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Alan C. Miner

1 Nephi

Chapter 18

1 Nephi 18:1 Curious Workmanship:

The term "curious workmanship" (1 Nephi 18:1) was an idiom used to denote objects of unusual design and superior craftsmanship. Such objects were curious in that it would be difficult for one untrained to understand how they were made [or "worked"]. Where did Nephi receive his instruction on how to build this curious ship?

[Church Educational System, Book of Mormon Student Manual, Religion 121-122, 1981, pp. 46]

1 Nephi 18:1 We Did Work the Timbers of Curious Workmanship:

According to Dr. Sami Hanna, an Egyptian who was especially schooled in the Arabic language, the word "curious" in 1 Nephi 18:1 referring to the workmanship of the timbers does not mean "strange" as many have presumed, but actually designates an instrument of "skilled" or "elegant" workmanship.

[Brenton G. Yorgason, <u>Little Known Evidences of the Book of Mormon</u>, p. 36] [See the commentary on 1 Nephi 16:10]

1 Nephi 18:1 Curious Workmanship:

According to Terrence Szink, it appears Nephi purposefully wrote his account in a way that would reflect the Exodus. While on the mountain, Nephi received detailed instruction concerning the ship he was to build, just as Moses received orders regarding the building of the tabernacle (see Exodus 25:1,8-9). In both cases a pattern was shown to the prophet, after which he was to build the structure. In both cases the purpose is mentioned. In both cases the workmanship was described as "curious" (1 Nephi 18:1).

[Terrence L. Szink, "Nephi and the Exodus," in Rediscovering the Book of Mormon, pp. 46-47]

1 Nephi 18:2 I, Nephi, Did Not Work the Timbers after the Manner Which Was Learned by Men:

In an explanation of his shipbuilding, Nephi says that he "did not work the timbers after the manner which was learned by men" (1 Nephi 18:2). According to the Hiltons, apparently the shipyards on the coast of the Red Sea had at least given him enough understanding to know that in following the Lord's style of construction, he would be departing from "the manner of men."

Shipbuilding was part of the Red Sea culture at least a thousand years before Lehi's time even though all the timber had to be imported. Drawings and sculptures convince one that the style, shape and size of present Arab dhows (average length 65 feet) are not unlike those of antiquity.

From Tim Severin's book (*The Sinbad Voyage*) we learn that "all early texts make it abundantly clear that early Arab ships were not nailed together, but that their planks were sewn together with cord made from coconut husks" (Severin:6).

Marco Polo had observed the stitched hulls of the Arabs and was not impressed: Their ships are very bad, and many of them flounder, because they are not fastened with iron nails but stitched together with thread made of coconut husks. They soak the husks until they assume the texture of horse hair: then they make it into thread and stitch their ships . . . This makes it a risky undertaking to sail in these ships. And you can take my word that many of them sink, because the Indian Ocean is often stormy.

Such a stitched boat could never have made it to America. Nephi must have built his in a way different from what he had observed. Was Nephi's ship different because it was nailed together? The plan was given to him by God. We know it had sails, because he "sailed" it (1 Nephi 18:22), a rudder because he "steered" it (1 Ne. 18:13), and perhaps a deck on which the families of Laman and Lemuel and Ishmael's sons could sing and dance (1 Ne. 18:9,22). [Lynn M. and Hope A. Hilton, <u>Discovering Lehi</u>, pp. 120-121]

1 Nephi 18:2 I, Nephi, Did Not Work the Timbers after the Manner Which Was Learned by Men:

The Hiltons noticed two basic patterns of traditional shipbuilding. In each case, the builder laid the keel and fastened the ribs to it. Planks were fastened to the skeleton either by nailing or "sewing."

The Hiltons notes that in the "nailing" method, the builder drilled a hole through the plank and rib with an iron-tipped hand drill. Through the hole, he drove a large iron spike; a packing of coconut fibers soaked in fish oil encircled the shaft under the large head. The spike

was then bent over on the inside to cinch the nail in place. They watched while a native shipbuilder placed the rib, marked it, and hewed it to the line with an adze, installed it and nailed it in place by drilling holes and setting each nail head in the wood, then clinching it on the inside. He had not power tools, only ancient hand tools. He used Jumaise (Sycamore) logs for ribs, but flat lumber from India or Indonesia for planks and iron nails. He said that a ship of the size he was making (20 meters) could easily carry over a hundred people on a journey such as the Hiltons had described for Nephi's group.

One reason the Astons looked beyond the village of Salalah for the ship-building site was that big trees for the ship's timbers were several miles away from the beach. However, in building his own ship, Nephi could have cut down trees and dragged them to the sandy beach using camel power, or he could have purchased dressed lumber from the local people. Nephi does not tell us how he got his timbers, but he does comment that the completed ship "was good, and that the workmanship thereof was exceeding fine" (1 Nephi 18:4).

As the Hiltons have noted before, Nephi did not build the ship "after the manner of men," but "after the manner which the Lord had shown unto" him (1 Nephi 18:2). Their examination of ancient shipbuilding serves only to illustrate that Nephi's acquaintance with contemporary construction techniques "after the manner of men" was extensive. He built in an area where shipbuilding was well-known. Indeed, even though his ship was not "after the manner of men," he probably used a number of the methods and elements of design or building techniques known to the people of his time, the Lord directing him in unstated ways to make a ship different enough to be able to carry them on the extraordinary trip across the Indian and Pacific Oceans to America.

While nails had been known and used at least 400 years before Nephi's day, there is no indication they were used in ship-building. The earliest texts make it abundantly clear that early ships were sewed. However, if Nephi built the first nailed ocean-going vessel while the local Arabs looked on and then had the nerve to load up and set sail straight out into the "mighty deep," the locals could have repeated what Nephi had pioneered. Arabs have been building nailed dhows ever since.

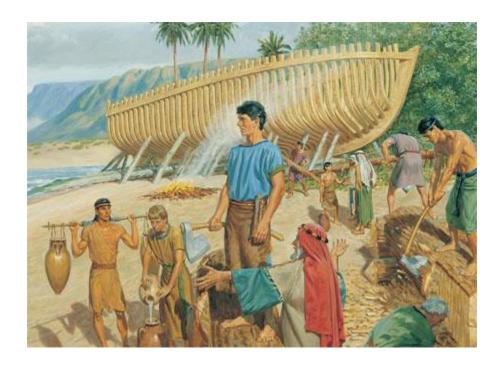
[Lynn M. and Hope A. Hilton, <u>Discovering Lehi</u>, pp. 161-162]

1 Nephi 18:2 Neither Did I Build the Ship after the Manner of Men:

The Hiltons demonstrate another evidence of inhabited regions along Lehi's route is that when Nephi began to build his ship he specified that he did not "build the ship after the manner of men" (1 Nephi 18:2). Could he have written such a statement if he had not seen ships--in fact, seen them being built? It was eye-opening to us to discover that all along the coast of the Red Sea are shipbuilding villages where the ancient art has been practiced for generations upon generations. [Lynn and Hope Hilton, In Search of Lehi's Trail, p. 28]



1 Nephi 18:2 I Nephi did not work the timbers after the manner [of] men (Illustration): At Yemen and Oman we saw the sewing of planks lashed with hemp rope. [Lynn and Hope Hilton, In Search of Lehi's Trail, p. 85]



1 Nephi 18:2 **Neither did I build the ship after the manner [of] men (Illustration):** Nephi built a ship. Illustrators: Jerry Thompson and Robert T. Barrett. [The Church of Jesus Christ of Latterday Saints, <u>Book of Mormon Stories</u>, cover]

1 Nephi 18:2 I, Nephi, Did Not Work the Timbers after the Manner Which Was Learned by Men:

According to Potter and Wellington, using imported lumber would certainly not contradict Nephi's claim that he worked timbers. (1 Nephi 18:2) Historically, the first records in the Near East of timbers being imported from foreign lands date to an inscription of Ur-Nanshe, King of Lagash in Sumer in about 2520 B.C.ⁱ The cargoes which the ships from Meluhha (India), Magan (Oman) and Dilmun (Northwest Persian Gulf) carried to Mesopotamia consisted of copper, other metals, diorite, carmelian, onions, spices and wood--which perhaps included Indian teak, as in later historical periods, for ship building.



Teak Tree India

anongetz.com

In ancient Yemen teak was the wood of preference for building ships, and was imported from

India. The Omani Ministry of National Heritage and Culture also notes:

Teak and coconut wood were used exclusively for building hulls. Teak had to be imported from India, and the Periplus of the Erythraean suggest that this practice was already current when it was written, at least 400 years before Islam, since it states that the port of Omana imported "beams and rafters" from Barygaza. Indeed, the virtues of the wood would have been known in the Gulf from the earliest sea voyages to the Indus in the third millennium B.C. Coconut wood also had to be imported-mainly from the Maldive and Laccadive Islands from where it is possible that the coconut tree spread to Dhofar in the Middle Ages. iii

Presently it is not certain if coconuts were cultivated at Dhofar in Nephi's time. In the eleventh century Nasir-I-khusraw observed coconuts growing in Oman.^{iv}



Present-day cocoanut palms in Dhofar

flickriver.com

If Nephi found large plantations of coconut palms in Bountiful, it was possible that he made some of the parts of the ship using timber and fiber from the palm. Potter and Wellington guess that Nephi saw coconut palms around Khor Rori.

It appears that all the ancient commodities needed for shipbuilding were available at Khor Rori either gown domestically or acquired by trade. These would have included timber (teak, deodar, etc.); rope from vegetation fiber; cotton, flax or rush matting for sails; bamboo or

wood, or bronze for pegs or nails; stones for anchors and ballast, and probably bitumen, resin, fish oil or animal fat for caulking. But this begs the question: How could Nephi have afforded the imported lumber or imported materials? In Oman in 1990, a 110 foot Dhow made of imported wood cost up to \$535,000 to build.\(^{\text{v}}\) Assuming relative parity in cost over time, it is difficult to see how the family could have earned enough to import all the wood for the ship from India. But there are a number of possibilities: (1) Camels need for the trip could have been sold; (2) Nephi could have used a large amount of local timber and his group's labor; (3) The journey to Jerusalem was only 4 months. Lehi could have sent an agent to negotiate with some servants left behind at his land of inheritance.

[George Potter & Richard Wellington, <u>Discovering The Lehi-Nephi Trail</u>, Unpublished Manuscript (July 2000), pp. 248-250]

Note* An agent could have been sent back to Lehi's land of inheritance anytime from the valley of Lemuel onward (see 1 Nephi 2:16-20). Lehi's gold and silver could also have been retrieved by Zoram & Nephi. [Alan C. Miner, Personal Notes]

1 Nephi 18:4 I Had Finished the Ship:

The Hiltons note that a 60-70 foot ship would not have been excessively large to build by hand; many of the dhows now sailing the Indian Ocean and the Red Sea are as large as 180 feet, all handmade.

They asked a shipwright how many working days would be required to build a complete 60-foot long vessel. He estimated that the four men working in his shipyard, using precut lumber on hand, could do it in five months, or a total of 600 man days. At least part of the time, Nephi had the labor of eight men in his father's colony, and possibly some of the children. Working together, they could perhaps have harvested the lumber and built such a ship in about a year. Of course, if the ship were bigger, and it could well have been, more time would have been needed.

Assuming that all the men could not be working on the boat all of the time--because of sickness, family concerns, hunting, planting, harvesting, etc.--a more likely time-span for building the ship might be two years, especially if we allow that Nephi fetched his own tresses and cut them to size. And since Nephi also had to smelt the metal to make the tools, the shipbuilding project could easily have taken even three or four years.

[Lynn M. and Hope A. Hilton, Discovering Lehi, p. 164]

1 Nephi 18:4 I Had Finished the Ship:

According to Potter and Wellington, Nephi's statement that "I had finished the ship" (1 Nephi 18:4) certainly did not mean that he built it by himself. If Alexandre Eiffel said, "I finished my tower in Paris," it would not mean that he built it alone. Nephi does not tell us how many people worked on the construction of his ship, only that "we did work timbers" (1 Nephi 18:1), and that at least some of the workers were his reluctant brethren (1 Nephi 17:18).

[George Potter & Richard Wellington, <u>Discovering The Lehi-Nephi Trail</u>, Unpublished Manuscript (July 2000), p. 220]

1 Nephi 18:4 I Had Finished the Ship according to the Word of the Lord:

According to Alan Goff, ancient people looked back to foundational events or creation events in a way that transformed the present and the future as they came into contact with the past; these events served as the beginning of time for their people. Not only did past events serve as interpretive guides, but the people conceived themselves as reliving those events. Goff calls this *repetition*.

According to Goff, readers of the Book of Mormon need to reconsider their conclusion that because the Book of Mormon contains some repetitions from the Bible, Joseph Smith merely plagiarized the book. Plagiaristic claims specifically ignore a genuinely biblical manner of writing. One must look deeper to show the sophisticated nature of the Book of Mormon narrative.

Nephi builds a ship "according to the word of the Lord" (1 Nephi 18:4). His family is about to embark on a voyage across an unknown sea. This event qualifies in a number of ways as a type of primordial creation. The ideological battle over who will be the ruler has been taking place and will continue; the group sees itself as a new people and will soon take upon them the names of Nephites, Lamanites, and others; the group has undergone a topological exodus through the wilderness [and will continue to repeat this process]. This is a time of creation that relives the creation of the world, just as the building of Noah's ark and the Tabernacle in the wilderness relived this cosmogony.

All of the work of building a ship or tabernacle follows the same cycle: the Lord gives the pattern and the command, the order is executed exactly, the finished result is viewed and pronounced good. The Book of Mormon narrative fits the pattern as well as the narratives from the Bible do. . . . So the Exodus (specifically the tabernacle construction) is connected to the Deluge and both are connected to the Creation. And Nephi's construction of the ship is connected to all three of these biblical archetypes of new creations (see the chart below).

Among the cosmic connotations of the many waters and the sea voyage, Nephi will also tell us something about the journey to the promised land. "Settlement in a new, unknown, uncultivated country is equivalent to an act of Creation." The act of creating is exactly what the

Lehi colony does. We should not be surprised then when the settlers finish their sea voyage and begin fulfilling the creation injunction to subdue the earth: "And it came to pass that we did begin to till the earth, and we began to plant seeds; yea, we did put all our seeds into the earth, which we had brought from the land of Jerusalem. And it came to pass that they did grow exceedingly; wherefore, we were blessed in abundance" (1 Nephi 18:24). The creation of the earth ends with the command that man go forth on the earth, multiply and be fruitful (Genesis 1:28); The parallel incident in the Bible of the conquering of the promised land and the subsequent partitioning of it also ends with the same subduing (Joshua 18:1, 19:51). Noah and his group are commanded likewise to "be fruitful and multiply" (Genesis 8:17). Nephi's cosmogony ends [and begins] with the going forth on the land, planting the seeds (they carried with them from Jerusalem) in the earth as God did, and exercising dominion.

In summary, the Book of Mormon narrative that tells us about Nephi's building his ship is much more sophisticated and deserves far more analysis than has previously been given. [Alan Goff, "Boats, Beginnings, and Repetitions" in <u>Journal of Book of Mormon Studies</u>, Vol. 1/1, F.A.R.M.S., Fall 1992, pp. 67-81]

Three Biblical Archetypes Compared to Nephi's Construction of the Ship

	Work Declared Good	Completion Formula	Blessing Pronounced	Multiply and Fill the Eurth	Curious Workmanship	Mountain Theophany
Creation	Gen. 1:31 "And God Saw everything that he had made, and, behold, it was very good"	Gen. 2:1 "Thus the heavens and the carfn were finished, and all the host of them"	Gen. 2:3 "And God blessed the seventh day, and sanctified it"	Gen 1.28 "And God said unto them, Be fruitful, and multiply, and replimish the earth"	Gen. 1:11-12, 20-22, 24-25 The variety of species is complianced.	
Delage	Gen. 9:11–17 Ged establishes a covenant	commended him, so did he" abundantly in the earth, and be fireful, and multiply upon the earth."				
Tabemack	"And Moses 39:43; 40:33 "And Mos		Ex. 39-43 "And Moses blessed them"	Joth. 18:1 "And the whole congregation of lenel assembled together at Shilksh, and set up the tabermacle of the congregation there. And the lane was subdued before them"	Ex. 31:3-4 "I have filled [Bezaleel] with the spirit of God, in windom, and in understanding, and in knowledge, and in all manner of workmanning works in gold, and in silver, and in brase."	Ex. 24:12 "And the Lord said unto Moses, Come up to me into the mount"
Nephi's Ship	"And it came "And it came to "Wherefore to pass that pass that after I were blesse		1 Nr. 18:24 "Wherefore, we were blessed in abundance"	I No. 18:24 "And it came to past that we did begin to till the earth, and we begin to plant secula"	I No. 18:1; of 18:2 "We did work the timbers of curious workmarship. And the Lord did show me from time to time after what masser I should work the timbers of the shap"	I No. 17-7; cf. 17:8 "The voice of the Lord came unto me, saying: Arise, and get thee into the mountain. And it came to pass that I arose and went up into the mountain, and cried actio the Lord"

Compared to N	Nephi's Const	ruction of the	Ship		
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Creation "God saw every- thing that he had made, and, behold, it was very good" (Gen. 1:31).	Deluge God establishes a covenant (Gen. 9:11–17).	Tabernacle "Moses did look upon all the work, and, behold, they had done it as the Lord had command- ed, even so had they done it" (Ex. 39:43).	Nephi's Ship "After I had finished the ship, according t the word of the Lord my brethren beheld that it was good" (1 Ne. 18:4).		
"Thus the heavens and the earth were finished, and all the host of them" Gen. 2:1).	"Thus did Noah; according to all that God commanded him, so did he" (Gen. 6:22; cf. 7:5).	"The children of Israel did according to all that the Lord commanded Moses, so did they" (Ex. 39:32); cf. 39:43; 40:33).	"I had finished the ship, according to the word of the Lord" (1 Ne. 18:4).		
"God blessed the sev- enth day, and sancti- fied it" (Gen. 2:3).	"Cod blessed Noah and his sons" (Gen. 9:1),	"Moses blessed them" (Ex. 39:43).	"We were blessed in abundance" (1 Ne. 18:24). "We did begin to till the earth, and we began to plant seeds (1 Ne. 18:24).		
"God said unto them, Be 'roitful, and multiply, and replenish the earth" (Gen 1:2).	"Bring forth with thee every living thing that they may breed abun- dantly in the earth, and be fruitful, and multiply upon the earth" (Gen. 8:17; cf. 9:1).	The whole con- gregation of Israel assembled together at Shiloh, and set up the tabernacle of the congregation there. And the land was subdued before them" (Josh, 18:1).			
The variety of species is emphasized (Gen. 1:11–12, 20–22, 24–25).	Divine pattern for building the ark specified (Gen. 6:14–16).	"I have filled [Bezaleel] with the spirit of God, in wisdom and in all manner of work-manship, to devise cunning works in gold, and in silver, and in brass" (Ex. 31:3-4).	"We did work the timbers of curious workmanship. And the Lord did show me from time to time after what manner I should work the timbers of the ship" (1 Ne. 18:1; cf. 18:2)		
		"The Lord said unto Moses, Come up to me into the mount, and be there And Moses rose up, and, went up into the mount of God" (Ex. 24:12–13).	"The voice of the Lord came unto me, saying: Arise, and get thee into the mountain. And it came to pass that I arose and went up into the mountain, and cried unto the Lord" (1 Ne 17:7; ct. 17:8).		
	Creation "God saw everything that he had made, and, behold, it was very good" (Gen. 1:31). "Thus the heavers and the earth were finished, and all the host of them" (Gen. 2:1). "God blessed the seventh day, and sanctified it" (Gen. 2:3). "God said unto them, Be fruitful, and multiply, and replenish the earth" (Gen 1:2). The variety of species is emphasized (Gen. 1:11–12, 20–22, 1:11–22, 20–22, 1:11–22, 20–2	Creation "God saw everything that he had made, and, behold, it was very good" (Gen. 1:31). "Thus the heavens and the earth were finished, and all the host of them" (Gen. 2:1). "God blessed the seventh day, and sanctified it" (Gen. 2:3). "God said unto them, Be fruitful, and multiply, and replenish the earth" (Gen. 9:1). "God said unto them, Be fruitful, and multiply, and replenish the earth" (Gen. 9:1). "Bring furth with thee every living thing that they may be fruitful, and multiply upon the earth" (Gen. 8:17; cf. 9:1). The variety of species is emphasized (Gen. 1:11–12, 20–22, 11.	"God saw everything that he had made, and, behold, it was very good" (Gen. 1:31). "Thus the heavens and the earth were finished, and all the host of them" (Gen. 2:1). "God blessed the seventh day, and sanctified it" (Gen. 2:3). "God said unto them, Be fruitful, and replenish the earth" (Gen. 8:17; cf. 9:1). "The variety of species is emphasized (Gen. 1:11–12, 20–22, 24–25). "The variety of species is emphasized (Gen. 6:14–16). "The lord said unto them with the earth" (Gen. 8:17; cf. 9:1). The variety of species is emphasized (Gen. 6:14–16). The variety of species is expected the variety of species is emphasized (Gen. 6:14–16). The variety of species is explained to the congregation of Israel and was subdued before them" (Ush. 18:1). The variety of species is explained to the congregation of Israel and was subdued before them" (Ush. 18:1). The variety of species is explained to the congregation of Israel and was subdued before them" (Ush. 18:1). The variety of species is explained to the congregation of Israel did according to all that the Lord commanded Moses, and, behold, they had done it as the Lord had commanded Moses was did her it as the Lord had commanded Moses of the work and the Lord commanded Moses of the work an		

1 Nephi 18:4 I had finished the ship according to the word of the Lord (Illustration): Chart: Three Biblical Archetypes Compared to Nephi's Construction of the Ship. [John W. Welch & J. Gregory Welch, "Three Biblical Archetypes Compared t Nephi's Construction of the Ship" in Charting the Book of Mormon: Visual Aids for Personal Study and Teaching,, chart 93]

1 Nephi 18:4 My Brethren Beheld That [the Ship] Was Good, and That the Workmanship Thereof Was Exceedingly Fine:

Before they entered the ship for the voyage to the New World, Nephi's family knew that

the finished ship was "good," and that the "workmanship thereof was exceedingly fine" (1 Nephi 18:4). According to Potter and Wellington, this implies that they had already conducted successful sea trials. Otherwise how could they have judged the ship's workmanship unless they saw that the hull was sound and watertight, that the ship rested properly and equally balanced int he water, and that she handled well in various seas? Tim Severin, an experience captain, recruited eight Omani professional sailors as the core of the crew of the *Sohar*. Still, he conducted sea trials to adjust the ship and train the crew. Without sea trials, the words "good ship" would have been as meaningless as saying a "good" airplane before seeing if it could takeoff, fly and land in one piece.

[George Potter & Richard Wellington, <u>Discovering The Lehi-Nephi Trail</u>, Unpublished Manuscript (July 2000), p. 211]

1 Nephi 18:6 Much Fruits:

[See the commentary on 1 Nephi 17:5]

1 Nephi 18:6 Meat from the Wilderness:

As they were loading the ship for their voyage to the promised land, Nephi notes that they had prepared "meat from the wilderness" (1 Nephi 18:6). Potter and Wellington note that Dhofar contains 20 species of wild mammal, of which seven appear to be found only there, and includes "the caracul, the leopard, the Arabian gazelle, and the ibex appear in small numbers and are vulnerable to hunting." The lakes in wadi Darbat, only eight miles from the harbor in Khor Rori, would have served as watering holes for the animals and an ideal place for Nephi to have hunted.

[George Potter and Richard Wellington, <u>Discovering the Lehi-Nephi Trail</u>, Unpublished Manuscript, 2000, p. 192]

1 Nephi 18:6 We Did Go down into the Ship with All Our Loading:

Potter and Wellington believe that Nephi's ship must have been even larger than the largest Arab merchant ships of his day for the following reasons:

- 1. The Number of People Aboard: Even if we limited the size of Nephi's party to 50 individuals, he would have needed to build a ship at least as big as the largest ocean-going freighters of that day.
- 2. Food & Water & Utensils for a Pacific Crossing: Perhaps the greatest fear in regard to water is for the ship to be trapped in a fair weather doldrums for weeks on end without the ship

being able to move forward and without rains. Additionally, once past India, there were few, if any, ports where Nephi could have restocked his ship. Presumably, they fished and collected rainwater when possible, and they also possibly stopped often along the way at tropical islands to search for water and food. It is certain Nephi needed to have taken on board large stores of food and water. For Severin's voyage to China, his 20-man crew rationed 25 gallons of water a day for drinking water and cooking. All washing was done in sea water, while the cooking water was diluted, half and half, with sea water. His ship carried a month and a half supply of water, roughly 1100 gallons. It is reasonable to assume that Nephi's ship required a water reserve at least twice that size. Depending on the winds, the voyage to the New World probably took at least a year. Sailing the Pacific is not a casual venture.

- 3. Ship's Repairs & Tools: A wooden ship is in need of constant maintenance, an endless effort that, once stopped, dooms the ship. Nephi's ship had to be maintained while on the open sea. It is likely that he beached his vessel once or twice for repairs, but dry-docks and shipbuilding yards there were none. Thus he had to carry with him all the tools and supplies necessary to maintain the ship, its riggings and sails.
- 4. Extra Sails: Large sailing ships carried one suit of sails for the night and bad weather, and another suit of sails for day and fair weather. The main sail on Severin's ship required 2,000 square feet of canvas. During one stormy day in the China Sea, his ship had five sails "ripped to shreds." We can be assured that Nephi's ship needed several sets of sails, and so she had to have the capacity to hold all of these as well.
- 5. *Tents?*: Nephi's family might have taken tents with them to the land of promise (see 1 Nephi 18:23). If so, they would have been traditional Middle Eastern tents. A typical folded 10' x 10' goat hair tent measures 3' x 3' x 6.5' feet or 58.5 square feet. Multiply that by eight families, and the tents form a stack 13 feet long, 6 feet wide and 6 feet tall.
- 6. Anchors & Ballast, etc.: Resting the ship and maneuvering through straits required heavy anchors. Ancient anchors have been recovered in Omani waters. They were made from stone and were quite heavy. A recently recovered anchor in Oman weighed 2,200 pounds and was 9 feet long.xii Severin's ship carried four anchors, which is one less than ancient Mediterranean ships carried. Ballast for maintaining a ship in an upright position was also necessary. For example, Tim Severin's ship the Sohar required 15 tons of sandbags as ballast. [George Potter and Richard Wellington, Discovering the Lehi-Nephi Trail, Unpublished Manuscript (July 2000), pp. 199-202]

1 Nephi 18:6 We Did Go down into the Ship:

According to modern research, a fairly small craft, if well constructed, is more likely to survive a long sea voyage than is a large vessel. Surprisingly, seaworthiness has little to do with size. Perhaps this is a reason that Lehi and his small group included only one other family in

their sea voyage. Although the earlier migrating Jaredites consisted of a few more families, that group came in eight vessels.

[Paul R. Cheesman, "Cultural Parallels Between the Old World and the New World," in <u>The Book</u> of Mormon: The Keystone Scripture, p. 208]

1 Nephi 18:6 We Did Go down into the Ship With All Our Loading:

Nephi states that after they "had prepared all things, much fruits and meat from the wilderness, and honey in abundance, and provisions according to that which the Lord had commanded us, we did go down into the ship with all our loading and our seeds, and whatsoever thing we had brought with us" (1 Nephi 18:6).

According to Tim Severin's book, The Sindbad Voyage, the completed hull of the ship was first launched into the harbor and checked for leakage. After the ship was dry, secured and anchored, the outfitting and loading process began. Commenting on this, Severin writes:

We fitted out *Sohar* in one of the most spectacular harbours in the world, Muscat. . . . Surrounded by such an extraordinary mixture of history and pomp, it did not seem odd to be fitting out a medieval dhow, erecting the solid 61-foot mast with its characteristic forward rake, stringing up the coconut rope rigging, and hoisting the great spars. The silhouettes of sailors scrambling up *Sohar's* rigging, or inching their way out along the mainyard, looked utterly natural against the backdrop of the fortress bay. (p. 78)

Sohar was now the focus of frenetic activity. The two rubber dinghies which we would use as tenders on the voyage shuttled constantly back and forth carrying carpenters and stores, volunteer sailors and casual visitors. The ship rapidly began to fill up with the hundreds of items necessary for a sea voyage that would last seven or eight months. The forepeak was stuffed with bosun's stores--coil upon coil of rope of every size, from bundles of light lashing twine to 8-inch-thick spare halyards. There were dozens of extra blocks, each one lovingly carved out of a single chunk of wood and with their wooden wheels revolving on wooden pins. . . . There were spare sacks of lime for the day when we careened ship in a foreign port and smeared on a new coat of the traditional antifouling. There were tins of mutton fat, rank and nauseating, to mix with the lime or to grease the running ropes and tackles. There were marlin spikes and mallets, chests of carpenters's tools, odd lengths of spare timber, bolts of spare sailcloth, lengths of extra chain . . . There were no fewer than four anchors, one of them a traditional Arab grapnel anchor with its four curved claws. . . .

The food had to be chosen, packed and loaded. With a crew of twenty hard-working, hungry men there was not enough room to store all the provisions for the entire journey. I calculated that we would carry a basic store of rations, and supplement our

supplies with purchases made at countries along the route. . . . We had boxes of nuts and dried fruit, hundreds of eggs preserved in grease and wrapped in sawdust, sacks of onions, dried peas, rice and packets of spice. For a variety there was a selection of tinned foods and sauces. Our cooking would be done on deck over a simple charcoal fire burning in a tray of sand. . . . In the days of Sindbad dates were the main item of cargo, as well as an essential source of food for the sailors; in fact, so important were dates as cargo that Arabs calculated the capacity of their ships by the number of sacks of dates they could carry. . . . The list of necessities was unending. Half a ton of charcoal for the cook box; . . . (pp. 80-82)

"Fresh fruit came aboard--a sure sign that Sohar was nearly ready to sail. . . " (p. 85)

[Quoted from Tim Severin, <u>The Sindbad Voyage</u>, New York: G. P. Putnam's Sons, 1982] [For more excerpts see the commentaries on 1 Nephi 17:8; 18:8; 18:12; 18:13]



Arab dhow model

model-space.com



1 Nephi 18:6 **We did go down into the ship (Illustration):** A Model of Lehi's Ship? Lynn commissioned this exact 1/20 scale model of a larger 20 meter Arab dhow. This shipwright is from Eretheria Ethiopia, but did this work in 1985 in Jeddah, Saudi Arabia. Probably Nephi's ship looked like this. This model is now on display at LDS Business College, Salt Lake City, Utah. [Lynn A. Hilton and Hope A. Hilton, <u>Discovering Lehi</u>, p. 152]

1 Nephi 18:6 Every One according to His Age:

Daniel Ludlow asserts that several experiences in the Book of Mormon indicate that the law of primogeniture (where the first-born son has special rights and privileges) was part of the belief and tradition of Lehi and his colony. Note particularly the following references in this regard: 1 Nephi 18:10; 2 Nephi 5:3; Mosiah 10:11-15. In only one chapter, 1 Nephi 18, we find at least three examples of the practice of this law.

- 1. Nephi's position of leadership was objected to by Laman and Lemuel, who were his elder brothers. (1 Nephi 18:10; see also 16:37)
- 2. Despite the strong faith and numerous religious experiences of Nephi, most of the revelations from the Lord concerning the colony continued to come through his father, Lehi. (1 Nephi 18:5; see also 16:9, 23-26.)
- 3. Lehi and his group entered the ship "every one according to his age." (1 Nephi 18:6) [Daniel Ludlow, A Companion to Your Study of the Book of Mormon, p. 116]

1 Nephi 18:7 Jacob and ... Joseph:

According to McConkie and Millet, in true Hebrew tradition, father Lehi chose two honored names ("Jacob and . . . Joseph" -- 1 Nephi 18:7) to serve as memorials for his sons, it being his hope that they would pattern their lives after their righteous forebears (see Helaman

5:6). [Joseph Fielding McConkie and Robert L. Millet, <u>Doctrinal Commentary on the Book of Mormon</u>, Vol. 1, p. 141]

1 Nephi 18:8 We Did Put Forth into the Sea:

It has been reported by Kent Brown that there are 14 bays or inlets along the Dhofar coast that were identified by a BYU team of professors sent over to southern Oman in order to investigate the possibilities for Nephi's Bountiful being located there. [Kent Brown, personal conversation]

Note* Does each bay or inlet identified have the correct environment in which Nephi could have launched a ship? Are there reports or any archaeological remains that might testify that ships the size required by Lehi's group were ever built and launched there?

Nephi records that they "did put forth into the sea" (1 Nephi 18:8). I would have to wonder, considering the size of the ship, how they could have launched a ship weighing many tons, tested it for seaworthiness, and trained a crew without the aid of a resident seafaring population or an established harbor? Salalah has ancient ports at Sumhurum and al-Baleed dating to the first millennium B.C. along with a resident population. Was there a port or seafaring population at Wadi-Sayq? [Alan C. Miner, Personal Notes]

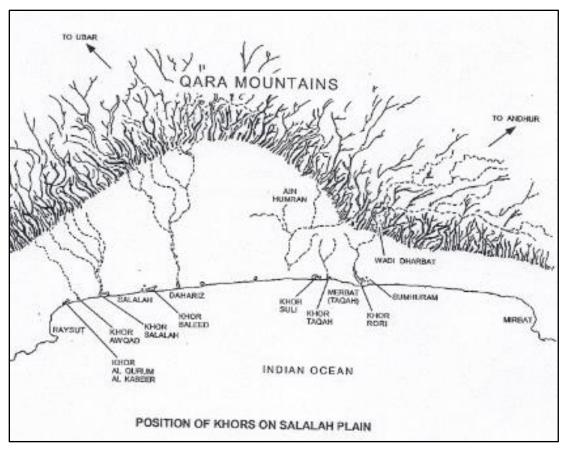
1 Nephi 18:8 We Had All Gone down into the Ship . . . We Did Put Forth into the Sea:

According to Potter and Wellington, the fact that Nephi mentions that they had "gone down into the ship" (1 Nephi 18:8) implies that Nephi's ship was tied to a mooring before they disembarked. Moored next to a port seawall, Nephi would have used a gangplank to "walk down" into the ship. This appears to be the picture Nephi described as they put their supplies aboard the ship, and as the family entered the ship for the final voyage. Nephi also says that they "put forth into the sea" (1 Nephi 18:8), once again implying that the ship was initially in a port that was somewhat protected from the sea and had to "put forth into the sea." Nephi's words also bring up the necessity of a port for building and launching a ship. With this in mind Potter and Wellington made an analysis of all the possible ports in Dhofar using criteria gleaned from the text and also from historical and cultural settings. The following criteria were listed for Nephi's port:

- 1. The port would been large enough to accommodate a large ship.
- 2. The port would have been protected year round from monsoon winds.
- 3. The port should show evidence of ancient use.
- 4. It would have been open to the sea during the time of Lehi.
- 5. It would have had protection from high surf.
- 6. It was only necessary that Nephi had a place to moor his ship while finishing it.
- 7. Nephi wrote that the place had "much fruit" (1 Nephi 17:5)

- 8. There were apparently cliff above deep water nearby because of Laman & Lemuel's attempt to throw Nephi to his death. (1 Nephi 17:48)
- 9. Trade with India would have been necessary for large timbers suitable for shipbuilding.
 - 10. There would need to be large domestic timbers nearby.
- 11. There would need to be access to thousands of coconuts or other material for ropes.
 - 12. Sails would need to be available or the material to make canvas for sails.
 - 13. Iron ore to make tools was nearby. (1 Nephi 17:10)
 - 14. Experienced shipwrights were needed.
 - 15. Experienced ship captains were needed in order to teach Nephi to captain a ship.
- 16. There was apparently a mountain nearby where the Lord instructed Nephi. (1 Nephi 17:7; 18:3)
- 17. Sailors capable of teaching Nephi's crew needed to be available along with facilities for conducting sea trials.
 - 18. "Stones" to make fire with, or flint was needed nearby. (1 Nephi 17:11)

From the results of this comparison (see chart below) Potter and Wellington found only five serious candidates for the place where Nephi built and launched the ship: Reysut, Khor Suli, Khor Taqah, Khor Rori, and Mirbat--all on the Salalah plain. Interestingly, they found no evidence that Khor Kharfot was ever a port in Nephi's time or at any other time for that matter. By far the strongest candidate was the port of Moscha at Khor Rori, especially when one considers the village of Taqah and Khor Rori as one site, as they are only two miles apart. [George Potter & Richard Wellington, <u>Discovering The Lehi-Nephi Trail</u>, Unpublished Manuscript (July 2000), pp. 211, 235-242]



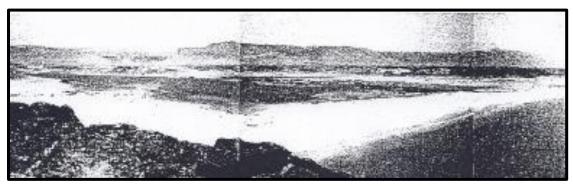
1 Nephi 18:8 **We had all gone down into the ship... we did put forth into the sea (Illustration-Potter):** Positions of the Khors (Ports) on the Salalah Plain. [George Potter & Richard Wellington, <u>Discovering The Lehi-Nephi Trail</u>, Unpublished Manuscript (July 2000), p. 261]

Table to Compare	the	Possible	Ports	in	Dhofar.
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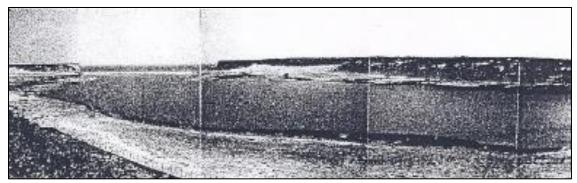
-	Kharfot	Reysut	Quran al Kabeer	Awqad	Salalah	al Baleed	Dhabariz	Suli	Tagah	Rori	Mirba
Large enough to accommo- date a large ship	0	4	0	0	0	4	4	0	0	4	4
Protected year round from monsoon winds	0	0	0	0	0	2	0	0	0	4	0
Evidence of-Ancient Port	0	3	0	0	0	2	0	4	3	4	3
Opened into sea in 6th c. BC	2	4	2	2	2	2	2	4	3	4	3
Protection from high surf	0	4	0	0	0	2	0	0	0	4	4
Moorings	0	3	0	0	0	2	0	3	0	4	3
Beach with much fruit	0	1	3	3	3	3	3 ·	3	3	3	3
Cliffs above deep water	3	4	0	0	0	0	0	0	4	4	0
Trade with India for large timbers for shipbuilding	0	2	0	0	0	1	0	2	2	3	2
Large domestic timber	0	0	0	0	0	0	0	0	1	1	0
Coconuts (Rope & Caulking)	0	3	3	3	3	3	3	3	3	3	3
Sails (India) or fiber for sails	0	2	2	2	2	2	2	3	3	3	2
Iron ore nearby	0	4	4	4	4	4	4	4	4	4	4
'Adite Shipwrights	0	2	2	2	2	2	2	3	3	3	2
Captains with time to teach Nephi to captain a ship	0	1	0	0	0	0	0	0	3	3	0
The 'mountain' where Lord would appear.	2	2	2	2	2	2	2	3	3	3	3
Instructors, place to teach crew	0	2	0	0	0	0	0	2	2	3	2
A mountain with ore nearby	0	3	3	3	3	3	3	3	3	4	4
Flint available near the ore	0	2	2	2	2	3	3	3	3	4	4
Totals	7	41	18	23	18	37	28	40	43	65	46

Scoring system. Yes-4, Probable-3, Possible-2, Remote-1, No-0

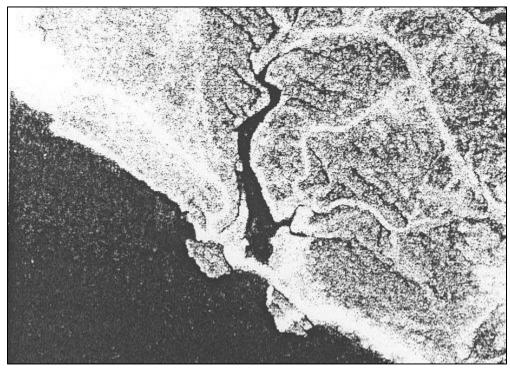
1 Nephi 18:8 We had all gone down into the ship... we did put forth into the sea (Illustration-Potter Theory): Table to Compare the Possible Ports in Dhofar. [George Potter & Richard Wellington, <u>Discovering The Lehi-Nephi Trail</u>, Unpublished Manuscript (July 2000), p. 242]



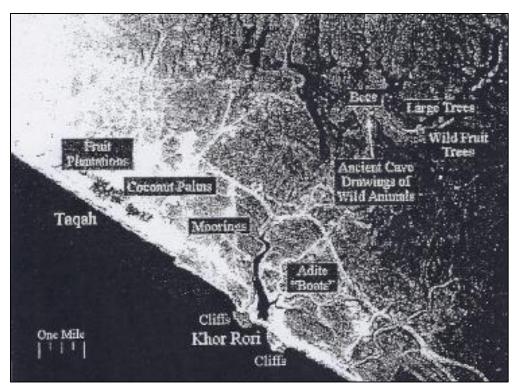
1 Nephi 18:8 We had all gone down into the ship... we did put forth into the sea (Illustration-Potter Theory): A panorama of Khor Rori taken from the top of the west cliffs. The sandbar closing the harbor can be seen in the foreground. The cliffs here are vertical and may well be the place that Laman and Lemuel attempted to throw Nephi into the depths of the sea. [George Potter & Richard Wellington, Discovering The Lehi-Nephi Trail, Unpublished Manuscript (July 2000), p. 261]



1 Nephi 18:8 We had all gone down into the ship... we did put forth into the sea (Illustration-Potter Theory): Panorama of the harbor of Moscha (Khor Rori) taken from on top; of the "Queen of Sheba's palace" at Samharam. The Citadel sits atop the cliffs on the left. "Ship;s of Tarshish" probably moored on the shoreline in the foreground. Moscha was the capital port of Dhofar in Nephi's time. [George Potter & Richard Wellington, Discovering The Lehi-Nephi Trail, Unpublished Manuscript (July 2000), p. 261]



1 Nephi 18:8 We had all gone down into the ship... we did put forth into the sea (Illustration-Potter Theory): The satellite image shows the amazing cliffs at the mouth of Khor Rori. These natural breakwaters combined with the size of the khor to make it the premiere port in Dhofar. [George Potter & Richard Wellington, <u>Discovering The Lehi-Nephi Trail</u>, Unpublished Manuscript (July 2000), p. 261]



1 Nephi 18:8 We had all gone down into the ship... we did put forth into the sea (Illustration-Potter **Theory):** Satellite image of the area of "Merbat" (Taqah), the port of Moscha at Khor Rori, [and wadi Dharbat]. [George Potter & Richard Wellington, <u>Discovering The Lehi-Nephi Trail</u>, Unpublished Manuscript (July 2000), p. 261]



1 Nephi 18:8 We had all gone down into the ship... we did put forth into the sea (Illustration-Potter **Theory):** George maps out the width of the trunk of one of the large trees in wadi Dharbat. [George Potter & Richard Wellington, <u>Discovering The Lehi-Nephi Trail</u>, Unpublished Manuscript (July 2000), p. 261]

1 Nephi 18:8 We Did Put Forth into the Sea:

Boyd Hoglund relates an experience while on a tour retracing Lehi's steps through Arabia. Prior to leaving on the trip he had studied various articles and books, yet none of the authors he had studied had addressed the question: How and where did they launch the boat? Furthermore, his on site visit only raised more questions about the launching of the boat. He did not see how a boat like Nephi's could have been launched from the Wadi Sayq area. Near Salalah, as they were gathered near the edge of a high cliff overlooking the Arabian Sea, the lead driver (of their buses) shared an interesting fact: During the monsoon season the winds and currents shift and come in from the southwest, bringing the tides up eight and a half meters higher than throughout the rest of the year. That translates into a tide nearly 27 feet high! Boyd confirmed the height with the guide. He then states:

I stood there totally absorbed in my defining moment of the entire trip. . . . At last I had my answer. It would have been possible to launch a very large boat when the tide rose 27 feet above its normal height. . . . My question about launching a large boat was now satisfied as I came to understand at least one way that it could have been done from the shores of the proposed Land Bountiful.

Brother Hogland adds this note:

Let me clarify a point with regard to monsoons. I was raised with the understanding that monsoons consisted of heavy rains for many weeks and that they usually resulted in heavy property damage and even loss of life. While that is true in some areas of the world, it isn't in the Dhofar Region of Oman. A monsoon in this area consists of a light rain, even a mist-like moisture that comes up every day. Although it does bring moisture its more important contribution is the cooler weather that it provides. This area was a vacation playground for the rich and famous as far back as Old Testament times, and continues to be so today.

[Boyd P. Hoglund, "Launching Nephi's Ship: How and Where?" in Joseph L. Allen ed. <u>The Book of Mormon Archaeological Digest</u>, Volume II, Issue V, 2000, p. 4]

1 Nephi 18:8 We Did Put Forth into the Sea:

Nephi records that they "did put forth into the sea" (1 Nephi 18:8). I would have to wonder, considering the size of the ship, how they could have launched a ship weighing many tons, tested it for seaworthiness, and trained a crew without the aid of a resident seafaring population or an established harbor? Salalah has ancient ports at Sumhurum and al-Baleed dating to the first millennium B.C. along with a resident population. Was there a port or seafaring population at Wadi-Sayq?

[Alan C. Miner, Personal Notes]

1 Nephi 18:8 We Did Put Forth into the Sea:

Which way did Lehi go? According to Glenn Scott, it seems that an alternate route might be considered--one that would not require them to have sighted any land until they arrived at the land of promise.

A possible alternative route would have required them to depart the southern coast of the Arabian peninsula in the winter, when the trade winds blow from the northeast. At that season, both the trade winds and ocean currents would have carried them south along the east coast of Africa and through the Madagascar channel (258 miles wide).

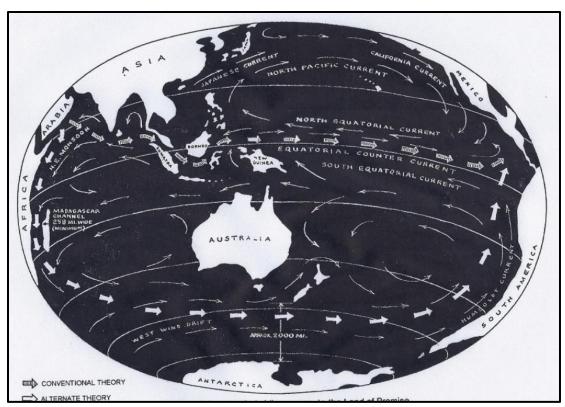
South of Madagascar the ocean current swings eastward across the southern Indian Ocean, south of Australia, Tasmania, and New Zealand, into the South Pacific Ocean at about 48 degrees south latitude. At that latitude Lehi's ship would have been more than fifty miles from any land and over a thousand miles north of the Antarctic Circle. In fact London England is 245 miles closer to the Arctic Circle than this route would have been from the Antarctic Circle.

The current in the South Pacific Ocean would have carried Lehi's ship steadily eastward into the Western Hemisphere and the Humboldt current would then have carried them northward without sighting land until they arrived at the west coast of Mesoamerica (see illustration).

This route, seemingly more circuitous (when viewed on a flat map) than the equatorial route, is actually about the same total distance. This is because of what international airline pilots call The Great Circle Route. It is the reason that airline flights, say from Kansas City to Tokyo, fly northwest to Seattle, along the southern coast of Alaska and the Aleutian Islands, then southwest to Japan, rather than following the fortieth parallel due west which looks shorter when seen on a flat map. This phenomenon can be demonstrated to the reader's satisfaction with a world globe, a fabric measuring tape, and some scotch tape. The size of the globe is irrelevant because you will be comparing both distances on the same globe.

After proposing this alternate route in 1983 I was surprised to later learn that Verla Birrell had suggested that same route in 1948 (*Book of Mormon Guide Book*, Map II). Although Birrell later narrowed her choice of Lehi's landing place to South America (a widely accepted view in 1948), her map did allow for other possible landing sites, near Panama, in Guatemala, and in Mexico. [Glenn A. Scott, Voices from the Dust, p. 85]

Note* All the provisions and drinking water for a sea voyage of such distance and magnitude "without sighting land" would require an unbelievable amount of space in the ship. [Alan C. Miner, Personal Notes]



1 Nephi 18:8 **We did put forth into the sea (Illustration):** Two possible routes for Lehi's voyage to the Land of Promise. Note: Alternate route would not require seeing land until arrival. [Glenn A. Scott, <u>Voices from the Dust</u>, p. 84]

1 Nephi 18:8 We Were Driven Forth Before the Wind (Sails):

In 1 Nephi 18:8 Nephi writes that they were "driven forth before the wind." Later he will write that he "did guide the ship, that [they] sailed again towards the promised land" (1 Nephi 18:22). Potter and Wellington write that it was the belief of their friend and maritime expert Linehan that Nephi would have required a multi-sailed ship to cross the Pacific safely. A single sailed ship of that size would have been too top heavy. Ships of Nephi's time appear to have had square or rectangular sails.** Such sails were basically used to sail with the wind, and prohibited the vessel from sailing against the wind. When there was an unfavorable wind, the crews had to use their oars or bide their time.** Thus it would seem improbable that Nephi could have sailed half way around the world with rectangular sails.

The design of the sail could have been one element in the design of Nephi's ship where the Lord showed Nephi an improved technology, the lateen sail. Fletcher explains: "With the lateen (triangle-shape) sail, ships can travel almost against the wind by tacking (zig-zagging while heading into the wind), but ships with a square sail can only sail with the wind, not against it."xvi

One must also assume that there were probably multiple sets of sails on the ship, fair

weather and bad weather sails, back up sets for each, and that the sails had to be of excellent quality to power a ship half way around the world. Traditionally the sails on the Arab ships were woven from coconut or palm leaves, or made from cotton cloth. XVIII It probably would have taken Nephi, or someone in his party, as much time to learn to weave 21/2 tons of quality canvas as it would have taken to form the entire rest of the ship. [George Potter & Richard Wellington, Discovering The Lehi-Nephi Trail, Unpublished Manuscript (July 2000), pp. 215-216]

1 Nephi 18:8 We Did Put forth into the Sea and Were Driven Forth before the Wind Towards the Promised Land:

Potter and Wellington ask, What historical evidence is there that in Nephi's time Khor Rori (their proposed Bountiful location in the Dhofar region located on the southern coast of Oman) had a port for large ships capable of sailing long distances?

Good harbors were scarce in southern Arabia, or in the whole peninsula for that matter. The *Encyclopedia of Islam* reports: "No other great land mass on the surface of the globe provides such a paucity of shelter for ships . . . "xviii However, according to Brian Doe, the major ports of south Arabia that served as ports anciently were Aden (Euaemon Arabia), Qana (Husn al Ghurab) and Dhufar (Moscha). xix These ports were presumably in use in Ezekiel's time since Ezekiel, a contemporary of Nephi, mentions both Canneh (Cana) and Eden (Aden) (Ezekiel 27:23). At this point, we will narrow our focus to Moscha for a couple of reasons. First, Nephi's travel route required traveling south-southeast along the Red Sea followed by a significant turn to the east (1 Nephi 17:1). Reaching Adan or Canneh required no such prolonged journey to the east, while Moscha is due east of the proposed location of Nahom. Second, the fertile Qara mountains above the ancient Arabian town of Dhofar (Salalah) appears to have had the only Bountiful like ecology along the southern Arabian shoreline.

Now with respect to this ancient port of Moscha in what is now the region of Dhofar, we find some interesting comments. Professor Kamal Salibi, of the American University of Beirut, wrote: "I am personally convinced that the biblical "Tarshish" (trsys) was actually an ancient name for coastal Dhofar, where a village called Sarshiti (srsyt) is still to be found."xx What does the Bible have to say about "Tarshish"? We find that after capturing Ezion-geber (near Aqaba), Solomon built a navy and sent ships to Tarshish, from whence they returned with peacocks, or birds indigenous to India. King Jehoshaphat (873-849 B.C.) of Judah joined himself with Ahaziah king of Israel "to make ships [in Ezion-geber] to go to Tarshish" but "the ships were broken" (2 Chronicles 20:36-37). Correlating this information with the companion record of 1 Kings, we find that "Jehoshaphat made ships of Tharshish to go to Ophir for gold but they went not; for the ships were broken at Ezion-geber" (1 Kings 22:48). Bertram Thomas, among others, has suggested that Ophir was in present day Dhofar.xxi Moreover, it appears that the same area (Dhofar-Ophir) was also known as Tarshish, whose inhabitants acted as middle-men for Indian products transported by ship to Palestine. We therefore have probable biblical evidence

showing the use of a port in Dhofar from the 10th to the 6th centuries B.C., with knowledge in Palestine of its whereabouts and its shipping connection to India.

The biblical expression "ships of Tarshish" was used to denote ships of the largest size, suitable for long voyages. According to Nayanjot Lahiri, recent research suggests that a "maritime route from the Mediterranean to India" existed during the period 1000 B.C. to 200 B.C. These ships would of course, have passed along the coast of Dhofar.

The *Periplus* ("of the Erythrean Sea"), literally meaning "roundtrip," is a Greek account of a trading journey between Egypt and India made by an unknown merchant or ship's master. The date of authorship is not known and may be somewhere between A.D. 40 and the early 3rd century. According to the *Periplus*:

Immediately beyond Syagrus, the bay of Omana cuts deep into the coastline and beyond it there are mountains . . . high . . . and rock steep . . . And beyond this is a port established for receiving the Sachelite frankincense; the harbour is called Moscha, and the ships from Cana call there regularly. . . . xxiv

Concerning the location of this harbor for loading Sachelite frankincense, Nigel Groom notes:

The identification of ancient Sachalite with modern Zufar (Dhofar) has now been confirmed by the discovery of inscriptions at Khor Rori, on the Zufar coast, referring to the region of *sakil*, meaning a coastal plain, which is the present name of that coastal area. XXV

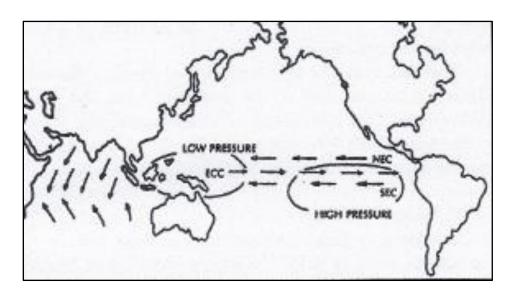
The remains of this port of Moscha, as it was known to the Greeks, can still be seen at Khor Rori where there are a number of impressive ruins built by the Hadramautis, who invaded to take control of the Frankincense trade. They renamed the port city Samhuram (Sumhuram, Samaram, Snhar, Smhrm) which is a composite word meaning "the plan is great" or "the great scheme." Peter Vine gives additional support that this renamed port of Samhuram (Moscha) at Khor Rori was in use prior to the time of the Hadramaut expansion: "It is clear that a substantial settlement existed at the site long before king Iliazzyalit instructed the builders to construct a city there."

[George Potter & Richard Wellington, <u>Discovering The Lehi-Nephi Trail</u>, Unpublished Manuscript (July 2000), pp. 243-246]

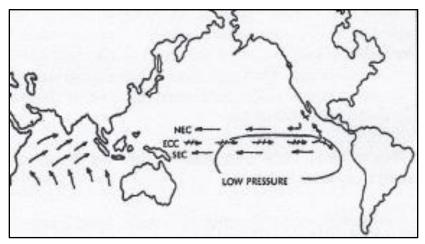
1 Nephi 18:8 We Were Driven Forth before the Wind towards the Promised Land:

Alma 22:28 says that the place of the Lamanites' first inheritance in the Promised Land was along the seashore west. If this was where Lehi landed, then Lehi probably sailed eastward

from Bountiful (1 Nephi 17:1). According to a F.A.R.M.S. article by David Clark, if we assume that the launching site was somewhere on the Indian Ocean, the next question that needs answering is simply how this curious ship was able to travel across the Indian Ocean and the Pacific Ocean in an eastward direction that most of the time is directly opposed by the wind patterns and surface currents of those oceans. In answering the first part of this question, the Hiltons say that "as shipping records clearly indicate, although from October to May the trade winds come from the northeast; from June to September, the winds come from the southwest. At least by the sixth century A.D., Arab entrepreneurs were sailing their ships all the way from the Arabian Peninsula to China. Arab ships rode the monsoons to the Malabar coast of India, then on to Ceylon in time to catch the summer monsoon (June to September) and speed across the often treacherous Bay of Bengal, past the Nicobar Islands, through the Malacca Straits, and into the South China Sea. The trip from the Arabian peninsula to China took approximately 120 days of straight sailing, or six months counting provisioning stops along the way." In attempting to answer the second part of the question dealing with the crossing of the Pacific, Clark says that since the beginning of the twentieth century, men have known that every three to four years, "normal" atmospheric and oceanic circulation in the tropical Pacific is altered, producing the socalled El Nino effect. If Lehi sailed from the Arabian Peninsula during August of a "El Nino" year, the time would have been not only optimal for northeast monsoon circulation, but also for the harvesting of "fruits and meat and honey in abundance." Lehi could then reasonable expect to arrive in the Indonesian area in time to catch an El Nino counter current. (Trips from the Arabian Peninsula took four months of straight sailing time.) The El Nino-driven current could then have delivered Lehi's group to the west coast of Central America. In calculating the time of the voyage from Book of Mormon verses, Nephi only mentions on two separate occasions that they sailed for the "space of many days." The Liahona, or compass, stopped working, and it wasn't until after four days that Nephi was freed and a true course restored. However, according to the Hiltons, if it took 120 days to sail from Arabia to China, it would probably have taken Nephi a year to fifteen months to cover the three-times longer distance between Arabia and America. [David Clark, "Lehi and El Nino: A Method of Migration," F.A.R.M.S, p. 57]



1 Nephi 18:8 **We... were driven forth before the wind (Illustration):** Winter ocean currents in the Indian Ocean and normal ocean currents and atmospheric pressures in the Pacific Ocean. The ECC (the narrow Equatorial Counter Current) is the only Pacific current moving east. The other two, the NEC (North Equatorial Current) and the SEC (South Equatorial Current) move West. [David Clark, "Lehi and El Nino: A Method of Migration," p. 3]



1 Nephi 18:8 **We...were driven forth before the wind (Illustration):** Summer ocean currents in the Indian Ocean and ENSO ocean currents and atmospheric pressures in the Pacific Ocean. The Equatorial Counter Current is intensified during an ENSO period. [David Clark, "Lehi and El Nino: A Method of Migration," p. 3]

1 Nephi 18:8 We Did Put Forth into the Sea and Were Driven Forth before the Wind Towards the Promised Land:

Nephi writes that they "did put forth into the sea and were driven forth before the wind towards the promised land" (1 Nephi 18:8), yet we are left with almost no details of the voyage. For an approximation of those details, one might look to Tim Severin's book, *The Sindbad Voyage*. In that book he relates the details of a 71/2 month, 6000-mile voyage from Oman to China in a replica of an ancient Arab ship which he had built. The following excerpts might provide some insight:

The sea road was the great achievement of early Arab navigation. It was nothing less than the 6000-mile voyage by way of Ceylon and South-east Asia to the fabled ports of China. (p. 18)

The Arabs took to the sea with that same philosophy of devotion which helped them cross the great deserts. They set out trusting in the destiny which Allah would provide

them, and both camel caravaneer and Arab shipmaster used the same stars to guide them on their courses, believing that God had placed the stars there for that very purpose. [In a previous voyage across the sea], I had only to glance upwards to appreciate the heritage of Arab seafaring: of the major navigation stars used by sailors, most bore Arabic names because it was Arab savants who had developed the art of astronavigation. (p. 16)

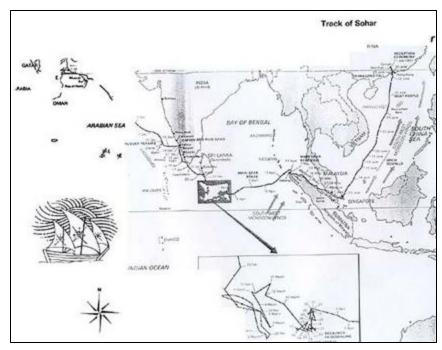
My research turned up the chilling fact that in the first part of this century one Arab sailing ship in ten had failed to make its landfall on passages across the Indian Ocean, and had disappeared at sea. And in Sindbad's time the voyage to China had been considered so dangerous that an experienced sea captain who returned safely was regarded as an exceptional navigator. A successful voyage to China made a man rich for the rest of his life, but the chances of such a trip were very slim. (p. 18)

I calculated that *Sohar* needed a crew of about twenty men. Eight of them, forming the core of the team, would be Omani sailors who would handle the vessel in traditional style. They would have to be prime seamen, accustomed to shiphandling, because they would have to teach the rest of the crew how to sail the vessel using the very special rig of an Arab *boom.* (p. 73)

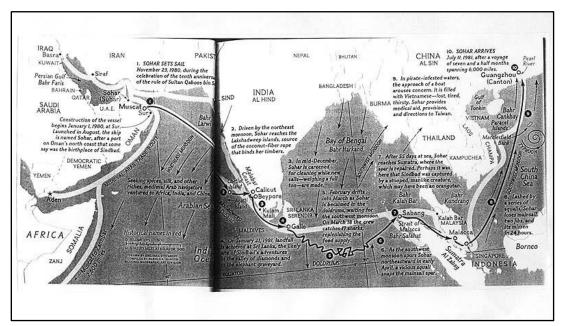
Jumah [one of the Omani sailors] was a treasure, a storehouse of information about the traditional ways of the Arab sailing ship. . . . He could advise on how to rig and sail *Sohar*, and I was to learn that he knew exactly what to do in a crisis aboard ship, what rope to cast off, which way to turn the vessel. He had been so long at sea that he had lost track of all the voyages he had made. (p. 77)

Lacking sophisticated instruments to measure the ship's performance (there was not even a functioning modern log) *Sohar's* performance figures are only generalized. Her best day's run was 130 miles, noon to noon, in the South China Sea. Her maximum speed was perhaps 8-9 knots. On the other hand she was often becalmed, set back by currents, or suffered from appreciable leeway. Her average voyage speed was therefore a little better than 2 knots over the entire route from Muscat to Canton. This is almost exactly the same as the speed of ninth- and tenth-century Arab merchant ships on the same run, calculated from the early texts. (p. 238)

[Quoted from Tim Severin, <u>The Sindbad Voyage</u>, New York: G. P. Putnam's Sons, 1982] [For more excerpts see the commentaries on 1 Nephi 17:8; 18:6; 18:12; 18:13]



1 Nephi 18:8 We did put forth into the sea and were driven forth before the wind towards the promised land (Illustration): Track of Sohar [Tim Severin, <u>The Sindbad Voyage</u>, New York: G. P. Putnam's Sons, 1982, inside front cover]



1 Nephi 18:8 We did put forth into the sea and were driven forth before the wind towards the promised land (Illustration): Seven centuries before Columbus, Arabs mastered the route to China to seek the riches of the Orient: camphor and cinnamon, pepper and ambergris, silk, gold, gems, porcelain, and sandalwood. The dependability of the monsoon winds (despite Sohar's trial in the doldrums), the navigator's sure knowledge of the stars, and the zeal to succeed made possible voyages a quarter of the way round the world. Photographs by Richard Greenhill. [Tim Severin, "In the Wake of Sindbad," in National Geographic, Vol. 162, no. 1, July 1982, pp. 12-13]



1 Nephi 18:8 We did put forth into the sea and were driven forth before the wind towards the promised land (Illustration): Sohar. Photograph by Richard Greenfield. [Tim Severin, <u>The Sindbad Voyage</u>, New York: G. P. Putnam's Sons, 1982, 64-65]



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1 Nephi 18:8 We did put forth into the sea and were driven forth before the wind towards the promised land (Illustration): Seven and a half months after leaving Muscat, *Sohar* makes her landfall on the China caost. Escorted up the Pearl River to Canton, she received an enthusiastic official welcome for the Chinese. Photograph by Richard Greenfield. [Tim Severin, <u>The Sindbad Voyage</u>, New York: G. P. Putnam's Sons, 1982, 160-161]

1 Nephi 18:8 We Were Driven Forth before the Wind towards the Promised Land:

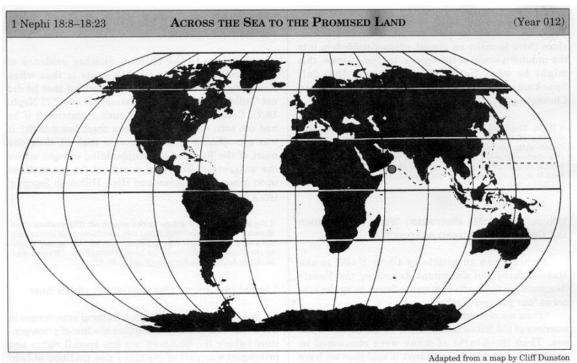
The Hiltons note that at least by the sixth century A.D., Arab entrepreneurs were sailing their dhows all the way from the Arabian peninsula to China. The round trip from the Arabian peninsula to China took approximately a year of straight sailing, or six months each way, counting layovers at each end of the journey. Once they emerged from the Malacca Straits, the dhows would sometimes be blown completely off course and would end up in the Pacific, "Where, the Chinese believed, the drain spout of the world's ocean sucked the unwary sailor into oblivion." xxviii

Although these records date from at least five hundred years after Lehi's party left Arabia, the existence of coastal shipping and the monsoons may have been the combination of events that enabled Nephi, inspired of the Lord, to reach the Pacific Ocean. If it took later sailors 120 days to sail from Arabia to China, it would possibly have taken Nephi one year to fifteen months to cover the three-times longer distance between Arabia and the Promised Land in America. That voyage is a great testament of faith and courage and an inspiring tribute to Nephi's ship. What a story remains to be told!

[Lynn M. and Hope A. Hilton, <u>Discovering Lehi</u>, pp. 165-166]

1 Nephi 18:8 We Did Put Forth into the Sea and Were Driven Forth before the Wind towards the Promised Land:

John Sorenson explains that the Book of Mormon does not give information about the duration of Lehi's ocean voyage, but the distance alone allows us to estimate time. The distance traveled would have been on the order of seventeen thousand miles. We get valuable comparative data about rates of travel in the mid-Pacific by examining a recent voyage under pre-European conditions by the reconstructed Polynesian double-hulled canoe named *Hokule'a*. . . . Given these [data], a full year seems a minimum period to accomplish the long voyage from Arabia to [Central] America. Two years are not unlikely [for Lehi's party to "put forth into the sea" and be "driven before the wind towards the promised land" (1 Nephi 18:23)]. [John Sorenson, "Transoceanic Crossings," in The Book of Mormon: First Nephi, The Doctrinal Foundation, pp. 264-265]



Geographical Theory Map: 1 Nephi 18:8-23 Across the Sea to the Promised Land (Year 012)

1 Nephi 18:9 They Began to Dance:

The Hiltons note that Nephi's ship probably had a wide deck, since we are informed that the brothers and their wives made merry on the ship with their singing, dancing and "rude" speech (1 Nephi 18:9). Dancing would have been impossible if the ship had only ribs and planking.

[Lynn M. and Hope A. Hilton, <u>Discovering Lehi</u>, p. 164]

1 Nephi 18:9 They Began to Dance:

Eldin Ricks translates Brasseur de Bourbourg's French version of a Mexican tradition: "Here is the beginning of the accounts of the arrival of the Mexicans from the place named Aztlan. It was through the midst of the water that they made their way to this locality, being four tribes. And in coming they were rowing in their ships." Bourbourg, who records this tradition in his Ancient Monuments of Mexico, explains that the word in the original language that he translated "rowing" actually is the native word for "dancing." But because he could make no sense out of "dancing" in reference to ships, he had translated it "rowing"! [Eldin Ricks, <u>Book of Mormon Commentary</u>, Vol. 1, pp. 218-219]

1 Nephi 18:9 They Began to Dance, and to Sing . . . with Much Rudeness:

According to Terrence Szink, quite probably, Nephi, the author of this section, consciously wrote his account of the wilderness journey in a way that would remind the reader of the Exodus of the children of Israel from Egypt. . . . Nephi's description of partying in 1 Nephi 18:9 ("They began to dance, and to sing . . . with much rudeness") suggests a comparison to the incident with the golden calf during the Exodus (And it came to pass, as soon as Moses came nigh unto the camp, that he saw the calf, and the dancing. . . . Moses saw that the people were naked--Exodus 32:4-6; 18-19, 25). The singing, dancing, and nakedness before the golden calf were apparently part of ritual connected with this idol. . . . Is Nephi's mention of "much rudeness" and "exceeding rudeness" comparable to Moses' seeing that "the people were naked"? Probably. The reader should additionally note that in both the Bible and the Book of Mormon, the prayer of an individual was what saved the people, who were almost destroyed by a justifiably angry God. Certainly this connection could not have been a product of Joseph Smith's writing. The parallels to Exodus occur at dozens of places throughout the Book of Mormon record. No hasty copying of the Bible could have produced such complex similarities, not to mention the differences that remain.

[Terrence L. Szink, "Nephi and the Exodus," in <u>Rediscovering the Book of Mormon</u>, p. 48-49] [See also Terrence L. Szink, "To a Land of Promise," in <u>Studies in Scripture: Book of Mormon</u>, Part 1, pp. 69-70]

1 Nephi 18:9 With Much Rudeness:

According to an article by John Tvedtnes, Hebrew has fewer adverbs than English. Instead, it often uses prepositional phrases with the preposition meaning *in* or *with*. For example, "with much rudeness" (1 Nephi 18:9) is used instead of "very rudely." The English translation of the Book of Mormon contains more of these prepositional phrases in place of adverbs than we would expect if the book had been written in English originally. [John A. Tvedtnes, "The Hebrew Background of the Book of Mormon" in Rediscovering the Book of Mormon, F.A.R.M.S., p. 79]

1 Nephi 18:12 The Compass Which had Been Prepared of the Lord Did Cease to Work:

Although Nephi uses the term "compass" to describe the instrument "which had been prepared of the Lord" (1 Nephi 18:12), one might wonder concerning the ancient knowledge of what is now recognized as the modern compass. In his book, *The Sindbad Voyage*, Tim Severin also asks, "had the Arab navigators also used the compass to guide them?" He then writes the following:

Certainly by Ibn Majid's time in the fifteenth century the compass was in widespread use, but earlier texts make no mention of it. Once again, the answer must have been to use the stars. When I asked Saleh, who had skippered an Arab fishing boat, to tell me the Arabic names for the compass points, his answers were revealing. Most of his compass points were not as westerners use them, but were the names of stars. It was a relic of the day when Arab navigators steered by the direction in which the stars rise and set during the night. Through *Sohar's* night watches the skilled Omani sailors steered by the stars in the night sky. By day they were content to keep a correct general direction by watching the sun, and keeping the steady monsoon winds at the same angle to *Sohar/s* sails. (p. 94)

[Quoted from Tim Severin, <u>The Sindbad Voyage</u>, New York: G. P. Putnam's Sons, 1982] [For more excerpts see the commentaries on 1 Nephi 17:8; 18:6; 18:8; 18:13]

1 Nephi 18:13 They Knew Not Whither They Should Steer the Ship:

Although Nephi had received inspiration and direction from the Lord, when the "compass which had been prepared of the Lord did cease to work," he notes that "they" (apparently Laman and Lemuel) "knew not whither they should steer the ship" (1 Nephi 18:13). This brings up the question of ancient navigation techniques. The following excerpts from Tim Severin's book *The Sindbad Voyage* might provide some interesting cultural background:

The navigation of Sohar was an essential element in the whole Sindbad Voyage. One of the objectives of the project was to find out how the early Arab navigators had succeeded in finding their way to China. It was a stupendous achievement: they had sailed nearly a quarter of the way round the world at a time when the average European ship was having navigational problems in crossing the English Channel, and the Arabs had steered their routes, not by luck, but by careful calculation. The earliest Arab texts gave a few hints as to how they had managed this feat. They stressed that they used the stars, not the sun, to fix their position; and there were a number of vague references to charts and pilot books which seem to have been carried on board, and which had been compiled from the experience of senior navigators. But no early Arab sea charts have survived, and not until the fifteenth century did a book appear which began to lift the edges of the veil of mystery which surrounded Arab navigation. Suitably, the book was written by an Omani. He was master navigator from Sur, by the name of Ahmed Ibn Majid, and he was one of the most renowned seafarers of his time. Fortunately his writings had been translated and painstakingly annotated by an English scholar, Gerald Tibbetts. I had taken a copy of Tibbett's edition of Ibn Majid's book with me aboard Sohar, and now it became my manual in trying to test out the methods of early Arab navigation. . . . [It] offered a great deal of astronomical theory, explaining how the stars moved in the heavens at different times of the year and how to identify

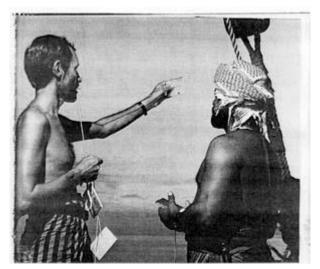
different constellations, and so forth. What interested me were the practical details. Just how did an early Arab navigator measure his position? How did he lay off his course? The instrument he used was no more than a wooden tablet about 3 inches wide with a hole in the middle of it; through this hole ran a piece of string with a knot in it. The navigator placed the knot between his teeth, stretched out the string until it was taut, and closing one eye held the tablet so that one edge of it touched the horizon. He then checked the height of the Pole Star against the side or the upper edge of the tablet. It seemed devastatingly simple.

I cut a sample tablet out of a piece of cardboard, pierced a central hole, rigged the knotted string, and went on deck to try out the Majid's instructions. . . . The best time to take an observation, he said, was when there was a clear horizon. The moonlit night was perfect, and after a few moments of waving the tablet unsteadily I got the knack and found I could measure the height of the Pole Star. Then I took a star sight with a modern sextant, worked out Sohar's position, and made a note of the result. The following night I repeated the experiment, and saw how the position of the Pole Star had altered against the side of the cardboard tablet. I consulted my copy of Ibn Majid's manual, and compared his data with a set of modern navigation tables. The relationship was obvious, though Ibn Majid did not use degrees and minutes for his measurements, but calculated the height of the Pole Star in finger widths, which he called isba. By the third night I was able to judge the height of the Pole Star accurately enough to plot the ship's latitude position to within a variance of 30 miles, using only a bit of cardboard and a string with a knot in it! I was only a beginner, yet already I could have navigated Sohar to any selected point on the Indian coast a good 500 miles away from Sohar's present position. All I needed to know was the height of the Pole Star in finger breadths at that location, sail south until I counted the same number of finger breadths aboard Sohar, turn east and keep the Pole Star at the same height until I made my landfall. It is a technique now known as "latitude sailing", but what made Ibn Majid's achievement much more impressive was that he claimed to know how to calculate his latitude not just by the Pole Star, but by a whole series of other stars which he used when the Pole Star was invisible. He produced lists of stars whose altitude, if measured at the right time, could be substituted for Pole Star altitudes. Some of these stars were easy enough--he used the stars in the Southern Cross, for example--but others had to be measured in pairs, when they were in a particular relation to one another, and in a certain lunar month. Thus Ibn Majid's knowledge of the constellations and their movement had to be encyclopedic. He also explained how to allow for variations in the height of the Pole Star, how to set a course to take account of wind drift, what signs to look out for when approaching land after an ocean passage, and so forth. He did not know how to calculate the longitude of a place, that is its east-west position, but that did not matter. On the voyage to China the coasts mostly lie north and south across the track of the ship;, and to know one's latitude position would have been enough. . . . he gave a whole list of the isba positions of the most important ports. Little wonder that

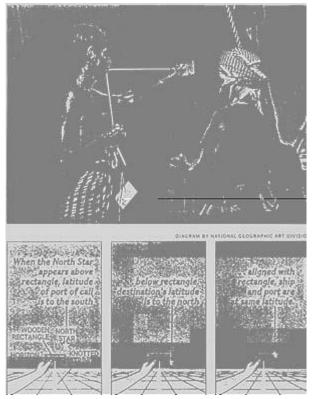
Ibn Majid had been considered a mu'allim, the highest grade of navigator. . . .

The star-reading tablet and string, known usually as a *kamal*, worked for me, but would it work for other members of the crew? Several of them tried holding the piece of cardboard at the end of the string and measuring the Pole Star. We found that the piece of cardboard worked best for someone of my own size. Other people produced different readings. I consulted Ibn Majid's writings and he had an answer for that problem too. In the constellation of Capella are two distinct stars. The distance between the two stars is exactly four *isba*. So if a man made his own *kamal*, he should check it against the two stars of Capella, and that way he would know whether his *kamal* was correct. (pp. 91-92)

[Quoted from Tim Severin, <u>The Sindbad Voyage</u>, New York: G. P. Putnam's Sons, 1982] [For more excerpts see the commentaries on 1 Nephi 17:8; 18:6; 18:8; 18:12]



1 Nephi 18:13 **They knew not whither they should steer the ship (Illustration):** Tim Severin shows Khamees Navy how to use a *kamal*, the medieval Arab navigation instrument. The *kamal*, a wooden tablet held out at the end of a string, measured the height of a selected star. With very little practice it was possible to obtain a latitude position accurate to within 30 miles.



1 Nephi 18:13 **They knew not whither they should steer the ship (Illustration):** Steering by Polaris, the North Star, Arab seafarers of old used a kamal, a kind of sextant, to measure latitude. At dusk, Severin demonstrates the technique to one of the Omani crew members. In his left hand he holds the kamal, a wooden rectangle, with its bottom edge on the horizon. A knotted string held in his teeth, each knot representing the latitude of a known port, tethers the kamal at the proper distance. The position of Polaris in reference to the kamal helps determine the ship's course (see diagrams). Photographs by Richard Greenhill. [Tim Severin, "In the Wake of Sindbad," in National Geographic, Vol. 162, no. 1, July 1982, p. 22]

1 Nephi 18:13 They Knew Not Whither They Should Steer the Ship:

According to the Hiltons, although LDS literature is full of discussions of ocean currents and wind patterns in the Pacific, such discussions of drifting with the currents rather than purposefully steering and sailing directly "eastward" (1 Nephi 17:1) should be of lesser importance, because Nephi specifically said he "sailed" (1 Nephi 18:22) and "steered" (1 Nephi 18:13) his ship. He did not just allow it to coast along with the natural current. Remember, it is the "set of the sails and not the gales" that tell you where to go.

Moreover, mariners and even desert travelers in ancient Arabia used a simple device, composed of a small board and a knotted leather thong, to measure the angle of Polaris above the horizon, to navigate due east or due west. They achieved surprising accuracy with this device. With such a device, as well as the Liahona, Nephi could easily have navigated eastward.

1 Nephi 18:13 There Arose a Great Storm, Yea, a Great and Terrible Tempest:

Nephi writes that during their sea voyage,

They knew not whither they should steer the ship, insomuch that . . . there arose a great storm, yea, a great and terrible tempest, and we were driven back upon the waters for the space of three days; and they began to be frightened exceedingly lest they should be drowned in the sea . . . And on the fourth day, which we had been driven back, the tempest began to be exceeding sore. And it came to pass that we were about to be swallowed up in the depths of the sea . . . (1 Nephi 18:12-15)

Concerning Nephi's ability to survive the storms and tempests which would have befallen him at sea, the following excerpts from Tim Severin's book *The Sindbad Voyage* might provide some interesting cultural background:

The whole theory behind the sailing programme so far had been to stay at the leading edge of each sailing season as we progressed. We had left Muscat as soon as the northeast monsoon had settled in our favour. . . . We had pushed on down the Malaccan Straits with the land and sea breezes so as to arrive as early as possible in the South China Sea. By arriving so soon I hoped to reduce to a minimum the risk of running into a typhoon, but it was impossible to avoid the risk altogether. Typhoons can occur in any month of the year, but the main season begins in July, and the frequency increases to its maximum in September or October. . . .

There remained only two of the Seven Seas of the early Arab searoad to China, but by all accounts they were the worst. In these last two seas, wrote the Arab geographers, you met the great storms, the tempests which were beyond all power of description. Here the gales sent a ship to her doom, and the waves battered her to pieces. A ship might be saved by cutting down her mast and throwing overboard her cargo, but usually it was only the help of Allah which stood between the vessel and destruction. (p. 206)

The sea to windward was becoming increasingly confused. Out of the dark raced a line of short, steep rollers. As they swept under the hull, *Sohar* began to pitch and roll more heavily. The weight of the main spar exerted a pendulum effect and the ship heaved and laboured under the strain. Abruptly one wave surged under the ship and pitched her over on her side; the angle was enough to put *Sohar's* lee deck under water, and the sea came bursting in through the scuppers. From down below came a rumbling crash and several thuds as loose boxes and barrels cascaded across the ship. Like disturbed ants, the entire crew came clambering up on deck, dressed in oilskins, clutching on to ropes and gunnels. On the weather side several men had been thrown out of their bunks. (p. 208)

The main spar was bending alarmingly every time the ship lurched and staggered. I had under-estimated the wind: we were caught with far too much sail up, and it was going to be very difficult to reduce sail safely. . . . Heave! She's moving," came a cry. But it was a delusion. With a thunderous crack the whole rear edge of the mainsail, 50 feet of double stitch canvas, was ripped asunder. . . . The mainsail was a total wreck, 1600 square feet of canvas blown away in an instant; the last rags of material flew away downwind into the black night like departing spirits. (p. 209)

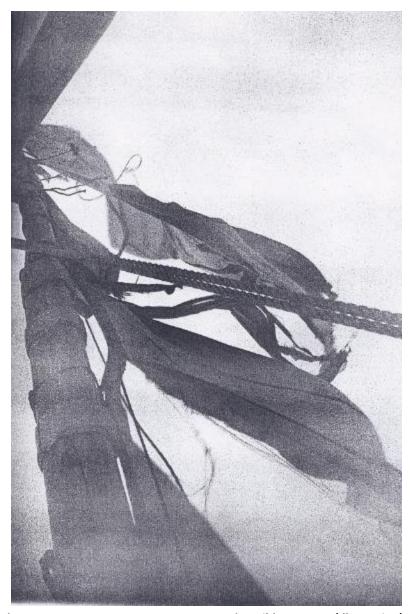
It was no use. We could not get the jib down fast enough. In the thirty seconds it took to haul down the jib, it ripped right across the base. It was the third sail damaged in the same day. (p. 211)

Just then the mizzen sail exploded. It was a new sail, our best, neatly stitched, specially cut down to a small size, and made of first-quality canvas. But the gale was too much for it; with a noise like a thunder clap, the mizzen sail split. . . . That evening the gale was gone, and we were left with a grey, lumpy sea. At last we were able to hoist our mainsail, replace the jib and mizzen, and set about repairing as much canvas as we could salvage. The rate of destruction was more than the ship could sustain: two sails were destroyed utterly, and two more would take several days' hard work to repair. . . . Below decks they were having to put up with the constant strain of damp bedclothes, dripping beams, wet clothes and tumbled chaos. No wonder that a thousand years ago the Arabs had considered the passage of the South China Sea the worst experience of all on the trip to Canton. Yet the squalls which *Sohar* was suffering were nothing to the experience of riding out a typhoon. . . . We were acutely conscious that every day we spent out in the South China Sea increased the risk of being embroiled with a typhoon, so we literally sewed our way northwards. In the lulls between the arch squalls, we mended our sails. (pp. 212-213)

[Quoted from Tim Severin, <u>The Sindbad Voyage</u>, New York: G. P. Putnam's Sons, 1982] [For more excerpts see the commentaries on 1 Nephi 17:8; 18:6; 18:8; 18:12]







1 Nephi 18:13 There arose a great storm, yea, a great and terrible tempest (Illustration): "The sea rose in her fury," Sindbad said of his sixth voyage. In the South China Sea, the men of Sohar keep faith with their predecessor. A sudden squall shreds the mizen into giant pennants flapping form the spar (above right). In 24 hours, two jibs and a mainsail are also lost, and the Europeans take notice when one of the veteran Omani sailors kneels and prays to Allah (above left bottom). Battered but seaworthy, the vessel proceeds. As another storm approaches, the crew hastens to take down the replacement mainsail (above left top). Photographs by Richard Greenhill. [Tim Severin, "In the Wake of Sindbad," in National Geographic, Vol. 162, no. 1, July 1982, pp. 32-33]

1 Nephi 18:13 We Were Driven Back upon the Waters for Three Days:

As cited in 1 Nephi 18:13-21, the weather pattern of prevailing winds, a storm blowing

in the opposite direction, doldrums, and then the return of the original prevailing winds should be found at sea near the Nephi's "land bountiful" in the Old World. According to Potter and Wellington, this bit of geographical information marks the 81st verifiable correlation that Nephi makes in his writings concerning his journey through the Arabian Peninsula and embarkation into the sea towards the promised land (the Americas).

These authors note that in their research they have concentrated on only 18 chapters of the Book of Mormon, a mere 42 pages of the Book of Mormon. Within his busy schedule, Joseph Smith translated the entire Book of Mormon in about 63 days, or just under 81/2 pages per day. In other words, all of the book of First Nephi would have been translated in about a week. Additionally, when Joseph translated he would dictate to his scribe passing through the text only one time.

By contrast Potter and Wellington note that they have been writing their book for four years. They have made numerous field trips each year to examine the terrain and the lands over which Joseph proposed the family traveled. Between them they have covered some 50,000 miles of desert. Each chapter has been written and rewritten and researched for accuracy, proofread and submitted for criticism, then rewritten again. They have had access to hundreds of works which they cite in the bibliography. Yet their work is only a commentary on Joseph's original, which he wrote, with no time for outside research, in his "spare time" in little over a week.

After this, their first attempt at writing, Potter and Wellington would categorically attest that in their opinion it is absolutely impossible that anyone could have produced a coherent, accurate piece by this method and yet Joseph Smith did, and all this from "an unlettered farm boy," as Joseph aptly described himself.

The authors found that Arabia and its history holds straight-forward and compelling evidence that Joseph Smith could not have authored the Book of Mormon. Rather the prophet had to have been amongst the greatest, if not the greatest, translator of ancient script who has ever lived. So perfect is the work that every First Nephi place-name in Arabia can now be readily identified with a potential site that fits the Book of Mormon narrative with complete harmony. eleven out of eleven identified with a high degree of certainty. Yet nine of these remote desert place names, *The Borders, River of Laman, Valley of Lemuel, Shazer, The Most Fertile parts, the More Fertile Parts, Nahom, Land Bountiful and Place Bountiful* (where the ship was built) each would have been known only to the Arabs living in the immediate vicinity of each of these places in 1830. The authors had to travel in the desert back roads of Arabia for nearly five years to find these places, how could Joseph Smith have known about them in upstate New York in 1830?

They can only conclude that the first book of the Book of Mormon, First Nephi, contains detailed information about an actual journey across the ancient Arabian Peninsula. If Joseph

Smith were a fraud Arabia would be the best place to prove his guilt since his ignorance would easily be uncovered. Yet in the course of their research, they have found some 81 points obtained from First Nephi pertaining to the geography or topography of the trail and his ship and voyage.

They ask, what is the chance that Joseph Smith could have guessed these 81 details of Arabia correctly and gotten them in the correct order and direction from each other? What is the chance of correctly guessing that a river exists in the desert of Saudi Arabia? 1 in 1,000? 1 in 1,00,000? What is the chance of guessing that wild bees exist on the south coast of Arabia? That a trail exists on the southern edge of the Rub' Al Khali leading east? That two parallel mountain ranges run along the Red Sea in Midian? Let us be very generous. Let us assume that Joseph Smith had a one in two chance of guessing any one of these 81 points. This would mean that:

By the time they reached Shazer Joseph Smith's chances of having guessed the details correctly would be 1 in 8,388,608.

By the time they reached Nahom Joseph Smith's chances of having guessed the details correctly would be 1 in 140,737,488,355,328.

By the time they reached Bountiful Joseph Smith's chances of having guessed the details correctly would be 1 in 36,028,797,018,964,000.

By the time they were sailing to the Americas Joseph Smith's chances of having guessed the details correctly would be 1 in 2,417,851,639,229,260,000,000,000.

This number is over 2.4 septillion, that also can be written 2.4 x 10(24) (2.4 with 24 zero's after it.) Of course the number should be much higher than this because we only gave a 1 in 2 chance for each of these occurrences, and they should in fact be more like 1 in a million or higher. In this case the chance of Joseph Smith guessing these details would be incomprehensible, as if 2 septillion isn't! To put this number into some perspective let us undertake a simple exercise. There are estimated to be 5 x 10(8) stars in our galaxy. The Hubble telescope, the most powerful yet available, has been able to site distant galaxies previously unknown to mankind. There are now estimated to be 5 x 10(8) galaxies in the universe. That makes 2.5 x 10 (19) stars in existence in all the known universe. (see illustration) The chances of Joseph Smith correctly guessing the details of the journey described in First Nephi would be far less than the chances of you ad I both pointing into the heavens, and unbeknownst to each other, pointing to exactly the same star in exactly the same solar system, in exactly t he same galaxy in the universe the chances of which, I think we would both agree, would be virtually zero. The chances would be far less. In fact the chance of Joseph Smith guessing all of these points in a row would be the same as you and I not only pointing to the same star in the Universe, but to the same star in a sky made up of 100,000 of our Universes, remembering that our Universe contains 25,000,000,000,000,000,000 stars!

[George Potter & Richard Wellington, <u>Discovering The Lehi-Nephi Trail</u>, Unpublished Manuscript (July 2000), pp. 281-283]



1 Nephi 18:13 (The chances of 81 consecutive correlations in Nephi's journey through Arabia) [Illustration]: The Hubble "Deep Space" Shot. This "Deep Space" image was taken with the Hubble telescope. To get a perspective of the photo if one were to hold a dime at arm's length the size of President Roosevelt's eye is the same size as the piece of space photographed here. This image represents only 1/45,000,000 of the sky. Essentially every shot of light you see here is a galaxy, each containing about 500,000,000 stars. Even the faintest speck of light is a galaxy! Even in this tiniest piece of our night sky man is now able to see some 1,000,000,000,000 stars. [George Potter & Richard Wellington, Discovering The Lehi-Nephi Trail, Unpublished Manuscript (July 2000), pp. 281-283]

1 Nephi 18:13 There Arose a Great Storm . . . and We Were Driven Back upon the Waters for Three Days:

According to Potter and Wellington, accounts of sailing in the Indian Ocean reveal an important aspect about the nature of the happenings Nephi recorded concerning the first part of his voyage.

Along the Dhofar coast, the monsoon winds blow in summer from the southwest and in the winter from the northeast. The word "monsoon" comes from the Arabic *mawsem* meaning "season." These winds are usually consistent in their direction, however Lionel Casson described some problems associated with using these monsoon winds for the journey between the Asian subcontinent and Arabia:

What made the routes possible were the monsoons, the winds of the Arabian Sea and western Indian Ocean that blow from the northeast during the winter months and then conveniently switch to the southwest during the summer. However, the division between the two is not clean and sharp. There are transition periods in the spring and autumn as one monsoon comes to a close and the other begins; at such times the wind ceases to be fixed and turns variable until the new monsoon takes hold.

Thus correct timing of the departure was essential to a successful trip to India (or China) from Dhofar utilizing the monsoon winds. It seems quite possible that Nephi's party set off during the summer monsoon traveling the Indian Ocean via India and the Far East, to eventually cross the Pacific Ocean.

One of the most interesting proofs of the accuracy of Nephi's account is that it seems to describe perfectly the weather conditions associated with a voyage from southern Arabia to the East Indies.

Let's compare Nephi's account with that of Tim Severin, who sailed this ancient Arab trade route to China in a replica of an ancient Arab sailing vessel. On his way from India to Sumatra his ship was caught between changes in the monsoons, and was hit by some rough northeast monsoon "squalls" and was driven back to the west. Before the southwest monsoons picked up, the *Sohar* was trapped in doldrums for several weeks and almost ran out of drinking water. Without wind, Severin's ship drifted hopelessly away from its destination. Finally the southwest monsoon returned and he was able to sail the *Sohar* again toward China. *xxix*

Now compare Severin's account to what we believe happened to Nephi. Nephi tells us "they put forth into the sea and were driven forth before the wind toward the promised land." (1 Nephi 17:8) It would follow then that the harbor where Nephi built and launched his ship had to be large enough to accept a big ship and offer enough protection that the ship could put forth into the Indian Ocean during the southwest monsoon. They seem to have been driven by a prevailing wind for many days, presumably at least the 20 plus days necessary to round the tip of India (1 Nephi 18:9). At this time, apparently Laman and Lemuel bound Nephi and took control of the ship. Their compass, the Liahona, stopped functioning, and "they knew not whither they should steer the ship" (1 Nephi 18:12-12). It would seem that by steering a course of their own choosing Laman and Lemuel managed to turn the ship directly into a storm. It may be that at this time the wind temporarily shifted and they ran into a northeast monsoon squall. They finally untied Nephi, but now they were caught in the same post squalls doldrums that Severins experienced after the northeast monsoon squalls hit the Sohar. Nephi recorded that "the storm did cease, and there was a great calm" (1 Nephi 18;21). Fortunately, it appears that the southwest monsoons had not run their full seasonal course, and they started again, and thus Nephi notes that he guided "the ship that we sailed again toward the promised land" (1 Nephi 18:22).

[George Potter & Richard Wellington, <u>Discovering The Lehi-Nephi Trail</u>, Unpublished Manuscript (July 2000), pp. 225-226]

1 Nephi 18:13 We Were Driven Back upon the Waters for Three Days (81 Points of Correlation Nephi Makes Concerning His Journey through the Arabian Peninsula):

According to Potter and Wellington, the prevailing weather patterns mentioned in 1 Nephi 18:13-21 mark the 81st verifiable correlation that Nephi makes concerning his journey through the Arabian Peninsula and embarkation into the sea towards the Americas. The following is their summary list of all 81 points of correlation with a real world setting in Arabia:

1. There was a wilderness trail into which Lehi could flee Jerusalem. (1 Nephi 2:2,4)

- 2. There are physical "borders" one can travel "in" and "by" in the wilderness where Lehi pitched his tent. (1 Nephi 2:5)
- 3. There are two sets of "borders" (mountains) one "near" and one "nearer" the Red Sea. (1 Nephi 2:5)
- 4. There should be a part of the Red Sea found near trails in the borders (mountains). (By definition, Aqaba literally means "mountain roads." The Gulf of Aqaba is part of the Red Sea)
 - 5. The valley of Lemuel is in the mountains "nearer" the shore. (1 Nephi 2:5,8)
- 6. The valley of Lemuel can only be approached from the inland side of mountains. (1 Nephi 2:5)
- 7. The valley of Lemuel is in the "borders," or maintains, and therefore the valley appears to be a canyon. (1 Nephi 2:8)
 - 8. The canyon must be very impressive. (1 Nephi 2:10)
 - 9. The valley is in the wilderness. (1 Nephi 4:33; 5:2)
 - 10. The valley is a 3-day journey into the wilderness. (1 Nephi 2:6)
 - 11. There exists in the wilderness a river of running water. (1 Nephi 2:6)
 - 12. The river flows "continually." (1 Nephi 2:9)
 - 13. In the valley seeds and fruits of many kinds were found. (1 Nephi 8:1)
 - 14. Grain grows in the valley, in the desert "wilderness." (1 Nephi 8:1)
 - 15. The river is in the wilderness, not in a city or a town. (1 Nephi 2:6)
- 16. The river is without an established name already known to Lehi. It must be a very small stream and have no major importance. (1 Nephi 2:9)
- 17. The river empties into the "fountain" of the Red Sea, or the Gulf of Aqabah. (1 Nephi 2:8,9)
- 18. The river flows through a canyon that could be described as a firm, steadfast and immovable valley. (1 Nephi 2:6)
- 19. Since Lehi's group camped for an extended period next to the river, the valley might be expected to have ruins of a long-term encampment dating to Lehi's period.
- 20. The valley must be capable of sustaining life for a group of people for a long period in 600 B.C.
- 21. The campsite next to the river must be close to the Gulf of Aqaba for Lehi to verify that the waters empty directly into it. (1 Nephi 2:7,8)
- 22. The valley, river and gulf should provide Lehi with the dream imagery for the "tree of life" (1 Nephi 8)
 - 23. A stone altar is built in the valley of Lemuel. (1 Nephi 2:7)
 - 24. There exists a place named Shazer. (1 Nephi 16,13-14)
- 25. Shazer is the first halt after Lehi joins the Frankincense trail at al Bada'a (1 Nephi 16:13)
 - 26. Shazer is a four days journey from the valley of Lemuel. (1 Nephi 16:13)
 - 27. Shazer is in the wilderness. (1 Nephi 16:14)
- 28. Shazer is a nearly south-southeast course direction from the valley of Lemuel. (1 Nephi 16:9-12)

- 29. Lehi pitched his tents at Shazer, so it needed to be an authorized site for stopping and resting. (Such were the Frankincense Trail halts.)
- 30. Lehi pitched his tent at Shazer; a must for a desert camp is a source of water. Thus, Shazer must have a source of water. (1 Nephi 16:13)
- 31. Shazer or Seger (ir, or) meant the "place of the trees" (Nibley) or "valley with trees" (Groom). Shazer should be associated with trees.
- 32. Family stopped to hunt. Shazer must have had "wild animals" and good hunting terrain. (1 Nephi 16:14)
- 33. The men left their women and children in camp while they went into the wilderness to hunt. Shazer must have been a place which provided protection. (1 Nephi 16:14)
- 34. Leaving Shazer they traveled "in the borders near the Red Sea." Mountains should exist nearly south-southeast of Shazer. (1 Nephi 16:14)
- 35. Nephi records that as they traveled from Shazer they found fertile areas in the barren wasteland of the northern Hijaz. (1 Nephi 16:14)
 - 36. These "most fertile" areas are along the trail that runs south-southeast from Shazer.
 - 37. The "most fertile" parts are in "parts," not one large area. (1 Nephi 16:14)
 - 38. The "most fertile parts" are in mountains. (1 Nephi 16:14)
- 39. This part of the trail is called "The Most Fertile Parts." The original text of the Book of Mormon uses the singular form, indicating it was a place-name.
- 40. Leaving the "most fertile parts" they travel for many days, but no mention is made of borders, therefore they have left the mountains. (1 Nephi 16:14)
- 41. They travel through an area they call the "more fertile parts." (1 Nephi 16:16) Thus there are continuing areas of fertility after the mountains, albeit lesser in quality or quantity.
- 42. As they travel from the "most fertile" to the "more fertile" parts, they hunt along the way. This implies a need for and existence of wild game. (1 Nephi 16:15)
- 43. After leaving the "more fertile" parts Lehi's trail goes through a land of decreasing fertility. (1 Nephi 16:14-19)
- 44. At the camp where the bow breaks, Nephi does not record that they are traveling in borders, but must be close to go up into the tops of the mountains to hunt. (1 Nephi 16:30)
 - 45. Bow-wood grows in Arabia.
 - 46. Bow-wood grows in the mountains near the trail.
- 47. A Liahona bearing would point in the direction that would cause great fear. (1 Nephi 16:27)
 - 48. There exists in southern Arabia the place-name Nahom. (1 Nephi 16:34)
- 49. Nahom contains wilderness country. (1 Nephi 16:35) where death from hunger is an imminent threat. (1 Nephi 16:35)
 - 50. Nahom is a place with water.
 - 51. The journey causes great suffering prior to reaching Nahom. (1 Nephi 16:35)
 - 52. There is a nearly eastward trail from Nahom.
 - 53. The trail would need to have life supporting wells. (1 Nephi 17:1)
 - 54. There is a reason for limited fires during the journey east. (1 Nephi 17:12-13)
 - 55. The eastward trail from Nahom has access from the hinterland to the ocean of the

- many waters. (1 Nephi 17:6)
- 56. The eastward trail from Nahom leads to a land that can be called Bountiful for its abundant and wide variety of fruits. (1 Nephi 17:5; 18:6)
- 57. There is a straight transition between the wilderness and the Land Bountiful. (1 Nephi 17:4-5)
 - 58. One can see the ocean upon entering the land Bountiful. (1 Nephi 17:5)
 - 59. Bountiful is not a wilderness but an inhabited area. (1 Nephi 17:3-4)
- 60. Besides a land Bountiful, there exists a specific locale also called "Bountiful" which also has much fruit. (1 Nephi 17:6)
- 61. Lehi camps at shore at the place "Bountiful." The fruit trees must be near the shore. (1 Nephi 17:6)
- 62. The place "Bountiful" had a place to moor a ship. The "place Bountiful" must have a harbor nearby. (1 Nephi 18:6)
 - 63. Near the place "bountiful" it is possible to build a ship. (1 Nephi 18:8)
- 64. Near the place "Bountiful" there is a deep sea that someone can be thrown directly into. (1 Nephi 17:48)
 - 65. The place "Bountiful" was inhabited by ship builders. (1 Nephi 17:2)
 - 66. The place "Bountiful" haws large trees to form timbers for the boat. (1 Nephi 18:1)
- 67. Nephi's ship "sailed." Thus Bountiful was a place where he could acquire canvas or sails. (1 Nephi 18:9)
 - 68. There is a mountain near the place "bountiful." (1 Nephi 17:7)
- 69. Bountiful has a prominent mountain -- "the Mountain." It was considered a sacred place or temple where the Lord could personally appear.
 - 70. There is honey in Bountiful. (1 Nephi 17:5)
- 71. The honey in the land Bountiful is from wild bees, the people do not practice beekeeping. (1 Nephi 17:5)
- 72. The place "Bountiful" had to have a source of fresh water for Lehi pitched his tents there for a long period. (1 Nephi 17)
 - 73. Bountiful has wild game. (1 Nephi 18:6)
 - 74. Bountiful has a place to mine or purchase ore. (1 Nephi 17:9)
 - 75. Bountiful has flint, for Nephi makes a fire using stones. (1 Nephi 17:11)
 - 76. Bountiful has beasts. (1 Nephi 17:11)
 - 77. Bountiful sits by an ocean called Irreantum, meaning many waters. (1 Nephi 17:5)
 - 78. Bountiful has prevailing winds blowing in a uniform direction. (1 Nephi 18:8)
 - 79. Bountiful was a place where Nephi could learn seamanship. (1 Nephi 18)
 - 80. Nephi's harbor needed protection from cross winds and high seas of the ocean.
- 81. The weather pattern of prevailing winds; a storm blowing in the opposite direction, doldrums, and then the return of the original prevailing winds can be found at sea near Bountiful. (1 Nephi 18:13-21)

[George Potter & Richard Wellington, <u>Discovering The Lehi-Nephi Trail</u>, Unpublished Manuscript (July 2000), pp. 284-286]

1 Nephi 18:13 We were driven back upon the waters for three days (Points of Geographical Correlation [Illustration]: 81 Points of Correlation Nephi Makes Concerning His Journey through the Arabian Peninsula. [George Potter & Richard Wellington, <u>Discovering The Lehi-Nephi Trail</u>, Unpublished Manuscript (July 2000), pp. 284-286]

1 Nephi 18:18 Their Grey Hairs Were About to Be Brought down to Lie Low in the Dust:

In writing about the grief and sorrow suffered by his parents "because of their children," and more specifically because of "the iniquity of my brethren," that "they were brought near even to be carried out of this time to meet their God; yea, their grey hairs were about to be brought down to lie low in the dust; yea, even they were near to be cast with sorrow into a watery grave." (1 Nephi 18:18). Noel Reynolds notes that here Nephi chooses the exact phrase found in Genesis to describe the effects of family rebellion on the patriarch Jacob. Jacob of old accuses his older sons of bringing "down [his] gray hairs with sorrow to the grave" (Genesis 42:38). This same phrase is repeated to such an extent in Genesis that it formulaically evokes memories of Jacob. In Genesis 44:29 Judah quotes Jacob's lament exactly. In verse 31 he repeats the lament again. These statements in Jacob's old age echo his earlier statement when, upon receiving the supposed evidence of Joseph's death, he said, "I will go down into the grave unto my son mourning" (Genesis 37:35).

[Noel B. Reynolds, "The Political Dimension in Nephi's Small Plates," FARMS, 1987, pp. 32-33]

1 Nephi 18:21 I Took the Compass, and It Did Work Whither I Desired It:

Nephi makes mention of a sacred instrument ("a compass" -- 1 Nephi 18:21) given to them by the Lord (1 Nephi 16:10) to help them on their journey through the wilderness and across the ocean to the promised land. David Palmer writes:

The Quiche-Maya people [of Guatemala] left two histories, written in their own language but with the European alphabet, shortly after the conquest of Guatemala in 1524 A.D. The English translations of the titles are *Title of the Lords of Totonicapan* and *Popol Vuh, the Sacred Book of the Quiche Maya*. The two histories are complementary. The Totonicapan version tells of four great leaders bringing their people from the other side of the sea, from Pa-Tulan, Pa-Civan. The leader chosen was Balam-Quitze. Before leaving he was given a present by the god Nacxit. It was called the Giron-Gagal. Taking it with him, by miraculous means Balam-Quitze was able to lead his people across the sea. The Giron-Gagal, or sacred bundle, was a symbol of the power and majesty of the Quiches. [David A. Palmer, In Search of Cumorah, p. 157]

According to Clate Mask in another Maya-Cakchiquel document *Annals of the Xahils* which relates their origins, their original ancestors had a special instrument to help them in their travels: the *Chay Abah*, or Obsidian Stone, speaks and tells them to go across the sea where they will find their hills and plains, their riches and their government. The translator says that the real meaning of Obsidian Stone is "Stone that Speaks" or "Oracle Stone." The translator calls the *Chay Abah* Obsidian Stone because the Maya-Quiche mistakenly called it that. To avoid further confusion, he also calls it Obsidian Stone (but it really means "Stone that Speaks"). [Clate Mask, "And They Called the Place Tulan," p. 4]



1 Nephi 18:21 After I had prayed the winds did cease, and the storm did cease, and there was a great calm (Illustration): Nephi Calms the Storm [Gary E. Smith, <u>Verse Markers</u>, Book of Mormon, Vol. 1, p. 3]

1 Nephi 18:22 I, Nephi, Did Guide the Ship, That We Sailed Again Towards the Promised Land:

Nephi, himself, testifies that he "did guide the ship that we sailed again towards the promised land" (1 Nephi 18:22). This raises the question, "How did Nephi learn to command a multi-sail ship and her crew?"

According to Potter and Wellington, there were hundreds of different tasks Nephi needed to perform as the captain. He had to do each of them right, and right the first time and every time. Picture yourself for a moment putting your entire family aboard a large multi-sail ship. You are the captain. Like yourself, the crew has never sailed before, not even one hour, nor have they read a book on sailing. Captain, "What will you do first?" Then what? What do you think would be the probability that you would make it out of the harbor without running aground? How would you know which direction to sail to the wind? Which sails would you use under what conditions? How would you set the rigging, sails and rudder to steer the vessel in

the direction indicated by the compass?

How does one become a captain of a ship today? The California Maritime Academy, of the California State University of Engineering, Technology and Marine Transportation offers a degree in Marine Transportation. The curriculum includes 37 courses on topics relevant to modern shipping.*** (Sixteen of these would probably contain principles of seamanship that to a degree were important for Nephi to have known.) On completing the course, the cadets become junior officers, with many years at sea still ahead before they would qualify to captain a ship.

Some have argued that with the Liahona, Nephi didn't need to navigate. They seem to forget that the Liahona only provided help with the direction in which they should travel. Believing that Nephi could command such a voyage with no training is senselessness. Fletcher uses Harry A. Morton's work *The Wind Commands: Sailors and Sailing ships in the Pacific* to explain just how difficult it was for Nephi to cross the Pacific ocean:

The dangers of long-distance voyages across the Pacific Ocean are immense and innumerable. . . . "Each of these problems-or challenges-was greater in the Pacific because the Pacific itself is greater."xxxi

"Out of sight of land, navigators can look only to the sky. When the weather is clear, they have the sun by day and other stars and the moon by night. But, when the weather is bad, there are neither landmarks nor skymarks."

"Sailing ships could not go where and when they pleased, even given a sufficient depth of water. Not only the direction but the timing of arrival or departure was set by tide and wind. Captains simply had to wait for a reasonable wind, and when it arrived, they sailed--and quickly."xxxiii

An extreme example of these limitations of sailing ships is that of Pizarro, conqueror of Peru, who tried without success for seventy days to get his ship out of the Bay of Panama. He was embayed (that is, his ship was in a bay with the wind blowing directly in), and he lacked room to maneuver by a series of tacks."xxxiv

The wind was necessary for movement, and sailors would put up with a rough sea as long as progress was made . . . Although winds set limits to the direction sailed, calms left the ships motionless," which negatively affected morale--something "of overwhelming importance in long voyages. Almost any Pacific voyage was a long one.xxxv

Realizing that Nephi had to learn how to sail a large ship does not lessen one's appreciation for him, it increases it. Nephi was a real person, not a storybook character.

We do not know if Nephi enrolled experienced sailors for his crew or if he totally used people within his group. However, prior to leaving, Nephi needed someone to organize the crew and to teach every man aboard how to perform his responsibilities within the team.

Sailing manuevers like wearing the ship or changing a main sail in rising winds takes individual training as well as precise teamwork, otherwise the ship could lose a canvas or become demasted, a crew member could be injured or the ship could even capsize. The necessity of a trained crew is most evident during a storm. Tim Severin describes how *Sohar's* crew responded almost instinctively to such an occasion:

Everything became unstable. We lost our footing on the sloping deck. Men grabbed for ropes as handholds. With an alarming crash, all the items left lying carelessly about during the day's calm slid into the scuppers in an untidy mess of saucepans, tin plates, mugs, hand torches and baskets of fruit. Lose dates rolled around like marbles. *Sohar* was at an unhappy angle. The force on her rigging was enormous. She lurched and staggered, and the wind brought a hissing curtain of rain across us.

Now the Omanis were at their best. They knew how to handle the situation. With a stamping rush of running feet, all eight of the Omanis raced to the poop deck. They were yelling excitedly, and bubbling with activity. Abdulla grabbed the tiller from Andrew, and with Musalam's help forced the rudder over so that Sohar's head began to swing ponderously upwind. At the same time Khamees Navy and Saleh laid hold of the mizzen sheet and eased it off a fraction. The other four Omanis went to the heavy double mainsheets. With shouts of encouragement they eased out the massive ropes so that the wind began to spill from the mainsail, and the intolerable pressure on the ship was lessened. The great sail bellied and flapped. Massive, soggy thumps of wet canvas reverberated above the hiss of the rain and the clamour of the wind. Sohar straightened up, poked her bowsprit toward the wind and, like an acrobat relaxed his muscles, the sinews of the rigging slackened. Again a squall struck. Again Sohar tried to wheel away under the blast. And again the Omanis balanced tiller and sail to protect her from the strain. They jubbled with the controls of the recalcitrant ship, coaxing her back into a safe attitude. The Omanis were grinning with glee. This was what they enjoyed: the challenge of the sea. The risk of capsize, of ballast shifting, of sails bursting, of a spar breaking loose and coming crashing down on deck, all the dangers and exhilaration of a boom under the stress of weather. xxxvi

If Nephi and his crew were to learn these skills they had to do it just as the first seafaring Arabs did. Tosi writes of the earliest Arabian seafarers, "For the first navigators it was like venturing into outer space and only a body of accumulated experience, strengthened by tradition, would have ensured their survival at sea." Nephi did not have time to discover all these skills for himself and so it appears the Lord led him to a place where this body of accumulated knowledge and tradition of sailing were already in place.

The Greek nautical handbook known as the Periplus of the Erythraean Sea, probably written in the 1st century A.D., mentions that Khor Rori was a safe haven for ships held up in the winter: "the place goes by the name of Moscha-where ships from Cana are customarily sent; ships from Dimyrike (*southern India*) and Barygaza (*modern day Broach in India*) which cruise nearby, spend the winter there due to the lateness of the season."xxxxviii Undoubtedly the Greek

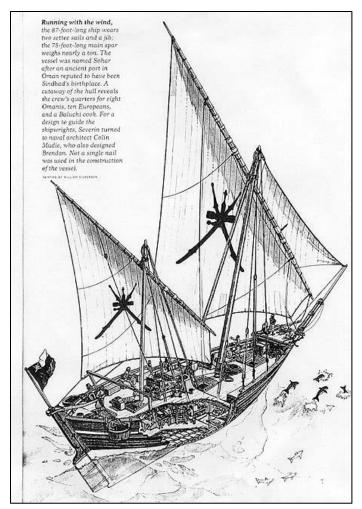
captains learned from the Arabs before them the advantages of mooring in the protected waters of Khor Rori during the winter northeast monsoon. Thus for Nephi to be at a proposed Bountiful site near Khor Rori, where he would have had the opportunity to mingle with experienced captains who both knew how to sail a large ship across the open seas of the Indian Ocean, and who had the time to spend teaching, would not only have been invaluable, but an accepted tradition of learning.

[George Potter & Richard Wellington, <u>Discovering The Lehi-Nephi Trail</u>, Unpublished Manuscript (July 2000), pp. 220-224, 252]

Note* Such a circumstance would also, to say the least, have been completely unknown to Joseph Smith had he been writing the story himself. [Alan C. Miner, Personal Notes]



1 Nephi 18:22 **We sailed again towards the promised land (Illustration):** Stitching against time, Indian fishermen at Beypore turn a ton of canvas into a new set of larger sails to replace Sohar's old ones, windworn and baggy after the 1,600-mile voyage from Oman. Severin bought the canvas and, with an assistant, drew the outlines of the sails on the beach. Thirty men hired for the occasion fell to with such vigor that they completed the sails in five days--a task that would have taken as long as four months in Europe or North America. Photographs by Richard Greenhill. [Tim Severin, "In the Wake of Sindbad," in National Geographic, Vol. 162, no. 1, July 1982, pp. 16-17]



1 Nephi 18:22 **We sailed again towards the promised land (Illustration):** Running with the wind, the 87-foot-long ship wears two settee sails and a jib; the 75-foot-long main spar weighs nearly a ton. The vessel was named Sohar after an ancient port in Oman reputed to have been Sindbad's birthplace. A cutaway of the hull reveals the crew's quarters for eight Arabs, ten Europeans, and a Baluchi cook. Photographs by Richard Greenhill. [Tim Severin, "In the Wake of Sindbad," in <u>National Geographic</u>, Vol. 162, no. 1, July 1982, p. 7]

1 Nephi 18:22 We Sailed Again Towards the Promised Land:

Nephi said he "sailed" (1 Nephi 18:22) his ship. The Hiltons note that since he likely did not have a supply of sail cloth or canvas, perhaps he made his sails by weaving coconut palm fronds together. Thirteenth century A.D. pictures of old Arab dhows show woven palm frond sails. The Hiltons have a sample of such palm leaf material which they found in some ancient ruins in Saudi Arabia, used over the ceiling beams of a house. A sand roof was placed over the top of the matting. It was still well-preserved after perhaps 300 years. [Lynn M. and Hope A. Hilton, Discovering Lehi, p. 164]

1 Nephi 18:23 We Did Arrive at the Promised Land:

Lehi and Nephi brought their families to "the promised land" (1 Nephi 18:23). Lehi and Nephi were descendants of Joseph (1 Nephi 5:14). So was Lehi and Nephi's promised land considered to be the same as Joseph's inheritance?

According to Joy Osborn, the ancient patriarch Jacob said that Joseph would go to the utmost bounds of the everlasting hills. Moses said Joseph would "push the people together to the ends of the earth." In Napthtali's vision, Joseph would separate from his brothers and disappear across the sea. And Ginzberg says that Moses blessed Joseph's tribe that "their possession might be the most fruitful and blessed land on earth."

If we were to ask where is the most fruitful and blessed land on earth today, the answer would undoubtedly be "America." From the Holy Land of Palestine, where would we go to reach the "utmost bounds" of the everlasting hills? America! If Joseph "pushed the people together to the ends of the earth," wouldn't some of them have landed on the American continent?

According to the Book of Mormon, America is the land of Joseph's inheritance. Before leaving Jerusalem, the Lord had promised Lehi and Nephi, descendants of Joseph, that they would be led to a land of promise - "A land which is choice above all other lands." In the Book of Mormon, it is written: "Wherefore, thus saith the Lord, I have led this people forth out of the land of Jerusalem. by the power of mine arm, that I might raise up unto me a righteous branch from the fruit of the loins of Joseph" (Jacob 2:25).

In the Testament of the Twelve Patriarchs, it is recorded in the Testament of Naphtali that Joseph would separate from his brothers and disappear across the sea. Naphtali sees, in vision, Israel as a ship at sea, "the Ship of Jacob." "As long as Joseph and Judah got along together, the ship sailed calmly and well, but when quarreling broke out between Joseph and Judah, it would not sail in the right direction but wandered and was wrecked."

Dr. Nibley writes of this:

When the ship of Jacob breaks up, according to the *Testament of Naphtali*; all the brothers cling to floating planks and are thus borne away by the winds and scattered in all directions; all except Judah and Levi, who cling to the same board, and Joseph, who all alone is able to commandeer a life-boat and escape out of sight. At once we think of the well-known image of Joseph passing "beyond the wall": intact, and of those descendants of Joseph who came to the New World by ship and left us their record in the Book of Mormon, which we call (following Ezekiel 37) "The stick of Joseph," in contrast to the "stick of Judah," which is the Bible. It is remarkable that the quarreling in the Testament of Naphtali is not between Judah and Israel but specifically between Judah and Joseph, upon whose unity, and harmony the well-being of all Israel depends. (Nibley, *Since Cumorah*, p. 232.)

Did the branches of Joseph run over the wall, in fulfillment of the blessing given him by his father, Jacob? Was a branch of Joseph, a small remnant of the house of Israel, led to the American continent, where they became a "great people" in fulfillment of Jacob's blessing upon Manasseh'? And did the descendants of Ephraim come and establish themselves upon the North American continent as a part of the fulfillment of Jacob's blessing upon Ephraim that he would become "a Multitude of nations"? There is now sufficient evidence to show that Jacob's blessings upon Joseph and his sons, Ephraim and Manasseh, reached their final fulfillment here in the Americas.

[Joy M. Osborn, The Book of Mormon -- The Stick of Joseph, pp. 18-19]

1 Nephi 18:23 We Did Arrive At the Promised Land; and We Went Forth upon the Land:

[See the commentary on Omni 1:15]

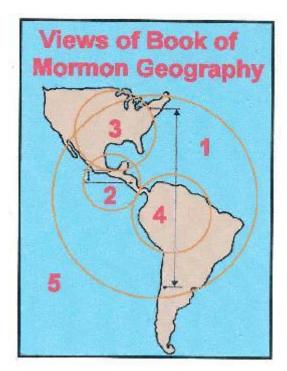
1 Nephi 18:23 We Did Arrive at the Promised Land:

According to Don Hender, there are five major approaches to the geography and setting of the lands of the Book of Mormon in the New World:

- 1. The Traditional View: Its premise is that according to some statements attributed to Joseph Smith, the Book of Mormon people ranged over the entire western hemisphere. They landed at the 30 degree south latitude on the western coast of Chile and after approximately 1000 years the Nephites became extinct in final battles at the Hill Cumorah in Palmyra, New York, which is about 6000 miles distant from the primary landing site. A modified version of this view has Lehi landing just "a little south of the Isthmus of Darien."
- 2. The Mesoamerican View: A second position, which seems to have the most support today is that the Book of Mormon lands, both the land north and the land south, are all located in Central America and the distance from Lehi's landing site to the "other" Hill Cumorah in Central America is only a few hundred miles.
- 3. The United States Only View: A third school of thought is that all the events of the Book of Mormon only took place in North America, namely the United States. This seems quite unpopular currently.
- 4. Quasi South America Only View: A fourth consideration is that the Book of Mormon lands were all confined to South America, though not the same geographical South America as we have it today.
- 5. Not of the Americas View: A fifth consideration which has been set forth by some, is that the Book of Mormon lands are not a part of the Americas at all. This would be the concept

with the least credibility.

[Don R. Hender, "Theories of Book of Mormon Geography," http://www.xmission.com/~hunter/preface1.htm, Jan. 9 2001]



1 Nephi 18:23 **We Did Arrive at the Promised Land (Illustration):** Views of Book of Mormon Geography. [Don R. Hender, "Theories of Book of Mormon Geography," http://www.xmission.com/~hunter/preface1.htm, Jan. 9 2001]

1 Nephi 18:23 We Did Arrive at the Promised Land:

The unique geographical characteristics of this Book of Mormon "promised land" (1 Nephi 18:23) limits the number of possible areas on the American continent where Lehi could have landed. According to the factors listed below, he probably landed in Mesoamerica.

1. The Distance between the Lands of Nephi and Zarahemla:

Around 61 percent of the whole Book of Mormon story takes place in and around either Nephi and Zarahemla. Alma the Elder's group, with their flocks and herds, took a few more than 21 days to traverse the distance between these two lands. This means that 61 percent of the Book of Mormon (about 600 years of history) probably took place within a 200 to 400-mile radius. All the necessary population centers, cultures, written languages, bodies of water, wilderness areas, and strategic landmarks such as the narrow neck of land had to be circumscribed within or close to that 400-mile radius.

2. Ancient Cultures in the Americas:

The Jaredite culture lived from about 2500 to 300 B.C. The Lamanite, Nephite, and Mulekite cultures flourished between 600 B.C. and A.D. 400 . The Lamanite culture continued after A.D. 400. The only place where corresponding cultures and population centers flourished during these times was in Mesoamerica. The Mesoamerican cultures date from approximately 2500 B.C. to A.D. 1500. These civilizations include the Lowland and Highland Maya, the Olmec culture, the Zapotec culture, and the Valley of Mexico core culture.

3. Written Languages in the Americas:

The Nephites kept written records: that is why we have the Book of Mormon. We know that in the last battles between the Nephites and Lamanites, the Nephites wrote to the Lamanite king and received a response (Mormon 6:2-3). At present, it seems that the only place on the continent where there was a phonetic written language at the time of the Book of Mormon was in Mesoamerica.

4. Significant Archaeological Sites in the Americas:

The Book of Mormon people had cities of cement (Helaman 3:7,9,11). At present, 90% of the significant culturally advanced archaeological sites from Book of Mormon times are located in Mesoamerica.

5. Bodies of Water:

Within the Book of Mormon, the following bodies of water must be accounted for: the river Sidon (Alma 2:15), the waters of Sidon, the waters of Mormon (Mosiah 18:8), the waters of Sebus (Alma 26:34), the land of pure water Mosiah 23:4), the land of many waters (Mosiah 8:8), the place where the sea divides the land (Ether 10:20), the waters of Ripliancum (Ether 15:8), the large bodies of water in the land which was northward, the sea south (Helaman 3:8), the sea north (Helaman 3:8), the sea west (Alma 22:27).

6. Wilderness Areas:

The Promised Land was apparently rugged enough that at least the following wilderness areas must be accounted for: the unspecified wilderness that Nephi, Mosiah, Limhi, Ammon, and Alma wandered in; the west wilderness (Alma 22:28), the wilderness of Hermounts (Alma 2:37), the south wilderness of the Mulekites (Alma 22:31), the north wilderness (Alma 22:27), the narrow strip of wilderness (Alma 22:27), and the east wilderness (Alma 25:5).

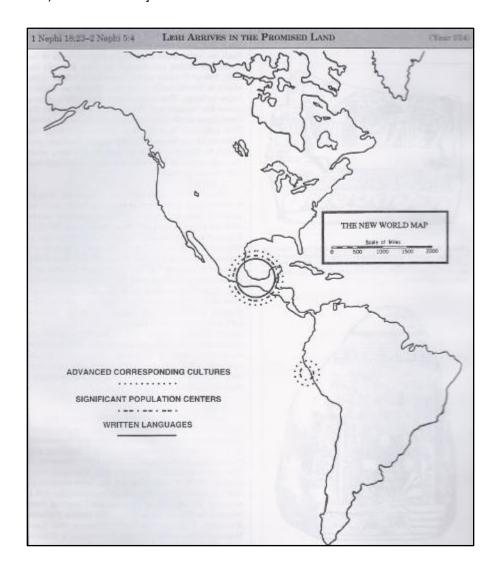
7. Small Neck -- Narrow Neck -- Narrow Pass -- Narrow Passage:

The Book of Mormon scriptures make reference to "a small neck of land" (Alma 22:32), a narrow neck of land" (Alma 63:5; Ether 10:20), "a narrow pass" (Alma 50:34; 4 Nephi 3:5), and "a narrow passage" (4 Nephi 2:29) all of which seem to be of strategic importance. These "small neck -- narrow neck -- narrow pass -- narrow passage" terms are mentioned from Alma's time in (90 B.C.) to Mormon's time in A.D. 362. They are also linked to the Jaredite times. What would make these geographical areas strategically important over so many years?

In Mesoamerica, a narrow travel corridor stretches from the Pacific coast of Guatemala

through the Isthmus of Tehuantepec to the Atlantic coast of Veracruz, Mexico. Almost all northward-southward land traffic and trade passed through this corridor from ancient (Jaredite) times until well past the end of Book of Mormon times (A.D. 420).

[Alan C. Miner, Personal Notes]



Geographical Theory Map: 1 Nephi 18:23 Lehi Arrives in the Promised Land (Year 014)

1 Nephi 18:23 We Did Arrive at the Promised Land:

Where did Lehi's party land? According to Verneil Simmons, the idea held in earlier days, that this colony landed in Peru is a misconception that has been too long accepted without investigation. To have sailed down the west coast of South America, after having crossed the Pacific, would have required them to have sailed hundreds of miles against the strong Humboldt current to reach an arid and barren coast, a rather unlikely "promised land" (1 Nephi 18:23),

when they could have come ashore on a fertile, tropical shore in Central America weeks before.

Nephi settles the matter himself. He tells us what they did as soon as they had landed and pitched their tents. First they planted all the seeds brought so carefully from Jerusalem-"and they grew exceedingly" (1 Nephi 18:24). Requirements? Water, rich soil, and an equable climate. Second, in their exploring trips outside their camp they found many "beasts in the forests of every kind" (1 Nephi 18:25). Requirements? Forests, and animals which they considered domestic, such as the cow and ox, horse and ass, and goats. Also many wild animals of all kinds. Third, they discovered minerals from "all manner of ore" (1 Nephi 18:25). Requirements? Deposits of gold, silver, and copper near their landing area.

How are these requirements met by the desert coast of Peru? They are not, of course. Planting there is seasonal and restricted to the narrow mouths of the few rivers that run down from the high mountains. There are few wild animals and no forests on the Peruvian coast. Deposits of mineral-bearing ore can be found only in the distant mountains.

[Verneil W. Simmons, Peoples, Places and Prophecies, p. 79]



1 Nephi 18:23 **We did arrive at the promised land (Illustration):** Lehi and His People Arrive in the Promised Land. Artist: Arnold Friberg. [The Church of Jesus Christ of Latter-day Saints, <u>Gospel Art</u>, #304]

Note* In an interview with Margot Butler, xxxix Arnold Friberg, the artist who did the painting *Lehi* and *His People Arrive in the Promised Land*, had some interesting comments concerning it's creation:

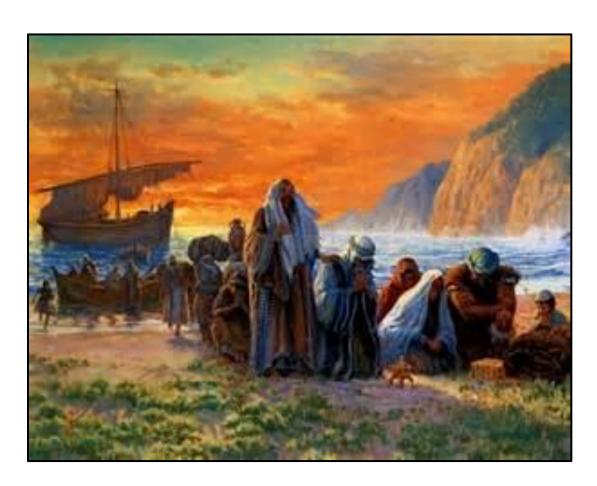
This shows the ship that Nephi built. Nobody knows what his ship looked like. All we are told is that it was not built after the manner of men. . . . I don't think God would instruct Nephi to build some very weird thing never seen in heaven or earth just to prove that it had divine help. It would be some perfectly sensible principle of

shipbuilding that was perhaps in advance of what was known to shipbuilders at that time.

This moment is when, with great relief, they finally sighted land, so for the moment the fighting between them is forgotten in the excitement of seeing land.

The birds are not seagulls, but rather swallow-tailed roseate terns, which are found in the tropical waters around Central America. Such details helped define the geographic location for this painting. Lehi is looking heavenward in thanks, while the other guys are pretty much like in a pirate picture, shouting "Land Ho!" The huge ropes were from the movie *The Ten Commandments*, and they were brought from Egypt. The Bedouins there weave these immense ropes by hand.

[Vern Swanson, "The Book of Mormon Art of Arnold Friberg: "Painter of Scripture," in <u>Journal of Book of Mormon Studies</u>, vol. 10, num. 1, 2001, p. 33]



1 Nephi 18:23 **We went forth upon the land...and we did call it the promised land (Illustration):**Arrival in the Promised Land. Lehi and his family arrive in the promised land. Artist: Clark Kelley Price.
[Thomas R. Valletta ed., <u>The Book of Mormon for Latter-day Saint Families</u>, 1999, p. 58]

1 Nephi 18:23 We went forth upon the land ... and we did call it the promised land (Illustration): Lehi Lands in America [Clark Kelley Price, <u>Verse Markers</u>, Book of Mormon, Vol. 1, p. 1]

1 Nephi 18:23 We Did Arrive at the Promised Land (Landing Site):

Although many landing sites have been proposed for Lehi's group, some of the most logical ones are located along the shores of the western coast of Mesoamerica. According to books written by both Richard Hauck and Joseph Allen, Lehi might have landed at or near the shores of Izapa, an archaeological site near the city of Tapachula on the border of Guatemala and Mexico. Garth Norman calls Izapa the most important center on the Pacific Coast from 600 B.C. to A.D. 400, serving both as a civil and a religious center (*Norman 1976, Part II:1*).

Are there evidences at Izapa that suggest that it could be the Land of First Inheritance? While such evidences would not necessarily prove a First Inheritance identity for Izapa, they would certainly add credence to the prospect.

1. Migration Origin from across the Sea (Stela 67 -- Lehi's Boat):

According to Garth Norman, one might expect Lehi's epic journey by boat across the western sea to be commemorated on a monument at Lehi's land of First Inheritance. Stela 67 could depict the origin tradition of the first ancestors of the Cakchiquel Maya Indians, "from the west, . . . from across the sea," that could relate back to Lehi's journey. A bearded man wearing a priest-king mask sits in a boat and holds scepters in his outstretched hands that resemble the Egyptian anke "life" scepter. Could this be Lehi? An umbilical cord issuing up from his abdomen relates to the origin of life or birth genesis of the original ancestors theme, as does the rainbow with a sun or conch crest that surrounds him. An inverted slanting boat above suggests a horizon sunset or sunrise as depicted in Maya hieroglyphics. A god mask in the water panel has a kin (sun) cross on its head. The two masks that flank the water panel suggest the horizon lands of the rising and setting sun beyond the seas. Beneath the boat, fish and water waves move from left to right, which is directionally from west to east on various Izapa carvings. This is consistent with Lehi's coming across the western sea. Finally, it is curious that the wave water scroll is inverted beneath the water panel. This indicates that the boat is traveling from the underworld sea beyond the horizon, as similarly portrayed by Egyptian barks (ships). In this case, could the underworld be Lehi's Near Eastern homeland halfway around the world? [Garth Norman, "Where Was the Land of First Inheritance?" in Joseph L. Allen ed., The Book of Mormon Archaeological Digest, Fall, 1992, p. 17]



1 Nephi 18:23 **We did arrive in the promised land (Landing Site) [Illustration]:** Stela 67, Chiapas, Mexico; may depict Lehi's journey to the New World. [Garth Norman, "Where Was the Land of First Inheritance?" in Joseph L. Allen ed., <u>The Book of Mormon Archaeological Digest</u>, Fall 1992, p. 17]

2. Calendar Origin (Stela 12 -- 597 B.C.):

What about the date of origin at Izapa? According to Garth Norman, archaeological beginnings at Izapa date back to about 1600 B.C., but construction of the main temple center with its stone monuments was initiated at 300 B.C. This temple construction dates to the early developmental period of Nephite civilization. I [Garth Norman] have deciphered a new year's commemorative date on Izapa Stela 12 of 1 Imix 4 Pop as autumn equinox 176 B.C. A distance number dating to 421 years earlier in the base panel extends back to 597 B.C., in the true solar year. The year 597 B.C. may be an important date relating to Lehi's exodus from Jerusalem. The Nephite calendar probably started with the Hebrew civil new year at the autumn equinox 597 B.C. Lehi departed during the first year of the reign of Zedekiah. According to the Babylonian chronicles, Zedekiah was inaugurated king at the spring equinox Babylonian new year in 597 B.C. Further research appears to connect this date at Izapa directly to the first ancestors' migration origin on Stela 5. [Garth Norman, "Where Was the Land of First Inheritance?" in Joseph L. Allen ed., The Book of Mormon Archaeological Digest, Fall 1992, p. 17] [See Appendix A]



1 Nephi 18:23 **We did arrive in the promised land (Landing Site) [Illustration]:** Stela 12, Chiapas, Mexico; could mark the beginning of the Nephite calendar, 597 B.C. [Garth Norman, "Where Was the Land of First Inheritance?" in Joseph L. Allen ed., <u>The Book of Mormon Archaeological Digest</u>, Fall 1992, p. 18]

3. Near Eastern Cultural Roots (The Cubit):

There appear to be Near Eastern cultural roots at Izapa. According to Garth Norman, this subject needs a separate lengthy treatment, but one recent discovery stands out dramatically. I [Garth Norman] reported on this in the December, 1984 Newsletter and Proceedings of the S.E.H.A., item 158.7, "The Cubit in Ancient Mesoamerica? A possible Near Eastern Parallel." (This research has also been reported at several professional archaeology symposiums and a detailed monograph is in progress.)

During field research in 1984 at Izapa and at the Mexico National Museum, I succeeded in confirming the first Mesoamerican standard unit of measure, a 495mm unit (19.5 inches), which is precisely equal to the famous Royal Babylonian cubit that remained in use in the Near East for over 2,000 years. Its earliest origin has been traced to a statue of king Gudea who reigned at Lagash in Mesopotamia about 2000 B.C. I first deciphered the unit on Izapa sculpture and subsequently confirmed it through measurements on many other carvings at other sites. My findings included identifying the forearms (cubit) as the basis of the standard measure, and also discovering an Izapan cubit measuring rod. Among various circumstantial evidences of near

Eastern origins in Mesoamerica, I consider this standard of measure discovery as virtual proof.

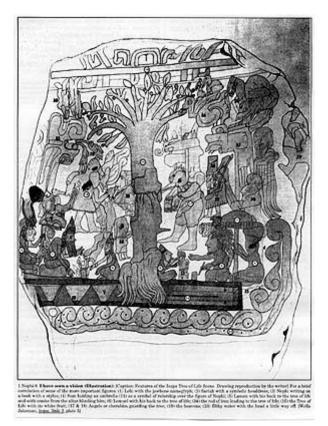
1 Nephi 18:23 **We did arrive in the promised land (Landing Site) [Illustration]:** Archaeologist Garth Norman measuring the cubit at Quirigua, Guatemala. [Garth Norman, "Where Was the Land of First Inheritance?" in Joseph L. Allen ed., <u>The Book of Mormon Archaeological Digest</u>, Fall 1992, p. 16]

4. Religious Themes (Stela 5 and Monument 21):

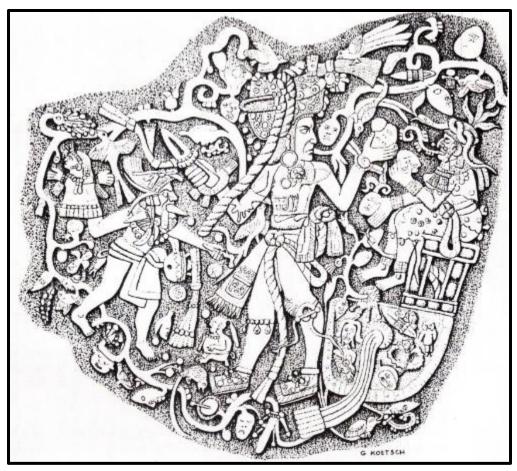
Most all the stelas that are located in Izapa portray a religious theme, as if Izapa was always considered a religious center. According to Bruce W. Warren, we have two stone monuments that would tend to place the "land of first inheritance" in the area of the Soconusco coast along the border between Chiapas, Mexico, and Guatemala (near Izapa). These monuments are Stela 5 with a scene of origins as illustrated by 12 or 13 roots at the base of the "Tree of Life," and Monument No. 21 at Bilbao, Guatemala, with a scene of origins for seven lineages or tribes. [Bruce W. Warren as quoted in Joseph L. Allen ed., <u>The Book of Mormon Archaeological Digest</u>, Fall 1992, p. 7]



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1 Nephi 18:23 **We did arrive in the promised land (Landing Site) [Illustration]:** Stela 5 at Izapa, Chiapas, Mexico, illustrates 12 or 13 branches, as highlighted. Dates to 176 B.C. [Joseph L. Allen ed., <u>The Book of Mormon Archaeological Digest</u>, Fall 1992, p. 7]



1 Nephi 18:23 **We did arrive in the promised land (Landing Site):** Prontispiece, Monument 21, Bilbao, Guatemala. The highlighted portions illustrate seven tribes or lineages. The word for flint(a) in Hebrew is Zoram. Monument dates to A.D. 500. [Joseph L. Allen ed., <u>The Book of Mormon Archaeological Digest</u>, Fall 1992, p. 8] [See Jacob 1:13]

5. Geographical Location:

Izapa is on the major trail of the ancient trade route between Teotihuacan near Mexico City and Kaminaljuyu in Guatemala City. . . . [See illustration] [Clate Mask, "New Insights into an Old Problem: The Land of Bountiful," p. 2, unpublished]



1 Nephi 18:23 **We did arrive at the promised land (Landing Site) [Illustration]:** The location of Izapa on the major trail of the ancient trade route between the Olmec territory and Kaminaljuyu in Guatemala City. [Clate Mask, "New Insights into an Old Problem: The Land of Bountiful," p. 2, unpublished]

6. Scriptural Evidence ("Land of First Inheritance" -- Alma 22:28):

Mosiah 10:12 and Alma 22:28 indicate that the place of the Lamanites' first inheritance (Lehi's landing site) was along the seashore *west* and in what by then (over 400 years after Lehi's landing) was considered the general land of Nephi. Izapa fits this orientation. [See the commentary on Alma 22:28]

1 Nephi 18:23 We Did Arrive in the Promised Land (Landing Site):

John Sorenson reports that possibly the two Egyptian *ushsabti* figurines in a San Salvador museum (reportedly dug up near the beach in western El Salvador), if they could be authenticated, would be as direct a trace of Near Eastern intruders as could ever be located. [John L. Sorenson, <u>An Ancient American Setting for the Book of Mormon</u>, F.A.R.M.S., p. 85] Perhaps this was where Lehi landed in the "promised land" (1 Nephi 18:23).

In a recent article, John Gee states the following:

In 1992, FARMS republished a notice about two inscribed Egyptian shawabti-figurines (also called *ushabtis*)^{xl} from Acajutla, Sonsonate, El Salvador (see illustration). Because the figurines would prove cultural contact between Egypt and Mesoamerica, the article suggested that 'these figurines may be very important indeed.'xli A note appended to

the article remarked that this report "still calls for further information."

The "further information" which was called for, and which has been summarized by Gee, has put in doubt the authenticity of the figurines.

[John Gee, "New and Old Light on Shawabtis from Mesoamerica," in <u>Journal of Book of Mormon Studies</u>, Vol. 6/1, 1997, pp. 66-69]

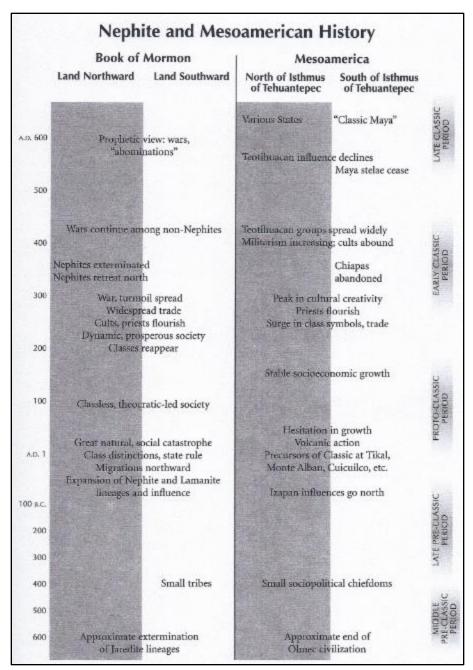


1 Nephi 18:23 **We did arrive in the Promised Land (Landing Site) [Illustration]:** The two Egyptian "ushsabti" figurines in a San Salvador museum. [John L. Sorenson, "Two Figurines From the Belleza and Sanchez Collection," in <u>Reexploring the Book of Mormon</u>, F.A.R.M.S., p. 20]

Garth Norman explains that Usulutan, El Salvador, is known for a negative resist ceramic trade ware produced there during the Middle and Late Preclassic that is a distinctive cultural marker for the spread of related peoples and culture. Could this ceramic ware be a product of Lamanite culture that first took root in the Land of First Inheritance? [Garth Norman, "Where Was the Land of First Inheritance?" in Joseph L. Allen ed., The Book of Mormon Archaeological Digest, Fall 1992, p. 16]

Date	Book of Mormon		Mesoamerica		100
	Land Northward	Land Southward	North of Isthmus	South of Isthmus	Perio
600	Prophetic view: wars, "abominations"		Various States Teotihuacan influer	"Classic Maya" nee declines Maya stelae cease	LATE
500					
400	Wars continue among non-Nephites Nephites exterminated Nephites retreat north		Teotihuacan groups spread widely Militarism increasing; cults abound Chiapas abandoned		SAMIY CLASSIC
300	War, turmoil spread Widespread trade Cults, priests flourish Dynamic, prosperous society		Peak in cultural creativity Priests flourish Surge in class symbols, trade		-
200	Classes reappear		Stable socioeconomic growth		ASSIC
100	Classless, theo	cratic-led society			PROTO CLASSIC
A.D. 1	Great natural, social catastrophe Class distinctions, state rule Migrations northward		Hesitation in growth Volcanic action Precursors of Classic at Tikal Monte Alban, Cuicuilco. etc		-
GO s.c.	Expansion of Nephite & Lamanite lineages and influence		Izapan influences go north		
200					LATE PHE GLASSIG
900	Small tribes		Small sociopolitical chiefdoms		5
500					Asses
600	Approximate extermination of Jaredite lineages		Approximate end of Olntee civilization		MINOR.

1 Nephi 18:23 **We did arrive at the promised land (Location) [Illustration]:** Chronology of Nephite Events Compared with Mesoamerican Cultural History. [John L. Sorenson, <u>Images of Ancient America</u>, p. 193]



1 Nephi 18:23 **We did arrive at the promised land (Illustration):** Chart: "Nephite and Mesoamerican History." [John W. & J. Gregory Welch, <u>Charting the Book of Mormon: Visual Aids for Personal Study and Teaching</u>, F.A.R.M.S., Chart #40]

1 Nephi 18:23 We Did Arrive in the Promised Land (Statements of Church Authorities):

According to Frederick G. Williams, the great-great-grandson of Frederick G. Williams, who was Joseph Smith's scribe and counselor, much debate has centered around the origin of the following statement written by Frederick G. Williams:

The course that Lehi traveled from the city of Jerusalem to the place where he and his family took ship, they traveled nearly a south south East direction until they came to the nineteenth degree of North Lattitude, then nearly east to the Sea of Arabia then sailed in a south east direction and landed on the continent of South America in Chile thirty degrees south Lattitude. (LDS Archive, Ms d 3408 fd 4)

The origin of this statement is unclear. Some traditions have held that Joseph Smith or Frederick G. Williams received it through revelation, and on that assumption, the statement has been used in the past to support a Chilean landing of Lehi's party.

How then did the statement come to be connected with Joseph Smith and revelation? Perhaps, because the statement was written on a sheet with a known revelation (D&C 7), it was thought that Joseph must have dictated it. However, D&C 7 was received before Williams joined the Church, and was published in 1833.

An editorial published in the *Times and Seasons* in 1842, gives another landing site for Lehi's party:

Lehi went down by the Red Sea to the great southern ocean, and crossed over to this land, and landed a little south of the Isthmus of Darien [modern Panama]. (15 September 1842)

A few weeks later another article was published in which the writer comes close to identifying the city of Zarahemla (geographically located in the Land Southward) with a site in Central America:

We are not going to declare positively that the ruins of Quirigua [Guatemala] are those of Zarahemla, but when the land and the stones and the books tell the story so plain, we are of the opinion, that it would require more proof than the Jews could bring, to prove the disciples stole the body of Jesus from the tomb, to prove that the ruins of the city in question, are not one of those referred to in the Book of Mormon. (<u>Times and Seasons</u>, 3 -- 1 October 1842: 922)

[Frederick G. Williams III, "Did Lehi Land in Chile? An Assessment of the Frederick G. Williams Statement," F.A.R.M.S., 1988, pp. 1-6]

The question of where Lehi landed was posed to the prophet Joseph F. Smith, and his response in the *Improvement Era* of April, 1838, was that "it has not as yet been revealed."

In the First Presidency Message of *The Ensign*, President Marion G. Romney of the First Presidency said the following: "the Book of Mormon reveals the fact that Jesus, following his

post-resurrection ministry among his disciples in the land of Jerusalem, came to America and ministered among them. It is highly probable that his visit was within the boundaries of Mexico and/or Central America." [Marion G. Romney, "My Love for the People of Mexico and Central America," The Ensign, September, 1972, p. 3] [Note* Jesus appeared in the land Bountiful (3 Nephi 11:1) considered by some to be in the Land Southward, south of the "small neck of land" (Alma 22:31-32).]

What the Book of Mormon reader should learn from these quotes is that there are statements from Church leaders past and present regarding the lands of the Book of Mormon that might seem to conflict with each other. I feel that it is not our job to pit the words of one authority against the words of another. Nevertheless, each student of the Book of Mormon must decide how much importance he or she wants to give the statements of any church leader on this subject. Before making any fast conclusions, however, what the student should attempt to understand about any particular statement are the following:

- 1. The time in Church history when the statement was made.
- 2. The correctness of the recording process.
- 3. The conditions under which the statement was uttered.
- 4. How the statement squares with other qualifying statements made by the same church leader or contemporary church leaders.
- 5. How the particular statement fits into the complete set of statements made by church leaders from past to present.
- 6. Most importantly, how a statement conforms to all the verses in the Book of Mormon.

[Alan C. Miner, Personal Notes]

[For a documentation of statements attributed to Church Authorities concerning Book of Mormon geography, see Volume 6, Appendix D]

1 Nephi 18:23 We Went Forth upon the Land:

John Sorenson seems to think that weary sea travellers, including aged Lehi and perhaps Sariah and Ishmael's wife, would not initially go "forth upon the land" (1 Nephi 18:23) more than a few miles before settling and planting their seeds. The handful of men would have felt uncomfortable about leaving their families or crops so their explorations would have been very limited (estimated one night away from base, a radius of about 25 miles?).

[John Sorenson The Geography of Book of Mormon Events: A Source Book, F.A.R.M.S., p. 232]

Note* This statement, as well as all the other geographical comments from John Sorenson's *Source Book* are written from an entirely internal point of view (not related to any real lands or cultures). While I agree with Sorenson's ideas on the initial settlement of Lehi's party close to the landing site, I would hesitate to put exploration limits on a group of men and women who

had traversed nearly 2500 miles of wilderness from Jerusalem to Bountiful under great hardship, and who had managed to cross 17,000 miles of ocean.

According to the proposed chronology (see Appendix A), Nephi might have only stayed in the landing area for four to eight years. How much and how far the people in Lehi's party "went forth upon the land" during that time is anybody's guess. When Nephi eventually fled from Laman and Lemuel, did he know where he was going when he "traveled many days" "in the wilderness" (2 Nephi 5:7)?

[Alan C. Miner, Personal Notes] [See the commentary on 2 Nephi 5:34]

1 Nephi 18:23 We Went Forth upon the Land:

According to Brant Gardner, in order to more fully appreciate the Book of Mormon as an ancient text, we need to find multiple interconnected complex sets of connection points between it and a proposed cultural context. We necessarily begin with the origin of Lehi's people in the New World. Assuming a Mesoamerican setting, it is indisputable that Lehi and his company landed on a coast, and the Pacific coast is the most plausible location. If a ship carrying Lehi's party were to have arrived on the coast of Guatemala approximately 590 years before Christ, what might they have found?

The archaeological survey of the Middle Formative sites for the coast of Guatemala deals with sites dated some two hundred years earlier than Lehi's landing, so we need to make some inferences. Two hundred years prior to Lehi's arrival there were seven settlements ranging from one household to twelve households. After this time, the coastal areas saw a peak of population density not seen until the Late Classic period, over a thousand years later. It is important to understand that the settlement areas were not necessarily larger, but simply morel numerous. Aliii

What this tells us is that Lehi's company would have found it nearly impossible to remain isolated for long, if they were ever isolated at all. Lehi's company had every reason to accept aid from, and a merger with, local populations. Lehi's group would plant seeds from the Old World, but a rapid acquisition of information about survival skills particular to the New World would have been extremely important. They would have needed to know about the local food sources that were successful, the local sources of materials for clothing, the locations and types of clay for pottery, and any number of location-specific cultural items.

[Brant Gardner, "A Social History of the Early Nephites," delivered at the FAIR Conference, August 17, 2001, pp. 2-3]

1 Nephi 18:23 We...Did Pitch Our Tents:

[See the commentary on 2 Nephi 5:7]

1 Nephi 18:24 [The Seeds] Did Grow Exceedingly

If the seeds from Jerusalem "did grow exceedingly" (1 Nephi 18:24), should we expect evidence of every type of seed planted to be in existence today all along the west coast of Mesoamerica? According to John Sorenson, while in that first coastal landing area, the immigrant colony planted seeds they had brought from Jerusalem. These flourished, but what happened to them later? The experience of pioneers suggests that first success for an imported crop does not necessarily mean its continued vigor. Flourishing plants don't always yield good seed in turn. Bishop Diego de Landa in sixteenth century Yucatan used language very similar to Nephi's: "We have set them [the Indians] to raising [European] millet and it grows marvelously well and is a good kind of sustenance." Yet nearly four centuries later, when Carnegie Institute botanists researched the plant inventory in that area, they failed to find a trace of the millet about which Landa had been so enthusiastic.

[John Sorenson, An Ancient American Setting for the Book of Mormon, F.A.R.M.S., p. 139]

1 Nephi 18:24 **Seeds:**

Hunter and Ferguson note that in regards to the "seeds" mentioned by Nephi (1 Nephi 18:24), the seeds of the cotton plant are of special interest to Book of Mormon students. At the twenty-ninth meeting of the International Congress of Americanists held at New York City in September, 1949, an important paper was read by a botanist, George Carter. He notes that three groups of the cotton plant are known. The first has thirteen large chromosomes. The second type has thirteen small chromosomes. The third type has thirteen small and thirteen large chromosomes. Old World domesticated cotton has only the large chromosomes. New World wild cotton has only the small chromosomes. The cotton of the cultured settlers of ancient Middle America is a blend of Old World cotton and New World wild cotton because it alone has both the thirteen large chromosomes and the thirteen small chromosomes. The botanical evidence, it should be noted, is against any of these Old World (cotton) plants possibly having drifted across the ocean to America by themselves. The only alternative is that, if they actually did originate in the Old World as now indicated, they must have been carried across in ships in early transoceanic migrations from the Old World.

[Milton R. Hunter and Thomas S. Ferguson, <u>Ancient America and the Book of Mormon</u>, p. 307]

1 Nephi 18:25 There Were Beasts in the Forests of Every Kind, Both the Cow...Ox...Ass... Horse, Goat...etc.

According to Reynolds and Sjodahl, before one jumps too quickly to premature conclusions about the actual animals in the Promised Land, they should keep in mind that Nephi

was a Hebrew, and the expression of his thoughts, naturally, conformed to the idioms of his mother tongue. The Hebrews did not always classify objects as we do. For instance, observing that the animal we call a "horse" had a peculiar way of "leaping" or galloping, they gave him a name expressive of that characteristic and called him *sus*, from a root, meaning "to leap." The horse was a "leaper." But presently they noticed the flight of a certain bird and fancied there was some resemblance between that mode of traveling and the leaping of a horse. Then they called the bird also *sus* or *sis*, and the swallow, as far as the name was concerned, was put in one class with the horse. For the same reason of classification a moth was called *sas* from the same root as the horse and the swallow. Again, they had at least six words for "ox." One of them was *aluph*, from a root meaning to be "tame," "gentle." It was used for both "ox" and "cow," because either could be "tame." For the same reason it might mean a "friend," and sometimes it meant the "head" of a family, or a tribe. Another word for "ox" was *teo*, translated "wild ox" on account of its swiftness, but the word also stands for a species of gazelle.

The enumeration by Nephi of "cow" and "ox," "ass," and "horse," "goat" and "wild goat," and all manner of "wild animals," meaning the strange specimens met with in the New World, conforms strictly to what might be expected of Hebrew. The passage, therefore, as has already been said, is a strong proof of the truth of the record.

This method of naming strange objects was not confined to the Hebrews alone. It seems that all people entering a strange land adopted the same practice.

When the English first came to America, they found the aborigines growing and cultivating a strange plant which they had never seen before. It resembled, most closely, a plant familiar to them, which was corn. Now corn to them is what we, in America, call wheat, but it was not (wheat) corn, it was a plant indigenous to America. However, we would not think their historian false, let alone a liar, when he says that they found the Indians growing corn. This same procedure was characteristic of the Scandinavians and of other races.

[George Reynolds and Janne M. Sjodahl, Commentary on the Book of Mormon, Vol. 1, pp. 191-192]

1 Nephi 18:25 The Cow, Ox:

A F.A.R.M.S. annotated bibliography by John Sorenson deals with evidence for pre-Columbian animals in America. The following theories may illustrate why evidence for the "cow" and the "ox" (1 Nephi 18:25) is not perfectly clear:

1. Accelerated extinction: According to Barbara Beddall, "The horse came to Argentina in 1536 and the cow in 1556. By about 1700 according to Felix di Azara, Spanish naturalist and geographer who lived in South America from 1781 to 1801, 48 million head of feral cattle inhabited 1.7 million square kilometers. Before the middle of that century, however, wild cattle

had been all but exterminated, although the human population probably did not exceed 300,000. Spaniards, Portuguese, and Indians slaughtered them for skins and fat; each Indian killed two pregnant cows a day in order to eat the flesh of the unborn calves, considered a delicacy. Throughout the year, the Spanish gauchos killed a cow for every meal (p. 4).

According to Evon Z. Vogt, "The Chiapas highlands have been populated so densely for such a long period that almost all forms of edible mammals have long since been hunted off" (p. 37).

2. Language deficiencies: According to Berthold Laufer, the Scandinavians and Lapps apply terms like ox, cow and calf to the reindeer (p. 19). [John L. Sorenson, "Animals in the Book of Mormon: An Annotated Bibliography," F.A.R.M.S., pp. 4, 37, 19]

John Sorenson comments further, "but isn't it obvious that the 'cow' of the Book of Mormon was our familiar bovine, straight out without all this hedging?" No, it is not at all obvious. First, we are trying to find out what the Book of Mormon really means by the words we have in English translation; we are not trying either to simplify or to complicate the matter, but only to be correct. In the effort to learn the truth, nothing can be assumed obvious. Second, there is a lack of reliable evidence -- historical, archaeological, zoological, or linguistic -- that Old World cows were present in the Americas in pre-Columbian times. The same is true of some of the other creatures mentioned in the Nephite record, where modern readers may feel they are already familiar with the animals on the basis of the translated names. In these cases we have to find another way to read the text in order to make sense of it.

[John L. Sorenson, An Ancient American Setting for the Book of Mormon, F.A.R.M.S., p. 294]

1 Nephi 18:25 The Horse:

[See the commentaries on Alma 18:9; Ether 9:19]

1 Nephi 18:25 The Goat and the Wild Goat:

A F.A.R.M.S. annotated bibliography by John Sorenson deals with evidence for pre-Columbian animals in America. The following ideas may illustrate why evidence for the "goat" and "wild goat" (1 Nephi 18:25) is not perfectly clear:

According to Karl Dieter Gartelmann, "The diary of Bartolome Ruiz, one of Pizarro's original 16th-century group of conquerors, is quoted *in extenso* on the finding by the first Spanish ship along the Manabi coast of Ecuador of a land called Calangone. "Their speech is not unlike Arabic. . . . There are many sheep there and goats and cats and dogs and other animals, and geese and doves, and it is there that . . . blankets are made of wool and cotton." Sheep are sacrificed in front of (a certain) statue at certain times."

Whatever the zoological identity of the animals referred to (probably camelids for "sheep" and "goats"), this Spaniard's naming them is of interest. Conventional goats and cats are supposed absent from America. [John L. Sorenson, "Animals in the Book of Mormon: An Annotated Bibliography," F.A.R.M.S., pp. 11-12]

In addition, Sorenson asks, "how did an untamed 'goat' differ from a 'wild goat'?" The traits distinguishing the categories are not apparent." [John Sorenson, <u>An Ancient American Setting for the Book of Mormon</u>, F.A.R.M..S., p. 289]

1 Nephi 18:25 The Goat and the Wild Goat:

Glenn Scott notes in regards to Nephi's reference to "the goat and the wild goat" (1 Nephi 18:25) that there is no mention in the record of Lehi's colony of them bringing either sheep or goats with them, but both are found wild in the Sierra Madre mountains of Central America (see illustration of curious mountain sheep and goats). Thus, if the Nephites did domesticate either of those native Ovines, it would be impossible to distinguish their remains from those of the wild variety. In 1976, Albert Loving reported a goat-horned deer in the forests of Mexico, which he believed to be the wild goats Nephi referred to. However, he also reported that he had unearthed fossilized bones and horns of a domestic-type goat under seven feet of caliche clay in Morelos, Mexico. Xliv [Glenn A. Scott, Voices from the Dust, p. 91]



1 Nephi 18:25 **The goat and the wild goat (Illustration):** Native American Sheep and Goats. Two examples of how easily the Nephites could have domesticated native sheep and goats. [Glenn A. Scott, <u>Voices from the Dust</u>, p. 90]

1 Nephi 18:25 Gold, Silver, Copper, All Manner of Ore:

[See the commentary on Mosiah 11:8]

NOTES

i. MNHC, 14.

- iii. MNHC, 107, 108.
- iv. George FAdlo Hourani, *Arab Seafaring in the Indian Ocean in Ancient and Early Medieval Times* (Princeton: Princeton University Press, 1951), 91.
- v. Kay, 47-48.
- vi. Mircea Eliade, Cosmos and History: The Myth of the Eternal Return, trans. Willard K. Trask (New York: harper and Row, 1959), 10.
- vii. Severin (1), 80.
- viii. Vine, 50.
- ix. Ibid., 162.
- x. Tim Severins, (1). Severins built and sailed a replica of a Medieval Omani ship to China. Even with advanced rigging and sails, it took him seven and a half months to sail from Oman to China, a distance of less than half that sailed by Nephi.
- xi. Ibid., photos.
- xii. Anchors, Field report, The Traditional Boats of Oman Project, home page Western Australian Maritime Museum at http://www.mm.wa.gov.au/Museum.html, April 14, 2000.
- xiii. See the Appendix to Chapter 15, George Potter and Richard Welllington, *Discovering the Lehi-Nephi Trail*, Unpublished Manuscript, (July 2000), pp. 255-260.
- xiv. Fletcher, 21.
- xv. Shelley Wachsmann, "Seafaring," in Eric M. Meyers, *The Oxford Encyclopedia of Archaeology in the Near East*, 5 Vols. (New York: Oxford University Press, 1997), 4:506.
- xvi. Lionel Casson (3), *Ancient Trade and Society* (Detroit: Wayne State University Press, 1984), 285.
- xvii. MNHC, 113.
- xviii. Djazirat al-Arab, *The Encyclopedia of Islam*, new ed., 8 vols. (London: E. J. Brill, 1960), 1:535-36.
- xix. Doe (1), 55.
- xx. Salibi (2), 185.
- xxi. Bertram Thomas, *The Arabs* (London: Thornton Butterworth, 1937), 262.

ii. A. Sprenger: Post und Reiserouten, 1864. As recorded in Stark, 294.

xxii. LDS. Bible Dictionary "Tarshish."

xxiii. Nayajot Lahiri, The Archaeology of Indian Trade Routes up to c. 200 B.C. (Delhi: Oxford University Press, 1992), 394.

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xxiv. In Vine. 51.
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xxv. Groom (2), 110.

xxvi. Fine, 50.

xxvii. Sultanate of Oman, Oman a Seafaring Nation (1979):91.

xxviii. Tim Severin, *The Sinbad Voyage* (London: Hutchinson, 1983):59.

xxix. Severins (1), 156-175.

xxx. The California Maritime Academy, webpage, July 6, 1999. www.mma.mass.edu/academic.../courselist.qry?code=mt&name=Marine%20Transportion

xxxi. Morton, 161.

xxxii. Morton, 167.

xxxiii. Ibid., 187-188.

xxxiv. Ibid., 190-191.

xxxv. Ibid., 197.

xxxvi. Severin, 158.

xxxvii. Tosi.. 94.

xxxviii. Periplus of the Erythraean Sea as quoted in MNHC, 26.

- xxxix. Margot J. Butler, Special Education Co-ordinator, Church Education System, Salt Lake Valley North Area, transcript of an interview with Friberg (3 June 1986). This and other quotes from the transcript were modified by Friberg himself upon reviewing this article in manuscript form in February 2001.
- xl. The two forms are common through scholarly and popular literature. The Egyptians used both swbti and wsbti.
- xli. "Two Figurines from the Belleza and Sanchez Collection," in Reexploring the Book of Mormon, ed. John W. Welch (Salt Lake City: Deseret Book and FARMS, 1992), p. 19.
- xiii. Marcus, Joyce. "The Size of the Early Mesoamerican Village." The Early Mesoamerican Village. ed. Kent V. Flannery. Academic Press, 1976, p. 85.
- xiiii. Weaver, Muriel Porter. The Aztecs, Maya, and their Predecessors. Seminar Press, 1972, p. 44.
- xliv. Albert Loving 1976, "Goats & Wild Goats," *Examiner*, August 15, 9.