailors was a navigational aid accomplished by dropping into the sea a weight (βολίς) and measuring the line required for the weight to reach the bottom of the sea. The first sounding revealed 120' of water and the second only 90'.
- ²⁹ διανύω To complete/continue a voyage Acts 21:7 The two interpretations of this verb seem contradictory, but can both be understood correctly in this context. Paul, Luke, et al. completed the journey from Tyre to Ptolemais, but then they continued on to Caesarea.
- ³⁰ διαπεράω To cross over (to a different side of a lake) Mt 9:1; 14:34; Mk 5:21; 6:53; Acts 21:2 The adjective πέραν means 'across/on the other side.'
- ³¹ διαφέρω To drift Acts 27:27 Here the boat was being pushed by wind under little or no control.
- ³² ἐάω To let/leave Acts 27:40 Poss. naut. to 'intentionally keep anchors in the sea'
- ³³ ἐκβολή To jettison Acts 27:18 Gen. to throw out. Naut, lighten cargo to spare ship
- ³⁴ ἐκπίπτω To run aground/fall off (modern sense?) Acts 27:17,26,29 Nautical term. Ground on sandbars of Syrtis, islands, rocks
- ³⁵ ἐκπίπτω To fall off Acts 27:32 Soldiers cut lifeboat ropes and let it fall/drift away
- ³⁶ ἐλαύνω To row with oars Mk 6:48; Jn 6:19
- ³⁷ ἐλαύνω To be driven along James 3:4; 2 Peter 2:17
- ³⁸ ἐξωθέω To beach/run aground Acts 27:39 Only other NT occurrence is Acts 7:45, when Sanhedrin drives Stephen out and stones him.
- ³⁹ ἐπανάγω To put out to sea Lk 5:3,4 Used in back-to-back verses first to mean 'push back from shore' and then 'to move to deeper water.' Only other occurrence is on land, in Mt 21:18, simply meaning 'return (to the city).'
- ⁴⁰ ἐπικέλλω To run aground Acts 27:41 Naut. can be gentle 'bring to shore' but on sandbar the action would be more violent. See text variant. See the Odyssey 9,148
- ⁴¹ ἐρείδω To become stuck Acts 27:41 The shipwreck was all but guaranteed when Paul's ship struck the sandbar/reef and was being struck by wave action from the stern. Backing the sails was not an option, and the violence of the waves breached the hull. See Pindar, P. 10, 51f, who uses the term in a positive sense when setting an anchor: ταχὺ δ' ἄγκυραν ἔρεισον χθονὶ πρόραθε=quickly drop the anchor from the prow and let it grapple the bottom (BDAG).
- ⁴² εὐθύνω To steer/hold one's course James 3:4 James notes that a small rudder allows the helmsman to steer a large ship wherever he wants to go. The verb is also used in a causative sense in Mark 1:3, Luke 3:4, and John 1:3, all in reference to John's fulfillment of Isaiah's prophecy to 'make straight' paths for the Coming One.
- ⁴³ εὐθύνω To steer a straight course James 3:4; 2 Peter 2:17
- ⁴⁴ καταβαίνω To disembark Mt 14:29 Walking on water. Peter stepped down out of it.

- 45 *κατάγω* To take to shore Lk 5:11; Acts 21:3; 27:3; 28:12 Lit. to lead a boat down to dock or shore from the 'high' seas. Occurs after Jesus calls his first disciples, then in Acts as boats are taken to Sidon, Syria, and Tyre (q.v. variant).
- 46 *καταντάω* To come to/arrive at Acts 20:15 Only nautical use is when arriving 'off Chios'
- 47 *κατέρχομαι* To arrive at Acts 18:22; 21:3; 27:5 Lit. "to come down (from the high seas.)" See Odyssey 1,182; 24,115
- 48 *κατέχω* To hold one's course/head for Acts 27:40 Involves setting a course and maintaining it. See Herodotus 7, 188.
- 49 *λαμβάνω* To take up Jn 6:21 Walking on water. They took X into the boat. See Josephus.
- 50 *ναυαγέω* To suffer shipwreck 2 Corinthians 11:25 Paul was τρις ἐναυάγησα "shipwrecked three times."
- 51 *ναυαγέω* To suffer (fig) shipwreck 1 Timothy 1:19 Paul warns Timothy about those who have περὶ τὴν πίστιν ἐναυάγησαν "shipwrecked themselves regarding faith."
- 52 *παραλέγομαι* To sail past/coast along Acts 27:8,13 See Strabo 13,1,22, Diogenes S.13,3,3
- 53 *παραρρέω* To flow by/slip away (fig) Heb 2:1 Writer urges recipients to pay attention to the message they have heard, μήποτε παραρῶμεν 'lest we drift away.' Nautical or no? Cf Ehilgert p.133f
- 54 *περιαίρῶ* To remove (=weigh anchor or depart) Acts 27:20,40; 28:13 Non-nautical meanings include 'to lose hope' Acts 27:20 and to remove a 'veil' (2 Cor 3:16) or 'sin' (Heb 10:11); BDAG summarizes pointless critical debate around this usage. τὰς ἀγκύρας περιελόντες εἶων they cast off or slipped the anchors and let them go (i.e. they let go the ropes that held the anchors and thus abandoned them) Ac 27:40. Supply τὰς ἀγκύρας, so 'we weighed anchor.'
- 55 *περικρατῆς* To be in control Acts 27:16 Having power/control of a situation. Here, lifeboat
- 56 *περιπίπτω* To run aground Acts 27:41 Literally to 'fall onto something.' Only two other occasions this verb is used in NT are unrelated to navigation: The man later helped by the Good Samaritan 'fell into the hands of robbers' (Lk 10:30) and James urges believers to consider their 'suffering trials' to be pure joy (Js 1:2).
- 57 *πλέω* To sail Lk 8:23; Acts 21:3; 27:2,6,24; Rev 18:17 Simply means to travel via boat (often under sail-power, though also by rowing). Occurrences in NT involve disciples sailing before Jesus calms the storm, Paul sailing on his Third Missionary Journey, landing at Tyre, then later as a prisoner Paul sailed along Asia, to Italy and to Rome. Revelation speaks of 'everyone who sails to a place. Were they tourists? Cf. variant and discussion under τόπος.
- 58 *προσανέχω* To approach (land) Acts 27:28 Lit. 'To rise up to.' Used of land, coming into sight for sailors at sea
- 59 *προσεγγίζω* To approach (land) Acts 27:27 The sailors sense they're drawing near land
- 60 *προσκαρτερέω* To stand ready Mk 3:9 X had a boat made ready and waiting for departure
- 61 *προσορμίζω* To drop anchor Mark 6:53 They anchor (or come into harbor) at Gennesaret and get out of the boat, at which point people recognize Jesus. The neutral phrase ἐξεληθόντων αὐτῶν ἐκ τοῦ πλοίου makes it hard to say whether they got out and swam to shore or got out and walked down a pier to shore.
- 62 *ὑποζώννυμι* To pass supports under Acts 27:17 See Casson '71, 91f, 211.
- 63 *ὑπονοέω* To suspect (with intuition rather than much evidence) Acts 25:18 The sailors sensed they were drawing near land. Only in Acts, two other times, once

- in chapter 13 in reference to John's baptism and once in Festus' words to Agrippa regarding lack of suspected guilt.
- ⁶⁴ ὑποτρέχω To sail under the lee of Acts 27:16 See Josephus Ant. 7,31; 326 al.
- ⁶⁵ φέρω To drive along Acts 27:15,17 Gave in to wind, let the boat be driven along (run)
- ⁶⁶ χαλάω To let down raft Acts 27:17,30 First the sailors lowered a 'sea-anchor' into the sea to slow them down and steady the rolling ship. Later some of the sailors attempted to escape in the skiff/lifeboat, which they lowered.
- ⁶⁷ χράομαι To deploy/use Acts 27:17 What you do with 'aids,' such as the ropes passed beneath the boat before the shipwreck
- ⁶⁸ ὀργυιά Fathom Acts 27:28 (2x) A fathom is the length of a man's wingspan, (6 feet or 1.8 meters). Measurement for depth soundings. In Acts, the sailors first soundings found a depth of 20 fathoms and later only 15.
- ⁶⁹ στάδιον Stade (1/8 mile) Matthew 14:24; John 6:19 Distance of 1/8 mile. Used 6 times in NT, twice for nautical measurements. Other uses are Lk 24:13; John 11:18; Rev 14:20; 21:16
- ⁷⁰ κοινωνός Partner Luke 5:10 Like the other word for partner in Luke 5, this one is only used once in the business sense, then elsewhere in other senses. (Mt 23:30; 1 Cor 10:18,20; 2 Cor 1:7; 8:23; Philemon 17; Hebrews 10:33; 2 Peter 1:4; 5:1)
- ⁷¹ μέτοχος Partner Luke 5:7 One use in the business sense (sharing earnings) and five more uses in a spiritual sense, all in Hebrews (1:9; 3:1,14; 6:4; 12:8)
- ⁷² κοιλία Belly (of a fish) Matthew 12:40
- ⁷³ λεπίς Scales Acts 9:18
- ⁷⁴ ἄγγος, ἀγγεῖον Basket (for fish) Matthew 13:48
- ⁷⁵ ἀμφίβληστρον Fish-net (casting) Matthew 4:18; Mark 1:16
- ⁷⁶ ἄγκιστρον Fish hook Matthew 17:27
- ⁷⁷ δίκτυον Fish-net (trammel) Mt 4:2-f; Mk 1:19f; Lk 5:2,4ff; John 21:6-11
- ⁷⁸ λίνον Fish-net (seine) Mark 1:18
- ⁷⁹ ἐνάλιον Marine (creature) James 3:7 James uses an articularized form of this adjective to write about how people tame (domesticate) sea creatures but haven't been able to tame the tongue.
- ⁸⁰ ἐνάλιος Belonging to the sea James 3:7 Sea creatures in general. James notes that humans have tamed them
- ⁸¹ ἰχθύδιον Little fish Matthew 15:34; Mark 8:7 Diminutive of ἰχθύς
- ⁸² ἰχθύς Fish Mt 7:10; 14:17,19; 15:36; 17:27; Mk 6:38,41,43; Lk 5:6,9; 9:13,16; 11:11; 24:42; John 21:6,8,11; 1 Cor 15:39 The most general term for fish.
- ⁸³ καλός Good (to eat) Matthew 13:48 In parable of net, compared to the 'bad fish'
- ⁸⁴ κῆτος Huge fish Mt 12:40 Jesus echoes Septuagint and says Jonah was three days and nights in its belly. Generally the Greeks used this word to describe a mythological monster.
- ⁸⁵ ὀπτός Broiled (fish) Luke 24:42

- ⁸⁶ ὀψάριον Fish (food) Matthew 14:17,19; Mark 6:38,41; Luke 9:13,16; John 6:9,11; 21:9-13 Fish prepared for eating, usually with bread. This was a common usage, although it could also be used generally as 'a bite to eat'
- ⁸⁷ προσφάγιον Fish (food) John 21:5
- ⁸⁸ σαπρός Bad (unclean or inferior fish) Matthew 13:48 In parable of net, compared to the 'good fish.' The catfish, which has no scales, was and still is the biggest fish in the Sea of Galilee, but it was ceremonially unclean and therefore useless to Israelites for food.
- ⁸⁹ ἀλιεύω To go fishing John 21:3
- ⁹⁰ ἀναβαίνω To come up (a caught fish) Matthew 17:26
- ⁹¹ ἀναβιβάζω To pull ashore (net or boat) Mt 13:48 To physically drag onto shore, such as men would do with a seine net. Xenophon uses the same word to describe beaching triremes (BDAG)
- ⁹² βάλλω To let down fishing hook/nets Mt 4:18; 13:47,48; 17:27; Mark 9:42; John 21:6,7. Often 'being thrown into the sea' is compared to better punishments: Lk 17:2. Any faith in such a promise could tell a mountain to throw itself into the sea: Mt 21:21; Mk 11:23. Used for casting a line, throwing away bad fish, and casting the net in the parable of the net.
- ⁹³ δελεάζω To lure, entice James 1:14; 2 Peter 2:14,18 BDAG thinks a fishing metaphor exists in these verses (evil desired enticing, lustful eyes seducing, with bad consequences).
- ⁹⁴ ζωγρέω To capture alive (fish/men) Luke 5:10; 2 Timothy 2:26
- ⁹⁵ πιάζω To catch (fish) John 21:3,10; Revelation 19:20
- ⁹⁶ συγκλείω To catch by enclosing Luke 5:6
- ⁹⁷ συλλέγω To collect fish Matthew 13:48 Parable of the net. More frequently in parables this word is used for gathering plants (Mt. 7:16; 13:28-30, 40, 41; Lk 6:44)
- ⁹⁸ συνάγω To gather up (fish in net) Matthew 13:47
- ⁹⁹ σύρω To drag in (a net) John 21:8
- ¹⁰⁰ χαλάω To let down nets Mk 2:4 See also the same verb under the category 'Boat-verb.' Also used of anchors and a dingy.
- ¹⁰¹ ἄστρον Star Acts 27:20 Useful for navigation, when night is clear (it wasn't)
- ¹⁰² βρέχω Rain Mt 5:45; Lk 17:29; James 5:17 (2x); Rev 11:6 Any form of precipitation, including fire and sulfur (Lk 17:29) and tears (Lk 7:38,44)
- ¹⁰³ ὄψιμος Late rains - April/May James 5:7 After the winter growing season. See Deuteronomy 11:14 for the Lord's bilateral covenant arrangement to provide these for Israel in season.
- ¹⁰⁴ πρόϊμος Early rains - Spring/Autumn James 5:7 Just before agricultural activity begins. See Deut 11:14 for the Lord's bilateral covenant arrangement to provide these for Israel in season.
- ¹⁰⁵ ὕδωρ Water Mt 3:11; Lk 16:24; Jn 3:5; 4:7; (5:3,4;) 7:38; 19:34; Eph 5:26; Heb 9:10; 10:22; 1 Peter 3:20; 2 Peter 3:5; 1Jn 5:6; Rev 21:6; 22:1,17 Paul uses this word for water only in Eph 5:26. Peter uses it in both letters: 1 Pet 3:20; 2 Pet 3:5,6. Also Hebrews 10:22, James 3:12, and Rev 16:12. The literal meaning dominates in Gospels, used in connection with Baptism often in John and epistles, also cleansing and refreshment.

- ¹⁰⁶ ὑετός Rain Acts 14:17; 28:2; Heb 6:7; James 5:18; Rev 11:6 Any form of liquid precipitation.
- ¹⁰⁷ ἄλιεύς Fisher Matthew 4:18,19; Mk 1:16,17; Luke 5:2,10
- ¹⁰⁸ εὐθύνων Captain James 3:4 James notes that a small rudder allows the helmsman to steer a large ship wherever he wants to go.
- ¹⁰⁹ κυβερνήτης Captain Acts 27:11; Rev 18:17. Plutarch says the ship owner selects the shipmaster (captain) and the captain selects his crew.
- ¹¹⁰ ναύκληρος Ship owner Acts 27:11 Obviously his unique investment in the ship gave his opinion more weight. The ship left Fair Havens and eventually is shipwrecked.
- ¹¹¹ ναύτης Sailor Acts 27:27,30 Before Paul's shipwreck. They took soundings and tried to leave the ship in a skiff. See Josephus Vi.66. Sailors are also mentioned in Revelation 18:17, mourning over the disaster that fell upon Babylon, which had made them rich.
- ¹¹² πᾶς ὁ ἐπὶ τόπον πλέων All who sail from place to place Rev 18:17 Refers to a merchant or professional sailor of some kind. TDNT advocates that the phrase πᾶς ὁ ἐπὶ τόπον πλέων in Revelation 18:17 should be translated adverbially: "from place to place." Cf. English translations, which abbreviate to 'seafaring men' (ESV), 'seafarer' (HCSB), 'all who travel by ship' (NIV), 'all the company in ships' (KJV), 'travelers by sea' (Message). Message brings up the idea that these were not people who earned their living by the sea but simply benefitted from the trade. This does not make as much sense in context, however, surrounded by terms for professional sailors in mourning over the loss of the city that had caused sailors to prosper.
- ¹¹³ Βηθσαϊδά(ν) Bethsaida Matthew 11:21; Mark 6:45; 8:22; Luke 9:10; 10:13; John 1:44; 12:21 Fishermen Peter, Andrew, and Philip were born here and is "the place in the Gospels most frequently mentioned after Jerusalem and Capernaum in connection with Jesus' activity." Its name means 'house of fishing' or perhaps 'house of hunting.' The city was destroyed in the First Jewish War (A.D. 66-73), though scholars have debated for over four hundred years (and with renewed interest in the past few decades) where it lay. Dr. Rami Arav has excavated a massive mound called el-Tell, which rises above the Jordan. This spot has gained wide acceptance, especially after the discovery of the so-called 'fisherman's house' in which have been found lead net weights, fish hooks, and fish-cleaning implements. "A wall, which could indicate the existence of an ancient harbor was discovered there." A small seal featuring what appears to be a reed plant and an anchor (or perhaps men casting a net) was discovered here, further linking el-Tell to the fishing trade. The debate has not been entirely settled, however. In 1998, Latvian Jew turned Galilean fisherman and author Mendel Nun challenged the accepted location of ancient Bethsaida, promoting a location called el-Araj, which is much closer to the modern shoreline. Still other scholars (including Bargil Pixner and Dan Urman, who did most of their work in the early 1980s) believe there were two Bethsaidas, or rather that the city of Bethsaida consisted of two parts, located at the two tells. Gordon Franz's non-technical summary of the findings ("Text and Tell: The Excavations at Bethsaida" Biblical Archaeology, September 14, 2012) is a helpful, well-cited review of the Bethsaida debate. It is clear is that sailing and fishing activities

took place in this area. “Between Capernaum and Bethsaida are remains of what may have been a first-century A.D. anchorage.” (Rousseau 247)

¹¹⁴Γαδαρηνός

Kursi, Gergesa, Gerasa Matthew 8:28-34; Mark 5:1-20; Luke 8:26-39 Jesus drove demons out of a possessed man in the region of (depending on the textual variants) the Gerasenes or Gadarenes or Gergesenes. The city of Gadara is located on a hilltop too far from the sea to be considered the place where the pigs ran into the water. The demons had begged Jesus to send them into a herd of pigs, which he did, and the herd rushed down the steep bank into the lake and died in the water. Those tending the pigs ran off, went into the town and reported all of this. Luke 8:26 says this region was “across the lake from Galilee” and the city of Kursi is on the eastern shore, directly across the widest point of the lake from Magdala. A Byzantine church in this town claims to mark the site of the incident with the pigs. The men tending the pigs ran an unknown distance to town to report the events. Near Kursi (now in the Golan Heights) are the remains of a large and massive anchorage, which served probably the town.

¹¹⁵Γεννησαρέτ

Gennesaret(h) or Ginosar Matthew 14:34; Mark 6:53 Like Hammath on the Southwest shore of the Sea of Galilee, Chinnereth was identified in Joshua 19 as one of Naphtali’s fortified towns. It seems likely that the two names identify the same place. Perhaps this was the place where Jesus’ miraculous feeding of the 5000 men took place, since it is on the other (south) side of the lake (John 6:1), and the next day boats from Tiberias arrived (6:23).

¹¹⁶Καφαρναούμ, Χοραζίν

Capernaum and Chorazin (two miles to the north) Matthew 4:13; 8:5-10; 11:23; 17:24; Mark 1:21; 2:1; Luke 4:23; 7:1; 10:15; John 2:12; 4:46; 6:17, 24, 59 It lies just west of 12:00, imagining the sea of Galilee as a clock. The Jordan River delta flows into the lake about two miles east of the town. Two chapters from the Gospels particularly highlight Capernaum-by-the-sea as a prominent setting in Jesus’ ministry: Matthew 4 (in which Jesus leaves Nazareth and moves to Capernaum, see also John 2:12) and John 6 (in which Jesus preaches a “difficult” sermon concerning the Bread of Life in the “school” or synagogue there). Capernaum was “his [home]town” according to Matthew 9:1. He called his first disciples along the shore of Capernaum. Despite the wonders Jesus performed in Capernaum, the city nevertheless fell under his judgment, along with its sister cities of Bethsaida and Chorazin. (Matthew 11:20-24; Luke 10:13-16) Although many houses and possibly synagogues have been unearthed in Capernaum, the competing religious factions on whose land these ruins have long been in the habit of promoting their own finds as sites contemporary with Jesus. The property owned by the Franciscans has yielded over the past 150 years streets, coins, apartment-style housing complexes, as well as a synagogue from the second or third century A.D. and an octagonally-shaped church atop a large room, which many scholars believe was Peter’s house, which later became a church. The Greek Orthodox property seems to be on top of first century A.D. city walls, in addition to a bathhouse, rows of private homes, and yet another synagogue, all excavated between 1978 and 1987. It is difficult to determine with certainty which of these houses and

synagogues were in use while Jesus walked the streets of Capernaum, but future excavations will reveal more clues. (Rousseau 39-46)

¹¹⁷Μαγαδάν, Δαλμανουθά Magdala (Migdal, Magadan, Taricheae), Dalmanutha (Tabgha) Matthew 15:39; Mark 8:10 (where textual variants blend the regions of Magdala and Dalmanutha) Besides the oblique references to this city in the title of Mary Magdalene, Dalmanutha and Magadan are only mentioned as the next stop for Jesus and his disciples after the miraculous feeding of the 4000. The Pharisees soon found him there and put him to the test, demanding a sign (Matthew 16 and Mark 8:11-13). Still, this city was one of the most important economic centers on the Sea of Galilee and has yielded many archaeological treasures. Taricheae was the name of a popular salty fermented fish sauce manufactured here. “The Talmud indicates that Magdala had a small harbor and a boat-building industry.” In 1973 a cache of nearly 200 coins from the first two centuries A.D. were discovered. In 1986 the so-called “Jesus Boat” was found just to the north of the city’s harbor. (Rousseau 189)

¹¹⁸Τιβεριάς Tiberias John 6:1,23; 21:1. “Tiberias became the capital city of Galilee at the time of Jesus’ adult life...Founded in A.D. 18 [when emperor Tiberias turned 60 years old] or 19 by Herod Antipas, tetrarch of Galilee and Perea, to replace Sepphoris as his main residence...When the construction of the city was started, an ancient necropolis appeared, which made the city unclean for Jews (even today)...[Herod’s] palace was on a hill...the town center grew on a narrow stretch of land between the hills and the lake shore.” Strangely, “the harbor of Tiberias has not yet been found.” (Rousseau 247) The city of Hammath (‘Hot Springs’) lay a short distance to the south and was one of the fortified towns of Naphtali (Joshua 19:35). “In the second half of the first century C.E., Hammath and Tiberias were united. (Rousseau 316-318) We are never told that Jesus visited Tiberias. However, the Sea of Galilee was sometimes called the Sea of Tiberias, because of its importance as the capitol city and Herod’s residence. Boats from Tiberias arrived at the place where the feeding of the 5000 men took place (possibly Gennesaret, which may have lain six miles north of Tiberias), and many in the crowd used these boats to head north to Capernaum in search of Jesus.

¹¹⁹Σελεύκεια Seleucia/Pieria Acts 13:4 Port city of Antioch, Far north of Caesarea and Tyre. It is the extreme northeast corner of the east basin of the Mediterranean

¹²⁰Σαλαμίς Salamis Acts 13:5 On eastern coast of Cyprus, protected from prevailing NW winds.

¹²¹Πάφος Paphos Acts 13:6,13 On western coast of Cyprus

¹²²Πέργη Perga Acts 13:13,14; 14:25 Note, this is different from Pergamum (Rev 1:11;2:12) in NW Asia Minor. “From Cyprus the three travelers set out for Asia Minor, arriving at Perga on the Pamphylian coast. The region was known for its unhealthy climate and marshes, and the trio did not tarry long.” (Brisco 244)

¹²³Αττάλεια Attalia Acts 14:25 A seaport in Pamphylia. Paul retraced his steps through Lystra, Iconium, Antioch in Pisidia, and Perga, strengthening the believers along the way before returning by sea from the port of Attalia to Antioch in Syria. (Brisco 246)

- ¹²⁴ Τρωάς, Σαμοθράκη Troas/Samothrace Acts 16:8,11; 20:6; 2 Cor 2:12; 2 Tim 4:13
 “Very few ruins are left among the oak trees at Alexandria Troas because of plundering through the ages. Its proximity to Constantinople enabled emperors and sultans such as Justinian and Mehmet IV to pillage its stones. Just up the beach from the modern harbor at Dalyan are the remains of the [ancient] outer harbor and inner harbor.” (Wilson, “Bibica Turkey,” 386) In the port city of Troas, Paul received a vision of a Macedonian imploring him to cross over into Europe with his message (Acts 16:6–10). Acts 16:10 begins a “we” section of Acts, so Luke probably joined the apostle at this point. Boarding a ship at Troas, Paul and his companions overnights off Samothrace before arriving at Neapolis, the chief port of Macedonia. (Brisco 247)
- ¹²⁵ Νέα πόλις, Φίλιπποι Neapolis, Philippi Acts 16:11f; 20:6; Phil 1:1f; 1 Thess 2:2
 Ten miles inland from Neapolis. The two cities were so closely related that Luke records that they set sail from Philippi.
- ¹²⁶ Αμφίπολις, Ἀπολλωνία, Θεσσαλονίκη Amphipolis, Apollonia, Thessalonica Acts 17:1,11,13; Phil 4:16; 2 Tim 4:10 Paul had a brief, contentious ministry in Thessalonica, a district capital of Macedonia and a major port. Initial success among God-fearing Gentiles and some Jews in a synagogue agitated a mob who attacked the house of Jason where the two missionaries were staying. The mob charged Paul with proclaiming a king other than Caesar, an act of treason against the Roman Empire. Although the charge was false, Paul and Silas fled to Berea, where several prominent Greek men and women received the gospel. However, Jewish agitators arrived from Thessalonica, forcing an end to Paul’s first Macedonian mission. (Brisco 247)
- ¹²⁷ Ἀθήναι Athens Acts 17:15f; 18:1; 1 Thess 3:1 Paul left Macedonia and journeyed on to Athens, probably by sea, leaving Silas and Timothy behind in Berea. (Brisco 247-248) Debarking most likely at the Piraeus, the largest of Athens’ three harbors. (Brisco 251)
- ¹²⁸ Κόρινθος, Κεγχρεαί Corinth, Cenchræa Acts 18:18; Romans 16:1 BDAG: Cenchræa was the port on the east side of the isthmus, Lechaëum (not in NT) was on the west side. Paul soon left Athens for Corinth, fifty-five miles to the southwest, whether by land or sea is not stated. (Brisco 248) Corinth: Some of the shops used cold running spring water to keep perishables fresh. Three springs—Glauke, the Sacred Spring, and the much larger Fountain of Peirene—supplied Corinth with an abundance of water. (Brisco 254) Shortcut around Achaean peninsula: “A stone paved cart road known as the Diolkos existed in antiquity to transport cargoes, and at times ships as well, between the Corinthian and Saronic Gulfs. This route wound its way for some eight kilometers across the isthmus.” (Wachsmann, Ship-Cart, 161) It’s hard to say much about the cart: “some kind of wheeled conveyance” (Wachsmann, 161 quoting Werner 1997: 11). Paul left Corinth for the nearby port of Cenchræa accompanied by Aquila and Priscilla. There he kept a vow before sailing back to Syria. Paul stopped briefly at Ephesus, where he parted with his friends and sailed on to Caesarea. (Brisco 248-249)
- ¹²⁹ Ἐφεσος Ephesus Acts 18:19ff; 19:1,7,26, 20:16ff; 1 Cor 15:32; 16:8; Eph 1:1; 1 Tim 1:3; 2 Tim 1:18; Rev 1:11; 2:1 A city of over 250,000 people, Ephesus

controlled important land and sea routes. (Brisco 249) Traveling to Assos by land, Paul rejoined his ship and passed through the Samos Straits to Miletus, where he said farewell to the Ephesian elders. (Brisco 250)

¹³⁰Καيسάρεια (not ἡ Φιλίππου) Caesarea Maritima Acts 8:40; 9:30; 10:1,24; 11:11; 12:19-23; 18:22; 21:8; 23:23; 25:1-13 Though we have no reason to think that Jesus visited this Caesarea, Paul, Peter, and Philip all visited this beautiful harbor city, constructed by Herod the Great between 22 and 10 B.C. The harbor was called ‘Sebastos’ (Greek for ‘Augustus’) and was protected by artificial breakwaters which combine total over 1000 yards of protection and shelter a 40 acre harbor. According to Josephus, it was larger than Piraeus, the harbor of Athens.” (Rousseau 30-33) Two huge breakwaters built of ashlar stones and a conglomerate formed by pouring hydraulic cement into wooden forms enclosed twenty-five acres of open sea. The project was unprecedented in scale as was the application of poured forms to create the breakwaters. Fragments of amphorae (storage vessels) found near the warehouses testify to the lively trade in olive oil, wine, grain, and fish sauce carried out from Caesarea. In one of the warehouses, excavators discovered a (post-NT) Mithraeum—a place imitating a cave where the god Mithras was worshiped in secret ceremonies—complete with an altar and a medallion depicting Mithras slaying a bull. (Brisco 202)

^{131*}Ἀσσοσ Assos Acts 20:13f On the way back to Jerusalem from his third missionary journey, the apostle Paul met the ship that had carried his companions, including Luke, at Assos, “where the harbor, with its ancient breakwater, is still in use.” (Bruce 341)

¹³²Μιτυλήνη, Χίος, Σάμος, Μίλητος Mitylene to Chios to Samos to Miletus Acts 20:14-17; 2 Timothy 4:20 Traveling on to Assos (on coast of Mysia) by land, Paul rejoined his ship and passed through the Samos Straits to Miletus, where he said farewell to the elders of Ephesus. (Brisco 250) Mitylene was the chief city of the island of Lesbos. Chios was both a city and an island in the Aegean off the west coast of Asia Minor. Samos was a popular stopping place for boats making the turn from the Black Sea to the Syrian coast. Miletus was a port with a Jewish community.

¹³³Κῶς, Ρόδος, Πάταρα Island of Kos/Cos to city/island of Rhodes, Patara Acts 21:1 Kos is an island in the Aegean, Rhodes is both an island and its major city. Patara was a city in Lysia.

¹³⁴Τύρος Tyre Mt 1:21f; 15:21; Mk 3:8; 7:24,31; Lk 6:17; 10:13f Phoenician city, normally named with Sidon in the Gospels.

¹³⁵Πτολεμαῖς Ptolemais (Akko or Acre) Acts 21:7 Paul spent a day here Acts 21:7. Judas Macabeus drove the Romans back here. Later an important stronghold for Crusaders. Napoleon used it as a supply depot. University of Rhode Island. "Archaeologists discover shipwrecks, ancient harbor on coast of Israel." ScienceDaily, 28 November 2012.

¹³⁶Μύρα Myra Acts 21:1 (some mss); 27:5 The initial phase of the trip followed the coast to Sidon and then headed northwest past the lee of Cyprus “because the winds were against us” (Acts 27:4). Upon arrival at Myra in Lycia, the centurion located a much larger Alexandrian grain freighter bound for Rome. The initial phase of the trip followed the coast to Sidon and then headed

northwest past the lee of Cyprus “because the winds were against us” (Acts 27:4). Upon arrival at Myra in Lycia, the centurion located a much larger Alexandrian grain freighter bound for Rome. (Brisco 256)

¹³⁷Καλοὶ λιμένες, Φοῖνιξ Fair Havens and Phoenix Acts 27:8,12 Fair Havens/Havens is not found elsewhere in ancient sources, but must lie on the south side of Crete, East of Phoenix. According to BDAG, a Cretan harbor named Charmuthas was called λιμὴν κάλλιστος, and kalos was often used to describe a suitable or useful harbor. Sites named as possible harbors of Phoenix (also spelled Phoinix) are Lappa (better) and Loutro. The heavy cargo and passenger load increased the risk of sailing, especially so late in the season. Making for Salmone on the eastern tip of Crete, the pilot sailed to Fair Havens, a small harbor in southern Crete. Paul considered remaining in Fair Havens for the winter, but those in charge suggested wintering at Phoenix on the Cretan coast, some forty miles to the west. Moreover, Paul began his voyage late in the sailing season when unexpected storms threatened. Accompanied by Aristarchus from Thessalonica (Acts 19:29; 20:4), Luke, and in the custody of the centurion Julius, Paul joined other prisoners for a two-thousand-mile voyage to Rome. (Brisco 256)

¹³⁸Μελίτη Malta Acts 28:1 Melita appears to be a Phoenician name, from the root in Hebrew מִלִּיטָה, to escape (Bochart, 'Canaan,' 1:26), meaning, therefore, a "refuge," a harbor of refuge so called from sailors often running into Valetta during a gale; or possibly from מִלִּיטָה, clay, in Italian malta, from the clay which forms the bottom of the sea as you approach Malta, and which makes the anchorage so safe. (Pulpit Commentary on Acts 28:1)

¹³⁹Συράκουσαι, Ῥήγιον Syracuse, Rhegium Acts 28:12,13 Moreover, Paul began his voyage late in the sailing season when unexpected storms threatened. Accompanied by Aristarchus from Thessalonica (Acts 19:29; 20:4), Luke, and in the custody of the centurion Julius, Paul joined other prisoners for a two-thousand-mile voyage to Rome. (Brisco 256)

¹⁴⁰Ποτίολοι Puteoli Acts 28:13 Puteoli was the chief port of arrival in Italy of merchant shipping from the eastern Mediterranean. (Bruce 374) Catching a favorable wind, the ship sailed on to Puteoli in the Gulf of Naples. Puteoli was a major port receiving the grain supply from Egypt that was so vital to Rome. During the reign of Claudius, the port of Ostia increasingly supplied Rome's needs. At the mouth of the Tiber, Ostia had a new harbor just north of the city named Portus. (Brisco 257)

¹⁴¹πηγή Spring Mark 5:29; John 4:6 (2x), 14; James 3:11,12; 2 Peter 2:17; Rev 7:17; 8:10; 14:7; 16:4; 21:6 Either literal or figurative, as a source from which something (usually water) flows. This includes natural springs that feed lakes, including Galilee. See LXX Lev 11:36, Num 33:9; Psalm 17:16. See Josephus Antiq. 2, 294.

¹⁴²ποταμός River Mt 3:6; 7:25,27; Mk 1:5; Lk 6:48f; Jn 7:38; Acts 16:13; 2 Cor 11:26; Rev 8:10; 9:14; 12:15f; 16:4; 22:1,2 A major year-round water channel. NT usages refer to Jordan, Euphrates, Tigris, spiritual rivers, and visions of eschatological rivers, in addition to general references to actual rivers that cannot be identified.

- ¹⁴³ φρέαρ Spring Luke 14:5; John 4:11,12 Often man-made pit or shaft into the ground, from which water can be drawn. See LXX Gen 21:19. Cf. πηγή which feed into rivers and lakes. Pit can even lead down to the depths of hell, as in Rev 9:1,2 (3x).
- ¹⁴⁴ χείμαρρος Stream Jn 18:1 A (non-navigable) wadi or seasonal river that only exists after winter snow has melted or during the rainy season. When Jesus and his disciples crossed the Kidron Brook, the reference is likely to the valley rather than the stream itself.
- ¹⁴⁵ αἰγιαλός Beach/shore Mt 13:2, 48; Jn 21:4; Ac 21:5; 27:39, 40 In other Greek sources, this word is usually used of the edge of the sea or ocean, but sometimes of lakes. In NT it is mostly used of Galilee's rocky shore.
- ¹⁴⁶ ἄμμος Beach/sandy shore Hebrews 11:12, Revelation 12:18 See also Mt 7:26; Acts 7:24; Rom 9:27; Rev 20:8. Cf. LXX Gen 13:16; 22:17; Isaiah 10:22; Dan 3:36.
- ¹⁴⁷ βυθός Sea 2 Cor 11:25 Designates deep, unprotected water, here where Paul drifted for a day and a night
- ¹⁴⁸ γῆ Land (not sea) Mk 4:1; 6:47; Lk 5:3,11; John 6:21; 21:8-11; Acts 27:39,43f Cf. Χώρα, which also distinguishes between sea and land, though less frequently. Seems to refer to the bottom of the sea in Epistle of Barnabas 10:5
- ¹⁴⁹ θάλασσα Sea Mt 4:18; 23:15; Mk 9:42; Lk 17:2,6; 21:25; Acts 7:36; 27:30; Rev 7:1-3 General term for any body of water. Commonly used of Sea of Galilee.
- ¹⁵⁰ κόλπος Bay Acts 27:39 Designates somewhat protected water, here a bay spotted by the sailors and identified as a good place to attempt to beach the ship. Cf. Josephus Ant. 3,25.
- ¹⁵¹ λιμῆν Harbor Acts 27:8,12 (2x) A description for specific place. NT mentions Fair Harbors and Phoenix, Crete's harbor. Designates protected water suitable for ships to enter and moor. Why was this harbor unsuitable? Was it unsuitable for the ship or its crew and passengers?
- ¹⁵² λίμνη Lake/pool Lk 5:1,2; 8:22-33 Jesus spend much of his ministry παρὰ τὴν λίμνην "next to/on the shore of" the lake. Note that this term is also used to describe an expanse with a lot of fire (Rev 20:10,14 (2x),15,19,20;21:8)
- ¹⁵³ νησίον or νῆσος Island Acts 13:6; 27:16,26; 28,1,7,9; Rev 1:9; 6:14; 16:20. Diminutive sense of νησίον seems to have disappeared by NT so that these two were used in Koine lit. interchangeably.
- ¹⁵⁴ ξηρός Dry (ground) Mt 23:15; Heb 11:29 Cf. Χώρα and γῆ. Jesus uses this word in Mt 23:15 against the Pharisees who 'travel over sea and dry ground to win a convert.' This adjective also describes branches in Lk 23:31. See Jonah 1:9; 2:11; and Haggai 2:21. In the Genesis creation account in the Septuagint, God separates the 'waters' and the 'dry' and calls the dry ground γῆν 'land' and the waters 'θάλασσας' (Genesis 1:9,10)
- ¹⁵⁵ παραθαλάσσιος Seaside (along the shore) Mt 4:13 Capernaum is described as 'by the lake'
- ¹⁵⁶ πέλαγος Sea Acts 27:5 Designates deep, unprotected water, here between Cilicia and Pamphylia (normally called ?). See Josephus, Bell. 1, 409.)
- ¹⁵⁷ πόντος Sea Rev 18:17 Designates deep, unprotected water, here the water upon which sailors often travel: πᾶς ὁ ἐπὶ πόντων πλέων

- ¹⁵⁸τόπος διθάλασσος Reef, sandbar, point (of land) Acts 27:41 The 'two seas' etymology of the adjective is presented by DBL and L-N to mean 'cross-currents', meaning a current that flows counter to the prevailing current direction, perhaps to do a partially submerged obstacle. The idea of 'dividing into two seas, dividing the sea (as a reef), where two seas met' (Strong #1337) makes more sense. Granted it is a derived sense and an interpretation, but from context the boat must strike something with water on two sides and hold fast in it. Possible options are sandbars and reefs, invisible from above the surface, except for their breakers, but clearly dividing the protected waters toward land from the rest of the sea.
- ¹⁵⁹χώρα Land (not sea) Acts 27:27 The contrast is important to note. The sailors in Acts 27 sensed they were approaching it.
- ¹⁶⁰Ἀδρίας Adriatic Sea Acts 27:27 The sea between Greece and Italy (and is considered to extend south between Crete and Sicily) across which Paul's ship to Rome was driven by the Nor'easter
- ¹⁶¹ἔρυθρὰ θάλασσα Red Sea Acts 6:36; Heb 11:29 This is really the adjective 'red' but used in LXX (Ex 10:19) for the 'Sea of Reeds.' Large sea between Egypt and the Arabian Peninsula. Mention of this sea brought to an Israelite's mind memory of God's deliverance from the hand of Pharaoh
- ¹⁶²Πόντος Black Sea Acts 2:9; 1 Peter 1:1 According to BDAG, the sea was named this first, then later the Asian empire along this sea, then later a Roman province, populated by many Greeks.
- ¹⁶³ἀποπνίγομαι To drown Lk 8:33 The demon-possessed pigs rushed into the lake and drowned. Mark uses the verb πνίγομαι in his parallel account. Luke had already used ἀποπνίγομαι earlier in 8:7 of weeds choking out growing wheat.
- ¹⁶⁴βέβληται εἰς τὴν θάλασσαν To throw into the sea Mt 18:26; 21:21; Mk 9:42; 11:23; Lk 17:2 Jesus talks a few times of comparative advantage in death by drowning, and a mountain-moving quality of faith.
- ¹⁶⁵καταποντίζω To drown/sink Hebrews 11:29 The Egyptians were drowned when God caused the Red Sea to rush back over them.
- ¹⁶⁶πνίγομαι To drown Mark 5:13 The demon-possessed pigs rushed into the lake and drowned. Matthew uses the verb ἀποπνίγομαι in his account.
- ¹⁶⁷πλόος Voyage Acts 21:7; 27:9f Used twice, both in Acts. First occurrence is when Paul and Luke continue a shore-hugging sailing voyage, then later when they face a difficult journey due to unfavorable wind direction.
- ¹⁶⁸ἤχώ / ἤχος θαλάσσης Sound of the sea Lk 21:25 Part of phrase in Lk 21:25: ἤχους θαλάσσης καὶ σάλου "the roaring and tossing of the sea" (NIV) which will cause the nations much perplexity. Difference in accenting accounts for disagreement over root form. See also LXX Psalm 45:5; 64:8; Jer 5:22 for combination of sound and sea.
- ¹⁶⁹βία Force (of waves) Acts 27:41 The force of nature is incredibly strong, as evidenced by the violent wave action that shattered the hull of Paul's ship.
- ¹⁷⁰κύματα Waves Mt 8:24; 14:24; Mk 4:37; Acts 27:41; Jude 13 Always plural in NT. See LXX Job 38:11. Used figuratively in Jude 13 to describe the ungodly people in the midst of Jude's audience: "They are wild waves of the sea, foaming up their shame."

171	ἐπιβάλλω	To break over Mk 4:37 Calming the storm. Waves nearly swamped the boat.
172	καλύπτω	To cover Mt 8:24 Calming the storm. Waves swept over/covered the boat
173	κλυδωνίζομαι	To be tossed about Ephesians 4:14
174	συμπληρώω	To fill completely (lit) Lk 8:23 In storm before calming. Almost always figurative of time 'had come'/'fulfilled'
175	ἄγρία	Wild (waves) Jude 13 Used only 3x in NT, 2x of the kind of honey John the Baptizer ate, and 1x of figurative wild waves Jude wrote against in his letter.
176	ἀνεμίζω	To be moved by wind James 1:6
177	καταβαίνω	To fall (rain) Mt 7:25,27
178	καταβαίνω	To come down (storm) Lk 8:23
179	ἀνατολή	East Mt 2:1, 2, 9; 8:11; 24:27; Lk 13:29; Rev 7:2; 16:12; 21:13
180	ἄνεμοι	Winds (The Four) Mt 24:31; Mk 13:28
181	βορρᾶς	North Lk 13:29, Rev 21:13 Orientation is still toward the east.
182	δυσμή	West Mt 8:11;24:27; Lk 12:54; 13:29; Rev 21:31 Always pl. in LXX, NT
183	μεσημβρία	South Acts 8:26 Word for 'noon' also has the sense 'South,' acc. to BAG: 'The position of the sun at midday'
184	νότος	South Mt 12:42; Lk 11:31; 13:29; Revelation 21:13, Also the name of a country in the south: See Psalm 125:4 and Mt 12:42; Luke 11:31.
185	νότος	South wind Luke 12:55; Acts 27:13; 28:13 Brings hot air from the desert into Israel, says Jesus in Lk 12:55.
186	πανταχόθεν	From every direction Mk 1:45
187	ἄνεμος	Wind (fig) Eph 4:14
188	ἄνεμος	Wind Mt 7:26; 8:26; 14:24,30,32; Mk 4:39,41; 6:48,51; Jn 6:18; Acts 24:14; James 3:4 General word for physical moving air (wind). Occurs in following situations: Wise and foolish builders' houses faced not only water but also wind. Walking on water with wind against them, and Peter saw its effects. Jesus calms the storm, rebuking it, and it died down and obeyed him. Walking on water with wind against the rowing disciples. Jesus calmed it. Acts describes a sound of a violent wind. James writes about a rudder that transfers a mighty wind into movement in a positive direction.
189	εὐροκλύδων	Nor-easter Acts 24:14 Paul's storm. Combination Latin-Greek word. See Etym. Magn. 772,30. Violent storm. Was it actually from the Northeast? Note how it is still being used.
190	λαῖλαψ	Gust/squall (of wind) Mk 4:37; Lk 8:23 Usually occurs in combination with ἄνεμος. It means a fierce gust in the account of calming the storm.
191	λαῖλαψ	Fig. Gust/squall (of wind) 2 Peter 2:17 False teachers are 'mists driven by a hurricane/gust/whirlwind'
192	σεισμός	Storm Mt 8:24 Calming the storm. Usual earthquake but here 'on the sea'
193	τυφωνικός	Hurricane-force wind Acts 27:14 This adjective is the source of the word 'typhoon' and signifies hurricane-force wind.

Conclusion

The thesis set out to show you how much you do not know about the sailing-saturated ancient world. By this point you know how little *anyone* knows about the ships and sails of Scripture. We have explored the most recent finds in the booming field of nautical archaeology, and you have perused and begun to compile for yourself a biblical vocabulary of Hebrew and Greek sailing terms. In the appendix materials you will find a compilation of the experiences of several contemporary Christian brothers who have a passion for sailing.

Now as you read Scripture, I want you to feel the warm and steady Mediterranean wind on your face as you make your way east and west, then on the back of your neck as you ease out the lines and run ahead of the wind toward Egypt to pick up another load of wheat. Use that knowledge to hone your storytelling.

I want you to breathe in deeply as you sail and smell the algae on the lake and the pungent aroma of freshwater fish forever embedded in the fibers of your net. Look up to see the sunrise as you make your way home from a long and tiring night of fishing. Touch your fingers to the sticky black pitch that seals your boat up tight, even as you notice a little water sloshing in the bilge beneath your feet. Communicate those details.

I want you to be cognizant of the constant effort required to balance the boat with both crew and ballast and tackle. I want you to grow accustomed to the constant adjustment the helmsman and crew make to sail trim and course heading as the conditions change. I want you to do a little research to figure out distances and directions between ports and anchorages. Relate what you research to your hearers.

I want you to be more comfortable talking about the ark, Solomon's shipyard, the plight of the sailors in Psalm 107, the prophetic ships of Isaiah 33 and Ezekiel 27, the fishing boats of the Gospels, the Alexandrian ship destroyed in Acts 27, the anchor of Hebrews 6, the shipwreck of 1 Timothy 1, and the shocked sailors of Revelation 18. At least I want you to know of some helpful resources to give you confidence that what you say is accurate. Preach and teach such details with confidence.

I want you to know a bit about first century Galilean fishing and its equipment, a bit about sea trade routes and the exchange of precious commodities, a bit about Galilee and its villages as well as the ports of the Mediterranean that are mentioned in Scripture. Keep your ear to the ground for news of the newly-discovered harbors, ships, and nautical artwork, as well as

synagogues and house churches found in sunken coastal cities.

Treasure the sailing context in which God sheltered his people, sent his son, showed his might, saved our sins, and sent his apostles. Faithfully, accurately, and vividly communicate even these small details of his Word as you tell your hearers the most important message they will ever hear and you will ever speak.

Bibliography

- Arndt, William, Frederick Danker, and Walter Bauer. *A Greek-English Lexicon of the New Testament and Other Early Christian Literature*. Chicago, Illinois: University of Chicago Press, 2000.
- Ballard, Robert D., Stager, Lawrence, et al., "Iron Age Shipwrecks in Deep Water off Ashkelon, Israel." *American Journal of Archaeology* 106, No. 2 (April 2002): 151-168. Re-paginated PDF at the MIT website: <http://web.mit.edu/deeparch/www/publications/publications.html>.
- Blue, Lucy. "Locating the Harbour: Myos Hormos/Quseir al-Qadim: a Roman and Islamic Port on the Red Sea Coast of Egypt" *The International Journal of Nautical Archaeology* 36.2 (2007): 265-281.
- Boetto, Giulia. *Roman Techniques for the Transport and Conservation of Fish: The Case of the Fiumicino 5 Wreck*. In *Connected By the Sea: Proceedings of the Tenth International Symposium on Boat and Ship Archaeology*, Lucy Blue et al., ed. Roskilde, Denmark: Oxbow Books, Ltd. 2003: 123-129. Available at <http://www.academia.edu/2332461>.
- Brisco, Thomas. *Holman Bible Atlas*. Nashville, Tennessee: Broadman & Holman Publishers: 1998.
- Bruce, F.F. *Paul: Apostle of the Heart Set Free*. Grand Rapids, Michigan: Paternoster Press, 1978.
- . *The Acts of the Apostles*, Aberdeen, United Kingdom: The University Press, 1952.
- Casson, Lionel. *Ships and Seafaring in the Ancient World*. Austin, Texas: University of Texas Press, 1994.
- . *Ships and Seamanship in the Ancient World*. Princeton, New Jersey: Princeton University Press, 1973.
- Chworowsky, Rev. John. 2014. Interview by author. Online. November 24.
- Davis, Dan L. "Open Seas: Recent Deepwater Archaeological Finds Disprove the Conventional Wisdom that Ancient Mariners Were Timid Shore-huggers." *Archaeological Odyssey* 6 (Jan-Feb. 2003): 20-28,61,62.
- Davis, Dr. George. 2014. Interview by author. Online. November 18.
- Gerlach, Jake. 2014. Interview by author. Online. November 10.
- Harris, R. Laird, Gleason L. Archer Jr., and Bruce K. Waltke, eds. *Theological Wordbook of the Old Testament*. Chicago: Moody Press, 1999.
- Hoerth, Alfred J. *Archaeology & the Old Testament*, Grand Rapids, Michigan: Baker Books, 1998.
- Hunter, Rev. Randy. 2014. Interview by author. Online. November 7.
- Jobson, Gary. *Sailing Fundamentals*, New York: Fireside, 1998.
- Kiely, Maggie. 2013. "Former Professor J. Richard Steffy's Model Ship Finds New Port at Texas A&M." *The Eagle (Bryan, TX)* October 21. http://www.theeagle.com/news/local/former-professor-j-richard-steffy-s-model-ship-finds-new/article_ba2e6689-2572-5667-bcb6-13bffb38a13f.html (accessed November 10, 2014).

- Kittel, Gerhard, Geoffrey W. Bromiley, and Gerhard Friedrich, eds. *Theological Dictionary of the New Testament*. Grand Rapids, MI: Eerdmans, 1964–.
- Lucian, *The Ship*. Kilburn, K. transl. Loeb Classical Library 430. Cambridge, Massachusetts: Harvard University Press, 1959. Available online at http://www.loebclassics.com/view/lucian-ship_wishes/1959/pb_LCL430.431.xml
- Maloney, Elbert S. *Chapman Piloting, Seamanship, and Small Boat Handling, 65th ed.* New York: Hearst, 2006.
- McGrail, Seán. *Boats of the World: From the Stone Age to Medieval Times*. New York: Oxford University Press, 2009.
- Misch-Brandl, Osnat. "Ancient Seafarers Bequeath Unintended Legacy." *Biblical Archaeology Review* 11(Nov/Dec 1985): 40-43.
- Nun, Mendel. *The Sea of Galilee and Its Fishermen in the New Testament*. Kibbutz Ein Gev, Israel: Kinnereth Sailing Co., 1989.
- Pederson, Ralph K. "Was Noah's Ark a Sewn Boat?" *Biblical Archaeology Review* 31:03 (May-June 2005).
(See also a recent news story about a sewn boat in Oman: Ralph K. Pedersen. "Was Noah's Ark a Sewn Boat?" *Biblical Archaeology Review*. 31:03. (May/Jun 2005). Cf. this story on an Omani sewn boat: <http://www.npr.org/blogs/parallels/2014/11/19/365215257/>)
- Ramsay, William M. and Wilson, Mark. *St. Paul the Traveler and Roman Citizen*. Grand Rapids, Michigan: Kregel Publications, 2001.
- Reese, David S. "2,000-Year-Old Merchantman Excavated in the Red Sea" *Archaeology Odyssey* 5:01 (Jan/Feb 2002): 17.
- Rickman, Geoffrey, "The Grain Trade under the Roman Empire," *The Seaborne Commerce of Ancient Rome: Studies in Archaeology and History: Memoirs of the American Academy in Rome* 36, (1980), 261-275. <http://www.jstor.org/stable/4238709> (accessed November 20, 2014).
- Rops, Henri Daniel. *Daily Life in the Time of Jesus*. New York: Hawthorn, 1962.
- Rousseau, John, and Arav, Rami. *Jesus and His World: An Archaeological and Cultural Dictionary*. Minneapolis, Minnesota: Fortress Press, 1995.
- Schmitzer, Grant. 2014. Interview by author. Online. November 18.
- Seabaugh, Christian. "First Test: 2015 Ford Mustang GT" Website of MotorTrend Magazine. http://www.motortrend.com/roadtests/coupes/1409_2015_ford_mustang_gt_first_test/ (accessed October 22-November 30, 2014).
- Swanson, James. *Dictionary of Biblical Languages with Semantic Domains: Greek (New Testament)*. Oak Harbor, Washington: Logos Research Systems, Inc., 1997.
- . *Dictionary of Biblical Languages with Semantic Domains: Hebrew (Old Testament)*. Oak Harbor, Washington: Logos Research Systems, Inc., 1997.
- Tyler, Moises Coit, ed. *Ancient Oriental Nations and Greece*, In *Library of Universal History, Vol II*. New York: R.S.Peale, J.A. Hill, 1899, (accessed online November 2-December 1, 2014) http://books.google.com/books?id=uMw6AQAAMAAJ&source=gbs_navlinks_s

- Wachsmann, Shelley. "Ancient Ships: An Iconographical Tale." *Archaeological Odyssey* 6:01 (Jan.-Feb.2003).
- . "Archaeological Views: Archaeology Under the Sea." *Biblical Archaeology Review* 32:06 (Nov-Dec 2006): 26,80.
- . "The Galilee Boat—2000-Year-Old Hull Recovered Intact," *Biblical Archaeology Review* 14:05 (Sep/Oct 1988): 18-33
- . *The Sea of Galilee Boat: An Extraordinary 2000 Year Old Discovery*. New York: Plenum Press, 1995.
- . *The Gurob Ship-Cart Model and its Mediterranean Context*. College Station, Texas: Texas A&M University Press, 2013.
- . *Seagoing Ships & Seamanship in the Bronze Age Levant*. College Station, Texas: Texas A&M University Press, 1998.
- Weil, Gérard E., K. Elliger, and W. Rudolph, Deutsche Bibelgesellschaft. *Biblia Hebraica Stuttgartensia*. 5. Aufl., rev. Stuttgart: Deutsche Bibelgesellschaft, 1997.
- Wittkamp, Paul. 2014. Interview by author. Online. November 15.
- Zemer, Avshalom. "Shipwrecked Cargoes." The Haifa Museum. March 31, 2001.
<http://www.nmm.org.il/Museum/Templates/showpage.asp?DBID=1&LNGID=1&TMID=84&FID=1195&PID=2943> (accessed October 15-November 30, 2014)
- . "Ancient Shipping." The Haifa Museum.
<http://www.nmm.org.il/Museum/Templates/showpage.asp?DBID=1&LNGID=1&TMID=84&FID=1195&PID=2954> (accessed October 15-November 30, 2014)

Appendix I. Experiential “Point of Sail”

The following comments were submitted to me electronically by the following WELS clergy and lay members with interest and experience in sailing: Pastor John Chworowsky, Dr. George Davis, Jake Gerlach, Pastor Randy Hunter, Grant Schmitzer, and Paul Wittkamp, to whom I am very grateful. Their comments have only been edited for clarity and brevity. Their observations stand alone in this appendix, apart from my research. Enjoy reading through their notes and listening to their stories. Let their experience inform you, the storyteller, about which details stand out to sailors. Attempt to communicate with their passion and attention to detail.

Devotional Thoughts—Old Testament Accounts

Jake Gerlach: (Genesis 6. Noah’s ark) The process of floating the ark would essentially be an undocking (i.e. from dry-dock). There is a potential for capsize during the transition from ground support to floating. Forty days of rain and floodwater and subsequent draining away of water would probably set up staggering currents. The ark may have traveled pretty far during 150 days of drifting in those currents. "Coming to rest on Mt. Ararat" would be like dry-docking. God's hand was surely present to guide the ark to a place where it could fully ground itself without capsizing.

Pastor John Chworowsky: (Genesis 6. Noah’s ark) Noah's “ship” was basically a very large barge without any means of moving from place to place. It accommodated a large number of animals and people, all of whom would be saved during the universal deluge. The vessel was open to all people, but it was used only by those who believed the God-given testimony of Noah. The ark is symbolic of the universal Gospel: Open to all, but of benefit only to those who believed the Truth. It is notable that only Noah's family went along with Noah. At least Noah’s wife and kids believed him.

Jordan Schmitzer: (1 Kings 10:22. Solomon’s fleet of ships) Most people chartering boats in the BVIs (British Virgin Islands) get lost, even though they’re always in sight of land. Also he must have had quite a few fine ships to carry that much. For all our technology, sometimes I think people back then were more advanced than we assume today.

Dr. George Davis: (1 Kings 10, 2 Chronicles 20. Israel’s kings’ ships) I was very amazed by the amount of sailing done in biblical times. Men harnessed the wind and water movements created by God to travel, gather food, and transport cargo. The great cities of biblical times and the present are still located on major waterways. These were powerful places because of their

good harbors and large shipping fleets. A kingdom owning many large ships was considered rich and powerful.

JG: (1 Kings 10:12) Three-year-long journeys pretty wild to me, but perhaps it wasn't that uncommon in the days of ancient trading vessels. It would mean a very hard life for the sailors. Imagine trying to have a family!

JC: (1 Kings 5; 9; 10) I often wonder how ocean sailing could be carried on consistently with the lack of modern sail and ship design. It seems to me that the use of galley slaves with huge oars was essential to trade and required slavery to make it practical. Even with that, trade on the oceans must have been extremely difficult. Solomon used trans-ocean trading in a God-fearing way, especially initially. There were indications, however, that later in his life he became more greedy and less focused on his life as one consecrated to the Lord. Solomon showed his wisdom in training people of Israel in the skills of operating and navigating ships. Later in life Solomon seems to have lost the attitude of humility in living his life in the fear of God and to the glory of God his Savior. While there are many Christian joys, lessons and pleasures in connection with most forms of boating, people who enjoy boating tend to forget the Giver of this gift and tend to focus more on the creation rather than the Creator. There are many evidences of this as people who use these resources and forget about being attentive to using these resources with moderation. Note how Solomon collected questionable souvenirs such as apes and baboons, along with many, many wives. Solomon was an example of one who let success go to his head instead of giving all glory to God, his Lord and Savior.

JG: (Psalm 107) I just recently became aware of the Gloucester (Massachusetts) Fisherman's Memorial, which quotes verse 23. As a submariner, vv. 23-24 is one of the most applicable and meaningful passages I know.

JG: (Isaiah 23, Prophecy against Tyre) I imagine ancient days without communication. Consider returning from a three year journey to discover your entire city, family, nation--gone!

JC: (Isaiah 23 and Ezekiel 27. Prophecies against and Tyre) The sea merchants of Tyre (Phoenicians) were proverbial in the Old Testament because of their greed, which in the end led to their downfall. Ocean trade was very profitable from early times and remains so to the present day. Because of this, merchants then and now face the temptation of greed and arrogance. Ezekiel and Isaiah brought warnings from God against the Phoenicians. We tend to admire

people of wealth for the skills and riches they accumulate, but the Lord's Word warns us against admiring such people and joining in alliances with them.

JS: (Ezekiel 27. Prophecy against Tyre) I have worked on some old wooden sailboats from the early 1900s. The ships from Tyre sound so similar. Different woods are used for specific purposes depending on the wood characteristics. Maybe the seams were even caulked in the same way, by hammering waxed fibers into the seams. But those boats must have been beautiful too! Ivory inlays in the deck? Blue and Purple awnings? I guess there are a few more things to add to my dream boat.

JC: (Jonah) Clearly and thankfully, most boat crews don't blame an individual, at least not to the extent that such a person would be thrown overboard. If you have ever been on a crew of a racing sailboat, you probably have experienced a skipper who blames you for not winning. It's a common experience, but I would advise you to find a new skipper if you are so victimized.

JS: (Jonah) Fleeing from God on the ocean seems like such an idiotic idea. Nowhere have I felt closer to God than on the ocean, either by marveling his beautiful creation or being in awe at the power of the elements. A weird side note after just reading it again: Jonah was sleeping during a storm so terrible that the ship was threatening to break up? Jonah must have had an iron stomach. I would be puking, not sleeping.

JC: (Jonah) A common nautical practice was not to comment positively about good weather, lest your comments bring on a storm. There are, it seems to me, a lot of superstitions related to behavior while aboard a boat. Jonah was, of course, justly condemned, but it does not give anyone license to blame anyone for problems connected with the weather.

Devotional Thoughts—New Testament Accounts

JC: (Mt 4, Mk 1, Lk 5. Calling of the first disciples) Jesus indicated that he would make them “fishers of men.” He doesn't go into that metaphor very deeply, assuming perhaps that the fishermen would make the proper application. We can appreciate that fishing has a number of requirements of those who do it. Patience comes to mind, as does the realization that one doesn't always experience the same results. While fishing tends to be a satisfying activity, it can also be disappointing. Obviously, one does not need to enjoy fishing to be a true follower of Jesus, for after all, two thirds of the disciples were not fishermen as far as we know.

JS: (Mt 4, Mk 1, Lk 5. Calling of the first disciples) This is easy for me to picture. Fishermen still throw nets here in the Virgin Islands, mostly to catch bait fish for larger fish. I picture Peter

and Andrew in a boat about 20ft long, Peter standing on the bow throwing out a net in a wide shimmering circle, just like they still do here.

JC: (Mt 17, Lk 5, Jn 21. Jesus' fishing miracles) Except for the finding the coin in the mouth of the fish, the fishing miracles were not related to satisfying the material needs of Jesus' disciples. They were more interested in showing the disciples that Christ's commands were wise and totally reliable. We are not to challenge the words of Jesus based on our past experience.

RH: (Mt 8, Mk 4, Lk 8. Jesus calms the storm) It strikes me that Jesus calming the storm wasn't the first miracle in that boat. The first miracle is that Jesus was in a small boat on a big lake in a big storm...sleeping. Of course, it wasn't really a miracle. Jesus was demonstrating perfect trust in his heavenly Father's protection. The greater our trust, the more likely that we can sleep through storms on sea or land.

JC: (Mt 8, Mk 4, Lk 8. Jesus calms the storm) To go through a storm is a memorable experience and a common metaphor to describe many of life's trials. There are many people who dread the storms described quite often in Scripture. One can appreciate how, in many cases of terrifying storms, the disciples called on the Lord to help them in these times of need. Whether we face literal storms on the sea or figurative ones in our daily lives, the need is the same: Call on the Lord in prayer. He knows what we face, and he is able to help.

JC: (Paul's Missionary Journeys) We know very little about how the early disciples were able to pay for the passage from Palestine to the far reaches of the Roman Empire and other areas of the world. Somehow they found a way. Clearly the shipping lanes were used by the disciples to bring the Truth to the World. It amazes me to hear how the Gospel was spread from the beginning. In spite of opposition from the Jews and Romans, the Word spread and the world was "turned up-side down" by the disciples' testimony of the Good News of the crucified and risen Savior and God's grace in Christ. It was, and still is, the deepest need of mankind.

JS: (Acts 27) For the Bible, this is such a greatly detailed story of sailing. The fact that they used a sea anchor shows how our emergency gear hasn't changed all that much in thousands of years. The boards were obviously opening up, so they tied ropes around the hull to hold it together, which must have been horribly difficult to accomplish. I wonder what kind of bailing tools they had or if they were only buckets. I can't imagine going through that for 14 days. Usually sea anchors would slow the boat enough for the storm to blow by.

JG: (Acts 27) In New England, saying a "Nor'Easter" refers to a particularly bad type of storm.

The worst storms typically come from the Northeast (with a corresponding wind direction). This verse may have had a similarly significant meaning to sailors familiar with the area and typical weather patterns. A common danger in a storm is being driven downwind to some hazard (rocks, shoals etc.) A sea anchor, or drogue, would be used to point the ship into the wind and waves, which is generally less violent (compared to waves off the beam).

JC: (Acts 27) In the first century there was less sophistication in construction of boats and design of sails. The resulting design and construction forced the mariners of those days to carefully choose when and where they sailed. The description of the shipwreck at the end of Acts chapter 27 is remarkably detailed and is very understandable from a nautical point of view.

One can sense the tension aboard that ship in total darkness as they realized that the ship was getting into shallow waters. Then daylight comes and the ship's captain sees a potential spot in a bay where they might find a beach for the passengers and crew to safely disembark. During the night the crew put out a sea anchor, which would prevent the ship from moving at a hazardous speed. That worked. Once daylight came and they could see more clearly where the rocks might be, they unloaded the cargo so that the ship drew less water. The captain tried to guide the ship into shallow water so that those who could swim could get to shore and those who could not swim could find some flotsam and jetsam to aid them in getting on shore. Luke, the writer, informs us that the ship had 276 people on board, and every one of them made it safely to the shore. He adds the detail that the ship got close enough to shore to lodge the ship's bow on shore or a sandbar while the aft part of the ship was still in the rolling surf, which led the ship to begin to break up.

The entire narrative could be considered a textbook description on how to land a ship nearing the shore and shallow water. Truly this is one of the most dramatic accounts in the New Testament.

JS: (Rev 21:1) If there is no sea, does that mean there won't be any sailing in heaven? Jesus sailed, so I hope he has that little kink worked out for us sailors.

RH: (Rev 21:1) I read with mixed emotion in John's vision, "there was no longer any sea." The sea had separated him from the Ephesian congregation he loved. In the glorious kingdom of heaven there is no more separation, only joyful reunion. Still, I like to think of heaven with a sea.

JC: (Rev 1; 6; 8; 16; 18; 21. Visions of seas and islands) It is notable that the mountains and the seas are pictured in the final judgment. Both are somewhat beyond our senses, as we see

them both as rather incomprehensible. We just can't imagine the end of the mountains and the seas. It is also difficult to imagine that the wealth carried in both has come to an end. No wonder the grief of the merchants is full and terrible.

Sailing Experiences and General Devotional Thoughts

GD: One Easter when my children were still in school, we chartered a boat in the British Virgin Islands. The trip was over their break, which included Good Friday and Easter Sunday. We were going to be away from church on those important days, and I felt I had to do something to supply the missed services. I put together a sermonette and some hymns. For the sermon, I borrowed from *Meditations* covering the crucifixion and Easter events. For hymns I used music on my iPod by downloading recordings from the hymnal available from Northwestern Publishing. We played the music over the catamaran's sound system early in the morning at anchorage in calm and quiet Cane Garden Bay on the island of Tortola. The sound traveled over the water to some 30 other cruisers and onto the shore as well. We all sang on board, witnessing to what Jesus did for us. It brought us all to tears and moved us in ways I can't explain. It was the most memorable Easter in my lifetime. It was the only sound heard on that triumphant morning amidst the many cruising sailors and their families.

JC: People who sail on the lakes and oceans of our world are blessed by God to see the awesome conditions that are part of this world. The wind, weather, and scenery bring a high degree of appreciation into the hearts of those who experience them. Boating should be a humbling experience, as is summarized in the Sailor's Prayer: "Lord, how great is your sea and how small is my boat." Being on the waters of lakes or oceans tends to humble mariners and lead them to use great care in going out to sea. It takes neither great navigating skill nor maritime knowledge to appreciate our lakes and oceans. We should display a high degree of stewardship of the quality of the water and a deep antipathy for contaminating the water of lakes and oceans.

GD: Many non-sailors don't understand how modern sailboats travel to a destination upwind. Our explanation is simple. When the wind passes across the airfoil shape of the sail, it causes lift much like a airplane wing. This pulling force is countered by the resistance of the keel, forcing the hull forward. This allows the boat to sail 30-45 degrees into the wind. Ancient ships in early biblical times were really only suited to sailing downwind or at best 90 degrees on a beam reach with much slippage and side drift. They tried to overcome this by equipping ships with oars, which worked in calm or very light head winds, to move in the direction they wanted to go.

JS: I have seen many amazing sights during my time on the water which have made me say a prayer of thanks and (you WLS students will especially like this) start humming or singing "Lord when your glory I shall see..." Just being so close to nature amazes me at God's creation. From seeing the sun rise and then set into a green flash far from any land, to stopping the boat in the open ocean to swim with dolphins, this earth is wonderful. Only a God whose love goes beyond understanding could come up with something so amazing for us.

JC: I once sailed across Lake Michigan from Milwaukee to Muskegon, Michigan. The wind was east-by-northeast, which made the course hard. We could not, in fact, hold a course directly from Milwaukee to Muskegon. The wind was heavy, and the seas were rough. Four of the five people on the crew were seasick, and the journey, which was about nine hours long, was not a pleasure. When we finally got to Muskegon, the wind died, and the peace was immense. When the wind again picked up for the journey back to Milwaukee, we were able to sail off the wind in a mild and very comfortable sea in moderate wind. The ease of sailing was palpable. As I laid on a bunk in the cabin, the calmness of the situation brought a feeling of peace and well-being that was extremely great. I reflect on the number of storms and "rough seas" in my life, but in Christ and his love I find perfect peace and contentment. In fact, the rougher the seas, the greater the calm and peace in our Savior.

It is in connection with this contrast of sailing in moderate wind with living in a hectic environment which we experienced in living in Hong Kong. I am far from the only one who found sailing a most relaxing and satisfying contrast to the crowds and traffic.

JS: By far the worst assumption non-sailors make is that sailing is always romantic with calm seas and fair winds. Because of that, the most misunderstood thing is how much work, time, and money it takes to keep a boat running. People constantly say what an "easy and stress free" job I have [as a charter captain]. One engineer I worked with explained it this way: "Imagine you took your house and violently shook it and sprayed salt water at it every day. That's why things break so often on a boat."

JS: The worst situation I have been through mostly took place in a harbour, but it was during a hurricane. I had started working on a 45ft catamaran a month before, when I got a call that the boat had pulled out its mooring as Hurricane Earl was passing close by in 2010. It was slamming against the dock and a friend and I raced into town to try and save it. When we got to the harbour, some good citizens had fired up the motors and tried to take it to another area and

anchor it with two anchors. The wind was gusting over 50mph and had forced the boat to drag both anchors across the harbour and was threatening to hit other boats. We got a ride out to the catamaran in a friend's small inflatable dingy with a 10hp engine. We found one anchor had caught on something, which was holding the boat for the time being, but we needed to move the other anchor to help make sure the boat didn't drag again. We pulled it up and loaded the anchor and chain into the dingy and tried to drag it upwind and drop it in a better spot, but between the wind, weight of the chain, and the lack of horse power it took a long time to get it upwind and set. Through it all I was praying and trying to remind myself God would take care of us. We got it set and decided to spend the night on the boat to make sure nothing else happened and the boat didn't go smashing into all the boats that were downwind. We took watches and mine was definitely filled with lots of prayers. In the morning there was a break between the storm bands, so the wind had died down slightly, and the skies cleared up a little. We decided to take the break to move the boat to a mangrove pond just a few miles away. The bottom of the mangroves has a thick, heavy mud that holds the anchors from dragging, and if the boat did drag the anchors, it would only run into relatively soft mangrove bushes. When we were ready to pull up the anchors, both engines wouldn't start. Then we couldn't get the anchors up and had to dive and dislodge them. I lost steering going out the channel, and the next band of the hurricane came up just as I was about to enter the narrow and shallow channel of the mangrove pond. The band of the storm brought an extreme increase in wind, along with rain so heavy I could hardly see the bow of the boat. So we decided just to drift out to sea and let the squalls pass until we could safely get through the channel. I know for sure that I have never prayed so much in a 24 hour period. I was so thankful to God for keeping us safe and helping us overcome all those obstacles. We got into the mangroves safely and no one was hurt.

JG: I'm blessed that modern submarines are extraordinarily safe. I have never feared for my life. I think in days past many sailors would answer this with an anecdote about bad weather where they had some level of fear for their life. For me, I think I am most inspired by the wonder of God's creation when I'm out on the water. Driving a sailboat or (surfaced) submarine on the ocean at dawn is just about the most beautiful place to be in the world.

PW: In our lives, seldom are we sailing for a living, but we are on the water as a form of recreation. A blessing from God! I've noted on more than one occasion that friends we have boated with have not had respect for the water and did not see the need for a few reminders and

tips before setting out. There is a knowledge base that comes from having spent time on the water, but the ultimate goal is the same: To stay safe. I see a comparison between setting out for a day on the water and our faith. We all need to keep in mind how quickly our safety, or our faith, can be put in jeopardy by not keeping in mind the perils that await us if we do not stay on guard.

PW: I recall one time when I came upon a family in distress after they had been enjoying a day on the water in their small boat. Afterwards I learned that the battery in their boat was loose, had shifted on a wave, and had made contact with their portable gas tank, which was also not secured. The back of the fiberglass boat was immediately engulfed in flame. When my crew came on scene, all five family members were in the water: Mom, dad, and the three kids between three and seven. The boat had already burned to the waterline. In talking with the mom, I learned that they did not have enough flotation vests on board for everyone either, nor were the children wearing theirs. The mom was forced to throw the kids into the water, then throw the three jackets they had into the water after them. At this point, mom and dad jumped in as well.

I can think of several parallels with this. First, a peaceful day was turned into one of near tragedy in less than a minute by one mishap, and then not being prepared to deal with it. I'm reminded of how easy it is to be complacent in our own lives, too, not knowing what could be lurking to damage our faith.

I never did find out if the family was Christian, but I often thought about the action the mother took by throwing her children into the water. How often do we think we have it all in control only to be left with just one option: To admit we have no other choice but to turn our struggles over to God and trust he has it covered?

RH: When a sailor looks up from the helm, feels the sails trimmed and working efficiently, hears the waves hit the bow in rhythm, and sees the sun glistening on the curls of whitecaps, he enjoys God's gift of nature and nature's laws. By themselves there's no grace in them--only power and force to be respected and admired, if not feared. But those who have heard Jesus' declaration, "It is finished," and seen his grace through eyes of faith see in the sea more than power. We see a gift and say, "For me? In addition to grace, this too? For me?" And thank the Giver.

RH: I give a five part speech to new sailors. Each part has an easy biblical application:

1. Sailboats tip, but they don't tip over. There's a heavy piece of lead hanging under the boat called a keel. That and the way the sail "dumps" the wind out after a certain point make it

unlikely for the boat to tip over. Christians tip, but the confidence we have in our glorious (weighty) God is that we won't tip over. He rescues, forgives and restores.

2. If you feel like you're falling, grab something steel or rubber. Don't grab rope, because it might give way. When you're tempted, grab hold of God's promises, e.g., "He will provide a way out so that you can stand up under it."

3. If someone falls overboard, I'll appoint a lookout to stand at the stern rail and keep his eyes locked on the person in the water. Don't take your eyes off him. Christians keep an eye out for each other. When one is in danger, a true Christian friend won't take his eyes off him.

4. If you fall overboard (unlikely), we will throw you a life ring or flotation cushion. Grab it and wait. It will look like we're sailing away from you, but that's only because I have to sail a figure eight to come back and pick you up. We can't sail directly back to you, but don't panic. We'll stop the boat and get you back on board. If it feels like God has abandoned you, he hasn't. It might look like he's turned away from you, but he's managing things, working them out so that he can pick you up. Don't panic.

5. If you need to, grab the marine radio, push the button and say you need help. The authorities monitor channel 16 and will answer. Don't worry about proper radio technique, just tell him what happened. Pray. Your Lord monitors every prayer. Don't worry about "getting it right." Just talk to him.

Sailing the Scriptures Bible Study

The following Bible study was created by Pastor Randy Hunter and is included here with his permission. He gives all readers of this thesis his permission to use and adapt this study. All passages are included in full, since the course was written for a small group Bible study which met aboard a boat in Madison, Wisconsin, on six weeknights during the summer of 2014. If you do have access to Bibles, you may wish list only the references instead of the complete passages.

Sailors' sayings

Choose one of the following and explain the *maritime* meaning in your own words.

1. *He that would learn to pray, let him go to the sea.*
George Herbert, from "Jacula Prudentum," 1651
2. *If you want to build a ship, don't drum up people to collect wood and don't assign them tasks and work, but rather teach them to long for the endless immensity of the sea.*
Atoine de Saint-Exupery
3. The wonders of the sea are as marvelous as the glories of the heavens; and they proclaim, in songs divine, that they too are the work of holy fingers.
Matthew Fontaine Maury, *The Physical Geography of the Sea*, 1855

Use the same saying you chose to explain the *Christian* life.

Sailing scripture verses

The Lord sent Isaiah to warn the Israelites how he would bring judgment on them through Assyria, a nation with rivers and a navy. But the Lord also held out hope for those who would be faithful to him.

- ²⁰ Look upon Zion, the city of our festivals;
your eyes will see Jerusalem, a peaceful abode, a tent that will not be moved;
its stakes will never be pulled up, nor any of its ropes broken.
- ²¹ There the LORD will be our Mighty One.
It will be like a place of broad rivers and streams.
No galley with oars will ride them, no mighty ship will sail them.
- ²² For the LORD is our judge, the LORD is our lawgiver,
the LORD is our king; it is he who will save us.
- ²³ **Your rigging hangs loose: The mast is not held secure, the sail is not spread.** *Is 33:21–23*

1. In vs. 21 the Lord promised his people a time when they would enjoy waters with no enemy. It must have seemed unimaginable. Think of an enemy you're facing: physical, mental, spiritual, etc. It's not too big a thing for the Lord to remove it. If you're willing, describe how your life on earth would be different if he did.
2. In vs. 23 the Lord describes a time when a navy won't be necessary because there would be no threat. We won't enjoy such a time until we enjoy heaven. John wrote that in heaven there will be no more death or mourning or crying or pain. Describe a time when you longed for heaven because of the way things are on earth.

Sailing scripture stories

Genesis 6 -- This is the account of Noah.

Noah was a righteous man, blameless among the people of his time, and he walked with God. ¹⁰ Noah had three sons: Shem, Ham and Japheth.

¹¹ Now the earth was corrupt in God's sight and was full of violence. ¹² God saw how corrupt the earth had become, for all the people on earth had corrupted their ways. ¹³ So God said to Noah, "I am going to put an end to all people, for the earth is filled with violence because of them. I am surely going to destroy both them and the earth. ¹⁴ So make yourself an ark of cypress wood; make rooms in it and coat it with pitch inside and out. ¹⁵ This is how you are to build it: The ark is to be 450 feet long, 75 feet wide and 45 feet high. ¹⁶ Make a roof for it and finish the ark to within 18 inches of the top. Put a door in the side of the ark and make lower, middle and upper decks. ¹⁷ I am going to bring floodwaters on the earth to destroy all life under the heavens, every creature that has the breath of life in it. Everything on earth will perish. ¹⁸ But I will establish my covenant with you, and you will enter the ark—you and your sons and your wife and your sons' wives with you. ¹⁹ You are to bring into the ark two of all living creatures, male and

female, to keep them alive with you. ²⁰ Two of every kind of bird, of every kind of animal and of every kind of creature that moves along the ground will come to you to be kept alive. ²¹ You are to take every kind of food that is to be eaten and store it away as food for you and for them."

²² Noah did everything just as God commanded him.

7 The Lord then said to Noah, "Go into the ark, you and your whole family, because I have found you righteous in this generation....

⁶ Noah was six hundred years old when the floodwaters came on the earth. ⁷ And Noah and his sons and his wife and his sons' wives entered the ark to escape the waters of the flood. ⁸ Pairs of clean and unclean animals, of birds and of all creatures that move along the ground, ⁹ male and female, came to Noah and entered the ark, as God had commanded Noah. ¹⁰ And after the seven days the floodwaters came on the earth.

¹¹ In the six hundredth year of Noah's life, on the seventeenth day of the second month—on that day all the springs of the great deep burst forth, and the floodgates of the heavens were opened. ¹² And rain fell on the earth forty days and forty nights.

1. *Righteous* is both the status of "not guilty" we receive by faith from Jesus and obedience to him that shows in our lives. Find evidence of both kinds of righteousness in Noah's life.
2. Name two specific ways our world is like Noah's world.
3. Noah and his sons likely worked 50-75 years to build the ark, with little or no thanks for recognition. What encourages you when it seems like you're doing the Lord's work with little or no thanks for recognition?

Sailors' sayings

Choose one of the following and explain the *maritime* meaning in your own words.

1. *Men in a ship are always looking up, and men ashore are usually looking down.*
John Masefield, "Sea Fever," 1962
2. *Lord, have mercy. Thy sea is so large and my ship is so small.*
Russian fisherman's prayer
3. *We set sail; God makes the wind.*
English proverb

Use the same saying you chose to explain the *Christian* life.

Sailing scripture verses

Job endured much; including his friends' hurtful analysis of reasons for his suffering. The Lord endured much, too; including Job's loss of patience and desire to challenge the Lord's plans. Near the end of the book, the Lord uses the sea to help Job see their differences.

He said:

- ² "Who is this that darkens my counsel with words without knowledge?
- ³ Brace yourself like a man; I will question you, and you shall answer me.
- ⁴ "Where were you when I laid the earth's foundation? Tell me, if you understand. ...
- ⁸ "Who shut up the sea behind doors when it burst forth from the womb,
- ⁹ when I made the clouds its garment and wrapped it in thick darkness,
- ¹⁰ when I fixed limits for it and set its doors and bars in place,
- ¹¹ when I said, 'This far you may come and no farther; here is where your proud waves halt'? Job 38:1–11

1. The words of the Bible don't come with director's notes so we can't be sure, but describe what you think may have been the Lord's tone when he spoke these words to Job.
2. Think of *one physical thing* in the world that makes you more aware of the Lord's superiority to you. After one minute we'll tell each other.

Sailing scripture stories

Jonah 1:1-17

As we read the first chapter of Jonah, draw as many conclusions about God as you can.

¹The word of the LORD came to Jonah son of Amittai: ²“Go to the great city of Nineveh and preach against it, because its wickedness has come up before me.”

³But Jonah ran away from the LORD and headed for Tarshish. He went down to Joppa, where he found a ship bound for that port. After paying the fare, he went aboard and sailed for Tarshish to flee from the LORD.

⁴Then the LORD sent a great wind on the sea, and such a violent storm arose that the ship threatened to break up. ⁵All the sailors were afraid and each cried out to his own god. And they threw the cargo into the sea to lighten the ship.

But Jonah had gone below deck, where he lay down and fell into a deep sleep. ⁶The captain went to him and said, “How can you sleep? Get up and call on your god! Maybe he will take notice of us, and we will not perish.”

⁷Then the sailors said to each other, “Come, let us cast lots to find out who is responsible for this calamity.” They cast lots and the lot fell on Jonah.

⁸So they asked him, “Tell us, who is responsible for making all this trouble for

us? What do you do? Where do you come from? What is your country? From what people are you?”

⁹He answered, “I am a Hebrew and I worship the LORD, the God of heaven, who made the sea and the land.”

¹⁰This terrified them and they asked, “What have you done?” (They knew he was running away from the LORD, because he had already told them so.)

¹¹The sea was getting rougher and rougher. So they asked him, “What should we do to you to make the sea calm down for us?”

¹²“Pick me up and throw me into the sea,” he replied, “and it will become calm. I know that it is my fault that this great storm has come upon you.”

¹³Instead, the men did their best to row back to land. But they could not, for the sea grew even wilder than before. ¹⁴Then they cried to the LORD, “O LORD, please do not let us die for taking this man’s life. Do not hold us accountable for killing an innocent man, for you, O LORD, have done as you pleased.” ¹⁵Then they took Jonah and threw him overboard, and the raging sea grew calm. ¹⁶At this the men greatly feared the LORD, and they offered a sacrifice to the LORD and made vows to him.

¹⁷But the LORD provided a great fish to swallow Jonah, and Jonah was inside the fish three days and three nights.

1. Your conclusions about God:
2. Use what you learn from Jonah’s impulses to act to complete the following sentences:
An impulse to act can be *brave*, yet...
An impulse to act can appear to be *self-denying*, yet...
An impulse to act can be *justified* by telling yourself, “I’m free to do this,” yet...
3. What do you learn from Jonah about God’s grace?

Sailors' sayings

Choose one of the following and explain the *maritime* meaning in your own words.

1. *Make not your sail too big for your ballast.*
English proverb
2. *Anyone can hold the helm when the sea is calm.*
Publius Syrus
3. *Though near shore, you're still in the ocean.*
Malawian proverb

Use the same saying you chose to explain the *Christian* life.

Sailing scripture verses

Psalm 107

- ¹ Give thanks to the Lord, for he is good; his love endures forever.
² Let the redeemed of the Lord say this— those he redeemed from the hand of the foe, ³ those he gathered from the lands, from east and west, from north and south. ⁴**Some** wandered in desert wastelands...¹⁰**Some** sat in darkness and the deepest gloom, ¹⁷**Some** became fools through their rebellious ways ..
²³ **Others** went out on the sea in ships; they were merchants on the mighty waters.
²⁴ They saw the works of the Lord, his wonderful deeds in the deep.
²⁵ For he spoke and stirred up a tempest that lifted high the waves.
²⁶ They mounted up to the heavens and went down to the depths; in their peril their courage melted away.
²⁷ They reeled and staggered like drunken men; they were at their wits' end.
²⁸ Then they cried out to the Lord in their trouble, and he brought them out of their distress.
²⁹ He stilled the storm to a whisper; the waves of the sea were hushed.
³⁰ They were glad when it grew calm, and he guided them to their desired haven.
³¹ Let them give thanks to the Lord for his unfailing love and his wonderful deeds for men.
³² Let them exalt him in the assembly of the people and praise him in the council of the elders.

1. Some people at sea recognize the Lord's work in nature. Some don't. The difference, of course, is Christian faith. And that comes from the message of Christ. Imagine you're on a cruise, on deck and overlooking the ocean and curvature of the earth. Someone next to you says, "Isn't nature something?" And you reply...(plan your reply and tell the others in 60 seconds).
2. These verses describe people in a frightening situation, delivered from it and praising God for it. Name three situations in which a land-lubber follower of Christ might, after being delivered from a frightening situation, praise God for it.

Sailing scripture stories

Luke 8:22-25

²² One day Jesus said to his disciples, "Let's go over to the other side of the lake." So they got into a boat and set out. ²³ As they sailed, he fell asleep. A squall came down on the lake, so that the boat was being swamped, and they were in great danger.

²⁴ The disciples went and woke him, saying, "Master, Master, we're going to drown!"

He got up and rebuked the wind and the raging waters; the storm subsided, and all was calm. ²⁵

"Where is your faith?" he asked his disciples.

In fear and amazement they asked one another, "Who is this? He commands even the winds and the water, and they obey him."

1. Describe what you think the disciples were thinking while they were in danger and Jesus slept.
2. Contrast healthy fear of God with unhealthy fear of circumstances. List similarities and differences.
3. List reasons we are quick to forget each of these promises of Jesus when trouble comes.
 - "Surely I am with you always, to the very end of the age." Matt. 28:20
 - "My sheep listen to my voice; I know them, and they follow me. ²⁸ I give them eternal life, and they shall never perish; no one can snatch them out of my hand." John 10:27-28
 - Keep your lives free from the love of money and be content with what you have, because God has said, "Never will I leave you; never will I forsake you." ⁶ So we say with confidence, "The Lord is my helper; I will not be afraid. What can man do to me?" Heb 13:5-6
4. Psalm 46:10-11 "Be still, and know that I am God; I will be exalted among the nations, I will be exalted in the earth." The Lord Almighty is with us; the God of Jacob is our fortress.

From your experience, describe thoughts and actions that can help us "be still" instead of panicking in our storms.
5. Explain the following statement in your own words: We all need storms in our life because "God has no other way to smooth us and humble us and remind us to trust him."

Sailors' sayings

Choose one of the following and explain the *maritime* meaning in your own words.

1. *The human heart is like a ship on a stormy sea driven about by winds blowing from all four corners of heaven.*
Martin Luther, from the preface to his translation of the Psalms, 1534
2. *The pessimist complains about the wind. The optimist expects it to change. The realist adjusts the sails.*
William Arthur Ward
3. *Ports are no good. Ships rot and men go to the devil.*
Joseph Conrad, "The Mirror of the Sea," 1906

Use the same saying you chose to explain the Christian life.

Sailing scripture verses

Psalm 139:7-10

⁷ Where can I go from your Spirit? Where can I flee from your presence?

⁸ If I go up to the heavens, you are there; *if I make my bed in the depths*, you are there.

⁹ If I rise on the wings of the dawn, *if I settle on the far side of the sea*,

¹⁰ even there your hand will guide me, your right hand will hold me fast.

1. You're going to Tokyo. Which mode of travel causes you more anxiety: flying for 11 hours, 5 miles above the earth or sailing for two weeks, 5,000 miles across the Pacific? Why?
2. David acknowledged whether in the heights of the sky and in the depths of the sea, "you (Lord) are there." Explain how trusting in God's gracious presence changes your response to the previous question.
3. About 70% of the earth is covered by water (97% of that is ocean). It could be that's "just the way God made it." But think of one possible message the Creator God may have intended to deliver by covering so much of earth with water.

Sailing scripture stories

Matthew 14:22-32

²² Immediately Jesus made the disciples get into the boat and go on ahead of him to the other side, while he dismissed the crowd. ²³ After he had dismissed them, he went up on a mountainside by himself to pray. When evening came, he was there alone, ²⁴ but the boat was already a considerable distance from land, buffeted by the waves because the wind was against it.

²⁵ During the fourth watch of the night Jesus went out to them, walking on the lake. ²⁶ When the disciples saw him walking on the lake, they were terrified. "It's a ghost," they said, and cried out in fear.

²⁷ But Jesus immediately said to them: "Take courage! It is I. Don't be afraid."

²⁸ "Lord, if it's you," Peter replied, "tell me to come to you on the water."

²⁹ "Come," he said.

Then Peter got down out of the boat, walked on the water and came toward Jesus. ³⁰ But when he saw the wind, he was afraid and, beginning to sink, cried out, "Lord, save me!"

³¹ Immediately Jesus reached out his hand and caught him. "You of little faith," he said, "why did you doubt?"

³² And when they climbed into the boat, the wind died down. ³³ Then those who were in the boat worshiped him, saying, "Truly you are the Son of God."

1. Jesus "went up on a mountainside by himself to pray" (vs. 23). List benefits of praying alone and benefits of praying with others.

benefits of praying alone:

benefits of praying with others:

2. The fourth watch of the night was between 3 am and 6 am. The disciples had battled the storm all night. They were tired, cold and wet. When they saw someone coming toward them on the water their first guess was a ghost, not Jesus. From your experience, how important is enough rest and physical health to your faith?
3. "Jesus went out to them, walking on the lake" (vs. 25). This is the only time we're told that Jesus did this. He knew this would challenge them (ok, freak them out), but he did it anyway. Think of a time when Jesus challenged you to trust him, even if he knew it would freak you out.
4. Matthew says Peter "was afraid" (vs. 30). But Jesus didn't ask Peter, "Why are you afraid?" He called it "little faith" and "doubt," (vs. 31). Give reasons being afraid is the *same* as lack of faith or doubt. Can you think of reasons they are *different*?
5. Prepare to tell each other one lesson you learn about Jesus from vss. 28-29. After one minute, we'll tell each other.

Sailors' sayings

Choose one of the following and explain the *maritime* meaning in your own words.

1. *There is but a plank between a sailor and eternity.*
Thomas Gibbons
2. *Pray to God but continue to row to shore.*
Russian proverb
3. *He that is embarked with the devil must sail with him.*
Danish proverb

Use the same saying you chose to explain the Christian life.

Sailing scripture verses

Hebrews 6:13-20

¹³When God made his promise to Abraham, since there was no one greater for him to swear by, he swore by himself, ¹⁴saying, "I will surely bless you and give you many descendants." ¹⁵And so after waiting patiently, Abraham received what was promised.

¹⁶Men swear by someone greater than themselves, and the oath confirms what is said and puts an end to all argument. ¹⁷Because God wanted to make the unchanging nature of his purpose very clear to the heirs of what was promised, he confirmed it with an oath. ¹⁸God did this so that, by two unchangeable things in which it is impossible for God to lie, we who have fled to take hold of the hope offered to us may be greatly encouraged.

¹⁹**We have this hope as an anchor for the soul, firm and secure.** It enters the inner sanctuary behind the curtain, ²⁰where Jesus, who went before us, has entered on our behalf.

1. The two unchangeable things in which "it is impossible for God to lie" (vs. 18) are his word and his oath. One would have been enough; but God uses two. *Describe the comfort you have from this truth.*
2. The author of Hebrews compares our hope in God's promises to an anchor. Sailors use four criteria for determining a good anchorage:
 - a) protection from wind, waves, and weather,
 - b) good holding for the anchor,
 - c) room enough for the boat to swing at anchor, and
 - d) sufficient depth of water (but not too much).



Choose one of the four criteria for a good anchorage and compare it to your faith in God's promises. After one minute of silent preparation, we'll tell each other.

Sailing scripture stories

- Paul's 1st missionary trip: Acts 13:4-14:28
- Paul's 2nd missionary trip: Ac 15:39-18:22
- Paul's 3rd missionary trip: Ac 18:23-21:17

Acts 20:36-21:6

³⁶ When Paul had said this, he knelt down with all of them and prayed. ³⁷ They all wept as they embraced him and kissed him. ³⁸ What grieved them most was his statement that they would never see his face again. Then they accompanied him to the ship.

After we had torn ourselves away from them, we put out to sea and sailed straight to Cos. The next day we went to Rhodes and from there to Patara. ² We found a ship crossing over to Phoenicia, went on board and set sail. ³ After sighting Cyprus and passing to the south of it, we sailed on to Syria. We landed at Tyre, where our ship was to unload its cargo.



⁴ Finding the disciples there, we stayed with them seven days. Through the Spirit they urged Paul not to go on to Jerusalem. ⁵ But when our time was up, we left and continued on our way.

All the disciples and their wives and children accompanied us out of the city, and there on the beach we knelt to pray. ⁶ After saying good-bye to each other, we went aboard the ship, and they returned home.

1. These verses describe the last leg of Paul's third missionary journey. You can sense the emotional good-bye's he experienced. Describe a memorable departure scene you've witnessed in a train station, airport or bus depot.
2. As Paul's trip is drawing to a close, he and his fellow disciples knelt in the sand and prayed. List three things you think they prayed:
 -
 -
 -
3. It was one thing to sail along the shoreline of Turkey, it was another to sail across 400 miles of open water to Syria. But the winds were favorable and they sailed safely to their destination. Think of something that can remind you to thank God for the accident you didn't have while traveling or the luggage that didn't get lost. After one minute, we'll tell each other.

Sailors' sayings

Choose one of the following and explain the *maritime* meaning in your own words.

1. *Captain! My Captain! Our fearful trip is done; the ship has weathered every rack, the prize we sought is won. The port is near, the bells I hear, the people all exulting.*
Walt Whitman, "O Captain! My Captain!" from *Leaves of Grass*, 1960
2. *Twenty years from now you will be more disappointed by the things that you didn't do than by the ones you did do. So throw off the bowlines. Sail away from the safe harbor. Catch the trade winds in your sails. Explore. Dream. Discover.*
Mark Twain
3. *If you are a friend of the captain, you can wipe your hands on the sail.*
Arabian proverb
4. *Fair winds don't make a skilled sailor.*
African proverb

Use the same saying you chose to explain the *Christian* life.

Sailing scripture verses

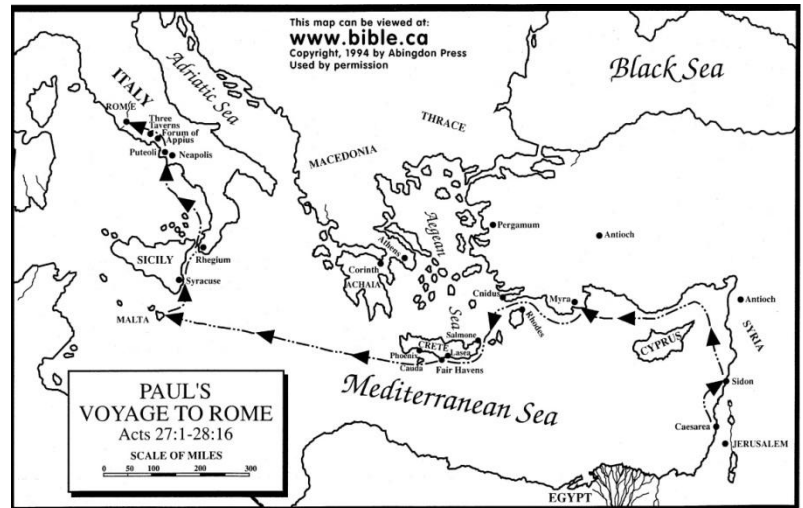
James 3

⁴Or take ships as an example. Although they are so large and are driven by strong winds, they are steered by a very small rudder wherever the pilot wants to go...⁹With the tongue we praise our Lord and Father, and with it we curse men, who have been made in God's likeness. ¹⁰Out of the same mouth come praise and cursing. My brothers, this should not be.

1. Reed's *Naval Architecture* says rudder area for fast ships should be 1/60th of hull area, and for slow ships 1/70th. If a rudder is too large, it slows a vessel; too small and it impairs the vessel's maneuverability. Relate this engineering principle to the power of our words.
2. At times we use our mouths to "praise our Lord and Father," (*barak* in Hebrew, *eulogia* in Greek). The Bible sometimes translates the word as, "bless." When a lesser person blesses a greater person thought is more like giving credit for success than it is granting the ability to succeed. Evaluate this statement: "Praise is the greatest gift we can give to God."
3. At times we use our mouths to "curse," (*arar* in Hebrew, *katara* in Greek). The thought of the word is "to bind" a punishment on someone; as the LORD does to those who reject him. Compare this to our use of the word "curse" today.

Sailing scripture stories

Acts 27 – 28:16
(printed on separate page)



1. List nautical terms you find in these verses and discuss their meaning.
2. The Lord used twice as many words to describe Paul's voyage to Rome as he does explaining what happened when he got there. Why?
3. Paul's journey was not for business or pleasure. He was a Roman prisoner being transported for trial. Still, it seems that his companions recognized him for who he was; hardly a common criminal and apparently someone worth listening to. Luke records "we" because he was with him. Traveling provides unique opportunities to tell others of Jesus. Give an example from your travels.
4. A northeaster smashed many ships against the rocks of North Africa. Everyone on board feared this was their fate, except Paul. (27:24-25). He showed what faith looks like by remaining calm when facing disaster. Name a Christian you've seen act like this.
5. Some expositors identify the four anchors as faith, surrender, hope and thanksgiving, or the like. But sometimes four anchors are just four anchors. When reading the Bible, when is it appropriate to see a "spiritual" meaning and when is it best to let an anchor be an anchor?
6. Sailors lend assistance to any fellow seafarer in need. Great vessels stop to rescue a small boat in distress. People on shore are dispatched to help people on the sea. (28:2) Compare this to the Christian life.
7. Paul sailed in a vessel with a figurehead of Castor and Pollux, the sign of Gemini, purported to give protection from storms. (28:11) What would you say to the pilot of your next flight if you see a lucky rabbit's foot on his key chain?