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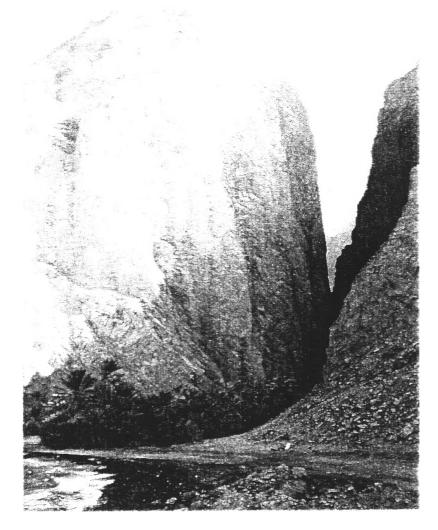
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Discovering the Lehi-Nephi Trail

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Discovering The Lehi-Nephi Trail



Book Of Mormon Explorers George Potter & Richard Wellington

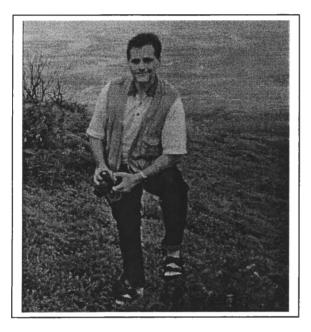
Discovering The Lehi-Nephi Trail

By

George Potter & Richard Wellington

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George D. Potter, a certified public accountant, a consultant and management trainer, has lived eight years in Saudi Arabia. He received his B.A. in economics form the University of California at San Diego and an M.B.A. from the University of California at Berkeley. He developed his interest in the Book of Mormon in relation to the ancient world while serving an LDS mission in Peru and Bolivia. He was a lecturer at City University, Seattle and Zurich, University of Tampa, Nova University and the University of Maryland. He is married with ten children.



Dr. Richard Wellington is a Prosthodontist for the Saudi Arabian Oil Company. He has been living in Saudi Arabia for 17 years. He is married with four children. His undergraduate training was at Guy's Hospital in London and his postgraduate degree was from The Eastman Institute, University of London. He was a lecturer at the University of the Witwatersrand, Johannesburg, South Africa and a faculty member of the Institute of Dental Surgery, London.

Front Cover : Wadi Tayyib al Ism, the most likely candidate for the Valley of Lemuel. Back Cover: The Rub' al Khali or Empty Quarter.

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(the chain of villages between Ula to Medina in Saudi Arabia) and the more fertile parts (the Oases along the ancient trade route from Medina to Bishah in Saudi Arabia), and Nahom (the northeast desert region of the Yemen Principality called Nehm).

Outside of his findings at the Wadi Tayyib al-Ism and his readings on Oman, the only other evidence he had on his early model for the trail were two old maps and fieldwork at Ula (Dedan). Still, the evidence seems to lead to a singular conclusion: Nephi's account was of a journey through Arabia on the Gaza branch of the Frankincense trail.

With this evidence in hand, George presented this model of the Lehi-Nephi trail to the Foundation for Ancient Research and Mormon Studies (F.A.R.M.S.) in August of 1997.

George faced a real challenge. Could he refine a Frankincense trail model of the Lehi-Nephi trail? Could he find enough compelling evidence to pin-point qualified candidates for all the 1st Nephi place names: Shazer, the most fertile parts, the more fertile parts, Nahom and Bountiful? To answer these questions, George knew it was time to leave his library studies and head deep into the desert.

To follow Nephi's words down the ancient Frankincense trail meant venturing into some of the most remote deserts in the world. For this George needed the help of an experienced desert explorer. To his fortune George was joined by Richard Wellington, who brought with him his keen knowledge of off-roading in Arabia, his thorough knowledge of the Book of Mormon, and a disciplined approach to scholarly research. Up to that time, Richard had fully supported George's efforts, and when circumstances changed he immersed himself whole-heartedly in the project? Together they started a three year, 50,000 mile, adventure in search of the Lehi-Nephi trail.

From this point on, we worked as a team, committing ourselves to be as thorough and objective as possible in determining if the Gaza branch of the Frankincense trail matched accurately Nephi account of their journey. Piece by piece we explored the old incense route. First we discovered that there are no current maps of the trail, so we researched where the trails main halts were located. Next we plotted the most likely courses on field maps, and finally we headed into the desert to plot the ancient course anew. It appears we are the first westerns to have surveyed this branch of the Frankincense trail.

To the reader it will be obvious that we have spent countless hours in the library researching this topic, but we can truthfully say that it has only been through our desert exploration that we have gained an understanding and keen appreciation for the teachings that Nephi has passed on to us. Our expeditions off road have been the highlights of our research for it has only been when we have experienced the hardship of day after day of desert driving, the impact that the climate and the terrain has upon the traveler that we have been able to come to a full appreciation of their epic struggle. To see first hand the world in which Nephi lived and the scenery that he described, to experience the hospitality of the Bedouin as we shared meals in their tents have given us a glimpse into a world long passed. These experiences, combined with the thousands of miles of rugged

terrain through which we have traveled, have given us the ever stronger conviction that Nephi described a real trail and that we have been privileged to follow it.

We hope this work will be of interest and will act as a springboard for future study. We are grateful to have had the chance to bring to the attention of the L.D.S. community sites which, our field research has shown us, are by far the strongest candidates for the locations described by Nephi. The fact that they occur with the precise order, distance and orientation described in the Book of Mormon leads us to the conclusion that we have, with a high degree of probability, discovered the Lehi/Nephi Trail. Our conclusions include:

1/Lehi's trail to Aqaba: The Way of the Wilderness and King's Highway combination. (August 1999)

2/The identification of borders 'near' and the borders 'nearer' the Red Sea. The mountains of Midian. (December 1995)

3/The River of Laman. (May 1995)

4/The Valley of Lemuel. Wadi Tayyib al Ism. (May 1995)

5/Identification of specific Tree of Life dream imagery. Wadi Tayyib al Ism. (January 1998)

6/Lehi's Trail through Arabia. The Gaza/Dhofar Frankincense trail. (April 98-April 2000) 7/ Shazer. Wadi Sharmah. (August 1999)

8/The Most Fertile Parts. The Qura Arabiyyah. (January 1998)

9/The More Fertile Parts. The oases from Medina to Najran. (December 1998)

10/Bountiful place and Harbor. Merbat/Taqah where they pitched their tents and Khor Rori where Nephi launched the ship. (April 1998)

We realized that the ramification of our study could prove important, and tried to remain as objective as possible. We knew Joseph Smith had no reliable knowledge of the lands through which the Frankincense trail passed. The only westerners who had reported on seeing any part of the lands affiliated with the ancient Frankincense trail were either considered unreliable sources or their writings were too obscure to have reached the village of Palmyra, New York in the 1820's. In 1503, Lodovico Verthema traveled from Damascus only as far as Medina. He reported seeing unicorns in Mecca, and can be considered to have had an overly vivid imagination. Johann Wild (1607) and Joseph Pitts (1687) were both slaves who later won their freedom and reported their journeys to Medina and Mecca. Wild's account was either ignored or dismissed by historians until well after 1830. Pitt's account was vague, but substantial enough to support the fact that he actually made the journey. Subsequently, Ulrich Seetzen (1806), Ali Bey al-Abbasi (1807), J.L. Burckhardt (1814-15), and Capt. George F. Sadlier (1818-19) all traveled from Jedda to the Frankincense trail town of Medina, but did not travel along the trail itself.

At the time Joseph Smith translated the Book of Mormon, only 25% of the 1700 mile course that we believe Lehi traveled through Arabia had been seen and subsequently described in writing by westerners (Verthema, Wild and Pitt). These accounts lacked specifics and were considered unreliable. The likelihood that Joseph Smith had access to

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these vague accounts is very unlikely. So scanty was the west's knowledge of even this northern most 25% of the trail that the distinguished explorer Sir Richard Francis Burton wrote of this area in 1878, "The eastern frontier is still unexplored, and we heard of ruins far in the interior."ⁱⁱⁱ

Lord Derby wrote of Burton that "before middle age he had compressed into his life more study, more of hardship, and more successful enterprise and adventure, than would have sufficed to fill up the existence of half a dozen ordinary men."ⁱⁱⁱ By his death Burton had mastered 41 foreign languages. If the brilliant and scholarly Burton, who had traveled to Arabia twice before, considered even the part of the trail that was seen by Varthema, Wild and Pitts, unexplored in 1878, what knowledge could Joseph Smith have had about this land? How could the twenty-four year old Smith, who had no formal education and had never left the farming communities of New England have known about such obscure and nebulous writings, or for that matter, the other 75% of the trail which no westerner had ever reported seeing before 1830.

If our explorations and study found that the Book of Mormon describes with any decree of accuracy the Frankincense trail through Arabia then Nephi's account has to be a unique historical record, and clearly something Joseph Smith could not have fabricated. But what we were to find, we soon realized was much more.

Field Studies:

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May 1995	Midian, finding the Wadi Tayyib al-Ism (candidate for Valley of Lemuel)
December 95	Wadi Tayyib al-Ism (first photographs), Port Aqaba, Desert Highway to
	Jordan.
November 96	Wadi Tayyib al-Ism, search for Shazer in Wadi Shaqra
April 97	Steve & Pamela Done visit Wadi Sayq in Oman find it unsuitable for
	building or launching a large sailing ship.
August 97	Our first presentation to the Foundation for Ancient Research and
	Mormon Studies (F.A.R.M.S.) at Brigham Young University.
January 98	Followed Frankincense trail from al-Ula to Madinah
Spring 98	Neil Holland makes several trips into Asir Mountains search for bow
	woods.
April 98	Dhofar in Oman, followed frankincense trail from Shisir to Salalah plain,
	determined that village of Taqah and the Frankincense port at Khor Rori
	qualified as the best candidate for the place Bountiful (reported finding to
	F.A.R.M.S.)
August 98	Tim Sedor surveys and photographs the granite canyon in the Wadi
	Tayyib al-Ism.
December 98	Survey all the major Frankincense trail halts from Saudi-Yemen borders to
	al-Bada'a. Explore for bow woods with Neil Holland.
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¹Burton, p. 105.

[&]quot;Freeth, p. 121.

January 99	Explore trails from northern end of the Gulf of Aqaba to Wadi Tayyib al-
	Ism.
January 99	Second trip to Oman; Khor Rori, Wadi Sayq, Wadi Darbat, khors west of
	Salalah.
August 99	Jerusalem, King's Highway, Way of the Wilderness, Wadi Sharma, wadi
-	Tayyib al-Ism.
September 99	Third trip to Oman; Wadi Dharbat, Shisr, Khor
October	Fourth trip to Oman; find flint on travel and large hard woods growing in

Wadi Darbat.

Fall 99	Fifth visit to Oman; Shipyards in Oman, Bahrain and Saudi Arabia.
January 00	Wadi Tayyib al-Ism, Wadi Sharma surveyed Frankincense trail from al-
	Bad'a to al-Ula.
April 00	Wadi Tayyib al-Ism, Wadi Sharma, hunting grounds near Wadi Sharma,
	trail from al-Bad to Ula, coastal route from Sharmah to Dhuba.

We are amateurs, we make no apology for that, but rather take pride that we have been able to continue a long tradition of amateur research in the Peninsula started by Lynn and Hope Hilton, former residents of Saudi Arabia, who researched "Lehi's Trail" in the 1970's, and Warren and Michaela Aston with their work on Yemen and Oman in the 1980's. Before them Dr. Hugh Nibley, without the benefit of an opportunity to visit Arabia, proved uncannily accurate in his narrative history of "Lehi in the Desert", as observation of his map of the proposed location of the Valley of Lemuel will attest. To these authors we are indebted for it is from our vantage point upon the building blocks of their endeavors that we are able to see a little farther toward the horizon of certainty.

Acknowledgments

We are indebted to many for their companionship and support. Members of our exploratory expeditions included: Ed Benson, Mike Gifford, John Gravette, Jim Grisenti, Neil Holland & Family, Satya Nand, Bruce Santucci, Tim Sedor, Craig Thorsted, Stephen and Simon Wellington and Sonny Yukl. The projects consulting Geologist was Professor Wes Gardner, of King Fahad University of Petroleum and Minerals.

Special recognition is due for computer & graphics expertise was contributed by Tim Sedor; Michael Bellerson our trail guide to and through the most fertile parts of the wilderness, and Neil Holland for the time, effort and ingenuity in searching for the bow wood used by Nephi. We are indebted to Dr. Stephen and Pamela Done who undertook an exploratory trip to wadi Sayq and whose knowledge of matters nautical proved crucial in searching for Nephi's harbor. A heartfelt thank you goes out to Jose Flores for his beautiful pen and ink sketches in "Nephi's Great Ship". To Frank Linehan of the United States Maritime Administration for his help with 'Nephi's Ship' and Lyle Fletcher for allowing us access to his research notes on the issues surrounding Nephi's ship; Tom Vosmer, Director of the Oman Traditional Ship Project, for his help and encouragement; and finally to Randolph Linehan and Waleed Al Mansour for their insights into the caravan trade.

We are indebted Jay Todd of the Ensign and Professor S. Kent Brown of BYU for their sustaining support for our efforts.

For their help in so many ways: Chris Hamilton, Brad Monson, Roger Smith, Katie Wellington and last but by no means least, our despairing wives!

This Book is

Dedicated to Two Extraordinary

Young Men.

Their Spiritual and Intellectual

Capacities Are Truly Inspiring.

То

Nephi, Son of Lehi

And

Joseph Smith, Jr.

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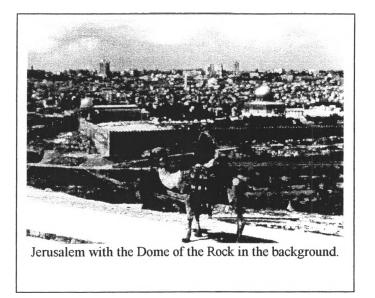
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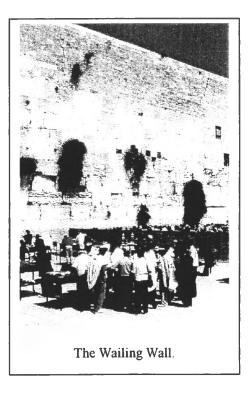
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Setting the Scene





Chapter 1

Setting the Scene

Before we follow the words of the Prophet Nephi into the wildernesss of Arabia, it is important to understand the historical and religious context of his record. Not only will it help us realize why the Lord commanded his father, Lehi, to leave the Holy City, but will help us to understand, at least to some degree, the misconceived beliefs of his elder brothers Laman and Lemuel. In sharp contrast, a brief recanting the events in and around Jerusalem will also illustrate through Lehi's example how a prophet of God can maintain clarity of thought and vision during the most chaotic and dangerous of times. Nephi's account unfolds in the Old World over two and a half thousand years ago. While his chronicle was not meant to be exhaustive (2 Nephi 5:33) Nephi still gives us a few insights into the background of the principal characters participating in this epic story.

By the time Nephi's narrative commences Lehi would appear to be a well-established businessman. Lehi was of the tribe of Mannasseh (Alma 10:3), whose lands were north of Jerusalem in what became the Northern Kingdom of Israel. These lands fell to the Assyrians in 722B.C.. Lehi's ancestors must have left either before that time, or when the Assyrian threat became obvious, just as Lehi would do in response to the Babylonian threat over 100 years later. This extensive migration of many northern Israelites from the Assyrian 'Province' of Samaria when the Assyrians invaded, led to dramatic growth in the size of the city of Jerusalem¹. This increase in population may have been the cause of an economic prosperity during the reign of the great reformer King Hezekiah, which was manifested in a building boom not only in the city of Jerusalem but also in the land round about². New defenses were constructed throughout the land, and in Jerusalem a new broad city wall was completed, an underwater conduit was tunneled 1,770 feet from Gihon spring to Siloam pool, and two new residential and business quarters, the Mishneh (2 kings 22:14) and Maktesh (Zephaniah 1:10), were built. Through this time of economic prosperity Lehi's ancestors would appear to have thrived, passing on to Lehi lands near the city of Jerusalem, which they apparently had owned for some considerable time since they were described by Nephi as 'the land of his inheritance' (1 Nephi 2:4).

Lehi was a wealthy man who had received a good education, having taught his children in the 'learning of the Jews' (1 Nephi 1:2). That he had a land of inheritance and had received an education implies a position of privilege, that his wealth was to some extent inherited. Yet Lehi was an industrious man who obviously added to that wealth. Nibley puts forward a convincing argument that Lehi was a trader with connections with Egypt³.

The Historical Perspective

Nephi's first-hand description of life in Jerusalem in the first year of the reign of king Zedekiah is fascinating. It was a time of empires in turmoil and of political intrigue as the

Assyrian empire had made way for a new order. The apparently strong reaction of the people of the city to Lehi's message, their hard-hearted rejection to the call of repentance from a Prophet of the Lord, can best be understood in the light of the events of the previous century. In 701 Sennacherib, king of the Assyrians, mounted a campaign against Syria and Palestine with the aim of capturing the road to Egypt in preparation for his campaign against the Egyptians. Egypt's allies surrendered one by one as the Assyrian army approached and the Egyptian army was defeated at Eltekeh in Judah. Sennacherib laid siege to Jerusalem. Attempts to buy off the Assyrian army proved fruitless (2 Kings 13-16) and without allies Hezekiah's position seemed hopeless. Yet, at this time of near desperation, the Prophet Isaiah came forward to bolster the courage of the people by saying "He shall not come into this city...For I will defend the city to save it..." (Isaiah 37:33, 35). Despite attempts to incite insurrection in the ranks of the defenders Hezekiah's resistance was successful. Sennacherib cut short the attack and left Palestine with his army which, according to the Old Testament (2 Kings 19:35), had been decimated by an epidemic, leaving some 185,000 dead.

In the years that followed, this event would be recounted until "Later generations could ascribe this deliverance to nothing less than a supernatural intervention, second only to the one which had secured the freedom of the Israelites from the Egyptian captivity⁴". Regarding this event Professor Benjamin Mazar wrote:

Embellished by legendary accretions, it strengthened the popular view of the impregnability of the city, and the ultimate sanctity and inviolability of mount Zion and the Temple. This confidence remained intact through subsequent generations down to the last years of the monarchy, until the day that the city walls were breached, the defending forces overwhelmed, and the city itself destroyed by the armies of the Babylonian king Nebuchadnezzar.⁵"

In Laman and Lemuel we see the perfect embodiment of that same mindset.

Neither did they believe that Jerusalem, that great city, could be destroyed according to the words of the prophets. And they were like unto the Jews who were at Jerusalem, who sought to take away the life of my father. (1 Nephi 2:13)

Hezekiah was succeeded by his son, Manasseh (692-638 B.C.) during whose long reign Judah remained a vassal state to Assyria. Manasseh allowed foreign influences to sweep into the kingdom. Witchcraft, divination and wizardry became common; the Assyrian god Ishtar was worshiped in the Temple itself and even child sacrifice was practiced in the valley of Hinnom. According to the chroniclers Manasseh mercilessly persecuted the prophets and, according to Talmudic tradition, even the prophet Isaiah was killed, being sawn in half.

Political intrigue became more intense following the death of Manasseh when his son, Amon, was murdered after only two years on the throne (638-637 B.C.). (Lehi was probably born somewhere around this time.) The revolutionary elements were soon suppressed and the eight year old Josiah (637-609 B.C.) was placed on the throne by the landed nobility. In 629 B.C. king Josiah began a purge, removing the pagan idols and repairing the Temple⁶. In 619 B.C.⁷ a hitherto unknown book was found in the Temple (2 kings 22:8-10). It is generally considered that this 'book of the law' was the Book of

Deuteronomy. It was read to the king and he in turn had it read to the entire population, both young and old, and all entered into a covenant with the Lord (2 kings 22 & 23). (Laman and Lemuel were probably born around this time). Regarding this time Abram Sachar wrote:

To later chroniclers this brief period of Josiah was looked back upon as a golden age. The people had peace; the laws of the Mosaic faith were carefully practised. The king was a model of piety and set a worthy example for his people⁸.

There followed a period of territorial expansion and economic prosperity⁹ under which Lehi's business presumably thrived. This was the environment that Laman and Lemuel were raised in. The king and people were righteous. They had entered into a covenant with the Lord. The Mosaic law was practiced scrupulously and the Lord was blessing them with peace and prosperity. It is therefore no surprise to find Laman and Lemuel stating:

And we know that the people who were in the land of Jerusalem were a righteous people; for they kept the statutes and judgements of the Lord, and all his commandments, according to the law of Moses: wherefore, we know that they are a righteous people...(1 Nephi 17:22)

Laman and Lemuel were a product of their environment, they believed, as did the vast majority of the inhabitants of Jerusalem, that they were righteous. Not all, however, held this same view.

Jeremiah' prophetic career began in 627 B.C., the thirtieth year of King Josiah's reign (Jeremiah 1:2). Jeremiah's message fell on deaf ears and he was expelled from his home village of Anatoth, an hour's walk from Jerusalem. He probably came to Jerusalem soon after. Jeremiah considered the reforms introduced by king Josiah to be entirely inadequate. He joined with Zephaniah and other prophets¹⁰ and together they sent forth their voice of warning: "Woe unto us! for we are spoiled. O Jerusalem, wash thine heart from wickedness, that thou mayest be saved. How long shall thy vain thoughts lodge within thee?" (Jeremiah 4:13,14). According to Nathan Ausubel, Jeremiah's message was this:

Reforms in worship could not guarantee the redemption of Israel from its Assyrian oppressor. Not more devout worship of God, as the prophets and priests counseled, but rather more upright action would most effectively sustain them in their national tribulation¹¹

For this reason the hostility of the priestly class was roused against Jeremiah.

In the final years of Josiah's reign the three superpowers Egypt, Assyria and Medo-Babylonia became embroiled in a power struggle into which Judah was inevitably drawn. Assyria was entangled in a drawn-out struggle with Babylon. When the Assyrian influence began to weaken she found an ally in Egypt in the form of Psammetichus I. Thus we find in 616 B.C. Egyptian troops fighting alongside Assyrian troops in Mesopotamia. Babylonian prince Nabopolassar, in turn, formed an alliance with the Medes in 614 B.C., following their attack on the Assyrian city of Ninevah. (Nephi seems to have been born during these years.) The Medes destroyed the city while the Assyrian army was engaging the Babylonians, thus marking the effective end of the Assyrian empire. The Assyrian army withdrew to the west fighting a rearguard action against the mighty Medo-Babylonian alliance. They were once again defeated at Haran in 610 B.C. and withdrew to Carchemish to wait for reinforcement from the Egyptians. In the meantime the Babylonians had opened diplomatic relations with Judah and king Josiah, switching allegiance, attempted to aid their cause by marching his army to Carchemish to try and interrupt the columns of the Egyptian army. Battle was joined and King Josiah was mortally wounded in 609 B.C. trying to hold the Megiddo pass.

Judah now found herself being swept ever further into a torrent of confusion and political intrigue. Allegiances vacillated between militant extremists who favored insurrection against Babylon and moderates who advocated submission to foreign rule. Following Josiah's death the popular voice placed his second son, Jehoahaz, on the throne¹². The Egyptians swept into Judah and within three months Jehoahaz was taken in chains to Egypt, where he died. In his place the Egyptians put his unscrupulous brother, Jehoiakim (608-598 B.C.), as vassal king on the throne. But Egyptian influence was short-lived and in 605 B.C. Assyria collapsed and the Egyptian army was defeated by the Babylonians at Carchemish, in the spring of that year, as they attempted to cross the Euphrates. A history of Nebuchadnezzar written by Berossus of Babylon, unfortunately no longer in existence but quoted in Josephus, states that after defeating the Egyptians the crown prince Nebuchadnezzar immediately "settled the affairs of Egypt, and other countries" and sent Jewish captives back to Babylon as well as those from Egypt, Syria and Phoenicia before returning to Babylon to be crowned king¹³. It was following this battle that Daniel was taken captive (Daniel 1:1-3,6) to Babylon. King Nebuchadnezzar now emerged as the military colossus who dominated the Middle East, becoming the new overlord of the kingdom of Judah.

Jehoiakim submitted to the will of the anti-Egyptian party and swore allegiance to Babylon. So long as the king remained loyal to Babylon it seemed that the people would remain unharmed, yet still there were those elements who advocated rebellion. The patriotic party flirted with alliances with the surrounding countries with the intention of throwing off the Babylonian yoke. The prophet Jeremiah now spoke out in full force against these foolhardy radicals. Judah's only hope of survival lay in submission to Babylon, to attempt to stand against her was courting disaster. Abram Sachar wrote:

He (Jeremiah) did not share the popular belief that the Holy City could not be destroyed. There was too much faith in the inviolability of Jerusalem. It had hardened into a dogma of popular religion, further strengthened by the vulgar interpretation of Deuteronomy. God would assuredly destroy Jerusalem and the people who had desecrated it; it would be a Shiloh. For the Temple had become a house of sin, a mockery-What has my darling to do in my house? Vile are her doings! Can scraps of fat and sacred flesh Turn calamity from thee? Then mightest thou rejoice! (Jeremiah 11:15)¹⁴.

By speaking out Jeremiah put his life in danger. He was publicly struck by a temple priest, placed in the stocks to be taunted, assailed about by the clamoring mob. He would

have been executed but for the fear of killing a prophet. As soon as he was released Jeremiah wrote his sermons out and sent them to the king who promptly destroyed them. Jeremiah wrote them out again and continued his preaching. But Jeremiah's warnings were to no avail and after three years the king had switched allegiances yet again, back to Egypt. Nebuchadnezzar ordered contingents from the surrounding nations to attack and that winter, as the Babylonian king approached Jerusalem to supervise the seige, king Jehoiakim died and was replaced by his 18 year old son Jehoiachin (598-597 B.C.). The new king reigned only three months and as the capital city was besieged he threw himself on the mercy of the Babylonian monarch, realizing that resistance was futile. He surrendered on March 10th, 597 B.C.¹⁵ and he, the royal family, palace officials, members of the army "and all the craftsmen and smiths" (2 kings 24:14) were taken captive to Babylon. Jeremiah puts the figure of those deported at 3,023 (Jeremiah 52:28) whereas the number of captives is placed at 10,000 and 8,000 in Second Kings (24:14-16). The prophet Ezekiel was one of those exiled.

A revealing Babylonian chronicle, the counterpart to this Biblical tale (the tablets of which are now in the British museum), tells us:

The king of Akkad (Babylonia, i.e. Nebuchadnezzar) laid siege to the city of Judah (lahudu) and the king took the city on the second day of the month of Adduru. He appointed in it a new king of his liking (literally *-heart*), took heavy booty from it and brought it into Babylon.¹⁶

The 'new king' was Zedekiah.

King Zedekiah

And so the scene is set for the beginning of our story. Nephi's record begins about this point, at the commencement of the first year of Zedekiah's reign (597-587 B.C.). Lehi, obviously, was not one of those deported, perhaps the fact that Lehi dwelt outside Jerusalem saved him from that fate. (When Lehi's sons were sent back to Jerusalem to obtain the brass plates of Laban, they traveled 'down' from the city to the land of their inheritance [1 Ne. 3:16 & 22] and then 'went up again' to Laban's house in the city itself [1 Ne. 3:23]. The boys 'went up'to the land of Jerusalem [1 Ne. 3:8] from the camp at the Valley of Lemuel, in Arabia, and on their return Nephi mentions that they 'had come down' [1 Ne. 5:1] to their father. It may be possible to assume then that 'up' is northward and 'down' southward. If this were correct it would place Lehi's land of inheritance some distance to the south of the city of Jerusalem¹⁷.

Zedekiah would not appear to have been a righteous ruler since Jeremiah referred to him and his followers as "bad figs" as compared with the "good figs" taken captive by the Babylonians¹⁸. According to the Chroniclers Zedekiah did evil in the site of the Lord and humbled himself not before Jeremiah. During his reign men and women gave themselves to the worship of the Babylonian goddess of love (Ishtar), as well as the sun-god; and on the other hand the worship of the sacred animals of Egypt was carried on in an underground chamber. Lehi must have seen that, as in Israel's past history, wickedness had preceded political catastrophe. Since the reforms of Hezekiah the people had exalted the Temple and its rituals above the elementary practices of justice and kindness. Judah's vacillations between suzerains, with its attendant covenant breaking, had brought devastation to the kingdom in the past, and yet the people seemed oblivious to the fate that would await them should their king break the solemn oath he had made to King Nebuchadnezzar. Despite all this the new king seemed hell bent on destruction. Ben-Sasson wrote:

Zedekiah's first year witnessed extremely difficult conditions in Judah. The new, inexperienced leadership that had replaced the exiled court tended to be more militant and, surprisingly, even adamantly anti-Babylonian¹⁹.

The Lord called many prophets that year to cry repentance to the people. Repent or Jerusalem would be destroyed. Yet false prophets, such as Hananiah ber Azur (see Jeremiah 28), predicted the destruction of Babylon in a short time. These false prophets exerted considerable influence on the king and the rest of the population. Not surprisingly Lehi was aware of the potential consequences of rebellion against Babylon and went to the Lord to pray with all his heart on behalf of his people (1 Nephi 1:5). The message which Lehi was given to take to the people was the same as the other prophets, a reiteration of that same warning that Jeremiah had been giving for all those years: the people needed to repent of their wickedness or else Jerusalem would truly be destroyed. But these were two facts the people had the greatest difficulty accepting. Thus two parties existed in the land. Margolis and Marx notes that "the two parties-the loyalists who stood by Babylon and the hotheads who looked to Egypt for help- were pitted against each other to the point of violence and bloodshed"²⁰.

Just as Jermiah's life had been threatened (Jeremiah 26:8) and Urijah' had been executed in the reign of king Jehoiakim (Jeremiah 26:23), Lehi found himself in fear of his life. His brief mission in Jerusalem accomplished he fled, as had Urijah before him.

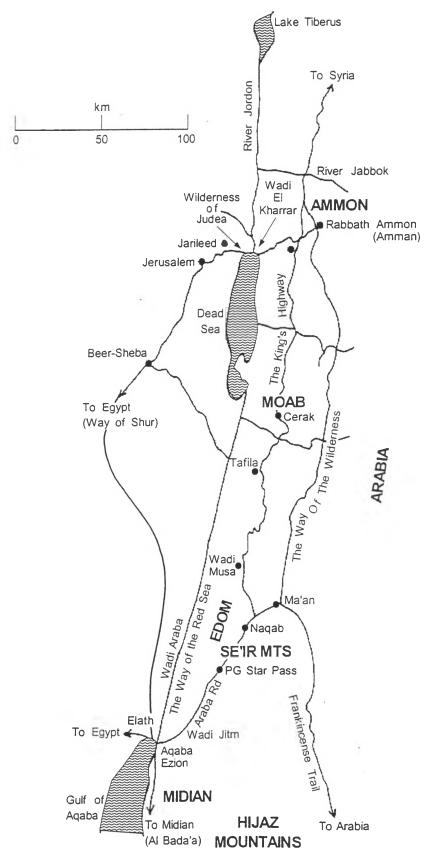
After Lehi's departure Judah's situation continued to worsen. Zedekiah was playing a dangerous political double-game, a vassal king of Babylon he found himself flirting with the influence of the pro-Egyptians. When Nephi returned to obtain the brass plates of Laban we read of his encounter with Laban's servant, Zoram.

And he spake unto me concerning the elders of the Jews, he knowing that his master, Laban, had been out by night among them. And he spake unto me many times concerning the elders of the Jews... (1 Nephi 4:22,27).

Zoram showed great interest in knowing the latest twists in the plotting of the influential Laban and the elders. Laban had been meeting in the dead of night, when no one was in the streets to witness his decapitation. How appropriate that Margolis and Marx wrote, that "Apparently those who favored leaning on Egypt thought it discretion to plot in secret"²¹.

Nephi outlined the reasons why he considered Laban to be wicked: "... yea and he would not hearken unto the commandments of the Lord; and he had also taken away our property" (1 Nephi 4: 11). Is it possible that Laban had not hearkened to the words of the prophet Jeremiah, or Lehi, and was one of those who favored an alliance with Egypt?

No two other decades in the history of Judah are better documented than the years 609-586²². Yet in the Book of Mormon we are privileged to be able to peek into the dealings of a family caught up in the intense political and religious turmoil of the times. The commonly held beliefs of the people had two of their strongest adherents in Lehi's eldest sons, Laman and Lemuel: the people of Jerusalem were righteous, they observed the Temple rituals more closely now than since the days of Solomon. Their capital, Jerusalem, was an impregnable fortress. They believed falsely that the prophet Isaiah had told them the Lord would never allow it to be overthrown. The prophets and religious leaders of the day comforted the people with the same message. Their father, however, a successful businessman man in his own right, intelligent, insightful and spiritually attuned to the message preached by the prophet Jeremiah, led the family in a direction that would ultimately lead him to direct confrontation with his two oldest sons, who would eventually seek his life, as the people of Jerusalem had sought Jeremiah's.



Lehi's Route from Jerusalem to the Red Sea

Oh that I had in the wilderness a lodging place of wayfaring men; that I might leave my people, and go from them! For they be all adulterers, an assembly of treacherous men. (Jeremiah 9:2)

Chapter 2

Escape From Jerusalem

Lehi was informed by the Lord in a dream that the people of Jerusalem were about to take his life and directed Lehi to escape into the wilderness (1 Nephi 2:1-2). There seems to be little doubt among Mormon scholars on this matter that the wilderness in question was Arabia. Such prominent authorities as Joseph Fielding Smith, Jr.¹, James E. Talmage² and B.H. Roberts³ have made this assertion. Nephi's reference to Arabia as a wilderness is totally correct because it was not only a physical wilderness, it was also considered a geo-political one in Nephi's time.

Physical wilderness

Wilderness usually means desert in its Book of Mormon context. Linguist Hugh Nibley explains that:

...it is necessary to get a correct idea of what is meant by "wilderness." That word has in the Book of Mormon the same connotation as in the Bible, and usually refers to desert country.

We have the Bible to guide us here, for the Book of Mormon opens in Bible country, and in the Bible 'wilderness' almost always means desert. Thus when Lehi assures his wife that the Lord will bring their sons "down again unto us in the wilderness", even while the young men "journeyed in the wilderness up to the land of Jerusalem" (1 Nephi 5:5-6), we know beyond a doubt that the wilderness in question was the country between Jerusalem and the Red Sea, all of which is very dry and desolate. When, in Arabia, Lehi's people had to be "keeping in the most fertile parts of the wilderness" in order to survive (1 Nephi 16:14), it is clear what sort of country they were in.⁴

Bible translators appear to use the words 'wilderness' and 'desert' as synonyms. (see Exodus 19:1&2) Book of Mormon translators realize the same equivalency. For example, the Spanish translation of the Book of Mormon uses the Spanish word for desert, *desierto*, in the first book of Nephi rather than other Spanish words for wilderness i.e. *yermo*, *erial*, or *soledad*.

Geo-political wilderness

Wilderness appears to have another meanings in the 1st Nephi context. Webster's defines wilderness as "(1) a tract or region uncultivated and uninhabited by human beings (2) an area essentially undisturbed by human activity together with its naturally developed life community."⁵ Graeme Donnan wrote: 'The term bedouin is derived from the plural of the word bedou meaning desert dwellers, or literally, "people who live in places which are not cities"⁶. It seems safe to say that when Nephi wrote that they camped by a river in the wilderness, they were not in a town or city. For the most part, Arabia today remains a wilderness. In some regions there exists no evidence that anyone has ever permanently lived there, e.g. the greater part of the famous great sands of the Empty Quarter.

Indeed, in the perspective of Nephi's world, Arabia was a wilderness in the classic definition of the word. The world of Nephi was partitioned into two spheres, the civilized world, and the rest, void of civilization, a political and cultural wilderness. Nephi lived during the decline and eventual fall of the Assyrian Empire. By the time he left Jerusalem, the political vacuum caused by the fall of Assyria was being filled by the competing forces of the Egyptians, Medes and Babylonians. Neither the Babylonian nor Egyptian areas of influence could be guaranteed safe havens. Zedekiah was a vassal king of Babylonia, yet on the other hand he was clearly drawn into the Egyptian sphere of influence. There is some evidence to infer that Judæan soldiers were sent to aid Psammetichus in 592 B.C. in his campaign against the Ethiopians. It is considered that this was most likely part of a secret treaty between the two kings⁷. The Book of Mormon hints that the elders may even have been plotting relations with Egypt earlier than that (1 Nephi 4:22-27). The closest area outside the influence of all of the superpowers was Arabia. From the northern end of the Gulf of Aqaba, where Arabia begins, Nephi entered a land that was considered a wilderness world to the people of his day.

It appears that in Nephi's period, the Jews considered this wilderness, Arabia, a place of refuge when persecution and repression became too difficult. Abu Hurairah, an early Islamic period geographer, wrote of the Jews who settled in northwest Arabia to escape the persecution of Nebuchandnezzar⁸. This flight resulted in large numbers of Jews living in al-Hijr, Khaibar and Medina. These Jews were Nephi's contemporaries and compatriots. Arabia's designation as a wilderness made it a logical place to flee from Nebuchadnezzar and the destruction of Jerusalem. This is not to say that the rich empires of southern Arabia did not exist in Lehi's time. Clearly they did, as did the source of their wealth, the Frankincense trade. However, northern Arabia was, for the most part, inhabited by nomads. Concerning Arabia, the LDS Bible Dictionary states, "In northern Arabia were a large number of wandering tribes..." To this day, the Arabian Bedouins travel from camp to camp seeking fresh pasture for their goats and camels. When they leave one camp for another, they take with them their tents and every other indication of human activity. Essentially they leave the land undisturbed by human activity. Jeremiah referred to those living in this desert, as "the Arabian in the wilderness". (Jeremiah 3:2).

Finally, let us consider the origin of the word wilderness. Its old English form was *wilddeoren*, meaning "of wild beast." This is also descriptive of Nephi's Arabia. On their journey from Jerusalem to the valley with Ishmael and his family, Laman and Lemuel

rebelled and turned upon their younger brother Nephi. The wounded and probably bleeding Nephi wrote, "they (my brethren) were angry with me. And it came to pass that they did lay their hands upon me, for behold, they were exceedingly wroth, and they did bind me with cords, for they sought to take away my life, that they might leave me in the wilderness to be devoured by wild beasts." (1 Nephi 7: 16). The Greek Agatharkides of Cnidos wrote of Midian, the north west corner of Arabia:

Upon these gifts of fortune attends the nuisance that the earth breeds numbers of lions, wolves, and pards; and, that which makes the happiness of the land, causes unhappiness to its inhabitants."⁹

A wilderness of man-eaters? The area in which Nephi initially entered Arabia near the Red Sea was the region called Midian. The last lion in Arabia was killed in Midian in 1926.

The route to the Red Sea

Is it possible for us to find out by what route Lehi left Jerusalem and made his escape to Arabia? In 1 Nephi chapter 2, Nephi gives us certain facts about the journey, namely that they departed into the wilderness (v. 4) and that they came down by the borders near the shore of the Red Sea (v.5). There would appear to be few clues here to guide us but it is still possible for us to glean quite a lot of information from these brief statements.

There are four possible routes of escape that Lehi could have used to reach the shores of the Red Sea. These are:

1/ Southwest from Jerusalem via Beersheba to Ezion-geber.

2/ East from Jerusalem to Jericho then south, passing to the west of the Dead Sea, through wadi Araba to Ezion-geber.

3/ East from Jerusalem towards Heshbon, then south via the King's Highway to Eziongeber.

4/ East from Jerusalem to join the Way of the Wilderness, then southwest to join the King's Highway to Ezion-geber.

After leaving Jerusalem they headed immediately for the wilderness on their way to Arabia. Lehi would have wished to travel quickly, so he would no doubt have chosen an existing route in order to escape Zedekiah's sphere of influence as quickly as possible. All of routes mentioned above would have led the family to Midian in Arabia, the location of the Valley of Lemuel. Since Lehi would have doubtless wanted to to escape Judean influence as quickly as possible it seems unlikely he would have taken the route southwest via Beersheba, as this passed almost exclusively through territory under the control of Zedekiah. The quickest and safest route away from Zedekiah's influence would have been the route leading east from Jerusalem to Jericho and on to Heshbon (Hisban), but would that have been "into the wilderness" (1 Nephi 2:4)?

East From Jerusalem

The recent discovery of the remains of a church at Wadi el-Kharrar, marking the place where both Elijah was caught up into Heaven (II Kings 2:11-13) and where John the Baptist ministered, would seem to add weight to that hypothesis that it was, in fact, "into the wilderness"¹⁰. The scriptures tell us that John the Baptist was "preaching in the *wilderness* of Judea" (Matthew 3:1). Wadi el-Kharrar is a little over one mile (2 kilometers) east of the Jordan river across from Jericho. At the time of Christ this area was still known as 'the Wilderness'¹¹. The quickest way into 'the wilderness' for Lehi would therefore have been due east, using an existing road which led to an area known in the scriptures as 'the wilderness' (of Judea).

The Wilderness

By crossing the river Jordan and heading east the family would have passed south of Amman where two roads headed south. The first route leading south to Midian the family would have encountered would have been the "King's Highway" (Numbers 20:17; 21:22) (see map 3 of the map section of the LDS Bible). The King's Highway would have been the most direct route out of Ammon and south into Moab, Edom and finally Midian. The part of the King's Highway south of Rabbath-'Ammon (Amman) ran along high ground through good arable land. According to Graeme Donnan:

The stretch of the King's Highway running between Amman and the Biblical land of Edom is never far from the edge of the plateau. It is generally aligned with the maximum distribution of rainfall, which is about 300 to 400 millimetres a year around Amman, with considerable annual variation and a rapid decline towards the east and a more gradual decline towards the south. Soon after Amman the highway passes through Madaba, a small, originally Christian town amidst open fields of wheat and small allotments of grape vines and olives.¹²

Yet the part of the King's Highway south of Amman passed through farmlands. According to Donnan "...all of the principle settlements south of Amman, with the notable exception of Ma'an, lie astride the King's Highway"¹³. Nephi's description of traveling in the wilderness does not sound like a journey down the King's Highway south of Amman.

The Way of the Wilderness

By continuing about 5 miles further east of the King's Highway Lehi would have reached a second major route heading south, the Desert highway known as the 'The Way of the Wilderness' (2 Samuel 15:23-28), which David headed towards as he fled from Absalom and Jerusalem. Graeme Donnan once again provides some useful insights:

Further east, the frequency and amount of rainfall declined from about 300 millimetres around Rabbath-'Ammon to less than 100 millimetres, making farming and the herding of sheep and goats a less reliable venture. Here the sown land gave way to semi-arid steppe (a poor quality grassland), and eventually the desert imposed a restriction upon the eastward expansion of permanent settlements.

Traversing the mountain plateau along the King's Highway involved a toilsome journey across many valleys, but out in the desert the more level terrain allowed a greater freedom of movement...Even in this vast area travelers tended to favour convenient routes...The persistent need of desert travelers to replenish their supplies of water also encouraged the use of specified routes with water holes and caravanserai.¹⁴

From Nephi's description it appears the family travelled in the wilderness from the time they left Jerusalem. Nephi was later to state that they "did sojourn for the space of many years, yea, even eight years in the wilderness" (1 Nephi 17:4). The most logical route to escape from Judea took the family eastwards to the desert highway. This allowed Lehi the greatest freedom of movement and the least possibility of interception by Judean authorities. This route avoided the settled areas of the Kings Highway south of Amman and perfectly fits Nephi's description of travelling in the wilderness, i.e. uninhabited desert areas.

Taking the Desert highway south would have led to the oasis town of Ma'an, where mineral springs still flow. At Ma'an Lehi could have continued on south on the Way of the Wilderness, the main route into Arabia, or taken a route which led south west from the Way of the Wilderness to join the King's Highway at Naqab in the as Se'ir Mountains. By joining up with the Kings Highway 50 miles north of Aqaba Lehi was able to safely circumvent the lands under the control of Zedekiah. This route led him through the borders and to the Red Sea. From Naqab the King's Highway leads to the coast at the northern tip of the Gulf of Aqaba at the ancient town of Ezion-geber (Tall al Khalaifah), situated near the modern town of Elath, and 2 miles west of the modern town of Aqaba. Donnan states "From Edom to Aqaba the topography changes and the average rainfall decreases to about 100 millimetres. Extensive cultivation becomes less prevalent further south, and there are noticeable fewer settlements"¹⁵. This southern section of the King's Highway no longer runs through arable land but desert terrain.

The Borders

In verse 5 of 1 Nephi chapter 1 we read that "And he came down by the *borders* near the shore of the Red Sea". When they were eventually to leave the Valley of Lemuel they continued their journey "in the most fertile parts of the wilderness which are in the *borders* near the Red Sea" (1 Nephi 16:14). This raises the question 'What are the borders?' The common interpretation seems to be that the borders were the shore alongside the Red Sea. Hilton proposed that the coastal plain¹⁶ was the route taken by the family and Foundation for Ancient Research and Mormon Studies (F.A.R.M.S.) website shows a map of a proposed route along the Red Sea coast. Yet linguist Nibley has explained:

It mentions 'the borders' twice in the fifth verse (1 Nephi 2). That should be capitalized because that's what the area has been called, the Jabal, which means "the Borders." Joseph Smith didn't know that. Neither did Oliver Cowdery, so they left it uncapitalized. But that area in which they went was the Jabal. Jabal is the range of mountains that separates one country from another. This had the name Jabal.¹⁷.

When we place the meaning 'range of mountains that separates one country from another' to the expression 'borders' the whole text takes on a new and obvious meaning.

A mountain range runs south starting south east of the Dead Sea all the way to the north west of Arabia. In the northern part it was known as the Se'ir mountains (modern 'as-Sera', 'Shera'), the Biblical home of the Edomites (Genesis 36:8-9), and in the southern part, in what is now Saudi Arabia, it is called the 'Hijaz'(Hejaz, Hijaz). The King's Highway traveled through the Se'ir mountains, which formed the border between the Edomites and the desert nomads, or Arabs. Alois Musil wrote of the very route we propose Lehi took; the Way of the Wilderness to Ma'an, then south via the King's Highway to Aqaba.

The ancient transport route from Ajla (*Aqaba*) via Ma'an to the north leads along the *border* between the settlers and the nomads; and as, according to the Assyrian and Biblical sources, the nomads were called Arubi, or Araba, and their land was given the same name, we must suppose that this road was called the Arabian road, because it led along the western *border* of Arubi, or Araibi, i.e. Arabia.¹⁸ (Italics added).

Throughout history the Se'ir formed the border between the settled peoples to the west and the nomads who lived in the desert to the east of the mountains. Musil notes:

"From the oldest times the southern slope of the as-Sera range formed the frontier between the settlers and the nomads. This is clear both from the Bible and from the Assyrian records. The classical authors took over these native frontiers and gave the separate regions new names; the Arabic authors changed nothing in this natural limitation of frontiers except the names.¹⁹"

The Iram, the name given to the southern part of the Se'ir range, which leads down to the Gulf of Aqaba on the Red Sea, continued through history as the logical physiographical border between regions. The Romans made it their border to Arabia Petraea and Palestina Tertia (or Palestina Salutaris) and the Arabs continued using the mountain range as their border between the Hijaz and Syria²⁰.

Not only would Lehi have traveled in the borders on the King's Highway but the first part of his journey along the Way of the Wilderness was also in border country. Musil wrote of the route from Aqaba north along the King's Highway and joining the Way of the Wilderness, which he refers to as "the Road of 'Araba":

This road starts from the rift valley of of al-`Araba, in which the harbor: of Elath and `Esjongeber were situated, runs through the valley of al-Jitm to the region of Hesma, thence through the pass of as-Star in the as-Sera' range, and farther in a northeasterly direction to Ma'an. where it joins with the main transport route passing from south to north. This road was used by- the nomads encamping east of Edom when they journeyed to the harbors of Elath and 'Esjongeber. From Ma'an northward this road remains on the border between the settlers and the nomads, between the cultivated land and the wilderness; it therefore could be called the road of `Araba, or the road leading along the borders of Arabia, for the Syrian sources give the name of Arubi, Aribi, partly to the nomads and partly to the wilderness which they frequent.²¹

Joseph Smith's translation of 1 Nephi 2:4-6 can now be seen to be both concise and accurate. They 'departed into the wilderness' (of Judea, east of Jerusalem), taking the route known as the 'Way of the Wilderness'. They "came down by the borders near the shore of the Red Sea" (1 Nephi 2:5), i.e. they traveled south by the borders, or mountains, so called because they formed the border between the settled peoples and the Arabs. They reached the borders near the shore of the Red Sea, i.e. the mountains at Ezion-geber (near today's Aqaba). The route which led to the Gulf of Aqaba through the mountains was the King's Highway. The meaning of the place name Aqaba is an accurate guide to the topography of the area: "A mountain road, a road which goes over a mountain; a difficult place of ascent on a mountain; a road leading up a mountainside to a plateau or high ground; a long mountain crossed by a road."²² Before the 12th century the town of Aqaba was known as Ayla, then, according to William Harms Senior news writer at the University of Chicago, in the 12th century, during the Ayyubid period, "the town began to be called Aqabat Ayla, or "Ayla Pass', a name that referred to the mountainous passes that connected the city with points inland"²³. It seems most likely, if, as we believe, the family traveled the King's Highway down to the Red Sea, traveling via the borders, or mountains, that they came through Aqaba (Ezion-geber) and that Nephi measured his three days journey in the wilderness to the Valley of Lemuel from there, the north end of the Gulf of Aqaba (1 Nephi 2:6). We can be very confident that the journey was measured from this point since all of the ancient roads leading south to the Red Sea converge at Ezion-geber. Subsequently Nephi accurately describes Arabia where tall mountains reach to the shoreline of the Gulf of Aqaba of the Red Sea when he writes that Lehi "traveled in the wilderness in the borders which are nearer the Red Sea" (1 Nephi 2:5). In summary, the topography to and at the area around the Gulf of Aqaba fits perfectly an initial flight by Lehi down the Way of the Wilderness to the King's Highway, and from there through the mountains to Red Sea at Aqaba.

Wadi Araba

Lynn and Hope Hilton proposed that Lehi could have taken the 'Way of the Red Sea' which runs through Wadi Araba, a large valley that leads from the Gulf of Aqaba north to the Dead Sea. They state "The very name 'Araba means "*wilderness*", giving exact conformation of the way Lehi was commanded to travel into the "wilderness", the wadi al-Araba"²⁴. As Musil pointed out the road of 'Araba was so named because it traveled along the borders of Arabia. It started in wadi Araba but followed the course of the King's Highway to join later with the way of the Wilderness. It did not travel up the course of the wadi Araba. Musil noted:

The rift valley of al-'Araba was never traversed by the large transport route connecting Elath with Moab and Damascus. During the dry season many animals and human beings would have perished from the heat there, nor would it have been possible to avoid the steep ascent. The transport routes of antiquity pass only through places which offer a minimum of obstacles, and this applies to the transport route from Elath northeastward though wadi al-Jitm to Ma'an, the ancient Ma'on.²⁵

The Way of the Red Sea was not on a border between any nations. It passed through the centre of the land of Moab. This area had been part of the land captured by David and

Solomon but by 8th century B.C the Moabites had started making incursions into southern Judah. According to the Chroniclers, King Ahaz (735-715 B.C.) unsuccessfully sought help from the Assyrian monarch Tiglath-Pilesar to defend the south (2 Chronicles 28:16, 20 compare with 2 Kings 16:7,9). About this time the Edomites recaptured Elath (Eziongeber) from the Judæans "the king of Edom recovered Elath for Edom, and drove the Judæans from Elath; and the Edomites came to Elath, where they live to this day" (2 Kings 16:6²⁶). Neither did the Way of the Red Sea pass along a natural mountain border with any land or peoples. It traversed through a long valley that led to the sea. Thus it does not fit Doctor Nibley's definition of 'Borders', which he stated was "...the range of mountains that separates one country from another". We can therefore be confident that Lehi did not travel down wadi Araba.

Routes of other Refugees

There would also seem to be a historical precedent for the family escaping to the east. Burton MacDonald stated that the "Judæans fled east of the Jordan river when Nebuchadnezzar captured Jerusalem in 587 B.C. and scattered themselves among the lands of Ammon, Moab and Edom²⁷". G. Lankester Harding is of the same opinion²⁸. According to the book of Obadiah, which is generally believed to have been written shortly after the Babylonian destruction of Jerusalem, the Edomites participated in the capture of escaping Judæans and the finding and handing over to the Babylonians of those who remained in Edom.

"Neither shouldest thou have stood in the crossway, to cut off those of his that did escape; neither shouldest thou have delivered up those that did remain in the day of his distress." (Obadiah 14).

In 1949 operation 'Flying Carpet' began, in which some fifty thousand Yemenite Jews were flown back to Israel²⁹. The Yemenite Jews had no remaining written records of their history, all having been destroyed in numerous purges, or left behind by Jews as they escaped the mobs³⁰. Thus their traditions were oral. A number of different traditions exist as to how they reached the Yemen but according to Reubon Ahroni:

The most prevailing tradition, however, relates that the earliest Jewish immigration to Yemen took place forty-two years before the destruction of the first temple (587 B.C.). This immigration, so it is claimed, was prompted by Jeremiah's proclamation: "He who remains in this city [Jerusalem] shall die by the sword, by the famine and by the pestilence: but he who goes forth to the Chaldeans shall live" (Jer. 38:2). As a result of this prophecy of doom, seventy-five thousand courageous men from the nobles of the tribe of Judah, who firmly believed Jeremiah's prophecy of impending national catastrophe, left Jerusalem accompanied by priests, Levites and slaves. This multitude, carrying their possessions with them, crossed the Jordan River and went into the desert in search of a place of refuge, thus tracing back the route of their entry into Canaan. They traveled eleven days in the desert and arrived in the land of Edom. From there they turned south until they arrived in Yemen³¹.

Here we see an almost perfect description of Lehi's journey east from Jerusalem then southwards down the Way of the Wilderness for 135 miles, to join the King's Highway just before Naqab, the same route by which the children of Israel entered Canaan. Lehi would then have traveled the last 50 miles to the Gulf of Aqaba along the King's Highway, the final 23 miles of which passed through the as Se'ir mountains, to Ezion-geber. It may well be that the precedent for his journey had already been set and Lehi followed a large contingent of Judæans who had previously headed south.

After Lehi's departure the city of Jerusalem fell. As the walls were being breached king Zedekiah and his sons made their escape through the king's garden by the gate between the two walls near Siloam pool (2 Kings 25:4). But Zedekiah's party was captured when they reached the plains of Jericho (Jeremiah 52:8). In other words Zedekiah was heading east to cross the River Jordan as he tried to escape. There seems to be a historical precedent that the preferred route of exit from Jerusalem was east towards the Way of the Wilderness and the King's Highway, which perfectly fits the Book of Mormon narrative of traveling into the 'wilderness' and then into 'the Borders'.

Exodus Imagery.

A recurring theme in Nephi's account is that of the Exodus. Nephi repeatedly used it when attempting to call his older brothers to repentance (1 Nephi 4:2-3; 1 Nephi 17:23-43). King Limhi drew a parallel between the escape of the Israelites from Egypt and the departure of Lehi and his family from Jerusalem (Mosiah 7:19-20). Alma used the same analogy when teaching his son Helaman "he has brought our fathers out of Egypt...and he has led them by his power into the promised land...Yea, and he has also brought our fathers out of the land of Jerusalem... (Alma 36:28-28). It is not our intention here to dwell on this comparison for it has been addressed in great detail by many before us, but sufficient to say, as S. Kent Brown has stated, the comparison appears concrete.

In this connection, commentators from Hugh Nibley to George S. Tate and Terrance L. Szink have drawn together an impressive array of evidence that points to Lehi's exodus as a replication of that of the Israelites...As a result, one can properly make a case for connections between the Hebrew exodus and that of the family of Lehi.³²

As noted above, those Israelites who heeded the call of the prophet Jeremiah and escaped Jerusalem to southern Arabia were aware that their journey was also a reverse of the route the Israelites took when entering the country. If we apply the exodus route parallels to Lehi's family we find that there is more support for our idea that they headed east from Jerusalem. The Israelites entered the promised land by crossing the river Jordan (Joshua 4:1) and proceeded to the plain of Jericho, Zedekiah's preferred route of escape.

Initially the Israelites attempted to reach the promised land by travelling northwest from Kades but they were opposed by both the Amalekites and Canaanites, who were making preparations against them. They turned back towards the Red Sea travelling by the "Way of the Red Sea" (Deuteronomy 2:1). They turned their attention to entering the promised land from north of the Dead Sea and asked the king of the Edomites for permission to travel the King's Highway through his land. "And Moses sent messengers from Kadesh unto the king of Edom...we are in Kadesh, a city in the uttermost of thy *border*...Let us pass, I pray thee, though thy country... we will go by the *king's high way*...until we have

passed thy *borders*." (Numbers 20:14,16,17). Moses promised that the people would not pass through the fields or vineyards but would stay on the road. The King's Highway would doubtless have been the best route north for the Israelites since it would have taken them through cultivated lands where they could have provisioned themselves. But the king of Edom was afraid they would settle in his land so he did not grant them entry and marched out against them with his army.

The Israelites then took the Way of the Wilderness (of Moab) (Deuteronomy 2:8)³³ passing the land of the Moabites with whom the Lord told them not to fight, since the land had been given to Lot and his descendants. As we stated earlier nomads of the desert were called in Bible and Syrian sources Arubi, or Arabs, which means wilderness. Hence the Way of the Wilderness was so called because it passed along the western border of Arabia. By this route the Israelites crossed the brook of Zered (Deuteronomy 2:13) and the River Arnon (Deuteronomy 2:36) but did not go as far north as the river Jabbok (Deuteronomy 2:37).

The route taken by the children of Israel via the Way of the Wilderness down to the road that leads to Ezion-geber then westwards into Canaan is an almost perfect description of the route we propose Lehi used to travel from Jerusalem to the Red Sea. It can be seen why Nephi used the Exodus imagery so readily when teaching his brothers since Laman and Lemuel would have been quite aware of their reenactment of that journey and the similarities between their escape from bondage and that of the Israelites before them.

When did Lehi leave Jerusalem

A discussion of the route taken by Lehi to reach Bountiful logically leads to the question "When did the family leave Jerusalem?" There does not seem to be a consensus on the answer to this question. Randall P. Spackman places the date of Lehi's departure somewhere between the spring of 588 B.C. and that of 587 B.C³⁴. He argues that during the temporary lifting of the Babylonian siege of Jerusalem, when the Babylonians withdrew to engage the Egyptian army, Lehi and his family left and Nephi and his brothers made their two return trips to Jerusalem to obtain the brass plates and Ishmael and his family. He cites that Nephi discovered that Jeremiah had been placed in prison (1 Nephi 7:14), an event which took place in the tenth year of Zedekiah's reign (see Jeremiah 32:1-2; 37:15-16, 21; 38:6-13,28) as evidence that Nephi returned months before Jerusalem fell. David Rolph and Jo Ann H. Seely point out that this was not the only time that Jeremiah was incarcerated. In 605 B.C. Jeremiah declared "I am shut up" (Jeremiah 36:5), which can also be translated as "imprisoned" or "in custody". When Jeremiah was placed in "the stocks" (Jeremiah 20:1-6) some translations take this to mean "Imprisoned"³⁵. So we are presented with a possible range of nearly ten years in which Lehi could have left Jerusalem depending on whether we follow Spackman's calendar of events or whether we read the first two chapters of 1st Nephi to have taken place in the first year of the reign of king Zedekiah.

We believe that Lehi did, in fact, leave Jerusalem some time during the first year of the reign of king Zedekiah, whose reign was from 597-587 B.C. and that he traveled to

Bountiful (Dhofar), the frankincense growing area of southern Arabia. There was a constant passage of caravans from Dhofar and the Levant. These caravans brought back news from Palestine within 4 months, the time taken to make the journey from Palestine to southern Arabia. The people of southern Arabia would have taken a great interest in the political situation in Palestine, Egypt and Babylon, all major consumers of their frankincense. It is unthinkable that they would not have known of the fall of Jerusalem shortly after it happened. Jerusalem fell in 587 B.C.. If Lehi left immediately after Zedekiah came to the throne and traveled 8 years in the wilderness, they would have had two years in Bountiful before news would have come of the fall of Jerusalem. It was not until the family reached the New World that they received the news of the fall of Jerusalem and then by revelation (2 Nephi 1:4) as the Lord had promised he would tell them (1 Nephi 17:14). If we assume that Jerusalem fell around the time they sailed from Bountiful then they would have had nearly two years in which to build the ship, a difficult but possible job.

It would appear that Lehi had no problem leaving Jerusalem and that Nephi was able to enter and leave three times in the following months (years?). This compares with Jeremiah's attempt to leave Jerusalem in 587 B.C., shortly before it fell, where he was accused by the captain of the guard of defecting to the Babylonians and was placed in prison (Jeremiah 37:12-15), implying that Lehi left before this period of heightened tension associated with the Babylonian invasion. If Jeremiah were stopped at the gates one cannot imagine that all of Ishmael's family would not have been noticed as they left. The third time Nephi left Jerusalem he carried out the brass Plates of Laban. These contained a record of the Jews "even down to the commencement of the reign of Zedekiah, king of Judah" (1 Nephi 5:12) as well as writings of the holy prophets, their record also ending at the commencement of Zedekiah's reign (1 Nephi 5:13). The implication is that the additions to the record stopped at the beginning of Zedekiah's reign presumably because that was when they were taken by Nephi.

Escape From Jerusalem



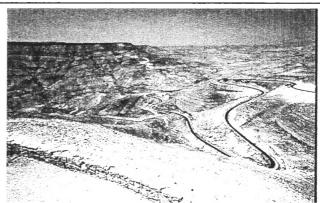
The ruins of the church at wadi El Kharrar which, according to tradition. marks the hill where Elijah was taken into heaven. On the opposite bank of the wadi are the ruins of another church which marks the spot where John the Baptist is supposed to have preached. This area, immediately to the east of Jerusalem, was known in the New Testament, as the 'wilderness' (of Judea).



The King's Highway south of Rabboth Ammon ran through fertile farmlands where most of the settlements of the Ammonites and Moabites were situated



A Bedouin stands by his tent against a backdrop of the Jordanian desert. The desert highway, or "Way of the Wilderness" ran along the edge of this desert terrain.



The southern part of the King's Highway ran through the mountains, through far less fertile country than the northern part. This wadi marks the border between Moab and Edom.

And he came down by the borders near the shore of the Red Sea; and he traveled in the wilderness in the borders which are nearer the Red Sea. (1 Nephi 2:5)

Chapter 3

The Borders Nearer the Red Sea

Borders Near The Shore of the Red Sea- The Hijaz Mountains

Either of the major southerly routes from Jerusalem to Arabia would have brought the family to Ezion-geber (Elath). Today the town of the Port of Aqaba is two miles east of the ruins of the Biblical city of Ezion-geber. As Lehi led his family south into Arabia, Nephi wrote that his father "departed into the wilderness. And he came down by the borders near the shore of the Red Sea" (1 Nephi 2:4.5). In the semitic language, the word for mountain and borders share a common derivation. That is, the Hebrew word *gebul* means border. *Gebul* cognates with Arabic *jabal (jebel, djebel)*, which means mountain¹. Nephi explains "And he came down by the borders near the shore of the Red Sea…"(1 Nephi 2:5).

Nephi also calls the mountains in Arabia 'the borders'. This was still an accurate translation by Joseph Smith since the Hijaz mountains were not only a direct continuation of the as Se'ir but were also themselves the ancient physiographic borders. The name of the mountains, '*Hijaz*', means barrier² and is derived from the fact that they separate the seashore from the upland of Negd³. Barriers and boundaries are synonyms for borders⁴. The Hijaz mountains formed the border of Arabia Felix in Roman times⁵ and the Hijaz province in Islamic times. Over the years of different political administrations the political frontiers of Arabia were shifted, but the old physiographic frontiers, the mountains, did not change⁶. This border would appear to be an ancient one. According to al-Istahri, the western border of the Hijaz territory ran from the Red Sea past the town of Midian'. Midian was the home of Jethro, Moses' father-in-law, and so the mountains were no doubt also the northern border of the land of the Midianites. To this day the Hijaz range continues to form a border between the Beni Atiyah (Attije) and the Huweitat (Hawetat), "two tribes of great antiquity"⁸. That Nephi referred to the Hijaz mountains as 'the Borders', the same name he had given to the Se'ir mountains, is not surprising since they are continuous. But an examination of the meaning of the word 'Hijaz' will show that, once again, the use of the word 'borders' by Joseph Smith was amazingly astute.

The Semitic language association of mountains to borders is illustrated in the language of the Old Testament when the children of Israel are commanded by the Lord not to touch any of mount Sinai: "...Take heed to yourselves, that ye go not up into the *mount*, or

touch the *border* of it" (Exodus 19:12). Here the word border is seen strictly to mean the base of the mountain (Sinai), which some authorities now suggest is one of the peaks in the Hijaz mountains. The association of 'Hijaz' with a 'border' can be seen in Qudamah's assertion that the Prophet Mohammed set up Talhat al-Malik as "the borderline dividing the two provinces" of Yemen and Mecca. The word that the Arab geographer Qudamah assigns to this process of establishing a borderline is "hajaza (set up a barrier)"⁹. A further early Islamic association of 'hijaz' with a border between areas can be seen in the writing of al-Khalil who, according to Yaqut, maintains that the Hijaz was given its name because it "separates al-Ghaur, Syria and the Steppe"¹⁰.

'The Border's' As A Place Name

When Joseph Smith applied the word '*borders*' in the translation, he was possibly translating the name of the mountains, the *Borders* in English for *Hijaz* or *Jabels* in Arabic. It should be remembered that Joseph Smith did not translate case (capitalization) or grammar. These were added later, and not by Joseph Smith. It is fair to say that as with the later capitalization, whether added by Oliver Cowdery or, as with the punctuation, by the printer's foreman Mr. Gilbert¹¹, that neither man would have realized that the 'borders' was a proper name and should have been written 'Borders'.

That Joseph Smith's use of the word '*border*' for the mountains is elegant can be demonstrated when we compare the English equivalents to the Arabic word 'Hijaz', that were in use at the time of Joseph Smith. What English word in 1830 had an equivalent meaning to Hijaz? According to Arabian expert Groom the *Hijaz* means "partitions, fence, barrier, dividing wall, ridge, partition¹²". Joseph Catafago's, Arabic-English Dictionary defines Hijaz as: "prohibiting, preventing, interceding" and Hajr, an alternative spelling for Hijaz, as: "restriction, curb(ing), check(ing), impeding, limiting, curtailing, barring, closing, debarment, preclusion, detention; blocking, confinement, containment.¹³"

Noah Webster was a contemporary of the Prophet. He published his original edition of *An American Dictionary of the English Language*, in New York in 1828. Of the fourteen uses of the word border in the 1828 Webster's, only the last citation refers to political borders. The general use of borders in early nineteenth century American English stressed the physical borders that "confine" and "limit". Webster's (1828) definition of '*Border*' included: "the confine or exterior limit of a country, or of any region or tract of land, a bank raised, outer part or edge of things, to confine, to confine upon, to confine with bounds, to limit." Webster's 3rd New International Dictionary is straightforward, defining borders as "a rim, a curving or round edge, the rim of a canyon, a rim of mountains around a town."

Aqaba, The Fountain of the Red Sea

It has been assumed by LDS scholars that once the family came to the Aqaba, they commenced a new segment of the journey, that is, they traveled in the borders or

mountains near the Red Sea for three days and then camped next to a river of water that emptied into the Gulf of Agaba. Nephi wrote that this river emptied into the fountain of the Red Sea (1 Nephi 2:9). Do we have any indication that the fountain of the Red Sea really is the Gulf of Aqaba? Nephi recorded that they reached the Red Sea by the borders (mountains) and then traveled three days in the borders (mountains) to reach the river. As was noted in the previous chapter, the name Aqaba means 'a road leading up a mountainside' which seems to place Lehi around the town of Ezion-geber at the northern tip of the Gulf of Agaba. The trail from the wilderness highway to Agaba was through a mountain pass and from there the trade route continued south into Arabia through another mountain pass, up wadi Umm Jurfayn and down into wadi I'fal. Nephi recorded twice in the fifth verse that they traveled into the mountains (borders) near the Red Sea. It appears that Lehi's trail to the northern end of the Gulf of Agaba, as well as his route south into the wilderness, was on this mountain road. Knowing now that the meaning of the placename 'Aqaba' is 'the mountain road' or 'the mountain pass' provides solid evidence that the part of the Red Sea into which the river of Laman emptied was indeed, the Gulf of Aqaba. Nephi later describes the Valley of Lemuel as being in the borders near the Red Sea (1 Nephi 2:8), again pointing to the mountains found along the Gulf of Aqaba.

By specifying a place names "the *borders*" and "*fountain* of the *Red Sea*", Nephi clearly anchored the location of their first camp along the Gulf of Aqaba. Thus, the valley must be in the Hijaz mountains on the east side of the Gulf of Aqaba, and no place else.

The Place Name "Border Nearer the Red Sea"

To fully appreciate the historical accuracy of the Book of Mormon, one needs to consider the geography of Midian while reading Nephi's record. .Just south of the town of Aqaba the Hijaz mountains split into two separate ranges. The main one continues south east running parallel to the coast. A second smaller range branches off to the south west, eventually running into the sea south of the town of Hakl (Haql). These two ranges are illustrated quite accurately in the map *The Ancient World at the Time of the Patriarchs*, found in the 1979 edition of the LDS King James Bible, where they can be seen forming a small downward facing 'V' just south east of Ezion-geber. Thus in this part of the Hijaz there are not one but two mountain ranges. The highest peaks in the mountains near the sea tower some 6,000 feet above the shore while the inland range is higher still, at over 7,800 feet. (see, fig.)

An ancient caravan trail ran south from Aqaba parallel to the shoreline. After about 20 miles the trail met the ancient oasis town of Hakl where it turned inland running south east between the two mountain ranges, through the wad Ifal, to the town of Midian (the modern town of Al-Bada'a, Al-Bad).

Nephi wrote that "he traveled by the borders near the shore..." (1 Nephi 2:5). This describes the exact topography of the historical camel trail from the northern end of the Red Sea of the Gulf of Aqaba into Arabia. On the traveler's right are the waters of the Red Sea, while on their immediate left are the mountains. Between the sea and the

mountains is a narrow relatively flat coastal plain, never more than three miles in width, called the Thema. Indeed the mountains on the east of the trail form a great barrier. As Nephi entered Arabia at sea level, the mountain peaks of 3570 feet were on his immediate east. Nephi's description applies for the first forty-four miles down the shoreline from Port Aqaba.

This ancient route was later used by the Muslem pilgrims on their way from Egypt to Meccah and Medinah and so there are numerous pilgrim's journals which provide us with the names of the towns and stops on the route. After approximately 24 miles along the coast the route turns inland at Hakl and heads through the mountains 50 miles to the ancient town of Midian.

It has been suggested that the town of Midain (Al-Bad'a) was the location of the Valley of Lemuel¹⁴ and that the River of Laman flowed through the Wadi Ifal¹⁵. However water does not flow in Wadi Ifal and has not done for 10,000 years¹⁶. When water did flow through the Wadi it emptied into the Red Sea itself, not the Gulf of Aqaba, yet Nephi distinctly stated that the river emptied into the fountain of the Red sea (1 Nephi 2:9), which the footnote for verse 9 identifies with the Gulf of Aqaba and not the Red Sea. We clearly needed to look elsewhere for the River of Laman, which Lehi described as "continually running" (1 Nephi 2:9).

Lehi had to use an established road to get through the mountains. It is generally accepted that Lehi's caravan used camels as beasts of burden. The camel cannot climb mountains. Indeed Joseph Pitt, who took this trail in late 1600s, described the climb from Hakl to Midian as difficult and they had to go gently with the camels because of their soft feet.¹⁷ It is safe to assume the family headed south out of Agaba on the trade route along the coast. Nephi's description of their journey 'by the borders' near the Red Sea certainly implies that they were aware they were close to the sea. However if Lehi did not take the turn into the mountains at Hakl, or alternatively had missed the turn and continued on, after forty-five miles his passage would have been blocked by the 2,000 foot mountains which plunge straight into the sea at this point. Whether this was an error in navigation or a deliberate choice we do not know. It seems most likely that it was a conscious choice. The oasis of Hakl is ancient and there was no doubt a settlement there in Lehi's time since the trail predates Lehi by many centuries. At Hakl they would have been told they had reached the turn off. Alternatively they may have been told of the existence of a valley with a river where they could stay until a change in the regime meant that they were safe to return to Jerusalem.

To further investigate the possibilities in January 1999, Tim Sedor and Bruce Santucci joined us as we traveled to the town of Aqaba to try and trace Lehi's trail into Arabia. By this time George knew of the existence of a strong candidate for the Valley of Lemuel and needed to see whether it was possible to reach it from Aqaba following Nephi's instructions. Here is his description of the journey.

"We knew from studying Tactical Pilotage Charts¹⁸that a valley led into the mountains at the point where the mountains blocked the passage down the shoreline. What we did not know before attempting to find Nephi's course to the river was that there is one and only

one valley that Lehi's family could have taken into these mountains¹⁹. We also realized just how striking this valley appeared as it opened a gateway into the mountains. This was the range that Sir Richard Burton called, the "kingly Mountains of Midian."²⁰.

But did the family enter these mountains? Could they have entered the mountain range which is twenty miles to the east, which are 'near the Red Sea', but not as near as these mountains? Nephi's record is precise on this matter. They went "in the borders which are nearer the Red Sea." (1Nephi 2:5) These shoreline mountains had to be the borders in which the Valley of Lemuel was located (1 Nephi 2:8). It is not surprising then that just at the place on the shoreline that the mountains block the passage, we found that the only valley or wadi, south of Hakl, that leads from the shoreline and into the mountains.

Still, this valley could only have been Lehi's trail if it 1) provided an accessible camel trail into the mountains, and 2) it led to a river of water. The only way to know this for certain was to drive into the wadi and see what answers it provided. Although the Saudi Coast Guardsman had told us it provided a route through these mountains we were somewhat doubtful for as we looked up the dirt trail the road seem blocked at every curve.

As we went further and further up the wadi, it narrowed to where at points we were certain it was dead end. However, around each bend, we were delighted to find that the trail would continue on deeper into the mountains. What we also found was that the wadi "into the borders" provided a good camel trail that had a level gravel bed and a smoothing upward grade.

As we became engulfed in the shoreline mountains, we were certain that these were Nephi's 'borders nearer the Red Sea' and that we were on his trail. His description could hardly be any more precise in describing the topography of Midian as well as denoting what he meant by borders. Note his terminology of "by the borders near the Red Sea, and then in the borders which are nearer to the Red Sea" (1 Nephi 2:5). The word 'which' qualifies the borders as two separate structures, and structures that must be mountains and not some other object. Consider other options for the word border. They could not travel on the plains *near* the Red Sea, and then on the plains which are nearer the Red Sea because there is only one coastal plain. They could not have traveled by the shoreline *near* the Red Sea, and then by the shoreline which is *nearer* the Red Sea, because there is only one shoreline (also Nephi uses the plural 'are nearer' implying that he is not describing a single structure but a number of structures, i.e. mountains and not a plain or a shoreline). They traveled in two different structures, one which is *near* the Red Sea, then the second, similar one, which is nearer the Red Sea. We had explored most of Midian, and the mountains are the only topographical features that fit the Nephi's description.

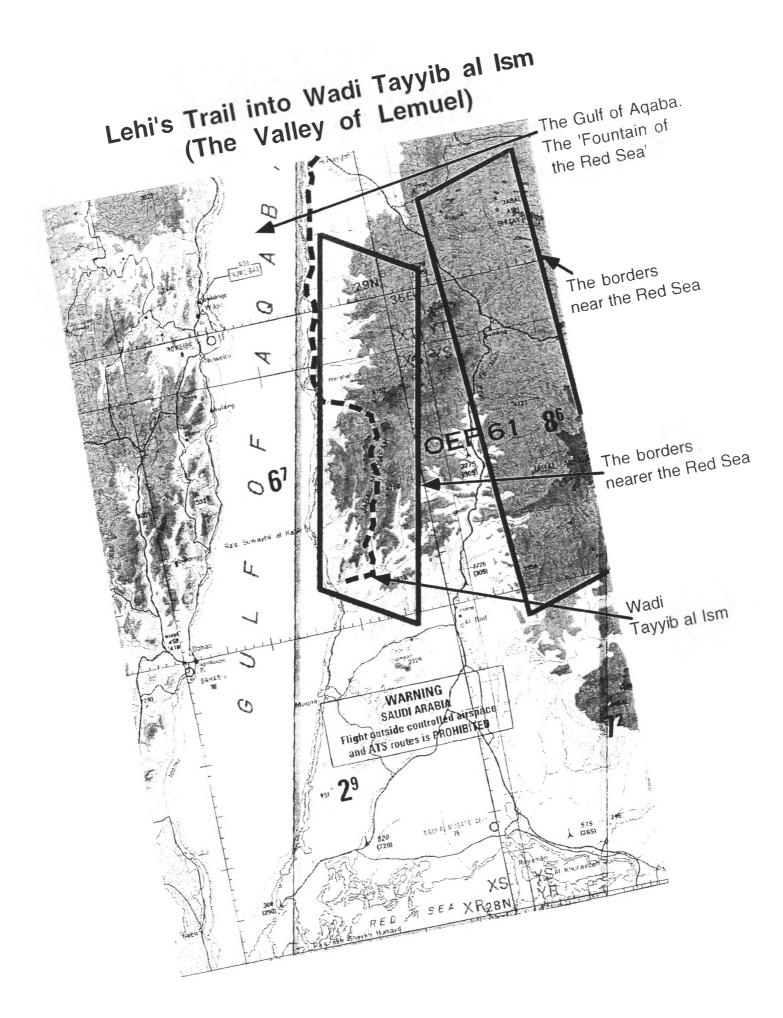
We followed the wadi 9 miles into the mountains whereupon the wadi ended at the crest of a ridge. On the other side of the crest another wadi started which continued on down the other side of the mountain. This new wadi led us about four miles east and two miles south into the heart of the shoreline mountains. From the crest between the two wadis we could see behind us the route we had just traveled. Ahead of us was an amazing sight, a wadi or valley that seemed to continue due south straight through the heart of the shoreline mountains. We had climbed a remarkable wadi into the mountains, just to find a even more surprising sight, a wadi cutting straight through an area that is otherwise a maze of mountains. We had wondered how Nephi and his family could have traveled '*in*' the mountains of Midian on camels? Here was the answer, a straight level wadi with an ideal camel trail of sand and gravel. A trail near the shore, yet still "in the borders". We learned from the Bedouins in the area that the valley's name was Wadi Tayyib al-Ism. (see fig.)

We had traveled in these mountains on several occasions. We knew the area as a twisting maze of rocky mountains and hills. Yet here we were looking down a long straight wadi, that continued in the mountains in the direction of the river. It was a perfect camel highway through the borders. Surrounding wadi Tayyib al-Ism are nothing but rocky mountains and hills that are impassable by camels. Indeed the region was known historically as "Rocky Arabia" Arabia Petra²¹. Yet the bed of Wadi Tayyib al-Ism provides a soft sand and gravel path for camels. The British explorer Richard Burton wrote while standing on the mountains on the south side of Wadi Tayyib al-Ism: "After two good hours, ascending some 1500 feet, we stood at mid-height on the chain, which is broken, and everywhere threaded, not by the usual chasms, but by sandy water-courses, easy even to a camel²²."

Here we were, driving down a wadi that we had been led to by following Nephi instructions. Rather than dead-ending like most wadis in these parts, it continued on and on to the south. Making our way down the wadi, we began to wonder if it would take us all the way to the river. It's southerly course through the mountains was leading us in the direction of the small river, we found in 1995. Although we had passed through excellent terrain and footing for camels the entire way from Port Aqaba, we were starting to get close to the maximum distance Lehi could have traveled in three days. We realized that Nephi's family could probably have traveled the 25-30 mile maximum range of a camel over such good trails. Still, Nephi wrote that they have reached the river on the third day. To be conservative, we felt we had to have an odometer reading of less than 75 miles to qualify the route as a candidate for the three day trail described by Nephi.

We were quickly reaching our self-imposed limit. As our trail odometer read seventyone miles from Port Aqaba, the Wadi Tayyib al-Ism changed course from due south to southwest and headed toward Jabel (Mount) Mazenfah and the Red Sea. At the seventythree mile marker we came to the easternmost grove of the oasis of the 'Waters of Moses'. One mile further down the valley the wadi al-Ism narrowed into a spectacular canyon. In the canyon we found the small river Craig and George had found in 1995. We had done it. We followed the words of Nephi. The prophet's words had led us down the shoreline, into the borders and through the mountains to a river of continually flowing water. In fact, if one understands that Nephi's borders meant mountains, and then follows Nephi's simple instructions, it is almost impossible not to come upon the river. How do we know this? First, Nephi wrote that came down "near the shore of the Red Sea," (1 Nephi 2:5). Lehi probably wanted to stay near the Red Sea since it would have provided a reliable and free food source while they were in the wilderness. Second, satellite photographs confirm that the wadi is the only southerly passage through the borders nearer the Red Sea. Finally, by following wadi Tayyib al-Ism, which has only one obvious exit, one comes right to the river. As Tim Sedor so pointedly put it, "for the last twenty miles Lehi had no other choice but to find the river. If he were a bowling ball he would have rolled down Wadi Tayyib al-Ism right into the river".

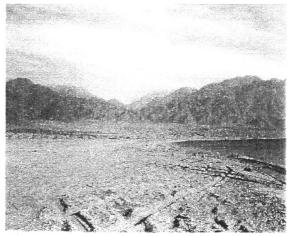
When one thinks about it, Nephi's account is truly exceptional. There appears to be only one perennially river in all of Saudi Arabia, a country almost the size of Europe, and Nephi's words still lead right to it. How could Nephi have known the specific geography seen when traveling south along the shore of the Gulf of Aqaba? How could he have known the name of the mountains in Midian is the Borders? How could he have known there are two mountain ranges in Midian, one near and the other nearer the Red Sea? How could he have known there was a good camel trail in the shoreline mountains of "Rocky Arabia." and that the trail led to a river of flowing water. There can be only one explanation. Nephi traveled on this trail.



The Borders



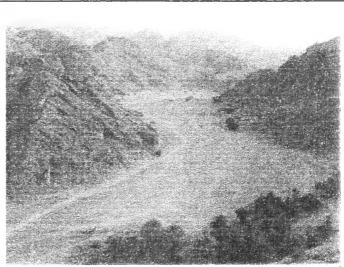
The shore of the Gulf of Aqaba at the northern tip of the Red Sea. This photograph is taken looking south, thirty-five miles south of Aqaba. Lehi would have followed the coast running parallel to the mountains until the mountains, visible in the distance, blocked the way forcing him to head inland



The point where the mountains block the trail down the shoreline. The valley visible between the two mountains, visible ahead, provided the only opening into the shoreline mountain range. The wadi becomes a pass through the 6,000 foot high Jabal Mazhafah.

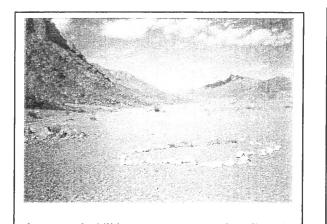


The Wadi heads due south through the U shaped rise visible to the right of the picture. From there the wadi led downhill to wadi Tayyib al Ism.

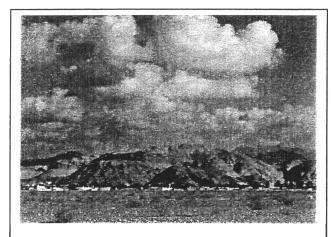


After following Nephi's instructions we came to the oasis of the 'Waters of Moses', in wadi Tayyib al Ism. This fertile valley was seventy-three miles from Port Aqaba by car.

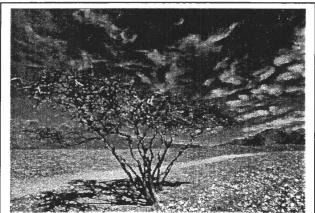
The Borders Nearer the Red Sea



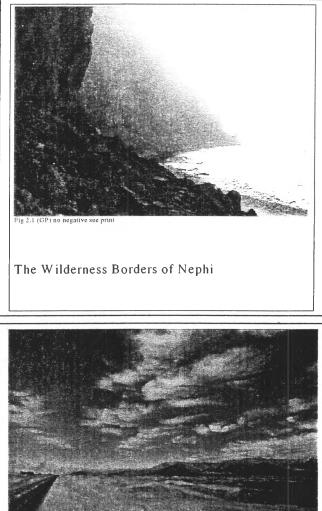
On crest of a hill between two mountain valleys, in Midian, tribal border markers still denote borders.



The ancient town of Midian, looking to the east, sits nestled amid a rim of mountains which form part of Nephi's 'Borders'.



A lone acacia struggles for survival in this most inhospitable of climates. This wadi is a typical site in the west of the land of Midian.



Looking north up wadi Ifal towards the point where the Hijaz mountains split into the coastal range (left horizon) that runs into the sea, and the main range (right horizon) that continues the length of the peninsula.

"Would but the Desert of the Fountain yield One glimpse-if dimly yet indeed revealed To which the fainting traveler might spring As springs the trampled herbage of the field".

-Edward Fitzgerald, 'The Rubaiyat of Omar Khyyam'.

Chapter 4

The River of Laman

When the Book of Mormon was published in 1830, it contained bold assertions. It claimed to be scripture, as well as, a true history of a set of events. The translator declared "...that the Book of Mormon was the most correct of any book on earth..."¹ However, the credibility of that statement and the historical character of the Book of Mormon are periodically tested by critics who claim that there are no rivers of continually running water that flow into the Red Sea from the barren desert of Arabia (1 Nephi 2:8,9).

Perhaps no assertion in the Book of Mormon is considered more suspect by critics than the place name the River of Laman - a river of continually flowing water in the desert of Arabia! At the time of its first publishing, the Book of Mormon's claim of a river could not be questioned, for western explorers of any reliability only ventured into the interior of northwestern Arabia well after 1830². Today, it is a different matter. Geologists have thoroughly explored Arabia in search of oil and water. Satellites scan the desert to assist the scientist. Their findings are not encouraging. They claim no above ground rivers exist in Saudi Arabia. As Dr. Eugene England concludes, "...if the story claims to be literally true, it must hold up against all the subsequent 150 years of detailed scientific explorations.³" Until 1995 scientific research suggested that the Book of Mormon's account of the River of Laman was only a fictional setting.

Was Joseph Smith only an inventive storyteller trying to purport fiction as divine scripture; yet not quick-witted enough to select a site for his story that could survive time? As a vouchsafe prophet, why would he have written of a continuously running river of water in Arabia, a land known only as a bleak desert. If he were a true Prophet, then his inspired translation of the Book of Mormon plates included geographical assertions that were incredibly bold. Eugene England thoroughly surveyed the information on Arabia that was accessible to Joseph Smith in 1830. He notes:

A clever, or even sensible, writer of fiction would have been wise to choose a different route, if he had planned to go into detail. Much better information was available about the Mediterranean, including the Phoenician coast, where, for instance, material and skills for building an ocean-going ship would more likely have been known by Joseph Smith to have existed anciently. Much less could have been known of the Arabian Peninsula south of Jerusalem. The standard geographies of the time, those that were possibly available to Joseph Smith in the public libraries at Canandaigua, Ithaca, and Rochester in westerner New York, were consistently spare in describing Arabia as "generally a barren uncultivated waste"...this is the extent of the knowledge reasonably available to "an unlettered farm boy" in western New York. But suppose Joseph Smith were a clever, multilingual researcher-or at least had access to one. What was the most he could possibly have known about Arabia?...Actually it turns out that the more he had known based on contemporary expertise is more wrong he is likely to have been⁴.

Was Joseph Smith a poor storyteller or a great prophet? Consider the actual geographical setting in which the Book of Mormon asserts there is a river called Laman? Could such a claim be less credible? Nibley states of Midian, the part of Arabia where many LDS scholars⁵ believe the River of Laman should be found:

The desert into which Lehi first retreated and in which he made his first long camp has been known since Old Testament times as the wilderness par excellence. Thanks to the Bible, it is this very section of the earth's surface to which the word wilderness most closely applies, so that Nephi is using the word in its fullest correctness. From 1 Nephi 8:4 and 7, we learn that by wilderness he means waste, i.e., desert, and not jungle. The particular waste in which Lehi made his first camp is among the most uninviting deserts on earth. Detestable certainly describes the place in the eyes of Lehi's people, who "murmured" bitterly at being led into such a hell. ⁶

A river flowing from a detestable hell into the Gulf of Aqaba? Having explored the shoreline of Aqaba, we found Nibley's description apropos. How can there be a river in such a place?

A pertinent question needs to be addressed. "How important is a river in northern Arabia to the validity of the Book of Mormon?" Critics say it is essential. Dean Maurice Helland writes that the Book of Mormon contains "geographical errors" since Arabia has no rivers⁷. Without a river of water, how can the Book of Mormon claim to be an accurate historical record? The lack of a river of running water continues to be a criticism of The Book of Mormon. Hogarth argues that Arabia "probably never had a true river in all its immense area"⁸. The United State's Central Intelligence Agency (CIA) reports that Arabia has, "no perennial rivers or permanent water bodies"⁹. The Saudi Arabian Ministry of Agriculture and Water, with the assistance of the US Geological Service (USGS) spent 44 years surveying the Kingdom's water resources. Their study consisted of seismic readings, surface and aerial surveys and even landsat satellite photo analysis. They conclude that Saudi Arabia may be the world's largest country without any perennial rivers or streams¹⁰.

So where is the River of Laman? The satellite photograph of northwest Arabia reveals a terrain that appears as arid and barren as the surface of the moon. Clearly from space, it appears impossible to find a river in this naked desert land of granite mountains, dark lava flows, sandstone hills, and sandy wadis where dried up rivers last ran during the previous ice age.

LDS scholars have long realized that the authenticity of the Book of Mormon can be challenged due to Nephi's account of a river that flowed in Arabia around 600 B.C.. To complicate the matter, Saudi Arabia permits neither tourist nor open scholastic research in the kingdom. From this information void, three River of Laman theories have evolved. In essence, these arguments are more explanations as to why no river exist today, rather than presenting candidates for the River of Laman that a non-willful believer would accept as credible.

Previous Models For The River of Laman

The Seasonal Run Off Theory

To the author's knowledge the first river theory was proposed by Nibley. His theory centered on the idea that Lehi entered the wilderness in the spring of the year and that in the area in which Lehi traveled rivers ran during the spring months. Nibley cites seeing in the spring "a little river, dashing over the rocky bed" in the hills east of the Dead Sea¹¹, Nibley based his spring-time theory on Nephi's reference to the commencement of the first year of the reign of King Zedekiah. However, this reference was not to the when the family fled into the wilderness, but to the time when the prophets began warning the people in Jerusalem (1 Nephi 1:4). It should also be noted that the Israleites used two calendars, one starting in the fall and one in the spring. The reigns of kings were measured with the years beginning in the spring¹². Thus if Lehi had left immediately after Zedekiah's reign began he would have been traveling in the late spring or early summer. The seasonal river theory holds little water in the Midian region of Arabia, where Nibley suggests the river is located¹³. Nibley implies that rain 'run-off' flows in the limestone hills of Jordan are representative of those in the wadis in Midian. They are not. It rains more in Jordan than in Midian, and the rocky hills of Jordan are a more impervious surface than the sand bed wadis of Midian.

We have been in Midian during and after several large storms. Each time we examined the largest watershed in Midian (wadi 'Ifal), to determine if there was a 'run-off'. This included being in Midian during the storm of the decade in November 1996, when six and a quarter inches of rain fell over a six day period¹⁴. That is over six times the average annual rainfall on the west coast of Arabia¹⁵. The day after this large storm ended, we traveled the entire width and most of the length of Midian and saw no rain 'run-off' streams. On only one occasion did I see a mud slick that indicated that a nominal flow of water might have run in the wadi for a few minutes after a heavy down pour the previous night. By the morning, there was not even a puddle to be found. With the exception of a rare flash flood, rain water is quickly absorbed into the sands of Midian.

The Flash Flood Theory

Perhaps the most commonly known theory was developed by Lynn and Hope Hilton in 1976. The Hiltons suggested that Lehi possibly named a river while witnessing a flash flood running through the dry river bed of the wadi I'fal¹⁶. After exploring parts of barren northwest Arabia, they seemed to have given up hope of finding an actual river of water.

The Hiltons settled on the dry river bed in the waid'I'fal as the most likely candidate for Nephi's river of continuously running water. They never attempted to drive the entire shoreline of the Gulf of Aqaba to determine if the waters of a river actually empty into the fountain of the Red Sea¹⁷ (see 1 Nephi 2:9, footnote a). Although flash floods are known to occur in Midian, the flash flood theory is only one more step further removed from what Nephi described as a 'continuously running river'. Flash floods in Arabia last only a few seconds or minutes. Besides, how could Lehi pitch his tent next to a flash flood? By the time the camels were unloaded and the tents pitched they would have been next to drying mud! And why would he be so foolish to have done so? The random destructive power of a flash flood could easily have resulted in the death of the family.

The Changed Climate Theory

Another attempt to explain what happened to the River of Laman is grounded in the idea that significant changes in the Near East climate have taken place since Lehi's time. Kelly Ogden presented a version of this theory in the LDS Church News in 1996.¹⁸. It is also footnoted in the Book of Mormon itself (1 Nephi 2:6 footnote 6b, Joel 1:20). However this theory does not square with Biblical or meteorological history. Midian was the land where Moses lived with his father-in-law Jethro (D&C 84:6-7). While there, Moses lived in a desert (Exodus 3:1). Scientists, including those of the United States Geological Service, cite of Arabia: "The past 6000 years have been marked by more arid conditions, similar to those of the present"¹⁹.

Studies by Biblical scholars Aharon Horowitze, Tomas Levy, Paul Goldberg, Arlene M. Rosen and James Sauer have provided a profile of what the weather was like in the Near East during ancient times. They sampled pollen counts from various periods from three boreholes, two from the Hula in Israel and the other from the Mediterranean coast of Israel from various periods. Sauer also collected data in Arabia. He used carbon-14 testing on decayed organic materials in dark paleosol (ancient soil) from Yemen. The climate profile that is emerging about Arabia is what the Bible has long reported. The wilderness of Midian was in Nephi's time an arid desert. When Moses entered Midian near the end of the Late Bronze Age, the climatic conditions had become increasingly arid for some 350 years. This explains why Moses found a desert land in Midian and the Sinai Peninsula on the other side of the Gulf of Aqaba. From the days of Moses to the time of Nephi (end of the Iron Age), the rainfall declined steadily for another 600 years²⁰. Nibley explains: "though some observers think the area enjoyed a little more rainfall in antiquity than it does today, all are agreed that the change of climate has not been considerable since prehistoric times -it was at best almost as bad then as it is now"²¹.

The River of Laman

What do we know or what can we reasonably conclude about the river described by Nephi? In other words, if one seeks to find a candidate for the River of Laman, what characteristics should it possess.

The river would have had no known name. Lehi gave the river a name, so it probably had no name by which it was known. It is hard to imagine that any significant flow of

water in the Near East would go unnamed. This would imply that the river did not amount to much. Nibley suggested:

It (the River of Laman) cannot therefore have been an important stream, let alone one of the most remarkable on earth, or Lehi would have known about it. Nor does Nephi ever say or imply that it was a great river; it was not a waterway, but a 'river of water,' which is a very different thing²².

The river was probably only a small stream. When translating Nephi's description of the river, the Prophet Joseph Smith did not specify the size of the river. The Semitic language expert, Dr. Hugh Nibley notes, "The expression 'river of water' is used only for small local streams"²³.

The name Lehi gave the river is Semitic, perhaps Arabic. While examining the actual characters from the plates, Professor Charles Anthon noted that they were Egyptian, Chaldaic, Assyriac, and Arabic (Joseph Smith – History 1:64). According to Dr. Nibley, Lehi used "pure Arabic" names to place name both the river (*Laman*) and the valley $(Lemuel)^{24}$. In Arabia, the root word for stream, small river and large river are the same, "nahar"²⁵. The language Lehi used to name the river is significant. If the River of Laman were an Arabic name then, even if it were but a small flow of water, the translation as 'river' is correct.

Lehi's naming of the river followed an Arabic place name tradition. Nibley notes in reference to the River of Laman and the Valley Lemuel: "The Book of Mormon follows the Arabic system of not designating Lehi's camp as the name of the river by which it stood (for rivers may dry up), but rather by the name of the valley"²⁶. John A. Tvedtnes cites that the words used by Nephi to record the naming of the river, "...he called the name of the river, Laman," (named the name) is an idiom not used in English but present in Arabic as well as Hebrew²⁷. The fact that Lehi applied a second place-name for their first camp, could imply that he was concerned that the river might dry up. This probably would not have been the case if the river he named was sizable. Again, it is possible that the River of Laman was a very small flow of water.

The River of Laman was in a wilderness (1 Nephi 2:6). A wilderness is a place devoid of people. This characteristic alone would make finding such a river in Arabia highly unlikely. The Arabs fight over well sites, guard them vigorously, camp beside them, and build their villages around them. The local Bedouin tribes would have known of any continuous source of water. Yet in the case of the River of Laman, they apparently had not settled beside it.

The River of Laman was a 'river of water'. (1 Nephi 2:6) It was not a dry riverbed. It waters flowed continually, presumably 24 hours a day, 365 days a year, and emptied into the fountain of the Red Sea, the Gulf of Aqaba (1 Nephi 2:9, footnote a). Finall, the River of Laman ran through a geographical feature Lehi called the "Valley of Lemuel" (1 Nephi 2:6).

Discovering the River

Finding a river of running water in Midian had to be one of the most pressing issues facing LDS archaeologists. It was while George Potter searching for an Arabian candidate for the Mount Sinai that our journey of discovery began. George writes:

Craig Thorsted and I were in al-Bada'a to explore the Wells of Jethro, the High Priest of Midian. To obtain authorization to enter the sites, we stopped at the mayor's office. The mayor sent one of his supervisors to show us the sites and to explain their history. The supervisor was proud of the city's history and used the Qur'an to relate the stories of Moses, Jethro and the town of al-Bada'a. He complemented me on my knowledge of the Qur'an, and said that if we were so interested in Moses, we should visit the Waters of Musa (Moses) near Maqna. Maqna is a small isolated village found twenty miles west of al-Bada'a on the Gulf of Aqaba.

The official in al-Bada'a explained to us that Maqna was the camp of Moses after they crossed the Red Sea at the mouth of the Gulf of Aqaba. He said, that the Waters of Moses was where the Prophet touched his staff to the ground and twelve springs were found, one for each tribe (Qur'an 7:160). He feared however, that the springs might have dried up, having flowed for the centuries, because the government had in recent years placed pumps on all the natural wells and springs in Midian. When we reached Maqna we stopped at a restaurant to inquire about the Waters of Moses. Americans must be a rare sight in this remote village, for our truck was immediately swarmed upon by curious Arab children who shouted "Ameriki". The supervisor in Al-Bada'a gave us the name of a contact man in Maqna who would show us the Waters. Everyone, it seemed knew the man, but he was away from the village.

We decided to inquire at the first building we could find flying a Saudi flag to see if an official could show us the location of the springs. We came to a large complex which turned out to be the Saudi Coast Guard station. From the gate we were led to the chief Captain's salon for questioning. After a series of interrogating questions, the captain granted us permission to visit the Waters of Moses. We learned from the captain that the Waters were still twelve miles to the north, along a restricted Coast Guard patrol road. He gave us written permission and a military escort from the third check point to the Waters.

I only discovered during my fourth trip to the area, that the 'Waters of Moses' the mayor's supervisor of al-Bada'a had told us about, were actually located at Maqna. In an oasis above the village my colleagues and I found a natural spring with several spring heads supplying water to the oasis below. In other words, it was only by several acts of providence that we found ourselves driving north from Maqna to explore the 'wrong Waters of Moses'. Out of kindness, not orders, the supervisor at al-Bada'a wanted us to see the first camp of Moses after the children of Israel crossed the Red Sea at the straits of Tiran. But we were heading further north, to what might be the second camp of Moses. Why? Because the supervisor's contact person in Maqna happened to be away from the village. Rather than asking any locals where the Waters of Moses were, which any number of people could have pointed to in the palm trees in back of the village, Craig

and I fortunately elected to ask a government official. By fortune, we stopped at the Coast Guard station. It was only because we asked for help at the Coast Guard station that the Captain assumed we were asking for permission to see the 'Waters of Moses' which were located along the Coast Guard restricted patrol road. Finally, the Captain did what he was certainly not expected to do; he granted two unknown Americans access to a restricted road.

We headed north from Maqna. The landscape was the same as we had seen along stretches of the Gulf of Aqaba shoreline, totally devoid of signs of fresh water and with few signs of life. After driving for eight miles to the north of Maqna, we came to our first surprise, the southern end of a shoreline mountain range. I thought to myself, these had to be the borders nearer the shore of the Red Sea (1 Nephi 2:5). The mountains seemed to drop directly into the waters of the Gulf of Aqaba. There was just enough room for the Coast Guard dirt road to pass between the giant cliffs on the right and the Gulf on the left. At times waves broke over the banks of the road and onto our path.

After reaching the mountains, we followed the narrow road for another four miles. Rounding a point on one cliff, we came upon a truly spectacular sight, a magnificent canyon that opened onto a palm-lined cove. The brilliant blue shades of the clear gulf waters framed the scene to the west.

We decided to walk up the spectacular canyon. After three and three-fourths miles it opened into a beautiful oasis with twelve wells. The date palms and the wells suggested to us that this could have been the second campsite of Moses after crossing the Red Sea. The site he called "Elim". Moses recorded finding twelve wells and three score and ten palms were found (Exodus 15:27) We counted twelve wells scattered among several small groves of date palms. However, what provoked my interest was a stream that started in the canyon near the Waters of Moses and ran most of the way to the Gulf of Aqaba. A small desert river that appeared to flow continually. A small unimportant river of water in a giant mountain canyon.

Does The River Run Continually?

The question we needed to ask ourselves was, does this desert river flow "continually"? That is, does it flow night and day, 365 days a year. We could only answer affirmative to this on our third excursion to the Valley, 20-21 November 1996. It had just rained six straight days prior to our arrival. As noted before, this was a freak storm, the largest in years. However, before the storm, northern Arabia had not received rain for seven straight months. We had doubts that the little river would still be flowing. On the first and second visits we had witnessed the river during, and just after the rainy season. But after seven months without rain, how could any river possibly still exist in the desert. Although the rains fell for the six days preceding our visit, we were still able to determine that the river was a perennial phenomenon. Indeed, the river appears to run constantly year round. We were able to ascertain this information, not from the current flow, for it could have come from the recent rains, but from the flora found in and around the river. The position of the plants on the edge of the stream showed that the river level had obviously been constant for some considerable time and it certainly was no higher than

normal following the rains, i.e. the water level in the river was independent of the rainfall. First we discovered the river's source, to be a spring some six hundred feet within the Canyon of Granite from the Waters of Moses. The grass, weeds, and herbs surrounding the springhead were a lush green. This vegetation could not have survived seven months without rain unless the spring continuously fed the river.

In fact, vegetation flourished throughout the valley where the river ran, and moss and algae lined the banks of the small stream. During the years 1995 to 2000 we visited the river during the months of November, December, January, February, March, May and August. Each time the river was flowing. On the occasion of January 2000 it had not rained in that part of Midian for eight months.

The source of the spring came from an underground reservoir system. Dr. Wes Gardner, our consulting geologist painted the following picture of the system. When the occasional rains fall in the long wadi, they are quickly trapped in the sands. This watershed of sand runs for twelve miles until its downward course to the sea is blocked by the towering granite cliffs. These cliffs run deep beneath the surface forming a dam. The waters are trapped on the east side of the canyon in an underground reservoir. The canyon runs for approximately 3.75 miles. In the upper valley, the Waters of Moses where the twelve wells are found, the water table is about 10 feet deep, the water depth of shallowest well. (see, fig. - cross section of river)

On entering the canyon from the Waters of Moses, the pathway through the canyon descends steadily. Within a few hundred feet, a spring begins to flow as the canyon floor reaches the level of the underground reservoir. Once over the crest of the underground dam the waters form a small desert river that runs the balance of the way down to the Gulf of Aqaba. When the river enters a level grade of the canyon floor, it runs just underground leaving the soil moist. As the gradient increases on its descent the river reappears again. It is last seen as it reaches level gravel or what we refer to as the lower part of the canyon, some three eighths of a mile from the beach. From there the river continues underground to the gulf where it feeds the well used by the Coast Guard Post a short distance away from the shoreline.

It should be remembered that we were warned the government had placed gasoline pumps on all the wells in the area. As a result the mayor of al-Bada'a's supervisor indicated that the wells and springs were drying up. We found this to be the case. All twelve wells in the Waters of Moses had been equipped with pumps and the wells in the upper portion of the Valley of Lemuel appeared to have no water them. The Bedouins not only use the well water to irrigate the date palms in the valley, but load their water tank trucks and use the water to maintain their goat camps in the neighboring wadis.

In other words, what we now see are probably the "dried up" Waters of Moses, the "pumped out" River of Laman. Our consulting geologist, Dr. Gardner, confirmed to us that a lowering of the water table could cause the river to dry up. The water table in the valley had fallen so far that deep holes had to be dug in order to plant young palm trees. That is, the trunks of the newly planted palms were coming out of holes 5-6 feet deep in

order for the roots to reach the water table. At the same time, large patches of older palms have died in the Waters of Moses, presumably due to a fallen water table. The implication is simple. A few years ago, before the pumping of the valley the river through the canyon was much larger than it is today. The authors have noticed a significant decrease in the size and length of the river from when they first saw it in 1995 and their latest trip to the river in March 2000.

The indication is that a significantly larger river flowed in the canyon in earlier times. There is significant erosion of the rocks and of the canyon walls, and the erosion has cut through the rocks at multiple levels. This would suggest that the river was flowing over a wide course over the canyon floor.

As noted, in the last eighth of a mile of the canyon, as it approaches the Gulf of Aqaba of the Red Sea, the river flows under the gravel. Nephi wrote that "...my father saw that the waters of the river emptied into the fountain of the Red Sea...(1 Ne. 2:9). Can this stream be the River of Laman if it stops flowing above ground prior to entering the fountain of the Red Sea? The answer is yes. The river does not reach the Red Sea because the floor of the canyon is not the same as it was at the time of Nephi. According to Professor Gardner, in 600 B.C. the lower part of the canyon was submerged by the Red Sea. Where the river ends today was far below the surface of the Red Sea when Nephi was there. As the continental plates move rapidly in geological terms along the Great Rift Valley in the Gulf of Aqaba, they push the eastern plate upwards by 1 to 5 centimeters per year. During the twenty-six hundred years since Nephi surveyed the valley, the canyon floor has risen out of the Red Sea by as much as 200-400 feet. Thus, not so long ago, the flat lower part of the canyon was below sea level. Therefore, if the river flowed the same in Nephi's time as it does today, it would have reached right to the waters of the Red Sea. The smooth stony floor of the canyon and the cave formations common to shoreline cliff seems to confirm that its origin is that of wave action rather than a river bed.

Our concern is that if the pumping continues, it will eventually lower the aquifer level below the underground granite dam. This would altogether stop the flow of the small desert river. To date, approximately two dozen members have witnessed the river as it continues to flow, just as it has for thousands of years in what scientist believe is the river-less and stream-less land of Saudi Arabia. Having explored the great deserts of Arabia, we know that what we have seen is totally foreign in this land -a river of water in a valley so deep that even satellite cameras could not detect its existence.

The Extent of the river

At the present day the river only flows weakly through the canyon portion of the valley. However there is evidence that it was larger in times past. There are three places in the canyon where the floor is bare granite. On each of these portions there are erosion channels, showing the course of the river was wider and higher in times past. This may well, of course, be the prehistoric course, but there is some evidence to show that the river was larger more recently. In April 2000 we attempted to identify any evidence that the river previously flowed further up the wadi. We found two places in the wadi where

there was a possible channel. Years of flash flood have filled in much of the channels with gravel, but the course still seemed discernable. Both courses were adjacent to ancient sites of inhabitation (see 1 Nephi. 2:6.). Having very minimal knowledge of hydrology we decided to look for erosion of rock as an indicator of the course of the river, since this had been apparent in the canyon. The wadi floor is scattered with quartz, which is found in veins in the rock walls and litters the floor as the rock disintegrates through erosion. The rock in the canvon is granite but elsewhere it is red sandstone that crumbles easily. The pieces of quartz found on the floor of the wadi are invariably jagged, but in the watercourse about 50 yards before the entrance of the Canyon, we found a piece which was worn totally smooth. This type of erosion seemed to us to indicate the action of water over a long period of time, i.e. not lash flood activity. The only two options seemed wave action or a river. It is difficult to see how it could be wave action as the mountains form a 2,600-foot high barrier between the sea and the wadi, the only opening being the canyon. If the sea level were higher anciently, and reached up into the wadi, then by the time the sea had passed the several miles though the narrow canyon all wave energy would have been dissipated and no breakers would have reached the wadi proper. There is no evidence of wave action in the canyon, except near the sea. This left us to conclude that it was most likely river flow that caused this. This would place the river many hundreds of yards higher up the wadi than it now is.

Implications Of Finding A Flowing River

With the discovery of the small desert river flowing from a spring below the waters of Moses, there is finally a serious candidate for a river of running water in Arabia. There has never before been a real candidate in the area of Midian for River of Laman. Previous explanation for why there was no such river in our time, but might having existed during Nephi's era where seriously lacking. The rain 'run-off' and 'flash flood' theory imply that Joseph Smith made a translation error when using the words "continually running". However, the context of the verse in which these words are found shows clearly that no such error was made.

In conclusion, since George Potter and Craig Thorsted first found the river, we have escorted over a dozen members into the valley. Several others have made their own way to the valley based on our directions. Are we witnesses to be the river Lehi gave the name Laman? Have we found the modern site for the place name River of Laman? Consider again the characteristic attributes that would quality a candidate for the River of Laman.

- 1. The river seems to have had no name. To date we have still not found a map that shows the existence of a river or stream. The Waters of Moses seem to be associated with the twelve wells; not the stream that is fed from the same aquifer.
- 2. This river is an unimportant small stream.
- 3. The third criterion is related to the name of the river being of Arabic origin, this implying that a small stream would qualify in Arabic as a river. This seems to be the cases, and if nothing else, the river is located in Arabia.
- 4. The fourth characteristic refers to Lehi's use of the Arabic place name system for naming both a river and a valley since a desert river can dry up. This site would

qualify for such a place name system, since the size of the river might have worried Lehi that it would one day dry up.

- 5. Is this valley in the wilderness? (1 Nephi 2:6) Amazingly to this day, no one lives either by the wells or the river. Yet there is evidence that the valley has been inhabited in times past which shows that it is capable of sustaining a small population, at least 28 .
- 6. This river a river of water.
- 7. To our best knowledge, the river has run continually since we discovered it four years ago. It has probably run for eons.
- 8. The waters of the River of Laman empty into the fountain of the Red Sea. Even though the river itself no longer reaches all the way to the gulf, the water continues to flow underground to the gulf as witnessed by the well on the beach at the mouth of the canyon. Geological evidence suggests that the river emptied directly into the Gulf of Agaba when Nephi camped in the Valley of Lemuel.
- 9. The river supplies a dependable source of drinking water.
- 10. The river runs through a firm, steadfast, and immovable valley?

How must Lehi have felt when he saw the River? Could there be a more powerful and striking expressions of the creation and the power of God? A river of pure water flowing in an otherwise totally dry wasteland. In what was probably a matter of days, Lehi's family went from a comfortable home with gold and silver, to finding themselves in a barren waste looking for the means to survive. Undoubtedly Lehi feared that his family would perish unless they found water (see 1 Nephi 8:8). No wonder Nephi delighted in the words of Isaiah:

When the poor and needy seek water, and there is none, and their tongue faileth for thirst, I the Lord will hear them, I the God of Israel will not forsake them. I will open rivers in high places, and fountains in the midst of the valleys: I will make the

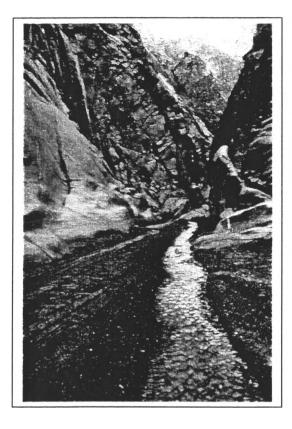
wilderness a pool of water, and the dry land springs of water. (Isaiah 41:17-18)

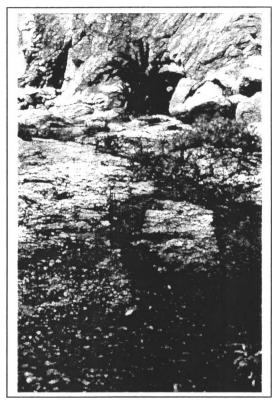
Lehi put his faith in the Lord, making the river imagery an important lesson of faith for this infant nation. S. Kent Brown suggests:

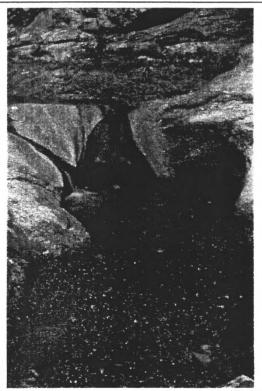
On the side of assuring the Lord's assistance to those who may struggle in the desert, one finds a number of examples in these chapters of Isaiah, including those that allude to the Lord guiding his people away from trouble. For instance, Nephi, if not others, must have taken couarge from the Lord's assurance that he "leadeth thee by the way thou shouldst go" and that those who trust in him "thirsted not" because "he led them through the deserts" and "caused the waters to flow out of the rock for them" (1 Nephi 20:17,21 [=Isaiah 48:17,21]). Moreover, continuing the desert imagery: "They shall not hunger nor thirst, neither shall the heat nor the sun smite them; for he that hath mercy on them shall lead them, even by the springs of water shall he guide them". (1 Nephi 21:10 [=Isaiah 49:101) 29

The Our'an reminds the Bedouins living in this same desert today of this ageless principle, "He is the Most Gracious: we have believed in Him, and on Him we put our trust, ... If your stream be some morning lost. Who then can supply you with clearflowing waters?" (Our'an 67:29-30) Undoubtedly Lehi knew the answer to that question, the Lord is the "fountain of living waters". (Jeremiah 2:13) Lehi had entered the same wilderness as Moses and like Moses "He found him in a desert land, and in the waste howling wilderness; he led him about, he instructed him, he kept him as the apple of his eye" (Deuteronomy 32:10).

The River of Laman







Three photographs of the river of Laman.

Top left:

Nowhere is the canyon wide but in places. like this, it is only just possible to drive a vehicle down by the tires on one side on the canyon wall.

Top Right:

The river gives life to the canyon. Here grasses grow by the side of the stream, which are collected by the local Bedouins as fodder for their sheep and goats. Tadpoles swim in the pools and birds collect at dusk to drink.

Bottom Left:

A small waterfall feeds a tiny pool. Erosion on the granite shows where the water used to flow higher over the edge of the rock. The lowering of the water table through pumping higher up the wadi has lowered the river so that it may soon cease to flow altogether.

The River of Laman

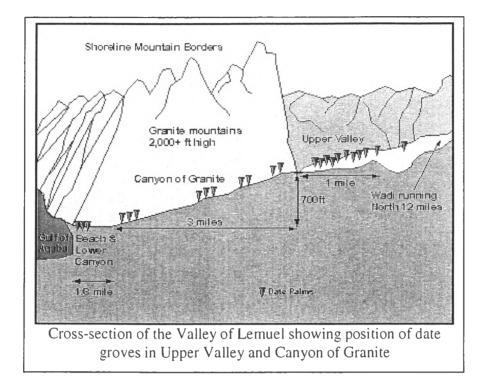


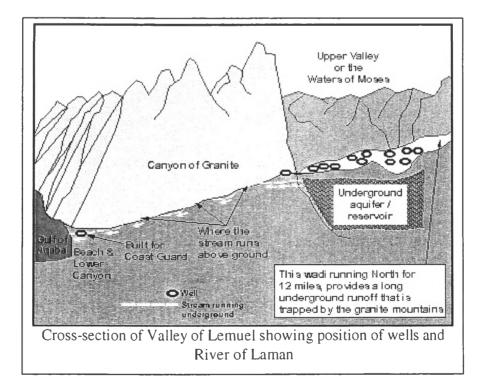
Stephen Wellington, (right), holds a 'T' square, which is over 2¹/₂ feet high, while Simon Wellington (left) stands about 3 feet higher in an erosion channel, showing that the river used to flow much deeper anciently. Wherever the floor of the wadi is made up of exposed granite there are erosion channels similar to this one.



The 'River of Laman' wends its way down the valley feeding numerous palm groves. The damp floor of the valley tells that more water is not far below the surface.

The Valley of Lemuel





Chapter 5

The Valley of Lemuel

As difficult as it might have been to find a river in 'riverless' Saudi Arabia, finding a valley that qualifies as the Valley of Lemuel would be equally hard. A location with these two features together would be more than just a coincidence. The western end of the Wadi Tayyib al-Ism contains three geological features. We will refer to these as the Upper Valley or the Waters of Moses (0.9 Miles long), the Canyon of Granite (the Valley of Lemuel proper) (3.4 Miles long), and the Lower Canyon (0.4 miles long).

The 'Waters of Moses'

When entering the area we propose to be the Valley of Lemuel one first comes to the 'Waters of Moses', an area of several hundred palm trees and twelve wells, so named by the local inhabitants of the area because they believe this was the site of the second camp of the children of Israel (Ex. 15:27), Elim, where there were 12 wells and 70 palms. While one must remain wary of blindly accepting the traditions of the local people we should not dismiss them out of hand. After all these are the modern 'Midianites'. If any people knew where Moses camped, it would have been their forefathers. This upper valley is a pleasant jewel, an oasis spread out over approximately half a square mile and situated in the last mile of the wadi Tayyib al-Ism before it enters the mountains and becomes a narrow canyon. The canyon has been formed by a great fracture in the granite mountain that has created a passage to the sea. This gorge we will refer to as the "Canyon of Granite".

The Canyon of Granite

The Canyon of Granite would have provided a pleasant environment year round, even during the terrible heat of an Arabian Summer. The high walls throw shadows so that there is always somewhere where there is shade from the summer sun. The canyon funnels the sea breezes, which can be very strong at times, and moderates them into a pleasant cool breeze. The importance of this in the summer cannot be overemphasized. We have camped on the coast a few miles south of the valley and have been amazed at how powerful the winds are in that part of the country. The combination of the cool mountains and the warm sea combine to make almost gale-force winds that blow all night. We spent most of that night tying down tents and replacing tent pegs that had been ripped up by the wind. Thankfully the valley is not subject to these winds by virtue of the 2,000-foot curtain of mountains between it and the sea.

A member of our second expedition into the valley is a survival expert for the Saudi military. He provided us with some professional insights into the environmental difficulties that faced Lehi and his family as they crossed this land. Even though the trip from Jerusalem was perhaps the least difficult portion of their saga, they still murmured. Laman and Lemuel thought they would die (1 Nephi. 2:11). Dr. Hugh Nibley believes that Lehi possibly left Jerusalem in the spring¹. In Arabia that would have meant daytime temperatures of over 100° degrees Fahrenheit. Their murmuring was most likely due to their exposure to the sunlight and the extreme temperatures. The survival expert advises downed pilots in the desert to first find shelter from the heat, then look for water, and finally to seek food. The Arabian sun, he notes, will kill man within hours if he cannot find shade.

While in the valley, Nephi and his brothers returned to Jerusalem twice. Therefore, it is safe to assume that Lehi's family spent at least one summer in the valley. Midday temperatures average between 115° and 125° degrees Fahrenheit during the summer months in this part of Arabia. When considering the cruel climate, one can begin to appreciate just how difficult the journey from Jerusalem must have been. This would have been especially difficult if the men, women and children of Lehi's family had been city dwellers in Jerusalem, and this was their first exposure to desert conditions. The Canyon of Granite would have been an ideal camp in which to wait through the Summer before continuing south in the Fall.

The Lower Canyon

The final section of the Valley of Lemuel is the Lower Canyon and the beach. The Granite Canyon ends in a section that has a flat floor a few feet above sea level. This level area of the canyon runs for about a three-eighths of a mile long. This is perhaps the most impressive section of the canyon. Here the heights of the canyon walls are at their maximum. The Granite cliffs rise over 2,500 feet straight up from the canyon's floor.

Authority To Camp In the Valley

The river Laman might not have had a name known to Lehi, but the river and fertile valley was certainly known to the local tribesmen. S. Kent Brown notes: that "in a desert clime all arable land and all water resources have claimants²". How did Lehi acquire the right to camp in a valley that was controlled by a local tribe? We are not certain why the ruling tribe would have let Lehi camp in the valley, however, there are several reasons that suggest that this was not a serious problem for Lehi. First, Lehi was a wealthy man, and though he left his gold and silver in Jerusalem, he probably carried in his provision some form of currency, perhaps in the form of precious metals. Taking traveling capital into the wilderness would seem to be a forgone conclusion based on common sense. The most likely scenario is that Lehi purchased the right to pitch his tent next to the River Laman. It would also seem likely that a local opportunist would have pointed out to Lehi where he could find water and a campsite. Nephi did not write that they "found" a river, just that they pitched their tent next to it (1 Nephi 2:6).

Second, it seems Lehi brought no clean animals with him into the wilderness. Local shepherds or their masters probably did not consider the displaced Lehites as an economic threat. After water, the second most important resource in this desert land is fodder for herds. It is most certain that the tribes required Lehi to pay some tribute for camping next to River Laman, but since Lehi was not intending to be a long-term resident and had no flocks that would deplete the grazing lands, the tribute was probably moderate. In other words, Lehi was probably treated as a welcomed, non-invasive tenant who, best of all, paid on time!

Third, Lehi could have exchanged his services for camping rights. If Lehi was a noble, or simply a wealthy and well educated man, his position would have commanded special status in the ancient Arabia. Organized trading in western Midian (Ezion-geber) and southern Arabia dates at least as far back as the fifth or sixth century B.C.³. It is quite likely that Lehi could have on occasion offered his professions services to assist the local tribes in their trading activities in exchange for the right to occupy the Valley of Lemuel.

A final possibility must be considered. The canyon is narrow and we can probably assume that the river was wider in Lehi's time. There would have been only limited arable land adjacent to the river to allow cultivation. It may be that the canyon was not cultivated but only the upper valley, where the twelve wells are situated, because the river portion of the valley provided only limited farming potential and was a very labor-intensive area to farm. If the river portion of the valley was uncultivated then this long thin strip of land might have been granted to the family to work, since there were many strong hands to work and relatively few mouths to support. The family could afford to farm an area that was not cost effective to others. As it is today, no one lives anywhere near the river and there is only limited cultivation there, in spite of the easy transportation offered by modern powered vehicles.

Does Wadi Tayyab Al-Ism fit Nephi's description?

Let us run over the specific characteristics of the valley through which the River Laman flowed and apply them to Wadi Tayyab Al-Ism:

- 1. Lehi described the valley's appearance as "firm, steadfast, and immovable." (1 Nephi 2:10). For Lemuel, being compared to a common desert wadi would have meant nothing. The Valley of Lemuel must have been impressive. As Albert Einstein noted, "Not everything that counts can be counted; and not everything that can be counted counts." A garden-variety valley would not have found its way onto the plates.
- 2. TheValley of Lemuel was in the borders (1 Nephi 2:8). Thus, it appears to be a mountain canyon rather than a wide-open valley.
- 3. The valley can be reached by traveling in the borders "nearer" the Red Sea (1 Nephi 2:5).
- 4. Although Lehi pitched his tents in a valley near the Red Sea, he did not see the Red Sea until later (1 Nephi 2:6,9). The valley walls must obstruct the view from where they camped to where the valley ended in the Gulf of Aqaba.
- 5. The valley contains a river that empties into the Gulf of Aqaba (1 Nephi 2:9).

- 6. The valley was located three days camel ride into the wilderness (1 Nephi 2:6). The wilderness of Arabia started at the northern end of the Gulf of Aqaba. The valley must be found on a trail some sixty to seventy five miles into the wilderness.
- 7. The valley had seeds of every kind of grain. (1 Nephi 8:1)
- 8. The valley had seeds of every kind of fruit. (1 Nephi 8:1)
- 9. The valley had a campsite, and had to have an ecology where people could live or "dwell" for an extended period of time. (1 Nephi 2:15)
- 10. Lehi built an altar of stones in the Valley of Lemuel. (1 Nephi 2:7)

Firm and steadfast, and immovable.

Lehi used the valley's appearance to encourage his second eldest son to be "firm and steadfast, and immovable in keeping the commandments of the Lord! Websters⁴ provides the following definitions - firm: "securely or solidly fixed in place"; steadfast: "firmly fixed in place"; immovable: "incapable of being moved". While the very image of Arabia is that of sand dunes, desert plains and sand stone hills melting away by the wind into the great sand deserts, it would seem unlikely that such a valley could be found.

The wadi walls above the canyon are composed of red standstone that is very weak and brittle. It often breaks when walked on. The valley floor is composed of gravel and sand. Immediately inside the canyon, the walls are solid gray granite. It is easy to see why Lehi urged his son to be like these granite walls, they were a stark contrast to the sandstone walls of the wadis through which they had passed. The towering cliff walls of the canyon are so tall that it is difficult to photograph the canyon. Without a reference point, it is difficult to appreciate the actual dimensions of the canyon. One thing that we have noticed whenever we have taken visitors to the Valley, no one fails to be overawed by the natural beauty of the valley and canyon.

Valley of Lemuel is in the Borders

Knowing that Nephi's borders meant mountains, one can formulate a more specific vision of what the Valley of Lemuel should look like. Nephi wrote that "the valley was in the borders" (1 Nephi 2:8). It would follow that the Valley of Lemuel was a valley inside a mountain range. The Webster's dictionary defines a canyon as "a deep narrow valley with steep sides, and often with a stream flowing through it.⁵"

Reached by traveling in the borders "nearer" the Red Sea

As described earlier in the book the valley can be reached by travelling though the western portion of the Hijaz mountains, that splits off from the main chain, in other words, "the borders nearer the Red Sea."

Sea Not Visible From the Valley

Nephi's description of their camp in the valley seems to reconfirm the idea that the Valley of Lemuel was a mountain canyon. First Nephi describes the valley as being in the borders or mountains. Second, he wrote that they pitched their tents in the valley which was "in the borders which are nearer the Red Sea" (1 Nephi 2:5), yet it appears that Lehi could not see that the mouth of the river emptied into the Red Sea until he actually

ventured through the valley to its mouth (1 Nephi 2:8). In an open valley, Lehi would have been able to see the Red Sea from afar, yet in the valley of Lemuel Lehi could not see the Red Sea from his campsite even though he was near the coastline. If Lehi camped in a steep winding canyon, he could have been within a short distance to the Red Sea and still not have seen it. The entire canyon of the wadi Tayyib al-Ism is 3.75 miles long, yet its towering walls only permit a vista of the Red Sea during the last 200 yards.

Contains a river that empties into the Gulf of Aqaba

As discussed in the last chapter a desert river that meets all the characteristics of the River of Laman runs through the canyon.

Three days camel ride From Ezion-geber

There is only one possible trail by which Lehi could have reached the valley from Eziongeber (Port Aqaba) in three days. The trail matches perfectly Nephi's account of traveling by and then in the borders, and is of a length of 74 miles. Frankincense trail expert, Nigel Groom noted that a loaded camel travels "slightly less than 2 ¹/₂ miles an hour" and "rarely exceed(s) 25 miles" per day⁶. Alan Keohane, who actually lived and traveled with a Bedouin tribe for a year reports that they traveled up to 40 miles in a day when they were traveling to winter pastures⁷. ("Did Lehi Use Camels To Cross Arabia? See Appendix Two to this Chapter)

Seeds of Grains of Every Kind

In 1984, the United States and Saudi Arabian Joint Commission of Economic Development completed for the Saudi Arabian Ministry of Agriculture and Water a mapping of the soils of Saudi Arabia. Map No. 33 shows the soils of Midian. The entire shoreline mountain system, including the full length of the wadi Tayyib al-Ism was classified in soil Category 39. This category is defind as "poor" soil, percentage arable "0%" – reason, "Depth to Rock, rock out crops, slope". Of the entire twenty-four mile length of wadi Tayyib al-Ism, it is only in the last four miles where the Waters of Moses and the river are found that there is any sign of edible vegetation.

Initially we thought this would be one of the hardest Book of Mormon "Valley of Lemuel" criteria to find in Tayyib al-Ism, or for that matter any wadi in northwest Arabia. How could we find different types of grains growing wild in the non-arable wadis of Midian? While studying photographs we had taken of a Bedu cutting grass for his flocks in the wadi Tayyib al-Ism, we remembered that the canyon, at least in the areas where the river runs above surface, is full of grasses.

Our final answer came in January 1999, when we reached the canyon well after the time grain would have been harvested. However no hard rains had fallen in the valley that rainy season. To our delight one of the grasses in the canyon still had large amounts of grain hanging on it. We found this grain growing in five areas of the canyon. Not only did this grain seem to grow in ample quantities in the canyon, it was also easy to strip from the shaft and separate. Using a plastic bag to gather it, we then crushed the bag against the hood of the car for a minute or two. In a total of ten minutes, we separated enough wheat size grain for several bowls of cereal.

Of the four grasses we have found so far in the valley, there is probably only one that would have qualified as a human food source, unless they used the seeds of the smaller varieties as spices. It is possible that Lehi took the seeds of all these grasses with him into the wilderness. In his era one key to prosperity was control of good pasturelands. As evidenced by the Bedouin we met cutting grass in the canyon, this fodder was worth traveling some distance to acquire.

Another possibility is that Nephi gathered grains that were being cultivated by his family or a local farmer. It is possible that Lehi brought grain seeds with him from Jerusalem or acquired seeds at the oasis at Al-Bada'a. The fact that an elible grain is found growing wild in the canyon today, suggests that at some earlier time grain seeds were introduced to the canyon, and that grain was successfully harvested in the wadi Tayyib al-Ism.

Seeds of Fruit of Every Kind

In the context of traveling across Arabia, it is safe to assume that Nephi's seeds of fruit are dates. Nephi wrote that they gathered seeds of every fruit while they were dwelling in the valley (1 Nephi 8:1). Since they knew they would be eventually leaving the valley for the land of promise, it is safe to assume that the seeds they were gathering were for the purpose of eating not planting in the valley. Dates hang in clusters, from the top of the palms as if they are giant balls of seed. The date, constituted of the sweet outer flesh and the pit, is the seed of the palm.

The dates probably also account for the seeds they took with them when they left the valley. (1 Nephi 16:14) They took many kinds of seeds, but one seed they most certainly would have taken were the dates, which are the traditional food source for travelers in Arabia. Nephi's family would have either known this fact or have been told it by the locals. An Arab colleague, whose great grandfather marketed camels from central Arabia to Palestine, Cairo, Baghdad, as far as India, claims that his great grandfather and his crews consumed only dates and tea during the days they traveled. The caravaners must have taken with them large quantities of dates to consume on their journeys. The date is good "food-on-the-go", and is reportedly one of the most nutritious edibles. In the wadi canyon of granite and upper valley (Waters of Moses) dates are found in abundance. If the local legend is true that the Waters of Moses, in the wadi Tayyib al-Ism, is the camp of Moses called Elim, then date palms have existed in wadi Tayyib al-Ism since well before the time of Nephi (Exodus 15:27). We have found examples of each of the three varieties of date palm that grow in Arabia, the Phoenix caespitosam, the Phoenix dactylifera, and the Hyphenae thebaica – with its lemon size dates, growing in the wadi Tayyib al-Ism.

Today, there are other fruits growing wild in the wadi Tayyib al-Ism. So far we have found a variety of edible berry and two vine fruits. The berry is called the *Teen* by the Bedouin. We have not been in the valley when fruit has been on the teen bushes, but the Bedouin tells us that the berry is about the size of a strawberry and is delicious. In sharp contrast is the taste of the vine fruits. They taste dreadful. The Arabs uses these two fruits as medicine. They are the vine fruit of the Citrillus colocynthis and the Cucumis prophetarum.

A Campsite Where People Dwelt

The Valley of Lemuel was "in the borders". It was a canyon and would have been subject to flash floods that occur in the mountains of Arabia. Lehi would have needed an elevated campsite during the rainy season as a precaution against being swept away during the night in a torrent.

What evidence would one expect to find today of Lehi's camp in the Valley of Lemuel some 2,600 years after he left the site? The Lehite camp was a domesticated family camp with women and children. It was made up of two large family groups and perhaps servants. It would have included corrals for several dozen camels. It is reasonable to assume that when Lehi originally entered the wilderness he was looking for a long term campsite, where he could hide from those who were seeking his life (1 Nephi 2:1), and where his family could wait out the destruction of Jerusalem (1 Nephi 1:13). It would follow that at the time Lehi first pitched his tents, he believed his family would be in the valley for a considerable period of time, and would have built whatever stone infrastructure they would need to supported a permanent tent-based camp.

We found the ruins of two campsites in the wadi Tayyib al-Ism. The larger of the two sites covers an area of approximately two acres and is located on the north side of the upper valley next to the middle grove of date palms. The middle grove is the largest of the three date palm groves of the Waters of Moses, and contains four wells. We believe that the river flowed passed this campsite in Lehi's time. The ruins are located on a shelf a few feet above the wadi floor, well above the threat of flash floods.

The larger campsite ruins have many stone structures. Some of the short stone walls seem to delineate small rooms or storage areas that could have been covered using palm branches. Certainly they would have needed to protect the provisions from the heat, wind and wild animals, i.e. wolves, foxes and hyenas. We noticed a circular feature, well-like in design, with a shallow pit. This might have been a central fireplace or oven. Others short walls in the camp might have been used as tables or places to dry laundry. Among the walkways and the fallen walls, we found shards from various styles of pottery.

A compelling question needed to be asked, "do these ruins date to the time of Lehi?" The answer is yes. In 1980, a team of international archaeologists, headed by Americans, surveyed northwest Arabia. With the help of Bedouin guides, they located and catalogued 188 antiquity sities, including the ruins in the Waters of Moses in wadi Tayyib al-Ism, which they indexed as antiquity site number 200-81.⁸ The team of archeaologists classified this site as a "Bedouin encampment" [tent encampment], with stone enclosures, stone monuments (cairns), other special features and surface artifacts. Among the artifacts they found on the surface of the wadi Tayyib al-Ism campsite were pottery shards dating to the Iron Age and the Hellenistic periods.⁹ The team defined Iron Age for this area as "late 2nd to mid-1st millennia, B.C."¹⁰, indicating that this tent campsite, occupied at various times, dates back at least to the period of Lehi.

Among the artifacts we found in the wadi Tayyib al-Ism, one was very interesting. To this day in northwest Arabia Bedouins often make a stone box near their campsites. The box is used to store items safely out of the reach of wolves and hyenas until they returned to that campsite for another grazing period.

During our fourth expedition to the valley, Richard Wellington and Ed Benson found a stone box built into the earth near the lower part of the canyon. The box is located near the end of in the lower canyon. No one in Nephi's party could have carved this stone box, as this part of the canyon was below sea level in Nephi's time. However, it is a possible example of a security method that was transferred from Midian to the Nephite culture in the New World. At this time, we can only speculate, whether or not the Nephites' practice of keeping their valuables in stone boxes in the earth can be traced to the Old World. (Joseph Smith – History 1:51,52)

An Altar of Stones in the Valley of Lemuel

The wadi Tayyib al-Ism appears to have all the natural attributes of the valley described by Nephi. However a key structure crafted by the hands of man, an altar of stones, still needed to be located in the wadi in order for it to have all the features of the Valley of Lemuel. One need not speculate on this point, Nephi wrote that his father built an altar of stones. (1 Nephi 2:7)

The hills surrounding the canyon and upper valley at the wadi Tayyib al-Ism cover a large area. There are dozens of summits and peaks on which an altar could be found. After attempting several hikes into the mountains in search of an altar, we found a fortunate clue.

While surveying the flora in the easternmost grove of the upper valley, approximately one mile from where the river starts, George spotted a circle of stones. This was not a camel corral, but a nearly perfect circle of stones about two feet in height with an entrance in the circle at one end. It gave us the impression that it had been used as a formal meeting place where people would gather and sit. To one side of the circle was a leveled area of ground formed into a triangular shaped that pointed toward the canyon. Most curious still was a cavity in the cliff next to the circle. The cavity formed a small roofless chamber.

The circle and the cavity in the cliff reminded George of a sacred monument he had visited in Arabia. We postponed our flora survey and decided to climb the hill to look for signs of an altar.

Bruce Santucci and Tim Sedor accompanied us to the summit where we found a pile of uncut stones, fourteen by eight feet at the base. The top of the pile had collapsed somewhat, but it was apparent that the top had been approximately seven feet long by four feet and was approximately waist high. We believe this monument could have been an altar. It is positioned in a flat area at the top of the hill where the first light of the sunrise and the last light of sunset could be seen. As we suspected it was located directly above the circle of stones. The site provides an excellent view of the surrounding valleys. We first thought it might be an outlook rather than an altar, but concluded otherwise. We had found lookouts at other key viewing positions, and this structure was quite different. The lookouts in the valley are stone walls shaped in the form of a U or an O. The design appeared to provide the watchman with protection against the wind, a hiding place and a defensive position. In contrast, the pile of stones on the summit had no core for a person to be in. It could only be described as a somewhat rectangular a pile of uncut stones.

According to Mosaic laws, altars consisted of either raised up earth or a pile of unhewn stones (Ex 20:25, Deut. 27:5. Josh. 8:31). Dr. Nibley writes:

Nilus, in the oldest eyewitness account of life among the Arabs of the Tih, says, "They sacrifice on altars of crude stones piled together." That Lehi's was such an altar would follow not only the ancient law demanding uncut stones, but also from the Book of Mormon expression "an altar of stones," which is not the same thing as "a stone altar." Such little heaps of stones, surviving from all ages, ...¹¹

Altars are a part of the temple ceremony. In cases of poverty and emergency, i.e. Lehi fleeing Jerusalem to save his life, temple ordinances may sometimes be performed on mountaintops.¹² We know for example that Abraham's altar was upon a mountain (Genesis 22:2,9).

We believe that we have found ancient monuments in the wadi Tayyib al-Ism that could have been altars. However, we cannot be certain that any of these monuments are actually altars. The archaeological team of Ingraham et al, that surveyed northwest Arabia, found cairns, piles of stone, at 66 of the 188 sites they located. Often the cairns in Midian were found on the summits of hills. We doubt that all of these cairns could have been altars.

As we started down the mountain, we noticed pieces of broken pottery embedded in the ground. The shards where found approximately fifteen feet down from the cairn. The scriptures tell of the vessels of the altar and the need to anoint the altar with olive oil before making a sacrifice (Ex. 40:10). Oil was also used as part of the sacrifice itself (Num. 28:13,14, Eze. 45:25). The altar ceremony might have had special significance to the young Nephi. After Lehi and his sons completed piling the stones into the form of an altar, it remained only a heap of stones until it was dedicated as an altar. An altar must first be purified by an anointing (Ex. 40:10). Randolph Linehan suggest that when the temple in Jerusalem was rededicated, the altar was purified for sacrifices in a ceremony called the *Naphthar* or *Nephi* ceremony.¹³

We have located in the Wadi Tayyib al-Ism two other monuments that we believe could possibly have been altars. George climbed the summit of the west peak of a hill on the south side of the middle grove and discovered a second possible altar. It was a small pile of stones, placed in the shape of a rectangle measuring eight feet by four feet and two feet high. In January 2000, Michael Bellersen and Satya Nand discovered still a another possible altar site on the summit of a small Jabel, a small pile of black slate stones just above the ruins of the large campsite. At first sight, the place seems nothing like an altar, but on closer examination the site has merit. The black slate stones, not natural to the hill, are distributed on the top of the hill in a flat area approximately 10 feet by 15 feet. It appears that the site has been disturbed by someone digging, possibly for treasure, this is a not uncommon passtime in Midian! Bellersen and Nand suggest that the black stones had been brought up to the top of the mountain and had once formed a much larger stone structure. Here too were many large pottery shards that fit the description of the Midianite Iron Age pottery described by the archaeology team in 1980.

Summary

Wadi Tayyab Al-Ism would appear to fit Nephi's description of the Valley of Lemuel remarkably well. William Wordsworth penned, "Two Voices are there; one is of the sea, One of the mountains; each a mighty Voice.¹⁴" To the man after whom the firm and steadfast, and immovable valley was named, the imagery contained within this valley meant little. William Blake wrote "Then I asked: Does a firm persuasion that a thing is so, make it so?" He replied: "All Poets believe that it does, and in ages of imagination this firm persuasion removed mountains; but many are not capable of a firm persuasion of anything.¹⁵" Fortunately for the world, within that same valley the character of a truly great man emerged. In Nephi's case the words of Blake are most apropos. "Great things are done when men and mountains meet.¹⁶"

In Lehi's case, reaching his wilderness home ended a fruitless and troubled mission (1 Nephi 1:18). In the prophet's desire to share the warnings of the Lord with the Jews, he had been mocked and possibly stoned and thrown out of the city. They nearly murdered him (1 Nephi 1:19,20; 2:1). For the prophet to camp in the wilderness by a pure spring was a time for healing, a place where he could freely build an altar and give thanks to God. W.H. Auden wrote:

In the deserts of the heart Let the healing fountain start, In the prison of his days Teach the free man how to praise¹⁷.

We have drunk from the pure spring fed flowing waters of what we believe is the River of Laman. In the smiting heat of 120° degrees Fahrenheit temperatures, we have walked into the cool confines of a great canyon that I believe is the Valley of Lemuel. We have stood in awe of the force required to split a three mile wide granite mountain to form this canyon refuge, with towering walls that could protect those camped in its bed, from the tempest and the sand storms that blow into Arabia from the Sinai Peninsula. Here the handiwork of the Lord appears at every turn. The imagery is truly profound, and reminds us of a passage from the Qur'an: "Withersoever ye turn, there is the presence of God, ...all that is in the heavens and on earth; everything renders worship to Him.¹⁸"

Yet, is there more to this powerful imagery? Is this river and valley the place where Nephi was living when he received the great revelation wherein he saw the spirit of the Lord; the vision of the tree of life and learned the meaning of the condescension of God; saw the mother of the Christ; envisioned the baptism, ministry and crucifixion of the Christ; and the coming of Jesus Christ to the New World? (1 Nephi 11-14). Could this glorious natural setting have been a majestic teaching tool the Lord used to teach the family? Was the valley of the camp a symbol of the Messiah?

Behold, a king shall reign in righteousness, and princes shall rule in judgement. And a man shall be as an hiding place from the wind, and the covert from the tempest; as a river of water in a dry place, as the shadow of a great rock in a weary land. (Isaiah 32:1-2).

Appendix

Did Lehi Use Camels To Cross Arabia?

The first record of Arabian camels (Camelus dromedarius) comes from Umm al-Nar island near Abu Dhabi where a picture of a camel ornaments a tomb slab dated to 2.700B.C. However many thousands of cuneiform texts from all over south-western Asia between 1,800B.C. and 1,200B.C.mention only donkey caravans. A relief, now in Walters Art gallery in Baltimore, dated to 300 years before Lehi, shows a camel with a rider'. Thus the camel would have been the accepted beast of burden for the desert in Lehi's time. But did Lehi use camels to cross Arabia? The answer is a given. Camels are the only way anyone could have crossed Arabia before the twentieth century. Donkeys and horses would quickly break down under the burden of the sands. A study, undertaken at the University of Riyadh, compared camels with donkeys under desert conditions and found that by weight the donkey requires more than three times as much water as the camel. The kidneys of the camel are able to concentrate the urine far more efficiently than donkeys which lose water in their feces and through sweating". Besides, there is neither enough water nor the proper fodder for such animals in most of Arabia. The camel is still highly admired in Arabia and it has only in relatively recent times been replaced as the prime mode of transport for long journeys. The English explorer Harry St. John Philby praised the camels he used in crossing Arabia, "To my companions and the great beast that bore us - hungering and thirsting but uncomplaining - the credit of a great adventure"". The scholar Nibley understood this principle well:

But for an elderly and aristocratic Hebrew to load himself, his wife, and his children with tents, utensils, weapons, food, and other supplies would have been as unthinkable then as now. "Without the camel", writes a modern authority, "it would be impossible for the nomads to carry their tents and furniture over the vast sandy spaces, where asses can pass only with difficulty and carry only a very small load". The decisive clue is the fact that Lehi's party took grain with them and "all manner of seeds of every kind" (1 Nephi 8:1). The Arabs, as we shall see below, do this when they migrate in earnest, packing the seed in big, black 150 to 180-pound sacks, two to a camel. At the very least there has to be enough grain either to make a worthwhile crop somewhere or to supply substantial food on the way--and who could carry such a load on his back? To pass through the heart of Arabia on the best camel in the world requires almost superhuman endurance--no need to make the thing ridiculous by carrying children, tents, books, food, furniture, weapons, and grain on one's back!

¹Wendell Philips, Oman, A History, (Reynal and Co, 1967), 4.

¹¹ I.S. Kawashti and M.M. Omar. *Water Economy and Water Metabolism of Camels and Donkeys, Under Desert Conditions,* Proceedings of the 1st conference on the biological aspects of Saudi Arabia, Mathematics and science center, Riyadh. January 15th-17th, (Riyadh: Riyadh University Press, 1977).

iii Taylor, 105.

We know that Lehi took tents with him into the desert. We visit a traditional Middle Eastern tent maker in Dammam Saudi Arabia, and weighed a small goat hair tent. The 10'X10' foot tent weighed 160 pounds, and with tent poles, guy ropes and tent pegs we estimate the total weight would have been in the region of 240 pounds. A camel can carry 240 pounds, but unlikely 480 pounds. Thus, one camel could carry only one small tent. It would seem reasonable that the party had several tents, one for each married couple, making it a total of nine tents.

For travel though the desert no animal can compare with the camel. It is singularly adapted for life in the desert. Even on the hottest day the camel hardly perspires. A fine layer of fur near the skin protects the camel from the sun and yet is ventilated in such a way to allow sweat to evaporate. A shorn camel loses 50% more water than one with a long coat. Man reacts to the heat by keeping body temperature steady and losing fluids constantly. He can control his temperature until finally thee body fluids are so concentrated that the blood can no longer flow fast enough to dissipate the body's heat and very rapidly the body temperature rises resulting in death. The camel is can vary its body temperature depending on the air temperature, this makes it unique amongst mammals. The body temperature of the camel can range from 34°C at night up to 40.7°C in the heat of the day, without impairing its ability to function. By storing heat and then releasing it at night the camel needs to perspire much less than any other mammal¹. Camels can withstand severe dehydration far better than humans. Camels can lose up to 30% of their body weight without fatal consequences and when water is available are able to drink huge quantities that would result in water intoxication in nay other mammal. The camel can survive this because its red blood cells can expand 240 times to soak up every drop of water^v. Human urine is 95% water. The camel has an ingenious method of cutting water loss through the kidneys. Not all the urea is excreted but much is passed to the rumen where microorganisms in the saliva are able to break it down, thus saving the camel considerable amounts of fluid loss. Not only is the camel superbly designed for life in the desert but it is also a strong pack animal. The Arabs use the camel to carry salt mined in Yemen (close to where the family would have passed). Each camel can carry two 'skins', each weighing 150 to 200 lbs. In Aden the official weight of a 'bag' of salt is 224 lbs, so a 'bag' may be derived form a 'skin', infering that the camel may readily

^{iv} Angelo Pesce and Elviro Galbato Pesce, *The Camel in Saudi Arabia*, (Jeddah: Immel Publishing, 1984), 14.

^v G. Uwe, *In the Deserts of this Earth* (London, 1978), 198.

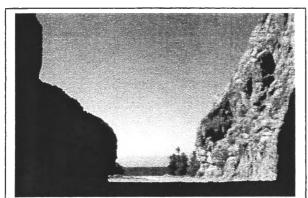
carry nearly 450 lbs^{vi}. Travel in the desert would have been unthinkable to Lehi without the camel.

^{vi} Richard LeBaron Bowen (1), Jr. "Ancient Trade Routes in South Arabia", *Archeological Discoveries in South Arabia* (Baltimore: The John's Hopkins Press, 1958), 35.

The Valley of Lemuel



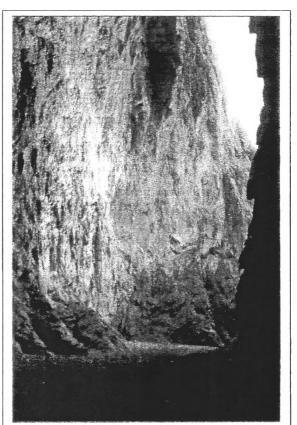
Wadi Tayyib al-Ism contains a number of remains of ancient encampments, showing that the valley was capable of sustaining groups of people for a long period of time.



It is only on reaching the end of the canyon that it is possible to se the sea. Lehi did not see that the river emptied into the Gulf of Aqaba until some time after he arrived at the valley, i.e. not until he explored the canyon.

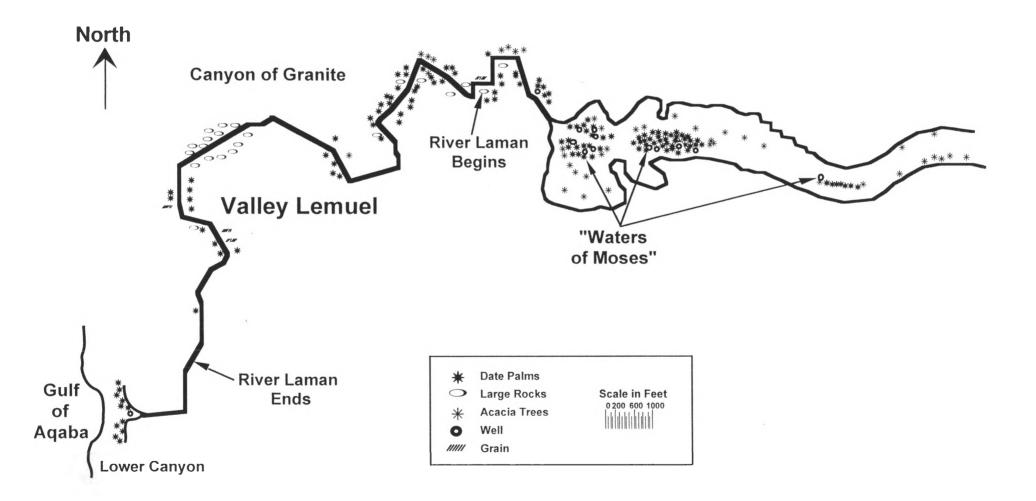


A stone box found encased in the floor of the canyon. When covered with a large stone it is almost impossible to detect.



It was when Lehi saw that the river emptied into the Gulf of Aqaba that he urged his son Lemuel to be like this valley "firm and steadfast". The setting sun is shining on the canyon wall where it opens up at the sea. At this point the walls reach up over 1,000 feet (note the person at the base of the wall for scale). It is easy why Lehi chose these two objects to teach his sons, a unique granite canyon and the only river flowing into the sea in Midian.

Wadi Tayyib Al-Ism (Valley of The Good Name)



your old men shall dream dreams, your young men shall see visions. Joel 2:28

Chapter 6

Lehi's Dream of the Tree of Life

While living in the Valley of Lemuel Lehi had a dream, which became known as the dream of the Tree of Life (1 Nephi Chapter 8). Nibley suggested that the elements of Lehi's dream scenery were made up of the images that surrounded him: "That is natural enough, for men to dream by night of the things they see by day-that is what makes Lehi's dream so convincing as authentic testimony¹."

The more time we spent considering and discussing the valley the stronger the impression came to our minds that the location Lehi was describing in his dream was composed of many of the objects that surrounded him in the valley. Not only were most of the elements of the dream present in the valley of the 'Waters of Moses' but they also occurred in the dream in the same order that one would encounter them walking down wadi Tayyib al 'Ism. In this chapter we will present the reader with the individual elements of the dream and give the reader the opportunity to witness first hand the magnificent natural surroundings that the Lord might have used to inspire Lehi and to produce one of the most exceptional teaching moments in Mormon scripture.

Lehi's dream is filled with powerful images and forceful doctrine. Like us, Nephi was impressed with the mesages contained within the dream. His desire to understand the meaning of his fathers dream was answered with a vision. The two revelations, though different, were consistent with the Lord's pattern: "your old men shall dream dreams, your young men shall see visions" (Joel 2:28). That the Lord would teach Lehi through a dream should be of no surprise to us. Lehi's dream is certainly not the first instance we have in the scriptures where the Lord teaches his doctrines in this manner. Jacob's ladder to Heaven (Gen. 28:12); Joseph's sheaves (Gen. 37:8); Pharaoh's cattle by the river and ears of corn (Gen. 41:1-7); the cake of barley bread (Judges 7:13); Nebuchadnezzar's heterogeneous statue (Daniel 2:31-35) are all examples of this particular method of teaching. The dream revelations mentioned above all contained everyday elements from the world around the dreamer which become an allegory for the Lord's message: Lehi's dream fits perfectly into the same genre. The elements of the dream are those found in the desert mountains of Arabia. In keeping with the tradition of revelation through dreams, the power of Lehi's dream comes not from the elements from which it is composed but rather through what they represent. Hugh Nibley wrote:

Long ago Sigmund Freud showed that dreams are symbolic, that they take their familiar materials from everyday life and use them to express the dreamer's real thoughts and desires... the peculiar materials of which Lehi's dreams are made, the images, situations,

and dream-scenery which though typical come from the desert world in which Lehi was wandering.²

He further suggested that the images that surrounded Lehi may have become important elements of the dream showing that somebody who had a hand in the writing of the Book of Mormon actually lived there³. It is this scenery from a desert world that we will examine now.

Dream Elements

Before we consider the individual elements of Lehi's dream it is best for us to briefly run over Lehi's dream, as found in 1 Nephi chapter 8. It contains a number of images:

Lehi receives a dream while living in the wilderness. He sees a man dressed in a white robe who bids Lehi to follow him. They travel for many hours in a dark and dreary waste. Lehi prays for the Lord's mercy and immediately he sees a great and spacious field and then a tree with sweet, white fruit which is desirable to make one happy. He sees a river near the tree, with the head a little way off. A rod of iron runs along the bank of the river together with a straight and narrow path. Lehi sees a numberless concourse of people, many of whom are pressing forward to obtain the fruit but are lost in a mist of darkness. Others cling to the iron rod and find their way to the tree. A great and spacious building is filled with well dressed people mocking those who seek the fruit, who as a result become ashamed and are lost. Another group presses forward holding the iron rod and finds the tree while a third presses forward to the building and is lost in the depths of the fountain. Those who are partaking of the fruit pay no heed to those who mock them. Laman and Lemuel do not eat of the fruit.

Let us examine these elements in order.

A dark and dreary wilderness (1 Nephi 8:4)

The land of Midian in the northwest corner of Saudi Arabia is a wilderness second only in barrenness to the great Rub'al Khali, or Empty Quarter, of the central Arabian Peninsula. Hardly a blade of grass breaks up the monotony of the terrain. Nibley pointed out that

Lehi's dreams have a very authentic undertone of anxiety of which the writer of 1 Nephi himself seems not fully aware; they are the dreams of a man heavily burdened with worries and responsibilities. The subjects of his unrest are two: the dangerous project he is undertaking, and the constant opposition and misbehavior of some of his people, especially his two eldest sons.⁴

Lehi's concern here is real. The valley is in an isolated wilderness and does not lie on any known routes. Lehi would have been going into an uncharted desert wasteland with only a finite supply of water. Most of the year the temperatures are extremely high and the lack of protection from the burning sun would have forced the family to make their journey at night. What better description of the terrain and conditions that the family traversed in the desert of Midian than a "dark and dreary waste." In the hot months one cannot survive more than two days without water. Without shelter from the sun the

family would not last even that long. In what appears to be an act of desperation Lehi prayed that the Lord "would have mercy on me" (1 Nephi 8:8). After he had prayed he beheld a large and spacious field. The presence of a field in the midst of the mountainous wilderness was a miraculous find, one which would have indicated to Lehi that the Lord was with the group and would provide for them. He would doubtless have been reminded of the words of Isaiah, "I will open rivers in high places, and fountains in the midst of the valleys: I will make the wilderness a pool of water, and the dry land springs of water." (Isaiah 41:18)

The large and spacious field

Wadi Tavyib al 'Ism runs east to west. The wadi ends (where the canyon begins) at an area of fertility. There are numerous groves of palm trees extending about half a mile up the wadi. There are numerous iron age and Hellenistic settlements here and evidence that the river extended further up the wadi, running along the side of the wadi, adjacent to the settlements. Presumably the settlers farmed the wadi using the river water for irrigation. The fact that the wadi was settled for such a long period indicates that the river provided a reliable and copious water source. Another wadi in Midian, wadi Sharmah, is similar to Tayib al Ism inasmuch as there is a small stream. Here the local people have fields of crops planted, as well as groves of date palms. We would suggest that this was the situation in Lehi's time, that the wadi would have been farmed. Nephi intimates the same when he states that on their departure "we did take seed of every kind that we might carry into the wilderness" (1 Nephi 16:11). The mountains form a high wall around the area that would have been farmed, giving the impression of a self-contained, walled, garden. Lehi alludes to the self-contained nature of the location when he describes it as "large and spacious field, as if it had been a world" (1 Nephi 1:20). Certainly this community lived out their lives separated from the nearest town, al Bad'a (Midian), by over 50 kilometers (30 miles) of the most inhospitable terrain. That Lehi's dream contained a field, in a community that was a world unto itself seems in keeping with the location he found himself in.

For Lehi finding himself in an area of cultivation in the desert no doubt had significance since he refers to the field as "*a world*". The scriptures contain a number instances where the world is compared to a field or plantation. Zenos' allegory of the olive tree shows the Lord as a caring husbandman who tends his garden; Jesus likened himself to "the true vine" with God as "the husbandman" and the obedient being described as "branches" who bring forth "much fruit" (John 15:1-6). Jeremiah compared Israel with trees or branches planted by the Lord (Jeremiah 11:16-17).

A Tree with white fruit.

When Lehi describes the tree he pays particular attention to the fruit of the tree which "was desirable to make one happy" (1 Nephi 8:10) and "was most sweet, above all that I ever before tasted. Yea, and I beheld that the fruit thereof was white, to exceed all the whiteness that I had ever seen" (1 Nephi 8:11). The tree Lehi describes could well be the Date Palm, which grows throughout the Arabian Peninsula. It is easy to see why Lehi described it as "a tree, whose fruit was desirable to make one happy" (1 Nephi 8:10). Here was the answer to his prayers, food for his family. Lehi received his dream in

Arabia, where the tree of life is the date palm. In the Near East the date palm was a mainstay of survival. Dates are a staple food and are edible at any stage of development. They can be eaten raw, cooked, baked into cakes or pressed into delicious syrup.

There are a number of varieties of date palm. The color of the dates varies from the red *khunayzi* to the yellow *khulas*. The color and taste of the *khulas* is of interest since it is "considered one of the best commercial varieties of date in the world. It is a great favorite...especially in the *rutub* stage when it is pale yellow, touched with amber and filled with sweetness⁵." The Arabs prefer to eat the dates when they are still yellow. In the west we never see the dates like this. When harvested for export the dates are left until they reach the *Tamr* stage, where they are all brown. Like this they last for a year or more. The higher the temperature at which the fruit matures the more sweet it is. This is why the best dates in the world come from Saudi Arabia, where the summer temperatures do not drop below 90°f, even at night. Lehi would have been able to eat, for the first time, fresh, pale dates, which grew at higher temperatures than he would find in the Holy Land. It is not surprising then that Lehi states: "I did go forth and partake of the fruit thereof; and I beheld that it was most sweet, above all that I ever before tasted" (1 Nephi 8:12).

The flowers of the date palm begin to grow in January to February and bloom in mid-March. Harvesting of dates may continue from July until late October. If Lehi saw the fruit of the palm and the Lord used this image in his dream, it would seem that it was not until late summer that this event occurred. This would account for Lehi's fear for the safety of his family as temperatures would be approaching 120°f in mid-summer, and higher, an area where no shade was available.

The Tree of Life.

The chapter heading for 1 Nephi 8 informs us that the tree Lehi saw in his dream tree was a representation of the Tree of Life. The Tree of Life is considered to be a type of Christ. For a more detailed account the reader is referred to Jeanette W. Miller's article. In her summary she states:

When we clear ourselves of the mist of darkness that precede the tree of life, we may see beyond the symbol more clearly. With or without branches, the tree bears fruit and is adorned beautifully. It extends through the center of the universe, connecting heaven, earth and the underworld. It is associated with eternal life and has great curative value to all who partake; its fruit is most desirable and delicious above all. The tree grows near the edge of the water and its roots extend down into the chaotic waters to control them. The waters that emerge from it posses life-giving virtues.⁶

To someone from the West a mental picture of the tree of Life would probably not include the palm. However Lehi was a man of the Middle East and his dream images would have contained symbols of his place and time. Arabia, where Lehi was dwelling, has a long tradition of association of the Palm with Life. According to Dr. Abdul Hameed Al Hashash the palm has been the symbol of the tree of life in Arabia since ancient times⁷. Before Islaamic times the palm tree was worshiped by the people of south Arabia⁸ and was a motif that adorned the large temple⁹ and the cemetery of Timna¹⁰. The special position of the palm continued in Islamic times. In the Koran we can read of the parable of the palm, the good tree, being compared to the good word:

Seest thou how Allah sets forth a parable of a good word as a good tree, whose roots are firm and whose fronds are high towards the sky. Yielding its fruit in every season by permission of the Lord. And Allah sets forth parables for mankind that they may be mindful." Ch 14, vv 29-31.

Alma seems to use the same imagery when teaching how to nourish the word through faith, which is like a tree that shall "take root", "springing up" into everlasting life, which will grow to produce fruit which is "...most precious, which is sweet above all that is sweet, and which is white above all that which is white..."(see Alma 32:41,42).

Certainly the palm fits Jeanette Miller's description of the classical Tree of Life. In the Middle East the idea that the palm was symbolic of life is illustrated by the fact that the disciples chose palm leaves to spread before the Savior on his triumphal entry into Jerusalem as he was about to conclude his mission to conquer death. It is easy to see why the date palm should be a symbol the Lord would use to represent to Lehi both the Tree of Life and consequently the Savior. The fruit of the palm can be sweet and light, the date- the "true seed" which becomes a "tree (of life) springing up into everlasting life" (Alma 32:41 (40)). The everlasting nature of the palm tree of the Palm as a type of the Tree of Life is signified by the fact that it never looses its leaves. Its roots are placed deep in the aquifer of the Valley Lemuel drawing from the waters of "everlasting life".

The date palm is difficult to grow. Arab lore says that the ideal environment for date palms is "with their feet in the water and their heads in the fires of the heavens." But the fruit of the Palm is considered in Arab tradition to have wonderful healing qualities, especially in the treatment of hemorrhages¹¹. "The longevity of the Bedouins is often attributed to the nutritional benefits of dates.¹²"

It would seem possible then that Lehi saw a natural Palm in his dream which was a type of the Tree of life while Nephi saw its spiritual type in his vision, the true Tree of Life. This is supported by the fact that Nephi's description of the tree differs from that of his father. Nephi describes the whiteness of the entire tree not just the fruit (1 Nephi 11:8).

The idea then that the tree which Lehi saw was the Tree of Life leads us to coinclude that the large and spacious field may then be a representation of the garden of Eden. Corbin T. Volluz has outlined some similarities between the large and spacious field in the dream and the garden of Eden. His comments are interesting in light of the fact that our proposed site for the 'large and spacious field' has only one entrance and that is on the east end.

Abraham informs us that the tree of life was in the midst of the garden" (Abraham 5:9; see also Revelation 2:7). Yet, when God cast Adam and Eve out of the Garden of Eden, he placed Cherubim with the flaming sword not in the midst of the garden, as one might expect, but "eastward in Eden" (Moses 4:31; Alma 12:21; 42:2; Genesis 3:24). The question arises as to why God would put the guardians of the tree of life in the east part of the garden when the tree of life was in the midst of the garden. This would seem an ineffective manner of guarding the tree of life, inasmuch as an intruder could enter from the north, south, or west, and partake of its fruit without encountering the guardians

It is possible that the reason the Lord put the cherubim eastward in Eden to guard the tree of life which was located in the midst of the garden is because there was only one entrance to the garden, and that entrance was located in the east.¹³

The image in Lehi's dream is one of a large field which contains a tree, a type of the Tree of Life and therefore the Saviour, the field being a physical manifestation for a spiritual representation of the Garden of Eden. The upper valley would seem to contain a number of attributes that would make it a possible candidate for a type of the Garden of Eden. It is a garden situated in a "lone and dreary world". It has only one entrance and that is on the east end. It is fertile compared to the surroundings, seemingly 'terrestrial' among the 'telestial'. It is enclosed by high mountains making it separate from its surroundings, 'as if it had been a world'. It contains a number of palm trees, which are intimately associated, in the culture of the Middle East, with the Tree of Life. Could it be that Lehi was shown the parallels between his physical location and the Garden of Eden, the Lord teaching him that his offering was acceptable to the Lord, Lehi being placed in 'the garden' by Him. But through the dream the Lord was to teach him much more of the principles of the Gospel using the images of the majestic mountain setting.

The River

Moving from the upper valley of the Water's of Moses to the canyon proper we continue to encounter date groves. About 200 yards into the canyon a spring emerges and feeds a small river, or more accurately, a stream, which runs above the surface for approximately one third the length of the canyon then disappears underground, reappearing in a number of places along the canyon, until it finally empties underground into the Gulf of Aqaba. Commenting on Nephi's description of the river, Nibley writes:

This is the authentic scenery of a desert oasis, with its rivers springing miraculously from nowhere and emptying themselves again perhaps into the desert sands. The expression 'river of water' is used only for small, local streams, and here Lehi is so near the source of the little stream that he can recognize people standing there.¹⁴,"

Lehi describes the river as being both near the tree and having its head a little way off. It would therefore be a stream which starts in the valley and does not flow into the valley from some other location. Nephi's vision tells us what the river represented:

And it came to pass that I beheld that the rod of iron, which my father had seen, was the word of God, which led to the fountain of living waters, or to the tree of life; which waters are a representation of the love of God; and I also beheld that the tree of life was a representation of the love of God. (1 Nephi 11:25.)

It is easy to see why the river represents the love of God. Together with the date palms, it was essential to the survival of the family and its very existence in the middle of the wilderness and the fact the family had been divinely led to it must have indicated to Lehi the love and concern the Lord had for them. But more than this the river seems to be a representation of the Savior himself. Nephi describes the spring where the river rises as the "fountain of living water" (1 Ne. 11:25). Nephi directly associates the water of the river with the 'living water", the same terminology the Lord uses to describe himself in both the Old (Jer. 2:13) and New Testaments (John 4:10). Thus Nephi confirms to us that

the Love of God is the Savior, or in other words God confirms his love to us by providing us a Savior.

Yet the river is described differently elsewhere. Nephi writes "the water which my father saw was filthiness; and so much was his mind swallowed up in other things that he beheld not the filthiness of the water" (1 Nephi 15:26, 27). Also "...the fountain of filthy water which thy father saw; yea, even the river of which he spake; and the depths thereof are the depths of hell" (1 Nephi 12:16).

There would seem to be some contradiction here. One might ask how the river can be both be a representation of the love of God and at the same time the depths of hell? These two definitions would seem to be mutually exclusive. Our view is that the river was seen in two contrasting stages. The first stage the clear stream which gave life to the valley, the second a raging flash flood which destroyed all before it sweeping it into the depths of the sea.

In order to avoid the heat of the sun the family will have camped in the canyon near the spring. The high granite walls provide shade for most of the day, funnel the breeze and provide shelter from the sandstorm (shamal) winds. In this way the canyon itself represents the Savior offering protection to those who would dwell there. Recalling Isaiah, "And a man shall be as an hiding place from the wind, and a covert from the tempest; as rivers of water in a dry place, as the shadow of a great rock in a weary land" (Isaiah 32:2).

The canyon at the end of wadi Tayyib al 'Ism, is the only outlet to the coast from the watershed of 105 square miles of mountains. If this dream took place after the date harvest, since Lehi saw the dates in his dream, and towards the beginning of the winter it would be an obvious concern to Lehi that any early rains could provide a flashflood from which there could be no escape for man nor beast alike. With this in mind one could see how the river could be both a life giver and a taker of life simultaneously, both a representation of the Savior, the "well of water springing up into eternal life" (John 4:14) and an agent for the devil, "the angel of the bottomless pit" (Rev. 9:11), who would wish to "...drag you down to the gulf of misery and endless wo" (Helaman 5:13).

We have not observed a flash flood in the canyon but there is ample evidence that they take place. Rocks and stones can be found in crevices in the canyon walls up to 3 feet high. The vertical rock walls would allow no means of escape and the hapless victim would be swept from the canyon into the depths of the Gulf of Aqaba.

The Rod of Iron.

The rod of iron is obviously purely figurative since no rod of iron could occur naturally. The rod of iron represents the "word of God, which led to the fountain of living waters, or to the tree of life." (1 Nephi 11:25). We would conjecture though that there is a possible physical type in the canyon representing the iron rod. The granite walls of the canyon themselves may be the natural manifestation of the spiritual type of the rod of iron. Granite is one of the hardest rocks on earth and the solid walls of the canyon would

have been noteworthy, standing in stark contrast to the soft sandstone walls of the rest of the wadi.

The purpose of the rod of iron was to lead those struggling through the mists of darkness to the tree of life. How could the walls of the canyon serve the same purpose as the rod of iron? The canyon has no turn offs. There are vertical walls from the upper end to the opening at the Gulf of Aqaba. Thus anyone wishing to find their way up or down the canyon in the dark need only place their hand on the wall and walk. Placing one's hand on the wall would explain why Lehi tells us that the multitudes were "*feeling*" or "*pressing*" (1 Nephi 8:24, 8:31). The word pressing not only implies pressing on the walls of the canyon but also large numbers of people moving forward in a confined space, such as the narrow canyon¹⁵.

The straight and narrow path

The straight and narrow path leads along by the rod of iron and extends along the bank of the river. It leads to the tree, the head of the fountain and the large field at one end and to the great and spacious building at the other.

The canyon of the Water's of Moses is interesting in that it has a flat floor all the way along its length. One can walk from the upper valley to the Gulf of Aqaba along a smooth path. Normally the floors of wadis, the clefts in the mountains which carry the rain run off, are filled with large boulders which make travelling very difficult. The narrowness of the canyon means that one is always adjacent to the walls, or rod of iron, and the river. The path is the means by which the numberless concourses of people can move from the great and spacious building to the tree of life. The path is straight and narrow and there is no other path, no side turnings in the canyon, "Because straight is the gate and narrow is the way, which leadeth unto life, and few there be that find it" (Matthew 7:14).

The Book of Mormon text does not give us a meaning for the path but it is not difficult to see that it too is a representation of the Savior. "Jesus saith unto him, I am the way, the truth, and the life: no man cometh unto the Father, but by me." (John 14:6)

Numberless Concourses of People

It seems highly likely that the place where Lehi camped was already inhabited. Since the self-contained field is likened to a world (see 1 Nephi 8:20) the crowd would seem to represent all the people of that community, i.e. all those souls who pass though this mortal life.

Mist of Darkness

The lower end of the canyon opens onto the shore of the Gulf of Aqaba. We have observed thick fog in the canyon which is caused by the cool air descending from the mountains mixing with the moist warm air circulating from the Red Sea. This would presumably have been a cause of concern for Lehi and Sariah as any young children could easily become lost in the mist and there would be a risk that they might fall into the Gulf of Aqaba. Under such conditions it would become possible to find their way back up the canyon by holding to the granite cliff walls, the iron rod, and using them as a guide back to the upper canyon. Indeed, the age old method of extricating oneself from a maze has been to place one hand on the wall and walk. Even though it may not be the quickest way out one will always find the entrance, eventually. Perhaps this method of finding ones way in the mist led to the imagery of the crowd "feeling their way" up the canyon.

Great and Spacious building.

Continuing down the canyon of wadi Tayyib al 'Ism the walls of the canyon continue to rise and reach over 2,000 feet in height. This area of the canyon provides a possible explanation for the imagery that Lehi describes.

And I also cast my eyes round about, and beheld, on the other side of the river of water, a great and spacious building; and it stood as it were in the air, high above the earth. And it was filled with people, both old and young, both male and female; and their manner of dress was exceedingly fine; and they were in the attitude of mocking and pointing their fingers towards those who had come at and were partaking of the fruit. (1 Nephi 8:26, 27)

Obviously we cannot know what the building looked like that Lehi saw in his dream. In most pictures representing the great and spacious building it is normally represented as some type of skyscraper with its base above the ground, floating in the air. It has been suggested that this building recalls the multi-storied houses of Southern Arabia¹⁶, that the family might have encountered later in their journey¹⁷. This may well be the case. However we will present an alternative view.

At one point the walls of the canyon curve high overhead so as to appear to almost overlap and block out the sky. The walls form a gothic arch high overhead forming a chamber reminiscent of the great Cathedral of Canterbury or the Abbey of Westminster, but on a much grander scale. Here there is very little chance for sound waves to dissipate and noises seem amplified, like the whispering gallery of St. Paul's Cathedral in London or the Tabernacle of Salt Lake City. We measured that following a loud shout it took 7 seconds for the sound to subside, indicating that the sound waves traveled between the walls of the canyon upwards of 200 times. Is it possible that if members of the party mocked Lehi here that the sound of a few would seem like the sound of a crowd? Could this have played on Lehi's mind so as to create the image of mockery? It is a tenuous argument at best but it is also interesting to note that Nephi later mentions that the building falls (1 Nephi 11:36). This arching of the walls is found near the only portion of the canyon where there are large rocks on the floor caused by seismic activity to which the canyon is prone. Might the fallen rocks from the wall have added to this imagery of the fallen building? Those inside the building were mocking those who were partaking of the fruit. It reminds us of those members of the great and abominable church who destroy the Saints of God for the praise of the world (1 Ne. 13:9). The warning to those who belong to this church is that "need fear, and tremble, and quake; they are those who must be brought low in the dust" (1 Ne. 22:23).

Later in the text Nephi gives us more information about the building:

And the large and spacious building, which my father saw, is vain imaginations and the pride of the children of men. And a great and terrible gulf divideth them... (1 Nephi 12:18).

Here we see an association between the building with a great and terrible gulf. Regarding the "awful gulf" (1 Nephi 15:28) and the "great and terrible gulf" (1 Nephi 12:18) Nibley writes "a tremendous chasm with one's objective (the tree of life) maddeningly visible on the other side; all who have traveled in the desert know the feeling of utter helplessness and frustration at finding one's way suddenly cut off by one of those appalling canyons with perpendicular sides¹⁸" Corbin T. Volluz's describes the river in Lehi's dream "cutting through the chasms and gorges of the Grand Canyon, so as to create a great gulf of division…"¹⁹ These two writers associate the vertical walls with the image of a canyon with the 'gulf', exactly what we find in wadi Tayyib al 'Ism.

Describing the wicked Nephi says that the gulf divides them, presumably from each other on either side of the canyon. The gulf also separates the wicked from the tree of life and the Saints of God (1 Ne. 15:28). Again the wadi imagery is consistent. The wicked, high in the building cannot come down to the floor of the canvon where the tree is situated and the Saints are gathered. We would suggest then that the dream image of the large and spacious building, the pride of the children of men who are divided by a great and terrible gulf, could be found in the vertical granite walls. While we can never know the exact appearance of the building in Lehi's dream we would contend that the canyon would appear to offer as convincing a stage for this portion of the dream to be played out as any other suggested so far in the literature. The canyon forms the walls of a building 1,500 feet high. The tallest building in the world, at the time of writing, is Toronto's CN tower at 1,815 feet tall. The canyon would certainly fit the description of 'great and spacious', and also 'high above the earth'. If we consider that the canyon walls form the 'gulf' then the righteous, following the river, would pass through the building. This might seem contrary to our preconceptions of the dream, yet how else would Lehi have known the type of all the people who filled it, not just those who were at the windows or on the balconies, and how all of them were behaving and what all of them were wearing?(1 Nephi 8: 27). That other interpretations of the building exist does not really concern us here, merely that the canyon provides us with a possible model for the building and therefore fits Nibley's premise that the imagery of the dream could be found in the world that surrounded Lehi.

The Awful Gulf.

The Gulf represents many things. We have already seen that it separates the wicked in the great and spacious building and it separates the wicked from the Tree and the Saints of God. Nephi tells us that it also represents that "awful hell which...was prepared for the wicked" (1 Ne. 15:29). The high vertical walls of the gulf would be a good type for the depths of hell since there would be no way back up and anyone who fell from the walls of the canyon could not survive. The walls of the canyon also represent "the justice of God" (1 Ne. 15:30) separating the wicked from the righteous. Nephi pointed out that they "ascend up to God forever and ever, and hath no end". Once again the actual canyon walls seem to closely approximate the description given them by Nephi in the Book of Mormon.

Like the river, which represents both the Savior and the depths of Hell, the walls of the canyon would seem to be representative of two things, the walls of the canyon would seem to be both the Iron Rod, representing the word of God (leading to the love of God 1 Nephi 11:25), and also the terrible Gulf, representing the "...the word of the justice of the Eternal God, and the Messiah, who is the lamb of God" (1 Ne. 12:18). Here Lehi is taught that the word of God is a Savior to those righteous ones who wish to find their way through the darkness to the Tree but at the same time an agent for dispensing justice and recompense to the wicked. Again the canyon provides the perfect tool to teach the two-fold role of the ministry of the Savior.

3 Groups of People

At first glance Lehi appears to describe four groups of people in his dream. Those who commence on the path and then lose their way (1 Nephi 8:23); the next group of people who partake of the fruit and become ashamed and fall away (1 Nephi 8:28); another group who grab hold of the Iron Rod and press forward until they reach the tree and eat of the fruit (1 Nephi 8:30) and a final group who are feeling their way in spiritual darkness to the great and spacious building with no apparent interest in obtaining the fruit. Many of these last group are drowned in the depths of the fountain (1 Nephi 8:32). The imagery is interesting. A closer examination reveals that there are really only three groups. We can see that those who commence on the path and then fall away and those who partake of the tree and fall away are part of the same group; those who set out on the path (to eternal life) and then fall away, irregardless of whether they have just started out or whether they have partaken of the fruit of the tree and then fallen away, do not ultimately obtain the reward they seek. Unless they endure to the end they lose their reward. irregardless of how far to the tree they progressed. We could describe the groups as 'celestial', those eat of the fruit and remain faithful; 'terrestrial', those who start out on the path to the tree or even eat the fruit of it, and then fall away and 'telestial', those who don't even seek the path and were drowned in the depths of the fountain.

All three groups seem to start from the mist of darkness. The journey to the tree seems to involve no small effort "and they did press their way forward, continually holding fast to the rod of iron, until they came forth and fell down and partook of the fruit of the tree" (1 Nephi 8:30). If the dream is based on the things which surrounded Lehi in the valley then the journey to the tree would take them up the gradient of the valley, from the low ground up to the higher. Those who fell away would turn about and symbolically would move back down again, away from the garden, the tree and the river. The third group start from the building and do not even start the journey up. They simply move down hill towards the fountain. Their journey would be the shortest and would involve the least effort, in fact gravity would draw them down hill. The fountain in which they would drown would seem here not to be the fountain of the filthy river but rather the fountain of the Red Sea, or Gulf of Agaba²⁰. The Gulf has a depth of 6,000 feet. The drop is precipitous. One can walk out on the coral reef and stand in shallow water while only a only few feet away there is a submerged cliff face that drops off hundreds of feet. Lehi would have been aware of this and no doubt this had played on his mind, perhaps warning the young ones in the party.

The symbolism here is appropriate and consistent. The mists, representing the temptations of the devil (1 Nephi 12:17), blind and confuse. The river of filthy water (flash flood), which represents the depths of hell (1 Nephi 12:16), washes those who are not holding on to the iron rod down into the depths of the fountain (Gulf of Aqaba) (1 Nephi 8:32) where they drown and are spiritually lost.

Appendix

Colorful legends about the Jews of Yemen developed over the years, fed in part by Jewish explorers like Eldad the Danite (c. 880), Benjamin of Tudela (1165-1173) and Obadiah da Bertinora (1487-1490). Extravagant claims came into being such as Obadiah's tribe of giant Jews one of whom could chase away a thousand Arabs, which seemed designed more to console and inspire the Jews in exile and to refute the Christian claim that the scepter had departed from Judah than to recall the truth. It had long been believed among the Jews in Palestine that the Arabian Peninsula and Yemen had been the realm of the lost tribes and messengers were sent out by the Palestinian Jews to try and find them in Arabia and Ethiopiaⁱ. These lost tribes lived beyond the Sambation River. According to a *midrash (Yalqut Shir ha-Shirim*), the exiles of Judah and Benjamin are destined to go to these tribes, which dwell in exile across the Sambation River, and bring them to Palestineⁱⁱ. This legendary River is called Sanbatyon and Sabbatyon. Eldad writes of this river:

"The children of Moses are surrounded by a river resembling a fortress, which contains no water but rather rolls sand stones with great force. If it encountered a mountain of iron it could undoubtedly grind it into powder. On Friday at sunset, a cloud surrounds the river so that no man is able to cross it."ⁱⁱⁱ.

Regarding these southern Arabian Jews Ahroni writes:

"Elsewhere Obadiah claimed that he was told by some Jews from Aden, whom he had met in Jerusalem, about the existence in the Arabian Desert of other Jewish tribes, descendants of Jacob."^{iv}

It has been suggested that the mythical Sambation River "finds its parallel, if not its prototype, in the sand river' of the Greek Pseudo-Callisthenes"^v. But with an overzealous imagination we might identify, intertwined within these time embroidered myths, an interesting thread: lost sons of Jacob in the Arabian Desert, a narrow river, (like a thread), capable of cutting through a mountain of iron (forming a 'rod of iron'?), at times enveloped by clouds at sunset, (mists of darkness?) so that one cannot see to cross. Note the 'Moses' imagery- the river surrounds the children of Moses like a fortress (the valley, 'the Water's of Moses', is surrounded by a granite canyon).

ⁱ Reubon Ahroni. 1986. Yemenite Jewry, p.3. Indiana University Press. Bloomington.

ⁱⁱ See Abraham Ya'ari, "She-lihim me-Erets Yisra'el la-Aseret ha-Shevatim," pp.163-178;

^{344-356; 474-482.} See also idem, "Shelim me-Erets Yisra'el le-Teman," pp. 392-430.

ⁱⁱⁱ See Epstein, *Eldad ha-Dani*, pp.5-6.

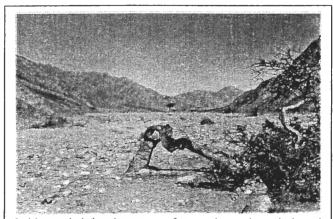
^{iv} Reubon Ahroni. Op. Cit., p.4.

^v Friedlaender, *The Jews of Arabia and the Rechabites*, p.254.

We are told that the family took eight years to reach the southern Arabian coast from Jerusalem, a journey that took the caravans a little over three months^{vi}, so the family must have stopped for some considerable time at least once on the way. We also know that Nephi was a great missionary (see D&C 33:7-11). Is it possible to see some of the essential elements of Lehi's dream in the in the legend of the Sambation River? Just as crossing the river of Laman marked that the family were not to return to Jerusalem but to depart for southern Arabia (1 Nephi 16:12) so could crossing the Sambation river indicate a return of the lost tribes from southern Arabia back to Jerusalem? Perhaps Nephi taught the Jews of Yemen and over the next two thousand years parts of those teachings became incorporated into their myths and legends. If that were the case it would certainly indicate the high regard with which those teachings were met, indication of a great missionary indeed.

^{vi} 69-88 days according to Nigel Groom, *Frankincense and Myrrh, A Study of the Arabian Incense Trade*, (Longman, London, 1981) p. 213.

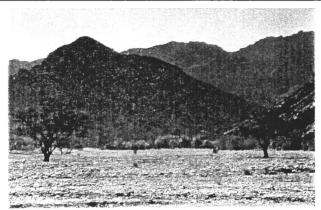
Lehi's Dream of the Tree of Life



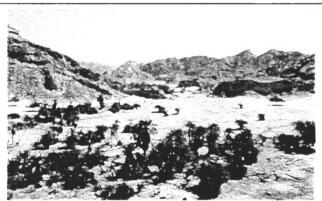
Lehi traveled for the space of many hours in a dark and dreary waste. Midian is one of the bleakest terrains in Arabia, known as Arabia Petrae to the Romans-'Rocky Arabia'. This picture is looking back up wadi Tayyib Al Ism. A few yards further on from here Lehi would get his first glimpse of the Palm groves. This could have been the type of terrain in his dream where he prayed to the Lord.



In the field Lehi saw a tree with sweet, white fruit. The Palm tree, the tree of life on the Middle East. is a type of this tree. The white dates, were sweet and life giving, bringing joy to the hungry travelers.



After offering his prayer Lehi beheld a large and spacious field. Looking down wadi Tayyib al Ism one can catch first site of the first of the palm groves in the distance.

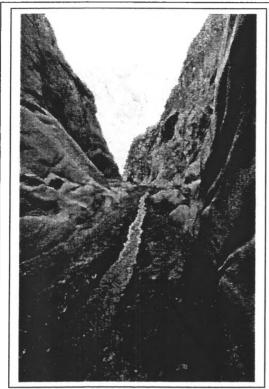


Lehi saw a "large and spacious field as if it had been a world." When the water table was higher, there were probably more vegetation in the valley. Surrounded by a rim of sandstone mountains, the enclosed valley is like a self contained world.

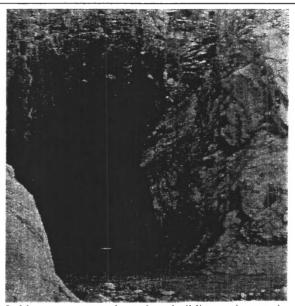


Lehi saw a river of water near the tree, with the head a little way off. The spring emerges from the floor of the wadi at a palm grove.

Lehi's Dream of the Tree of Life



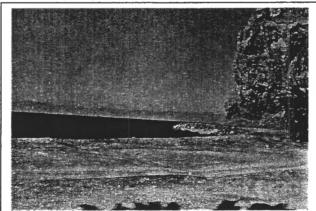
A straight and narrow path and a rod of iron ran along the side of the river. The canyon of granite is unique in all of Midian, where wadis are invariably wide, open, sandstone. The walls of the canyon keep the traveler close to the river, like the rod of iron in the dream.



Lehi saw a great and spacious building as it were in the air high above the earth. In one part of the canyon the walls converge overhead giving the feeling of being inside a tall building. Perhaps this gave rise to Lehi's dream image of the great and spacious building.



The sun sets over Egypt in the distance. The combination of warm water in the red Sea and cool air from the mountains can make thick fogs, which only affect the coast, reminiscent of Lehi's mist of darkness which blinded people who were lost in the gulf.



Lehi saw people lost in a mist of darkness, drowning in the depths of the fountain. The canyon opens at the Gulf of Aqaba, the 'fountain of the Red Sea'. The deep blue water, visible about 20 feet off shore, shows where the reef stops and the floor of the gulf falls away in a chasm hundreds of feet deep.

There is nothing so noble As to travel and make friends.

Mohammed ibn Aruk

Chapter 7

The Frankincense Trail

Eventually Lehi and his family left the Valley of Lemuel and began a long and arduous journey down the length of the Arabian Peninsula. In comparison, the saga of the Mormon settlers was a crossing from Nauvoo to Salt Lake City, a distance of 1300 miles. For the most part, the Mormon trail passed through the level plains of North America before the terrain became difficult. Still, hundreds died from disease, fatigue and exposure to severe weather. Lehi's crossing of Arabia was over 800 miles longer, and through the most hellish terrain and climate on earth. Nephi only recorded one death, that of Ishmael, though we know that if it were not for the direct intervention of the Lord, they would have all perished (1 Nephi 16:31).

Nephi did not record how long they camped in the Valley of Lemuel before he knew that he would never return to Jerusalem. Of this period he wrote only that "my father dwelt in a tent" (1 Nephi 2:15)¹. We know that eight years elapsed from the time they left Jerusalem until they arrived at their last camp in Arabia, the place they called Bountiful (1 Nephi 17:4). Strabo wrote that a caravan journey from 'Minaea to Aelena' (Yemen to Aqabah) took seventy days². Nigel Groom, an expert on the Frankincense trade, estimates that a commercial camel caravan could travel from Gaza to the Frankincense growing area at Dhofar in southern Arabia in 69-88 days. He estimates the entire distance as 2,110 miles³. The difference between 88 days and 8 years suggests that Lehi might have lived in the fertile Valley of Lemuel for some time. Dr. Lynn and Hope Hilton wrote on this matter:

Here they may have stayed for as long as four very busy years, which would have included twice sending the sons back to Jerusalem on errands, travel time being a month each trip plus time needed to prepare for and recuperate from the journeys plus the days spent haggling with Laban and collecting the family's gold and silver. There followed long days of studying and digesting the teaching of the brass plates. (How long would it take to read thoroughly most of the Old Testament, carefully thinking out its teachings, then present them to a large family?). And when Ishmael and his family joined Lehi's family, there would have been preparations for the five weddings, with the celebrations that followed⁴.

Lehi's family appears to have been comfortable in the Valley of Lemuel and probably felt no urgency to move on. Nephi described their time in the Valley as a period of his life when he was "blessed by the Lord exceedingly" (1 Nephi 16:8). Fond memories of these blessed days might have inspired the Nephites to name one of their New World cities after the area in which the Valley of Lemuel was located, Midian (Alma 24:5).

The first time Nephi records that he knew the family might not return to Jerusalem is when the Lord spoke to him promising Nephi that if he kept his commandments he would prosper and be "led to a land of promise"(1 Nephi 2:20). It is quite possible that, as with the dream of the Tree of Life, we have an example of how the young Nephi received a vision while his father Lehi had a corresponding dream. Nephi stated that when he returned from speaking with the Lord he entered the tent of Lehi, who then told Nephi that he had had a dream that Nephi and his brothers needed to return to Jerusalem to acquire the plates of Laban which contained a record of the Jews and the genealogy of Lehi's forefathers (1 Nephi 4:13,14). It seems reasonable to assume that at this point in time, both Nephi and his father realized they would not be returning to live in Palestine, thus the need for the Brass Plates. It would also seem likely that Lehi shared this information with the entire family, for in rallying his brothers for a second attempt in acquiring the plates from Laban, Nephi reminded his brothers that Lehi could no longer dwell in Jerusalem and that they needed the plates so that they could preserve their language for their children (1 Nephi 3:18,19).

It is not certain when the party first knew they would be traveling the length of Arabia and building a ship large enough to take them to the land of promise. Jewish settlements in Saudi Arabia Dedan, Khaibar, and Medina (Qura 'Arabiyyah)⁵ in that era indicate that other migration parties from Palestine entered Arabia looking for a "land of promise" in its wilderness. The history of Arabia is one of tribes moving from one place to another looking for water and fertile soils. Kamal Salibi's insights show how Lehi's journey with his family across Arabia was by no means unusual and the basic premise of this part of the Book of Mormon narrative is in perfect historical harmony.

Ups and downs in the fortunes of the Arabian trade were not only responsible for recurrent movements of populations from the desert to the settled areas; they also prompted the migration of trading communities sometimes from one part of Arabia to another, and sometimes to neighboring lands. Such migrations, when they took place, normally involved the movement of individuals and relatively small family groups from an area of declining economic prosperity to another which was enjoying an economic boom⁶.

It is possible that before Nephi received the revelation that they would cross the many waters, Lehi believed that the Lord would lead them to a new home at an Arabian oasis city or in the fertile mountains of Yemen in southwest Arabia. In the years that immediately followed Lehi's departure many other Jews fled into central Arabia seeking new homes far from the persecutions of King Nebuchadnezzar⁷. Lehi's flight into Arabia is far from being a concocted story. Since it was a practice of those in Jerusalem in Lehi's generation to escape the onslaught of the Babylonians or servitude of the Egyptians by seeking new homelands deep in Arabia it is reasonable to suggest that Lehi's initial expectation of the land of promise was that it was located somewhere in Arabia.

When Nephi and his brothers talked to Ishmael, it was about coming into the wilderness (1 Nephi 7:2-4). No mention is made at that time that they informed Ishmael they would be crossing the many waters. Up to chapter ten of 1st Nephi, Lehi talked of their

new home, "we should be led with one accord into the land of promise" (1 Nephi 10:13). Until Nephi had his great vision on the exceedingly high mountain, we cannot be sure that anyone in Lehi's or Ishmael's family really knew what was to befall them (1 Nephi 11-15). In the vision of Nephi it becomes evident that the land of promise would be across the "many waters" (1 Nephi 13:12). Given his close relationship with his father, it is reasonable to believe that Nephi immediately shared this information with Lehi.

It is hard to imagine what went through the minds of Nephi and Lehi when they realized the staggering scope of the project they needed to accomplish in order to arrive at the land of promise. They would need to build an ocean-going ship large enough to accommodate the entire extended family and all their provisions! To successfully complete a transoceanic journey, they would need to master dozens of seafaring skills e.g. understanding the effects of current and tides, sailing under varying conditions, from silent calms through raging storms, and navigating over the huge distances.

Lehi would have known of only a few places where such ships were built and sailed far into the ocean. These could have included the Mediterranean ports of the Phoenicians, the ports of the Arabia Gulf and Mesopotamia, and those of southern Arabia. As a businessman Lehi might have had contact with entrepreneurs from any of these areas but the Liahona pointed southward and so the Lord has chosen southern Arabia for them. Lehi would have known that ports sat at the end of the Frankincense trail and so the Lord's intention of leading them south would presumably not have been lost on him.

The Frankincense trail got its name from the product which was primarily transported along it, frankincense, a sweet smelling gum, the sap of the Frankincense tree *(Boswelia sacra)*. The southern Arabians became wealthy on the sale of this aromatic, highly prized by the ancients. It was used as a perfume and medicine. The Egyptians mentioned it in the Book of the Dead, believing it to be the sweat of the gods, fallen to earth, used it in embalming; indeed, evidence suggests it was used in Egypt as early as 5,000 B.C.. Frankincense was also used in temple ceremonies in Egypt, Mesopotamia, Greece, Rome and Israel. In Mesopotamia in about 2,350 B.C frankincense replaced Cedar from Lebanon as the agent burned for the gods in the temples of Sumer⁸. It has been suggested that frankincense took the place of the blood of animal sacrifices, "its resin was considered to be the blood of the tree, which was taken to be animate and divine"⁹. Frankincense trees were native to Dhofar and also grew in the Hadramawt, but the highest quality 'silver' frankincense grew in only a small area of the mountains above the Salalah coastal plain in Dhofar.

Three major ports existed in southern Arabia; Aden, Cana and Moscha. The merchant ships of these three ports virtually monopolized trade with India and the Far East until the first centuries B.C.-A.D.¹⁰ Aden (Eden) and Qana (Canneh) were the ports of the Sheban empire and were known to the people of Palestine in Lehi's time (Ezekiel 27:23). Moscha (Mesha-Genesis 10:30), the port that serviced the frankincense groves, was in Dhofar.

Today, the ruins of Moscha are found in the southern part of what is the Sultanate of Oman. From Moscha, in the area known as Dhofar, ships loaded with the precious frankincense embarked into the Indian Ocean. Lehi would also have known in the Valley of Lemuel that he camped less than twenty miles from the Gaza branch of the trail that could lead him to the main authorized trading route that ran the full length of western Arabia. The trail ended only when it reached the frankincense harbors at Aden, Cana and Moscha. According to Frankincense trail expert Nigel Groom, the key staging centers for the Frankincense trail were Aelana (Ezion-geber adjacent to the Port of Aqaba), Hijra (the ruins of Madain Saleh), Dedan (Ula), Yathrib (Medina), Turabah, Tabala (Bishah) & Najran. South of Najran, Groom suggests that the main trail probably went to Qana where the Frankincense was shipped in from Moscha. However, more recent research has confirmed that a branch of the main trail continued from just south of Najran, overland to the harbor at Moscha on the Indian Ocean.

Moscha was a place where ships and captains could be found that were capable of sailing in the open waters of the Indian Ocean, something Lehi could not have found with the Phoenician sea captains of the Mediterranean. Nephi's assignment in the sixth century B.C. was to build a large ship then sail it across the oceans to reach the land of promise. In our times it might be somewhat comparable to the Lord asking you to build a Space Shuttle and use it to fly your family to the moon! Even if you had inspiration from the Lord you would probably want to visit a large aerospace manufacturer, find out where suppliers are located so you could acquire the necessary components, and finally consult with an experienced astronaut for lessons. Nephi had to acquire the knowledge and develop the skills necessary to make this ocean voyage just as the first men to sail the Arabian seas had doNephi Tosi wrote of the earliest sailors in the Arabian Peninsula, "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. "¹¹ Nephi, however, had limited time to develop these skills and he knew exactly what he needed; a body of "accumulated experience" and "tradition" on which to draw. As we shall discuss later the best place for Nephi to have acquired these nautical resources and skills would have been at Moscha.

But did Lehi know such a place existed? Probably. He was of the "free class" and a land owner (1 Nephi 4:33;2:4). Lehi was wealthy (1 Nephi 2:4), multi-lingual (1 Nephi 1:2), and therefore probably of the noble or merchant class. Most likely, Lehi had as good, if not better, knowledge of the overland and seafaring routes of his day than did his contemporary prophets. Ezekiel and Jeremiah, had a knowledge of the Frankincense trail and the oceanic shipping that was taking place in the Indian ocean. Ezekiel wrote of the merchants of Dedan and Sheba, both associated with Arabian empires whose wealth was based on the incense trade and both of which were situated on trading routes (Ezekiel 27:20,22). Ezekiel specifically mentioned the ocean going ships of the merchants of Tarshish, as well as their pilots and mariners, undoubtedly these early sea-going captains and sailors were heroic figures in their time (Ezekiel 27:25-27). Some scholars have associated Tarshish with Tartessus in Spain. However there was also a Tarshish on the Indian Ocean (see LDS Bible Dictionary). In 1 Kings

10:22 we can read of some of the merchandise brought back to Palestine from these trips to Tarshish: gold, silver, ivory, and apes and peacocks (hardly products from Spain). While the ivory & gold could equally have come from Africa, the complete list of items indicates dealings with India¹². Peacocks live in India and are not found in Africa at all¹³. In fact, large merchant ships were sailing the Indian Ocean long before Lehi's time, and as early as the end of the third millenium B.C. were probably sailing from India to the Red Sea in a single voyage¹⁴. For ships sailing to Egypt from Mesopotamia or India six hundred years before Christ, Moscha, at Dhofar, would have been an obvious, if not essential, port of call.

If Ezekiel and Jeremiah¹⁵ (Jeremiah 10:9) knew about these large ocean-going ships of the Indian Ocean and the overland trail route leading to the Indian Ocean ports (Jeremiah 49:7,8), then certainly Lehi knew where to find the ocean-going ships and the mariners and pilots who knew how to sail them. Though unlikely, if he did not know this before he left Jerusalem, the plates Nephi acquired told of these ships (2 Nephi 12:16). The plates mentioned Ophir (2 Nephi 24:12) which according to the LDS Bible Dictionary, was "probably a port of southern Arabia". According to Oman historian S.B. Miles, Ophir appears to have been the port of Moscha (Mesha) in Dhofar (Sephar)¹⁶ (Genesis 10:29,30; 1 Nephi 5:11). This view is supported by Philip K. Hitti¹⁷. Lehi would have known of Ophir's fame for shipping and probably even its location. He was a prophet and the scriptures of his time told of Solomon sending his navy to Ophir to acquire gold (1 Kings 9:28), a "great plenty of almug trees", and precious stones (1 Kings 10:11). "By the time of Job (22:24) Ophir had become a synonym for a gold producing land."

The caravans passing down the Gaza branch of the Frankincense trail in Lehi's time were impressive. Isaiah wrote of the "multitude of camels" of Midian (Isa. 60:6). On their route to join the main trail at Dedan, the caravans passed through Midian down the wadi I'fal, approximately eighteen miles from where we believe the Valley of Lemuel is situated (Wadi Tayyib al-Ism). Since Lehi was in the Valley of Lemuel for some time, it is likely he would have had some interaction with these caravans or at least the merchants in al-Bada'a, and could have learned, if he did not already know, of the caravan routes to the Indian Ocean. In summary, it is almost certain that Lehi knew of the ocean-going ships of the Indian Ocean, their port-of-call at the Frankincense port of Moscha, and the authorized trail he could take overland to reach Moscha. It is quite possible that when Lehi left the Valley of Lemuel, he had a good idea of where he was headed, to one of the South Arabian ports. The Liahona was eventually to point him to Moscha on the Indian Ocean. Is there any other evidence supporting this destination as the embarking place on their sea journey to the Americas?

Dr. Hugh Nibley was the first to ascribe the fertile Qara mountains above the ancient Arabian town of Dhofar (Salalah) as the only likely place for Bountiful¹⁹. Moscha was located on the eastern part of the Salalah plain in Dhofar. Warren Aston wrote: "This unprecedented land survey gave us basic information on the entire region and established, to our satisfaction, that no serious Bountiful candidates were to be found outside the southern Dhofar Region of Oman"²⁰.

The Need to Use an Authorized Trail

The picture many westerns hold of traveling in ancient Arabia is that the traveler needed one eye on the trail and the other on the lookout for raiders. It is true that tribes blocked from the Frankincense trade would from time to time plunder the valuable cargo of the Frankincense caravans. The common menace on the trails came not from the tribes, but from the common criminal element that plagues all societies. Small bands of outlaws preyed on small groups of travelers. At the time of Lehi' journey though Arabia the prophet Jeremiah, who prophesied from 626-586 B.C., noted that the Arabs were notorious highway robbers (Jer. 3:2). It would have been as unwise to travel alone through Arabia in 600 B.C. as it would have been to have tried to cross the North American West in a single wagon in the 1840's. For this reason, the tribes that ruled the trade routes went to great efforts to protect their trails and to organize small parties into larger groups for travel between villages. These tribute-paying travelers needed a degree of safety, or they would find other routes. The travelers were their customers, and the tribute from the trail was their main source of income. Andrew Taylor writes of one nineteenth century Emir in northern Arabia:

...Emir Mohammed ibn Rashid at Hail, who would briskly lop off the heads of strangers found loafing around near the roads in his domain as an example to anyone thinking of mounting an armed attack on passing travelers. It was...an effective policy - there had been no robberies on the Emir's highways for years – and yet the self imposed traditional law of the desert bedu might seem to have been both more civilized and just as effective, if a little less romantic.²¹

Nigel Groom notes:

Over the long period of the overland incense trade, power and influence will have shifted among the different tribes of central Arabia and it seems likely that the Minaeans organising the trade will always have been much concerned in dealings to ensure the safe passage of their caravans through the territories of tribal chiefs with varying and fluctuating degrees of authority. A general measure of law and order must have been maintained, however, for the trade to have continued over the centuries without, so far as we know, any major interruption.... The diplomatic endeavours of the Minaean merchants may have been a major factor, together with the influence of the stronger civilisations to the south and north, in preserving this stability.²²

While it is true that open travel into Arabia in ancient times was hazardous, and that travelers ran the risk of being robbed, placed in bondage or even killed, this does not mean that travel through ancient Arabia was impossible, far from it. By providing protection at the wells and on the trails, travel was encouraged and supported by the tribes that ruled the land through which the routes passed. Travel was controlled, not prohibited. Arabist Alan Keohane explains why it was in the interest of the tribes to encourage travel:

Traders and cultivators paid them protection money, called *khawah*, to keep themselves safe from raids. The desert sheikhs – a title of respect derived from the Arabic word for 'to be old' –became so powerful that many were given the grander title of *emir* or prince.

They were also fabulously wealthy. In their grasp lay control of the perfume route that took cloves from Zanzibar, frankincense from the Yemen, silks and musk from the East to the cathedrals and courts of Christendom. Today the descendants of these families rule modern states, and oil has replaced camel-laden caravans as their source of wealth.²³

In other words, tribute paying travelers were welcomed so long as they obeyed the terms of passage, that is, staying to the authorized trails through the Arab's lands, paying tribute or *khawah*, and not robbing the locals. The desert trails could be viewed as toll roads that crossed the private property of the tribes. The Roman, Pliny the Elder (23 B.C. to 79 A.D.), described the economics of the Frankincense route this way:

It (*frankincense*) can only be exported through the country of the Gebbanitae, and accordingly a tax is paid on it to the king of that people as well. Their capital is Thomma, which is $1487\frac{1}{2}$ miles distant from the town of Gaza in Judaea on the Mediterranean coast; the journey is divided into 65 states with halts for camels. Fixed portions of the frankincense are also given to the priest and the king's secretaries, but beside these guards and their pickings: indeed all along the route they keep on paying, at one place for water, at another for fodder, or the charges for lodging at the halts,...²⁴ (Italics added)

When Wilfred and Lady Ann Blunt traveled by camel into northern Arabia in 1879 even then they needed to pay khawah. Taylor relates:

The other negotiation in Meskakeh was to arrange official permission from the governor, Johar, to continue on to Hail; ...with the bargaining oiled by the gift of some handsome clothes to the governor and a small bribe, the party was allowed to proceed.²⁵

Lehi would have understood that in order to travel through Arabia he would need the protection of an authorized trail. He did not belong to an Arabian tribe and could expect no protection from local tribes people. He would not have been allowed free access to their wells or provisions. If Lehi did not pay khawah or strayed from the authorized trails, he and his family would have found themselves very quickly at the mercy of the local tribes.

In 1999, we encountered the vestiges of this ancient system of having to acquire permission to travel through the tribal lands. While attempting to drive what we believe was Lehi's trail from the Port of Aqaba to what we conclude is the Valley of Lemuel, we were stopped by the interior police. We were told we needed to go to Al Bada'a to receive permission from the Emir to use this remote trail. We spent that evening sitting with the Emir of al Bada'a seeking his authorization. We received permission to travel in his areas, but were instructed that the part of the trail that was on the other side of a mountain was not under his jurisdiction. To travel on the other side of the mountains we would have to have to see the Emir in Haql to get his authorization. Thus, even though we had "Travel Authorization Letters" from the central office of the Ministry of Interior of Saudi Arabia, in certain cases, we still needed to acquire the permission of each of the local emirs in order travel the unpaved roads of their territory. This personal experience also reinforced what we already knew, the mountains in Arabia are still used as the "borders" between the emirs and their tribes.

The Necessity For Taking The Frankincense Trail

Since it was only possible that the family could have traveled safely through Arabia by using an established trail we need to establish what trails were in existence in Lehi's time that led from northern Arabia and ran south-south east to eventually turn east (at Nahom [1 Nephi 16:34]) and lead to the Indian Ocean ('Irreantum' or 'many waters' [1 Nephi 17:5]). Fortunately this task is made easy since only one trail existed to the south. Regarding these routes from the southern incense kingdoms leading north to the Levant Dr. Abdullah Saud al Saud wrote:

In order to make one's way from the main centres of production to the markets (Mediterranean Sea), one had to avoid the mountains as much as possible and, at the same time find enough water and food for men and animals. There was only one trail in South Arabia which achieved all these requirements...²⁶

Dr. al Saud then goes on to name the towns through which the Frankincense trail passed, from Shabwa in the south, up to Gaza on the Mediterranean coast. This trail split in the north at Ula (the Biblical 'Dedan). The 'Egyptian or Gaza branch' passed through Al-Bada'a just a few miles from wadi Tayyib al-Ism, then continued on north to the Mediterranean. In Yemen this trail had an eastern branch that led all the way to the Frankincense port of Moscha.

One might ask the question "If they traveled along a trail why did they need the Liahona to show them the way? They could have just walked along the road." One needs to understand that the Frankincense trail was not a road in the sense that we are used to. There was no delineated trail along which to walk. It was simply a general course which would take one to the next caravan halt and water. Over one hundred years ago Englishman Charles Doughty was given permission by the Governor of Syria to accompany the pilgrimage (hajj) to Madein Saleh. Doughty recorded of the Pilgrim road: "The Darb el-Hajj (*Pilgrim road*) is no made road," it was rather a "multitude of cattle-paths beaten hollow by the camel's tread...²⁷ Richard LeBaron Bowen wrote: "There is no reason to assume that there was ever one single route north from the southern shores of Arabia. Undoubtedly there were always several routes in existence."²⁸

Lehi would have needed a guide, and for those times that the family were traveling alone, the Liahona was capable of taking a guide's place. In 24 B.C. an ill-fated Roman expedition of 10,000 men under Aelius Gallus set out to capture the incense kingdoms of Southern Arabia. They were guided through the desert by the Nabataean Syllaeus. The Roman ships landed on the Red Sea coast and moved inland to travel south along the Frankincense trail²⁹. Even though the Romans had a guide and were traveling along a 'trail' they took 6 months to reach southern Arabia. Obviously the services along the trail could not cope with such large numbers of travelers and the Romans lost nearly one third of their men. The celebrated Greek geographer Strabo, historian of the expedition and himself a personal friend of Gallus, wrote some thirty years later "The men who were lost not by war, but because of hunger, sickness, fatigue, lack of water and bad roads"³⁰.

historians have accused Syllaeus of treachery because, Strabo informs us, he "proceeded to take them through the worst and most arid parts of it, so that large numbers died of thirst³¹". This accusation seems, however, to be unfounded for surely the Romans would have swiftly dealt with him if there had been the slightest hint of treachery. While he was executed by the Romans it was 20 years after this expedition and for totally unrelated reasons. No, the Romans suffered because, even on the trail, it was tough terrain, even for the seasoned Roman troops. A guide was necessary on the trail because it was not an obvious road. His experience was essential for a rapid and safe journey. The length of time taken for the 900 mile journey south, 6 months, contrasted "with the speed of their return journey, after the Romans had learned something of the country"³². Their retreat, doubtless harassed every yard of the way, took only 60 days. So even traveling with a guide the Romans took 6 months to head south, but once they knew the terrain they were able to make the journey far more quickly. Nothing in the Book of Mormon suggests anything other than the family were traveling the route for the first time.

The Liahona would have been essential for them, not because they were *not* on a trail, but because they needed to remain *on* the trail, the trail described by Strabo, as "bad roads". If traveling on the trail was so arduous that many Romans died of thirst what chance would the family have had if they had wandered off into the desert alone, or tried to blaze a trail where none existed?

Some have suggested that Lehi was in the caravan business because Lehi had tents (1 Nephi 2:4) and camels. However, this would also be the case for most wealthy men in ancient Palestine (1 Nephi 3:25). Ownership of tents seems to have been very common amongst the descendants of Lehi too (Mosiah 2:5,6) yet they were neither nomads nor long distance travelers. The wealthy families of Palestine maintained vineyards and pasture lands some distance from the city where their urban homes were located. An example of this form of commerce is the parable of the householder who planted a vineyard in a far off place (Matt. 21:33:34). Householders, such as the house of Lehi, would have required tents and camels for these operations. Even if Lehi had no provincial vineyards or pastures, he could have simply gone to the camel and tent markets and acquired these items on demand. To this day every sizable town in the Middle East still has a camel market and a "souk" (market) where traditional goat hair tents can be purchased.

The Book of Mormon suggests that Lehi and his sons were anything but professional desert haulers:

1. A tradition in the Middle East was that the sons from their earliest years grew up working beside their father in the family trade. Lehi's oldest sons showed little evidence of being trained in the caravan trade, nor of having earned the nobility manifested by an experienced caravan overseer. They complained bitterly of having left the comforts of Jerusalem and their family wealth. After a relatively easy trek from Jerusalem to the Valley of Lemuel with its sheltering cliffs, fresh water supply and abundant food, Laman and Lemuel became convinced they would perish in the wilderness (1 Nephi 2:11). 2. Sariah, Lehi's wife, did not display the hardened disposition of a mother whose family traveled long periods of time away from home. When her sons made a short journey to Jerusalem from the Valley of Lemuel she began to "mourn" supposing her sons had perished in the wilderness (1 Nephi 5:1,2).

3. Lehi himself displayed little professionalism when it came to the difficulties of the trail. He eventually broke down, began murmuring against the Lord (1 Nephi 16:25).

4. Finally, if Lehi did lead caravans, he would have known some basic navigational skills. Alma wrote they "tarried in the wilderness, or did not travel a direct course" when they did not give heed to the Liahona (Alma 37:41-43). In other words, during certain parts of Lehi's journey, he became lost.

5. Lehi was possibly a tribal chief, the local family sheik, or at least its spiritual leader. Lehi went forth and prayed in "behalf of his people" (1 Nephi 1:5). In the Middle East this would be the proper role of the clan leader. If so, it is doubtful that he would have been asked to be in such a position over the people if he were constantly traveling. "The tenure of office of a sheikh lasted only as long as he enjoyed the good-well of this constituency"³³. If Lehi were constantly away on business, one cannot expect Lehi to have had enough time to have retained the good-will of those he represented.

6. An experienced and well-equipped caraveneer could have made the journey from Jerusalem to Dhofar in less than four months. The fact that Lehi took eight years would seem to indicate that he had neither the knowledge nor experience necessary to make a speedy journey.

As anything but professional haulers, the family would have needed a guide, either an experienced person, or the Lord through the Liahona.

We have spent years traveling the trails of Arabia. We take modern maps of the highest resolution, we use Global Positioning System equipment and we still regularly lose the trails. The desert trails are not roads as we know them, the wind blows all trace of them away, and if one is traveling the route for the first time, with no landmarks to guide, even today getting lost is a constant fear. In the late 1990's writer Donovan Webster traveled in the Sahara. His observations with the Tuareg caravaneers in Niger are interesting:

Crossing the Sahara is dangerous business. "people die all the time", says writer Donovan Webster... "That's why you go with someone you trust."

Don figured a little technology wouldn't hurt though. "When I mentioned to my guide that I had a GPS [Global Positioning System] receiver to help us navigating, he said he didn't need it." Says Don. "'I've got TPS', he told me-Tuareg positioning system. And he did! He could find anywhere just by seeing the ripples in the sand.³⁴

There is nothing in the Book of Mormon to indicate that Lehi had traveled to southern Arabia before. He did not have the benefit of prior experience of the trail and, at times, the family was doubtless traveling aloNephi The Liahona does not preclude the family from using a trail, rather it would have been essential for these first time travelers to have found the way and also to have known when and where to leave the trail e.g. to hunt (1 Nephi 16:30).

Did Lehi take the Frankincense Trail?

Without question, Lehi faced an arduous assignment from the Lord. He had to cross a most forbidding landscape with two families of traveling neophytes. The most likely scenario is that after Lehi left the Valley of Lemuel, he essentially stayed on the established trade route through the entire length of western Arabia. For now, here is an abbreviated list of the reasons why it appears that Lehi took the Frankincense trail all the way to Moscha, the harbor at Dhofar:

1) Nephi's Text Appears to Describe a Journey To and Then Down The Frankincense Trail

First, Nephi's record includes explicit indicators that they traveled on the Egyptian or Gaza branch of the trail that passed just east of the Valley of Lemuel and finally joined the main trading route either at Dedan (Ula) or Tabuk. These include: 1.) they traveled *nearly* south-southeast - the course of the main Frankincense trail (1 Nephi 16:13), 2.) they traveled in the borders, meaning mountains, near the Red Sea (1 Nephi 16:14) - if they took the Frankincense trail, they traveled almost six hundred miles in the borders or mountains in Northwest Arabia, 3.) Nephi only used the phrase "in the borders" in the initial phase of the journey after leaving their second camp at Shazer, and he drops the word "borders" after they leave the most fertile parts. This is consistent with the mountainous terrain found from Shazer to Medina, the last large oasis until southern Arabia, and from then on the trail through Arabia was on the plains well east of the mountains, and 4) on leaving their second camp, Nephi wrote that they stayed in the "most fertile parts" (1 Nephi 16:14). It should be remembered that their second camp was only seven days journey into Arabia from the Port of Aqaba. They would still be in northwest Arabia, the Hijaz, where the only cultivation of any significance is found along the Frankincense trail. The Webster's New Geographical Dictionary gives the following description for Hijaz (Hejaz). Note also that the Frankincense trail ran through the mountains and that Medina and Mecca are found on the inland trade routes, not along the coast.

Hejaz or Hedjaz or Al-Hijza:

Western province of Saudi Arabia, extending along Red Sea coast, bounded on the north by Jordan and east by the Nejd, on south by Asir, and on west by Red Sea, 134,000 square miles, coast extends along Gulf of Aqaba. Its coastal plain generally desolate; on its east edge is mountain range with basins that have little drainage. Most fertile part in south around Mecca and Medina (Medina).

Webster's use of the words "most fertile part" is quite the coincidence. According to Webster's there are 'most fertile parts' in the barren Hijaz, and not surprisingly, they are on the Frankincense trail.

2) Water

The course of the Frankincense Trail can be explained in one word, "water", the most precious commodity of all to the desert traveler. Lynn Hilton notes: "The history of Arabia is written in water, not ink. Where there is water – that is the inescapable fact of Arabian life – and the great oases of the Arabian peninsula do not move from place to

place"³⁵ The great oases of western Arabia, Tabuk, Hijra (Madain Saleh), Dedan (Ula), Medina, Mecca, and Najran are all found on the Frankincense trail or a branch of it. The eastern side of the coastal mountains forms an underground seal, trapping large pools of water in aquifers. The inland underground reservoirs, called the Basalt Aquifers, run almost the entire length of the northern and central parts of the trail, providing dependable wells and springs along its course. Indeed, the course of the Frankincense trail was not a fluke, rather it was there because it offered the traveler the best chance of surviving a crossing of the great deserts. It had a reliable water supply.

The need to find water in the desert made it relatively easy for the emirs to control passage through their lands. Even if a party attempted an unauthorized passage through the land, they would eventually need to stop for water at the precious few wells. Taylor writes:

Like the soldiers and traders who had made their way through Arabia before them, they knew (pilgrim) knew there were supplies of water, scanty and brackish though they might be, on the road ahead. Fortified *kellas* or water stations, protected by iron-plated doors and garrisons of soldiers, dotted the route at long and irregular intervals. Although it might have been two or three days' march from one to another, at least the water supplies were known and plans made accordingly.³⁶

As the Hilton's succinctly summarized, Lehi's had no option but to travel on a proven trail:

Lehi could not have carved out a route for himself without water, and for a city dweller to discover a line of water holes of which desert –dwellers were ignorant is an unlikely prospect.³⁷

And yet water was an absolutely essential item for the travelers. Hilton further explains:

Lehi could not travel without food and water for his family and his beast of burden. Nephi records no miraculous manna descending to feed them – they had to work hard for their food and sometimes complained because of hunger. No waters are reported gushing miraculously from their own rocks of Horeb as Moses had produced with the touch of his rod. The family, therefore, must have traveled and survived as other travelers of their day did in the same area, going from public waterhole to public waterhole.³⁸

The waterholes were guarded and regulated public property of the ruling tribe, and that necessitated Lehi interacting with the local people. Therefore his movements would have been monitored and controlled through the tribal lands.

Water was a not a free resource for all but rather a jealously guarded commodity. When Charles Doughty traveled the Pilgrim route at the end of the 19th century it was under the control of the Turks who paced garrisons to protect the wells and cisterns, which collected rainwater. He noted that the "cisterns are jealously guarded, as in them is the life of the great caravan."³⁹ He went on the say that if the Arab nomads tried to draw water the soldiers would shoot upon them. Some believe that Lehi tiptoed through the desert of Arabia undetected by the local inhabitants. That is not possible for every few

days the family would have needed water and then they would have to deal with the owners of the well in order to obtain it. To steal it would have been a punishable crime.

3) Supplies

The Frankincense trail also provided the other important elements needed to survive the trip through the desert; food and, when needed, fresh camels. At the caravansaries, or camps along the trail, the traveler could also share news and companionship with other travelers as well as inquire about the trail ahead. Today's equivalent to the caravansaries or halts would be highway truck stops.

Groom provides this account of the logistics that were made available to the traveler from the tribes that ruled the trails who profited from servicing the caravans that passed through their lands.

We do not know many details about the administrative aspects of the incense trade, but it is reasonable to assume that at various points along the route, speculatively one might suggest at intervals of between ten days and three weeks, the cargoes would be transferred to fresh camels, probably locally owned and handled by local cameleers. Almost certainly this would have happened at Jijra, capital of the Nabataean southern province, which became the main Minaean centre during the Nabataean period. One can imagine the tired merchants seeking out this Minaean agent, a relative perhaps, who would need to make elaborate arrangements for guarding the precious loads while they were transferred to new teams of camels, for obtaining clearance for safe-conducts from the Nabataean authorities after payment of taxes and for paying off the previous cameleers and escort. From Hijra the incense would have been carried on the backs of Nabatean camels.

Of course, this was the position during only a part of the long history of the incense trade, for the Minaeans had been carrying frankincense and myrrh northwards for centuries before the Nabateans came on the scene. 40

4) A Good Road

The Frankincense trail followed a proven route through the mountains. Mohammed Al-Mansour was a wealthy caravan-trader in the nineteenth century from Oassim, due east from Medina. He was one of those who the historians Freeth and Winstone refer to as "the prosperous citizens of the Qassim (who) were traditionally caravan-traders to Mecca, Kuwait, Baghdad and Riyadh"⁴¹. His great grandson, Waleed Al Mansour, keeps a long genealogy that includes personal histories. Waleed notes that Mohammed traveled the caravan routes from Qassim in central Arabia to Palestine, Cairo, Baghdad, Persia and India selling camels and trading in various commodities he acquired on route. To this day, Waleed's uncles can describe the footing of each of the main camel trails in Arabia, that is, gravel, hard sand, dry river bed etc. The routes were not straight courses, but often deviate far distances to avoid lava beds, mountains or soft sand, none of which are good terrain for camels. Such considerations were far from incidental, if one's camels became lame in the desert, the traveler's fate was in serious jeopardy. The courses of the Frankincense routes were derived from thousands of years of experience, and were faithfully followed in an effort to minimize the risk of losing camels or of getting lost.⁴²

5) Lehi Needed Income to Pay Tributes and Acquire Provisions

Besides money for tributes Lehi would have needed funds for acquiring provisions, and probably for replacing camels that became lame or died on the trail. We know Lehi did not take his gold and silver into the wilderness. Randolph Linehan, an International Attorney specializing in international commerce, and one who practiced law in Arabia, speculates on how Lehi acquired the funds necessary to purchase passage through Arabia:

The obvious information here is that anyone travelling through Arabia in the 6-7th century was not travelling through some wilderness without political hegemonies. Anywhere that Lehi and his family would have traveled was organized: and probably paying tribute to the Assyrians and then the Babylonians. There were well-organized caravan routes transporting incense, frankincense and myrrh.

The only realistic possibilities here are that Lehi was familiar with the merchants, knew of the routes, and realized wherever he headed south the organized lands would have been under the suzerainty of the Assyrians or the Babylonians or both. He would be paying tribute as he went south, and such a large group (Lehi's family, Ishmael's family and servant(s)) would not be unnoticed. It is clear that these tributary locations simply switched from one ruling power to the other without much disruption, so long as trade was continued and they could get their goods to the ruling group's trading cities.

When they left Jerusalem, they were not fleeing, but had a large camel train, the only animals which could negotiate this trail, with provision that included tents, bags of water, grains, dried fruits, honey, legumes, lentils and chick peas: the diet of the period. No one would have walked out undetected or sneaked out of Jerusalem to the frontiers in that period of time due to fortified 'high places' and the strong border protection policies of a nation which had been at war with the Assyrians, Edomites and southern tribes for centuries and then facing the Babylonians and their vassals from the north, south, and east; not to mention the Egyptians which had hegemony all the way to Beersheva. So this would have had to been a production number of some magnitude even if they indicated that they fled. Their only route would have been the Frankincense trail, the New Jersey Turnpike or San Diego Freeway of antiquity. They would have had to pay from place to place, and having viewed the Judean desert, you would not want to have veered too far from the trail as there were only so many water holes and as in Arabia, they were fortified and guarded.

Lehi was wealthy. He had taught not just his oldest sons, but his younger ones as well, reading, writing, and the trade languages: Egyptian, Canaanite script, Judahite Hebrew. They had gold and silver. They took records and possibly scriptures. They were obviously planning to pay tributes on their journey. The idea that nobles would hire themselves out as slaves or workers on their journey south makes little sense. Anyone who could read in their period of time already had a talent which would be similar to an MD traveling abroad today.⁴³

Linehan finds it reasonable to assume that in the commercial centers that were located along the Frankincense trail, Lehi and his older sons could have exchanged their highly valued personal services for tribute and provisions. This might, to some degree, explain why it took Lehi eight years to cross Arabia.

6) Protection From Plunder

Waleed Al-Mansour told us that his grandfather's caravans numbered two to three hundred camels, each few camels being accompanied by an armed man⁴⁴. Waleed told us that when a smaller group wished to make a long journey they would wait at a

caravanserai or village, making their intentions known, until enough people could band together to make a sizable traveling party.⁴⁵ Only at that point would they set out, the large size of the group providing the deterrent to would-be bandits. The caravan was thus a small army traveling across the desert, a veritable town on the move, bristling with guns. Even so, as Kamal Salibi notes, "the tribes were paid to secure the safety of the caravan routes, and [*they*] also derived revenue from the necessary services they provided (escort, pack animals and provisions) to the caravans passing through their territory".⁴⁶

Staying on an authorized trail and traveling in a large group would have provided Lehi a degree of protection from outlaw elements. However, if had he traveled alone his own trail through Arabia, for example, a route down the shoreline, he certainly would have subjected his family to plunder and slavery; not only by the outlaws, but by the Bedouin and the Emir's own tribesman. Those entering tribal lands without permission were considered, by those in authority, to be trespassers, tribute dodgers or what we might called illegal immigrants. The family would thus have been fair game for plunder, enslavement and perhaps even death. Lehi's party included three valuable commodities, men and children for slaves, women for harems and camels for trade. The Bedouins of Arabia watched the passages and wells and knew who traveled in their lands. If Lehi were lucky enough to slip through one tribal land, he certainly would have been caught in the next. As Bedoun expert Keohane writes: "If a stranger attempted to pass a campsite without visiting he would leave himself open to being robbed or killed as an enemy"⁴⁷.

To summarize, it seems reasonable that the prophet Lehi, being responsible for the group, would have taken care in assuring their safest passage through Arabia. Rather than avoiding the established trail, Lehi probably saw that the Frankincense trail was the only feasible way he and his family could cross Arabia. Lehi probably knew the Frankincense trail would provide his family with water, a good trail, provisions, other supplies, and good protection from bandits. The prophet no doubt felt very comfortable dealing with the tribal leaders along its course, knowing that his skills could be traded for the income necessary to require provisions and to pay tributes. On having paid the tributes, Lehi knew that his family's care would then become the responsibility of every tribesman living in that area. As Baldensperger penned, "Men of all conditions and nations ... look to the Arab camp as a safe retreat and refuge."

Could Lehi have traveled on the western side of the mountains?

In making their way south Lehi had two choices, to travel to the east or the west side of the mountains. Obviously they could not have traveled along the mountain chain, one thousand miles of jagged peaks from six to ten thousand feet in height. It has been suggested that the family traveled to the western side of the Hijaz range, down the Red Sea shoreline⁴⁹. Adherents to this theory rule out the Frankincense trail, though it nearly parallels the Red Sea coast, because its bed lies 100 to 200 miles inland from the Red Sea. Presumably their logic for excluding the only known trail down the western half of Arabia in Lehi's time, seems solely based on the mistaken opinion that the Frankincense trail does not conform to the verse 14 of Chapter 16: "And we did go forth again in the wilderness, keeping to the most fertile parts of the wilderness, where were in the borders

near the Red Sea." The error comes in believing that the word "borders" mean the shoreline plain, which is called the *Tihama*, along the Red Sea shore of Arabia. As we explained earlier Nephi's borders were the mountains of northwest Arabia. The Hijaz mountains run the entire length of Arabia rising skyward within a few miles of the Red Sea. Consistent with Nephi's text and for Lehi to have reached the main Frankincense trail, he had to cross through the heart of the Hijaz mountains, Nephi's 'borders'. On reaching the main trade route, Lehi would remain in the 'borders' or mountains, for another two hundred miles to Medina.

If the full text of 1 Nephi 16:14 is considered, it certainly rules out a shoreline trail down the Red Sea. Let us briefly outline the reasons why it is unlikely Lehi traveled down the shoreline of the Red Sea.

The first and most notable of these is that there is no evidence that a trail existed down the shore of the Red Sea until well after Lehi's time. Crossing Arabia was a very difficult process. Such long journeys in the desert would have required logistical support, i.e. dependable and maintained wells, fodder for animals, and provisions. It is known that such support was supplied at regular intervals along the interior Frankincense routes. There is virtually no historical evidence that such a logistical system existed along the conjectured shoreline route until the end of the ninth century A.D. Our review of the official maps of the pre-Islamic trade routes in Arabia exhibited at the National Museum of Bahrain and the Antiquities Museums of Saudi Arabia at Najran and Damman show a network of trading routes through Arabia – yet none are located along the shoreline of the Red Sea. Virtually all of the texts, printed in English, that deal with the pre-Islamic trade routes, show the Frankincense trail inland and no trail along the coast line⁵⁰. For a short distance in the south of Arabia a branch of the incense route traveled along the coast but then joined up again with the Frankincense trail⁵¹. English maps showing a trail down the entire length of the shoreline of the Red Sea, are referencing only to Islamic Hajj (pilgrim's) routes^{52,53}. The Egyptian Hajj coastal route started in Fustat (old Cairo) and crossed the Sinai Peninsula to Ailah (Aqaba) from whence it ran along the Red Sea coast until reaching Yanbu where it turned east to Medina. The north route to Makkah and Medina from the Hadramawt in the south divided into two at Aden. One road traveled along the coast while the other went inland, following the course of the old frankincense trail. These coastal Hajj trails undoubtedly came into being well after Nephi. Frankincense trail expert Nigel Groom makes no mention of a coastal route. Perhaps the leading historian on the trails through northwest Arabia is King Saud University (Rivadh) historian Abullah Wohaibi. Wohaibi writes:

Throughout the 7th century (A.D.), the route from Medina to Syria lead through Al-Marwah and Aliah (Port Aqaba), which cannot but mean that the Egyptian caravans followed an inland route since there is no mention of a coastal route from Egypt until two centuries later. This is also implied of Ibn Khurradadbeh in the 9th century.⁵⁴

The reason for the abandonment of the ancient frankincense trail is that the inland tribes started demanding huge sums of money from the pilgrims in return for protection - protection not from small bandit gangs, but from tribes themselves. Al-Wohaibi writes:

The natives there often were taken to highway robbery if the pilgrims did not engage a native escort or protect *themselves* by force of arms. He (Al-Muqaddasi) says that pilgrims had been attacked and robbed of their beasts of burden and of their property.⁵⁵

Al-Wohaibi cites that in the mid-9th century unrest among the tribes led to a weakened central administration. As a result protection could no longer be provided on the inland route. The general uncertainty obviously favored the aggressiveness of the tribes which began to bargain for the safety of the pilgrims. No pilgrim route in the Northern Hijaz was ever safe after the mid-9th century, since they were passable only if the pilgrims were accompanied by a native escort or a sizable military force. Pilgrim caravans began to steer clear of the troubled territories as far as possible. This happened on the Ailah (Aqaba)-Medina route which was replaced by the coastal route before the 10th century A.D.⁵⁶. The coastal route was eventually developed as a last resort, and was never the desired route through Arabia. It was only used when travel along the inland routes became too dangerous.

It was fifteen hundred years after the time of Lehi before a trail existed along the Red Sea coast, with its infrastructure of supply stations and wells, from Palestine to the Hadramawt in southern Arabia.

Second, Nephi wrote that they stayed in the "most fertile parts". The entire northern two thirds of the Red Sea coastal plain is barren wasteland. The Saudi Arabian Ministry of Agriculture has tested the soils along the Red Sea plain and determined that they are "non-arable soil due to the high salinity."⁵⁷ As Lehi entered Arabia, the text implies that they were in a fertile area, which contrasts with the picture given by the Greeks of the Red Sea shoreline, who found that the coast had no trees anciently. Strabo, when describing the mangrove in his Geography, wrote of the Red Sea coast "This is more singular in that the coast inland has no trees."58 A journey along the coast would provide terrain that is the direct opposite to what Nephi describes. Nephi states that they traveled first in the *most* fertile parts of the wilderness, then in the *more* fertile parts and then on the last part of the journey south, at Nahom, the family was suffering from starvation. Yet a look at a map showing areas of cultivation on the west of Arabia shows that the coast route is just the opposite of that (see map). There are no areas of cultivation on the first past of the trip then they increase in number by the time one reaches Jeddah and on the final southerly stretch on the Tihama plain they are plentiful. This makes for a journey where they would be starving early on, then they would reach more fertile and lastly most fertile parts, the exact opposite of what Nephi describes. A look at the frankincense trail, on the east of the mountains, reveals most fertile early on, then after Medina less cultivated areas and finally, after Najran, no cultivation. The inland route is totally consistent with the scene Nephi describes.

Third, the coast route runs contrary to the accepted position of Nahom. In 1978 Dr. Ross T. Christensen pointed out that a tribe still existed in Yemen, by the name of Nahm⁵⁹. The Astons placed the name Nahm back into Medieval times⁶⁰ and they and the Hiltons now favor this site as the most likely candidate for the place Nahom⁶¹. This position appears to have also been adopted by the Foundtation for Ancient Research and Mormon Studies (FARMS) since their web site shows a map of Nahom in the same position. All

three of these authors have run into the same problem. Nephi's text states that they turned east only *after* Nahom (1 Nephi 17:1) and yet Nehm is on the east side of the mountains. Thus if we place the trail down the coast, the family has to turn east long *before* reaching Nahom in order to cross the mountains. Supporters of the coastal theory seem happy to gloss over this point⁶². Hilton proposes the family used the Shar ascent, turning east after al-Qunfidhah to pass through Abha and Khumis Mushayt, before coming to Nahm⁶³. This route runs east for 75 miles from Ash Shi'b to Ash Sh'ar, 400 miles *before* reaching Nahm. The western side of the mountains in southern Saudi Arabia is the most fertile portion of all of Saudi Arabia with terraced cultivation on the mountains and fields on the Tihama. Since the area supported a larger population anciently than it does today this was probably also the case in Lehi's time. Yet by the time they reached Nahom the family was starving (1 Nephi 16:35), which seems strange since they have supposedly just left such fertility. Once again the Frankincense trail provides a model which is in perfect harmony with the location of Nahom on the east of the mountains.

Fourth, the coastal route runs contrary to the scriptural record. The Red Sea is one of the most productive in the world. The coast is fringed with coral reefs which teem with fish. Today workers from the Far-East, who have a taste for shellfish, can be seen on their weekends wading in the shallow water collecting clams. Using a knife to cut open the shellfish underwater attracts hundreds of fish, which are easy to spear with a pointed stick. Yet when Nephi's bow broke the family was about to starve to death. Instead of making a bow and climbing to the tops of the mountains, which would have been at least 40 miles away, why didn't the family just make a fishing rod with a stick or use a stick to spear fish? This story only makes sense when we realize that the family was on the inland side of the mountains.

Fifth, the shoreline is a narrow plain that runs between the Red Sea and the Hijaz mountains. To travel the shoreline would mean that they were not "in" the borders or mountains.

Sixth, Lehi would have only been allowed to take an authorized course through Arabia. To believe that Lehi could have traveled undetected along his own course through this land is out of place with what is known about ancient Arabia. Every Bedu herdsmen was responsible to the local emir to be an informer. To this day, they still receive rewards for notifying authorities of strangers traveling in their lands. Andrew Taylor writes of the earliest Europeans that journeyed into the Arabian wilderness:

Like other explores before and after them, the Blunts (Wilfrid and Ann Blunt) were amazed at how news of their presence had spread among the tribes: the Bedu had heard not just of them, but more particularly of the twelve-shot repeater rifle they had given to the Emir as a gift. 64

An attempt to travel along the west coast of Arabia, where no trail existed, would have proven a catastrophic error in judgment. The Periplus of the Erythraean Sea (Red Sea), its date of writing is unknown but assumed to be no later than the 3rd century A.D. and

perhaps 200 years earlier, describes a voyage through the Red sea. R.H. Kiernan commented:

To the author of the *Periplus* the western shore of Arabia was dangerous not only by its rocks and shoals, but from the robbers of the hinterland, some settled and some nomadic, who would attack those sailing too close inshore, or who would make slaves of the shipwrecked seamen.⁶⁵

The family would have had to travel virtually the length of Arabia under such conditions until they reached the Yemen, which the Periplus describes as settled and peaceful.

Even if the family had no fear for their lives they would not have traveled along the coast. Aelius Gallus expeditionary force, sent out from Rome to capture the incense kingdoms of Southern Arabia, landed their ships at the port of Leuke Kome and promptly moved inland. It was certainly not though fear of attack that this large Roman army chose to avoid the coast. Syllaeus, their guide, knew well that the army needed a trail, not for protection, but because it provided the infrastructure, wells, provisions, etc, that were essential to complete the journey to South Arabia. The route taken by this expedition has been used as further evidence for the course of the ancient frankincense trail⁶⁶.

Traveling alone down the coast, Lehi's party would not only have been without protection from the ruling tribes or the opportunity to join into larger groups, they also would have had no access to the infrastructure necessary to sustain their journey through the desert.

Seventh, the shoreline is considered an extremely unpleasant area to travel. Waleed al-Mansour told to us that the caravans did not stop to pitch tents at night, rather they slept under the open skies. Nephi's text is in harmony with this desert tradition. Note for example that they traveled four days between the Valley of Lemuel and Shazer before pitching their tents. Waleed explained that tempest-like winds blow along the Red Sea shoreline every night and that his great grandfather and the other caravans avoided the shoreline for this reason. The shoreline winds blow sand and salt at high speeds. The wind usually blows each night when the land temperatures fall. From Waleed's account, the caravans, at least in modern times, did not travel the shoreline due to these miserable sandstorms. The British explorer Richard Burton described the winds along the Red Sea:

This Barri (land-wind) lasted through the morning until the Bahri, or sea-wind set in... During the winter the mountains are reservoirs of the "frigaric." Water freezes on the upper levels swept by the raw and searching north-easter; the peaks must have icy fangs, and the churlish, chilling wintry winds become "Sarsars" – cold and shuddering blasts.⁶⁷

The Arabic word *Bahri*, used to describe the northerly winds along the Red Sea, means "gale"⁶⁸. Lynn and Hope Hilton recounted their sandstorm experience near Jiddah, on the Red Sea:

In another place as we traveled near Jiddah, suddenly a violent sandstorm assaulted the car, rocking it from side to side. Blowing sand pelted the car body and windshield with a sound like hail. The storm lasted about fifteen minutes, with visibility at zero, so driving was out of the question. We huddled humbly in the car, grateful for its protection. Salim

Saad told us that such dust storms are typical; they occur frequently and usually come up unexpected. Violet Dickson describes a sandstorm as looking like a brush fire. When Bedouins see that telltale sign, they rush to their tents and quickly take away the center poles, making the tents fall down on themselves and their families so that the storm can blow overhead without ripping the tents away from their moorings.⁶⁹

We have camped along the Red Sea shoreline of the northern Hijaz on two occasions. Both times furious winds blow in during the night. The first time the Coast Guard allowed us to take refuge from the wind in an abandoned coast guard station. The second time, we decided to weather out the gale. That was a mistake. We found ourselves up most of the night resetting tent stakes. To keep the only large tent we had from blowing away, we eventually had to surround the tent with our trucks, abandon the tent stakes, and tie the tent to the trucks with thick rope. Needless to say no one slept that night. A colleague, Neil Holland, lives in southwest Arabia on the inland side of the mountains. He is familiar with atmospheric wind conditions being an US F-15 pilot assigned to train Saudi pilots. He noted to us that the winds blow sand so hard along the Tehama that when the sandstorms blow against the mountains from the Red Sea, the sand and dust is pushed high into the sky. From his home on the inland side of the mountains, some forty to fifty miles away, the entire western sky is turned brown by sand and dust that has been blasted into the air. For us, it is hard to envision Lehi and his family trying to sleep without tents night after night in the sandstorms of the Tehama.

The Periplus of the Erythraean Sea refers to the South Arabian coast as being "very unhealthy, and pestilential even to those sailing along the coast; but almost always fatal to those working there, who also perish often from want of food." It seems odd that the Lord would choose this route for the family.

Our contention that the family did not travel along the coast has led to a frequently asked question: Couldn't the Liahona have shown the family how to travel down the coast to southern Arabia in spite of the lack of a trail? Could it not have led them to water and shown them how to avoid detection from the local tribes? A frequently cited support for this argument is that the Book of Mormon does not mention that the family met anyone else on their entire journey. While this might seem superficially like a valid argument we must consider the facts. In Arabia wells are few and far between. Where they exist there are settlements and if no settlements, then they are still the possession of the local tribe. Without permission from the local tribe one cannot drink from them. Those wells which were not part of a settlement were often hidden. Alois Musil recorded how, in the northern Hijaz, the entrance to such wells were covered with a large rock and a bush was placed over them so that one could even stand on the well and never know it was there unless informed of such by one of the local tribesman. While drawing water from one of these wells Musil, on one occasion, was attacked by the local tribesmen, even though he had a guide from the same tribe with him, such was the jealousy with which the wells were guarded.

It is simply not possible that the family could have sneaked over 1,000 miles along the coast without being detected by the locals, or that they could have watered themselves and their animals at guarded wells or settlements without being seen, even if they could

find the wells. Indeed, if they found unattended wells it seems unlikely that a prophet would 'steal' water that belonged to someone else. The family could not have traveled undetected along the Arabian coast, with or without the Liahona. The Arabs know their lands and even today, immediately approach any stranger to discover their intentions. The flat terrain of the coastal plain would have offered the family nowhere to hide. In short, a trail was an absolutely essential part of their journey.

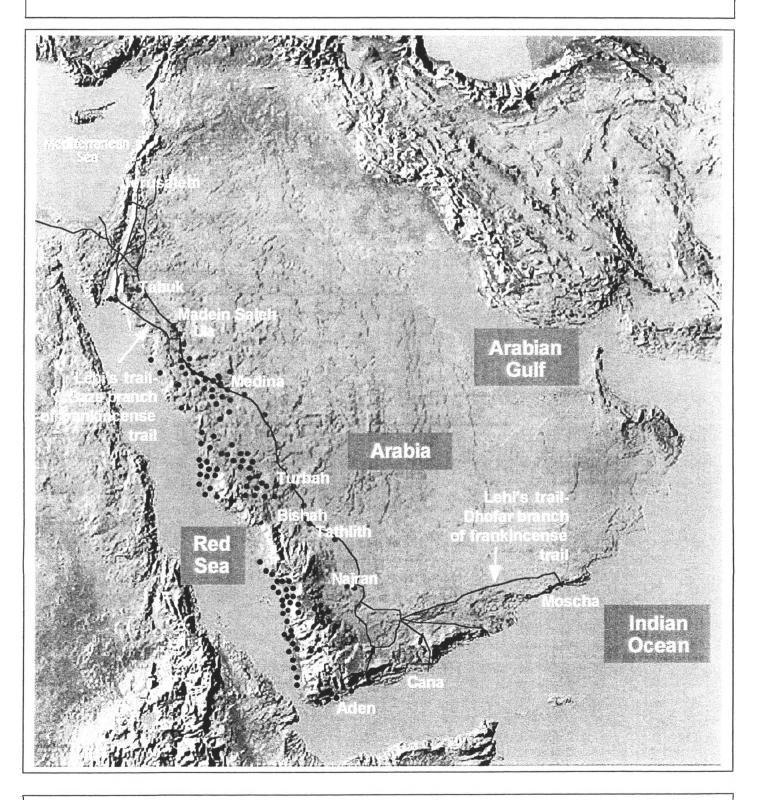
Conclusion

Travel in Arabia anciently was a dangerous pastime, both because of the harsh terrain and the risk of attack from bandits and even local tribes. These difficulties could be surmounted by using an existing authorized trail. Travel elsewhere would have been fraught with dangers. Since no trail existed down the coast, and since a closer reading of Nephi's text shows that the 'borders near the Red Sea' was in fact the mountains, we must look elsewhere for the trail they took. The only trail known to run the length of Arabia anciently was the Frankincense trail. Fortunately for us to this day the trail can still be identified over much of its course, for the reasons Richard LeBaron Bowen, Jr. outlined:

When considering caravan routes in a country like Arabia, it should be noted that the country is geographically rugged and climatic conditions have not changed much in several thousand years. It would seem logical to consider the existing routes first, for in many instances it would be difficult for a road to take any other course without going far out of the way.⁷⁰

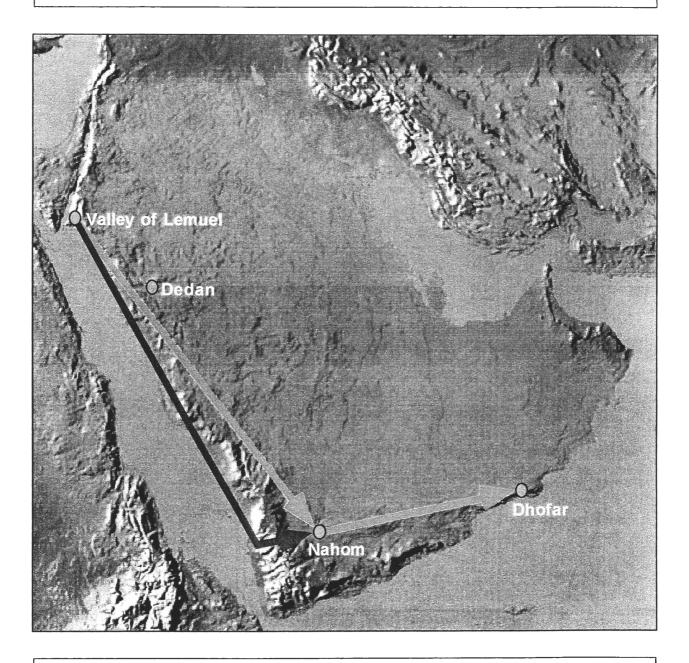
We have spent nearly five years traveling over Arabia in search of clues to the location of the trail the family took to Bountiful. Throughout the remainder of this book we will provide evidence that points to the Frankincense trail as the course they took, which was, in fact, the only logical course to reach Bountiful.

Map Showing The Areas Of Cultivation On The West Of Arabia



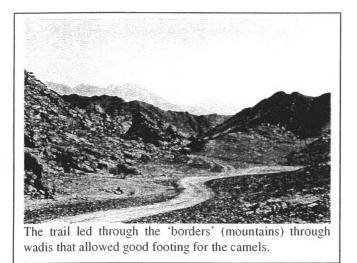
This map shows area where modern cultivation is present, as taken from TPC charts. It can be seen that the Frankincense trail passes through area of fertility between Ula and Medina. This corresponds to "the Most Fertile Parts" mentioned by Nephi.

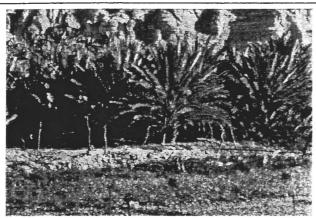
Comparing Frankincense Trail Verses A Coastal Route



This map shows the problem associated with a proposed shoreline route. The Book of Mormon text states that the family first turned east at Nahom, yet if they took the coastal route they would have turned east in order to reach Nahom, which all authorities place to the east of the Hijaz mountain range. Travel down the Frankincense trail, however, would lead to the east of the mountain range where a known route led east to Dhofar.

The Frankincense Trail

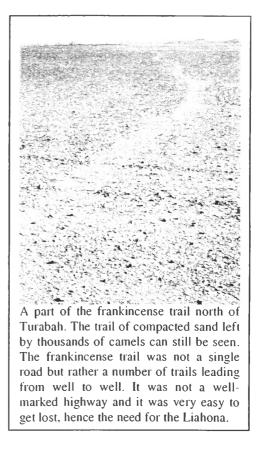


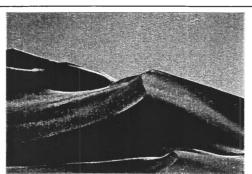


The trail led through 'the Most Fertile Parts', a series of agricultural towns in the mountains, with abundant water from artesian wells and springs. Ula is pictured here.



The coastline of Saudi Arabia is barren with not even a blade of grass to break the monotony. A trail was only formed here when raids made the inland Frankincense trail too dangerous, 900 years after Lehi.





The trail had to negotiate natural barriers such as the dune deserts, harrats (lava fields) and mountains while at the same time leading from one water hole to the next. It was not possible to just wander anywhere, the family had to follow a trail that the camels could negotiate and where water & provisions could be found.

...we traveled for a space of four days, nearly a south-southeast direction, and we did pitch our tents again; and we called the name of the place Shazer. (1 Nephi 16:12)

Chapter 8

Discovering Shazer

To reach the Valley of Lemuel Lehi had probably traveled south along an arm of the Frankincense trail that led his family to Ezion Geber at the northern tip of the Gulf of Aqaba. From there the Frankincense trail carried on down the coast south as far as the town of Haql where it turned inland into the wadi Umm Jurfayn leading to the next stop on the trail at Sharaf al Ba'l (ash Sharaf). Whether by chance or design, Lehi had not taken this left turn into the wadi Umm Jurfayn but turned inland 28 miles further south into a wadi which lead them past jabal Mushafah, the mountain which blocked their way, and directly into wadi Tayyab al Ism, our candidate for the valley of Lemuel.

When the time came the family left the valley and traveled on to their next halting place where Nephi describes "we did pitch our tents again and *we did call* the name of the place Shazer" (1 Nephi 16:13). The text seems to imply that it was the Lehites themselves who named the place "Shazer", then quickly continued on through the wilderness leaving no trace of evidence of their second camp. Could we hope to find the location of a temporary hunting camp made by two families some 2,600 years ago? It seemed like a tall order.

Nephi gives us a number of helpful pieces of information about the next stage of his journey which would help us as we try to locate Shazer. These are:

- 1. They departed into the wilderness. (1 Nephi 16:12)
- 2. They traveled in nearly a south-southeast direction. (1 Nephi 16:13)
- 3. They traveled four days. (1 Nephi 16:13)
- 4. They stopped at a place they called 'Shazer'. (1 Nephi 16:13)
- 5. Shazer is a place where they could hunt. (1 Nephi 16:14)
- 6. After leaving Shazer they were still in the 'borders near the Red Sea'. (1 Nephi 16:14)

1/ They departed into the wilderness

Nephi described their journey into the valley stating that they "traveled in the wilderness in the borders which are nearer the Red Sea" (1 Nephi 2:5). Nephi tells us that as they departed into the wilderness across the river Laman (1 Nephi 16:12). The river runs east to west and since they entered from the north this tells us that they departed to the south. This is confirmed in the next verse when Nephi tells us they traveled south-southeast. Taking this heading would have led them back into the mountains and towards the huge wadi Ifal which runs north/south some 13 miles from where they were camping.

Lehi's choice of route past Aqaba and down the Egyptian arm of the trade route may have been influenced by his obvious knowledge of Egyptian business. Lehi, a wealthy businessman, spoke and wrote Egyptian and even gave his younger sons Egyptian names¹. The move from Semitic names to Egyptian hints at the increasing influence that the Egyptian culture had taken in his life by the time of the birth of his third son. From Lehi's interactions with Egyptian businessmen we can assume that Lehi would have had a good working knowledge of the Egyptian arm of the trade route down the Gulf of Aqaba and perhaps chose this, rather than the Syrian arm running inland through Tabuk, because of business connections he had previously established.

Lehi presumably knew that they were close to the town of al Bada'a, a major stop on the Frankincense trail² some 20 miles to the south east, they may even have visited it during their long stay in the valley. The terrain between the valley and al Bada'a is essentially the same as they had encountered entering the valley; mountains interspersed with winding wadis, and the occasional stunted tree. Certainly this was still 'wilderness', the very word Diodorus uses to describe this area around wadi Ifal.³

One night Lehi received a commandment from the Lord that the following morning he should depart into the wilderness. Lehi was also given a navigational aid that was later to prove crucial to their survival, the Liahona. A ball with two spindles, yet much more than just a compass, it not only pointed the way they should go but also gave written revelation from time to time. The Liahona gave spiritual as well as physical bearings to the group. When they were lacking in faith it ceased functioning. In this way they were given 'direct spiritual feedback' on the state of their faith such that even those whose ears were closed to the whisperings of the still small voice would be aware of this monitoring of their spirituality in physical terms. It was a beautiful instrument where the spiritual was translated into the physical for those less faithful in the group. An example was shown in the incident at Nahom where they lost their way physically and the threat of death in the desert hung over them like the sword of Damocles, showing that they had lost their way spiritually and the risk of spiritual death, though invisible, was just as real.

The need for the Liahona was imperative. Even though the Lord would undoubtedly not have commanded Lehi to leave the valley in the summer, where 120°f temperatures are commonplace, the need to avoid getting lost was nevertheless still paramount. The next 250 miles of their journey would be through mountains where navigation is far from easy. The mountains from which they were departing form a confusing maze of winding

canyons making even the apparently simple task of leaving the valley far from straight forward. Indeed this first hurdle was anything but simple and their ability to navigate the maze of mountain wadis and, later, desert tracks should not be taken for granted. On two occasions we have given the coordinates for the location of the valley to colleagues who sought to find it armed with Global Positioning Satellite (GPS) systems and high quality maps and yet they were not able to navigate a route from Wadi Ifal, inland, to the valley. There are occasions when we have taken a wrong turn in these same mountains only to find our way blocked by a dead end making it necessary to turn back. With very few landmarks, most of the wadis look similar, navigation here is an exacting business. The British explorer Barbara Toy had problems navigating in this same area of Midian. Even with her askari guide she had difficulty finding her way. She writes:

We set off to the west and were soon hopelessly lost in a maze of ridges intersected with shallow wadis, peaks and outcrops of sandstone. Several times we stopped and climbed a rock to find our bearings, but even then the corkscrew-like wadis made even a compass useless. There must be only one navigator or guide but, as I watched the bland face of the askari, I mentally reviewed our stock of water, petrol and food supplies.⁴

We have already suggested that it does not appear that Lehi was a seasoned desert traveler and there is no evidence in the Book of Mormon that would imply that Lehi had previously traveled these trails or that he employed the services of a scout. As such the Liahona would have been essential if they were to follow a trail across an uncharted desert. Yet the Liahona illustrates once again why Nephi's total faith in the Lord was well founded. As he had previously said: "the Lord giveth no commandments unto the children of men, save he shall prepare a way for them that they may accomplish the thing which he commandeth them" (1 Nephi 3:7).

2/ They traveled in nearly a south-southeast direction (1 Nephi 16:13)

Nephi tells us that the trail they took ran in the direction nearly south-southeast. A bearing of south-southeast is $157\frac{1}{2}^{\circ}$ from north. By applying this bearing from the valley of Lemuel it is possible for us to determine where the family traveled and we will show that this bearing took them down one of the branches of the frankincense trail.

Before we start to apply this course to maps to see where the family traveled we need to exercise a note of caution.

- 1. Nephi stated that they traveled *nearly* south-southeast. This could mean a bearing anywhere between and 147° and 170°
- 2. We do not know by what method Nephi was measuring north. He may have been referring to the north celestial pole (pole star⁵) or to magnetic north.
- 3. Magnetic north varies from true north by a little over 3° at the Gulf of Aqaba.
- 4. Nephi gave only one direction, 'nearly south-southeast', to cover the entire trip from the valley of Lemuel to Nahom, a journey of approximately 1200 miles. There were obviously twists and turns in the journey which would allow the family to follow the logical course as dictated by the local topography, while still following the same general direction.

5. Nephi wrote his account on the small plates over 30 years after he made the trip to Shazer (2 Nephi 5:28,34). We might ask ourselves what details can we remember of a journey we took between thirty and forty years ago?

Bearing in mind these limitations, which must deter us from falling into the error of applying Nephi's direction too literally, we shall endeavor to identify the trail the family took to Shazer and where Shazer can be found.

As discussed earlier the family could not have merely wandered down the length of Arabia. They needed food and water for themselves and for their animals. For expediency sake we believe they would most likely have traveled on an authorized route where they knew there would be water and food available. An investigation of the ancient trade routes leading approximately south-southeast from the valley of Lemuel would therefore be in order.

As previously mentioned the ancient frankincense trail from al-Bada'a ran inland and followed a course which was later followed by the Muslim pilgrims en route to the holy cities of Mecca and Medina. This route is called the *al-Mu'riqah* by al-Wohabi and the *ar-Rasifijje* by Musil. The records of the travels of a number of geographers, as far back as the period corresponding to the 'dark ages' in Europe (the title being hardly applicable to the enlightened Arabs of that era) provided us with information on the route and the position of the way stations south of Al'Bad'a.

This inland route was described by the geographers Ibn Khurradadhbeh (Ibn Hordadbeh)⁶, Waki⁷, Al-Ya'qubi⁸ and Ibn Rosteh⁹.

lbn Khurradadbeh	Waki'	Al-Ya'qubi	Ibn Rosteh	Musil
Ailah	Ailah	Ailah	Ailah	Aqabah
Haql				Haql
Madyan	Madyan	Madyan	Madyan	Madjan (Al- Bad'a)
Al-Aghra'		Al-Aghra'	Al-Aghra'	Spring of Al- Rarr
'a station'	Qalis	Qalis	'a station'	Probably in the valley of As-Sar
Al-Kilabah	Al-Kalabinah		Al-Kilabah	Spring of al- Clebe
Shaghb		Shaghb	Shaghb	Shaghab
Bada	Bada	Bada	Bada	Bada
	Al-Shaghab			

Table to show the names and order of the rest stops on the al-Mu'riqah according to various Arab geographers.

Alois Musil, Professor of Oriental studies at Charles University Prague, surveyed North West Arabia over a number of years and identified the rest stations on the trail. He suggests that al-Agharr (al-Aghra') is located at the spring of al-Rarr which are found to the east of the trail where it crosses wadi Sarma. Musil does not seem to have been aware that the alternative name for wadi Sarma, which appears on numerous maps including the TPC charts, is that of wadi Gharr. Al-Agharr is the plural form of Gharr, which would seem to confirm the location of al-Agharr in the wadi of the same name. Musil locates the next halting place, Oalis, in the valley of 'as-Sar' (wadi Surr) adjacent to the mountain range 'as-Sar' (Jabal Shar), where he states that "after abundant rains much water collects and near which there are numerous springs.¹⁰, Wohabi has the trail halts at al-Agharr, Qalis, al-Kilabah and Shaghb. If we accept Musil's locations for these stops we have the approximate travelling distances between them of: Al-Bada'a to al-Agharr 40 miles; al-Agharr to Qalis 40 miles; Qalis to al-Kilabah 34 miles; al-Kilabah to Shaghb 49 miles and finally Shaghb to al-Bada (not to be confused with the modern town of al-Bada'a in Midian) 65 miles. We will not concern ourselves beyond this point because the stops beyond Qalis are well beyond the range of the family's four day journey.

3 They traveled four days (1 Nephi 16:13)

Nephi tells how the family came to leave the Valley of Lemuel.

And it came to pass that the voice of the Lord spake unto my father by night, and commanded him that on the morrow he should take his journey into the wilderness.

And it came to pass that we did gather together whatsoever things we should carry in the wilderness, and all the remainder of our provisions which the Lord had given unto us; and we did take seed of every kind that we might carry into the wilderness.

And it came to pass that we did take our tents and depart into the wilderness across the river Laman.

And it came to pass that we traveled for the space of four days, nearly a south-southeast direction, and we did pitch out tents again; and we did call the name of the place Shazer." (1 Nephi 16:9, 11-13.)

It would appear that prior to Lehi's dream the family did not know that they would be departing the following day. Even if they had been anticipating leaving and had previously packed all they could they still needed to take down the tents and collect their provisions. This would have taken a considerable time as they had been at the valley camp for many months, perhaps even years. Yet the Lord had told them to leave 'on the morrow' so they must have left that day, probably late morning at the earliest. Most likely they then traveled entirely within the four-day period arriving on the evening of the fourth day.

We need to bear in mind that not all parties traveled at the same pace, the pilgrims traveled considerably slower than the speedy caravans. For example Al-Idrisi puts the distance between Ajla (Aqaba) and Madjan (al-Bada'a) as 5 days march, this distance

being approximately 78 miles, according to Groom the same journey takes four days and Haggi Halfa places the same journey at two days¹¹. The slowest group traveled at 16 miles per day. Groom's estimate of 4 days, or 20 miles per day, was for heavily laden camels, which would probably have been the case for Lehi's group. The first stop after Midian (al-Bad'a) on the frankincense trail was al-Aghra', which was 60 miles from the Valley. It is remotely possible, if the family were traveling very fast, that they may have made it to the second rest station after Midian, named Qalis, 100 miles from the Valley but this would have given them very little time to break, and set up, camp.

The family had to reach al-Bad'a from the valley, a journey of some 20 miles. This would have taken about a day. Since the family had to break camp and gather all their things together before they left they probably left just before noon, which would have them reaching al-Bada'a around noon the following day. There they would have had to find out information about the route and pay any dues necessary for travel. They may even have stayed there until that evening, since the rest stops were placed to allow them to be reached each evening. This would allow the family to travel synchronized with the following rest stations. When the family reached Shazer they pitched their tents again. This means they must have arrived some hours before sunset. Combining these times gives us the following possible timetable:

- Day 1 breaking camp and departing.
- Day 2 reach al-Bada'a around noon. Sleep at al-Bada'a or perhaps keep moving and sleep around wadi Marrah.
- Day 3 depart and sleep around se'ib of as-Swer. There is a small farm in this area, at Hasayla (N 28° 14.000' E 35° 07.062'), a hamlet which does not appear on maps. This might indicate the presence of water close to the surface and so an old well might have given rise to a suitable rest stop here.
- Day 4 Depart as-Swer, reach al-Agharr late afternoon and set up camp.

This would give the family a journey of around 60 miles in four days, including breaking and setting up camp, which together with a halt in Midian would have cost them about 1 day. This seems to be in line with Groom's distance estimates. This compares with their journey from Aqaba to Tayyab al-Ism, where they averaged about 24 miles per day. At that time they were fleeing from their enemies, this time they were presumably traveling at a more leisurely pace, and presumably with new born children and expecting mothers.

4 They stopped at a place they called 'Shazer'. (1 Nephi 16:13)

As we started our investigation into the name of the place 'Shazer' we wondered if the word had a meaning? Could Lehi have named the location because of some obvious feature which might have survived to this day? Obviously there are limitations we need to be wary of. The Semitic languages, of which both Arabic and Hebrew are members, have changed over the past 2,600 years, and many words in Arabic, like English, can sound quite different depending on the accent of the person using them. With these limitations in mind we were interested to find that the linguist Dr. Hugh Nibley wrote several decades ago this analysis of the meaning of the name Shazer: The first important stop after Lehi's party had left their base camp was at a place called *Shazer*. The name is intriguing. The combination *shajer* is quite common in Palestinian place names; it is a collective meaning "trees," and many Arabs (especially in Egypt) pronounce it *shazher*. It appears in *Thoghret-as-Sajur* (the Pass of Trees), which in the ancient Shaghur, written *Segor* in the sixth century. (Nibley, (1) pp. 78-79).

While Nibley uses the modern variant Shajer, written Segor in the sixth century, Groom uses a number of variations of the place name: Shajir; Shajirah; Shajira; Ashjar: Mushjir and Mashjarah¹². The De L'isle's map of 1701^{13} gives the name of a same area in southern Arabia as Seger ou Schajar showing the association between the old spelling for Shazer, Segor (Seger/Segir) and the more recent spelling (Schajar). (see map) The variation between Groom and Nibley can be readily explained. Arabic is a vocalized language where the vowels are interchangeable. Even today, Jeddah is commonly spelled in any one of the following ways: Jeddah, Jedda, Jiddah, Jidda. As one can see from this example, consonants do not change much in Arabic, but vowels often do. While Groom uses 'Shajer'and Nibley 'Shajir' both words are identical. Groom's definition of Shajir is almost identical to Nibley's, being: "A valley or area abounding with trees and shrubs"¹⁴. The word for tree in Arabic is correctly pronounced, written phonetically in Latin letters, 'SHA-JA-RA' by Saudi Arabs and 'SHA-GA-RA' by Egyptian Arabs. Nibley points out that some Arabs pronounce it shazher. This is true of Saudi Arabia where the slang pronunciation for 'Tree' is 'SHA-ZE-RA'. The plural 'trees' is pronounced 'ASH-JAR' and 'ASH-GAR' respectively and this form leads to Groom's variant spelling 'Ashjar'.

Dr. Nibley also indicates that the name Shazer might also be "connected somehow or other and denoting either seepage -- a weak but reliable water supply -- or a clump of trees." (Nibley, (1) pp. 78-79).

A second place name occurs in Arabia which may be close to the name Shazer. In Oman the town of Shasar, variant spellings, Shisr, Shisur, sits on the old Frankincense trail. Shasar means a 'cleft'. It was explained to us by a guide in Oman that the old town had a well in a cleft in a rock from which water could be drawn, and this gave the town it's name. While the word Shajir (Shajer) is used in Saudi Arabia to mean 'tree', on rehearsing the word 'Shasar' to friends in Saudi Arabia none of them had ever heard it before. But we were pleased to see that the same meaning of the word was given to Nicholas Clapp in his expedition to Oman¹⁵.

The footnote to 1 Nephi 16:13 for the word 'Shazer' says "HEB twisting, intertwining." Shazer may also be associated with this verb in some way.

Should Lehi have named Shazer for some feature it contained, if that feature had not been lost over time, we might expect Shazer to be associated with both Shajara-tree, and Shasar-cleft (from which water was drawn). These two may have some common application to the place name. We would expect to find trees where the water table is high and this would provide a good site for a well, which might be associated with a cleft in a rock. In some way 'twisting' or 'intertwining' may also be associated with the place Shazer. The assumption is often made that this campsite had no name since Nephi records "and we did call the name of the place Shazer"(1 Nephi 16:13). It should come as no surprise that the name Lehi gave this site is an authentic Middle Eastern place name and can still be found in Arabia. To the west of Riyadh one can find the town of Sajir, associated with trees, 140 miles further south east from al-Bad'a on the old trade route is the wadi Shejjer. However this statement of Nephi's does not preclude that the place already had a name, it merely tells us that the family gave it their own name, which may well have been a variant on the local name. The fact that they could rest at Shazer indicated that there must have been a water source and so it seems most likely that the place already had a name.

As presented earlier in the chapter we feel the family traveled down the Gaza trail from Midian (al-Bada'a) to their next camp of Shazer. Ptolemy¹⁶, around the year 150 A.D., recorded the settlements of Madiama (Midjan), Laba, Badais (Bada'¹⁷) and Egra (Tabuk) leading to Lathrippa (Medina) all of which are Frankincense stops. Musil noted of Ptolemy's settlement of Laba: "I regard Laba as being in the valley of La'ban, where the halting place of al-Azhar is situated."¹⁸ Thus Musil wrote of a Frankincense trail halt south of al-Bada'a called al-Azhar, which seems to be a variant spelling for Shazer (ASH-JAR). However it was his belief the halt was in the valley of La'ban. The Hijaz railway station al-Azhar (el-Akhdar, el-Khudr) is 42 miles south of Tabuk, well to the east of the Gaza trail, far more distant from wadi Tayyib al-Ism than a four day camel ride, and would have required an east southeast not south southeast course from the valley. Still, the place name variant spellings for Shazer appear to have existed in the region southeast of wadi Tayyib al-Ism both in antiquity and in recent times.

It had become George's habit when visiting our local town of al-Khobar, to drop in to the shop which sometime had old maps. He found an old map there which also mentioned these same frankincense stops but this time with one notable addition (see map). Although the towns are not in the correct position geographically (Egra and Madiana are transposed) the map shows the location of Segir (the old name for Shajir) to the East of Macna (Maqna) and northwest of Laba. Ptolemy did not mention Segir in his record. This probably indicates it was not a major halt since Musil commented on Ptolemy's record: "That the names of these towns or settlements in many cases denote only the more important wells or camping places is evident from the character of the country.¹⁹" This map seemed to indicate that there was a minor caravansary called Segir (this being an old variant of 'tree' according to Hugh Nibley) approximately where Nephi named his rest stop 'Shazer'. Obviously Lehi's journey far predates this map but to us it was most encouraging to see that historically the first halt after al-Bada'a was considered worthy of the name 'tree', the same name Lehi appears to have given to their first stopping place after joining the trail at al-Bada'a. Who knows, perhaps it is possible that the name 'tree' was the actual name of the place when Lehi reached it and he just changed the name to fit the language and pronunciation that his family used. It must surely be a great coincidence that not only do we find an ancient trail leading south-southeast from the Valley of Lemuel but also a place called Segir on that trail about a four-day journey from the valley.

As we discussed earlier the first stop on the trail after Midian (al-Bada'a) was called al-Agharr and has been identified with the springs of al-Rarr. Musil visited this area on June 14th 1910 traveling eastward up wadi Sarma (wadi Gharr). A little over an hour from the oasis of Sarma he stopped at a place which his guide called the valley of al-Rarr. It would appear that this portion of the wadi Sarmah used to be known as Rarr but now the whole wadi has taken on the name Rarr (Gharr). At the valley of al-Rarr Musil describes:

On both left and right we saw numerous springs and groups of date and *dum* palms. From 9.55 to 11.40 we rested in a marshy hollow filled with a growth of reeds, where our camels found pasturage.

Musil and his guide continued up the wadi and:

At twelve o'clock we had on our left the copious spring of al-Hrase, which irrigates several gardens and forms a stream more than three hundred meters long. In the gardens there were crops of onions, melons, and tobacco.

At 12.25 we saw the se'ib of Umm as-Sarabit on the left and crossed the old Pilgrim Road of ar-Rasifijje leading southward to the hills of Kos al-Hnane, where spirits abide. Date palms were still growing in parts of the valley, so that the oasis of Sarma could be extended a full twenty-five kilometers to the east.

The *al-Mu'riqah* or *ar-Rasifijje* pilgrim route followed the same course as the Gaza branch of the old frankincense trail. The trail came south through the se'ib (small wadi) of Umm as-Sarabit and crossed wadi Gharr (wadi Rarr, wadi Sharmah), continuing on south through the hills of Kos al-HnaNephi At the point where the trail crossed wadi Rarr we find the present day hamlet of Hymun, which probably sits very close to the location of Shazer. A short distance to the east of Hymun, on small rise on the north side of wadi Gharr, sits a number of ancient ruins. These may well have been the location of a settlement in Lehi's time. We do not know the date of these ruins but wadi Sharmah contains many other archeological sites. Many of these contain pottery known as 'Midianite'. These 'Midian' sites are dated at late 2nd to mid 1st millenium B.C.²⁰, a period which covers the time when Lehi would have been passing through the area. Of the 13 Midian sites so far found 10 are found in the mouth of Wadi Sharmah and Al-Bad'a (Midian). Midianite sherds were also found in wadi Tayyib al Ism²¹. While the sites adjacent to Shazer were not identified as Midianite (they are undated) there is a Midianite site 5 miles west of our proposed Shazer site.

Musil identified a number of fertile areas within wadi Gharr, any of which could fit the description of a Valley with trees, Groom's definition of Sejir. It is this same wadi Gharr that Haggi Halfa described as "a richly irrigated valley, containing a growth of reeds, but very hot. Here many Pilgrims die during the summer.^{22,}" Once again the need to travel outside the summer months is emphasized.

We visited both al-Agharr and Qalis to determine if either fit our suggested picture of Shazer. The rest stop of Qalis was not promising. Not only did it seem to be too far for the group to have reached in the time but also the topography of the area did not seem to fit the meanings of the word 'Shazer'. Presently there are only a handful of date palms around the well at Qalis compared with the thousands at Al-Agharr stretching over tens of miles through the wadi. While there may have been more trees at Qalis anciently the wadi is narrow and rocky and its meager water resource does not appear to us that it would have been capable of sustaining large areas of cultivation in the past.

Al-Agharr (a hamlet still exists there, called 'Hymun' by the inhabitants) on the other hand was exactly what we had hoped from the descriptions of Musil. Here, after two years of fruitless searching, systemically visiting all the wells in a 75 mile radius of wadi Tayyab al Ism, we finally had a location for a strong 'Shazer' candidate. Here we found a stop on the ancient frankincense trail which crossed at ninety degrees a valley which contained numerous farms and oases, which extended some fifteen miles down toward the sea. At the very point that the trail crossed the valley, in the same area that Ptolemy placed a location by the name of 'Segir', there was an oasis with a few small farms and a handful of humble dwellings. This may be just as it was two and a half thousand years ago. The valley itself was generally less than one hundred vards wide and walled in by low cliffs through all its length, apart from a narrow break where the Frankincense trail (ar-Rasifijje road) crossed it. The tiny village, with its groves of palm trees and fields, nestled beneath the towering peaks of Mount ad-Dubba and Arejka, both granite mountains standing nearly a mile in the air to their immediate west. Turning off the frankincense trail and turning inland (west) led down the valley which now widened out between these two majestic rocks. 15 miles up this wadi is an extensive grove of date palms watered by the copious spring of Turban. These sit at the foot of a series of high mountains dominated by 6,906 foot high jebal ash Shiyati. This was probably the area where the men went to hunt.

5 Shazer is a place where they could hunt. (1 Nephi 16:14)

It seems strange that the family would go to the effort of breaking camp and then, after only four days of travel, unpack everything and set up camp again. The answer seems to be found in the statement Nephi makes regarding how they spent their time at Shazer. Here, it would seem, an opportunity presented itself that the family could not afford to pass up, the chance of hunt for meat. Nephi mentions that "we did take our bows and arrows, and go forth into the wilderness to slay food for our families; and after we had slain food for our families we did return again to our families in the wilderness, to the place of Shazer" (1 Nephi 16:14). Nephi had mentioned only three verses earlier that they took their provisions with them when they left the valley. It would seem unlikely that the family had run low of food after only four days, or that they thought their destination could have been reached in that time. What is more likely is that they reached an area of excellent hunting and here was an opportunity to eat well and stock meat before they continued.

Agatharchides writes of the territory of Bythemani, the land of the 'Batmizomaneis'. The position of their territory cannot be precisely located but it has been identified with wadi Ifal²³, the area through which the family was passing. According to Agatharchides:

Beyond the Laeanitic Gulf follows the territory of the Bythemani. Extensive, level, and with an abundance of water, this region is low-lying and covered with grass, medic, and lotus clover, which attains the height of a man. Nothing else is cultivated there. In consequence, the country is full of wild camels, as well as of flocks of deer, gazelles, sheep, mules, and oxen. But this prosperous state of affairs has one disadvantage; the territory also attracts numerous lions, wolves, and panthers. From the coast near by a bay extends five hundred stades inland, and by it dwell the Batmizomaneis who hunt land animals.

We can see from this that the family was passing through a particularly fertile area where the inhabitants lived by hunting. Here presented an ideal opportunity for the family. Could it be that the Lord had them here to hunt? This would have been the best and easiest hunting they would have encountered on the whole trip. Even though they apparently hunted in the land of Jerusalem, their bows and arrows attest to such, it was presumably for sport and it is unlikely that they ever had to live by hunting alone. Their circumstances now presented a wholly different picture to their hunting trips in Jerusalem; different terrain and possibly different prey. Later on their journey their survival would depend on their ability to hunt (1 Nephi 16:18-32). It seems possible that the Lord took this opportunity to have the men hone their skills. Here was an ideal classroom; plentiful game, local people who could impart knowledge to them, a population nearby who they could obtain food from if they proved slow learners. Diodorus, who wrote of the same area in 20 B.C., mentioned that the local people lived primarily by hunting: "The inhabitants of the neighboring territory are called Banizomeneis. They engage in hunting and eat the flesh of animals of the mainland". Artemidorus describes this region and presents a similar picture of what the family would have encountered reiterating that "the surrounding population hunt land animals." Who better for the family to learn about hunting in Arabia from? It would never be this easy and it cannot be mere coincidence that the Lord took them on a trail that would allow them to practice their hunting at the beginning of the journey under ideal conditions.

There was probably a sizeable local population judging by the number of archeological sites in wadi Sharmah. Diodorus attests to such when he wrote:

These folk dwell for some distance along the coast and in quite an extensive region inland, for they are unusually numerous and possess an incredible number of cattle...These animals attract lions, wolves, and panthers from the wilderness, and the shepherds protect their flocks from them day and night²⁴.

Diodorus introduces another question for us to ponder. Why would the men leave the family in the wilderness if there were many wild animals including lions and wolves in the area? The fact that the shepherds had to guard their flocks day and night indicates that these large predators were not afraid to attack near the presence of humans. Also, knowing the Arabs propensity for mounting raiding parties²⁵, why would Lehi leave the women unguarded in these circumstances? Presumably the answer lies in the fact that there must have been an element of safety associated with their camp. Again this would imply that they were either in a village or at one of the rest stations where the women would not be left alone but would be staying with other women (it is unthinkable that Lehi would leave the women alone in the presence of other men, with whom they would have had no interaction). Wadi Gharr was probably well populated in Lehi's time. The

'Preliminary Report On A Reconnaissance Survey Of The Northwestern Province Of The Saudi Arabian Comprehensive Survey Program' noted 21 archeological sites there, as opposed to 9 in Al-Bad'a (Midian)²⁶. Protection for the local tribes would have been purchased as they contracted to use the trail.

Wadi Gharr has steep mountains each side of it. The frankincense trail passed by lofty peaks, Jabal Ash Shihati²⁷ 9 miles to the north standing nearly 7,000 feet high. According to Groom the place name Aghar means a "precipice, crevice or cave, depressed place in a mountain; wild animal lair, a steep place²⁸. Al-Wohaibi used the spelling "Agharr" for the first halt on the trail past al-Bada'a. A "steep place" seems a fitting name for the mountain range which Musil describes as "without any gradation, there rise precipitously from the upland the huge granite mountains belonging to the chain that separates the coast from the eastern highland." The meaning for "gharr" is a fissure or cleft in the ground, a narrow stream²⁹, reminding us of the meaning of the word 'Shasar' in Oman. A seasonal stream in Midian is very unusual. Wadi Gharr is unique in that it has numerous small streams as well as the 300 meter stream of al-Hrase. Finally, Al-Wohaibi noted that the place name for the first halt was later shortened to A'da³⁰ and A'ra³¹. A'ra means "an elevated place". Once again a fitting name for this location.

On a trip to Midian in January 1999, we were visited by four young hunters in the Wadi Tayyib al-Ism, the site that appears to be the Valley of Lemuel. They were Bedouins who lived in the wadi, and came to the canyon to hunt ibex. They joined our group for dinner that night, and around a camp fire the lead hunter, Audah al Amram, explained that there were only a few ibex in the wadi Tayyib al-Ism but many in a place called wadi al-Lawz (not be to confused with Jabel al Lawz). When we asked him to show us were the wadi al Lawz was located Auhan pointed to the summit valley and the mountains on the north side Jabal Ash Shihati! Then George asked Audah if there were trees in that area. Audah's replied, "Yes, there is "shajer"! Without the slightest coaching he said there is "Shajer", a variant spelling of Shazer, and he had already indicated that the mountains within this range was were the best hunting was to be found.

Audah's account was confirmed to us several days later when we met General Abdul Karim, the chief of police for Al-Bada'a, at the springs of Moses at Maqna. We had met him before at the Emir's offices in Al-Bada'a where we went one night seeking permission to travel in some restricted areas. The General had befriended us, and was our main translator with the Emir who spoke no English. We told him that that afternoon in Maqna that we would be going attempt to drive overland without the aid of black-top roads from al-Bada'a to Tabuk through the pass north of Jabal Ash Shihati. He was somewhat puzzled why we were attempting to go all the way to Tabuk off road since there were paved roads we could take from the northwest. He tried to persuade us to take the highways, but seeing we were determine to make the trip through the pass, the General said "the pass is beautiful and is the best ibex hunting in the entire region." In April 2000 once again we were in wadi Gharr, and local farmers confirmed to us that ibex were still present in the wadi but most were found in Jabal Ash Shihati, the mountain on the northeast side of Shazer.

The ibex (*capra ibex nubiana*) is a shy animal with curved horns resembling a rather stout goat. It lives high among the steep craggy mountains, where few other animals can survive³². The ibex does not obtain all of its water requirements from its food and so must come down from the peaks to drink. It is at this time that it is susceptible to ambush by hunters. We would suggest that the men in Lehi's group may well have left the rest of the family in the protected halt and traveled into the mountains to hunt this most noble of beasts.

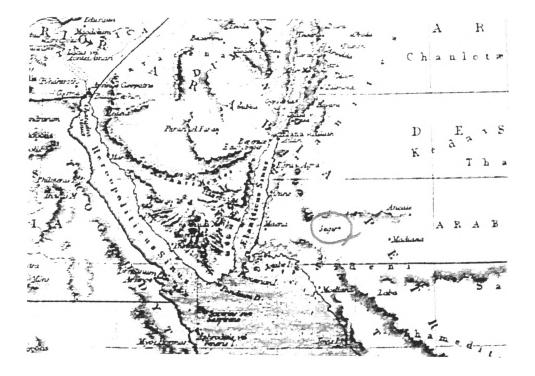
6 After leaving Shazer they were still in the 'borders near the Red Sea' (1 Nephi 16:14).

As discussed earlier the 'borders' to which Nephi refers were the mountains which formed the border between the Tihama and the Negd, known as the Hijaz, or barrier. That Nephi states on leaving Shazer they followed "the same direction, keeping in the most fertile parts of the wilderness, which were in the borders near the Red Sea" (1 Nephi 16:14) tells us that Shazer must have been close to or in the Hijaz mountains. It also implies that Nephi could tell they were near the sea, i.e. they were on the seaward side of the range and could still see the Red Sea. Later when Nephi breaks his bow he goes into the mountaintops, but he does not call this the 'borders near the Red Sea' because by this time he is on the landward side of the mountain, as we will show later, and he could not have known how far he was from the sea.

The evidence we were able to glean from the Book of Mormon combined with what we could learn about the trails in the area around the time of Lehi indicates that the Gaza trail halt of al-Aghra qualifies in every important way as Shazer. It was the first authorized halt on the Frankincense trail after leaving al-Bada'a; Shazer was Lehi's first halt after restarting his trail into the wilderness. It is a four-day journey from the Valley of Lemuel candidate at wadi Tayyib al Ism, and is in a nearly south-southeast direction. Indeed it is in the same basic location to where an old map shows "Segir", an established variant spelling for Shazer. Unlike the rest of Midian, which is barren and almost entirely void of trees, wadi Agharr has miles of trees growing within it, and the most likely meaning Shazer (Shajir) is a 'valley abounding with trees'. It may be that Lehi chose a name for the halt which was a clever word play combining a number of meanings of the word 'Shazer'; a valley with trees, a cleft in a rock with water, and 'intertwining (here the trail 'intertwined' with the valley track), all three being found at this location. Certainly the name seems to have been an excellent description since it would appear to have been adopted later in the form 'Segor', as recorded by Ptolemy. Finally, there would have been a good reason for Lehi to stop at Agharr as it is surrounded by tall mountains that abound with large game.

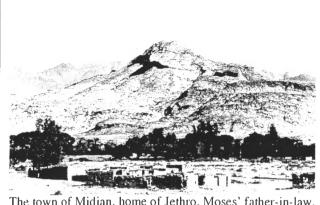


The green circle shows two variant spellings for Shazer, *Schajar* and the old variant *Seger* (see Nibley quote in text of chapter). They appear to be labeling the forested hills of Dhofar, the land considered my some scholars to be Nephi's Bountiful.

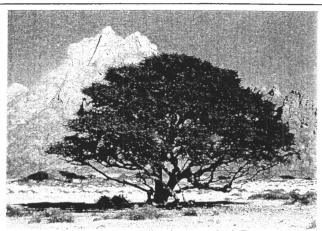


Map shows an old variant spelling of Shazer, *Segir*, inland from Red Sea and between the Frankincense halts of Elena and Laba. It is interesting that a placename *Segir* (Shazer) appears on a map approximately four days camel ride from the Valley of Lemuel candidate wadi Tayyib al-Ism.

Discovering Shazer



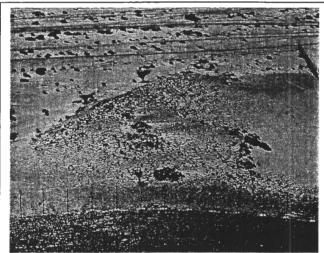
The town of Midian, home of Jethro, Moses' father-in-law, would have been the first town the family would have encountered after leaving the Valley of Lemuel. It was a major halt on the trail that led from Egypt to southern Arabia.



The mountain range immediately east of Al Gharr (Shazer) provides good hunting to this day. The local residents have told us that the best ibex hunting in Midian is found in these mountains. This was an excellent place for the men to go and hunt.



Wadi Al-Gharr has 18 miles of cultivation running through it, including thousands of date palms. There is simply no other place the northwest corner of Arabia that the expression, 'Shazer', which means 'a valley with trees', more aptly describes.



Garrisons like the ruins of this one at the caravanserai of Al Gharr (Shazer) would have provided protection for those camping at the halt. The protection provided at the halts helps explain how the men could leave the women and children alone and go back in to the wilderness to hunt.

Fertile 1a: producing or bearing fruit in great quantities (Webster's Dictionary)

Chapter 9

The Most Fertile Parts

The discovery that a qualified candidate for Shazer was a halt on the old Gaza trail to Dedan, pushes us on deeper into Arabia in search of Lehi's trail. Finding a 'Shazer' candidate on the trade route to Dedan, where the Gaza branch joined the main Frankincense trail before heading south-southeast through Arabia, provides strong evidence that Lehi intended to follow the main Frankincense trail from Dedan to the Indian Ocean.

From the hunting camp of Shazer, Lehi could have reached the main trail within two weeks if he detoured east to Tabuk and then south on the Damascus trail 185 miles to Dedan (Ula), or in a week or so if he continued on the Gaza trail through the mountains to Dedan. It is possible that Lehi took either one of these routes to reach the main incense trail. We have researched both possible routes to Dedan, and have retraced the hundreds of miles of sand and gravel that is the course of each trail to Dedan. After much deliberation, we believe that it is most likely that Lehi took the shorter and easier route through the mountains to Dedan, that is, he continued on the Gaza trail to Dedan, also known as the al-Mu'rigah trail. The Gaza branch was faster, easier¹ and had nearly a south-southeast heading which is consistent with Nephi's account (1 Ne. 16:13&14) Nephi wrote of their journey after Shazer:

And we did go forth again in the wilderness, following the same direction, keeping in the most fertile parts of the wilderness, which were in the borders near the Red Sea. (1 Ne. 16:14)

In northwest Arabia, the rainfall averages less than four inches per year and the extreme summer temperatures bake everything that is exposed to the sun. How could there be 'most fertile parts' in a land that, from the air, looks like the surface of the moon? Nephi's account of traveling through the 'most fertile parts' of a nearly lifeless desert appears to be a troubling contradiction.

As Lehi started on the segment of the trail where they kept to the 'most fertile parts', he was still only seven days into Arabia (1 Ne. 2:6,16:13). Thus, they were just starting their trek through northwest Arabia. Except for the famous sand of sea, the "Empty Quarter", in the southeast of Arabia, the northwest region is the most barren landscape in the Arabian Peninsula. In ancient times, this part of Arabia carried the ominous names of "Rocky Arabia" and "Desert Arabia".²

LDS scholars have only superficially dealt with the striking paradox of 'most fertile parts' in one of most barren areas in the world. In order to solve the problem, some have suggested that this meant that Lehi rode his camels through the lowest spots in the wadis where slightly more desert bushes are found. This notion would seem to reinvent the definitions of "most" and "fertile", especially in light of what these words would have meant to the translator Joseph Smith and the author Nephi. This argument was presented by Nibley:

Speaking of the wells which Abraham dug, and which had to be re-opened by Isaac," Conder notes that they "were perhaps similar to the Hufeiyir, or 'pits', which the Arabs now dig in the beds of great valleys." These were "the more fertile parts of the wilderness" (1 Nephi 16:16) of which Nephi speaks. "The wadis," writes Norman Lewis, "...actually simplify long distance travel. In the dry season they become natural roads of great length and in places are often several hundred yards wide. Their beds are firm and flat, and in them is to be found whatever moisture or vegetation exists in an arid country" (1 Nephi 16:16).³

Digging for water where wells had dried up and passing through the lowest part of a wadi where a little more desert brush might grow hardly conveys the meaning of 'most fertile parts'. Joseph Smith grew up on a farm. To him "fertile" would not have meant a place where a few more weeds grow. Rather *most fertile* meant a productive piece of land where a farmer would expect to harvest fruits, vegetables and grain in abundance. Webster's defines Fertile 1a: *producing or bearing fruit in great quantities*, Most 1: *greatest in quantity, extent or degree,* and the Most: *as the extreme limit*".

Nephi came from Jerusalem, part of the 'fertile crescent.' He came from an agrarian society and undoubtedly knew the precise meaning of fertility. Nephi chose his words carefully (Jacob 1:1-4, 4:1). Nibley wrote that Lehi had knowledge of cultivation. Lehi, he noted, had gold and silver, yet jewelry was not manufactured in Palestine at that time. He cites M. Eyer who stated that the "list of goods imported into Egypt from Palestine show that the great men of Egypt gave their gold in return for wine, oil, grain and honey."⁴ Lehi spoke Egyptian. Nibley concludes, "he (Lehi) was an expert in vine, honey, fig and olive culture"⁵; and "Lehi's precious things and gold came to him in exchange for his wine, oil, figs, and honey (of which he seems to know a good deal)."⁶

It seems reasonable to believe that the meaning of the words Nephi used for "most" and "fertile" were basically the same as that found in modern dictionaries, and that the same can be said of the translator, Joseph Smith. In other words, in every likelihood Nephi's most fertile parts were rich farmlands which produced in abundance.

The Hijaz of Northwest Arabia

The land south-southeast of Shazer is the area of Arabia called the Hijaz, after the mountain range that runs along its Red Sea shoreline. The land there has been described by various explorers, each writing that it is a tough terrain that is anything but fertile. For example, John Carter wrote: "In the Central Hijaz neither man nor beast, surrounded by intimidating inselbergs, can find comfort in this picture of cruel desolation."⁷

The Hijaz consists of three distinct regions: The narrow shoreline plain to the west, the Arabian shelf or high central Hijaz desert to the east, and dividing the two the escarpment or mountains. This last feature is made up of two parts, the coastal mountains and great lava flows (see fig.). One account of the Hijaz calls it "a land of deserts: arid mineralized mountains or great sweeps of sand and stone."⁸

The western shoreline of the Hijaz, along the Red Sea, fits the very definition of *non-fertile*. As noted before, the Saudi Arabian Ministry of Agriculture has categorized the soil along the entire Red Sea shoreline plain as being "unarable soil due to the high salinity of the soil". Al-Wohaibi noted that there were some marginal agricultural activities along the shoreline during post-Islamic times⁹. However, there simply are no parts that could be considered fertile along the entire six hundred-mile shoreline of the Hijaz. It is one long salty, wind-swept, and virtually lifeless plain.

On the eastern side of the Coastal Mountain Range are the Harrats. These are large mountainous lava fields that are almost entirely void of vegetation. The famous explorer Richard Burton described the lava flows this way: "Nowhere had I seen a land in which the earth's anatomy lies so barren, or one richer in volcanic or primary formations."¹⁰

To the east of the Harrets is the high Central Hijaz Desert. This desert runs the entire length of the Hijaz. This is the region Carter called a "picture of cruel desolation." Other accounts confirm what we found as we explored the wilderness called the Hijaz, it is a dry non-fertile area: brutal and unforgiving to those traveling through it. Comparing the geography of the Hijaz to the Book of Mormon account, one sees an obvious contradiction. The explorers call it a barren and cruel place, while Nephi claims to have passed through fertile parts, indeed, *most fertile*.

What might at first seem to be a great flaw in Nephi's text, is actually one of the most compelling witnesses for its historical accuracy. Based on our research and explorations, we believe there are two rational explanations for Nephi's wording of most fertile parts. First, based on broad assumptions, is that this meant that they visited the large oasis towns, which, by the way, are for the mostly located on the Frankincense trail (al-Bada'a, Al-Aghra at wadi Sharma, Shuwaq, Shagbh, Dedan, Medina, Najran, etc). Each of these oases has a farming community associated with it.

Second, with much tighter assumptions, it is possible that Nephi's wording *most fertile parts* was describing a particular part of the Frankincense trail through which they passed. That is to say, the *most fertile parts* is an actual place, a series of villages and farms that were found on the main Frankincense trail between Dedan and Medina. Both of these explanations place Lehi squarely on the Frankincense trail and nowhere else in Arabia. Since we have already discussed the fertility associated with the major towns of the Frankincense trail in the chapter 7 "The Frankincense Trail" we will turn our attention to the more restrictive model, that is, that Nephi's *Most Fertile Parts* was an actual series of villages known in his day as the Arab Villages."

The Qura Arabiyyah – The Arab Villages

To Nephi and fellow Palestinians of his day, the *Qura Arabiyyah* were the settled villages of the Arabs who lived in a great desert; everything else in the peninsula was Bedouin country, the land of the A'rabs. The distinction is very important. Al-Wohaibi explains:

It is from Qura Arabiyyah that the name "Arab" as opposed to "A'rab" is to be derived, since the word "Arab" denotes the settlers, as opposed to "A'rab" the Bedouin. This distinction is definitely pre-Islmaic and can be assumed to have originated in this region which is known to have possessed commercial, agricultural and cultural centres. The region to its south was know as "al-A'rabiyyah" the land of the Bedouin or the Hijaz as indicated by Ibn Ishaq, who was probably relying on early Christian sources. The people of Qura 'Arabiyyah were called the 'Arab as against the A'rab, the people of A'rabiyyah.¹¹

The Qura 'Arabiyyah were the villages found along a 215 mile¹² section of the Frankincense trail. These villages were populated by the 'Arabs (city dwellers) as opposed to the A'rabs (the nomadic Bedouins) who roamed the arid lands for pastures. The settlement of the Qura 'Arabiyyah marked the birth of the two nations that still co-exist on the same peninsula, the city dweller, the 'Arab, and the desert A'rab or Bedouin.

Al-Wohaibi notes that the 'Arabs (city dwellers) settled in this part of Arabia, and developed "commercial, agricultural and cultural" centers¹³. The fertile lands that provided the food that allowed the 'Arabs to settle in one place, is the key to understanding the relationship between the Qura Arabiyyah and Nephi's most fertile parts. These villages were not spread over a single fertile plain, rather they were found in separate areas or wadis where water and fertile land co-existed. Indeed, the distinction between the 'Arab (city dwellers) and the A'rab (Bedouins) is an economic one. The more powerful 'Arab tribes were strong enough to take control of the few fertile areas forcing the A'rab tribes to continue as nomads who had to struggle for a living by raising goats and camels in the vast expanses of inferior pasture lands.

There is some debate as to the villages covered by the phrase Qura Arabiyyah, the Arab Villages. One theory seems to apply to the broad model for Nephi's most fertile parts, that is, the Qura Arabiyyah applied to the oasis settlements of Medina, on the south¹⁴, all the way north to Palestine and Syria¹⁵. However, this is doubtful because even the oasis of Tabuk, still in northern most Arabia, was already considered non-*Arabian*.¹⁶ The Qura Arabiyyah probably applied from Medina only as far north as Wadi Qura (called today Wadi Ula the valley in which Dedan is located). Citing the Arab geographers between 800-1150 AD, Al-Wohaibi commented (note that the Arabs al Wohaibi refers to are the 'Arabs, or sity dwellers):

Al-Waqidi's assumption that the region around Wadi al Qura was called "the land of the Arab" is plainly, though not explicitly, influenced by the viewpoint of the past history of this region and the ancient historians of Syria and Palestine who had every reason to regard it as "the Arab land." The same could be deduced from Ibn Ishaq's references to the inhabitants of this region as "the Arabs". This was, perhaps, the motive of Ibn al-Kalbi when he limited the Arab land to the region of Medina.

With the passage of time, Qura Arabiyyah seems to have shrunk too much smaller proportions, a fact to be accounted for by the disintegration of Provincia Arabia itself.¹⁷

What al-Wohaibi infers is that in ancient times, the only lands considered *Arabia*, the land of the settled 'Arabs, were the villages between Wadi Qura, the home of the empire of Dedan, and the great oasis of Medina. The Arab villages therefore appear to have included the twelve Frankincense halt settlements between Dedan to Medina, a chain of fertile farmlands associated with the villages that ran for over two hundred miles to the south-southeast. Only these *Qura*, villages , are what ancient Palestinian and Syrian historians considered Arabia or Arabiyyah. The term Arabia or *Bilad al'Arab*, "the land of the Arab", did not apply of the entire peninsula until well after the advent of Islam.¹⁸

Nephi was from Palestine, and probably had the same understanding regarding the Qura Arabiyyah. That is, it is likely that Nephi knew the twelve Frankincense trail halts between Dedan and Medina as the *Villages of the Arabs*, and that these villages and their rich farms were the *most fertile parts*. It is possible that Nephi indicated that they were "keeping" to the villages of the 'Arabs (city dwellers), not the A'rab wasteland wadis of the Bedouins. If this interpretation is correct, then Lehi's course is known, i.e. he continued on the Gaza branch of the Frankincense trail until he reached the main trail route to south Arabia at the hegemony of Dedan, and from there through the settled villages of the Arabs to the hegemony of Medina.

The Fertile Parts of the 'Arab Villages

Were the *Qura Arabiyyah*, 'Arab (city dweller) villages the 'most fertile parts'? The Arabic word *Qura*, does not equate exactly to the English word villages. According to Groom, *Qura* or *Qara* means "a region or place of fixed abode; villages, a cultivated land".¹⁹ Al-Wohaibi implies that the settled 'Arab villages between Dedan and Medina were called the "Arabian settlements adjoining the fertile lands"²⁰. These ancient farmlands started near Dedan and included the three other towns in wadi Qura²¹ (today's wadi Ula), the towns of Al-Suqya, Al-Ruhbah, Al-Anab, the numerous other small villages in wadi Jizl, the fertile valley between al-Marwah and Khaibar, and the villages in wadi Hamd to Medina. With the exception of Khaibar, these villages or 'cultivated lands' were linked together by the Frankincense trail. Surrounded by thousands of square miles of barren terrain, the cultivated lands were jewels, like pearls adorning a chain, along the south-southeast course of the Frankincense trail. These villages are also located in valleys surrounded by mountains, thus Nephi's reference to fertile parts in the 'borders' or 'mountains' is in harmony with the geography of this section of the incense trail.

There is little doubt that when Nephi passed through these lands he saw not just fertile, but "most" fertile farmlands. These lands contained the three key ingredients that made this land blossom in ancient times. First it was blessed by having abundant water from the Basalt aquifer which formed along the eastern side of the Hijaz mountains. In ancient times the wadi Ula, the northern end of the Arab villages, was called *Hajar* meanings in

English a "part of a valley which retains water"²². Second, the villages of the fertile parts were located between lava fields, called harrats in Arabic. The map "The Ancient World at the Time of the Patriarchs", found in several editions of the LDS King James Bible shows Dedan next to a terrain shaded in purple. To the southeast is another large patch of purple; this is where Medina is located. The purple patches are the harrats, the basalt lava flows. These lava flows not only trap the rainfall like great sponges, they also provide natural fertilizers that boost the productivity of the desert soil (see Appendix Two to this chapter). Third, there was an economic incentive to develop the farmlands of this area. These villages were major trading centers where the great caravans restocked their provisions.

According to Arabia place-name expert Nigel Groom, the name *hajar*, had several meanings, including stone and stone work. Hajar has three other meanings that are closely related: 1.) a "part of a valley which retains water"; 2.) a "place to which one emigrates", and 3.) "a fertile piece of land."²³ To settle in the desert, a migrant needs to find a place with water and fertile soil. According to the Saudi Arabian Department of Antiquities & Museums the wadi Ula (Qura), the valley where the ruins of Dedan are located was called, *Hajar* (*Hijr*) since at least the time of Ramsees II, 1290 to 1124 BC.²⁴ The Department notes:

The name of al-Hijra is attributed to ancient times. The area of al-Hijr was inhabited since antiquity. It's location, environment, availability of water and fertile soil were the main reasons of the continued settlement in the area. The greenery, plantation and agriculture and its unique location among the sandstone hills and near the sea area made it an attractive place for the settlement and development into a trade and caravan camping station.²⁵

Dropping the 'h" *ajar* simply means 'farms'.²⁶ Thus, the northern end of the Arab Villages was called *Hajar* (alternative spellings according to Groom, *Hijra, Mahajar, Mahajar, Muhajar, The words "piece" and "part" are synonyms.²⁷ The name pre-dates Lehi. Even more interesting is that the name applied to all the <i>Qura Arabiyyah*, 'Arab Villages, for the Prophet Mohammed referred to the villages as the *Muhajirun*, which means "the fertile parts: (pieces) of land" (the plural form of *Hajar*)²⁸. The early Islamic geographer, al-Azhari "warned his reader not to refer to the *Muhajirun* and the Ansar as A'rab, since they are, in fact, Arabs who live in the Arab towns and villages"²⁹. Here al-Azhari is stating that the Muhajirun, *those who migrated* or those of the *fertile parts*, are the people of the Arab villages and are not A'rabs or nomads.

The title *Muhajirun* (fertile parts) or *Qura Arabiyyah* (villages or cultivated lands) seems only to have applied to the villages that were located on the Frankincense trail from Egypt, the route Lehi would have taken from the Valley of Lemuel to Medina. Al-Wohaibi corrects one geographer who suggested that the town of Khaibar was included in the Arab villages: "As Khaibar does not lie on the Egyptian route, it may be safe to assume that al-Bakri is mistaken."³⁰ Thus, as incredible as it might seem, if Lehi traveled on the main Frankincense trail from Dedan to Medina, the historical names for this section of the trail were the *Muhajirun* (fertile parts), or *Qura Arabiyyah* (the cultivated lands); and the villages apart from this trail were considered the unfertile A'rab

lands of the Bedouins. In other words, when Nephi referred to the 'most fertile parts', he appears to have been using the actual place-name for the area that they were traveling in, the Muhajirun or Qura Arabiyyah.

Indeed, the Book of Mormon suggests that 'most fertile parts' was a place-name representing a singular part of their trail. If 'most fertile parts' was a place-name it should have been capitalized and perhaps used in the singular form. For example: "*Winter Quarters was* not completely abandoned until 1848"³¹. Nevertheless, the current edition of the Book of Mormon reads "the *most fertile parts*, which *were* [plural] in the borders". When Joseph Smith translated the Book of Mormon, he did not capitalize the names. These were added only later by the printer, who undoubtedly assumed 'most fertile parts' was not a place-name. However, Nephi used the past singular form when writing about the 'most fertile parts'. The 1830's original translation of Book of Mormon reads "keeping in the most fertile parts, which *was* in the borders", implying that it was a place-name for a unique area, i.e. the 'Most Fertile Parts', the *Muhajurin*, the *Qura Arabiyyah*.

The title of 'the fertile parts' seems to have been derived from the productivity of the farmlands associated with the 'Arab villages (city dwellers) compared to the rest of the region. Writing about the period of Mohammed, Hitti notes of the oases, "most of these fertile tracts were cultivated at the time the Prophet by Jews³². Indeed the Islamic prophet told his companions (leaders next to him) to live in peace off the productivity of the farms in the Arabia Villages. It is recorded that because of the productivity of the farms in the Arabia Villages, which were farmed by the Jews, that Mohammed took 7/12's of the produce from the lands as tax, while only exacting ¹/₂ the produce from the oases of Fadak and Khaibar.³³ It is reasonable to see why Nephi might have referred to this chain of fertile lands that where separated by desert areas as, the *most fertile parts*, since Mohammed could take well over half of the produce of the people and they still remain wealthy.

Lehi's Trail to the Most Fertile Parts

Exploring the Gaza trail from Shazer (Al-Aghra halt) to Dedan was a great challenge. In the first place, the trail passed through some of the harshest desert terrain conceivable, rocky mountains and mile after mile of sand dunes. On viewing satellite photographs of the region, we had our doubts if our trucks could navigate the landscape. Second, there was no existing map that accurately showed the ancient trail. We had to research the ancient route then piece together its course. Third, we knew of no one who had ever attempted to retrace the Gaza branch of the trail.

Our research process required three steps. First we researched the literature and found the most thorough study of this trail was made by Arabia Historian Abullah al-Wohaibi. He studied the works of the Arabs geographers between 800 and 1100 A.D., the era known was the Golden Age of Arab Geography. Al-Wohaibi compared the writings of eight geographers³⁴ who described the halts on the pilgrim's trail from Egypt.³⁵ The pilgrims trail from Cairo to Medina originally followed the ancient Gaza branch of the

incense trail to Medina.³⁶ From their combined writings, al-Wohaibi believed there were approximately seven halts between Al-Aghra (Shazer) and Dedan. Of these, only three can be presently identified as villages bearing the same name, Shuwaq (Shewwaiq), Shaghab and al-Baida. The remaining halts appear to have been lost in time.

The second step was to take al-Wohaibi's compilation of the halts on the trail and try to trace the route on to Tactical Pilotage Charts (TPC maps), through wadi passages in the mountains, to sites where wells were reported to have existed. We knew the trail most likely followed the wadis, and that the halts had to coincide with a well. As Dr. Abdullah Saud al Saud notes in the Journal of Saudi Arabian Archaeology: "In order to make one's way from the main centres of (Frankincense) production to the markets (Mediterranean Sea), one had to avoid the mountains as for as possible and, at the same time find enough water and food for men and animals."³⁷ We plotted the trail following these two rules, 1.) save the camels by avoiding the mountains - stay to the natural roads provided by the wadis, and 2.) find water and food – look for the wells and oases. This was a laborious process. We had to take al-Wohaibi's estimated distances between halts, the known wells in the region which appeared to match al-Wohaibi's descriptions of the halts, and determine on the TPC maps which wadis the caravans used to travel from one halt to the next.

The third step was verification. We had to actually take the trail. In January 2000, we headed back into the desert of northwest Arabia. Michael Bellersen (member Germany) a very experienced desert trekker, joined us as our lead truck. Tim Sedor (member USA) photographer, Ed Benson (member USA) chief mechanic and Satya Nand (member, New Zealand) formed the rest of the team. Like Lehi, we started our journey to the most fertile parts at Shazer, which we propose is the Frankincense trail halt of Al-Aghra. Using his two GPS's and a laptop computer for tracking, Michael had no problem finding dirt trails that we could follow through wadis that we had plotted south from Al-Aghra the Frankincense trail initially skirted the west side of the tall Hijaz mountains.

The first incense route after Al-Aghra was referred to as Qalis by the Arabian geographer al-Ya'qubi. Ibn Khurradadhbeh, Ibn Rosteh, Qadamah, Al-Muqaddasi and al-Idrisi only refer to Qalis as "a station" between the halts of Al-Aghra and Al-Kilabah. When plotting the trail, we identified only two wells in the wadi passes between Al-Aghra and the halt al-Wohaibi identified as Shuwaq, a small town that still goes by that name. The first had to be Qalis and the second Al-Kilabah. Musil locates the halting place, Qalis, in the valley of 'as-Sar' (wadi Surr) adjacent to the mountain range 'as-Sar' (Jabal Shar), where he states that "after abundant rains much water collects and near which there are numerous springs."³⁸ If the well in the valley Sar was the halt of Qalis, it meant that the trail turned south-southeast at Mount Sar. As we neared the mountain, a wadi opened to our east, and we were able to slip into the mountains on a level wadi that we followed to the eastside of Jabel (mount) Sar. So it was at this point that the trail crossed over the montains switching from the western side of the mountain to the eastern.

Not more than a mile into the valley we came to a well. Was this Qalis, the first caravan halt Lehi would have visited at after Shazer? We photographed the well and visited with a Bedouin who had come to the well to restock his water truck. The well was on the west side of the road and was accompanied by a small garden of vegetables and date palms. After miles of dry dusty trail, our eyes were so pleased by the water in the well and the garden that we almost pulled away without noticing that on the opposite side of the road was a large area of rubble. We investigated the site and found that it was the ruins of a small settlement. We noted pottery shards still resting on the surface. The site appears to be the Saudi archaeology site 204-83 which was surveyed in 1980. The location of the well in wadi Sar and ruins to its side provide solid evidence that this was the halt of Qalis, Lehi's first resting halt after leaving Shazer.

We followed wadi Sar until it ended in foothills. From here we followed Bedouin roads for several miles until we reached the beginning of a new wadi. This wadi provided a straight and level course between tall mountains to the known halt at the village of Shuwaq at its south end. At the northern end of this wadi, at what appears to be at its lowest point, we found two wells, and a small oasis. Today this site is located just a hundred feet off the Duba-Tabuk highway, and appears to be the only well between Shuwaq and the ruins we believe is Qalis. This had to have been the second halt southsoutheast of Shazer, the halt known as al-Kilabah. Al-Wohaibi writes of al-Kilabah:

This is a way-station on the conventional inland route from Ailah (near Port Aqaba today) and Medina. Ibn Khurradadhbeh mentions it on the only route he lists for that part of Arabia. He locates al-Kilabah between Shaghb to the south and an anonymous halt immediately to the north of Al-Aghra.³⁹

The next halt we believe Lehi stayed in was to our surprise, Shuwaq. Al-Wohaibi had placed the halt Shaghb before Shuwaq, but this does not appear to be the case. Wadi Shuwaq runs straight from al-Kilabah to Shuwaq, while a range of tall mountains separates Kilabah from Shaghb. We found that the logical course from Al-Kilabah to Shaghb was first to travel southeast to the halt at Shuwaq and then proceed southwest through a level wadi to Shaghb. Both the oasis towns of Shuwaq and Shaghb are nearly totally surrounded by tall mountains and we were surprised to find that a level valley, wadi Shuhud, could be followed to connect the two halts.

By the time we reached Shaghb, the fourth halt south of Shazer, we were seeing clearly what Nephi meant when he wrote that they traveled in the "borders near the Red Sea". We were still only 50-70 miles from the Red Sea, but surrounded by tall mountains. Indeed, the course of the trail seemed to zigzag, first to the southeast and then the southwest. The caravans' course between the halts was obvious. The trail wasn't taking the shortest route, it was taking the only route through the mountains which camels could cross, the flat wadis. The Frankincense trail wound its way through the mountains passing through level wadis suitable for camels. Each succeeding destination on the trail was the next reliable well in the general direction of Dedan. If the trail had to detour for twenty miles one way or the other to spare the camels and to find water, so be it. The paramount concern for the travelers on the trail was not speed, but to find water and to avoid crossing tall mountains.

Leaving Shaghb the trail headed almost due west through wadi Azlam back toward the Red Sea. Only 30 miles from the shoreline, the trail turned south again, and as before, skirted the western edge of the mountains. Here we drove over soft sand dunes for some 40 miles until we found the sandy wadi Ghamis that lead back east for 8 miles, eventually reaching a small oasis village called Aba al-Qizaz. Although Aba al-Qizaz was not mentioned by the early Arabia geographers we judged by the distance between Shaghb and Aba al-Qizaz that this village could have served as another caravan halt.

Twenty-one miles east of Aba al-Qizaz, we came to the next halt, Bada. The oasis of Bada was comparable to a scene from the American Old West. It had the appearance of a rough one-horse trading town that survived only because of its well, a small oasis and the fact that Bedouins come from far afield for supplies. Apparently, westerners had seldom traveled to Bada. We stopped at a garage to have a muffler welded back on one of the trucks. Being so out-of-place, we were quickly noticed by the town's police. At first they refused to allow the mechanic to make the repair, and told us we could not continue east out of town toward our destination of Ula (Dedan). The police claimed there was no road from Bada to Ula (Dedan). We were later joined by the mayor of Bada, who likewise told us we had to turn back at the east end of the village. After a lengthy conversation, and having reassured the mayor that we had the off road equipment, detailed maps and ample desert experience to find our way to Ula, roads or no roads, he finally let us depart. Of course, there was a road east through wadi an Naid, but it was not tarmac. The intention of not allowing us to continue overland to Ula (Dedan) was really to try to protect us from potential problems on traveling on dirt trails across long expanses of desert. The mayor kept trying to convince us to turn back and use the recently constructed highway to the north reaching Ula via Tabuk.

Some twenty miles east of Bada we came to the edge of wadi Jizl, a long wadi that served as the course of the Frankincense trail for approximately 100 miles. Two features of the wadi came as somewhat of a surprise to us. First, the eastside of the wadi was formed by the same great harrat (lava field) that formed the western wall of wadi Ula (Dedan). At this point, the Damascus branch of the trail and the Gaza branch were separated by 30 miles of tall lava fields. Second, similar fertile soil and water conditions as were found in wadi Ula existed, perhaps to a slightly lesser degree, in wadi Jizl. We could see farms spotted through wadi Jizl and we were still forty miles northwest of Dedan. This was especially true for the two villages we passed through in wadi Jizl before coming to the Dedan detour. We believe these villages were the sites of Frankincense trail halts Al Sarhatan and al-Baida. Today, al-Baida is a good size oasis with several square miles of farmland.

From al-Baida we continued south-southeast through wadi Jizl until we came to a wadi that leads east across sand dunes into wadi Ula (Qura), the site of the ancient Dedan hegemony. In ancient times this junction was the site of a fort whose purpose was to force travelers down the wadi Jizl to turn east to Dedan where they were required to pay tributes.⁴⁰ Lehi would have been no exception.

The Empire of the Dedanites

The capital city of the Dedanites was Khuraibah, and today its ruins are found just north of the modern city of Ula, in one of the most picturesque sites in all of Arabia. The Department of Antiquities notes that Dedan had an abundance of water, two large springs, and "fertile soil"⁴¹. It is a most fertile valley now, and was so in antiquity. The abundant water supply in Wadi Ula was not the sole reason that Dedan became an important stop on the Frankincense Trail. Its "fertile" volcanic soil was also a key. The Saudi Arabian Ministry of Education notes that Dedan had "agricultural development due to availability of water resources and fertile soil"⁴².

At one point we stopped our trucks in the farms near the ruins of Khuraibah and counted ten types of fruit trees within a hundred feet. Muqaddasi wrote in the year 985 that the dried peaches of Dedan were a renowned specialty of Arabia.⁴³

Again, we know Dedan existed in Nephi's time, for it is mentioned by both Jeremiah and Ezekiel. If Dedan had just a fraction of its present beauty in Lehi's time, it must have presented a marvelous vista for the weary desert traveler. The Hiltons write this of Dedan (Ula):

We found Dr. F.V. Winnett's enthusiastic description of the al-Ula oasis to be true: the "most beautiful in Saudi Arabia." The oasis itself is eight miles long in the narrow confines of the wadi. We saw the spectacular, red vertical cliffs that hugged the perimeter on both sides of the wadi. Every oasis we had visited before al-Ula in Saudi Arabia was green against flat, yellow or desert-colored sand. But here were the deep-red cliffs, like Utah's Zion or Bryce Canyon, set off by the luxurious green of a date palm oasis.

Today, the contrast between the thousands of square miles of barren desert surrounding Dedan's green farms is so striking and the area of cultivation so large, that it can be seen from space (see fig.). The following text accompanied the image of wadi Ula in the Soil Atlas of Saudi Arabia:

This image depicts an area of rugged terrain in the extensive Hijaz area of northwestern Saudi Arabia. The morphology of the drainage system is influenced by structural features such as the extensive network of faults and folds extending diagonally across the image. The vast, dark, oval shaped mass slanting downward from the upper center to the right is a lava flow (harrat). Settlements and cultivation frequently are established on the edges of a harrat where run-off can be entrapped by impervious rock. The red patches [infra-red for cool green area] near the middle right edge of the image are a good example of the prudent location of such agricultural activities. These are the date groves and cultivated fields of the town of Ula. The town is situated in an area that has been cultivated for thousands of years.

Reaching Dedan, Lehi would have entered a wealthy city-state and the northern hub of the Frankincense trail. Lehi was a wealthy and educated Manassehite from the land of Jerusalem. Lehi probably felt quite at home among the wealthy merchants of this trade center. Ezekiel, who lived at the same time as Nephi, warned the rich entrepreneurs of Tyre, "The men of Dedan [were] thy merchants; many isles [were] the merchandise of thine hand: they brought thee [for] a present horns of ivory and ebony." (Ezekiel 27:15)

Some scholars have supposed that Lehi was himself a merchant. If this were the case, Lehi might have already had trading affiliates among the merchant class at Dedan. Nibley suggested that Lehi's wealth came from trading with southern Arabia, which gateway was Dedan: "the rule always was that the desert trade, specifically that of the South Desert, was the one reliable source of wealth for the men of Jerusalem"⁴⁵.

The villages Lehi encountered on route to Dedan were undoubtedly small vestige communities controlled by Dedan. In contrast, the capital of the Dedanites, Khuraibah, was a powerful hegemony which controlled a large hinterland.⁴⁶ According to archaeologist Garth Bawden, "Khuraibah possesses attributes of a complex and well-organized society. Such an impression coincides with the historical accounts of ancient Dedan, which indicates that it was an important and powerful commercial centre by the 6th century B.C." ⁴⁷ In Lehi's day, Khuraibah was an active center with traders coming there from, what are today, India, Egypt, Syria, Iraq, Yemen and Oman.⁴⁸ Bawden continues:

The strong connections between Dedan in the northern Hejaz and South Arabia is understandable in terms of the long-distance trading network based on South Arabian aromatics which flourished during the 1st millennium B.C. A principal route for the incense trade paralleled the Red Sea coast from southwest Arabia to the Levant with a branch leaving the main route just north of Khuraibah and leading to Tayma and ultimately Mesopotamia. The al-Ula oasis stands solidly athwart this important route and thus received and controlled commercial caravans from the South. The South Arabian epigraphic links with the Khuraibah region are merely the residual manifestations of this long-lasting commercial intercourse.⁴⁹

As we walked through the ruins of Khuraibah, we admired the remains of the stately houses of the wealthy. Some villas, certainly built in more recent times, still had intact the entire first and second stories, including roof patios that nearly reached the tops of palms. It was easy to imagine Lehi and his family sitting on such a patio and visiting with their host. The fact that fine decorated pottery of that time has been found at Khuraibah and not in the surrounding villages, where only common pottery has been found, suggested the that the town of Khuraibah was the sole administrative center of the Dedanite hegemony.⁵⁰

The Dedanites were Lehi's contemporaries. Bawden studied the irrigation techniques used by the Dedanites and describes their method of farming as "intensive agricultural exploitation."⁵¹

The source of such a large water supply can probably be found in periodic flooding when rain water pouring down the Wadi Mu'adil was diverted by the convexity of the wall to the sides of the wadi and hence into canals. These canals could then be used to carry water into the main Wadi al-Ula or, by means of sluices such as the one recovered by the present project, into the cultivated area of the lower Wadi Mu'tadil. The various remains in the fields near Khief El-Zahrah indicate that the principles of irrigation agriculture were well understood in the Dedanite period.⁵²

Bawden suggests that the grand scale of the agricultural activities at Dedan's was a function of its importance as a trading center on the Frankincense trail.

This need directly ties into the economic system which underlay the Dedanite policy. In its role as a great trading centre located on one of the principal routes in Arabia, Khuraibah, obviously played host to a large transient population. Given the generally inhospitable terrain of Arabia, sources of food for individuals engaged in long-distance traffic were sparse. Thus, as a major emporium it would be incumbent on Khuraibah, with its agricultural potential, to provide sustenance as a necessary accompaniment to its economic activities.⁵³

Driving The Most Fertile Parts

The evidence suggests that the Dedanite hegemony centered in wadi Ula constituted a most fertile part during Lehi's time. As noted earlier in this chapter, this area was known even before Lehi's time as the Hajar or Ma'hajar, meaning the fertile piece of land. Based on his research in the area, Bawden believes that the Dedanites developed farming communities of lesser status to support their huge need to supply food to the city of Khuraibah and its large number of transient foreign visitors.⁵⁴ Thus, even in the wadi Ula, there was not one fertile area, but several farming communities separated by desert lands. From what we saw in wadi Jizl north of Ula it appears that agricultural communities or fertile parts might have started along the Frankincense trail as far north as the halt at Al-Sarhatan, and ran intermittently 250 miles or so south-southeast to Medina.

From Dedan we continued driving our trucks south retracing the Frankincense trail from Dedan to see if more agricultural lands existed between Dedan and Medina. Initially we followed the remains of the pilgrim's railroad, of T.E. Lawrence of Arabia fame, south to find another farming area in wadi Ula. This farming area is called Baday and is located thirteen miles south of the city of Ula. There we found the ruins of a railroad station, a water tower and a windmill. Baday has a cultivated area of several square miles, and was probably the last of the five 'Arabian villages' or 'cultivated lands' of the wadi Qura. Baday's farms run for approximately ten miles before the land once again returns to barren desert.

The pilgrim's railroad however did not follow the main Frankincense trail from Dedan to Medina. The Frankincense trail returned twenty miles to the west to the fertile wadi Jizl. We crossed the sands again to wadi Jizl, and once more followed it's course, which leads south-southeast. We observed that now the wadi's western side bordered the Hijaz mountains and lava fields. This meant the valley would have a shallow aquifer accessible by ancient well technology. It was not surprising then to find that the approximately hundred mile section the main Frankincense trail that ran through wadi Jizl was dotted with farms. During our first day back in wadi Jizl, we came to a small village. The village was surrounded by farms. From its location on the map it appeared to be the site of the Frankincense trail halt called *al-Suqya*, meaning 'the market'.

We could imagine the sight of a large caravan with its hundreds of cameleers and thousands of camels stopping at al-Suqya to trade for provisions. Suqya is a prime example of the rise and fall of the caravan settlement. Al-Wohaibi writes:

The convenience of the increasing large pilgrim caravans required that a number of towns and villages corresponding, if possible, to the stages of the journey, should be found along their routes. The decisive factor was, naturally, water, if water was within easy reach, the halt would develop into a small village and, later, into a town provided that the prospects of agriculture and trade were promising there... In some cases, halts on the ancient trade route in the Northern Hijaz which were followed by pilgrim caravans grew into flourishing towns and villages such as Dhjul-Marwah, al-Rubbah and Suqya al Jazl (Jizl)⁵⁵.

When the inland trade route was diverted, it led to the dereliction of these same villages.⁵⁶

That evening we camped in Wadi Jizl next to a row of trees that had been planted as a wind-break to protect a farm. The next morning, we counted from our campsite thirteen small farms scattered in the desert around us. Again, we were witnessing the perfect consistency of the Book of Mormon's account of traveling this ancient trail. For example, consider the Lehite's food source. During almost the entire journey in the wilderness, Nephi reports that they hunted or ate raw meat. The only part of the trail where he fails to refer to eating flesh seems to be in the most fertile parts. This makes sense. Why would they have taken the effort to climb the mountains and hunt while in rich farming valleys like wadi Oura (Ula) or wadi Jizl. Here they were traveling through rich pastures and farms. It is noteworthy, that Nephi's log has does not mention the family murmuring in the fertile parts, we know that if they had traveled anywhere else in northwest Arabia have crossed a hellish terrain of lava fields, sand dunes or barren plains. In other words, had they traveled any other way through the harsh lands of northern Arabia, other than the unique and narrow strip of rich farmland that is found along the main Frankincense trail, one would have expected the impatient Laman and Lemuel to have vented their complaints. They did not, and why would they have? So long as they traveled down the main Frankincense trail, they were in most fertile parts and on a good trail.

The absence of murmuring through most fertile parts could also testify that they felt safe during this part of the journey. The initial concerns of family members were related to personal safety (1 Ne. 2:11,5:1-2), not the hardships of thirst, hunger and fatigue, that came later on the trail. The fact that Jews were fleeing Jerusalem and coming to the Arab villages in large numbers suggests that the migrants from Jerusalem in Lehi's time were welcomed in this part of Arabia by the controlling tribes. These were skilled craftsmen and farmers, both valuable assets in a wilderness community. The proximity of the Arab Villages to each other added another degree of safety for the family. Night raids by bandits were a common concern to small caravans. Through this area they could rely on staying each night within the safety of a village. Qatadah was of the opinion that the Arabiyyah villages were so close to each other that "travelers would leave a village in the afternoon and spend the night in another and so on for several days"⁵⁷.

There is reasonable evidence to conclude that farming has existed in the valley since ancient times. Suqya al-Jizl was a known halt for the Frankincense caravans. Geographers Waki and al-Muqaddasi suggested that the village was the location where the Syrian (Damascus) and Gaza branches joined together.⁵⁸ Geographically this was not the case, however most of the early geographers show the Gaza trail detouring from wadi Jizl into Dedan (Wadi Qura)⁵⁹ where tributes were collected. Suqya probably changed little from Nephi's day to when Muqaddasi wrote at the end of the first millennium A.D.

that "it is the best town in the region of Qurh, alias Wadi al-Qura. Its farms and groves of palm trees stretch in a continuous line as far as Qurh."⁶⁰

We spotted the ruins of an ancient fort on the TPC map near al-Suqya. We explored the ancient fort that certainly predated the architecture of the Islamic or Turkish periods, giving us the sense that people had been living in wadi Jizl for a very long time, and that the Frankincense trail was well guarded by garrisons. Our research showed that the ruins of forts, *kellas*, in wadi Jizl are located at the place where the Gaza trail made its detour out of wadi Jizl to Dedan, and again, at the point where the trail south from Dedan rejoined the trail through wadi Jizl at al-Suqya. The ability to control these wadis and the trade routes therein brought great wealth to the Dedanites. Again, it was apparent that no one ventured in these lands without the express permission of the ruling tribes, and why would one want to wander off the trail since just a few miles on either side were harsh waterless desert?

On our second day in wadi Jizl we refueled at the only other large village we encountered. This was probably the site of ancient halt called al'Anab. The first halt in this narrow wadi was called Dhul Marwah. At intermittent locations in this long wadi we came upon small farms. The next three halts of Balakith, al-Arhahiyyah, and al-Fur were considered being within this fertile valley. Dhul-Marwah is also the settlement where a trail entered from the south, and which the early Arab geographers al-Bakri and al Harbi called the Masharif meaning the "hills" that adjoined the "settlements (of) the fertile landsⁿ⁶¹. Indeed that is exactly what we found. The trail southeast from wadi Jizl leads up out of the fertile farms of wadi Jizl into a long sparsely cultivated valley running east through the hills. Soon after rising out of wadi Jizl the pass through the mountains starts a long descent that eventually leads into the fertile wadi Hamed. From what we saw on the dirt road between wadis Jizl and Hamed, it can be said that this segment of the trail through Dhul Marwah adjoins two most fertile parts.

We continued southeast to wadi Hamed where we rejoined the railroad tracks of the Pilgrim's railroad that followed the last segment of the caravan route to Medina. A few miles further on we finally reached a paved road near the town of al-Mulaylih. In wadi Hamed we once again came upon rich farmland, still forty-one miles north of Medina.

From al-Mulaylih we continued south-southeast toward al-Medina coming across more farms which started appearing 22 miles outside the city. These farms marked the beginning of the very large oasis of the Medina valley. The fertile farmland around Medina stretched from where we were to forty to fifty miles southeast of the Islamic holy city. Medina was an important center along the Frankincense trail. The city of Medina was, in ancient times, called Yathrib. It has a great spring that gushes forth water from a lava field. In international date markets, Medina is recognized for having some of the world's finest. According to an Arabian tradition Medina was the first land cultivated by the descendants of Noah, and it was there that the date palm was first planted⁶². Philip Hitti states that a hundred different types of dates are cultivated in and around Medina⁶³.

At Medina, we completed our journey following Lehi's trail through the 'most fertile parts'. After four days of solid driving over a mix of sand dunes, rocky trails, and wash board roads, we celebrated our trail's end in a garage outside Medina by having pieces of our trucks welded back on!

Our trek was dusty, long and tiring, but well worth it. It helped us establish the model for Lehi's 'most fertile parts'. We believe this segment of the Lehi's trail started with the beautiful oasis at Dedan. From there they traveled through a series of close farming villages all the way to Medina, some 197 miles to the south-southeast. It took the commercial caravans eight to ten days to travel from Dedan to Medina, which means that Nephi traveled through the Arabian villages of the fertiles lands for a somewhat longer period⁶⁴. It is even possible that Lehi stopped for a lengthy period in Dedan or Medina. (see Appendix One to this chapter)

There Are No Other Fertile Parts

Nephi's account of traveling through the most fertile parts in the northwest Arabia proves with a high degree of certainty that Nephi wrote of a passage down the main Frankincense trail. To illustrate this point, we acquired the Tactical Pilotage Maps (TPC) for Saudi Arabia. These maps are used by pilots and are noted for their accuracy and detail. The charts are so detailed that they indicate even a single building in the desert, and of course, any significant farming areas. We transferred all the areas marked "cultivation" on the TPC charts from al-Bada'a to Medina onto the map titled *The Most Fertile Parts*. A red dot represents an area marked "cultivation" on the TPC west of the mountains and a blue dot cultivation east of the mountains. As the map illustrates, if Lehi kept in the most fertile parts after leaving Shazer, he would have traveled the course of the main Frankincense trail from Dedan to Medina. Any other course would have taken them through infertile lands.

The Most Fertile Parts & Lehi's Trail

Keohane wrote of the Arabian desert that it "is a land on the brink of survival... The desert is too arid to support a settled population, and land impossible to cultivate except around the oases."⁶⁵ The oases have not changed their locations, however knowledge of most of them, and the course of the Frankincense trail through them, has only become known recently to the western world. It is a historical fact that it was impossible for Joseph Smith to have known of the existence of this unlikely phenomenon, that amidst the vast wasteland of Arabia rich farmlands are partitioned, by strips of desert, into most fertile parts. No reliable record existed of a westerner visiting these most fertile parts of the Frankincense trail until after the death of the Prophet Joseph Smith. The Department of Antiquities and Museums of Saudi Arabia cites: "Charles Doughty was the first who visited al-Ula (Dedan) in 1876 and opened the doors of study and research for the others."

Appendix One

Did Lehi Stay in Dedan or Medina?

Lehi was in the wilderness eight years before reaching the Indian Ocean in south Arabia (1 Ne. 17:4). The journey should have taken a fraction of a single year to complete. He and his family must have stayed for a considerable period on time in at least one place along the trail. Was it in the most fertile parts? We do not know the answer to this question, but we can add some conjecture and some interesting lines of study that someday might support this idea.

- A common interpretation of 1 Nephi 16:14 "And we did go forth again, in the wilderness, following the same direction, keeping in the most fertile parts", is that the meaning of the word "keeping" is that they maintained a course through the parts that were fertile. However, it could have meant something different. Note that Nephi indicates the same direction, and then uses a comma to break the thought from 'direction' to 'keeping' in the most fertile parts. According to the Webster's Dictionary the word 'keep' also means "2d(1) cause to remain a given place" and "3a to restrain from departure". It is conceivable that Nephi's meaning to this verse is "we did go forth again in the wilderness, following the same direction, *remaining* in the most fertile parts of the wilderness that were in the borders near the Red Sea." This idea is reinforced by the apparent change in direction after "And it came to pass" (1 Nephi 16:15) to the more fertile parts that no longer seem to be near the Red Sea,
- 2. There seems to be a break in their travels in what is found in the 14th to 15th verses of the Sixteenth Chapter of 1st Nephi. The original text of the Book of Mormon reads "And we did go forth again, in the wilderness, [traveling] following in the same direction, keeping in the most fertile parts of the wilderness, which was in the borders near the Red Sea. And it came to pass that we did travel for the space of many days..." The phrase starts out by having them traveling, then keeping [possibly meaning remaining] in the most fertile parts for some time, and then, after some time (And it came to pass) they started traveling again. There seems to have been a halt of some period of time at the most fertile parts before they restarted their journey.
- 3. It is possible that Lehi found a community of believers at Medina and possibly at the other villages of the fertile parts, and that these Jews needed Lehi's priesthood leadership to organize their community before the prophet could proceed on to the New World. We know Lehi received all the keys to the priesthood necessary to organize a church in the land of promise. Lehi's priesthood authority is without question. Foremost we know that he was commanded of God to flee Jerusalem and establish a branch of the house of Israel in the New World. The keys of that authority were manifested in his building an altar in the Valley of Lemuel. In the New World, his son constructed a temple "like unto Solomon's temple" (2 Ne. 5:16), and

¹ Webster's Ninth New Collegiate Dictionary, 658.

organized the church (2 Ne. 5:26). In Jerusalem Lehi taught that: "Jerusalem – that it should be destroyed, and the inhabitants thereof; many should perish by the sword, and many should be carried away captive into Babylon" (1 Ne. 1:13). Soon after, Jerusalem was destroyed by the army of King Nebuchadnezzar of Babylon. It appears that many Jews believed Lehi, Jeremiah and the other prophets and a considerable number fled Jerusalem to establish a Jewish colony at Medina. Abu Hurairah wrote of the "Jews ... on their flight from Nebuchadnezzar's persecution to Medina."¹¹ We know that historically Jews settled throughout the Arabian villages of the Hijaz. However, at the present time, we do not know if they came to the other villages at the time of Nebuchadnezzar. Even so, many questions come to mind. Were some of these Jews those warned by Lehi in Jerusalem? Since Lehi spent a substantial period of time in the Valley of Lemuel, had these Jews fled to the fertile parts before Lehi? Were these Jews disenfranchised from the priesthood in Palestine, and in need of priesthood leadership so they could be organized into a church? If all of these questions are found someday answered in the affirmative, then it would seem likely that Lehi would have organized the faithful, those who believed the prophets and fled Jerusalem, before continuing onward

4. Somewhere Nephi was a missionary, probably in Arabia (D&C 33:7,8). Lynn and Hope Hilton suggested it was perhaps to the predecessors of the Lihyanites (the people of Lihy) at al-Bada'a, Midianⁱⁱⁱ who came to power in northwest Arabia over four hundred years after the passage through Arabia of Lehi's family^{iv} If so, it would seem more likely that Nephi taught them in the most fertile parts and not at Al-Bada'a. The Lihyanite capital city was in the Wadi Ula, and their temple at Dedan. The Hiltons go into great length to associate the cistern at the Dedan temple to the Brazen Sea of Solomon's temple^v Apparently someone served a mission in the fertile parts of Arabia. The Middle Ages Arab author, Al-Azhari, wrote in his book al-Shafi's pre-Islamic Arab tribes migrated to the Jewish and Christian settlements in Arabia, and were "converted to these religions."vi These villages were likely to have been the Jewish populations at Medina, Khaibar, and Dedan, but we cannot be sure of this point. Was Nephi a missionary in the fertile parts which are in the Hijaz? Arabist historian, Albert Hourani noted: "There were Jewish craftsmen, merchants and cultivators in the oases of Hijaz in western Arabia, and Christian monks and converts in central Arabia."" An intriguing story is related by al-Wohaibi of the old Arabia geographer: "Ibn Zabalah and recorded by both al-Samhudi and al-'Abbasi, ... they allege that there is an inscription on two stones at Medina, one of which says that a messenger of Solomon or Jesus was sent to Qura Arabiyyah ('Arab villages' or 'cultured lands') or Yathrib (Medina) or to 'this village'".viii

ⁱⁱ al-Wohaibi, 196.

ⁱⁱⁱ Lynne and Hope Hilton (1), 75.

^{iv} Ministry of Education, 15.

^v Lynne and Hope Hilton (1), 97-99.

^{vi} al-Wohaibi p. 208, Al-Azhar, Gharib Kalam al-Shafii, British Meseum, No. Or. 3094.

^{vii} al-Wohaibi, p. 198.

^{viii} al-Wohaibi, p.198.

- 5. As mentioned before, Lehi was possibly a merchant. His wealth suggests that he was trading with south Arabia and the merchants who controlled that trade in Dedan and Medina. In these key trading cities, Lehi might have been the guest of a former trading partner.
- 6. It should be remembered that travelers through wadi Jizl were required to enter Dedan in order to pay tributes. If Lehi had to spend some time earning the funds necessary to join the main trail south, the merchants and Emirs of these trading cities would been suitable employers in need of the talents possessed by Lehi and his sons.

To ascertain whether Lehi halted for a long period in the Arab villages of the most fertile parts, much future research needs to be performed.

Appendix Two

The Fertile Soils Of The Wadi Ula

By Wes Gardner, Ph.D. Professor of Geology, King Fahad University of Petroleum and Minerals, Dhahran, Saudi Arabia

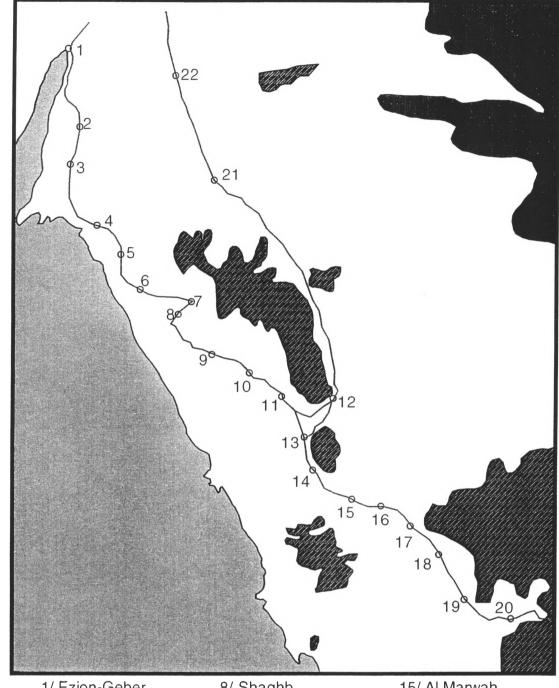
Basalt is a dense, heavy, brownish-black volcanic rock, which forms the oceanic crust of the earth. There are bulbous, pillow forms and ropy taffy-pull forms as well as columnarjointed (fractured) lava flows and volcanic ash. The vertically jointed columnar forms of basalt are given imaginative names such as "Devil's Post Pile". In Idaho, areas of volcanic ash flows and strange topography are appropriately called "Mountains of the Moon". There are many places on the Earth where basalt occurs on the continents, generally where the earth's crust is being or has been pulled apart to allow molten basalt magma to well-up along fractures and be extruded at the surface.

Anyone who has ever visited Hawaii has walked on basalt which forms the islands of the Hawaiian chain. A flight over the great shield volcano of Muana Loa permits us to see the black lava flows extending away from the central crater. Hot molten basalt lava flowing from Kiluaea, the active crater, is commonly seen in movies and on TV. The extensive Snake River and Columbia River basalt fields are familiar to North Americans. The Irish give folklore names such as "Giants Causeway" to the columnar-jointed basalts. The Rift Valleys of East Africa constitute a huge volume of basalt. The Afar Triangle basalt terrain at the south end of the Red Sea, is a vast, desolate barren area because of its high temperatures and saline surface conditions. Briefly, basalt is a common rock on the surface of the continents and forms the sea floor of the oceans.

Of principle interest to this discussion are the huge areas of "harrat" basalt lava fields of western Saudi Arabia, which were formed as a result of extensional stretching of the Earth's crust related to opening of the Red Sea. The basalts have been radiometrically dated as mainly less than 2 million years old. The harrats are very rough and rugged topography to traverse on foot or in four-wheel drive vehicles. Therefore, trails shirt the edges of them. Because of fractures and holes in the basalts, these rocks may contain water and springs.

Soils derived from basalts are rich in iron, magnesium, clay and other minerals necessary to productive agriculture, (clay-forming feldspars, pyroxenes composed of MgSiO₃. CaMgSi₂O₆ and NaFeSiO₆, iron ores and relatively high percentages of other minerals). False color, reflective, infrared Landsat images of northwestern Saudi Arabia show the characteristic red color of vegetation along the harrats as a result of water supply and

fertile soils. The Saudi Ministry of Agriculture and Water Resources General Soil Map of Saudi Arabia shows rich, thick, arable soils around the harrats of the Hijaz. Other fertile areas related to basalts would include the potato rich farming area of the Snake River lava plains in Idaho and the rich wheat-producing lands of the Columbia River basalt plateau of eastern Washington.



HALTSON THE FRANKINCENSE TRAIL

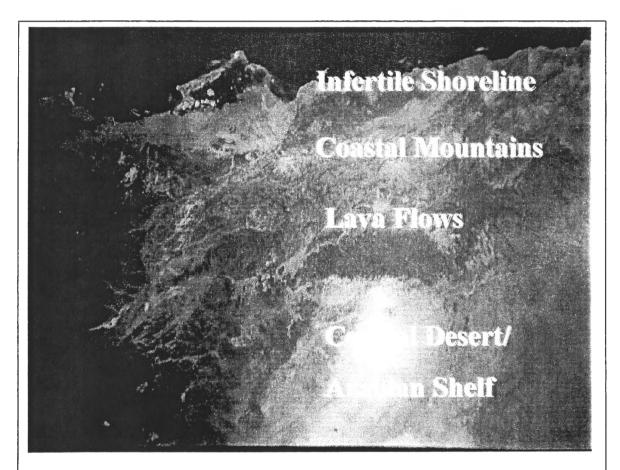
1/ Ezion-Geber 2/ Ash Sharaf 3/ Midian (Al Bada'a) 4/ Al Agharr 5/ Qalis 6/Al Kilabah 7/ Shuwaq 8/ Shaghb 9/ Bada 10/ Al Sarhatain 11/ Al Baida 12/ Dedan (Ula) 13/ Al Suqya 14/ Al Anab 15/ Al Marwah
16/ Balakith
17/ Al Marr
18/ Al Suwaida
19/ Dhu Khashib
20/ Yathrib (Medina)
21/ Tabuk
22/ Suragh



Harrat (Lava)

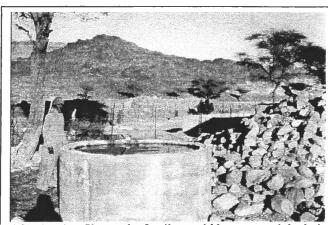
Sand

Satellite photograph showing the topography of the coastal region of the Northern Hijaz



A cross section of the Hijaz from outer space. From the shoreline to the desert shelf inland there appears no evidence of fertility.

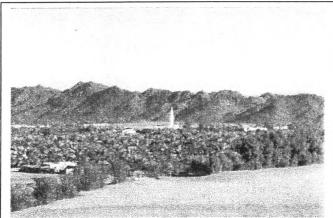
The Most Fertile Parts



After leaving Shazer the family would have passed the halt of 'Qalis'. Now the lone inhabitant of this once important halt inspects his well. In the background the ruins of the frankincense halt can just be seen.



At key places on the trail forts were built to protect the trade route and to force travelers to use approved routes thus enabling the rulers to be sure of deriving their taxes. Some of the forts were built by the Turks but many are much older, like this one controlling the route in wadi Jizl.

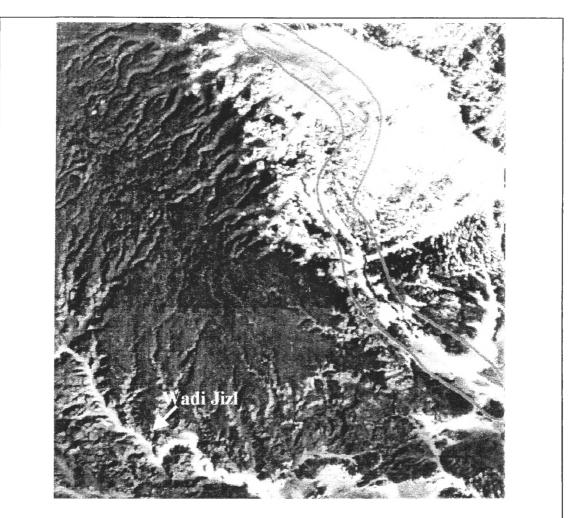


Fields and palm groves line the route for many miles leading up Medina. Amid the desert a line of farms stretches like a string across the barren terrain.



After traveling down wadi Jizl the family would have reached Dedan. A beautiful and fertile town in one of the most picturesque settings in Saudi Arabia. The ruins of the old town of Dedan are just a short way from the modern town of al Ula.

Satellite Image of Wadi Ula (Green Lines)



The following text accompanied the image in the Soil Atlas of Saudi Arabia:

This image depicts an area of rugged terrain in the extensive Hijaz area of northwestern Saudi Arabia. The morphology of the drainage system is influenced by structural features such as the extensive network of faults and folds extending diagonally across the image. The vast, dark, oval shaped mass slanting downward from the upper center to the right is a lava flow (harrat). Settlements and cultivation frequently are established on the edges of a harrat where run-off can be entrapped by impervious rock. The red patches [infra-red for cool green area] near the middle right edge of the image are a good example of the prudent location of such agricultural activities. These are the date groves and cultivated fields of the town of Ula. The town is situated in an area that has been cultivated for thousands of years.¹

...because of their sufferings; and afflictions in the wilderness; and also my father began to murmur... 1 Nephi 16:20

Chapter 10

The More Fertile Parts and The Camp Of The Broken Bow

Traveling the Frankincense trail through the long wadis al-Ula, al-Jizl, and al-Hamed had taken Lehi through the 'most fertile parts', and for that matter, the only cultivated lands of any significance in Arabia north of Medina . South of Medina (Yathrib), there were two branches of the trail Lehi could have taken heading southward. One followed the Wadi al-Aqiq to Mecca, and then on south to Taif, and Bishah. This trail later became one of great importance to the Moslems for the trail between Medina and Mecca became part of the annual Islamic pilgrimage, the Hajj. This branch of the trail would have required Lehi to have traveled south for a distance of some 265 miles from Medina to Mecca and to have climbed into the rough highlands of the coastal mountains.

Frankincense trail expert Nigel Groom believes that the main route did not follow this route through Mecca, but stayed inland on the lowlands of the central desert:

The incense route seems unlikely, for topographical reasons, to have gone through Makkah, which lies on the coastal side of the northern tip of the mountain range stretching upwards from Yemen, but more probably it passed about 100 miles to the east of it, perhaps through or close to the present-day town of Turabah.¹

Groom suggests that the main trail from Medina to Bishah skirted the lava fields, and stayed in the Arabian shelf desert, the entire course being approximately 350 miles. Groom estimates that it would have taken an incense caravan fifteen to eighteen days to complete that journey.

In December, 1998 we visited Turabah, Bishah, Taif and Mecca to determine for ourselves which of the two routes was the likely course for Lehi to have taken. What might sometimes be open to debate in scholastic circles, often becomes obvious in the field. This was one of those occasions. The mountain course through Mecca, Taif, al-Baha, and on down the mountains of the escarpment would have provided the Lehites fertile lands, a milder climate and given them established trails. The problem however is rooted in the trail itself. The mountain route is rocky and unsuitable for camels, confirming Groom's position that the terrain presented a serious problem. To the north, Lehi had traveled in the mountains but there the trail stayed in a narrow series of gravel wadis that passed between mountains on each side. To the south of Mecca there were the same great mountains but no wadis to wander through, just rocky highlands with winding trails.

The mountains in this part of Arabia are called the Asir, which means 'difficult' "because of the impact os the terrain on travel"². It is the only place in Arabia where the camel is replaced by the donkey as the chief pack animal. To the east of these mountains ran the main Frankincense trail. The inland route through the flat desert plain, called the Arabian shelf, had its own problems, yet these were more than outweighed by the benefit of good footing for the camels. Nephi wrote:

And it came to pass that we did travel for a space of many days, slaying food by the way, with our bows and our arrows and our stones and our slings. And we did follow the direction of the ball, which guided us in the more fertile parts of the wilderness. (1 Nephi 16:15,16)

We believe that Nephi's record hints that they stayed on the main route through the flat desert, and did not go through Mecca and the mountains. Here are the reasons why we believe this:

- 1. Lehi left the most fertile parts with no further mention of being in or by the borders near the Red Sea, as is the case with the main trail. That is, the main trail exits the mountains after Medina, the last great oasis of what would be considered *the 'most fertile*' parts. Thus in the next part of their journey, through the '*more fertile parts*', they were not in the mountains but rather on the flatlands of the main branch.
- 2. Verses fifteen and sixteen give no indication of a change in their direction of travel. The main trail continues on the general course Nephi indicated they traveled, a southsoutheast bearing. In comparison the trail from Medina to Mecca traces a course which runs first to the south and then to the southwest and then after Mecca turns generally southeast on to Bishah.
- 3. Finally, Nephi tells us they hunted food as they traveled and they were no longer in the "most fertile parts", but the "more fertile parts". This also would be concordant to a journey down the main Frankincense trail. That is, there are good farmlands at Mecca, Taif, and the wadis of the Asir mountains. They might have hunted on the mountain trail for economic reasons, but with farms few and far between on the main trail south of Medina, hunting was probably a necessity. They were in the more fertile parts, and no longer in the most fertile parts.

The lands along the main trail must have had some farms because Nephi described it as 'more fertile', but the land could no longer be classified as 'most fertile'. The Tactical Pilotage Charts (TPC) indicate areas of 'cultivation'. Plotting the course we had driven through between al-Ula and Madina, the 'most fertile parts', we noted on the TPC that there were 25 places marked 'cultivation'. This included the first 50 miles south of Medina in the wadi ash Shu'bah. On the average, there was a cultivated area every 11 miles. From just south of Medina (wadi ash Sha'bah) to Bishah, the land is markedly less fertile. There are only six areas labeled 'cultivation' on the Tactical Pilotage Charts, and these are all found as the trail near Bishah. We also discovered farming and date groves at the oasis at Turabah. This would be roughly an average of one cultivated area every fifty miles. Nephi confirms such a downgrading in the fertility of the land as they continued south. In other words, the Book of Mormon account conforms to the actual fertility of the lands along the main branch of the Frankincense trail as it proceeds south-southeast.

Nephi's text continues to imply that the land became ever more barren. The cultivation they had enjoyed in the 'most' and 'more' fertile parts faded away. So too the happy days they might have experienced along the trail thus far. After leaving the more fertile parts Nephi wrote:

And after we had traveled for a space of many days, we did pitch our tents for the space of a time, that we might again rest ourselves and obtain for our families. (1 Nephi 16:17)

We see that they had already traveled for many days through the 'most fertile parts' and then the lands he referred to as the 'more fertile parts' (1 Nephi 16:14-16), during which stage they were "slaying food by the way" (1 Nephi 16:15). However, after they continued south for "many" more days from the more fertile parts, they apparently needed to stop in order to hunt. They must have been running low on provisions. This seems to imply that their trail entered a stretch of land void of easy game that they could slay as they traveled. Here the men would need to travel away from the main party some distance in order to find game. Thus the main party would need to pitch tents and await the return of the hunters. Through the most fertile and more fertile parts, even a disappointing hunt would not have left the family in a dire food crisis. Provisions of dates and other fruits and vegetables could have been periodically replenished at farms and staging posts along the way. In these verses, Nephi made no mention of hunger. Now, however, the situation was different. Nephi has dropped the term 'fertile' altogether and notes that they stopped in order to obtain food. There seem to be no more farms from which to acquire provisions. It was on this part of the trail that Nephi broke his bow. The land they were traveling through when the bow broke must have been a barren wilderness devoid of farms for when Nephi's bow broke it was not simply an inconvenience but a crisis (1 Nephi 16:16-19). This literally meant that they "did obtain no food" (v. 18), and that the family suffered "much for want of food" (v. 19).

Even fodder on which wild animals could graze appears to be missing. Indeed the TPC maps show that from Bishah to Najran and then approximately another 100 miles south to the end of the Dahm Sand Dunes where the Frankincense trail turned east, there are no areas marked 'cultivation'. The trail would have covered a distance of almost 400 miles with cultivation only at the oases at Tathlith and Najran. That is on the average, one farming area for every one hundred and sixty-six miles. Sparse indeed!

Perhaps, it was the lack of food and the barren terrain along this portion of the trail that accounted for the murmuring of the Lehites and the inspired words found in Chapter 106 of the Qur'an. This chapter in the Qur'an describes how the fortunate Quraish tribe, the literal descendants of Ishmael, are lucky because they had been protected from hunger on their seasonal journeys on this very trail from Mecca to Yemen and Palestine.

For the covenants (of security and safeguard enjoyed) by the Quraish, their covenants (covering) journeys by winter (Yemen) and summer (Palestine)—Let them Adore the Lord of this House, Who provides them with food against the hunger... (Qur'an 106:1-4)

The harshness of this part of the wilderness took its toll on the family. Nephi reports the family suffered "much fatigue" (v. 19) and murmured "exceedingly", because of their sufferings and afflictions in the wilderness" (v.20). This must have been a harsh and barren part of the trail running perhaps over the stony trails between Medina and Bishah or the barren gravel and sand path between Bishah and Najran.

The southern leg of the Frankincense trail through Saudi Arabia has a classic desert terrain. Farms are only found within the confines of a few oases, such as Najran. Hilton provides an appropriate comparison for this land: "The last 60 miles of this route [to Najran] might be situated in Death Valley California, so similar is the landscape."³ Finally reaching Najran, the Lehites came to the last of the large oases before they turned to the East. The ruins of old Najran, which may have been called Ragmat in Lehi's time⁴ (the ruins of the metropolis are now known as Okhdood), are found on the western end of this fertile valley. At Najran, the Lehites probably rested and stocked up on provisions necessary for the very difficult trail that continued on to the south-southeast.

The Camp of the Broken Bow

After having traveled many days south of the more fertile parts, Nephi tells us the family stopped for the "space of a time" to obtain food and to rest (Nephi 16:17). This raises several questions. Why did they stop? For how long did they camp and where did they pitch their tents? How did they acquire goods? While we will probably never know exactly where this camp was we will attempt now to present a logical argument for its approximate location based on the scriptural record and our knowledge of the locations through which the trail passed, south of the 'more fertile parts'.

Why did they stop?

For whatever reason, we know that Lehi did not pass through Arabia during a single winter traveling season. The journey took a total of eight years. Since it is impossible to travel in Arabia during the hot months, May through October, Lehi would have needed to stop for the summer to rest. With the arrival of the hellish summer travel would have been very dangerous and the trade business along the Frankincense route would have ground to a halt. By late spring, the temperatures along the trail are consistently over 120°f., which made the caravan business in Arabia a mostly seasonal activity⁵. The most likely reason Lehi stopped was that he had no choice. He was probably faced with the onslaught of the summer. Waiting out the hot season provided them an opportunity to hunt and rest from a journey through difficult terrain.

How long did they camp?

Nephi specified that they pitched their tents for a "space of time." What did this phrase mean to the translator Joseph Smith? The prophet used this same phrase in describing a three year period (HJS 1:28). Biblical verses imply that a "time" indicated a year, a

season, or a cycle. We have the early LDS publication the Times and Seasons, which used terminology such as "Truly, this was a time and season of rejoicing with the saints"⁶. We suggest that a "space of time" was longer than Nephi's "many days", and probably meant a period of at least one season when they were required to stop because of the extreme temperatures. In this case, the space of one summer season could possibly stretch out as long as 5 months of a year (May to September) when the heat becomes unbearable.

Where did they pitch their tents?

Although the Frankincense trail stayed to the flats of the Arabian Shelf, it stayed within view of the Asir (Coastal Mountains). There are two reasons for the proximity to the mountains. First, as in the north, the trail was the shortest and easiest route between the water supplies and the food to be found at the oases. Second, the mountains to the west always seemed to be within sight of the trail. We believe the cameleers used the mountains as a visual guide to follow as they traveled from oasis to oasis. Without such landmarks it is very easy to become disoriented in the desert flats, as anyone with any experience in this area of Arabia can attest.

We talked to a man from Bishah and asked him about the traditions of his town. He told us that before air conditioners, those who could leave the town would migrate into the mountains during the hot months. In Lehi's days, the inhabitants of the Frankincense staging towns, like Bishah, prospered by selling provisions to the caravans; dates and other produce grown in the oasis at Bishah. It would seem reasonable that when the trail business dried up in the hot months, those not directly affiliated to the date-palm groves and farms of Bishah would leave the torrid lowlands and go up into the mountains where they could seek relief from the heat. In the mountains, they could also hunt for game and tend fruit orchards in the highlands.

The Asir mountains are blessed with rains from summer thunder storms. Run off from the rains flow through the streambeds of these wadis, sometimes suddenly and violently. As we traveled through these wadis we saw several pools. The TPC maps confirmed that there are numerous wells in the high wadis on the eastern side of the mountains. With the Asir mountains within sight of the trail through southern Arabia, it only makes sense that Lehi would have left the unbearable heat of the flats and waited out the summer in the foothills or high valleys of the Asir mountains where the summer temperatures are relatively pleasant, usually remaining in the eighties Fahrenheit. From the Frankincense trail staging center at Bishah, the high wadis of the Asir are no more than sixty five miles distant.

How did they obtain food?

It seems reasonable that Lehi would have followed the advice of the local inhabitants of Bishah and made the four day journey into the high wadis. We know Lehi used this "space of time" to obtain food. Nephi's terminology of obtaining rather than growing food makes sense in the context of the Asir mountains. Lehi could not just stop and start planting crops. These mountains were inhabited, and good farming soil and water resources were scarce. Any arable land with water would have been controlled and guarded by the local inhabitants. Nephi is not specific enough for us to know how they obtained food but certainly they may have spent time working to earn it. The fact that he was hunting to obtain food also implies that the family may not have had enough money to purchase meat, grains and produce from the caravansaries along the trail or from the farmers in the mountains.

After visiting this region, it appears to us that Lehi's most probable choice was to rest the family in the cool high wadis and have his older sons hunt for the game that is plentiful in the mountains. The Lehites used bows, arrows, stones and slings to hunt (1 Nephi 16:15). Dr. Hugh Nibley suggests that these methods of hunting are evidence of the historical accuracy of the Book of Mormon.

In Nephi's description of his father's eight years of wandering in the desert we have an all but foolproof test for the authenticity of the Book of Mormon. It can be shown from documents strewn down the centuries that the ways of the desert have not changed, and many first-hand documents have actually survived from Lehi's age and from the very regions in which he wandered. These inscriptions depict the same hardships and dangers as those described by Nephi, and the same reaction to them. A strong point for the Book of Mormon is the claim that Lehi's people survived only by "keeping in the more fertile parts of the wilderness" (1 Nephi 16:14), since that is actually the custom followed in those regions, though the fact has only been known to westerners for a short time. Nephi gives us a correct picture of hunting practices both as to weapons and methods used. Even the roughest aspects of desert life at its worse are faithfully and correctly depicted.⁷

Elsewhere in southwest Arabia engravings depicting hunting activities are widespread and the bow is a frequently depicted weapon. When Nephi's bow broke it caused much suffering. At this time the family must have been depending on hunted game to supplement their rationed provisions and the limited amount of food they could afford to purchase. When the hunt failed due to a broken or faulty bows (1 Nephi 16:21), they suffered⁸. However, despite the murmuring, there is no mention of starving to death, thus some food must have been available. Still, Nephi needed to construct a bow, and to do so quickly. Finding good bow wood and fabricating the bow would have become a major undertaking since, throughout the arid lands of lowland Arabia, the trees are generally short, brittle and warped. Over a century ago the notable English archer H. Walrond described the characteristics of wood needed to make a good bow.

To make a really good bow it is essential that the wood should possess certain qualities: the grain should be close, straight, and even; the line dividing the sap and wood should be clear, even and well defined, and it should be free from knots and pins.⁹

Bow wood

In order to make a bow Nephi would have needed a quality hardwood that would remain flexible when it was dead. Since most trees in Saudi Arabia are brittle and only a few hardwood species exist would thee have been any wood that would be suitable for a bow? According to Nibley the only bow wood available in all Arabia was Nab' wood¹⁰. Hilton suggested pomegranate wood as that used by Nephi for the bow, although he provides no evidence that pomegranate has ever been used to make bows¹¹. The need for an investigation into woods available to Nephi to build a bow was apparent.

We were unable to unearth any material from the British Museum or the Royal Horticultural Gardens at Kew about woods used to make bows in Arabia in 600B.C.. We switched our attention to Egyptian bows of the same date but, according to W. V. Davies, keeper of Egyptian Antiquities at the British Museum, there do not appear to be Egyptian bows extant from that period, though there are a few arrows. He kindly pointed us towards an article by Western and McLeod, who analyzed the wood used in 6 bows and 38 arrows from ancient Egypt¹². The bows ranged in age from the first intermediate period (c.2130-1938B.C.) to the ninth (c.2130-2080 B.C.) or tenth (c.2080-1970 B.C.) dynasties. Obviously caution must be taken in directly applying their findings on the ancient Egyptian bows to the Book of Mormon record since the two bows were separated, at this point in the story, by approximately 1000 miles and 1,500 years. However the flora of both Egypt and Saudi Arabia belong to the Saharo-Sindian and Sudano-Deccanian floristic regions¹³ and so direct comparisons may well be, to some degree, appropriate. A brief summary of the findings of Western and McLeod showed that of the 6 bows (2 virtually complete, and 4 fragments) four were Acacia sp., one Tamarix sp. and one Ziziphus sp. Of the 38 arrows 23 were Acacia sp., three were Buxus sp., two were *Tamarix* sp., two were *Diospyrus*, and one for each of the following; Phragmites, Fraxinus, Quercus and Pinus.

Nab' wood.

We have not been able to identify the English name for Nab'. No Arab we have asked, whether from the Gulf, Red Sea or Mediterranean regions has ever heard of Nab' wood. Examination by Arab friends of Arabic dictionaries and Encyclopædias has produced any record of Nab' wood. Since Nibley's original source is in German it may be that the name has been altered in translation. Also the name Nab' may now be archaic and no longer used by Arabs. Nab' is Arabic for 'Tooth'. The best guide for identification of Nab' wood may well be the fact that the fruits of *Ziziphus Spina-Christa* have the vernacular Arabic names 'Nabaq' and 'Nabiq'¹⁴. Unbeknownst to us our colleague Neil Holland, who was doing field research on our behalf, independently, and insightfully, came to the same conclusion. While searching the slopes of Jabal Thirban (N18°35' E42°15'), which he feels may be the Mount Azzd referred to in Nibley's text, he encountered a number of different trees one of which he described thus:

...another that appears to be similar to rose wood. This one had spines on it ($\frac{1}{2}$ " long and very thin) which were difficult to detect since they were dispersed at different positions on the branches. This made us think of Nab 'teeth'. This tree was very low and it was difficult to find a straight piece large enough for a bow. The straightest piece we could find was 2' long.

Neil Holland appears to be describing *Ziziphus nummularia*, a many-branched spiny shrub growing 1-3 meters high¹⁵. As such we will suggest that Nab' may be a member of the *Ziziphus* family. Nab' is reported to grow in only "amid the inaccessible and overhanging crags" of mount Jasim and mount Azd. Mount Jasim is on the west of the mountain range and so Nephi would not have been anywhere near that. Since the crags on which they are found are "inaccessible" Nephi would not have been able to reach the

trees anyway! The positive identification of Nab' remains a mystery but *Ziziphus* will be dealt with later.

Pomegranate (Punica granatum)

The pomegranate is a native species of south Asia, but has become naturalized in the Mediterranean regions, Iran, Israel and the Middle East. The Pomegranate was cultivated anciently (Numbers 13:23; Deuteronomy 8:8), king Solomon owning an orchard of them, and its range extended through Arabia long ago¹⁶. In areas where pomegranate is cultivated many plants have become naturalized in rocky places¹⁷. Pomegranate can reach 10-15 feet under ideal conditions but wild plants will remain a multi-stemmed shrub unless a single trunk is selected and the suckers pruned out¹⁸. Thus wild pomegranates have only small stems a not thick trunks. Pomegranate is rarely seen in the wild in Saudi Arabia and seems to be associated solely with cultivation in Saudi Arabia. Hilton noted his plants in Jeddah, a well-populated

city and Hogarth, around the turn of the 20th century, noted "some pomegranites" in the large oasis town of Tabuk, while not mentioning them anywhere else in the Hejaz¹⁹.

Acacia species.

9 species of Acacia are recorded in the western region of Arabia²⁰. Acacia species can be found on both the west and east sides of the Hijaz mountains up to 2,600 meters (8000 feet) high²¹. Acacia is common on the dry eastern slopes of the Hijaz Mountains in both Saudi Arabia and Yemen. *A. tortilis* is common in the desert areas of southern Arabia²² often providing the only protection from the sun for the traveler. The camp was often set up in the shade of this tree and the branches propped up to increase the area of shade. *A. nilotica*, found in the eastern desert of southern Arabia, can grow to a great height and become a beautiful tree, the wood of which is hard and durable. Its wood was much used in earlier times in the production of spears and arrows and lasts for a long time without splitting or cracking²³.

Tamarisk species.

A number of different species of Tamarisk occur in Arabia. The Arabs separate them into two groups the first of which they name 'Athl' (*Tamarix aphylla*), and all the *rest (T. arabica; T.aucheriana; T. macrocarpa; T. mannifera; T. pyncnocarpa and T. ramossisima*), which are little differentiated locally and all go under the same name 'Tarfa'. 'Tarfa' trees are usually small, rarely produce a real trunk and generate wood which is quickly destroyed by termites²⁴. 'Athl' (*Tamarix aphylla*) was, however, a popular wood for building because it was resistant to termite attack, a serious problem in Arabia²⁵. The Egyptian bows and arrows determined by Western and McLeod to be Tamarix sp. were resolved to definitely not be *T. aphylla*, so they were thought perhaps to be *T. niloticus*, an Egyptian species not found in southern Arabia. *Tamarix aphylla* was reported growing commonly on the Yemen Tihama²⁶ and our associate, Neil Holland, was told by Saudi locals living in the Asir, that 'Athl' (*T. aphylla*) was present in the eastern side of the Asir mountains.

Ziziphus species.

Two species of *Ziziphus* occur in Arabia. *Ziziphus spina-christa* (the Jujube), a native Arabian species, grows up to 35 feet high and is commonly cultivated for its fruit. *Z. spina-christa* has been recorded growing wild in the desert on the eastern side of the Hijaz mountains in Yemen²⁷. *Z. nummularia*, the second Arabian species, produces a wood which is tough, elastic, fibrous, and difficult to break²⁸.

Olea

The olive tree (Olea europaea) has been cultivated since the earliest times and there is evidence that it has been farmed by the Semitics since 3,000 B.C. The olive is found on both the western and eastern slopes of the mountains in the Hijaz, Asir and the Yemen. In the Asir (at 17°-18° North) olive occurs between 2,000-2,400 meters (6,500-7,800 feet). Further south (14°-15° North) olive ranges in altitude from 1,600-2,700 meters $(5,200-8,775 \text{ feet})^{29}$. The olive can reach a height of 30 feet, although it tends to be much smaller in Arabia, where it is called the 'Atim' by the Saudis. It produces strong termite proof wood which is used in building. The beams and rafters of town houses and the strong roof-supporting pillars of stone houses were made of this wood whenever possible. It is the hardest, closest grained wood of the area and according to Theophrastus wild olive wood was used to make hammers and gimlets³⁰. Olive wood made the strongest weapons and was used in Dhofar to make arrows, staffs, throwing sticks and spears³¹. Olive is not mentioned by Western and McLeod as a material for the Egyptian bows and arrows yet it seems to have been the wood of choice for weapons in southern Arabia. We do not know why olive would not have been used in Egypt, but we note that even though countries close to Egypt, (Libya, Tunisia, Algeria, Morocco, Israel) are all in the top ten world producers of olive oil Egypt does not feature in the list³². Some chilling in the winter is needed for the flowers to form³³ and so perhaps the presence of high mountains in these other countries provides the climate needed for the propagation of olive trees.

The other woods mentioned by Western and McLeod seem unlikely to have been used by Nephi. *Phragmites* is a reed and Nephi stated that he made the arrow from a straight stick. *Fraxinus* (Ash) and *Diospyrus* (Ebony) are not found in Arabia. Examples of *Quercus* (oak), *Buxus* (box) and *Pinus* (pine) can be seen in parks in Arabia, but these are all obviously introduced species.

The Wood Most Likely Used By Nephi

It would seem safe to assume that the endemic species (non-introduced) that now grow in southern Arabia were present in Nephi's time. While it is impossible to know with certainty what wood Nephi used to make his bow we may assume that he used a wild tree, since the loss of the bows seemed to lead to hardship and lack of food. This seems to imply they were not near an area of cultivation. This would probably rule out pomegranate. Since the Egyptians seem to have used the most readily available wood for bows, Acacia being used for more than half the bows and arrows, we might assume Nephi did the same thing. If this were the case then *Ziziphus* would seem the least likely choice, it is far less common than acacia, tamarisk or olive. If the bow were made below

1,000 meters then tamarisk is a possibility; up to 2,000 meters then more likely Acacia; above 2,000 meters then olive becomes more probable. Since Nephi did not leave when he made the bow (1 Nephi 16:23) like he did when he went to hunt (1 Nephi 16:32), the bow appears to have been made from wood near the family's camp. When Nephi went to hunt he followed the directions he was given on the Liahona. He tells us "I, Nephi, did go forth up into the top of the mountain..." (1 Nephi 16:30). The Hijaz is a mountain range with hundreds of peaks but Nephi seems to mention a specific one and so it may be that he was already on the slopes of the mountain If he were far away from the mountains it seems more likely he would have written, "I did go forth to the top of a mountain", or "to the top of the *mountains*". If the family were already at the base of a mountain then his terminology is correct. If this were the case and the family were already in the mountains, then olive becomes even more likely. Finally, knowing what we do about Nephi, it seems most likely that he would have made the best bow possible. After all he seems to have done his best possible in every other undertaking of his we read about. The bow he made seems to have worked well. With one arrow he was able to kill a number of animals, so it must have been accurate enough to kill small game (he couldn't have carried a number of large animals [1 Nephi 16:32]). We do not read of Nephi making another bow, so it must have been powerful enough to bring down enough big game to supply the family, and strong enough to have lasted the many more years that they would be in the desert. All of this points towards Atim (olive) as the most likely candidate.

Nephi also needed to make arrows to fit the new bow. He wrote that he made an arrow from a straight stick" (1 Nephi 16:23). Just one arrow! This seems to imply that straight wood must have been hard to find (1 Nephi 16:21). In fabricating the arrow, he could have used the feathers from any of the more than 350 different species of birds that are either resident in, or migrate over, Arabia to make the fletches. Fletches can also be made of hair or wood³⁴. Western and McLeod found that the ancient Egyptian arrows normally had fletches of 3 or 4 feathers, 6.2-7.7cm long. Three of the arrows did not have fletches. Here is a subtle reminder of the truthfulness of the Book of Mormon. Why would Joseph Smith have Nephi make an arrow, since he already had arrows for his old bow? Because his old bow was steel (probably a composite bow of wood and metal) and developed a high tension with little flexion. The wooden bow would be more elastic and would bend more than the steel one. The arrows for the steel bow would be too short to use on the new flexible wooden bow.

The tip of the arrow may have just been a sharpened point, adequate to kill or mortally wound a small animal, or perhaps Nephi had the skill to make an arrowhead out of flint. Tens of thousands of flint arrow and spear points have been found so far across Arabia, showing that this was the favored material for arrowheads for the local people from the Neolithic onwards until relatively recently. The majority of the ancient Egyptian arrows had stone heads, but 8 had wooden heads.

Prior to having received Western and McLeod's research on Egyptian bow woods we had realized that we needed to visit the western region to try and find out for ourselves what hard woods were available. This was obviously going to take up a lot of time and, since we lived about 700 miles from the area in which we thought Nephi would have made the bow, it became necessary to engage some help. Fortunately for us, we knew Neil Holland, who was living near the Frankincense trail in southwest Arabia. Besides being a retired F-15 pilot, we knew he had earned a university degree in history and had a keen interest in archaeology, desert exploring and the Book of Mormon. We asked Neil if he could explore the mountains southwest of Bishah (the place where the trail passes closest to the mountains) for a source of bow wood. We asked the right person. Not only did Neil survey numerous potential sources of bow wood, but he also provided some excellent insights into the crisis faced by Nephi and his family. Neil reported:

Nephi may have improvised a bow or may have found one further north in those days. Here is the argument: Nephi breaks his bow, make(s) out of wood a bow and an arrow and goes up into the top of the mountain to find game. The abundance of wood for bows is not implied here - notice he makes one bow and only one arrow. He makes none for his brothers since there wasn't enough bow wood available to make more than oNephi Since the family was hungry and they had not succeeded in getting game due to the weak wooden bows and Nephi's steel bow had broken, he would need to act quickly. The bow would need to be of green wood or of wood already dried and not brittle. He returns to the camp "bearing the beasts which I had slain". The game almost certainly was not an antelope. This must also suggest a small or weak bow not powerful enough to take down large game...

Let me end with our experience searching for Nab' wood on what may be Mount Azzd. On top of the mountain, we found large Juniper trees but as we descended the mountains on the bulldozed road we began to see different trees which I had not seen in the Abha/Mt. Sooda area. We stopped at one likely suspect with nice straight vertical branches. At this point we found a Saudi behind us. We greeted him and explained we were looking for "Geoos wa sahm". (Bow and Arrow Wood). This was the first Saudi I have talked to who knew what we were talking about. He said the tree we were looking at was the Dharu tree and was not good for bows - it broke when dry (we confirmed this). He said there was another three further down the mountain that was good for bows. We went lower and stopped when we spotted another variety of tree. He pointed to one and said that was very good. He called it the Atim. I had asked him about the Nab wood but he had never heard of it.

I pointed to another larger tree that looked the same and he said "no - not good". On closer investigation I found it to be identical to Atim except for the leaves which were much lighter green. The dry branches of this tree were brittle. The Atim tree has leaves the same shape as eucalyptus (2" long thin and spear shaped) and a silvery green color.35

Subsequently Neil dried the Atim wood and found that it still retained its flexibility and was very strong and springy. The problem Neil faced was that he was not able to find a straight piece of Atim long enough to make a 'self-bow' (one made from one continuous piece of wood) but when visiting an Arab cultural festival being held in al-Khobar, Saudi Arabia, he noticed an old bow on display that was made out of three pieces of wood. This type of design is know historically as a built bow. The bow had a centre piece and two end pieces joined to it. Armed with the 'new' idea for a design Neil returned to his home in Khamis Mushayt and, once the wood was dried, fabricated a bow similar to the one he had seen displayed at an Arab cultural festival. Initially his bow could shoot an arrow just over 100 feet. Neil also noted that Atim was probably a species of wild olive. Bruce Santucci followed up on Neil's work by contacting the Department of Antiquities in Riyadh. The Department indicated that there had never been a study conducted of

ancient bow woods in southwest Arabia. The oldest wooden bows they have in their collection dated back only 150 years. They noted that these bows were made from 'Athl' wood (Tamarisk). The Department suggested that we contact tribal authorities in the southwest and ask what wood they traditionally used. Neil did just that, and found that Artim wood was the wood of choice. Neil offered a second report on his findings:

I had an interesting experience yesterday (3 December 1998). I went by the local Dhafir Bin Hamsan Traditional Village to see if they knew anything about bows being used here anciently. It turns out that Dhafir represents the Asir region at the annual cultural festival in Riyadh which is held just after Ramadan. There is an area of cultural villages here that he was involved in constructing. He is actually from An Nammas which is the area you are interested in visiting (between here and Al Baha). He has built a cultural village here in Khamis which he hopes to turn into something like the church's Polynesian Cultural Center (PCC) in Hawaii.

While I was waiting for Dhafir to arrive, I met Saad Mohamad Abu Melha from Abha who was there to meet Dhafir. He suggested we share coffee and I declined. The Filipino serving us (who I had been talking to earlier) started to explain to Saad that because of my religion I did not drink coffee. Before he could finish the explanation, Saad said that I must be a Mormon. I replied in the affirmative and he explained he had been in California and knew about the Mormons and our headquarters in Utah. Just then Dhafir arrived and Saad proceeded to explain the situation to Dhafir and how that Mormons were like Muslims; no alcohol, coffee, tea, smoking, and permitted to have more one wife. I explained that more than one wife was no longer permitted. At that point the conversation switched to my bow.

I explained to Dhafir that I had made the bow from Atim. He took it from Saad and said he would test it to see if it was in fact Atim. He pulled a splinter from the bow and put it in his mouth. After chewing it for a few seconds he declared it to be Atim in fact. He agreed that Atim was used anciently for bows and that they had been replaced by the gun. He knew no examples of remaining bow artifacts. He knew of Athel wood and that it also had been used for bows but that Atim was the best. He described Atim as being the best wood in the world.

Matt Fortner told me that the Native Americans steamed the wood to straighten their bows. I tried that with the Atim since it was very hard to find straight pieces and my bow had quite a curve to it. By saturating the wood with hot steam I found it to be easy to shape. As I put pressure on it I could feel the wood reshaping. I could put all the pressure I could muster on the wood and it would simply bend and reshape itself to my demand. As a result I have straightened the bow considerably and improved it's performance about 20%. Dhafir also showed me how they used intestinal walls of animals for "string".³⁶

Making a weapon from Olive was a lengthy and exacting process. The piece of wood was first chosen and roughly shaped. Anthony G. Miller & Miranda Morris describe how these weapons were constructed anciently in southern Arabia, a process probably not unlike that which Nephi undertook:

"Then he put it in a liquid mixture of cow dung, urine and earth to soak for at least a week, after which time the bark was easily removed from the heartwood. Then the stick was carved into the final shape, hardened over a slow fire, then planed and rubbed down. Finally it was oiled and burnished at intervals with butter until it was smooth and glossy. Such sticks had a real marketable value, and were always in high demand."³⁷

The Estimated Range of the Atim Tree

Estimating the range of the Atim tree proved more difficult than we had at first assumed. Initially we had thought that merely investigating the range of the Olive in Arabia would give us a simple answer. This, we thought, was a task that could readily be accomplished in the library. However this, like many of the things associated with our studies, showed some interesting insights that only came to light once we were in the field. The Olive trees found in Arabia are of the species *Olea europaea* and *Olea africana*. The Atim tree has leaves with a silver underside which meant Atim was *O. europaea (the leaves of Olea africana* have brown undersides). *O. europaea* is itself made up of a number of subspecies that once were considered separate species in their own right. The wild plants were previously assigned to the variety sylvestris and differ from the cultivatars mainly in the spiny lower branches and small leaves and drupes³⁸. Miller & Morris wrote:

The taxonomy of *Olea europaea* is very complex and still being studied; several species once given separate specific recognition are now considered to be just variants of *Olea europaea* and new subspecies are being made to accomodate these.³⁹

O. europaea is widespread. It occurs from Medinah south in scattered localities⁴⁰, however in this, the northern part of the range, it is confined to the wetter western slopes of the Hijaz mountains above 1,500 meters⁴¹. Further south, in the Asir, *Olea* species are found in association with Juniper in 'forests' growing at an altitude of between 2,000-2,400 meters (6,500-7,800 feet).⁴²

We finally had the opportunity to visit Neil in December of 1998. We were excited to see his bow and to try to establish the current range of the Atim trees, the traditional wood used for making bows in southwest Saudi Arabia. Neil had already done much of the work for us having made previous trips to the mountains to scout out where the Atim trees could be found. He had started his search on the moist and wooded side of the mountains, the western slopes. He found very few Atims on that side of the mountains. However, to his surprise, he found groves of Atims on the eastern side of the mountains above the flats where the Frankincense trail ran. This was the very area, where we believed Lehi would have waited out the summer. He also found that the Atim grows only between the altitudes of 6,000 to 7,000 feet. As Neil set about teaching us how to identify the Atim we ran into our first problem. We quickly discovered that not all the Olive trees produced a flexible wood suitable to make a bow. Even though the trees looked similar some produced wood that simply broke when we tried to bend it. These rapidly became known as 'fool's Atim'! The only way we could think to find out which were suitable was to climb up and see which limbs bent, those were Atim, if the bough broke they were not, as the tester painfully discovered. Suffice it to say we quickly learned how to recognize the Atim from the other subspecies of Olive. Neil believes that the southern edge of the range of the Atim trees is Jabal Azzah, one hundred miles southsouthwest of the Frankincense stage center at Bishah. Neil took us into the mountains and showed us the Atim trees in a high wadi near Al-Qadim. That night we camped beneath an Atim tree. Our only neighbors in the valley seemed to be several packs of wild dogs and a large troop of Baboons.

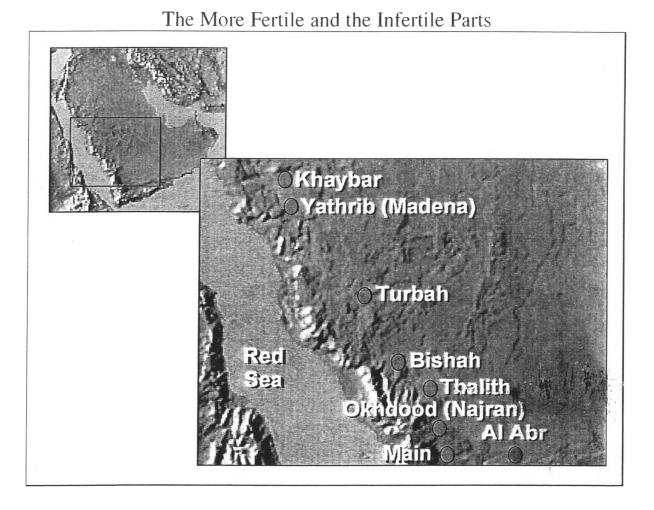
The next morning we set out to estimate the northern limits of the Atim trees. We discovered that within 15 miles south of Al-Baha, the Atim trees disappeared. This would mean that the extent of the Atim tree seemed to range only 72 miles north-south in a narrow band of slopes between 6,000 to 7,000 feet in elevation. However all but the very northernmost trees of the Atim range were far too far from the Frankincense trail. At Bishah, the Frankincense trail detoured to the south-east (rather than south-southeast) for 150 miles to pass around Mount Qarah. In other words, once the trail left Bishah it was heading away from the Atim groves. However, the most copious Atim groves we found are due west of Bishah. Add to this the fact that just northwest of Bishah runs a series of long westward valleys, the wadis Tabalah, Huran, Jamah, Runmah, Tarj and Amal, that provide a trail through the rocky foothills and into the high wadis between Al-Qadim and jabal Azzh and it seemed to us most likely that this was the approximate area where Nephi made his bow. We approximated the distance from the Frankincense trail at Bishah to the Atim groves to be about sixty-five miles, a journey of four days.

So where was the campsite of the broken bow? We will probably never know with any great certainty. Our guess is based on the need for bow wood, which leads us to the mountains west of Bishah. Our logic? It is highly probably that Lehi passed along the main Frankincense trail through the rough terrain between Turabah and Bishah. The trail passed through the rocky and barren lava fields. By the time they reached Bishah they would have been exhausted. To make matters worse, the hot season may have been upon them and they were afflicted from exposure to the sun. Lehi had no choice but to move his family into the mountains to get the weary travelers out of the extreme heat. The caravan traffic had ceased for the summer, and the commercial interests at Bishah had closed shop and left for the cooler mountains. Thus, there was no work for Lehi in Bishah, a virtual ghost town during the summer. At least in the mountains Lehi could obtain food by hunting. Lehi followed the migrant workers of the town up the wadi Tabalah to the high valleys. Tired and afflicted, the party finally reached the temperate climate of the high wadis, and knew that meat would be available from the hunt. However Nephi's bow broke and his brothers' bows were found to have lost their spring. Tired and hungry, the tolerance of the family members was at a minimum and they began to complain. Instead of joining the others in murmuring, the ever self-reliant Nephi may have discovered from the locals that a bow could be made from a branch of the Atim tree that grows on the nearby slopes, or perhaps he recognized the Olive tree from his home in Jerusalem. They may well have already been camped in the wadis that are between 5,000 and 7,000 feet elevation. Still Nephi knew from experience that the best hunting would be in the mountains tops. But where? There are numerous high peaks between 8,000 and 9,300 feet at the ends of the wadis leading from Bishah. Guided by the Liahona he went to the top of the mountain and there he found and hunted wild "beasts", providing enough meat to satisfy the family to the point where the murmuring stops, as well as enough to restock their provisions.

Nephi mentions that he went to the top of the mountain, implying it was higher than the place where he made the bow. Since the Atim is found between six and seven thousand feet he must have been higher than that. Nephi brought back beasts, plural, the animals must have been small enough for him to carry down the steep slopes. This would seem to

rule out the Ibex (Capra Ibex) which weighs 100-165 lbs. (45-75 kg.) and the Wild Goat (capra aegagrus) which weighs 57-200 lbs.(26-90 kg.). There are two likely candidates for the beasts he hunted at this altitude. The most likely is the Rock Hyrax *Procavia caapensis*, (the 'Coney' of the Bible⁴³). This small animal, 20 inches long, weighing $5\frac{1}{2}$ -10 lbs (2.5-4.6 kg) lives in colonies high in the mountains. The second, though less likely, possibility is the Sacred Baboon (*Papio hamadryas*). Troops of these animals have been seen up to 2100meters (6,825 feet) high and as far north as Taif⁴⁴. These animals are considerably larger than the Hyrax, the females weigh $17\frac{1}{2}$ -33 lbs. (8-15 kg) and the males 33-66 lbs. (8-15 kg) The Sacred Baboon is not found as high as the Hyrax and so it would seem to be less likely that these were Nephi's prey item. The terrain here is too rugged for camels. Nephi must have traveled on foot, and perhaps the other brothers were not prepared to make the kind of sacrifice a climb up these high mountains would mean. Either way Nephi seems to have returned from his hunting trip alone.

Again, we cannot conclude definitely that the camp of the broken bow was in the mountains west of Bishah. However, it seems to us that all the elements of Nephi's record can be applied to this site, and that presently the best wood that was used for bows in southwest Saudi Arabia can only be found in proximity to the Frankincense trail in this area.



The More Fertile Parts and The Camp Of The Broken Bow



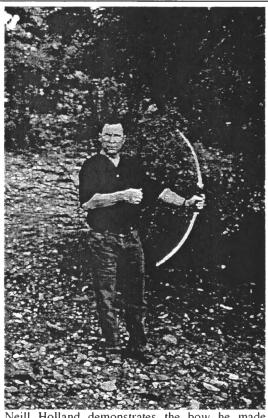
By the time the family reached Turabah the terrain had changed. Fertile rest stops were much fewer and further apart.



The road leading up into the mountains from Bishah. There are no trees until one reaches over 3.000 feet high, and then only a few stunted bushes in the bottoms of the wadis.



Wadi Tathlith leads up into the mountains from the plain below. It may have been a route like this that led the family up into the peaks where Nephi hunted.



Neill Holland demonstrates the bow he made from Attim wood (Olive) that grows above 6,000 feet up in the mountains. Attim was favored by the locals for making the best bows.

Behold the desert of Saihad is an empty desert, a wilderness where the wind blows in all directions, a country where the crows are king.

Ibn Rosta

Chapter 11

Nahom

After some 1400 miles travelling approximately south-southeast the family reached a place which, Nephi informs us, "was called Nahom" (1 Nephi 16:34). Here a great drama unfolded with the death of Ishmael and the direct intervention of the Lord to both chasten and save the travelers (1 Nephi 16:39). At this place the family were to change the direction of their journey and, from that point on, travel nearly eastwards. As we consider the plight of the family in southern Arabia the obvious question becomes "Where is Nahom? Where did they turn east?" Unfortunately we have only 7 verses of scripture to guide us (1 Nephi 16. 33-39) but these, together with evidence from other sources, make for some interesting insights.

An examination of 1st Nephi chapter 16, verses 35 and 39, provides a summary of the complaints of the daughters of Ishmael when they stopped at Nahom:

And it came to pass that the daughters of Ishmael did mourn exceedingly, because of the loss of their father, and because of their afflictions in the wilderness; and they did murmur against my father, because he had brought them out of the land of Jerusalem, saying: Our father is dead; yea, and we have wandered much in the wilderness, and we have suffered much affliction, hunger, thirst, and fatigue; and after all these sufferings we must perish in the wilderness with hunger. (1 Nephi 16:35)

The women describe that they have suffered affliction, hunger, thirst, and fatigue *prior* to reaching Nahom and that at Nahom they anticipate they "must perish in the wilderness with hunger". This implies that they are in the wilderness and not in an inhabited location, that they do not have food and that they even anticipate starving to death. We need to point out that not all share our interpretation of these verses¹.

Our argument for placing the 'Nahom' incident deep in the desert is that this is what the text informs us. The daughters of Ishmael state that they are in the "wilderness", the expression continually used in the narrative, up to this point, for the desert. In verse 39 Nephi further clarifies the positioning which the family found themselves:

And it came to pass that the Lord was with us, yea, even the voice of the Lord came and did speak many words unto them, and did chasten them exceedingly; and after they were chastened by the Lord they did turn away their anger, and did repent of their sins, insomuch that the Lord did *bless us again with food, that we did not perish*.

The text here plainly shows that the threat of starvation was a real one, it was not some imagined possible future event. These were no idle whimperings from the women, born out of grief over their father's death, theirs was a deadly accurate assessment of their predicament. This food was essential, it was this that saved them from imminent starvation. The text implies that the family was starving and it was only following their repentance that Lord blessed them with food that they "did not perish". Not only do we have Nephi's writing to tell us that the family would have died had it not been for the Lord's intervention, Lehi tells us the same thing. After having reached the promised land Lehi attempted to call Laman and Lemuel to repentance by stating:

Rebel no more against your brother, whose views have been glorious, and who hath kept the commandments from the time that we left Jerusalem; and who hath been an instrument in the hands of God, in bringing us forth into the land of promise; for were it not for him, we must have perished with hunger in the wilderness; nevertheless, ye sought to take away his life; yea he hath suffered much sorrow because of you. (2 Nephi 1:24)

This is obviously referring to Nahom since the only other time Laman and Lemuel sought to take away Nephi's life was in Bountiful, when the family were not starving, neither does the text refer to the land Bountiful as 'the wilderness'. Both texts (1 Nephi 16:35 & 2 Nephi 1:24) refer to this taking place in the 'wilderness' and therefore imply a desert location rather than an inhabited, fertile one, inasmuch as it needed the blessing of the Lord for the family to receive food.

Describing Nahom Nephi wrote that they pitched their tents in order "to tarry for a space of a time" (1 Nephi 16:33). This expression has been previously taken to imply that Nahom was fertile. As early as 1955 Reynolds and Sjodahl conjectured that the use of the phrase tarry 'for the space of a time' in Nephi's narrative meant to stop in order to grow crops. Certainly Nephi tells us that the previous two stops at Shazer (1 Nephi 16:14) and the place of the broken bow (1 Nephi 16:17) were in order to obtain food, yet at Nahom Nephi does not tell us that they stopped to obtained food. Some time after pitching camp Ishmael died so it would seem more likely that they stopped because Ishmael was sick and could no longer stand the rigors of the journey.

Since they were staying for a period of time there had to be water, Nahom had to be an isolated town or at least a well. The daughter's of Ishmael complained "and after all these sufferings we *must perish in the wilderness* with *hunger*" (1 Nephi 16:35). It would appear that it was far from a town as the women felt they would die of hunger. Again, it is important to remember that in the scriptures 'wilderness' is used interchangeably with 'desert', which in turn seems to rule out the fertile highlands of Yemen. If they were in a town they would not describe it as a wilderness and presumably there would be food that inhabitants could share with them or that they could exchange or work for. Presumably they must have been at a well. The fact that they didn't eat their camels, since they were able later to continue their journey, further indicates that they were deep in the desert and the camels were their only means of survival.

Two other indicators for their location, and thus Nahom's, might be gleaned from the text. Firstly, the daughters of Ishmael "were desirous to return again to Jerusalem" (1 Nephi 16:36). Obviously this was wishful thinking on their part, since Jerusalem was

some 1400 miles away. But it seems to imply that they thought that if they turned back they might not starve to death. In other words they knew the way back, so they must have been on a trail rather than lost in the desert, otherwise they would not have wanted to leave the water source to wander aimlessly in the desert.

Secondly, the older brothers complained that Nephi wanted to be their leader and teacher and that he wanted to "lead us away into some strange wilderness" (1 Nephi 16:38). If they were already in the wilderness what would be a 'strange' wilderness? They had essentially traveled the main frankincense trail the length of Arabia. They had described this as being in the wilderness. What could be different about this 'strange wilderness'? Alma would seem to give us some insight into the answer to this question and what happened to the family at this time. In Alma we read:

...concerning the Liahona...it did work for them according to their faith in God; therefore, if they had faith to believe that God could cause that those spindles should point the way they should go, behold it was done.

Nevertheless...They were slothful, and forgot to exercise their faith and diligence and then those marvelous works ceased, and they did not progress in their journey; Therefore, they *tarried* in the wilderness, or did not travel a direct course, and were *afflicted with hunger and thirst*, because of their transgressions. Alma 37:38,40-42

Comparing Alma's description of this occasion, when the Liahona ceased to function, with that of Nahom we find some interesting similarities, which would lead us to conclude that they are describing the same event. Firstly Alma uses the word 'tarry' to describe this time in the wilderness, the exact same word Nephi uses at Nahom. Nephi does not use the word tarry to describe their rest stop at either Shazer or the place of the broken bow. It is only used at the Valley of Lemuel, where the family were clearly not lost, nor did they suffer hunger and thirst. It would therefore seem likely that Alma is here referring to the time they "tarried" to bury Ishmael. Alma informs us that when the Liahona was not functioning they did not travel a direct course. Compare this with the statement of Ishmael's daughters describing the time prior to tarrying at Nahom "and we have wandered much in the wilderness, and we have suffered much affliction, hunger, thirst, and fatigue..."(1 Ne 16:35). Previously the family had suffered from hunger (1 Nephi 16:19) but this is the only occasion we read that they suffered from hunger and thirst, exactly the afflictions Alma describes in the incident of the dysfunctional Liahona. Again it seems most likely that the incident Alma is describing is the time leading up to the family's stop at Nahom. King Benjamin appears to allude to the same event when he teaches:

Therefore, as they were unfaithful they did not prosper nor progress on their journey, but were driven back, and incurred the displeasure of God upon them; and therefore they were smitten with famine and sore afflictions, to stir them up in remembrance of their duty. (Mosiah 1:17).²

What Alma and King Benjamin describe then is a time when the faith of the family was faltering. Note that when they stopped at Nahom Laman and Lemuel wanted to kill Lehi and Nephi. Ishmael's daughters too were in open rebellion. Their attitude seems to describe the general feeling of the camp: turn around and go home. Presumably this bad

feeling had been building for some time. It is not difficult to see why their faith was insufficient to enable the Liahona to function and so they wandered around in the wilderness. King Benjamin states that "they did not ... progress on their journey", Alma tells us that they "they did not progress in their journey". Both verses would seem to be dealing with the same event. Thus we find that this lack of progress was in the form of not traveling a direct course, and being driven back. It would appear that the family lost their way and were forced to backtrack. It was for this reason, Alma informs us, that "they *tarried* in the wilderness, or did not travel a direct course, and *were afflicted with hunger and thirst*, because of their transgressions". Their tarrying was not to plant crops in a fertile location, but rather it was when they suffered hunger and thirst because of their transgressions. The Lord led them, through the Liahona, into this predicament in order to humble them and bring about a change of heart. The word "tarry" here clearly is not associated with fertility and plenty.

Here is the possible explanation of the "strange wilderness" that Laman and Lemuel spoke of. After leaving Najran the family would encounter the first huge dune desert on their journey. Southeast of Najran is Ramlat Dahm, an arm of the Rub'al Khali. The trail skirts to the west of the dunes hugging the side of the mountains. If the Liahona had pointed for them to head east through the terrible desert of the Rub'al Khali, or Empty Quarter, the family would have undergone extreme hardship. The sand dunes are huge and the soft sand quickly drains the strength of the traveler. Dr. Hugh Nibley wrote:

After traveling a vast distance in a south-southeasterly distance, the party struck off almost due east through the worst desert of all, where they "did wade through much affliction," to emerge in a state of almost complete exhaustion...."³

It is interesting that Nephi used the word 'wade', just as wading through water or soft sand. The Rub'Al Khali has sand dunes which are at times 700 to 800 feet high. The terrain of this corner of the Rub'Al Khali, its vast emptiness, and the fact that is was not traveled by the overland incense caravans, suggest this could have been considered as passing through a "strange wilderness".

Verse 38 of 1st Nephi chapter 16 would appear to give us Laman's interpretation of what had happened. It is fascinating to view this event through Laman's eyes and to see Laman's interpretation of Nephi's motives for action. The pointers on the Liahona did not work and Laman clearly blames this on a deception on Nephi's part: "he worketh many things by his cunning arts, that he may deceive our eyes..." As the situation became desperate we can imagine that Nephi took charge (Mosiah 10:13). He had done so at the camp of the broken bow. No doubt, through his skill, the family was saved yet Laman interprets Nephi's leadership as a desire to control and impose his rule over the group: "...and after he has led us away, he has thought to make himself a king and a ruler over us, that he may do with us according to his will and pleasure." Note that Laman used the past tense "he *has thought* to make himself a king and a ruler over us" showing that this event had already taken place by the time they tarried at Nahom. The need for chastening and humility is quite obvious.

We have already established that up to this point the family appeared to be traveling more or less on the ancient frankincense trail which ran along the eastern side of the Hijaz mountain range. Nephi tells us that the family turned east at this point. If we assume that they were still using this ancient route then identifying the point(s) where the route turned east may help us determine where Nahom may have been. We will briefly look at these different routes and discuss what the family would have likely found at each of them around 600B.C..

It was in southern Arabia that the frankincense was grown and processed prior to being shipped north to Palestine, Egypt and Mesopotamia. In southern Arabia a number of routes came together and formed into one main trail that headed north⁴ (see map of trails). For Lehi, heading south into southern Arabia, after leaving Okhdood (Najran) the main trail headed south past Ma'in (also known as QRNW, Qarnaw), the capital of the Minaean kingdom, on to Marib, the Sabaean capital and then to Timna, the capital of Qataban. Here the trail continued in a generally southerly direction to Hagar an Nab and then turned east and then north to Shabwa, the capital of Hadramawt. The main trail ended south east of Shabwah at Qana, one of the major ports on the south coast of Arabia. The advantage of the main trail was the combination of easy terrain through the cultivated valleys of Saba and Qataban and the protection offered by the kingdoms through which it proceeded. The down-side to this trail was that all of these kingdoms extracted a levy from the caravans as they passed. Pliny recounts that the caravan route from southern Arabia to Gaza was enormously expensive. He reports that a camel-load of frankincense incurred 688 denarii in transport and safe-conduct money, exclusive of Roman Imperial import duties⁵. In order to cut down the length of time of the journey between these 'state capitals' and to avoid the levies that would be applied if one passed through them all, a number of 'shortcuts' or secondary trails came into existence. These traversed desert country, the Ramlat Sabatayn to the south and the Ramlat Dahm to the north, but offered more difficult going and a dearth of wells and caravansaries. At least 4 of these minor trails existed and all of them turned basically east from the main trail.

There is some scant evidence that there was an 'easterly' trail direct from Mekka to Oman in the middle ages, running north of both the Hadhramaut and Dhofar. Of this trail, and one supposedly east from Najran, Freya Stark writes:

Burkhardt mentions it as long ago abandoned, but Sprenger⁶ heard of it, and Palmgrave met two beduin who crossed from Oman to Najran by oases of wild palms, mostly uninhabited. Miles heard of a Nejdi who crossed from Najran to Abu Thabi on the Persian Gulf in fifty-six slow stages.⁷

It would appear that these trails passed far north of Dhofar, which we consider to be the land Bountiful, since Miles' Nejdis traveled to Abu Thabis (Abu Dhabi) on the Gulf coast. This probably means that Palmgrave's two bedouins crossed to northern Oman, possibly to Muscat, rather than to Dhofar in southern Oman. Since no maps we have encountered of the ancient trails shows either of these trails east from Mekkah or Najran going to Dhofar we will not include them in our discussion. Therefore it would seem that Lehi's party headed off the main trail somewhere south of Najran. Let us look at the

locations on the Frankincense trail where these easterly turns occurred and apply them to our model for Nahom.

Starting from the south the first eastward trail we encounter is from Nisab to Qana (Cana), via Habban and Mayfa'at. The easterly journey is some 150 miles to the coast. Since there is no continuation of the trail from Qana (modern Bir 'Ali) this would imply that Qana was the place Bountiful which Nephi described. Qana seems a poor candidate for Bountiful. The relatively short distance from Nisab to Qana could have been traveled in about a week which would not seem compatible with Nephi's account of the journey as found in 1 Nephi 17:1-4, where he describes the women giving birth and the family living on raw meat. Neither could the area between Nisab and Qana aptly be described as a wilderness, yet Nephi states that they traveled in the wilderness for eight years. We know that Qana was a port that provided the best protection, between Aden and Khor Rori (Moscha), from the monsoons. Frankincense from Dhofar was delivered here as well as commodities from India⁸. The harbor stands to the south of the Hadramawt mountains and is not a verdant area. As such we will dismiss this option.

To the north, the next eastward trail was from Timna. This trail led to the western side of the Hadramawt mountains and then north, via al-Bina, to Shabwa where it would have continued east into the Hadramawt and on to Dhofar. Richard LeBaron Bowen adds a route which goes straight from Timna to Shabwa across the Ramlat as Sabatayn⁹ as does Freya Stark¹⁰. Timna was the capital of the Qataban kingdom which flourished for nearly a millenium from the seventh century B.C to the second century A.D.¹¹. Timna covered almost 50 acres and was reported, by Pliny the Elder, to have contained some 65 temples¹².

If the family had reached Timna (now Kuhlan) they would have previously traveled through Marib, the Sabaean capital. Saba was well established at the time Lehi's family passed though the area. Three Assyrian texts from the 8th and 7th centuries B.C. mention "tributes" or presents from Saba¹³. Archeological evidence suggests that the Sabeans had been living in Wadi Adhana for a substantial period of time prior to the 6th century B.C. and had undertaken considerable development of the area. Evidence indicates that the land at the lower ends of the wadis adjoining Ramlat Sabatayn was being cultivated by the middle of the 2nd millenium B.C. if not earlier¹⁴. By 750 B.C. the population of Marib numbered some fifty thousand inhabitants¹⁵.

The Sabeans had long since mastered the art of dam construction and used this water to irrigate large areas of arable land. Research from the German archeological institute in the 1980's has established that artificial irrigation at Marib began as early as the middle of the third millenium B.C. whilst systematic irrigation was in progress at the end of that millenium¹⁶. This view is also held by Walter W. Müller who wrote "Examination of the sediments found in the Marib oasis has shown that irrigation in this region goes back to the third millenium B.C....^{*17}, while systematic irrigation was in place by the end of that millenium. A stone inscription in the Temple of Sirwah tells of the irrigation projects, the cultivation of crops and the work on the dam at Marib undertaken by king Karib II Watar. There is good reason to believe that this dates from around the period 685B.C.¹⁸.

The oldest portions of the great 'Arim dam at Marib, *Sadd Marib*, were constructed in the mid-seventh century B.C.¹⁹. This dam was to become one of the great wonders of the ancient world. 2,230 feet long it contained over a million cubic feet of soil faced with stones. The dam fed an oasis of some 37 square miles. Modern calculations suggest that during the rainy season between April and July, when the dam was at its height, floodwaters surged through the dam at 160,000 gallons per second, more than twice the rate of flow of the river Seine through Paris²⁰. The rains also washed down silt, some 3.2 million cubic yards each year²¹ which led to the need for constant renovations and eventually was to totally silt up the dam. Pliny informs us that "Mariaba, the capital of the Sabaeans, is situated upon a well wooded mountain"²². The richness of Marib, caused by this reservoir, has produced many legends of the splendor if its rich fields. Musaoodi observed "that a good horseman could hardly ride over the cultivated ground in this district in less than a month"²³.

By the 6th century B.C. the riches the Sabeans obtained from the frankincense trade made them the envy of their neighbors. Concerning the visit of the Queen of Sheba (Saba) to Solomon's court, Prof. Audouin writes: "Scholars seem to be unanimous in their opinion that this account tells us more about the period when the passage was actually composed (around the 6th century B.C.) than the time of king Solomon (10th century)". Thus the biblical version of events is considered to actually represent the elevated position Saba held in the 6th century B.C.²⁴.

According to the Book of Mormon record the family was starving to death. Dying of thirst can happen quickly in the desert but a person can withstand deprivation of food for a considerable time before succumbing. It would seem that the family must have been suffering from insufficient food for some time prior to this. Yet if they turned east at Timna they would be in a most fertile area where agriculture abounded.

Modern maps show that there is no well in the Ramlat Sabatayn between Timna and Shabwa. The family could not have remained there for any length of time and survived. The journey from Timna to Shabwa is about 75 miles, going via wadi Dumays to the salt workings at Ayadim Ubaylat, and then on to Shabwah and could have been covered in three to four days. It makes little sense to pitch tents and "tarry for the space of a time" in the middle of a desert with no well. Why would they stop and starve to death when they could walk just over 1 day in either direction and reach a city? We have already established that it is highly unlikely that they would have been starving here anyway. Lebaron Bowen, Jnr. is of the opinion that the trade in salt predated the frankincense trade and feels that the salt mines at Ayadim have been in use for millennia²⁵. With frequent caravans probably passing along this route, in Lehi's time, to Marib and Shabwah it seems the family would not have been alone for long and crossing Ramlat Sabatayn they would probably have been less than one day from some form of inhabitation at any point. As such we will rule this option out.

As we move still further north the next minor trail which headed to the east went from Ma'in to Shabwa. Ma'in was the capital of the Minaeans and was situated about 60 miles north of Saba. The Minaeans were based around the large river oasis known since

Islaamic times as Wadi Jawf (Gawf). This area was blessed with an abundance of excellent pastures and farmlands fed by the run off from the mountains and collected for irrigation. In Lehi's time they were still a vassal state of Saba but soon to break off that yoke. Yet the people of Ma'in were best known in their time as traders and extended their realm of influence through commerce not conquest. It would appear that rainfall was more plentiful in Wadi Jawf than today since this area is quite arid now but at the time of the Minaeans irrigation systems provided large areas of cultivation supporting a sizable population²⁶. Floodwaters were controlled with barrages and the flood-water channeled into fields. Sediment washed down from the mountains provided fertile growing conditions. Grain (barley and millet) and dates were planted there. "Thus a non-migratory population could find food, there were sufficient supplies for the caravans and wood for building"²⁷. Strabo visited the land of the Minaeans in 24 B.C. as part of the Roman invasion force of Aelius Gallus. Strabo reported that "...the Minaei have land that is fertile in palm groves and timber, and wealthy in flocks..."²⁸.

Historically Ma'in and Saba existed side by side and "Ma'in's historical period was entirely included in that of Saba"²⁹. At the time of Lehi the Minaeans were most probably a vassal state of Saba, with their own well-developed municipal structure. About a century after Lehi had passed through South Arabia the Minaeans had severed their ties with Saba and their ideal position on the Frankincense trail enabled them to enter a long period of ascendancy. They controlled the trail as far north as Dedan (Al-Ula) and Tabuk, in Saudi Arabia, and traces of their activities have turned up as far afield as Ur, in southern Iraq, and in the Negev and the Sharon coast of Palestine³⁰. For the Minaeans to have risen into ascendancy over Saba so shortly after Lehi's time we must assume that the population of Jawf was near that of Saba at that time. Doe is of the opinion that it is possible the Minaeans traded in incense alone, using caravans to transport the product to Yathrib (Medina) and then to Elath on the Gulf of Agaba³¹, exactly the same route Lehi would appear to have taken down to their lands. Doe also quotes a report from Artemidorus that the Minaeans brought their load of aromatics to Palestine³², further establishing the link between the two locations in trade and therefore in trade routes.

The trail east from wadi Jawf heads to Shabwa, traversing a pass through Ramlat Sabbatayn³³, and from there continues on approximately east to Dhofar. This trail would not appear to be an ideal candidate for the site of Nahom for the same reason as the trail east at Timna, wadi Jawf was well populated and fertile.

As we look north once more we encounter the last of the easterly trails, the first one that the family would have encountered after leaving Najran (Okhdood). 100 miles south east of Najran an easterly trail splits off to Al Abr³⁴. Between Najran and this first trail heading to the east they would have encountered a number of wells. The first well was Bi'r Khadra, about 15 miles out of Najran, the second at Al Muyayan another 30 miles further on, Sayh well was another 30 miles after that and then finally two wells came in rapid succession, Qurra about 20 miles after Sayh and Bi'r Al Mahashimah, which marked the break where the first trail headed to the east. According to Groom the next well on this eastern trail was at Mushayniqah some 60 miles across the edge of the Rub'al

Here, by a well, but somewhere between the oases of Okhdood and wadi Jawf we would propose that Ishmael died and was buried. There are now two possibilities that could fit the text. The first is that the family headed east from here and joined the eastward arm of the trail to Al 'Abr and on to Shabwah. Alternatively they may have headed south to wadi Jawf and then east from there. Note that the text does not say they turned east at Nahom. Nephi tells us:

And it came to pass that we did again take our journey in the wilderness: and we did travel nearly eastwards from that time forth. 1 Nephi 17:1

Nephi used the expression "we did again take our journey" when the family continued their journey after the camp of the broken bow (12 Nephi 16:33). This expression was used in that case after the family had made a detour off the trail and seems to have implied "we made our way back to the trail and carried on…". If this is the case for Nahom then they made their way back to the trail and continued their journey in the wilderness. This could mean that they made their way back to the main trail to Ma'in (i.e they traveled south southeast to wadi Jawf) and then they turned east from that point, taking the trail to Shabwah. Unfortunately it is not possible to be more specific than this. Either scenario places Nahom most probably somewhere in the 50 miles north of jabal al-Lawdh (N16° 10', E 45° 05') and south of wadi Khabb.

The Nahm tribe

In 1978 Dr. Ross T. Christensen published a brief article pointing out that in Yemen a community named "Nahom" existed 18 miles northeast of the modern capital San'a³⁷. In 1991 Warren and Michaela Aston produced an excellent summary of the state of knowledge regarding the history of the name³⁸. The Astons identified a map by Groom which showed a burial site on the southern edge of wadi Jawf, marked with the name Nehem³⁹. From that time the assumption seems to have been readily accepted that the site first identified by Christensen, NHM, and the place "Nahom", mentioned by Nephi were the same.

A South Arabian tribe named the NHM (variant spellings: Nehem, Nehhm, Nihm, Neham, Nahm) has existed for many years. Until recently the earliest mention of the name Nihm was by Mohammed in a letter written about 620 A.D.. The recent finding by a German archeological team, of an inscribed altar at Marib, bearing the name of 'Bi'athar...the Nihmite'⁴⁰., and dated to around the time of Lehi, seems to confirm that the Nihm tribe existed at the time Lehi would have passed through southern Arabia. The name Nehhm first appears on a map of 1763 by Niebuhr. It shows Nehhm on the eastern edge of the Hijaz range. Niebuhr described Nehhm as a 'principality' associated with the mountains. R.L. Playfair named the 15 principal provinces of Yemen, which were very nearly the same as Niebuhr's, the twelfth being Nehm⁴¹. Playfair described Nehm:

Nehm is a small district between Belåd-el-Jehåf and Håshid-wa-Bakeel; it posses a fertile mountain, on which are many villages.

The Nihm tribe inhabit a fairly large area centered about 25 miles northeast of Sana'a and extending north and east for several score miles⁴² and number somewhere between 6,000⁴³ and 24,000⁴⁴ persons. The Nahm tribe is far from insignificant today⁴⁵. The eastern portion of their lands include the western portion of wadi Jawf. North of Sana'a, in the Nihm tribal lands, is a mountain named Jabal Nihm. To the east of the Nahm tribe are another two associated tribes; the Dahm and Jahm. Philby writes:

"In this neighborhood we had crossed the well-marked camel track leading to the Safir salt mines from the Jauf settlements, which are locally known as Bilad Dahm, from the predominant resident tribethe tribe of Ibn Hadban. The long Hailan ridge, lying between the mouth of Wadi Raghwan and Marib, is similarly known as Bilad Jahm, while a third tribal area farther back in the mountains is known as Bilad Nahm- an ancient trio of laconic names going far back into the history of Hamdan"⁴⁶.

'Bilad' is Arabic for 'land or country of'. Thus the modern 'Bilad Najd' is the area surrounding Najd, or the land of Najd. Philby groups this 'trio' of names together and reaffirms their antiquity. It would seem that Dahm and Jahm may well share the same long history as Nahm. According to Philby's description these three tribes sit astride the lands that were the ancient civilizations of Saba to the south and Ma'in to the north

So why would we suggest that this part of the story did not take place either at jabal Nihm or at the wadi Jawf burial ground Nehem? Clearly it could not have taken place at both places. These places were given their names after the Nihm tribe which inhabited this area, as such anywhere within the tribal lands of Nihm would appear to qualify as "the place which was called Nahom". Yet, as we noted earlier, the present extent of the Nihm tribal lands does not extend to the trail north of wadi Jawf, so why are we are placing our location outside this area? To address this question we need to look further into the extent of the Nihm tribe.

While certainly captain Playfair described Nehm as a "small district" it should be remembered that it made up one of the 15 principle provinces or 'principalities' as Niebuhr described it. In 1870 Joseph Halevy, who was commissioned by the Paris Academie des Inscriptions et Belles Lettres to copy the ancient texts which he might find, visited the Yemen disguised as a Rabbi⁴⁷. After leaving Shira he briefly mentions that he then entered into the land of the Nihm. Halevy was accompanied on his travels by an Arab guide, Hayyim Habshush. Habshush made his own record of the journey. Chapter five of his record concerns their stay in the "Country of Nihm". He records the names of some of the towns in that country; Al Madad, Al Milh, As Sudah, Darb Al Hanashat, Berran, Musawwara, Al Kutb, Kharabat Shaihan as well as some of the geographical features. The implication here is certainly of more than just a "small district". We have only been able to identify one of these towns he mentions, as Sudah, which is some 50 miles north west of Sana'a. Since FARMS field research has shown that area of the Nihm tribe centered about 25 miles northeast of Sana'a and extended north and east for several score miles this location of as Sudah would seem to indicate that in 1870 the Nihm lands extended some 40 miles further to the west than they do today.

Later on their travels in Nihm Habshush recorded:

...near the ruined stronghold of al-Kutb, which is situated on the ascent to Kharabat Shaihan. Himyarite and Hebrew graffiti were seen there, which proves that this place was in ancient times too on the highway between the two towns called Sirwah, that of Bani Jabr and that of Arhab⁴⁸.

The Sirwah of the Arhab tribe is south of wadi Jawf (and east of Marib). Apparently another town existed by the same name in the land of the Bani Jabr tribe. Earlier in his account Habshush recounts the story of a Jew whose master was a chieftain of the Nihm tribe. He was robbed and the perpetrator fled to find refuge with the Bani Jabr tribe. Ibn Me'sar, the Nihm chief went to the country of Bani Jabr and killed the robber and his brothers. This account places the Bani Jabr in the vicinity of the Nahom tribe. So according to Habshush an ancient route led through Nihm south to Sirwah of the Arhab. The tribal lands of the Arhab sit between Ma'in, the Minaean capital and Marib, the Sabaean capital, both of which sat on the Frankincense trail south of wadi Jawf. It would certainly make more sense of the Book of Mormon Nahom story if the location were associated with the frankincense trail on the east of the mountains rather than the mountains around jabal Nihm.

Philby described a wadi which leads into the lower end of wadi Jawf, wadi Raghwan. The wadi led past the Minaean city of Yalitalum (YLT), at modern Khiribat Sa'ud. Philby noted: "It originates in the highlands of Hijaz Jad'an, the country of the Nahm tribe of which the Jad'an are a section..."⁴⁹

Wadi Raghwan originates east of jabal at Tiyal, about 26 miles east of Sana'a and so this places the Nahm tribal border in the 1930's about 25 miles south of where it is today.

The borders of the area of influence, and therefore he land of Nihm, do not appear static. There is evidence that some changes have taken place in the last century alone. We cannot know where the Nihm tribe would have exercised influence 2,500 years ago. It is our contention that NHM may well have covered a larger area in Lehi's time than it does today and that the Nihm tribe probably held a position of greater prominence. That Niebuhr referred to Nehhem as a 'principality' implies that it may well once have held a more prominent position in the past. Playfair's map showing the principalities of Yemen shows that the frankincense trail passed through the principality of Najran and then south passing the principality of Nahom to the west and then down to the principality of Bilad el Jehaf. Between the principalities of Najran and Bilad el Jehaf there is no principality covering the trail, yet if Nehm were extended to the north east into this blank area the trail would pass though it. Is it possible that Nehm once extended out to the borders of the desert and incorporated the trail? We believe this is a distinct possibility.

The land of Nahm incorporates part of wadi Jawf. Where did the ancient inhabitants of wadi Jawf, the Minaeans, originate? Kamal Salibi may provide us with the answer:

"Most probably, the people (sha'b) of Ma'in started out as pastoral nomads. Their territory, in the north and northeast, merged directly with the desert.⁵⁰"

So the inhabitants of the Minaean heartland, where their major cities of Ma'in, Karnau and Yathil were situated, may well have originally inhabited the desert north and east,

where we feel the family would have been lost and where Ishmael would have died. Some members of the Nihm tribe appear to have retained that nomadic lifestyle into the last century. In 1947 Ahmed Fakhry visited the Yemen and noted

After we left El Gof, we took the road through Wadi Hirran to Shawabeh; we turned to the right, leaving the land of the bedouins of Nahm, who live in tents, on our left.⁵¹

Wadi Hirran is on the south of wadi Jawf Fakhry placing the Nahm very close to Jabal Yam, the same location that Groom places the burial ground named *Nahom*, on his map. Habshush confirms that elsewhere in Nihm lands this was also the case⁵².

Paul Dresch studied the tribes of Yemen and he places the Nihm tribe as one of 18 tribes constituting the Bakil confederation⁵³. Concerning the genealogy of the Bakil, and therefore the Nihm, he wrote:

Arab historians, in Islam's early centuries, divided their forebears into two separate lines, the Northern Arabs (sons of Adnan) and the Southern Arabs (sons of Qahtan), and learned genealogists do not differ in considering Qahtan the father of Yemen (al-Jirafi 1951:18).

Qahtan's descendants include Saba, and Saba in turn had two sons named Himyar and Kahlan. The first of these names is associated with the southern parts of Yemen (Kay 1892:215). Most of the tribes from Sana northward are derived, by contrast, from the other branch of the genealogy: Kahlan begat Zayd and Arib; Zayd begat Malik, whose sons were Nabt and Awsalah; Awsalah began Hamdan, and from Hamdan came the two tribes which are considered the most famous and the most courageous in Yemen; Hashid and Bakil, the two sons of Jusham b. Hubran b. Nawf b. Hamdan (al-Jirafi 1951:19.) Hashid and Bakil can claim clear title to their place on the northern plateau, and it transpires that their names are indeed pre-Islamic.

So the Bakil, of which the Nihm are a part, are a tribe of the north of Yemen. Dresch continues regarding the ancestors of Hashid and Bakil:

Their more distant ancester, Saba, is identified with the biblical Sheba, and Himyar can be equated with the Homeritae of certain classical authors; both names, in fact, refer one to the succession of major states that ruled much of South Arabia before Islam and built cities in what was later to be desert at the east of Yemen. The days of Saba and Himyar is a phrase one hears often. The ruins of these civilizations and the inscriptions carved by them in stone are still to be seen, and there is scarcely a Yemeni author who does not devote part of his work to their antique glory. But, even in the highlands, the sites of what were evidently major towns are now set about with only small villages. *The golden age was over even before Islam*. The collapse of the Marib dam (Qur'an 34:16) is the mythical moment of Yemen's own collapse, when many of the famous tribes migrated, and the tribes who remain are the inheritors of a fallen world. Indeed, *the east, which was the centre of this high culture*, was ever afterwards a byword for disorder and supposed ignorance.⁵⁴

Dresch tells us here that east of the mountains, where the frankincense trail runs, was the cultural centre from which many of the tribes migrated. The aridity of the once fertile wadi Jawf shows that the same must have happened there. Quite possibly the Nehm tribe was one of the "famous tribes" that migrated, moving further into the highlands. The desert east of the mountains is now dotted with villages which once were great cities.

Referring to the final collapse of the great Marib dam the Qu'ran states: 'We have given them, instead of their two gardens, a harvest of camel thorn, tamarisk, and a few *ilb* trees'. The peoples east of the mountains extended their influence out to the desert. But nearly one thousand years after Lehi passed through the area the focus of power had shifted to the highlands⁵⁵. The finding of the 6th-7th century B.C. altar with the inscription of "Bi'athar, son of Sawad, the son of Naw'an, the Nihmite", shows not only that the tribe was in existence then but also that they could produce someone of such wealth to have the altar built. The meaning of NHM in South Arabian is "pecked masonry"⁵⁶, a technique of using chisels to produce a roughened finish on the stone, implies adequate wealth and organization to create buildings of stone block which was saved for the more grand structures. A tribe with such wealth probably had influence over a considerable area. It can also be implied that the Nihmites had interaction with the Sabaeans, another tribe of the 'east', who were the major power controlling the frankincense trade at that time, in view of the fact that the Nihmite altar was found in a temple at Marib. Since the wealth of southern Arabia came predominantly from trade it is not a huge leap to assume that Bi'athar's wealth came from the control the Nihmites had of the trade route north of Saba, which control would give the Mineaens huge wealth and independence from Saba a few generations after Lehi passed through their tribal land. With the collapse of the frankincense trade nearly a millenium later the Nihmites would appear to have moved to their present day mountain homelands abandoning their desert outposts and the ancient desert names associated with Nahom would appear to have died with them. While we now have evidence of the existence of the Nehm tribe back to Lehi's time it would be foolhardy to take locations bearing the name Nehm now, such as Jabal Nihm and the burial site Nehem, and assume that this was the sole location of the Nihm tribe in Lehi's time. The Book of Mormon text seems to imply quite the opposite.

That the influence of these ancient tribes extended over a far greater area than they do today can be attested to by the fact that the tribes gave their names to features that are many miles from their present tribal homelands. Bilad Dahm is situated between Jawf and Safir and yet Ramlat Dahm (the sands of Dahm) is found some 85 miles to the north bordering the frankincense trail between Okhdood (Najran) and the eastern arm that splits off at Bir al Mirhashimah. Ramlat Dahm ends just north of Mushayniqah well. Bilad Jahm is situated between Wadi Raghawan and Marib yet Dulq Jahim (spur of Jahim) is found over 160 miles to the east (E 47° 25'; N 16° 08'), just 10 miles east of Al-Abr, again associated with the frankincense trail. So here we see Bilad Dahm and Bilad Jahm near Jawf with their counterparts Ramlat Dahm and Dulg Jahim to the north and east associated with the desert. With Dahm, Jahm and Nahm associated with wadi Jawf and Dahm and Jahim in the desert, the question begs asking, was there also once a Nahom associated with the desert somewhere to the northeast? It is quite probable that the answer to this question is in the affirmative since the tribes of wadi Jawf, of which Nahom, Dahm and Jahm are a part, extended their influence over a far greater area in the past. Habshush informs us that the "...the war-like tribes of the Jauf ruled over large parts of Yemen before 1872."⁵⁷

Hilton reported that the name Nihm, or variants of it, were found over a quarter of the more than one hundred maps of Arabia that he examined in the Library of Congress, in

Washington D.C.⁵⁸. George found an old map of the Yemen showing the area 'Nehem' and by superimposing the coordinates for this location onto a modern map we found that the area occupied by the place-name Nehem included part of the Rub'al Khali east of Ramlat Dahm where the most direct trail to Moscha, the most likely candidate for the place Bountiful, leads off to the east.

Why would the place-names Nihm (Nahom), Dahm and Jahm be found so far north of the lands that are presently controlled by the tribes of that name? There are two probable reasons for this. First, these could been the desert areas that the nomads originally came from carrying the name of their homeland with them. A second possibility exists. and once again Kamal Salibi can help with a possible answer:

While their neighbors in the highlands to the south seem to have identified themselves in geographic terms according to the country to which they belonged (Saba', Qataban, Awsan or Hadhramut), the Minaeans thought of themselves in terms of community rather than land. Wherever they went to settle as traders, the people of Ma'in carried their tribal identity (and their tribal gods) with them.⁵⁹

The Minaean tribes carried their names with them as they expanded their influence. The Minaeans established a northerly trading center east of the Dead Sea, giving it the same name as their capital⁶⁰. (For a more extensive coverage of this Ma'in (Me'un), referred to as Ma'on in the bible see Musil⁶¹). This Me'un is mentioned in the reign of king Uzziah (779-740B.C., 2 Chron, 26:7) and Hezekiah (727-699B.C., 1 Chron, 4:39-43) and, like its southern counterpart, controlled the trade to Damascus and the great Syrian harbors. In another example, Jebal Yam, on which Aston's proposed burial site for Ishmael is situated⁶², has a desert counterpart too, in Ramlat Yam. Ramlat Yam is some 75 miles to the north of Jabal Yam, placing it just north and east of Ramlat Dahm. Once again this name is associated with the frankincense trail. So we see a second possibility namely that the Minaeans carried the names of their tribal homelands with them as they pushed their control of the frankincense trail out into the desert to the north and east. As such is it not possible that if the Dahm tribe controlled the trail area east of Jawf, and the Jahm the area to the east of that then could not the Nahm tribe may also have carried their name out to the area of the trail they controlled, the place called Nahom, to which Nephi refers? According to Alois Musil such an idea is far from outrageous. Regarding the Amalekites he wrote:

"We very often find instances of a small tribe, or indeed a clan, in Arabia with a similarly wide area of authority. For several centuries the family of Abu Ris, which encamped south and southwest of Aleppo (Haleb), controlled the great transport route leading from Aleppo though north-eastern Arabia as far as Babylon, and members of it were stationed along that route."⁶³

Research by the Italians into the prehistory of Yemen has provided evidence that there was agriculture in the highlands in the bronze age beginning about 3,000 B.C. and ending abruptly about 1,500B.C.. It has been concluded from this "Perhaps the civilization shifted eastwards and, as a result of population growth, gave rise to the early towns, principally Marib, the capital of Saba"⁶⁴. According to Walter W. Müller Yemen is unique inasmuch as "Nowhere else in the Orient does there exist such a strong,

unbroken continuity from the many names of places and tribes that have remained unchanged for almost 3,000 years"⁶⁵. Since we know the NHM name goes back far farther than that is it possible that it was at this time the tribe and the name moved from the highlands out to the east, to the edge of the desert? With the collapse of the frankincense trade nearly two millennia later the tribes would have moved back to their homelands abandoning their desert outposts and the ancient association of the name Nahom with the frankincense trail lands may have died with them.

We will conclude as we started, by pointing out that with only 7 verses of scripture to guide us (1 Nephi 16:33-39) we will probably never know exactly what took place at Nahom or where that was precisely. Like others before us we feel that the similarities between the location of the tribal lands of NHM and Lehi's "place which was called Nahom" are too numerous to be coincidental. Both are associated with the frankincense trail. Both are on the eastern side of the mountains, again showing that the family did not travel down the coast. Both are in an area where there are trails heading to the east and we feel that in Lehi's time both would have provided the same wilderness location that Nephi's text requires. The trail from Najran to Ma'in covers nearly 150 miles of desert terrain with few wells and no cultivation between the two cities. By taking the trail that ran along the edge of the Rub'al Khali an error in reading the Liahona, or a misdirection, would have led the family into affliction in the desert where their supplies would have been rapidly depleted, exactly the kind of location in which the drama at Nahom appears to have taken place.

Appendix

Nahom, Jabal Nihm and Nehem

We favor the idea that the name Nahom must have been associated with an area north and east of the present day location of the Nahom tribe because the Book of Mormon text demands it. But why are we opposed to the two sites which bear the name NHM today, couldn't one of them be the place Nahom? It has certainly been suggested in the past¹ We believe that for a place to be considered a realistic candidate for Nahom it must provide a location that fits the description, and contains the elements, described in the Book of Mormon text. In our opinion neither the mountain Jabal Nehm in the present day mountainous Nihm tribal lands, nor the Nehem burial ground on Jabal Yam seem to do that.

So let us present our problems trying to associate the campsite at Nahom with wadi Jawf. First Nephi tells us that they turned east at Nahom. Here they were starving. Yet the proposed burial site at wadi Jawf was only 15 miles from the capital city of Ma'in (QRNW), and some 8 miles from the city of Nesca (NSQ). How could the family be starving to death in a fertile oasis wadi which supported a population of tens of thousands and whose capital city Ma'in, meaning 'spring-water', was only a few hours walk away? Admittedly these towns were not to reach their zenith until many hundreds of years after Lehi's time but settlements undoubtedly existed in wadi Jawf in 600 B.C., and probably not inconsiderable in size. Are we to assume that the family was so lacking in initiative that they could not buy or gather some food or, if they had no funds, work for their meal? One cannot argue that they could not communicate with the local people because the Southerners used a Semitic tongue, known as Himyaritic or Sabaean, which was related to Hebrew and modern Arabic. Some of the Hebrew Old Testament names are Arabic, e.g. those of almost all of Esau's sons (Gen. 36:10-14; 1 Chron. 1:35-37) and at the time of Mohammed most of the fertile tracts of land were cultivated by Jews¹¹, indicating that some continuity of language existed between Arabia and Palestineⁱⁱⁱ

This brings us to the second problem of both the Jabal Nihm and Wadi Jawf Nehem burial ground theories. Both are close to mountains that were undoubtedly excellent hunting lands in Lehi's time. Previously Nephi had met with great success hunting in the mountains at Shazer and when the bow broke. Here the family would been camped below the mountains Jabal at Tiyal at 11,520 feet and Jabal Sara 10,500 feet. Today, even with the encroachment of man, almost all of the larger carnivores in Arabia (Leopard, Striped Hyena, Arabian Wolf, Caracal, Wild Cat) are found in the western

¹ Aston, 25.

ⁱⁱ Hitti, 40.

ⁱⁱⁱ A.F.L. Beeston noted in the appendix entitled 'On the inscriptions discovered by Mr. Philby' "a small group from near Dhahran in Hebrew". Philby, 441.

mountains^{iv} indicating the presence of ample game there, even today. In Lehi's time the highlands of Yemen would have abounded with game. By this stage in the journey the men were accomplished hunters so starving in the mountains seems completely contrary to what is known about the area in antiquity.

The burial grounds of Nahom theory raises other questions. Previously when they hunted in the mountains the men went alone. At Shazer they left their family behind, and when Nephi made a bow he went alone. There were good reasons for this. Mountains are not suitable terrain for camels and hunting was the domain of the men. Yet at Nahom Nephi described the family as being together, a condition that would not appear likely if they were starving and in the mountains.

Third, Wadi Jawf could hardly be described as a 'wilderness' in any sense of the word. It was one of the most fertile areas of Arabia, and perhaps one of the wealthiest lands of its time. Indeed the relatively small area of Southern Arabia historically supported half the population of the whole Peninsula. There is evidence that the climate was wetter in southern Arabia in Nephi's time than it is now^v. Harold McClure wrote "The conclusion is inescapable, therefore, that for the better part of the history of man, the Arabian Peninsula, including present desert areas, was inhabited by substantial human populations."^{vi}

What Alma describes then is a time when the faith of the family is faltering. Note that when they stopped at Nahom Laman and Lemuel wanted to kill Lehi and Nephi. Ishmael's daughters too were in open rebellion. Their attitude seems to describe the general feeling of the camp: turn around and go home. Yet here is an interesting point. If they were in Wadi Jawf, where the Minaean's ten walled cities thrived^{vii}, why didn't they turn around? They would only be a few miles from the trail and towns, yet they stayed there. Once again the text would not seem to support the idea that they are in wadi Jawf. Alternatively if they had become lost in the desert how could they know how far it was to return to the last well when they had wandered lost for so long? Perhaps they had previously been told it was only 60 miles away, a little over two days journey, yet how could they know for sure when they had wandered so far? So instead of action they wisely chose to complain and stay put.

^{iv} J. Gasperetti, D.L. Harrison & W. Büttiker. *Fauna of Saudi Arabia*, Vol. 7 (Basle, Switzerland: Pro Entomologia, c/o Natural History Museum, 1985), 397.

^v Michael Rice, *The Archeology of the Arabian Gulf* (New York: Routledge, 1994), 76; Nigel Groom (2), 218

^{vi} Harold A. McClure, *The Arabian Peninsula and Prehistoric Populations* (Miami, FL: Field research Projects, 1971),5.

^{vii} Thomas J. Abercombie, Arabia's Frankincense Trail, National Geographic, Vol 168, No. 4, National Geographic Society, October 1985, 496.

Fourth, the Minaeans were idolatrous^{viii}. In the first Millennium B.C. we read inscriptions to the god Attar. At the end of the sixth century B.C. an inscription mentions the tribal god Ilmaqa. On the Greek island of Delos two Minaeans erected an altar to their native god Wadd^{ix}. It has been suggested that Ishmael's body was transported to Nahom in order to bury his body in the cemetery there. Why would the family go to the effort of transporting the dead body of Ishmael all the way to a hill burial site in wadi Jawf only to leave him in a pagan cemetery? And why this burial ground, since there must have been many others in the well-populated area covered by the principality of Nahom?

In fact we cannot overlook the fact that 'Nahom' is related to the Hebrew verb 'Naham' meaning 'to console oneself'. The assumption is always made that NHM and Nahom are synonymous but it is certainly possible that they are not the same. It is even possible that Nahom was a Jewish colony and totally unrelated to NHM. This would explain why Ishmael was taken there for burial. Kamal Salibi noted the plethora of Bible names in Arabia, what appeared to him to be hundreds of place names concentrated in the Asir, between Taif and northern Yemen^x. This led him to the rather surprising theory that these were actually Bible lands! Perhaps more realistically it may be that the Jews took many of their names with them as they migrated south. The name would seem appropriate for the Jews to choose after finding themselves outcast in southern Arabia, so far from their homeland. The Lord later threatened the gentiles:

And I will sell you sons and your daughters into the hands of the children of Judah, and they shall sell them to the Sabeans, to a people far off... (Joel 3:8).

The Jewish tradition is of colonies formed on their arrival. One such was the city on jabal Nuqūm, which overlooks the city of Sana'a. The tradition says that the early settlers built a stronghold and appointed themselves a king and developed into a prosperous kingdom^{xi}. The site is now only ruins. The Jewish community in Yemen was later decimated by persecutions, expulsions, and oppressive edicts. Imam al-Hadi issued an injunction in the year 890 A.D. to purge the land of all Jews^{xii}, many preferring martyrdom rather than conversion to Islam. The Christians in Yemen were totally eradicated but some of the Jews survived. This might have accounted for the disappearance of the name. However this is all supposition and it is far more attractive to the L.D.S. community to adhere to the NHM is Nahom position.

^{viii} "The religion of South Arabia was in essence a planetary astral system in which the cult of the moon god prevailed. The moon, known in Hadramawt as Sin, to the Minaeans as Wadd (love or lover, father), to the Sabaeans as Almaqah (the health-giving god?) and to the Qatabanians as 'Amm (paternal uncle), stood at the head of the pantheon." Hitti, 60.

^{ix} Müller (2), 2.

^x Kamal Salibi (2), Secrets of the Bible People (New York: Interlink Books, 1988), 21.

^{xi} Ahroni, 26.

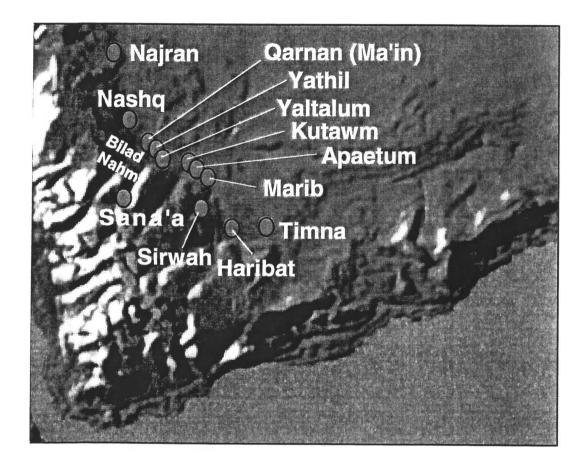
Fifth, Nephi states that they reached Nahom by traveling south-southeast. To reach jabal Nihm traveling in this direction would have taken them through the heart of the Asir mountains. There was no ancient route through the mountains running in this direction. Also the camel was not an animal of the mountains, the camel trails often took large detours to avoid them. We can see little obvious reason for making such a large detour to the west, into the mountains to reach jabal Nihm.

Sixth, Wadi Jawf also makes little sense as the location for the story. To make it fit the story must be distorted almost beyond recognition. 'Tarrying' must be interpreted to mean planting crops, yet this area was inhabited at that time. The arable land was produced and maintained through irrigation. Did they build their own dam, or did some Minaean just hand over his land and let his family starve so that Lehi could plant crops? The implication is that there was a wealth of spare fertile land to plant. This was not the case. The land was rendered arable by the works and projects of the inhabitants. Lehi would have had neither the resources nor the permission to tamper with them. Once again the story must be distorted to fit the name. "We must perish in the wilderness with hunger", which sounds like 'starving' to us, must now mean "we don't like it here amidst all this fertility and abundance".

Finally, one has to ask how the family could have been lost in wadi Jawf. Not only was it populated but also travel by camel was confined to within the wadi by the mountains to the north and south. The family was supposedly wandering lost in a limited area without running into any of the numerous inhabitants or seeing any of the towns, villages or farms. To have reached the burial ground identified with the name NHM the family would have had to travel up the entire length of the wadi, which is only 25 miles wide, past what would become the ten walled cities of the Minaeans without realizing they were not lost! A most unlikely scenario.

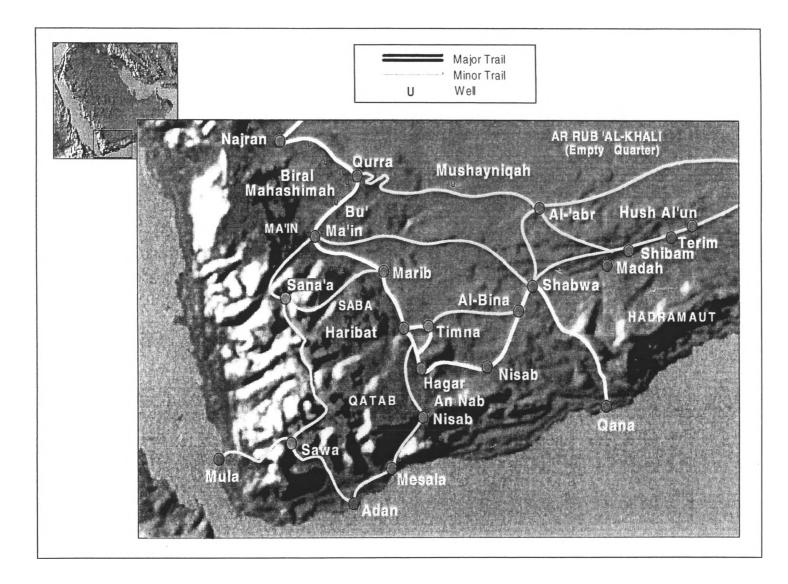
It seems to us that we must apply the same criteria to Nahom as we have to all the locations we are proposing in this study; namely it must be in harmony with the Book of Mormon record and what we know of the historical records of that time, it must be a location that makes sense. As such we feel that we should not pin everything on a specific, present day name but rather look at the general area that the name NHM most likely applied to over two and a half thousand years ago. When we do that we see a picture that is not only in harmony with the Book of Mormon but also more inspiring and instructional.

Hegemonies of Ancient Yemen

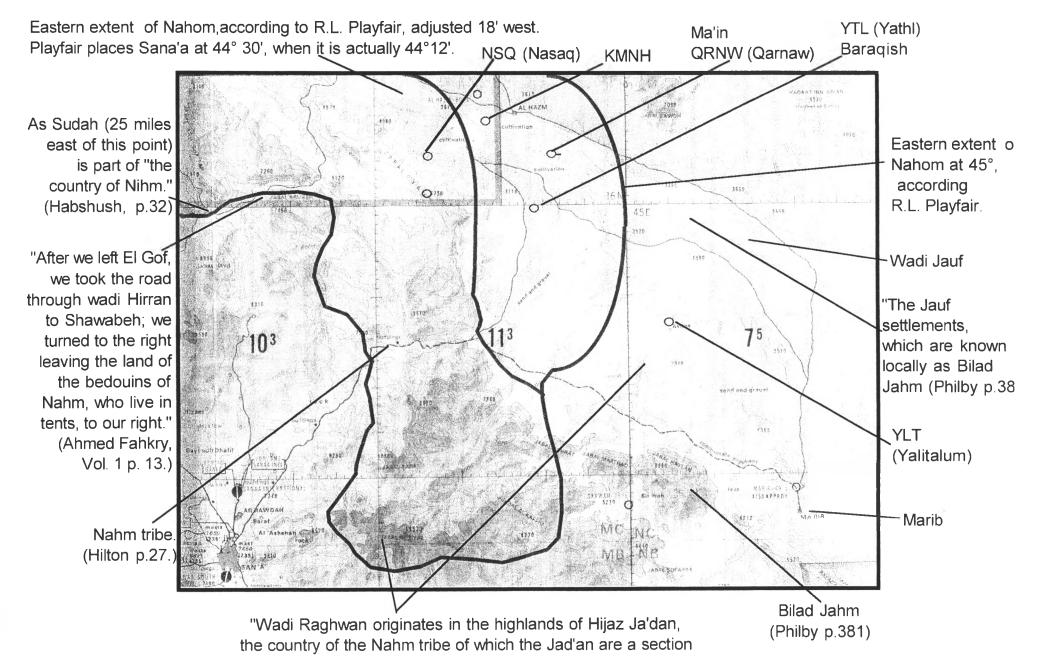


Power city-states dominated the affairs the Yemen. In Lehi's time, the mountain regions of the Yemen were considered a fertile, wealthy and civilized land. The populated areas would not have been considered a wilderness in that day in any definition of the word.

Major Trail in Ancient Yemen



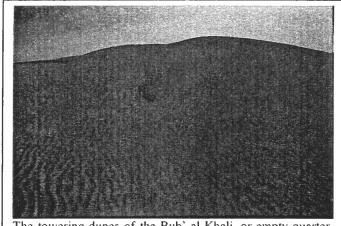
The Extent Of Nhm In 19th And 20th Century Literature



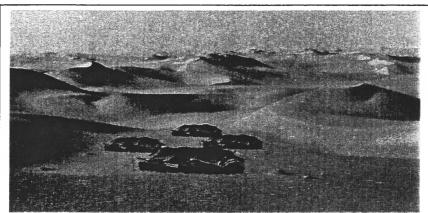
Nahom



The trail leading south from Najran to Nahom. The edge of the Rub' al Khali extends right down to the trail here.



The towering dunes of the Rub' al Khali, or empty quarter, sap the strength of the traveler who faces the full force of the sun.



Near Nahom the trail runs east along the edge of the Rub' al Khali, or Empty Quarter. Losing one's way here would lead one into the largest sand dune desert in the world. A computer graphic (Tim Sedor) of what the camp at Nahom may have looked like.

And then the shoots of the aihuqan arose And the antelopes and the ostriches have given birth on the valley sides.

-From the Qasidah of Labid ibn Rabiah 600 A.D.

Chapter 12

The Trail East

Thus far we have followed the family's journey down the length of Arabia to what is nowadays called Yemen. From here the family was to change direction and "travel nearly eastward from that time forth" (1 Ne. 17:1) until they reached the "Land Bountiful", which we believe to be the frankincense growing area of modern Dhofar, in Oman. At the beginning of their journey Lehi led the group but there appears to have been a transition in leadership until, by the time the family was traveling east, it was Nephi who was the leader. Lehi's position as leader of the group seems to have altered following the incident of the broken bow (1 Nephi 16:18). In that incident Nephi was the only one who did not murmur (1 Nephi 16:20) and through his building a bow he was able to provide for the family. The Lord's acceptance of Nephi was manifest in the directions given him to find a successful location to hunt (1 Nephi 16:29) enabling him to save them from starvation and in so doing become a 'savior' to them. The point of this incident, that Laman and Lemuel seemed to miss, was not that Nephi built a bow and arrow but rather that the Lord accepted him to hold the position of leadership through showing him where he could find game. The Near Eastern symbolism of a bow would not have gone unnoticed to Nephi as he recounts this story¹. A bow was anciently representative of political power and personal strength. Following this incident, at Nahom, when Laman and Lemuel wished to wrestle back control of the group, they sought to kill both Nephi & Lehi, the implication being that they were perceived to be coauthors of the brother's affliction. Nephi & Lehi, each one the head of the family in a different way? When in Bountiful it was Nephi who was commanded by the Lord to build the boat not Lehi, and it was Nephi that Laman and Lemuel attempted to kill (1 Nephi 17:48). When crossing the ocean to the Promised Land the brothers bound Nephi (1 Nephi 18:11), the captain in charge of the ship. The Liahona stopped working because Nephi was bound, Lehi was free to act, albeit bound by the frailties of old age. It seems that the incident of the broken bow was the catalyst for Nephi's rise to leadership, and this happened because of his greater faithfulness. In the Book of Mosiah we can read about the traditions of the Lamanites. We are told that they believed...

...that they were driven out of the land of Jerusalem because of the iniquities of their fathers, and that they were wronged in the wilderness by their brethren, and they were also wronged while crossing the sea;

And again, that they were wronged in the land of their first inheritance, after they had crossed the sea, and all this because that Nephi was more faithful in keeping the commandments of the Lordtherefore he was favored of the Lord, for the Lord heard his prayers and answered them, and he took the lead of their journey in the wilderness. (Mosiah 10:12,13)

The Lamanites believed that Nephi had wronged them in the wilderness, on the ship and in the land of promise. He obviously took command of the group while they were still in the Old World.

So, with Nephi at the head, the party moved off from Nahom and turned to the east (1 Nephi 17:1). As we pointed out previously, we do not know exactly where they turned east but whether it was on the edge of the desert north-east of wadi Jawf or whether it was around wadi Jawf itself, in either case the journey from there to Bountiful was "nearly eastward". From wadi Jawf to Khor Rori, the location that we will later present as our proposed Bountiful site, is 7° off east, and from the split in the trail north-east of wadi Jawf to Khor Rori, is 3° off east. Either of these would seem to fit Nephi's description of traveling "nearly eastward" from Nahom to Bountiful (1 Nephi 17:1).

We have so far argued that to travel in Arabia one had to use existing trails. According to Remy Audouin the existence of a trail depended on a number of important factors.

The caravan trails depended as much on the political situation and trade connections as on the geography of the area. In order to make one's way from the main centres of production (which were in eastern Yemen), one had to avoid the mountains as far as possible and, at the same time, find enough water and food for men and beasts.²

The first question to address then is 'was there a trail that existed which Lehi could have taken from Nahom to Bountiful'? While, as latter-day Saints, we know the answer must be yes, this should not deter us from trying to find evidence that such a route existed and that the political situation of the time allowed travel along it. The southern coast of Arabia is made up of a range of mountains that runs all the way to Dhofar. It would not be possible travel through these, except where passes existed. To the north of the mountains lay the huge uncharted wastes of the Rub'al Khali. Between these two insurmountable barriers was there water, fodder for the animals and a political structure which would enable them to travel without let or hindrance?

As we explained in the previous chapter the main trail led through the frankincense kingdom of Saba and on to Shabwa. From thence a trail ran to Dhofar. A second, more northern, trail existed which led from Najran to Shabwa and there joined the trail leading to Dhofar. Freya Stark wrote of the northern trail from Najran to Al Abr and Shabwa:

"This northern road is a shortcut to the Minean lands. It still exists and is used by caravans between Hadhramaut and Yemen whenever there is a condition of comparative tranquility along that wild border. I was in the Hadhramaut at such a time, and met one of these caravans coming by way of 'Abr and Shabwa. The following itinerary³ for this route was written down by the grandfather of the present 'Attas Sayyids of Huraidha in Wadi 'Amd, and I copied it from his MSS. In Huraidha he collected the names from a beduin, and I give it for what it may be worth. No European has been along this way.⁴

It is only very recently that information about the trail east to Dhofar has come to light. When Freya Stark wrote this in 1936 she wrote "practically nothing is known about the country though which this northerly route travels..."⁵. This route between Najran and Shabwah, running just south of the Rub'al Khali, must have been in use in Himyaritic times (early Christian era) since Philby noted Himyaritic water signs at Mushainiqa. This route was presumably more difficult than the main trail since Hamilton noted that only lightly loaded camels take this northern route from Najran to Al Abr⁶. Freya Stark was of the opinion that this route was not as heavily used as the main trail.

Both the main route and the northern 'short cut' appear to have converged at Shabwa where they again split. The main route from Shabwa went south to the port of Cana (B'ir Ali), while the second went on east to Dhofar. As we stated earlier, the text of the Book of Mormon seems to suggest that the family did not travel deep into the south of Yemen but turned east either at the northern trail or on the eastern trail from wadi Jawf, which eventually reached Shabwa. Until recently it was believed that there was only limited travel eastward in the route Nephi appears to suggest they traveled. It seems unlikely that the family took the southern route to the coast at Cana since the first time they describe seeing the sea (1 Nephi 17:5) is when they reach Bountiful. The southern route meets the sea over 400 miles to the west of Dhofar. A road along the coast of Dhofar is mentioned by Ibn Mujawir⁷ but it is doubtful that a coast route led to Dhofar from Cana. Regarding the port of Moscha Freya Stark wrote:

...the journey was probably mostly done by sea: Ibn Batuta (I. 194) merely says that it took a month to go to Aden 'over desert' which suggests an inland way. The coast seems to have been difficult and full of obstacles (as anyone who now looks at it from the sea can well imagine)...Ships probably touched at Moscha (Dhufar), Syagrus (Ras Fartak), and Cana, and left a wild country in between, much as now, or as when Ibn Batuta, speaking of Dhufar, mentions it as 'a city in a desert' with no villages near.⁸

Groom contended that it was improbable that anything more than a trickle of Frankincense traveled overland from Dhofar to Shabwah. He believed that the majority of the trade was carried by ship from Dhofar to Cana, a port on the south coast of Yemen. He put forward the argument that large caravans could not have traveled overland because of the lack of water and as proof of this points out the paucity of archeological sites in Dhofar and the absence of a site where caravans could have assembled before leaving Dhofar⁹. As long ago as 1936 Freya Stark wrote:

The contact between the two incense-bearing regions of east (Dhofar) and west (Hadramaut) must have been intimate and prolonged; the routes by which it was maintained may come to light when the inland country between the wadi Masila and the Qara is explored.¹⁰

Fortunately for us the overland, easterly route to Dhofar did, in fact, come to light within the same time frame that we were writing this book. With the discovery of the ruins that Zarins, Fiennes, Clapp et al referred to as 'Ubar' in 1991, the position held by Groom, that the overland route from Khor Rori would have only carried a trickle of frankincense, would now also seem to be untenable. The ruins of 'Ubar' are found at the village of Shisur in northwest Oman. At this point we need to define what we mean by the name 'Ubar' since many of the quotes from the early 1990's use this name. Classical texts and the Arab historical sources refer to Ubar as a region and a group of people, not a specific town. Ptolomy's second century map of the area has an area marked "Iobaritae" ('Iobarites' or 'Ubarites') but no town of that name. It was only the late Medieval version of *The One Thousand and One Nights*, in the fourteenth or fifteenth century, that romanticized 'Ubar' and turned it into a city, rather than a region or a people.

The research of Dr. Juris Zarins of Southwest Missouri State University, of the ruins at Shisur indictaed that this site probably gave rise to the 'Ubar' myth. Study of Shsur and other archeological sites has begun to shed light on Shisur and the incense trail it serviced. If Ubar was not a city then which city on Ptolemy's map was Shisur? Zarins wrote:

Based on its location within the area of the Iobaritae tribal territory, we believe it is the town of Marimatha. Our excavations have shown that Shisur was a key trading center that linked Dhofar to eastern Arabia and early Mesopotamian civilizations. It was very possibly one of the cities that gave birth to the Ubar myth.¹¹

Since the exact ancient name of this archeological site is not known with any certainty we have chosen to continue to use the name 'Ubar', since it is the name the people of the town of Shisur themselves have given to the site.

Ubar was a large city, 110 miles (180Km) to the northwest of the ancient capital harbor of Dhofar, which was situated at Khor Rori (Moscha). A permanent spring at Ubar had attracted people since Neolithic times (ca. 5,000-2,500 B.C.), and a fortress first built during the Bronze Age (2,500-1,300 B.C.) was in use until A.D. 1500¹². According to myth Ubar was established by Noah's great great grandson 'Ad¹³, the first patriarch of the people of 'Ad. Ubar 'old town' was built around 900B.C. or earlier, which dates it "among the oldest, if not *the* oldest, of Arabia's trading caravansaries"¹⁴. Peter Vine wrote of Ubar:

From its position it is clear that this would have been a major staging post on the sand trails with the north-bound parties stopping there to replenish their water supplies before heading across the sands to the Liwa to intersect with other groups from Yemen and northwards, via Marib and Mecca and along the Red Sea Tihama.¹⁵

Pliny the Elder, in the first century A.D., reported that the frankincense region could be found by traveling a route from Shabwa, an ancient city in Arabia Felix that still exists, that was marked at stages by eight small fortresses or rest stations. Zarin's research has also provided information on the Frankincense trail which led from Yemen, along the southern fringe of the Rub'al Khali, to Dhofar. As well as the remains of the ancient fort at Shisur Zarins found a 'sister city', with an identical architectural style, at Ain Humran¹⁶. The sites at Shisur and Ain Humran in southern Oman, where Ptolemy said the "people of Ubar" lived, would seem to mark the eastern end of the trail. Zarins found similar forts at Gaydah al Kabir and Minar, which would seem to be intermediate

fortresses. Pottery from Minar dated the fort to the heyday of the frankincense trade, 200 B.C. to about A.D. 300. Regarding these finds John Wilford wrote:

Between the forts and elsewhere in the region, the archeologists discovered more than 30 triliths. These lines of standing stones, three to a group and about three to five feet high, had previously been recognized as identifiable features of the trade routes. Studying the pattern of triliths on their course, Mr. Hedges¹⁷ said, the expedition confirmed that these are indeed route markers and that they probably convey distances, locations of water and directions..."It immediately proved our thesis that there was a land route..." reported Dr. Zarins¹⁸

That Ubar became a hub for trade because of its water supply and because of its position on the Frankincense trail where a route to branched off to Mesopotamia is not in doubt. The only question is 'Was the Dhofar branch of the Frankincense trail in existence in Lehi's time and could he have used it to safely traverse the barren hinterland of southern Arabia?'

To answer this question we feel it is best to simply examine the evidence. According to archeologist Juris Zarins¹⁹, pottery finds in Ubar date back to 2800 B.C. and iron age pottery finds show that the city was thriving 400 years before Lehi would have been there. Ubar was a caravanserai of huge proportions and, according to Sir Ranulph Fiennes "More than 2,000 camels and 500 people would have been there at any time."²⁰ Juris Zarins reported that his team had identified some 40 ancient camp-sites where "the caravans would have grouped and waited to enter Ubar.²¹"

The position of other settlements found indicates that a trail existed on the southern edge of the Rub'al Khali, which served a frankincense trade, which had been in existence, and based in Dhofar, since before the time of Joseph of Egypt. This trade used both a shipping route and an overland trail, both headquartered in Dhofar, to send the incense north across the Rub'al Khali to Babylon or west to the Yemen and from there north to Egypt. The overland trail probably had ancient origins since flint arrowheads are found all along the southern edge of the Rub'al Khali, from Shisur in the east, as far as Najran, a major town on the Frankincense trail. This would seem to indicate that this entire area of the southern edge of the Rub'al Khali was inhabited anciently. It may well be that the knowledge of the positions of the wells on the southern trail was passed down from a time when the whole area was more fertile and game was hunted all along what is now the southern edge of the desert. As the area became arid this knowledge allowed travel from well to well to continue across what would appear to be impassable desert.

At the time of Lehi the main place where frankincense grew naturally was Salalah. Ubar (Shisur) received its frankincense from the groves in the Dhofar mountains, and since Ubar was thriving even before Lehi's time it seems obvious that an enormous infrastructure existed in the Salalah area to supply these huge demands for frankincense. Herodotus in the 5th century B.C. recorded that $2^{1}/_{2}$ tons of frankincense were burnt annually in the temple of Bel Al Babylon²². This was obviously only a tiny fraction of the total produce of the area at that time. Vast amounts were also used in Egypt, Mesopotamia and Greece. An estimated 3,000 tons of frankincense was sent to Greece and Rome each year at the peak of the incense trade in the second century A.D²³. Huge

caravans must have left regularly from Dhofar carrying frankincense to Ubar, and thence to Mesopotamia and the Mediterranean, and still more was taken onboard ships to Yemen. Al-Madani, the historian writing in the sixth century A.D., wrote of Ubar's uncounted wealth. When Lehi arrived in Dhofar the port at Khor Rori stood at the head of a vast thriving trade network.

In Lehi's time Ubar may have been more fertile than it is today and there may have been a sprawling oasis running to the east of the halt²⁴. The geographer Yaqut ibn 'Abdallah (died 1229) compiled a 'Mujam al-Buldam', or 'Dictionary of Lands.' Yaqut was a slave who travelled the Persian Gulf on business for his master. Eventually his enlightened master, a Baghdad merchant, gave him time off to compile his observations into his masterwork. Yaqut has a section on the "City of Wabar" or Ubar, the information for which he probably picked up on business in Oman. His work has been much ridiculed by western scholars since it includes a substantial section on nisnases, a mythical beast half man, half monkey. However his description of Ubar is interesting: "Wabar is a vast piece of land, about 300 fersakh (37½ miles) wide... The land of Wabar was very much fertile and very rich with water. It was full of trees and fruits. There is a big well called the Well of Wabar."²⁵

We have no written records of passage across the southern Frankincense trail in 600B.C. other than that of Nephi himself. Yet obviously a trail existed then since the Biblical record tells us that frankincense, from Dhofar, was being transported along it in Nephi's time, in sizeable quantities. His record shows that it could be done, and the evidence shows that his record was not a work of fiction dreamed up in upstate New York but a description of travel on a route, only just beginning to come to light.²⁶

The first three verses of 1 Nephi chapter 17 give us some information about this eastward part of their journey. This last leg of the journey would have been the toughest yet. The terrain there is flat and treeless with no shade from the heat of the sun. Nephi informs us: "And we did travel and wade through much affliction in the wilderness" (v.1). S. Kent Brown has suggested that the family had to spend a period of time in servitude during their travel east, which involved conflict and suffering²⁷. Certainly their journey would not appear to have been direct. The statement: "Our women did bear children in the wilderness"(v.1) would certainly seem to imply that they did not travel directly to Bountiful. The journey from Yemen to the frankincense growing regions of Dhofar, which we believe to be the land Bountiful, could have been made in a little over a month. More likely they seem to have made stops on the way. One reason was obviously to stop for the women to give birth. But this still does not account for taking 8 years to make a journey from Palestine to Oman that could be accomplished in a little about 4 months by camel caravan²⁸. It is possible that if the family were low on resources they had to work to pay for safe passage, supplies etc. Perhaps the entrepreneur Lehi even undertook some business endeavor here. With the addition of children they would need more supplies and therefore probably more camels to carry them. We will later argue that the family needed finances to build the boat and they were not in Bountiful long enough to build up too much cash. Unfortunately the purpose of the Small Plates was not to provide all the details of the trip and so we are left to extrapolate, until the time when all will be revealed to us. Sufficient to say they traveled east and the party increased in size.

A major part of the family diet would appear to have been meat. Upon this protein rich diet the women apparently thrived, "While we did live upon raw meat in the wilderness, our women did give plenty of suck for their children, and were strong, yea even like unto the men..." (v.2). This may have been the meat of animals they took with them, perhaps an old or lame camel, or perhaps they hunted animals on their way. The three explorers who crossed the Empty Quarter without the aid of desert vehicles, Thomas, Philby, and Thesiger reported seeing plenty of Oryx on the edges of the Empty Quarter²⁹. Philby was a naturalist who carefully reported observations of a few small birds, several hares and jerboas, the tracks of foxes, hyenas, and the fragments of a complete ostrich shell³⁰. The Arabian Oryx, a large Gazelle, used to inhabit the deserts of Arabia extensively and the Ostrich (Struthio camelus syriacus) was also a resident of the Rub'al Khali, the last birds there having been exterminated by c.1900A.D.³¹. Both of these animals, though, are extremely wary and exceptionally fast runners. Although Thesiger found plenty of oryx, he was never successful, even with his modern rifles to shoot one³². Nephi would have to have been a very accomplished hunter to have killed them. All of those years of practice hunting on their journey thus far may well have held him in good stead at this time. It was one thing to hunt wild beast in the tops of the mountains, yet a quite different matter to shoot one with a wooden bow and arrow on an open plain. While we do not know what the range of the Arabian fauna was in Lehi's time we can get an idea of what other animals would have been available to hunt by looking at the animals that inhabit this southern edge of the Rub'al Khali nowadays. These include the Sand Gazelle (Gazella subgutturosa); Saudi Gazelle (Gazella saudiya); and Common Gazelle (Gazella gazella). The bedouins use hunting dogs called Silouqis to catch these fast animals. The silouqi is the oldest known breed of dog, their pictures having been found in ancient Egypt. Historically, trained Cheetahs (Acinonyx jubatus) were also used to hunt the gazelles. The last Cheetah was reported in Arabia in 1977^{33} . The range of the Wild Goat (*Capra* aegagrus) and Arabian Urial (Ovis vignei) may also have extended this far south in earlier times. Nephi must have been both a very skilled and blessed hunter to have constantly supplied meat for the family. That Nephi reminds us "And if it so be that the children of men keep the commandments of God he doth nourish them" (v.3) would seem to imply that Nephi felt the hand of divine intervention present in providing them with food. Perhaps great prowess or success in hunting was a sign of that. Of course skilled bowmanship would have been a distinct advantage for self defense from both humans and animals, lions inhabiting this area until quite recently. Jonathon Kingdon wrote:

Southern Arabs that met the traveler Doughty in the 1880's told him that lions still occurred in a province of Yemen but their extinction is likely have been about this time as there are no more recent reports.³⁴

Nephi notes that the meat was eaten raw. The Lord instructed the family not to make much fire (v. 12). Nibley studied the accounts of the early explorers of the Arabian sands, Philby, Thomas, Palgrave and others and concluded that the family did not have fires because of fear of being raided on by unfriendly Bedu tribes³⁵. The tradition of mounting raiding parties seems to have been a common one anciently and not just

confined to modern explorers. The classical writers lumped these southern tribes together under the collective name "Scenitae" and regarding them Pliny the Elder tells us "A singular thing too, one half of these almost innumerable tribes live by the pursuits of commerce, the other half by rapine..."³⁶. Robbery was not just confined to wandering bands of brigands but was a way of life amongst the desert tribes, any of whom could potentially have posed a threat to the travelers. Philip Hitti noted:

The ghazw (razzia), otherwise considered a form of brigandage, is raised by the economic and social conditions of desert life to the rank of a national institution. It lies at the base of the economic structure of Bedouin pastoral society. In the desert land, where the fighting mood is a chronic mental condition, raiding is one of the few manly occupations.³⁷

Fear of attack would certainly have been a good reason to avoid making fires, which can be seen for a great distance in the desert. There are times when we have been camping in Arabia and, looking out at night, the lights of numerous fires can be seen, varying from intense fires only a few miles away to the tell tale dim glow on the horizon of some distant camp. These fires can be seen from such a great distance away such that in the light of morning, even using a powerful telescope, it is often impossible to detect any presence of humans from the direction of the light. The light travels so far in the clear desert air that it would have been possible to pinpoint the whereabouts on the trail of the family from upwards of 30 miles away.

Lehi travelled east around 590B.C.. The caravan trade east across the southern edge of the Rub' al Khali had been taking place for probably thousands of years prior to that. But the Frankincense trade was to reach its zenith some three hundred years later. The series of forts that Zarins found extended along this route to protect caravans, but these were not built until around 350B.C.³⁸. Thus in this earlier stage of the development of the trail Lehi would have found little protection on this part of the journey. Dr. Abdullah Saud al Saud noted that early on in the development of the trail tribal raiding of the caravans was not uncommon.

In the early stages of their existence camel caravans were threatened along the routes by nomadic tribes who constantly attacked them. However, with an increase in caravan numbers and the value of the trade, the tribes changed their tactics and determined a regular toll system. The toll system enabled the caravans to pass through their territory safely.³⁹

We do not know what the system of operation of the trail was in Lehi's time, whether it was a fledgling organisation offering little control or protection, or a well organised operation offering safekeeping for its users. Yet even when the tribute system was in operation changes in economic circumstances could lead to its collapse and a return to the old system of raiding parties. According to Nicolas Clapp large armed caravans left Ubar every few weeks transporting goods east to Yemen⁴⁰. Pictographs from Dhofar apparently show bandits attacking an incense caravan⁴¹ and so the need for the protection of arms is apparent. This brigandage was not merely for sport however. In a land barely capable of supporting people any decline in circumstances could rapidly lead to death. In this situation turning to raiding provided the food and goods needed to enable a family to survive the inclement time. Thus the strong survived at the expense of the weak. This

was an obviously successful means of controlling the number of mouths which needed feeding and keeping the population to the level which the land could realistically sustain over long periods of time. The wealth of the frankincense trade spilt over to the desert tribes enabling them to increase in number. If there was a reverse in trade the land could no longer support this population and the tribes became, once again, prone to robbery. Kamal Salibi summarized the situation thus:

The caravan trade of Arabia - which ultimately depended on the sea trade - brought profit not only to the towns and regions of the Arabian peripheries, but also, indirectly, to the pastoral tribes of the central desert. These tribes were paid to secure the safety of the caravan routes, and also derived revenue from the necessary services they provided (escort, pack animals and provisions) to the caravans passing through their territory. Hence, when circumstances in the outside world permitted the Arabian sea and land trade to flourish, the Arabian Bedouins received their share of the resulting prosperity, and were therefore content to stay in the desert. Moreover, their prosperous sedentary neighbours, organized as dynastic or oligarchic states, were able to control them by purchasing their good will with generous subsidies, and also by maintaining adequate military forces to deter them from raiding. When, for any reason, the fortunes of Arabian trade declined, the economy of the pastoral desert as well as that of the sedentary areas around it suffered a reverse. To the sedentary areas, the outcome was catastrophic. The established states in these areas, as they became impoverished, lost the financial and military means for controlling the desert Bedouins. These Bedouins, as they also became impoverished, turned more and more to raiding. 42

This seems to have been the situation at the time when the family was traveling east. The Middle East had been in turmoil for nearly twenty years. The grand alliances of Babylon and the Medes had been enjoined in battle with Assyria and Egyptians for over 15 years prior to Zedekiah's rise to the throne. The balance of power had shifted from the Assyrians to the Babylonians just over 10 years prior to Lehi's departure. Virtually no nation in the area was unaffected by the machinations of the players in this power struggle. It would not appear possible that trade between these nations and those of southern Arabia would not have been adversely affected by these changes in the status quo.

It was now a number of years since king Zedekiah had assumed the throne in 597 B.C.. Lehi would appear to have left shortly after that. This would probably place the family traveling through the wilderness for the eight years from 597-589 B.C.. This was a time of particular turbulence in the Middle East. The Jews in exile in Babylon had frequent contact with those remaining behind in their homeland. Thus news spread quickly between the two groups. It was in this way that news of an insurrection in Babylon reached Jerusalem in 595 B.C., raising hopes for Jewish deliverance⁴³. Shortly afterwards the Egyptian Pharoah, Necho, died and his son, Psammetichus II, replaced him. Psammetichus II was known as a warrior prince and his ascendancy to the throne led Jerusalem and the surrounding states to reexamine their allegiance to Babylon. In 594 B.C. ambassadors from Edom, Moab, Ammon, Tyre and Sidon visited the court of king Zedekiah with the intention of inducing him to swap his allegiance to Egypt⁴⁴. Jeremiah's warning against the alliance against Nebuchadnezzar rang out to all who had sent their emissaries to plot against him (see Jeremiah 27:6-8). Nebuchadnezzar no doubt received word of this meeting and that same year undertook two campaigns in Palestine

to reaffirm Babylonian dominion in the area. Egyptian aspirations were not dampened by this show of strength and in 590 B.C. we read of an Egyptian campaign in Palestine⁴⁵.

The collapse of Assyrian control and this muscle flexing by the two superpowers must have disrupted the frankincense trade, which would have ultimately led to decline in the ability of the southern states to buy off the Bedouin tribesmen. Approximately a century later, when the Babylonian Empire fell, we read that the effect of a change in power and its effect on the frankincense trade was just that:

When the Arabian caravan trade was disrupted by the breakdown of the Babylonian order in North Arabia, a rapid economic decline in Saba' naturally followed. Side by side with the economic decline went a political disintegration, probably enhanced by tribal incursions from the desert into the Sabaean territory.⁴⁶

The same thing was to happen when the frankincense trade was to finally collapse around the 4th century A.D.. Dr. Abdullah Saud al Saud places one of the reasons for this breakdown as "the weakening of the Roman power, which led to insecurity along the incense route to the Mediterranean Sea."⁴⁷

Whether trade had declined because of the many preceding years of turmoil in those countries that were the principle markets for the produce of Southern Arabia or whether the unrest and conflicts that were taking place specifically at the time that Lehi's family were crossing Southern Arabia led to a brief time of insecurity on the trail we do not know. Suffice it to say the Book of Mormon describes that the family were advised by the Lord to use no fires (1 Nephi 17:12) at the exact time in history when travelers on the trade route from Yemen to Dhofar (i.e. Nahom to Bountiful) could have been subject to raids from the local Bedouin tribesmen. This portion of the story again provides an internal evidence of the truthfulness of the Book of Mormon. Why would Joseph Smith note that the family did not make much fire on this part of the journey?

The need to avoid the Bedouin raiders was imperative. The inhabitants of the area around Bountiful, known as the people of 'Ad, were known to be barbarous in their treatment of their enemies. The historian al-Tabari wrote of the "inhuman brutality" of the people of 'Ad, in which they "indulged without remorse, and with unmitigated ferocity"⁴⁸. The poets seeking a yardstick by which to measure cruelty wrote: "of ill omen, eviler than Ahmar of 'Ad"⁴⁹. The prophet Mohammed spoke concerning the reasons for the destruction of the 'Adites; "Arrogant and unjust are the men of 'Ad"⁵⁰. The tradition of using the southern route for raiding is noted by Freya Stark:

Even now the south of these sands are traversed. Mr. Thomas (Bertram) found "never a man in my escort who had not raided into Hadramaut": the Se'ar and others used a way along the edge of the southern desert for their raids...⁵¹

Her assessment of the reason why the more northerly land route to Dhofar was not used as much as the southern arm is insightful.

...but the fact that, in spite of being shorter, it does not seem to have interfered with the supremacy of the main Incense Road south of it points either to a want of security or to

desert conditions (or probably to both) which would make it less than satisfactory than the longer way. $^{\rm 52}$

Lack of security and desert conditions would appear to be exactly what Nephi describes to us. The need for forts along the southern trail, such as was found at Shisr with its 30 foot high towers⁵³, indicates that this raiding was a way of life that continued for many years after Lehi passed through this area.

Even if they wanted to make fires there is precious little wood available on the southern edge of the Rub'al Khali. Taylor wrote of Bertram Thomas:

..fields of flint and rubble now stretched to the horizon on all sides. "Not a vestige of vegetation," Thomas noted tersely - the only movement was the occasional whirling 'sand-devils', spinning columns of sand, which brought refreshing gusts of wind in their train. For the next two days they plodded steadily on across the hard, sandy floor toward Shir'r (Shisur) and the promise of water.

Thus, eating raw meat was not for lack of 'spark', for flint is found throughout much of Arabia. We have found flint in a number of locations in southern Arabia, as did Philby⁵⁵. When an occasional tree is found the dominant species in the desert area of Dhofar is the Acacia (*Acacia tortilis*), indeed the Dhofari Arabic name for this tree is 'sayereh', which means simply 'the tree'. This tree provided the only shade for travelers and fodder for camels and held a position amongst the tribes of almost mystical and supernatural character. According to Miller and Morris:

In the desert areas where trees are scarce, it was formerly forbidden amongst tribes to damage or cut this tree in any way whatsoever...⁵⁶

If such a tradition were in place in 600 B.C. the Lord may have been protecting Lehi's family, who would probably have been unaware of this custom, from breaching local etiquette and laws.

It is not until Nephi reached Bountiful that he mentions the lack of fire on the trail. Bountiful, with its plentiful wood, stood in stark contrast to the southern portion of the trail. Fire played an important part in the lives of the hill people of Dhofar anciently. In the summer monsoon season, when the trees are in leaf, and following the monsoon, in the season known in Jebali as the 'serb', biting insects become a pest. It was in 'serb' that we feel the family most probably arrived since they referred to the land as 'Bountiful' and bearing fruits. To counter these pests fires of fig wood, the smoke from which drove away the insects, were lit around the encampments. The fires around Bountiful must have made quite a spectacle. Miranda and Morris noted:

However, it (*Premna resinosa*) was particularly appreciated in earlier times for its property of giving out an extremely bright, clear light that illuminated large expanses of the countryside at night, lighting up encampments and cave interiors with a white and brilliant radiance...Older Dhofaris remember earlier times when during the season following the monsoon [Jibbali:*serb*] the majority of the herders from the mountains encircling the Salalah plain would come down to the plains with their herds in order to exploit the brief growing season of the short, sweet grasses that formerly grew in this area

[Jibbali:*jerbib*]. They remember in particular the long nights, when the back of the plain was illuminated by line upon line of fires, most of which were burning this wood (for the shrub once grew in great profusion in the area). ⁵⁷

Presumably this tradition of grazing in the *serb* season stretched back to ancient times, cattle having been present in the Dhofar area many thousands of years before Lehi arrived⁵⁸, and this was probably the modus operandum in Lehi's time. The site of countless fires along the mountains must have greatly impressed Nephi as the family moved through the mountains and onto the plain. The visual impact must not have gone unnoticed by Nephi, who later noted that in the desert the family were forbidden to make fires for the Lord was the light to the family (1 Nephi 17:13), yet in contrast in Bountiful the many lights were plentiful but it was the light of pagan gods and men.

We do not know that exact route that the family would have taken but it would seem that they passed through the relatively narrow corridor between the Rub'al Khali to the north and the mountains of Southern Arabia to the south. The gravel plain that ran between these two great barriers provided excellent footing for camels even if the terrain was forbidding to humans. Along this corridor there are a number of wells that would have provided water for caravan stops and perhaps even sustained small communities. As the family neared Bountiful they would have reached one such community at Fasad. Finding these small oases, dotted along the trail like small islands in the sea of sand, was no small feat of navigation and the Liahona doubtless helped guide them across this flat land. 'Fasad' in Arabic means 'decadence' or 'corruption'. Its name may be a throw back to the heady days of the incense trade when the people of the south developed great wealth.

One Arabian poet mused over what it might have been like "had I been a man of the race of 'Ad and of Iram" (Fasad sits at the western edge of the land of the 'Adites, who peopled the area of Bountiful at the time Lehi would have arrived there):

Roast flesh, the glow of fiery wine, To speed on camel fleet and sure... White women statue-like that trail Rich robes of price with golden hem, Wealth, easy lot, not dread of ill...⁵⁹

Legend has it that the people of 'Ad were destroyed rapidly. According to the Koran this punishment was meted out as a divine retribution for their pride. The people of Iram, led by their worldly king Shadad, were destroyed because of their refusal to heed the message of the prophet Hud.

We might ask the question: Who was Hud (pronounced 'Hood'). Nicholas Clapp's answer to this question is enlightening.

And "Hud" comes from the root HWD: "to be Jewish". This linkage is clearly reflected in the Arabic of the Koran, where "Hud" is not just the name of a prophet but as a collective noun denoting the Jews.

Was Hud Jewish?

He could well have been...It is no stretch of the imagination to believe that a Jewish trader or even a rabbi could have made his way to Ubar and preached the religion of a single $God.^{60}$ (italics added)

Of all the amazing tales associated with the story of Hud it seems that the idea of his traveling from Jerusalem to Dhofar is considered the most believable part!

At the oasis of Shisr (Ubar) the trail turned to the south to cross the mountains and enter 'Bountiful'. Legends apparently had developed to discourage visitors to the frankincense growing areas. The Roman historian Pliny the Elder (23-79 A.D.) relates tales of flying serpents and stories of deadly vapors arising from the punctured trees. Not surprisingly, Pliny tells us that "no Latin writer so far as I know has described the appearance of this tree." Yet it seems that our travelers were allowed to venture into the heart of the frankincense growing areas.

While making this part of the journey Nephi mentions that they received great blessings (1 Nephi 17:1). As mentioned earlier one of these blessings may well have been the ability to catch the elusive animals of the desert to provide meat for the family. Another would have been mere survival in an inhospitable land. Philby entered the Empty Quarter and Taylor noted:

Here and there on their route away from Shanna, they found small splashes of green andab grass, quickly disposed of by the hungry camels. The bedu explained to Philby that the andab grass was always the first to spring into life after a shower of rain, followed closely by the abal. The abal will survive the drought longest, they said; by observing the state of the various plants, they were able to say more or less accurately when the last rains had fallen. But as they made their way further into the desert, even the hardiest plants vanished from the landscape. They passed the horns of a doe Oryx, lying on the ground where she had apparently died of hunger.⁶¹

Not only did the family need meat for themselves but also fodder for the camels the entire way along the trail. The need to find camel fodder was the primary concern of the explorers who crossed the Empty Quarter on camels. Taylor, writing of Philby's journey, records the comments of one of his guides:

Salim admitted that he had never traveled so long without food for his camels. "Without fresh fodder, they become thirsty, and when they are very thirsty, they cannot eat until they drink. They could last five days, perhaps six, without food, but that would be their limit. After that, they would just sit down and die, "he said in a matter-of-fact tone. He did not need to add that, if the camels lay down and died, the men who accompanied them would not be far behind them.⁶²

Whether God provided Lehi's camels with fodder in this most barren part of the trail either by bringing on rains, or whether the fodder was provided by tribes that controlled the caravanserais along the trail we do not know. All we know is that Nephi was undoubtedly extremely grateful that they were able to find a reliable food source for the camels.

We started this chapter by quoting from Remi Audouin.

The caravan trails depended as much on the political situation and trade connections as on the geography of the area. In order to make one's way from the main centres of production (which were in eastern Yemen), one had to avoid the mountains as far as possible and, at the same time, find enough water and food for men and beasts.

As we have considered the journey east to Bountiful once again it is no surprise to find the Book of Mormon record stands in perfect accord with the historical record, much of which has only recently come to light and none of which was available to Joseph Smith when he translated the record. Indeed the weight of modern

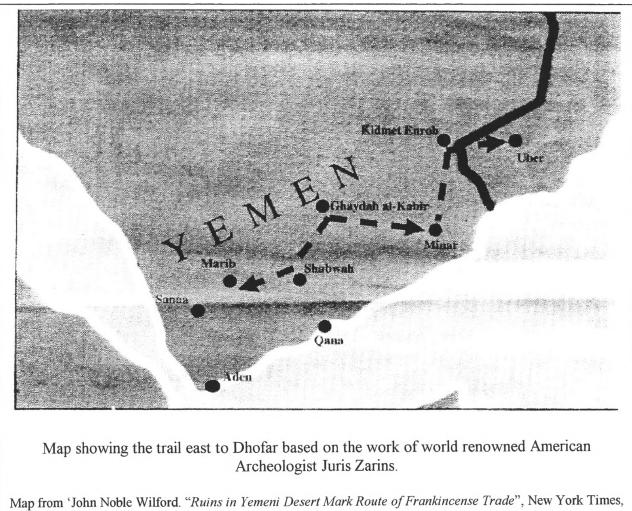
research is beginning to prove that the journey across the desert to Bountiful, far from being impossible, may well have been a regular occurrence. The journey described in the Book of Mormon, from Nahom to Bountiful, albeit a brief description, fits not only the geography of the region but also the political climate of the time. The journey described is the same as if one took the only overland route to Dhofar available at the time of Lehi, avoiding the mountains, providing water and food, and avoiding the marauding local Bedouin tribes.

Concerning the possibility of Jews traveling along the trail to Ubar, and thence to Dhofar Clapp wrote:

It wouldn't have been at all unusual for a wandering Jew to visit Ubar, or even for a faction of the People of 'Ad to have subscribed to Jewish beliefs. Historically, there were several opportunities for Judaism to have penetrated Arabia. As early as the time of Solomon (950 B.C.), Jewish envoys and traders may have travelled the Incense Road. And in one tradition, following their exile to Babylon (587 and 538 B.C.), a contingent of Jews migrated to Dhofar (and Ubar?) and thence to southwestern Yemen, where they quietly survive to this day in the valley of the Wadi Habban.⁶³

And so, as the family turned to slowly climb through the Qara mountains which separated the desert from the sea, their eight year journey through the wilderness was about to come to an end and they were about to enter a land, the like of which they had never seen before.

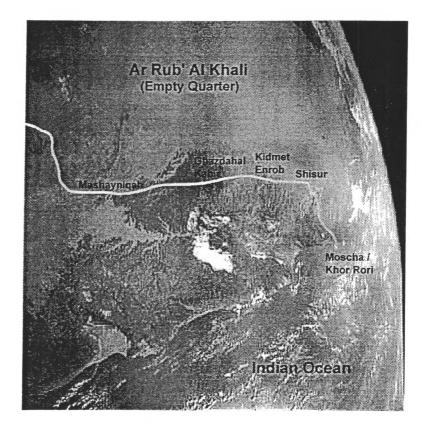
The Trail East.



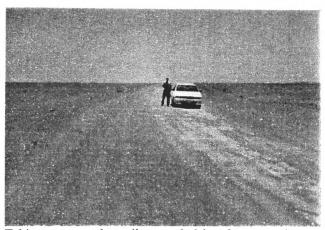
Tuesday, January 28, 1997.'

The Frankincense Trail From Mashyniqah To Moscha

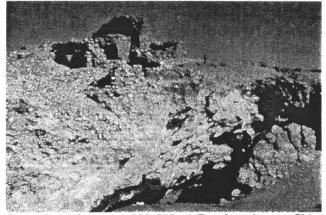
(Nahom To Bountiful)



The Trail East



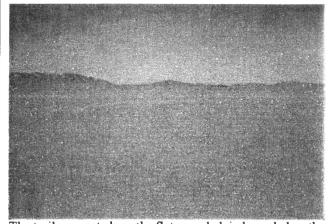
Taking a rest on the trail east, admiring the scenery!



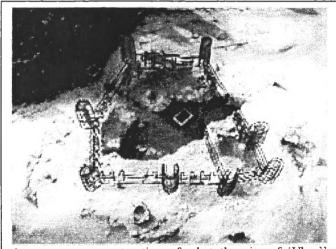
Somewhere between 300-500 A.D. the city at Shisr collapsed into the ground.



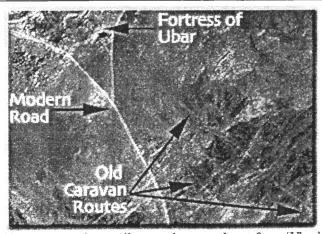
The familiar dark crescent shape of the Qamar mountains are the bottom right. The trail ran on the narrow plain, the yellow area, between the Rub' al Khali, the orange color to the north, and the mountains, the grayer color leading in form the coast.



The trail ran east along the flat gravel plain bounded on the north by sand dunes and mountains to the south.. The halt of Fasad merely a dot amongst the dunes on the horizon.



A computer reconstruction of what the city of 'Ubar'' would have looked like.



Numerous ancient trails spread out southeast from 'Ubar' to the frankincense groves of the 'Adites.

Chapter 13

The Land Bountiful

The family's journey east across southern Arabia took them through ancient lands. According to the Bible southern Arabia was populated almost immediately after the flood by the 13 sons of Joktan (Gen. 10:26-30). Joktan, the son of Shem and grandson of Noah, occupied the southwest corner of Arabia and his sons spread out from there. The name 'Hadramaut' appears in Genesis as 'Hazamaveth' (Gen. 10:26), the land Lehi and the family passed just north of on their journey to Bountiful. Joktan's sons spread east as far as "Sephar¹, a mount of the east" (Gen. 10:30). It is this land of Sephar², known today as Dhofar to which the family would now turn.

The frankincense trail that the family took from Midian to Nahom was doubtless not a single well-defined road but rather a number of trails that ran more or less parallel to each other converging at the caravanserais. The situation was probably similar as they made their way eastwards. There were probably a number of thin trails marked out by countless camel caravans that had made the journey before them running along the flat plain between the sand dunes to the north and the mountains to the south. When they reached Ubar there were a number of trails that spread out from there to various frankincense growing areas on the inland side of the Qara mountains. Ubar's dominant position on the Frankincense trail was guaranteed by its water, which drew all travelers to it. Nicholas Clapp informs us:

"And at least 6 old caravan tracks came up from the incense groves and converged on the site. None bypassed Shisur; with its reliable water source, it was a necessary stop for any and all caravans passing through. Whoever controlled Shisur – and its water - could control the incense trade as the caravans headed out across the Rub 'al-Khali."³

In Lehi's time Ubar would have been a meeting place for both east and west. The family reached Ubar via the route that led east from southwest Arabia but a second trail led to Ubar across the Rub' al Khali from Mesopotamia. In 1221 Ibn Mujawir, a merchant of Baghdad, recorded the final abandonment of this old Baghdad trade route, as the trail slowly disappeared under the massive dunes⁴.

As the family turned south from Ubar they would have passed near the groves of frankincense trees that were responsible for blessing the people of Dhofar with such wealth. To be allowed to travel into this area was no mean feat since the merchants were usually kept away, the source of the sacred frankincense being kept a secret by the 'Adites. Presumably the fact that the family now had many small children with them made convincing the local inhabitants that they were immigrants wishing to find a new home a relatively simple task. Now the family began to climb the desolate inland side of the Qara mountains. Nephi tells us:

And we did sojourn for the space of many years, yea, even eight years in the wilderness. And we did come to the land which we called Bountiful, because of its much fruit and also wild honey; and all these things were prepared of the Lord that we might not perish. And we beheld the sea, which we called Irreantum, which, being interpreted is many waters. (1 Nephi 17:4,5.)

As Lehi and his fellow travelers reached the crest of the mountains overlooking the coast we can only guess how they must have felt when they gazed for the first time upon the vast emerald waters of the Indian Ocean-*Irreantum*. Below them the plain stretched out to the white sandy beaches where they could see the thin while lines of breakers tumbling onto the shore. There may well have been huge groves of coconut palms near the beach, as there are now, which would have been visible, even at this distance, some twelve miles from the sea.

As they descended the pass leading down the mountains they would have been met with a vision of the tree-lined slopes, quite the opposite of what they had seen as they ascended the dry inland side of the mountains. Acacia, Wild Cherry, Olives, Sycamore fig and Baobab flourished watered by the annual monsoon rains. After the rains, the hills are a wash of green and waterfalls cascade from the limestone cliffs. Still further down the slopes frankincense plantations abound.

In contrast to the desolate silence of the Empty Quarter now the sweet song of birds echoed through the cool mountain air. Cinnamon-breasted Buntings called to each other from the treetops. African Paradise flycatchers sat lazily on the overhanging branches before darting after insects scared not flight by the party as they made their way down the well beaten trail.

In Nephi's typically understated style he tells us how they felt after 8 years in the desert as they arrived at the white sandy shore of this fertile land:

And it came to pass that we did pitch our tents by the seashore; and notwithstanding we had suffered much afflictions and much difficulty, yea, even so much that we cannot write them all, we were exceedingly rejoiced when we came to the seashore; and we called the place Bountiful, because of its much fruit. (1 Nephi 17:6.)

An objection to their camp on the seashore at Bountiful being on the area Salalah plain is that it is modern irrigation techniques that account for the 'greenness' of the area. Mr. and Mrs. Theodore Bent traveled southern Arabia in 1894 and described Dhofar. It is apparent from their description that the Salalah plain was apparently naturally greener in the 19th century than it is now.

The plain of Dhofar, along which we were now coasting, is quite an abnormal feature in the arid coast. *It is the only fertile stretch between Aden and Muscat*. It is formed of alluvial soil washed down from the Gara mountains; there is abundance of water very near the surface, and frequent streams make their way down to the sea, so that it is green.⁵

The foothills of Dhofar, known as the haskik, bear little resemblance today compared with a comparatively short time ago. The haskik was formerly heavily wooded but has

been overexploited through deforestation⁶, much of this extensive destruction of vegetation having occurred in living memory⁷.

Richard L. Bowen, Jnr, gives us a similar description of the Arabian coast to that of the Bents.

Most of the coast is barren and sterile; seaports and fishing villages are scattered at wide intervals along the coast. Only for short distances on the Arabian coast are trees seen in any number and then usually in irrigated oases...Between Hadramaut and Ras al-Hadd in Oman the entire (southern) seacoast is barren and sparsely settled...Here is found the ancient frankincense-bearing Dhufar plain; the whole libaniferous area does not cover more than fifty miles, and is an extremely abnormal feature of the coast-and of Arabia for that matter.⁸

A search for alternative fertile areas of the southern coast of Arabia shows that there are really no other potential candidates at the present time.

A note of caution must be added here. There is some evidence to suggest that the climate of Arabia may have been somewhat different in Nephi's time. A "moist" period between about 800 B.C. and 200 A.D. is mentioned by Michael Rice⁹ and Nigel Groom writes of a wet period from about 700 B.C. to 250 B.C.¹⁰. This period of increased rainfall may have been part of the cooler and wetter climate that Neev and Emery suggested would have covered the whole northern Hemisphere during the period 600 B.C.¹¹. If the southern coast of Arabia were wetter in Nephi's time it may have been that there were other areas on the south Arabian coast other than Dhofar that would have been more fertile, that might also have fitted Nephi's description for Bountiful. However the wetter period that affected Arabia does not seem to have reached the southern coast, where the record of the ancient rainfall patterns is recorded in the caves of southern Oman. The greater the rainfall, the larger the stalagmites in the caves. Using this information Samir Hanna, professor of Earth Sciences at Sultan Qaboos University in Oman, suggests that between 10,000 and 5,000 years ago wetter conditions prevailed, but during the last 5,000 years, which includes the period of Lehi, the climate was approximately what it is today, monsoon periods that are followed by dry periods¹². Clapp notes, "Around 2500 B.C., the rains that had long blessed southern Arabia withdrew, initiating an arid period that continues to the present."¹³ In other words, in Lehi's time the only probable site where timber (and fruits) could naturally have grown in southern Arabia was at Salalah.

By the time they reached the shore the rich bounty of this land had became apparent. Nephi repeats that they called the place Bountiful because of its abundant fruit. Apparently it was not just as they first entered the land that there was much fruit but this bounty continued right down to the shore. Perhaps in Lehi's time the Dhofar coast was as it is now: groves of coconut palms bend down over the sands of the beach, banana plantations abound, their leaves a rich deep green, mangos and fields of sugar cane line the edges of the fields. Whatever the fruit species of this tropical paradise were they would have been totally new to the travelers. As they stood on the beach they may well have seen the fisherman bringing in their catch: snapper, kingfish, sardines, lobster, crayfish, giant turtle...Surely this was Bountiful. It is easy to see why Bertram Thomas, the first western to across the Empty Quarter, on returning from the quarter to Salalah waxed so lyrical about what he saw:

What a glorious place! Mountains 3,000 feet high basking above a tropical ocean, their seaward slopes velvety with waving jungle, their roof's fragrant with tolling yellow meadows, beyond the sandstone steppe... Great was my delight when in 1928 I suddenly came upon it all from out of the arid wastes of the southern borderlands."

Dr. Hugh Nibley thought that Bertram Thomas's words, on seeing Salalah, matched the scene painted by Nephi's eyewitness account:

It is virtually the same scene (Thomas & Nephi descriptions): the mountains, the rich woodlands with timber for ships, the bountiful meadows for a paradise of bees, the view of the sea beyond, and above all the joyful relief at a sudden and unexpected deliverance from one of the worst deserts on earth.¹⁴

But isn't this Arabia? A land that in 1830 was known only as a desert wasteland? A British sailor described Arabia while looking on its shoreline, "it is only a sheet of brown paper away from hell." Dr. Eugene England writes:

Most startling, the Book of Mormon provides exactly all the details (now proven, but which no one [westerner] knew in the 1820's) of *Salalah*: This small, unique spot is favored six months of the year by southwest monsoon winds that cloud the mountains in mist and produce the anciently precious frankincense which brought the caravan trail there – and also produce flowers, honeybees, fruit, and huge sycamore-figs."¹⁵

Once again, what must have seems an outrageous claim by the Book of Mormon when it was published in 1830, a tropical paradise at the end of the trail through Arabia, is to the contrary - reality.

By following the trail frankincense trail to its end the family would have come to the shoreline at the heart of the 'Adite lands. The 'Adites controlled the transport of the frankincense by land and sea and used a number of inlets as ports. The frankincense route would have led to their major coastal settlement at Ain Humran and from there it was a short walk to the coast, most likely Adites settlements between Khor Suli and Khor Rori. Unfortunately the early history of the site that we propose is the site of the 'place Bountiful' is not well recorded. D.T. Potts wrote "The history of Oman from the middle of the first millennium B.C. up to the Islamic conquest (600's A.D.) is much less well known than that of its more remote past or its subsequent Islamic heritage¹⁶. M.C.A. MacDonald's comment about Northern Arabia is just as applicable to Oman as it is to the north of the Peninsula"...any statements made at present on the history of pre-Islamic Arabia will almost certainly have to be revised as new discoveries are made"¹⁷. Bearing this caution in mind we will try and provide a brief history of the land of Dhofar and from this attempt to put together a possible picture of what the family may have found during their stay there.

History of the 'land Bountiful'

What we know is based upon the importance of the Dhofar area in very remote antiquity as the major producer and exporter of frankincense around the world. Pliny recorded in the 1st century A.D. that the people of south Arabia were the wealthiest in the world. Frankincense grew naturally in Arabia in only a small area on the southern coast and, according to Nigel Groom, Dhofar was the center of frankincense production¹⁸. He noted the research done by Carter and Thomas, two of the first western explorers in the area, who found frankincense to grow between 52° 47' East and 55° 23' East (Carter) and 53° 00' East and 55° 21' East (Thomas). This frankincense was taken from Dhofar both by caravan and by ship. S.B. Miles informs us that "One of the earliest of caravan routes was doubtless that from Hadhramaut"¹⁹, which would mean that it would have been involved in trade at the time that the first recorded caravan was taking Joseph into Egypt around 2,000 B.C..

Well into the 1980's it was believed that the true land of frankincense was to the west, in the kingdom of the Hadramaut. Juris Zarins' work in Dhofar has proved this false and he has been able to begin to piece together the history and life of the once mythical People of 'Ad, the qarliest known inhabitants of Dhofar. Zarins suggested that the origin of these people was northern Arabia. While his dates and locations may disagree with the Bible record it is interesting that both suggest a southward migration of people to inhabit the south of Arabia.

About eight to ten thousand years ago the rains returned to Arabia, and wanderers from the north appeared on the peninsula's empty stage. They came from what has been called the "proto-Semitic homeland", an arc stretching from northern Egypt up into Syria. In an amazingly short time – as little as two hundred years – they repopulated all of Arabia... By the time they reached the Dhofar Mountains ... a group of these wanderers had most likely achieved a tribal identity, an identify that would become the people of 'Ad.²⁰

The people of 'Ad learned of the special properties of the frankincense tree and with the advent of the donkey as a pack animal, and then the camel, caravans could take ever increasing amounts of this precious commodity to Egypt and Mesopotamia. Some time around 2,500 B.C. the rains began to fail. The monsoon winds no longer carried the rains over the crest of the Qara mountains and the rains only fell on the seaward side. This left the oasis of Ubar to become the only large source of water on the trail for hundreds of miles. Most of the 'Adites moved south to live in the fertile mountains but some remained behind at Ubar and farmed the oasis. The new drought allowed the halt to gain an ever more important position on the trail. These people were later to become known as the Iobaritae, or Ubarites. On the southern side of the mountains overlooking the Indian Ocean the 'Adites established a settlement known as Hagif, now adjacent to a modern main road leading into the mountains. The site was found by Jim Brake, a member of the Clapp/Zarins/Fiennes expedition to Ubar. Nicholas Clapp described it:

Set on the banks of what were once three converging streams, site Hagif #240 rambled on for a good three miles. Judging from their foundations, the village's houses had been impressive, with entries flanked by rows of massive standing stones. Hagif not only proved to be the largest Bronze Age site in all Oman, it filled in a key period in the story of the People of 'Ad. Around 2500 B.C., the rains that had long blessed southern Arabia

withdrew, initiating an arid period that continues to the present. The area in which frankincense flourished likely shrank to its current range on the back slope of the Dhofar Mountains. The majority, of the region's semi nomadic dwellers followed this retreat and settled in the heart of the remaining frankincense groves. Hagif would have been their principal site.

(The Bronze Age for this part of the world was 2350-1200 B.C.).

The frankincense trade slowly increased and by the 6th century it would appear to have become a well-structured and sizable business. Herodotus, the "father of history" wrote his histories about 446 B.C.. He recorded that around 500 B.C. the Persian emperor, Darius the great, received a voluntary tribute from the Arabians, whom Darius had not subjugated in recognition of their help when he fought the Egyptians, of one thousand Babylonian talents (about $24\frac{1}{2}$ tons) of frankincense yearly. Even taking into account exaggeration by the author this would still indicate that the frankincense trade was well established and a huge industry by this time. There was an enormous market for the frankincense, "There was not a temple or wealthy home in Babylon, Egypt, Greece Jerusalem or Rome which did not require these precious resins and was prepared to pay their weight in gold."²¹

In the fifth century B.C. it would seem that trade in Dhofar's incense was under the control of the Sabaeans (the people of Saba in modern Yemen, where frankincense did not grow) and that this control continued until at least 295 B.C., when Theophrastus wrote of the theft of frankincense from Saba by Greek sailors. Pottery finds in Ubar show that trade took place with Greece, Parthia and Rome over this period. The 'Adites had their own distinctive pottery with dots and circles, which seems to have been unique to them. It was this pottery design that enabled Zarins to identify the remains of a site, known as Ain Humran, as belonging to the people of 'Ad. Here at last was a major coastal settlement constructed by the builders of Ubar.

With a city on the coast and another inland, the People of 'Ad could have dispatched their frankincense to faraway markets by either land or sea. Each route had its hazards. Ships were prey to storms and pirates; caravans were subject to high tolls and the depredations of brigands. Each year the 'Ad could have chosen the most promising path or could have used both routes.²²

The 'Adites had a number of choices of harbors from which to ship the incense. Ain Humran sat directly opposite three khors, or inlets, khor Suli, khor Taqah and khor Rori. Zarin's group found pottery and grave mounds opposite khor Suli and possibly the traces of an ancient dock. Nearer the sea they found stone enclosures three to four meters long, shaped very much like small boats (see picture). Zarins hypothesised that cargoes may have been weighed out and sorted here. This was adjudged to have been an 'Adite port, close to their city of Ain Humran²³. A second larger khor, khor Rori was also used as a port. The Greeks knew this as Moscha.

The earliest known map of the area was produced by Ptolemy, the Alexandrian cartographer of the 2nd century A.D.. Unfortunately there is no original of this map, Ptolemy's atlas having been lost when Emperor Theodosius ordered the torching of

Alexandria's library in 391 A.D., but copies of it appeared by the 12th century. They show the port of Moscha and the land of 'Iobaritae' (Ubarites) in the vicinity of Ubar (Shisur). Ptolemy's map shows a city called "Zaphar Metropolis," (Meaning 'major city, of Dhofar'), Ain Humran is thought to have been this city²⁴.

Since the frankincense trade appears to have been continuous from Bronze Age times through to its collapse in the 3rd century A.D. we can only assume that Dhofar was continually populated throughout that time. Frankincense transported via the Sabaeans (Shebans) was being used in Jerusalem during Lehi's lifetime (Jeremiah 6:20) so there must have been people in Dhofar producing and trading it to them. The implication is obvious. The family were not living alone in Bountiful but were more or less part of a well established community. Their naming of the land does not imply that it was uninhabited, merely that "they" called it Bountiful. It was, in fact, the land of the 'Adites. This renaming was simply yet another example of their tradition of giving their own name to an inhabited place, regardless of the name the locals may have used. We saw this with their naming of the River of Laman, the Valley of Lemuel and Shazer. This is an important point since it would have obvious repercussions when it came to building a boat, as we will discuss later.

Bountiful Was Populated

From a historical point of view, it is obvious that the Frankincense trail led to a populated area. It was impossible for Lehi to enter southern Arabia and not be detected by the local inhabitants. Historian William J. Hamblin understands clearly the geo-political environment of Lehi's southern Arabia.

A theoretical reconstruction of Lehi's stay in southern Arabia could run something like this. Lehi and his family eventually arrive in Hadramawt, at that time a highly populated region serving as one of the main trade routes of southern Arabia. There they would have necessarily made contact with the local inhabitants, if only because every well in the region would have been owned by some tribe or city, and strangers would not have been allowed to drink from the wells without permission²⁵.

Obviously these same conditions that Lehi faced in the Hadramawt would also have applied in Dhofar.

The text the Book of Mormon also appears to support the idea that Bountiful was populated and that the family had interaction with the inhabitants. In 1 Nephi 18:2, Nephi states that his ship was not built "after the manner of men". He also informs us that he "did not work the timbers after the manner which was learned by men." Finally his brothers considered the workmanship to be "exceedingly fine" (1 Nephi 18:4), suggesting that there was a local standard of workmanship against which they were judging their work. The clear implication is that Nephi was working within a community that had carpenters and shipbuilders.

Prior to reach Bountiful, Nephi continually referred to them being "in the wilderness." ("traveled in the wilderness in the borders which are nearer the Red Sea" 1 Ne. 2:5, "should take his journey into the wilderness" 1 Ne. 16:9, "keeping in the most fertile

parts of the wilderness" 1 Ne. 16:14, "led us in the more fertile parts of the wilderness" 1 Ne. 16:16, where the bow broke – "sufferings and afflictions in the wilderness" 1 Ne. 16:20, where Ishmael died – "we must perish in the wilderness with hunger" 1 Ne. 16:35, "lead us into some strange wilderness" 1 Ne. 16:38, "again take our journey in the wilderness" & "our women did bear children in the wilderness" 1 Ne. 17:1, "he did provide means for us while we did sojourn in the wilderness" 1 Ne. 17:4, finally, "we did sojourn for a space of many years, yea, even eight years in the wilderness 1 Ne. 17:4) Nephi recorded the conclusion of their eight year sojourn in the wilderness and solour in a wilderness.

A common definition of the word 'wilderness' is an area void of signs of human life. Except for the occasional oases along the Frankincense trail, the word wilderness applied perfectly to all the areas they passed through since entering Arabia. We have previously argued that wilderness meant desert in the scriptures. However this is not always the case. As the family entered a green fertile land it would be easy to understand why Nephi refers to them as no longer being in the wilderness. Yet, to Nephi the presence of forests does not preclude somewhere from being a wilderness. He would later state, "as we journeyed in the wilderness, that there were beasts in the forests..." (1 Nephi 18:25) It seems then, to Nephi, that the characteristic these two locations, desert and forests, had in common was that neither were populated. So by Nephi's definition a jungle, was well as a desert, would qualify as a wilderness, as long has neither were populated.

Yet another indication from the Book of Mormon that Bountiful is populated is Nephi's use of the word "land" to define it. Webster's Dictionary defines 'land' as: "4: the people of a country"²⁶ Nephi's use of the word 'land' seems to connote ownership, e.g., 'land of Jerusalem' (1 Nephi 2:11), the land of Egypt (1 Nephi 5:14), 'land of our inheritance' (1 Nephi 3:22), 'they shall prosper in the land of promise' (1 Nephi 4:14 promised to a people). In fact every time Nephi used the word 'land' it was in the context of people.

Finally, Bountiful's "much fruit' implies cultivated fields an orchards. Another definition for 'land' is "2:b a rural area characterized by farming or ranching"²⁷. A cursory knowledge of husbandry tells one that wild fruit trees do not produce "much fruit." The various parables of the pruning of fruit trees and vines to prevent them from going wild are cases in point.

We have been asked if people inhabited the land, why did Nephi have to make his own ship building tools? We discovered one possible explanation while visiting a shipbuilding yard in Bahrain. The shipwrights were very low paid Indians. We offered to buy their traditional tools for more than what would have amounted to 10 or 20 times their original value. When they continued to refuse to sell their tools we started to understand the sensitivity of the matter. The shipwright's tools were their trade, without them they would be incapable of earning a living. In the ancient world, possession of shipbuilding skills and the rare metal tools to perform the trade was the sources of their livelihood, perhaps even the token of membership in a guild. Selling such tools was unthinkable.

Nephi's criteria for Bountiful.

We have taken the family along the incense trail to its end which would have led them to the shoreline of Dhofar, the generally accepted location for Bountiful. As long ago as 1950, Hugh Nibley identified the location of the "land bountiful" as beyond the Qara Mountains. As Lynn Hilton states, there is no other candidate on the south coast that can even vaguely be considered for the "land bountiful".²⁸

But what is the evidence that Dhofar is, in fact, Bountiful? Fortunately Nephi gave us a number of descriptors for Bountiful that we will now apply to Dhofar, and more specifically that part of Dhofar surrounding the region in which Ain Humran was situated, the end of the trail. Nephi informs us that the following were found in Bountiful:

- 1. Nearly eastward from Nahom (1 Nephi 17:1)
- 2. Accessible seashore (1 Nephi 17:6)
- 3. Adjacent to many waters (1 Nephi 17:6)
- 4. Abundant and a wide variety of fruits (1 Nephi 17:5, 1 Nephi 18:6)
- 5. Wild honey (1 Nephi 17:5)
- 6. A mountain nearby (1 Nephi 17:7)
- 7. Ore available (1 Nephi 17:9)
- 8. Stones (1 Nephi 17: 11)
- 9. Beasts (1 Nephi 17:11)
- 10. Meat from the wilderness (1 Nephi 18:6)

1-Nearly eastward from Nahom

At Nahom the party changed direction and traveled "neatly eastward from that time forth" (1 Nephi 17:1). Thus Bountiful should be nearly east of the point where the trail to Dhofar starts. The coast of Dhofar adjacent to the end of the trail at Ain Humran is 5° off true east from the point in Yemen where the eastward trail to Dhofar splits off the main frankincense trail and is 13° off true east from wadi Jawf.

2-Accessible seashore (1 Nephi 17:6)

Parallel to the southern coast of Arabia a mountain range runs from Yemen to Dhofar. In order to reach the coast from the trail the family had to cross the mountains. Camels laden with four to five hundred pounds of tents and provisions could only cross the mountains on established trails through passes. Maps of the ancient trade routes in southern Arabia show only four passes through the mountains to the coast. The first is through Wadi Hardabah to Aden in Yemen; the second to Cana in Yemen though wadi Hajar (a minor trail also led to Cana through wadi Habban; the third through wadi Hadramaut to Sayhut and the fourth through the mountains to the Salalah plain and Ain Humran. The Salalah plain is bounded on all inland sides by limestone mountains that have been eroded by rainwater into virtually impassable karren and flowstone formations. The pass is now the modern Salalah/Thammarit road. This route has been in use for many of thousands of years. The misguided idea that the family forged their own trail and hid out in an isolated place in Dhofar is highly unlikely. The Frankincense lands were the source of great wealth, and were heavily guarded. The Roman historian Pliny recorded

how in the Hadramaut those who dared leave the official frankincense road were summarily executed. $^{29}\,$

Locations west of the Salalah plain namely the inlets of Dhalkut, Kharfot and Rakhyut are not readily accessible from the hinterland. To approach Dhalkut from the desert would take a 75 kilometer journey across a 5,000 foot mountain range, Wadi Sayq, Kharfat and Rakhyut would be about a 50 kilometer journey across the same mountain range. There are no records of any ancient trails that lead inland to these areas, in fact the only recorded ancient trail to the coast of Dhofar is at Salalah.

3-Adjacent to many waters' (1 Nephi 17:6)

After crossing the mountains the family saw 'Irreantum' or 'many waters'. The entire southern coast of Arabia sits on the Indian Ocean. As Nephi looked south out over the ocean from the mountains of Dhofar the next landfall would have been Antarctica.

4-Abundant and a wide variety of fruits (1 Nephi 17:5,6; 1 Nephi 18:6)

As the family entered Dhofar they noted "its much fruit" (1 Ne. 17:5), they even called the land Bountiful because of that. When they reached the shoreline they also called the specific place they camped Bountiful "because of its much fruit". Thus there was fruit in the land and also specifically, in at least one place, on the shoreline. Nephi also tells us as they were preparing to depart to the promised land that they "prepared ... much fruits..." (1 Nephi 18:6). The most likely explanation for the plural "much fruits" here is that there were not only a lot of fruit but also a number of different species.

As the family entered Dhofar via the incense trail, they would have passed Hagif, and Ain Humran, and probably more 'Adite settlements. Much of the soil of the coastal plain is remarkably rich and productive. Numerous springs, fed by the summer monsoon, irrigate the plain and the area is said to be capable of producing three crops in a year³⁰. Present day farms on the coast grow coconuts, bananas, sugar cane, tobacco, cotton, indigo, cereals, pulse and vegetables (many of these crops are modern introductions).

There is evidence that the 'Adites were highly adept at cultivation. They cultivated the oasis at Shisur, 6 days camel ride inland from Ain Humran, and Bertram Thomas reported in the 1930's that he had heard reports that "in the surrounding desert plain are still to be seen shadowed furrowings as though once it had been under the plough³¹". Pre-Islamic traditions and the Qur'an cite that the 'Adites built magnificent cities above where rivers flow.³² According to the Qur'an the People of 'Ad built a "landmark on every high place" (26:128) and had gardens and springs (26:134) and irrigated fields (46:21)³³. Hamblin writes: "According to the Islamic Hud traditions, one of the chief sins of the tribe of 'Ad was pride symbolized by magnificent buildings, an attempt to create an earthly replica of paradise." Hamblin sites Yaqut, that this paradise is a direct reference to the definition of paradise found in Qur'an 2:25³⁴. If the 'Adites were indeed trying to build, on the Salalah coastal plain, a replica of this paradise, they certainly would have taken ample advantage of the ability of the fertile soil and abundant water to produce fruit, for in the Qur'anic definition in paradise one eats fruit at every meal. The

chronicler Wahb ibn Munabbih recorded the oral tradition of the prophet Hud who, according to the Koran, lived in Old Testament times. In this tale "the trees of the tribe of 'Ad became green and brought forth fruit out of season"³⁵ at the conception of the prophet.

Modern plantations can be found on the plain from the city of Salalah in the west, where they extend 16 miles in length, as far as Taqah, 23 miles to the east. We need to be wary though in assuming that the plantations extended this far in Lehi's time because many of these modern plantations are fed by water pumped in from afar. A FARMS Project Report gave details of a trip to Oman by three BYU geology professors and a professional Geologist. It was noted by Eugene E. Clark:

...although there are some 230 springs or seeps in the region, only a dozen or so flow year-round. Investigators who see springs and farming areas and assume those areas have always been fertile are often mistaken... because those areas are relatively new, made fertile with the advent of electricity for pumping water from distant areas. On the other hand, some of the dry wadis which used to carry water have recently been capped in order for the water to be transported to the towns. He said that most of the soils in the area are quite poor but that the best soils are found in the Salalah area.³⁶

For the family to have camped near a plantation they must have been near a freshwater source that could have been used for irrigation. This could have been one of the springs that presumably flowed anciently near the coast or alternatively one of the number of freshwater khors, or inlets, on the coast which extend from Khor Al Quran Al Kabeer, just to the west of the modern town of Salalah as far east as khor Rori. For the family to have found fruit at the coast they may have camped at, or very near, one of these springs or freshwater khors.

While we need to be careful not to assume that all the modern plantations would have been present in Lehi's time we need to avoid the corollary of assuming that there were no plantations anciently. All the evidence seems to suggest that the Salalah plain has been cultivated for thousands of years. The Salalah plain was periodically ruled by the hegemonies of what is today Yemen and Eastern Oman. Both the Yemenis³⁷ and Omanis³⁸ had settled agriculture dating back to the third millennium B.C.. Certainly they would have taken advantage of the rich land, its tropical climate and its shallow water table to produce fruits and vegetables. One contemporary author on Oman, Sir Donald Hawley writes of this small area of coastline:

Near Salalah itself - a garden city surrounded not only by groves of coconuts but also fields of lucerne and vegetables with clusters of paw-paw and other fruit trees - stands the ruined town of Balid, covering an extensive area. This medieval town was occupied until the sixteenth century and was visited by ibn Batuta and earlier by Marco Polo, who described it as a 'beautiful, large and noble city.' Ibn Batuta remarks that "The City of Dhofar (al-Bilad) is an garden valley in an isolated desert region."³⁹

If Marco Polo and ibn Batuta found a "beautiful and noble city" and a "garden valley" what must Lehi had witnessed? Marco Polo was visiting the valley long after the collapse of the Frankincense trade. At that time, the Salalah/Dhofar valley must have

been a mere shadow of its once economic greatness. Little trade was taking place along this coast during the thirteenth century A.D.. In comparison, when Lehi entered the land, the valley probably attracted hundred of travelers at any one time, traders, transporters and middlemen associated with the incense trade. Terry Ball, assistant Professor of ancient scripture at Brigham Young University, commented on the sizable population that this fertile area was capable of supporting. "These plant foods, along with what people could obtain form hunting and fishing, would have supported a large number of people, including extended families like that of Lehi..."⁴⁰ Just as large agricultural centers had developed elsewhere to support the trade on the frankincense trail, e.g. at Dedan and Medinah, it seems likely that this productive area would have been utilized to grow produce for the many residents and visitors to Dhofar. Since the oasis of Ubar was cultivated by the 'Adites it seems only logical that the same people would cultivate the fertile areas around Salalah and Taqah with their freshwater khors and springs.

Besides the domestically harvested fruit on the Salalah coastal plain, it is probable that Nephi also encountered many imported fruits. Omani sailors have traded with Indian as far back as 1000 B.C.⁴¹ Doe writes of this trade:

The Southern Arabian kingdoms of Saba', which was the first to dominate the incense trade and was the greatly responsible for the rapid expansion of South Arabian trade in about the sixth to fifth centuries B.C., was said by the writer Agatharchides to have sent out merchant colonists to India itself. The South Arabians thereby must have established a much more efficient and regular trading system with India than one which could have been operated by individual ship's masters. It is thought that the South Arabians also formed trading colonies on the coast of Ethiopia to stimulate exports from that country. The spices and other luxuries which came from India and the Far East together with ivory, frankincense and gold from the African Coast, formed a rich stream of merchandise passing through South Arabian hands.⁴²

This trade in foodstuffs started taking place far earlier than this, however. Paleobotanist L. Constantini has isolated sorghum (*sorghum bicolor*), originating in the Ethiopia/Sudan region, in unbaked clay bricks in the Oman Peninsula, datable to around 3,000 B.C..⁴³ Sorghum appears widespread in Baluchistan by the beginning of the 2nd millenium B.C.. Maurizio Tosi stated that "the prehistoric Ichtyofagoi⁴⁴ laid the basis for the transformation of prehistoric agriculture in the Middle East and the Indian sub-continent derived from the integration of domesticated species in different centres from their plan of origin."⁴⁵ In other words food-producing plants were transported between Africa, Oman and India as early as the fourth millennium B.C.. Recently a bronze-Age port containing Harrapan (Indian) inscriptions has been found at Ra's al-Junayz (Ras al Hadd) on the eastern tip of Oman by the Italian Archeological Mission in Oman (map). The pottery at the site dates to the Wadi Suq period (first centuries of the second millennium B.C.). Tosi wrote:

It is probable that this is the first of the moorings after the six hundred kilometers of open sea which separate India from Arabia. Once Ra's al-Junayz had been reached the voyage towards Africa could be continued along the coast without expanses of sea.⁴⁶

That voyage along the coast would have taken the Harrapan sailors straight past Dhofar and the ports of the Salalah Plain. Plants were an important export for these societies. Tosi writes "The supplying of prestige goods such as ornaments of exotic metals and stones, *rare plants* and animals were to the protostatal societies of the Middle East as important as the resources for primary production"⁴⁷. India is the homeland of mango, muskmelon and the staples rice and sugar. Bananas come from Africa. Thus many of the fruits considered modern introductions may well have been introduced previously in the 1st and 2nd millennia B.C.. One can only guess what new fruits the family might have encountered growing in Bountiful or for sale at the markets. When paleobotanists finally study Dhofar it will be interesting to see what fruits were found there anciently.

As well as farmed and cultivated fruits there are 18 species of naturally occurring fruit together with seven sweet fruits that were used historically as sweeteners in the absence of sugar or honey, that have been recorded in Dhofar in modern times ⁴⁸. Some have suggested that to Nephi the "much fruit" the family encountered at the coast might have been this wild fruit that grows in the hills of the Dhofar region⁴⁹. We would question whether these wild fruits would qualify as Neph's "much fruit". These naturally occurring fruits are found mainly in the hills around Salalah and Tagah and do not occur on the coastline yet Nepghi recorded that there was much fruit at the coast too. It should be remembered that on their journey through Arabia, Nephi had seen the oases of the most fertile parts. There must have been ten of thousands of well-groomed date palms in Ula, Madina and Najran, growing the best dates in the world. The family had left Ubar, with its plantations, only 6 days previously. Why would the Lehites have been so excited about scattered wild trees with fruits that can hardly compare with cultivated fruits for taste or fecundity? A cursory knowledge of husbandry tells us that wild fruit trees do not produce "much fruit", the various parables of the pruning and grafting of fruit trees to prevent them from going wild are cases in point.

It has also been suggested that wild date palms growing in small cluster along the Dhofar shoreline west of the Salalah plain might have been inspiration for the words, "much fruit."⁵⁰ However, the coastal date palms are not self-propagating and have only recently been planted. The dates on the Dhofar coast are drenched by the monsoon rains and rot on the trees before they are ready to eat. In the present day the farms that are near the coast rely on irrigation. The four khors near Ain Humran are all fresh water and so irrigation from the streams that feed them would have allowed the inhabitants to grow fruits there then, as now. Alternatively water from wells or seeps could have been used. It seems likely therefore that the fruits the family encountered at the coast were cultivated.

5-Wild honey (1 Nephi 17:5)

The reference to 'wild honey' seems odd to us as we are used to bee keeping as a more efficient means of collecting honey. In Dhofar, however, honey is still collected from wild bees. The Salalah honey is not sold in shops but rather in pharmacies and commands high prices, being considered possessed of numerous medicinal properties. The honey from various parts of Dhofar differs in color and flavor depending on the flowers and plants that grow there that the bees fed on.

In 1997 Pam and Steve Done visited Dhofar. This account of their visit to khor Kharfot is illuminating:

"After meeting with our youthful boatman we took off only to stop along side another fishing boat. Mohammed Amer Akaak, the fisherman in the boat, spoke perfect English. He had once worked on an oil rig. His family lives in Salalah and he lives in Rakhyut. He told us he wanted a mountain climbing rope to climb the cliffs above the beach to gather wild honey to sell. He indicated it was highly prized and valuable and of excellent quality. He said there were honey bees all along this southern coast, but that the honey was hard to get."⁵¹

Bees are rare in Arabia and the Dhofar coast is one of the few places they are found in Arabia.

6-A mountain nearby (1 Nephi 17:7)

The Lord is specific about one particular mountain. We have not been able to identify any specific peak from Nephi's account but there are a number of possibilities. Closest to Ain Humran are the mountains of the Jabal Al Qara range, bounding Wadi Dharbat, approximately 3,000 feet high (1,000 meters). These are about 5 miles (10km) away. To the east is Jabal Samhan about 20 miles (32km) away. At nearly 6,000 feet, it is the highest mountain in southern Oman and is mentioned by name in Genesis 10:30, where it is known as "Sephar, a mount of the east".

7-Ore available (1 Nephi 17:9)

"And it came to pass that the Lord told me whither I should go to find ore, that I might make tools." (1 Nephi 17:9)

We do not know what type of ore Nephi was shown by the Lord. The two most likely possibilities are iron ore and copper ore.

In April 1998 a group of 5 researchers from Brigham Young University undertook a 9 day study of Oman⁵² visiting Ubar and Khor Rori, amongst other sites. The BYU researchers found magnetite and hematite, two iron containing ores. S. Kent Brown, director of ancient studies at BYU said that "It is from these simple forms of iron ore that a person like Nephi could make tools." W. Revell Phillips, emeritus professor of geology at BYU said that the deposits were small. This would tie in with Nephi's inability to find the deposits without divine help. These ores were found by W. Revell Phillips and were associated with the igneous rock of Jabal Samhan⁵³. The rocks to the west of Jabal Samhan are sandstone and do not hold any iron deposits. These iron ore deposits are found about 40 kilometers (24 miles) from khor Rori, hence the need for Nephi to be shown their wherabouts.

On 5 April 2000 three BYU geology professors and a professional geologist reported on their work of evaluating the presence of iron ore in southern Oman. Most of the earth's minerals are concentrated along the edge of the tectonic plates and are buried deep below the earth's surface. "The Dhofar region is one of the few places throughout the Arabian Peninsula where the ore deposits are exposed" Ronald A. Harris, a professor of geology

at BYU, stated. Jeffrey D. Keith a BYU geology professor, reported on iron ore discoveries in the Dhofar region

The team found deposits of iron-rich carbonate, goethite, and hematite, which can be crushed, mixed together, and heated to make a very usable form of iron ore. These deposits occur in two areas along the southern Omani coast in concentrations sufficient to have enabled Nephi to make tools for building his ship, Keith said. The team extracted some of this ore material, brought it back to BYU, and made iron out of it.⁵⁴

Another possibility exists and that is that Nephi found some copper ore. Anciently copper was found in large quantities all over northern Oman. There is, however, no evidence of copper production in southern Oman, or more especially on the Salalah plain. Copper by itself, without tin is relatively useless for tools as it is too soft.

It seems most likely then that Nephi used iron ore. It need only have been only a small deposit as Nephi didn't need a lot of metal, just enough for tools. This could easily explain why it had been overlooked as a site for mining.

Here we would like to conjecture that Nephi did smelt iron, although the evidence for our conclusion is slim indeed. The process of iron smelting is more complicated than that of copper. The ore must be converted to metal by means of carbon monoxide which is produced by careful control of atmospheric conditions in the furnace. Then the metal must be heated to not less than 1100-1500°C and carburized by using charcoal for fuel and reducing the draught in the fire so as to increase the carbon content and therefore the hardness of the metal.

Nephi takes up 4 verses to tell us about the process he went through to make the metal; 1 Nephi 17:9-11, 16. He goes into quite some detail describing the furnace and how he constructed it to contain a bellows in order to enable him to gain control of the conditions of the smelting of the ore. The bellows would have been essential to raise the temperature high enough to melt the iron. This is not merely throwing some rock into the fire and watching the metal melt out, Nephi has an exact plan to which he was working. The precise nature of the work and Nephi's structured description might be indirect evidence that it was iron that he was smelting.

If this were not the case and he was smelting copper we still know that the account of Nephi can be verified since copper smelting in Oman is well documented historically. The design of Omani copper smelters has been surmised from fragments found in excavations. The smelter was a pear shaped stone furnace about 16 inches (40 cm) in diameter at the base and about 20 inches (50 cm) high.

8-Stones

Nephi tells us "I did smite two stones together that I might make fire." (1 Nephi 17: 11). Flint is usually the stone of choice for making sparks. Flint deposits have been found at Ubar and so, recognizing their importance, Nephi could have picked these stones up as he left the city. We stopped to photograph in two sites on the frankincense trail betwen Ubar and Ain Humran. In each case we found flint lying in abundance on the

surface, the identification being confirmed by a geologist of an Arabian oil company. Flint deposits have also been identified at Andhur⁵⁵, the site built in the mountains east of khor Rori about 60 A.D. by the Hadramautis, by which they controlled the over land incense route.

9-Beasts

Nephi used the skins of beasts to make a bellows (1 Nephi 17:11). When loading the ship they took 'meat from the wilderness'(1 Nephi 18:6). Perhaps there is a distinction between these two. Since 'beasts' were different to 'meat from the wilderness' it is possible that 'beasts' were not wild. Dhofar is the only place in Arabia, apart from modern air-conditioned farms, where cattle occur⁵⁶. The earliest settlers of Dhofar brought their cattle with them:

The pride and sustenance of these people was their cattle; their progress through the peninsula is marked by images of cattle they pecked on blackened rocks. At their campsites, these new pastoral nomads gazed skyward and imagined the stars as the cattle of the moon, penned only by the far horizons.

By the time they reached the Dhofar Mountains (the only, place in Arabia where a cattle culture still survives), a group of these wanderers had most likely achieved a tribal identity, an identity that would become the people of 'Ad.⁵⁷

The mountains are presently populated by a tribe known as the Jibalis, the mountain people. To this day they speak a different language to the Arabs of Oman. Their language is the old southern Arabian and mostly unintelligible to the modern Arab speaker. They make their living by raising cattle and camels and to this day their livestock still graze the mountains of Dhofar. It would appear to make sense that if leather were available for sale it would be easier for Nephi to have used that than go off and hunt beasts, skin them and then make a bellows.

10-Meat from the Wilderness (1 Nephi 18:6)

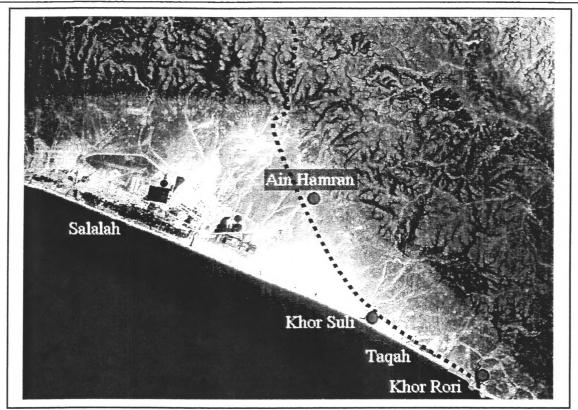
There are many wild animals in the Dhofar mountains. In spite of the rapid increase in the human population wild game is still present in the mountains of Dhofar, albeit under threat. Dhofar contains 20 species of wild mammal, of which seven appear to be found only there, and includes "the caracul, the leopard, the Arabian gazelle and the ibex appear in small numbers and are vulnerable to hunting⁵⁸." In the 13th century Dhofar was celebrated for the good quality of the Dhofari Oryx by Al Qazzouini⁵⁹. Ancient cave art in wadi Darbat, a large valley in the mountains water from which feeds into khor Rori, shows large wild animals⁶⁰. The lakes in wadi Darbat would have served as watering holes for the animals and a ideal place for Nephi to have hunted, only eight miles from the harbor in Khor Rori.

In conclusion if Lehi's party arrived in the serb season following the monsoon then the haskik would have been green and verdant with both wild trees in the hills in fruit as well as cultivated trees. During and shortly after these rains the predominantly deciduous trees of the valley burst forth into leaf. On entering the valley one would immediately be struck by the contrast with the near lunar landscape of the inland side of the Qara

mountains they had just passed. After the monsoon is ended the trees shed their leaves and the upper slopes of the mountains looks very different; brown and parched. The fact that they called the whole land 'Bountiful' implies that the upper slopes were green. From these upper slopes they would have seen the Indian Ocean for the first time. By following the trail they would have arrived at the sea, quite possibly near Ain Humran. Here there would have been a sandy beach where they could have camped on the shore. They would have been next to the cliffs, where they could find wild honey and presumably also adjacent to the plantations of a local settlement, fed by a khor or seep. This is the last time we read that the party lived in a tent in the Old World. From now on they must have been living in houses. Presumably they quickly integrated into the community making their homes there in among the other inhabitants.

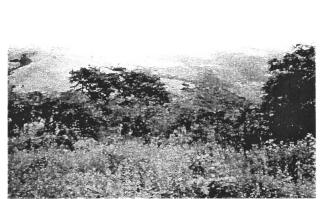
While this evidence may seem impressive we must remember that the key to the identification of a logical 'Bountiful' candidate is not based on fruit or honey but rather on an essential item, Nephi needed a location where he could build and launch a large boat. As we will see his needs would have been very specific and will provide us with further information that will help us to pin down the location of 'Bountiful' still further.

Land Bountiful

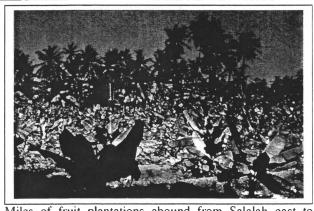


A satellite photo of Dhofar showing the trail leading to the frankincense port of Moscha at Khor Rori and the city of Merbat at Taqah. The extensive fruit plantations at Salalah and Taqah are clearly visible.

The Land Bountiful



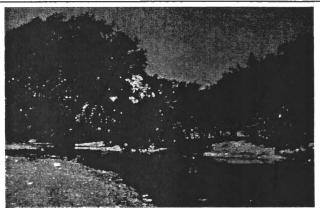
Once the family neared the summit of the Qara mountains the contrast with the stark inland side of the mountains must have been amazing. They would have encountered the incredible lushness as the hillsides burst into bloom during the monsoons.



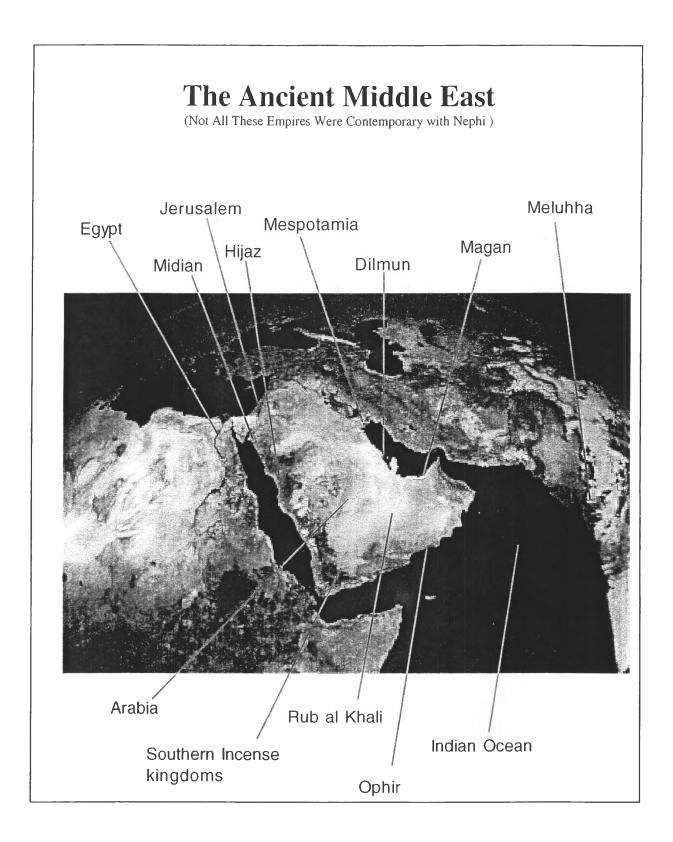
Miles of fruit plantations abound from Salalah east to Taqah.



The monsoon rains seep into the sandstone of the mountains giving rise to numerous springs that flow year round, like this one near Taqah.



Wadi Dharbat contains numerous lakes which remain full throughout the year. This photo was taken 5 months after the end of the monsoon.



One leak will sink a ship, and one sin will destroy a sinner.

John Bunyan The Pilgrims Progess

Chapter 14

Nephi's Great Ship

Any attempt to identify the location of "Bountiful" must recognize the fact that Nephi had very specific requirements in order to build, launch and captain a large ocean-going sailing ship. While some may associate Bountiful with 'verdance', one must remember that the most important identifying feature of a Bountiful candidate is that it could provide Nephi with the necessary maritime resources, both tangible and intellectual, necessary to build, launch and sail a large ship.

Nephi Crossed Two Oceans

Nephi sailed the great seas to the New World, but what oceans he crossed, we are uncertain. Although an Atlantic crossing would have been shorter and easier, the prevailing belief is that he crossed the Indian Ocean, including the Seven Seas of Asia, then pioneered a crossing of the Pacific. Jame E. Talmage wrote:

...on the shores of the Arabian Sea, [Nephi] built and provisioned a vessel in which they committed themselves to Divine care upon the waters. Their voyage carried them eastward across the Indian Ocean, then over the south Pacific Ocean to the western coast of South America, whereon they landed (590 B. C.)¹

Nephi's building and provisioning a vessel capable of crossing the Pacific Ocean would have been a great accomplishment in that era.

Orson Pratt wrote in an 1840 British missionary tract that Lehi crossed the "Pacific Ocean and landed on the western coast of South America.²" Nibley suggested, "If it was possible for the Phoenicians, that is, the men of Lehi's Sidon, to cross the Indian Ocean and reach the Pacific, we must admit at least that the same way was open to Lehi!³" Thor Heyerdahl wrote of several possible ancient sea routes to America from the east,⁴ and Andrew Sharp studied unintentional one-way voyages across the Pacific.⁵

The supposition that Nephi crossed the Pacific is rooted in a purported statement by Joseph Smith that they crossed "the sea of Arabia then sailed in a south east direction and landed on the continent of South American in Chile thirty degrees south latitude."⁶ For a

discussion of the authenticity of this statement the reader is encouraged to study Robert J. Matthews', "Notes on 'Lehi's Travels'" Brigham Young University Studies 12, no. 3.

Nephi Built A Large Ship

Sailing the Pacific is an enormous challenge, even in a large, strong and well-provisioned vessel. For this reason, the Lord instructed Nephi to build a 'ship' (1 Nephi 17:8), not a 'boat'. Webster's Dictionary defines ship as "1 a: a large seagoing vessel b: a sailing vessel having a bowsprit and usually three masts each composed of a lower mast, a topmast, and a topgallant mast"⁷. If Nephi had constructed a small single sail vessel, Joseph Smith would probably have used the word "boat" in the translation⁸. Crossing open seas in a "small vessel" is implausible and makes no sense in the context of the Book of Mormon. There is no other choice, if Nephi crossed the Pacific with his large party, he had to have built a large and stout ship.

What Did Nephi's Ship Look Like?

No one is certain as to the exacted design of Nephi's ship. It was unique, and of divine architecture. Still, it would seem reasonable to assume that Nephi's ship was based on the designs and maritime technology of its time, and only incorporated the necessary modifications to make it large enough and strong enough to carry the party to the New World. For example, we know it was a wooden sailing ship that was driven by the wind, implying that it used the relatively ineffective ancient square sails of that period that were later replaced by the lateen sail. Lyle Fletcher concludes:

We have evidence for "timber boats" sailing long distance on the rough waters of the Indian Ocean many centuries before Nephi and his company arrived of the scene. As we know, Nephi worked "timbers" and "sailed" to the promised land.

We don't know the shape of the sail on Nephi's ship, but Nephi tells us they "were driven forth before the wind towards the promised land." (1 Nephi 18:8) Nephi also tells us "there arose a great storm, yea a great and terrible tempest, and we were driven back upon the waters for a space of three days." (1 Nephi 18:13) With a lateen (triangleshaped) 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.⁹

Most sailing vessels of these times used square or rectangular sails.¹⁰

Nephi's ship seems to have been, in its most fundamental elements, within the technological boundaries of its era, and not radically different in design than the other ships that sailed the waters off southern Arabia in the first millennium B.C. No one has yet to find the remains of a first millennium large Arab sailing ship. Still there is much evidence on what the ships of the time were like. In 1976-77 maritime archaeologist Tim Severin constructed a leather boat and sailed it across the Atlantic to prove that the Irish monk St Brendan could have sailed to the Americas over a thousand years ago. His next research project was to build a replica of a medieval Omani ship and sailed it to China,

following the course described in the seven voyages of Sindbad the Sailor from *The Thousand and One Nights*. Severin discovered that of the two projects, "The Sindbad Voyage was much more ambitious. I needed to research, the design and construction of a full-size sailing ship. It required a place to build her, a port to fit her out, and a large crew to sail her"¹¹. His ship was called the *Sohar*. In the tradition of medieval and ancient Omani shipbuilding, *Sohar* was sewn together with cord made from coconut husk, not one nail being used in the ship.¹² Lionel Casson notes:

The idea of a boat made up of planks sewn together seems strange. Actually, it is a type that has been in wide use in many parts of the world and in some places still is. In the Indian Ocean, it dominated the waters right up to the fifteenth century, when the arrival of the Portuguese opened the area to European methods.¹³

Severin took great care in recreating his replica, which he said was a "classic Arab merchant vessel which could have sailed straight from the pages of the Arabian Nights, and she was unique. She was the only vessel of her kind in the world"¹⁴. Although the building of the *Sohar* and its voyage to China are remarkable achievements, it was not a fully accurate period model. Tom Vosmer, Director of the Traditional Boats of Oman Project, explained to the authors that there were design mistakes in the *Sohar*. His comment also gives us a closer look at what the Arab ships of Nephi's time might have been like.

Having supervised most of the construction of Sohar and sailed aboard to China, I am familiar with the ship. However, I would guess that Sohar little resembled a medieval ship, let alone one from 1000 BC. Sohar was really only a modern boom sewn together rather than nailed. The photo in Tim's book of the illustration from the Magamat of al-Hariri (13th century) would be closer to what medieval boats looked like. With the hindsight of 20 years and lots of research, I realise we made several errors with Sohar, at least in the attempt to recreate a medieval Arab ship. For example, I doubt that it should have been fully decked. Additionally, the steering would probably have been from a reverse tiller controlled by ropes led to the quarters, and the sail would have been square. The bilges would have been slack with lots of deadrise in the floors. As to boats of 1000 BC, the only real evidence we have comes from the discoveries at Ra's al Jinz, Oman, which indicate something about construction methodology (but from 2500-2300 BC), and the models and iconography from Mesopotamia, Egypt and the Indus Valley. About all we can say are generalities: the vessels were probably double-ended, undecked (except perhaps for a small platform aft), had quarter rudders and a square sail. There is some evidence of tonnage from cuneiform texts, but the sizes are not pinned down in modern terms (I'm working on it!).¹⁵

The largest Arab freighters of Nephi's time were probably over fifty feet long, pointed at both ends, had little or no decks, used a quarter rudder, square sails, and were sewn together with coconut ropes instead of fastened by nails. The *Sohar* required 40,000 stitch holes to be drilled to sew her timbers together.¹⁶ Nephi wrote of making tools from ore, but made no mention of the hundreds of pounds of nails that would have been necessary if his ship was nailed together. The Omani Ministry of National Heritage and Cultures states:

It is clear that the use of stitches was the method indigenous to the western Indian Ocean. They are visible in Indian sculpture of the 2^{nd} century BC; the Periplus of the Erythraean

Sea mentions small sewn boats as an export of Omana; while the Byzantine historian Procopius refers to the prevalence of the method in the 6th century AD. All the boats which are found in India and on this sea [i.e. the Arabian Sea and southern Red Sea]...are bound together with a kind of cording.¹⁷

Fletcher discusses the ancient ships in this area by summarizing Shereen Ratnagar's research on shipping between India (the Harappa civilization in 2^{nd} to 3^{rd} millennium B.C.) and Mesopotamia:¹⁸

The ships that sailed 'from the head of the [Arabian/Persian Gulf] to the Indian coasts' were 'timber sailing-vessels.' These 'timber boats' had 'square sails,' and the timbers were fastened together using fibers, though 'wood or cane pegs' may also have been 'used for joints.'¹⁹

Despite the design flaws in the *Sohar*, its was hull built on a traditional design and was sewn together. It seems probable that Nephi's ship used a similar hull and technique since large amounts of iron ore were not readily available in Dhofar. Iron nails suffer from 'nail rote' unless they are placed in the correct wood, and most of the indigenous woods of Dhofar would not protect the nails from rusting in the salt water. Adopting the tried and tested technique used by the Indian Ocean shipbuilders would have been a logical choice for Nephi.

But is a the medieval Omani ships, like the *Sohar*, somewhat representative of the largest oceangoing ships in terms of cargo and passenger capacity that sailed in the Indian Ocean in Nephi's time? The answer is probably yes, with the modifications proposed by Vosmer. Omani ship designs stayed relatively stable up until the arrival of the Portuguese. We know that the design of the Greco-Roman shipbuilding techniques did not affect the design or construction of the Omani vessels²⁰, and that the Greek ships where sailing in the waters of southern Arabia since at least 323 B.C.²¹. This implies that the basic design used to construct Omani ships stayed relatively constant from, at least as far back as the Greeks in 323 B.C., until the radical advances inspired by the Portuguese ships. Thus, Arab ships changed little during a period of almost two millennia, which suggest that they probably altered little between 323 B.C. and Nephi's stay at Bountiful around 589 B.C²². Maritime archaeologist John Illsley states that ship designs before the sixteen century changed very little, and when changes occurred they were "over very extended periods of time measured, not in terms of generations, but in terms of centuries, and in some cases, in terms of millennia.²³

The Omani Ministry of National Heritage and Culture notes, "The construction of a sewn *sambuq* (ship) of Dhofar tells much about the indigenous methods of boat construction in the Indian Ocean"²⁴. Thus the sewn boats that are found today, in the area we suggest is Bountiful, "tells much about the indigenous methods" of shipbuilding in the southern Arabia.

Since the design of the Dhofari sewn ship's is of "great antiquity²⁵", it probably gives us a rough idea of the Indian Ocean ships in Nephi's day. However, the modern *sambuqs* of Dhofar have a normal length of 25 to 40 feet²⁶, far smaller than Nephi's ship.

Nephi possibly saw two other types of ships in the waters of the Indian Ocean or the Mediterranean Sea. One class was the long Phoenician and Greek galleys which were powered by large crews of oarsmen²⁷. A relief discovered in the site of the palace of Sennacherib depicts a king in 701 B.C. and included the images of Phoenician ships.²⁸ The ships in the relief are shown as having a small sail from a central mast, but they were mainly propelled by double banks of oars. Nigel Groom believes these ships give a "very good idea" of the ships used by Solomon's navy to southern Arabia. The galleys were very poor candidates for transoceanic voyages; Groom explains:

 \dots rough weather of the monsoons, forcing crews to spend long periods in harbour awaiting favourable conditions. At this period sailors did not navigate by the stars and ships clung to the coast, travelling only when they could see. Nor did these ships carry provisions and water for extended periods at sea.²⁹

The galleys had long, narrow hulls that were vulnerable to 'hogging', or breaking its back between waves.³⁰ They were warships that were designed for speed, maneuverability and carrying troops, and were beached at night so crews could camp ashore³¹. Finally, they primarily used oars, unlike Nephi's ship that was "driven forth before the wind" (1 Nephi 18:8).

It is more likely that the hull of Nephi's ship was similar to the Phoenician and Greek merchant fleets, that had round hulled symmetrical hulls. Much less is known about the merchant galleys than their spectacular warship contemporaries that were featured in paintings and sculptures. We do know that by the 6th Century BC Phoenician freighters were relying on wind and had only a few oars to assist the ship in light airs³². The Greek trading vessels, called *strongyla polia'* or *holkades*, probably employed a similar design in Nephi's time. A 5th century BC picture of Odysseus escaping from the sirens depicts a single banked galley, only a few oars, a large furled sail, an oculus and ram³³. It appears that the Mediterranean merchant ships contemporary to Nephi's time, used a single square sail, one mast, had a typical length of 15 meters (approximately 50 feet), used a twin steering oars suspended from the stern quarters and had capacities ranging from 100-500 tones;³⁴ and, like their Omani counterparts, had little chance of making it across two great oceans.

In summary, the replica *Sohar's* sewn hull, combined with Vosmer's research on ancient Omani ships (the square sails, a partial deck, and stern quarter steering oars), and the general design of the Dhofar *sambuq*, give us a rough idea of what wooden merchant ships probably looked like in the waters of Nephi's Bountiful. The Qatar National Museum has on exhibit a double-ended *sambuq*, which provides another splendid example of the sewn shipbuilding technology of the Arabs. It has no nails, but uses wooden pegs and rope of bend the ship's timbers. Qatar is located in the Arabian/Persian Gulf so we are not sure if the ship on exhibit actually sailed in the open waters of the Indian Ocean. The ship is 75 feet long on the deck, and provided precious little space for passengers and cargo in hull. We suspect that the ocean going vessels might have had a somewhat deeper hull. Even with a deeper hull, much of the increased capacity would have been used for storing the ship's ballest, added weight at the bottom of the ship's hull

to keep the ship upright in rough seas. For example, the *Sohar* required 15 tons of sandbags as ballast. We believe Nephi's ship must have been even larger than the largest Arab merchant ships of his day for these reasons:

1) The Number of People Aboard

His ship's hull, with a partial or full deck, had to be large enough to carry the entire family group and their provisions to the New World. 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. The number in Nephi's party will be fully discussed in the next chapter. For now, we note that the Lord referred to his group as a "people", rather than two small families. (1 Nephi 17:9)

2) Food & Water for a Pacific Crossing

Once past India, there were few, if any, ports where Nephi could have restocked his ship. Presumably, they fished and collected rainwater when possible, but we suspect they stopped often along the way at tropical islands to search for water and food. Depending on the winds, the voyage to the New World probably took at least a year³⁵. Still, it is certain Nephi needed to have taken on board large stores of food and water. Sailing the Pacific Ocean is not a casual venture. Harry Morton notes regarding on a crossing of the Pacific:

In the Pacific, especially, it is necessary to plan well. An accurate estimate of time was, and still is, important in planning for provisions or equipment for the voyage...It was important to the health and the morale of the crew, especially when scurvy was still a scourge, without any known prevention other than a speedy voyage."³⁶

It was the wind that counted most.... 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.³⁷

Severin sailed his replica medieval Arab sailing ship from Oman to China, a distance only half that of Nephi's voyage. He carried a crew of 20 men, probably less than a third the number of people aboard Nephi's vessel. Severin describes loading his ship with provisions:

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 purchased 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 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. The thought of fresh caught fish, grilled over charcoal, was mouth-watering, but we would have to wait to see if we would have any fisherman's luck. One food item, however, I was determined to take aboard dates. Omani dates are famous in the Arab world for their flavour and sweetness. In the days of Sindbah 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. As I watched a ton of dates being manhandled aboard *Sohar* in sacks, I thought what a satisfactory ballast they must have made in the old days. ... The list of necessities was unending.³⁸

We see a similar well-planned and inspired stocking of Nephi's ship.

And it came to pass that on the morrow, after we 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 loadings and our seeds, and whatsoever thing we had brought with us... (1 Nephi 18:6)

Terms like "prepared all things", "much fruits", "honey in abundance" and "whatsoever things" suggest that the Lord wanted the ship to be well stocked.Nephi's ship had to carry in its hull enough fresh water for upwards of 50 people who would have been exposed to hot tropic conditions. For its 20-man crew, Severin's replica 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.³⁹ It is reasonable to assume that Nephi's ship required a water reserve at least twice that size. Perhaps, the greatest fear in this regard 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. Severin's ship experienced such doldrums. He recalls:

Now the squalls no longer brought rain, and the sun began to parch the deck and crew. After three weeks at sea we had consumed half our fresh water supply, yet we were no nearer Sumatra than the day we had left Galle. What was potentially more serious was the fact that Sohar had now been driven so that she lay 400 miles downwind from Sri Lanka. Effectively, therefore, there was no way we could get back to replenish our fresh water if the north-east monsoon continued [causing doldrums in the region where they were drifting].⁴⁰

We know Nephi's ship carried enough water for them to have survived the "great calm" that seems to have entrapped the ship between the time of the tempest and the time when there was once again enough wind to sail. A sailing ship drifts aimlessly without wind. Nephi wrote that "the storm did cease, and there was a great calm. And it came to pass [period of time] that I, Nephi, did guide the ship, that we sailed again towards the promised land (1 Nephi 18:21,22).

3) Ship's Repairs & Tools

Without ports of call, Nephi probably would have had thoughts similar to those of German philosopher Otto Neurath: "We are like sailors who must rebuild their ship on the open sea, never able to dismantle it in dry-dock and to reconstruct it there out of the best materials." A wooden sailing ship is in constant need of 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. He had to repair his ship, that is a given, and he needed to carry with him all the tools and supplies necessary to maintain the ship, its riggings and sails.

Although Severin eventually purchased many supplies in ports along the way, he still took with him on his trip from Oman to China many of the supplies:

On board we would have to carry enough spare materials to maintain an early medieval ship at sea for at least eight months of voyaging...' The ship rapidly began to fill up with 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 the 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 carpenter's tools, odd lengths of spare timber, bolts of spare sailcloth, lengths of extra chain, and, remembering the experience of the leather boat *Brendan*, I took along several pieces of spare ox-hide, and the needles thread to sew chafing patches and heavy leather straps. There were no fewer than four anchors....⁴¹

The fact that Nephi's ship was new does not mitigate the need for repairs and maintenance. Severin's ship was newly built yet he noted of his wooden ship even before it reached the west coast of Indian, the first leg on its long journey:

There was vital work to be done – we had to make better sails, lighten the spars, careen the ship, and constructing deck boxes to contain the lose items on deck. If Sohar had been a new car, she was now due for her all-important 1000 mile servicing.⁴²

It seems odd that a wooden ship would need to re-coat the anti-fouling (worming) coat and place wood on its maiden voyage. We must remember that the hull of his ship rested in the water while being outfitted, supplied with provisions and while it performed sea trials. Severin shares what he learned:

Sohar was now light enough to be careened. Leaving a guard on the pile of stores on the quayside, we towed her across to a sandbar on the opposite bank of the river. At high tide we put her ashore, rigged block and tackle to her masthead, and on the falling tide laid her over on one side so we could clean the hull. It was a grisly task...We had to scrape off the weed and slime and barnacles, and apply a fresh coat of mutton fat and lime to protect the timber from teredo worms.⁴³

4) Extra Sails

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. Large sailing ships carried one suit of sails for night and bad weather, the other for day and fair weather. The main sail on Severin's Medieval ship required 2,000 square feet of canvas. During one stormy day in the China Sea, his ship had five sails "ripped to shreds".⁴⁴

5) Tents

Nephi's family took tents with them to the land of promise (1 Nephi 18:23). It is likely that these were the traditional Middle Eastern heavy goat and camel hair tents. There were at least eight married couples in the group. We visited a traditional Middle Eastern tent shop in Saudi Arabia and found that the traditional tents they carried were made near Jerusalem, in Amman, the Ammon Rabbath of the Bible, which is close enough that the lights of Jerusalem can be seen from there at night. A folded 10' x 10' feet goat hair tent measured 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. If two families shared one tent, we still have a 6'x 6'x 6.5' feet of tents, not counting floor rugs, bedding, and at least a ton of tent poles and stakes.

6) Anchors, Weapons, Plates, etc.

Nephi had one of two choices, stock the ship for a long non-stop voyage to the New World, or stop and search for provisions, that is, drop anchor. Severin's ship carried four anchors. Resting the ship required heavy anchors. Ancient anchors have been recovered in Omani waters. They were made from stone and, were, of course, quite heavy. A recently recovered anchor in Oman weighed 2,200 pounds and was 9 feet long.⁴⁵ The ancient anchors on Mediterranean ships seem equally inefficient since they carried at least five anchors. An anchor of this type was just over 8 feet long and weighed over 1500 lbs.⁴⁶

What other items did the ship need to accommodate? We suspect that they took in the ship one sword for each man in the party. To this day, pirates plague the waters of the Malacca Strait. We know that at least one sword was on board, that of Laban. We also suspect that Nephi took his bow and arrow, and perhaps some form of tackle or netting to try to catch fish. A sand pit for cooking in and pots and other kitchen items seem part of the story, along with a large store of charcoal or firewood. Finally, we know the ship carried the brass plates.

7) A Small Ship Could Not Weather Rough Sea

If Nephi traveled east toward the Pacific, the only winds that could carry his ship in that direction are the southwest or summer monsoons. Alan Villiers sailed in large wooden

sailing ships off Oman. His research was based on first hand experience. He wrote of the summer monsoon:

Rain falls heavily during its continuance, and the weather is usually so bad that the exposed ports on the Indian coast are closed and the smaller trading vessels take shelter.⁴⁷

Severin noted that four of his eight Omani crewmembers had been shipwrecked during their careers at sea.⁴⁸ Nephi reported his ship being out of control and driven back for four days in a "terrible tempest" that became "exceedingly sore." (1 Nephi 18: 13-15) The idea that a small-overcrowded ship, made from flimsy local timber, could stay afloat for four days in such conditions is rather naive.

It is clear that Nephi's ship had to be large enough to safely carry all Lehi's people, their food and water, ship's operations and maintenance tools and materials, extra sails, large tents, and the sundry other items they would have needed. It also had to be strong enough to weather the great storms of the Indian Ocean and the pounding giant waves of the Pacific. When a ship flounders in a great storm, the standard order is to make the ship as high in the water as possible and ride out the storm. This is achieved by throwing overboard cargo, sparing only the people, their survival provisions, and the ship's stabilizing ballast. If Nephi had crammed everyone into an overcrowded boat, they certainly would have been swamped in the storm he described.

Requirements for Constructing, Launching & Sailing A Large Ship

To help us with the dimensions and attributes of a wooden sailing vessel capable of carrying Nephi and his party to the promised land, we enlisted the help of Frank Linehan, the Western Region Marine Surveyor for United States Maritime Administration. He is an officer in the Merchant Marines and is considered an authority on the performance and construction of deep water sailing vessels. With regard to the size of the vessel, he writes:

Parts of the voyage were in extreme weather from the description of the trip in the Book of Mormon. This would dictate a fairly stout vessel of at least 100 to 120 feet in length but could have been as small as 80 feet with a wide beam, high freeboard or bulwarks and light tonnage of no less than 100 tons⁴⁹.

These dimensions are similar to the larger wooden sailing vessels still found in Oman, called *Bughlas*. These ships traded with Bombay, the Gulf of Bengal and the Red Sea. The largest of this class of ships is called the *Bateel* and has an average weight of 100- 200 tons^{50} , the largest ships weighing 300 tons⁵¹. [Fig.]

The *Bateels* used for trading with China carried a crew of over a hundred men and were at least 100 feet in length.⁵² By way of comparison, Columbus 'Nina'⁵³ was approximately 60-70 feet long⁵⁴. This was no rude raft that Nephi built, but a robust wooden vessel capable of crossing thousands of miles of open sea and withstanding a storm of four days, the "great and terrible tempest." (1 Ne. 18:15).

Linehan continued:

I believe...that Nephi had to go somewhere that was fairly sophisticated in marine lore for that period of time. (*The vessel was*)...Most likely a split rig like a schooner rig or equal. That being the main mast aft and the mizzen mast being forward. A one masted vessel would have been too tall and not so well balanced in heavier weather. At that particular time, the vessel would have been constructed quite beamy aft with a fine entry forward, that I am sure. She would have to be constructed on "ways" so that she could be launched prior to outfitting i.e., stepping the masts, rigging, ground tackle and etc. This rules out a launch from a beach with waves. This too, I am quite sure of. It had to be an area where good sized timber was available, manila for lines and rigging, bronze and copper smelting for parts of the vessel, canvas fabric or equal for sails, and last, but not least, there would be skilled shipwrights.

All the above would be necessary to construct a suitable vessel to carry 35 to 50 persons. The aforementioned criteria should help you narrow down the port of embarkation."

Linehan's description fits well what is known of medieval ship, however, many of the same basic principles must have applied to Nephi's ancient ship. For example, it needed a port in which to construct it and "ways" on which to launch it into the water. Once in the water, the hull could be tested then outfitted with masts, riggings and possibly a deck. The dimensions of the hull, whether covered by a deck or not, still would have needed to have been well over fifty feet in length and have a tonnage of over 100 tons. To stay balanced in rough weather, the ship would have needed more than one sail. Large timbers were perquisite for the building of such a ship as well as a strong fiber from which a sail and ropes could be fabricated. Finally, a body of maritime knowledge was needed from which Nephi could learn to construct, launch, sail and command a large ship.

Nephi's Great Challenge

By the time Nephi reached Bountiful, he had known for several years that he would need to cross many waters to reach the land of promise. However, he probably did not sense the full magnitude of the challenge until he looked out over the vast waters of the Indian Ocean. Nibley suggests that Nephi had initially decided that the task was impossible: "Lehi's people ...were horribly upset when Nephi, who himself had thought the project impossible (1 Nephi 17:8-9),

undertook by special instruction to build a ship"⁵⁵; and that Nephi was "simply

staggered when he was commanded to build a ship"⁵⁶."

We know that in the Valley of Lemuel Nephi had witnessed in a vision the land of promise and its eventual multitudes of people numbering as the sand of the sea (1 Nephi 12:1). In the same vision, he actually "beheld many nations and kingdoms"(1 Nephi13:1), and "beheld many waters"; that divided the Gentiles from the seed of his brethren (1 Nephi 13:10). His eyes being opened in a vision, Nephi actually saw the Pacific and Atlantic oceans, and how they divided the people of the world. Nephi must have understood that his voyage would be long and dangerous. To make matters worse, the ships that sailed in the Indian Ocean were not suitable for making such a journey. Even if Lehi could have somehow negotiated the exchange of his great possessions in Jerusalem for an existing ship, it would have been futile. Nephi needed to build a better ship. Thus, when the Lord instructed Nephi to go unto the mountain, it was not, as is often believed, to command Nephi to build a ship.

What transpired on the mountain appears to have been a familiar process for the faithful. First, Nephi "cried unto the Lord," presumably because he needed the Lord's help. (1 Nephi 17:8) He needed a design for a large oceangoing ship that was capable of reaching the promised land. Upon asking, the Lord answered Nephi's cry, "Thou shalt construct a ship after the manner which I shall show thee that I may carry thy people across these waters" (1 Nephi 17:9). Nephi does not seem surprised on receiving instructions on how to build the ship. On the contrary, he appears to have already studied shipbuilding. When he received the Lord's instructions, Nephi does not ask the Lord what tools he needed, implying that he already knew which shipbuilding tools he needed, only where he could find ore to make the tools (1 Nephi 17:10).

The reason the Lord needed to show Nephi the manner in which to build a ship is obvious when viewed in an historical context. The ships of that period were not suitable for such a voyage. Among other things, their hulls leaked and they were prone to fall apart in heavy seas. As late as the 13th Century AD, Marco Polo described the vessels of Oman as:

"...[the ships] have no iron fastenings, and are only stitched together with twine made from the bush of the Indian [i.e. coconut]. They beat this husk until it becomes like horse-hair, and from that they spin twine, and with this stitch planks of the ship together. It keeps well, and is not corroded by the sea-water, but it will not stand well in a storm.⁵⁷

In building the *Sohar*, Severin had ample funding from his sponsor, Sultan Qaboos bin Said of Oman. He hired highly skilled and experienced shipwrights and personally selected all the materials. Still, by the time his Medieval replica reached Singapore, it was leaking so bad it had to pump its bilges twice a day.⁵⁸

The ancient Arab freighters were designed for deep-water sailing but only for the relatively short crossing from Arabia to India usually less than a 1000 miles. Severin notes of the sewn ships of Arabia: "Modern naval historians wrote of Arab ships breaking into fragments in storms, and literally falling apart; of men endlessly bailing leaking bilges, of capsizes and shipwrecks.⁵⁹

It is probably also true that when Nephi's arrived at Bountiful his knowledge of shipbuilding was nil. John L. Sorensen goes so far as to state: "No hint can be found in the text that anyone in Lehi's party had any knowledge whatever of nautical matters"⁶⁰. As Linehan pointed out, to build a ship of this size Nephi would need very skilled shipwrights, an expertise he could not have developed in Jerusalem. While the Lord gave Nephi the instructions on how to build the ship, He did not give him the lifetime of experience that shipwrights need to perform their craft. Desiring to work wood well and actually having the dexterity to do it are two different things. Nephi's ship was large. The well-funded Severin, an experienced shipbuilder and sailor, recalled his feelings on starting to build his replica, "I began to realize the daunting scale of such a project".

Divine Intervention or Divine Inspiration With Individual Responsibility

The Book of Mormon is historically accurate in asserting that the Nephi needed the Lord's instructions Nephi on how to build a ship capable of taking his people to the New World. From our research, it appears that reliable technology for transoceanic did not exist at that time. However, having divinely inspired instructions for building the ship was only the first step in an extremely challenging undertaking. Once Nephi had the "manner" in which to build his ship, he still had to actually build it. It is one thing to have a spiritual or theoretical understanding of how to do something and quite another thing to kinesthetically do it. It takes many years of experience in order to take a ship's blueprints and turn them into a sea worthy vessel. Severin noted of the skills required of the shipwrights who constructed the *Sohar*:

Whether cutting a foot-thick lump of timber to size, or shaping the finest sliver of wood for a delicate joint, 90 per cent of the greenshirts' [his shipwrights] work was done with hammer and chisel; only very reluctantly did they pick up a saw or a plane. The soft iron chisel was their tool, and with it, they could work wonders. They could carve a plank into delicate curves, or they could shape the 60-foot spar into a taper as if it had been turned on a giant lathe.⁶²

To prevent leaks, *Sohar's* planks had to be planed to 1/64 of an inch in exactness. How could Nephi have learned to do this if not at the side of an experienced shipwright? The same can be said for sailing a large multi-sailed ship. It takes years to learn and practice the skills needed to master a large sailing ship.

One could argue that it was no problem at all, for the Lord could have simply supplied Nephi with all the materials and knowledge he needed on request. That is, any time Nephi needed to know something, presto, the Lord gave him the answer. Likewise, if Nephi required some materials to fabricate his ship, the Lord conveniently showed Nephi where to get them. We refer to this as the 'storybook' version of Nephi's ship. It is a scenario that we think significantly misrepresents how the Lord deals with his faithful servants, significantly undervalues what Nephi actually accomplished through applied faith and works, and leads to a mythological, rather than factual, understanding of the Book of Mormon. Besides, the storybook version makes no sense. If the Lord simply wanted to supply everything for Nephi, one miracle after another, why build a ship in the first place? Why not just have him build an airplane or unfold a magic carpet? Why not have them walk across the ocean?

The likelihood of the Lord-did-it-all theory seems even more doubtful if one considers the context in which the ship was built. Why would the Lord suddenly start intervening in every matter, after having Nephi and his group suffer great afflictions for eight years in the desert where they nearly died and having them later almost drown in a great tempest at sea? Nephi seems to have had to suffer through each ordeal the same as any man. The sun shone just as hot on him as anyone else, the rain fell just as wet on him, the blew just as hard. So why now would we believe that the Lord handed everything to Nephi on a platter, giving him skills he had never learned, knowledge he had never gained and abilities he had never developed. This totally misses the point that the building of the ship, like the desert journey, were all part of Nephi's development under the hand of the Lord, but he too would have to learn line upon line, precept upon precept, as all who had gone before him or since. To hand Nephi everything would have made a mockery of the previous eight years. If there were not some higher purpose for crossing the wilderness and learning to building a ship from skilled shipwrights, "Why didn't Lehi just sell his house in Jerusalem and have the Phoenicians build him a ship after the manner specified by the Lord?" It would have been a shorter journey to the promised land via the Mediterranean and Atlantic. The Lord seems to have made a pioneer par excellence of the faithful Nephi, who on his journey acquired all the basic skills essential for the colonizing of a civilized ancient society in wilderness of the Promised Land. Building a ship required Nephi to learn from local tradesmen how to smelt ore to make tools, to cut stones to form anchors, to work wood within very tight specification, to weave sails and to fabricate rope, to mold pots for storing water, to tan hides for bellows and for fastening the ships riggings. Culminating with the building of a great ship Nephi's journey was, we might say, his university. In the New World he became their ruler and teacher (2 Nephi 5:19), passing on to a new society a storehouse of knowledge that took civilizations thousands of years to acquire. Nephi personally taught his people the basic skills of metallurgy (2 Nephi 5:15), high quality wood working skills - manifested in the wilderness family's ability construct a temple of "exceedingly fine" workmanship (2 Nephi 5:16), building construction, and to work in all manner of woods (2 Nephi 5:15). How could one man have known all this? He could have built a large ship under the tutelage of a master tradesman in Dhofar.

Nephi's account of building and sailing the ship is far from a storybook. As Shakespeare penned, "Ships are but boards, sailors but men"⁶³." Nephi and his helpers built an actual ship from timbers and real men, not angels, had to learn to sail it. However, in Nephi's

case, his ship had to be technologically superior to the designs of its day, and thus the need for divine aid in the design.

Of the hundreds of skills Nephi needed to learn in order to reach the New World, he only mentions that the Lord assisted him with two: 1.) the "manner" in which to build a ship capable of reaching the land of Promise (1 Nephi 17:8), and 2.) in manner to work the timber in order to form the ship (1 Nephi 18:1). Of the scores of materials required, the Lord seems to have helped Nephi with only two them -1.) where to find ore and 2.) a compass for the voyage, the *Liahona*. It appears that Nephi had to learn all the other skills himself, as well as, find a long list of shipbuilding supplies.

Undoubtedly, the Holy Spirit inspired Nephi in many of his decisions. For example, we know the Lord showed him "great things" on the mountain (1 Nephi 18:3). However, it seems unlikely that a prophet would consider shipbuilding skills as "great things". Certainly, the Lord inspired Nephi from time to time, but it also seems likely that Nephi used his own initiative in acquiring the skills and resources he required. Brigham Young, who himself led a difficult exodus to a land of promise, taught:

The old theory is that the kingdom of God, and all pertaining to it, is spiritual and not temporal; that is the traditional notion of our brother Christians. But a person may merely *think* until he goes down to the grave, and he will never be the means of saving one soul, not even his own, unless he adds physical labor to his thinking. He must think, and pray, and preach, and toil and labor with mind and body, in order to build up Zion in the last days. You cannot build your house...by mere thinking, it also requires physical labor...If we talk to you and you sit and hear, that involves labor, and everything connected with building up Zion requires actual, severe labor. It is nonsense to talk about building up any kingdom except by labor; it requires the labor of every part of our organization, whether it be mental, physical, or spiritual, and that is the only way to build up the kingdom of God.⁶⁴

We will have to go to work and get the gold out of the mountains to lay down, if we ever walk in streets paved with gold. The angels that now walk in their gold streets, and they have the tree of life within their paradise, had to obtain that gold and put it there.⁶⁵

When asked to go to Jerusalem and acquire the brass plates from Laban, Nephi taught that the Lord "giveth no commandments unto the children of man, save he shall prepare a way for them that they may accomplish the thing which he commandeth them" (1 Nephi 3:7). The Lord did just that, and Nephi acquired the plates, but only after many difficulties, dangers and individual efforts. The Lord also "prepared" (1 Nephi 17:5) Bountiful as a place where they could survive and at the same time find the materials and knowledge they needed to build a ship and sail her across the oceans. Indeed, the Lord led them to Bountiful. Why? We believe it was there that Nephi, by applying his own initiative, could learn from experienced people the skills he needed to know, and where he could work-for, trade or simply discover the materials he needed in order to fulfill the commandment which the Lord had given him. It is an eternal principle that the Lord will help those who ask Him but only if they are willing learn and apply all they can. Nephi taught this principle in terms of personal salvation: "for we know that it is by grace that we are saved, after all we can do (2 Nephi 25:23).

What Nephi Required To Sail To The New World

When Tim Severin built the *Sohar*, a 52-foot replica of a Medieval Omani sailing ship, he recognized right away what he needed. He wrote, "It required a place to build her, a port to fit her out, and a large crew to sail her⁶⁶. He also spent a great deal of time and money hand-picking the materials necessary to build the *Sohar*. Nephi's ship required one item *Sohar* didn't need, an experienced captain to command her - Severin already an experienced transoceanic sailor.

1) Harbor To Build & Launch Her

Linehan points out that the ship would have been launched prior to outfitting. Let us briefly discuss why this would have been the case. When considering building a vessel of this size, Nephi would have been presented with a paramount problem: How to launch it? The coastline of Dhofar is made up of rocky cliffs and the rest of sandy beaches.

Obviously, the ship could not be constructed on the cliff face and dropped into

the sea, nor could it be launched from a beach while being pounded by large surf.

Both would result in a shipwreck⁶⁷. During the monsoon season, the breaking

surf of Dhofar can be heard from miles away. The Bents wrote of their

exploration of southern Arabia, "surf is always rolling in from the Indian Ocean.⁶⁸

Bowen quotes another author's firsthand account of the fishermen in Dhofar:

...go out to fish seated on inflated skins, and it is surprising to see how well and safetly they push off through a heavy surf, such as no boat live in; and from my experience on this coast, I can with confidence state that they are seldom without such surf as would make the landing in a ship's boat [sic], a hazardous experience.⁶⁹

the custom of fishing from inflated skin floats has persisted in this area because of the poverty and because of the heavy surf that apparently exists at virtually all times, making the use of even the strong, flexible, sewn boats impractical.⁷⁰

Launching a large hull weighing at least 100 tons, which as no means of power or control, from a shadow beach with strong currents and breaking surf is physically impossible. However, a survey of protected natural harbors in Dhofar, where Nephi could have built and launched his ship, reveals none existing today.

No other great land mass on the surface of the globe provides such a paucity of shelters for ships. The Red Sea has few bays on the Arabia side, but [does have] many narrow inlets...some distance inland and then broaden out into lagoons in which small sailing vessels can anchor. The one good natural harbour along the southern coast is Aden. Between Ra's Fartak and Ra's Hadd there are four large bays...but all are so open to the sea that they give no protection."⁷¹

The Bents reported of the section of the Indian Ocean shoreline which includes Dhofar, "from Mukalla to Sur there are no ports of any consequence"⁷². Severin had difficulty finding a suitable place to construct the *Sohar*. He needed a construction site next to deep calm water, so that when the hull was finished, the massive structure could be gently lowered on 'ways', a ramp with a launching cradle and greased logs, into its natural domain. If the harbor were not completely protected from storm tides, it had to be elevated. Finally, Severin was forced build a proper construction yard for the *Sohar* by bring in 300 tones of hard packed gravel. The ship was built a full meter (39 inches) above tide levels.⁷³ The first challenge Nephi faced was finding a protected harbor, a place where he could actually build and launch a large ship.

2) A Port To Outfit Her In

Nephi's text implies a calm, orderly and seemingly routine embarkation where they all boarded the ship before they "did put forth into the sea" (1 Ne. 18:8). There is only one way that everyone could be on board the ship and then 'put forth into the sea'. The ship was already in the water and to "put forth into the sea" meant that it was not yet in the sea, i.e., it was in an inland waterway that led directly to the sea. In other words, they were in a harbor. This, of course, makes perfect sense. Since time immemorial, large vessels have been launched into the still waters of harbors to avoid the very problems we have outlined above. The Dhow shipyards of the Arabian Gulf were traditionally placed right at the water's edge in a protected harbor⁷⁴.

As noted before, Severin built the *Sohar* on an elevated platform within a few yards of deep calm water. When the hull was finish, it was time to move the ship into the water before adding the significant weight of the deck, fittings, ballast, provisions, anchor, etc. Even in its partly finished state, Severin's crew had difficulty moving the *Sohar* into the water. Severins wrote:

The vessel seemed immense, towering over the sand, a monument to the skill of the men who had built her, 140 tons of raw timber turned into a single, elegant, artifact, every joint and stitch dedicated towards her sole function of harmonizing with the sea.

We strapped a cradle under the hull, knocked away the keel blocks, and shackled up a tractor to tow our creation to the water's edge. Under the skids of the cradle we laid the last of our timber from India, greased with mutton fat. The tractor's engines revved up, and took up the slack. With a loud twang, the steel towrope snapped.

Once Nephi got the heavy hull of his ship into the water, he could add the additional items. For example, the *Sohar* required sand bags weighing 15 tones to be loaded as ballast⁷⁵. To finish the ship and then load it, Nephi needed a place to moor her next to his construction site.

Once moored in the water Nephi could for the first time judge the quality of the hull. There is a compelling argument for needing a calm harbor for building a great ship. What is the most important feature of any boat? Surely, it is that the boat be watertight! Undoubtedly, Nephi constructed the boat and launched it from the dry dock into the still water where he would check its water tightness. If there were a problem, he would have the opportunity to deal with it there in still water and an empty hull.

Having a place to moor the ship would have provided another key element for Nephi successful voyage, sea trails. Sea trials are more than just a precautionary measure to make sure the ship is sound. They are the means by which the captain and the ship's crew learn to sail her, the process by which shipbuilders discover the proper amount of sail for different conditions, and of extreme importance what is the right amount and balance of the ballast. Before they entered the ship for the voyage to the New World, Nephi's family knew that the finished ship was "good", and the "workmanship thereof was exceedingly fine" (1 Nephi 18:4). This implies that they had already conducted successfully sea trials. Otherwise, how could they have judge the ship's workmanship unless they saw that the hull was sound and watertight, that the ship rested properly and equally balanced in the water, and how she handled in various seas? Severin, an experienced captain, recruited eight Omani professional sailors as the core of the crew of the *Sohar*. Still, he conducted sea trails to adjust the ship and train the crew⁷⁶. Without sea trails, 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.

The Book of Mormon is in perfect harmony with shipbuilding methodology, since it implies that Nephi's ship was tied to a mooring before they disembark. Moored next to a natural sea wall or a steep shoreline, Nephi would have use 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. He wrote, "And it came to pass that the voice of the Lord came unto my father, that we should arise and go *down into* the ship". (1Nephi 18:5, Italics added) This is quite different from the English idiomatic phrase 'to go down *to* the ship'. Nephi continues: "we did go *down into* the ship, with all our loading and or seeds, and whatsoever thing we had brought with us." Finally, the party came on board by once again, going down into the ship's hull, "we did all go down into the ship, with our wives and our children" (1 Nephi 18:6).

It has been suggested that the expression to "go down into" merely implies that the vessel had more than one deck and the family went below deck. However, this makes no sense. In verse 8 Nephi tells us that they "all' went down into the ship, this would leave no one on deck to see to navigate out of the harbor, steer or set sails. Vosmer believes that ancient Omani ships probably had no deck, thus, no level to go down into. The fact that they danced on the ship (1 Nephi 18:9) would insinuate space sufficient for that purpose, perhaps a full or partial deck. Whether or not Nephi's ship had a deck, moorings were necessary to construct and load his ship, which is exactly what Nephi describes.

Verse 8 seems to remove any doubt that as to what Nephi meant by "down into the ship". It meant the physical act of getting aboard the ship. Here it is possible to imagine the loading of supplies, the family boarding the ship, the releasing of the ropes and the setting of sails: "after we had all gone down into the ship, and had taken with us our provisions and things which had been command of us, we did put forth into the sea" (1 Nephi 18:8). We believe that there is only one explanation that fits these verses, the boat

was moor in the water and the family used a gangplank to go from a natural sea wall down into it. If the ship was on a beach or resting at anchor in the water without a mooring, they would have to go "up into the ship". There is no basis in either the scriptures or logic for Nephi building and launching the vessel anywhere other than in a harbor with moorings. Nephi's second challenge, finding a suitable mooring where he could outfit his ship, carry out a number of sea trials, and load board it with provisions.

3) Materials To Construct A Ship

Large Timbers

Without a source of large and strong timbers, Nephi could not have constructed his ship. Perhaps in a 'storybook' version of Nephi's ship, a large sailing ship could be built with the soft and gnarly trees that are commonly found in the hills of Dhofar, but in reality such a ship would break apart in the first rough seas. American explorer Gene Savoy built a 73 foot wooden replica ship made entirely of Peruvian mahogany. It was his third ancient replica ship, this one to attempt to demonstrate how ships like those of King Solomon could have traded in ports as far off as Peru. His wooden replica never finished it's crossing the Pacific Ocean. He relates:

About 3:00 a.m. on Wednesday morning, the ship encountered trouble with slamming waves. One of the cross-beams connecting the two dragon-headed hulls "popped" as the forceful breakers hit the ship off the port beam. The crew immediately changed course for the Phoenix Islands, but the breakers continued to hit the weaken ship, and another cross-beam detached. The hulls, now being held together by netting, could not withstand the pressure of the waves ...

The crewmen, with only their clothes on their backs, watched as Feathered Serpent III broke apart and began to sink... It's tragic to watch your ship go down, but everyone survived.⁷⁷

Linehan, a hull expert, stressed to us the need for large hardwood timber. Nephi's

ship would have been at least as long as the Sohar. Severins wrote:

I carried a shopping list for my timber, an inventory of every plank, beam and frame, its size and curve. The list was worked out from the technical drawings of a replica *boom* which had been produced by Colin Mudie, the brilliant naval architect who had also prepared the lines plans for *Brendan*...

All agreed that the keel of the ship was the key to its construction. The keel of a *boom* is long, straight and massive; it is the very backbone of the vessel, and its dimensions dictate the remainder of the ship, for an Arab shipwright builds mathematically. Once the keel is laid, every other timber relates to it at a particular angle or size, so that if one tells an Arab shipwright the type of vessel – *boom* or *sambuk* or whatever – and the length of its keel, he will know exactly the final size and shape of the

finished ship. Where European shipwrights measure the size of a vessel by its length overall or on the waterline, the Arab shipbuilder calculates a ship by the length of its keel. The problem was that the keel piece to my replica needed to be 52 feet long, 12 inches by 15 inches in cross-section, and dead straight. Also Colin wanted it to be cut from a single bulk of wood, which meant a superb log, of a size in hardwood virtually unobtainable in Europe.

In July I found the great tree that would provide the keel of my ship. It was a magnificent tree, owned by a family who had tended it for half a century, trimming away the lower branches so that the main trunk kept pushing upward.⁷⁸

Next, Severin looked for a tree suitable for a mainspar, the timber from which the sail is suspended. He relates:

Kunhikoya's final triumph, and his ultimate disaster, came when we went back to Beypore to purchase the masts and spars for the ship. Now we looked for a very special timber which the Indians call *poon*. Like a tremendous spearshaft, a mature *poon* tree sometimes rises 50 feet before it puts out a single branch. For centuries seamen have known that poon makes superb masts and spars. Indeed the Royal Navy used to send agents to India to purchase what the Royal Navy called 'poonspars' for its sailing vessels.⁷⁹

From that tree, a 81-foot mainspar was carved. Severin wrote later just what he meant by "ultimate disaster". Halfway across the Indian Ocean *Sohar's* mainspar broke in a high wind. The broken timber left the ship crippled and one man injured. It also underscores the importance for finding, not just long timber, but hard strong timber.⁸⁰ The *Sohar* also needed a 65-foot log to taper into a mast⁸¹, and strong cross beams to support the hull.

Linehan and Severin know that the forte of the entire ship depends on the strength of its large timbers. A weak link in any one timber could doom a ship in rough seas. Severin was meticulous in recreating his Omani replica. Why would a maritime archaeologist of international reputation, build an authentic replica ship of Oman using timber from India? Severin explains, "Historically, nearly all materials for shipbuilding in Oman have been imported from the Indian subcontinent, Oman being lacking in suitable timber for large boatbuilding..."⁸². This seems to have been as true in Nephi's time as it was in Medieval times.

We addressed this problem to Tom Vosmer, Director of the Traditional Boats of Oman Project. "Could any Omani trees have been used to build a large ship in the first millennium BC?" Vosmer answered that the sidr (Ziziphus spina-christi), ghaf (Prosopsis sp.), and acacia species83 could have been used. However, these three species were only used for small, none structural parts of the ship. The only known exception being the prefabricated Byblos ships of the Egyptians who used short pieces of acacia, since it was the only timber available on the Nile. The use of acacia imposed "constraints" and "major problems for the Egyptian boat builders"84, and made their boats very poor candidates for transoceanic voyages. Vosmer noted on the ancient ships of Oman:

Most, if not all, planking timber had to be imported. Teak (*Tectona grandis*), venteak (*Lythracea lanceolata*), mango (*Mangifera indica*), as did spar timber. The most common was poon (*Callophyllum tomentosum*), although the Chinese used teak and the Arabs may have as well. Bamboo, also imported, was used for light spars⁸⁵.

Fletcher provides his assessment of what Nephi faced:

The challenge we've examined thus far make it seem almost improbable that someone could build a boat on the southern coast of Arabia and sail safely to India, much less to the promised land. First, we currently have a timberless coast, except for Dhufar, {Traveling inland in Dhufar, the Bents found 'the hill slopes around were decked with fine sycamores and acacia-trees.' 'We encamped under two large fig-trees...Three kinds of figs grow here. Some are little purple ones with narrow leaves, and some large red ones with broad leaves...We went up the valley through a thick forest of lovely trees. There were myrtles, ilex, figs, acacia, and a quantity of other trees...and great high trees of jasmin.' 'Madder trees grow about,' as well as 'clusters of sycamores and limes growing here and there.'} and most of the trees growing in all of Arabia are not suitable for making ships that will last on a long voyage.⁸⁶

A more accurate assessment would be that is none of the trees growing in Dhofar could have been used to provide the mast, spars, cross beams, bow piece, keel or planking for Nephi's ship. Biologist Thomas Key flatly states that in Arabia where Lehi reportedly traveled, ever since Pleistocene times "there has been ... no Bountiful and no timber that Nephi could have used to build a ship³⁸⁷. Indian archaeologist Ratnagar points out that "In the historic period most Indian boats were made of teak. Even Arab craft were made on the west coast of India, due to the availability of wood.⁸⁸ Note that many of the Omani ships were actually built in India where good timber was found, while as Ratnagar writes: "The typical trees of Oman, the date palm, tamarisk and acacia, do not yield particularly fine wood. Wood is today imported by Oman for purposes such as ship building"⁸⁹. Severin is of the same opinion, "Oman lacks trees large enough to provide first-class boat timber"90. German maritime archaeologist Norbert Weismann, who specializes in Oman writes, "Even in Dhofar there are not enough trees for considerable shipbuilding. So for wood, it was almost [all] imported or the ships were built in India or other places with true forest"⁹¹. Clearly, Nephi had a third major challenge, acquire ship building timber in a land where no such trees appear to have grown.

Coconut Rope

If Nephi were able to acquire large timber, he still needed materials to affix the timbers together to form a stout vessel. Nephi probably had two choices, nail the timbers in place or sew the timbers together with coconut rope and wooden pegs. With the Lord's help, he had found a source of ore, so nails are not out of the question, and this might have been one of the changes in shipbuilding technique that the Lord inspired Nephi to make. However, binding the timbers with nails would have required thousands of nails.

The other choice was that of sewing the ship together with coconut rope. This was the only way large ships were constructed in Dhofar in ancient times⁹², and is probably the method Nephi employed to affixed the timbers of his ship. Severin used this method to construct the Sohar. Since no one today builds sewn ship in Oman, Severin imported coconut rope and shipwrights from the Laccadive Islands off India. Even if Nephi used

nails, he still would have needed ropes for the ship's riggings. So where did Nephi acquire coconut rope? If he made it himself, he would have needed to have had the precise knowledge of how to make good quality rope. Severin explains just how specialized this process is:

Kunhikoya [one of his shipwrights] also possessed an encyclopedic knowledge of the coconut rope trade and had done a bit of sewn shipbuilding himself. He told me that what I needed for shipbuilding was a very special quality of coconut rope. It had to be hand rolled from the best-quality coconut husk. These husks had to be soaked, and retted, in sea water to loosen the fibres. Most coconut fibre is retted in fresh or brackish water, said Kunhikoya , and this type of fibre was useless for my purposes – it was not strong enough for a ship. After retting in sea water, the coconut husks had to be dried in the sun, then pounded with wooden clubs on wooden blocks to loosen the powder. If metal hammers were used for the pounding, the fibres would be crushed and damaged and the rope would again be too weak. After that, the fibre should be twisted by hand into string. If twisted by machine, the threads would be too feeble.

Kunhikoya announced that I would need about fifteen hundred bundles of coconut string to build the ship I needed. I calculated the total length, and it came to four hundred miles! This seemed a colossal amount, but events proved Kunhikoya right.⁹³

It took 50,000 coconuts to make the 400 miles of rope needed to build the *Sohar*⁹⁴. Challenge number four, where could Nephi find the rope or coconuts to make the rope. If he acquired the coconuts, how did he learn to make coconut rope?

Sails

Linehan believes that Nephi required a multi-sailed ship to have crossed the Pacific safely. A single sailed ship of that size would been too top heavy. Ships of Nephi's time appear to have had square or rectangular sails.⁹⁵ 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 bid their time.⁹⁶

It would seem improbable that Nephi could have sailed half way around the world with rectangular sails. If the winds did not blow exactly toward the east, a Pacific voyage would have taken a very long time. According to Herodotus, a journey to the south end of the Red Sea with squared sails and under oars took forty days.⁹⁷ However, Nephi recorded that at least initially they were "driven forth before the wind towards the promised land" (1 Nephi 18:8), possibly hinting that they were using squared sails. However, this could have been one element in ship's design where the Lord showed Nephi an improved technology, the lateen sail. Fletcher explains:

With a 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. {Casson points out that 'The Arab dhows [with their lateen sails] that sail to India today and have for centuries...can travel against the wind but...only against a light one.⁹⁸) Casson cites Alan Villiers who sailed in a dhow constructed after the ancient pattern and 'beat for 500 miles along the south coast of Arabia...against breezes so mild that the ship often merely ghosted along and was frequently becalmed.' Nephi's use of the words 'driven forth before the wind' gives the impression that the

wind was strong and that it blew in the directions needed to take them to the promised land. 99

It is interesting that after the great tempest experienced by Nephi and his family, Nephi writes not of a strong-driving wind, but a "great calm" (1 Nephi 18:21) after which he "did guide the ship, that we sailed again towards the promised land" (1 Nephi 18:22). Having to "guide" the ship, possibly hints of tacking and wearing, Nephi "sailed again toward" their destination. If this was the case, they were sailing with a lateen sail. We can only guess what shape the sails were on Nephi's ship. All we can assume is that there were probably multiple 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. Severins writes of the trouble he encountered with the canvas sails on the *Sohar*:

But now at sea it was evident that the original sailmaker had also used very poor quality canvas. The cotton canvas has hand made in order to be authentic, and with the first tug of the wind the loosely woven cloth had stretched until the sails bulged ineffectively. At our next port of call, I realized ruefully, we would have to organize a new set of sails or *Sohar* stood little chance of reaching China before the typhoon season in the South China Sea made navigation very hazardous.¹⁰⁰

Severin eventually replaced the sails on the Sohar¹⁰¹. The replacement sails required 2 $\frac{1}{2}$ tons of canvas. One sail alone measured 3,000 square feet¹⁰². Traditionally the sails on the Arab ships were woven from coconut or palm leaves, or made from cotton cloth¹⁰³. It probably would have taken Nephi, or someone in his party, as much time to learn to weave 2 $\frac{1}{2}$ tons of quality canvas as it would have taken to form the entire rest of the ship. Major challenge five, how to acquire sails for the ship.

Other Materials

As Severin discovered, the list of items needed for the construction of a large sewn sailing ship at times seems quite odd. He notes:

Some of the items he said I would need for the construction of a sewn vessel were truly bizarre. There were the husks of 50,000 coconuts to be used as a kind of wadding, two particular thicknesses of string, and forty bundles of a curious knobbly wood from the islands which I suspected was mangrove root.

There was also a quarter ton of the tree sum called *chundruz*, a natural resin which is more usually employed for making cheap incense. The boatbuilders would use it as a type of shellac, painting it between the planks. To select his *chundruz*, Kunhikoya would take a handful of granules of resin, and set them alight in order to see how they burned. It took almost a day of these fiery tests before he was satisfied with the selection of the *chundruz*...¹⁰⁴

Kunhidoya also wanted half a dozen barrels of fish oil, which was to be mixed with melted sugar and painted on the outside of the completed hull. The oil came from tiny fish which were boiled down in vats near Mangalore and the grease skimmed off. The stench of the oil was indescribable. Next there was a half a ton of lime to be plastered to

the underwater surfaces of the ship as a form of anti-fouling. To obtain the lime, we went to a lime burner near the fish oil vats. It was like a scene from Hell. A long file of women carried buckets of seashells on their heads to dump them in a heap outside a long, low hut, which smoke billowing up through the thatched roof. Inside a very old man, a mere skeleton, pedaled a wheel to force air into the charcoal-fire tubs of burning shells. More gaunt men, with cloths bound around their heads, stirred the tubs with long wooden spades.¹⁰⁵

Without caulking, Nephi's ship would have sunk in the very harbor in which she was built. Without anti-fouling, shipworms would have destroyed the ship before it reached the west coast of India. Some species of tropical shipworms grow to six feet in length and attain the thickness of a man's arm¹⁰⁶. As an experiment, Severin's crew left an unprotected timber below waterline to judge the impact on the teredo worms. The results were sobering.

But the panels of unprotected wood, which we had attached to the hull as an experiment, were honeycombed with wormholes as thick as a large knitting needle, for they had been ravaged by shipworm in the two months since they had been put in place. The worst panels, slabs of wood 2 $\frac{1}{2}$ inches thick, could be snapped with one's bare hands like wafers. It was a sharp lesson in the importance of protecting *Sohar*'s hull from teredo.¹⁰⁷

Challenge six, the young man from Jerusalem, a lad with no seafaring background, had to find the proper ingredients to caulking and anti-fouling. If he made these compounds himself, how did he learn to prepare lime and the coconut husk? Any mistake in the formulas could have been fatal. An ineffective anti-fouling coating would have sunk the ship in less than two months.

4) Shipwrights

Our LDS hull expert Linehan, has owned large sailing ships and has sailed them across the Pacific. He states without reservation, at "Bountiful... there would be skilled shipwrights". Constant inspiration or not, it is infeasible that Nephi could have constructed an advanced sailing ship without the aid of skilled shipwrights. Even if he and his brother built the ship alone, which we doubt, he still needed to observe and practice under a master shipbuilder. Rather than try to argue this point, let's observe what Severin had to do. He had already constructed a small sailing ship and sailed it across the Atlantic. When it came to constructing a large sewn vessel he had to find men still alive who had this knowledge. His search led him to the Laccadives Islands. The shipwrights he found were effectively "the only men left in the world who still retained the ancient art of sewing boats of oceangoing size"¹⁰⁸. Acquiring the knowledge of how to build these great ships was not something learned by cramming. Severin wrote of his shipwrights:

Their fathers, grandfathers and great-grandfathers, and untold generations before that, had been carpenters. There had never been any question as children but that they would also become carpenters; and they had begun work as soon as they were big enough to pick up a mallet. Now, as grown men, they performed like well oiled machines.¹⁰⁹

The accuracy expected of the carpenters was extraordinary. Because the hull was being stitched together, it could not be caulked: that is, it would not be possible to stuff filling material into any small cracks between the planks before the ship was launched, as is the

normal practice when building large wooden ships. The action of hammering in a filling material would merely stretch the stitching and force the planks wider apart. So the hull of the new ship had to be made a perfect shell before it was ever put into the water. This meant placing planks edge to edge, without even a hairline crack, along a length of as much as 80 feet.¹¹⁰

It is barely conceivable that an untrained Nephi could have taken a divine blue print, a stack of rough logs and constructed a large ship. However, with the aid of a master shipbuilder, Nephi's task was achievable. Severin saw this ability in his shipwrights:

Normally, of course, neither Hoodaid [master shipbuilder] nor the greenshirts [shipwrights] would have used any drawings for building a ship; they worked only from their experience for building a ship; they worked only from their experience and by eye... While we were poring over the technical drawings, I discovered that one of the greenshirts not only understood Colin's drawings, but could translate them into the practical necessities of sewing a ship together.¹¹¹

Striking a piece of timber with an ancient tool to form a precise edge or bending a plank to the perfect shape, is far different having a revelation of how to do it. With only the simplest of tools, Severins crew could work long timbers to within 1/64th of an inch. Nephi's ship had excellently fine workmanship (1 Nephi 18:4) suggesting to the authors that he either had experienced shipwrights helping him or he had learned this dexterity under the mentorship of a master craftsman.

As with any complicated skill, the completion of a successful masterpiece takes a combination of training and judgment, the later coming through years of experience. Severin admired the skillfulness of one of his shipwrights:

Mohammed's eye immediately detected a very slight curve in the keel piece, a curve slight that I myself could not see it. But Mohammed was a perfectionist. He told four greenshirts [shipwrights] to dig a large hole under the defect, buried a boulder in the hole, and then, using the boulder as a strong point, wrapped a heavy rope around the keel and tightened the rope with a handbar, until it had pulled the keel down flat so that he was satisfied¹¹².

Without a master shipwright it seems impossible to envision Nephi building complex sailing ship. Here is a very short list of some of the essential competencies exercised in building the *Sohar*:

Forming The Hull

The ship had to be constructed like an eggshell; that is, we would have to put the planks in place and form the complex curves of the hull before we were able to fit the inside supporting ribs. The reason for this apparently roundabout technique was simple – we could not stitch the planks on the inside if there were ribs in the way. The necessity of assembling the planks before the ribs made for an infinitely painstaking task; it meant that we could not bend the planks into shape against the strength of the ribs, but had to pre-shape every plank before we put it into position. Thus the twist and curve of each plank had somehow to be formed into the wood before it was offered up and stitched into place. It was a method of shipbuilding that had been common in Europe three centuries ago, but had largely been abandoned because it was so difficult, delicate and time-consuming. $^{113}\,$

Wood Working

The difficulty of the task made itself clear with the very first plank which we attempted to fit. The plank was only 12 feet long, merely the centre section of the garboard strake, the first plank next to the keel. But this piece was 3 inches thick, and it took us four days to twist, bend and chisel it into the right curve.¹¹⁴

Ropeworking/Sewing Timbers

A dozen of the ropeworkers, walking in single file, were carrying on their shoulders what seemed like a long python. It turned out to be a 52 foot-long then sausage made of coconut husk, pounded out, placed end to end, and then wrapped around with string to make a sort of wadding about the thickness of a fire hose. This 'python' they placed into the angle between the keel and the first plank, on the inside of the hull. Then they stretched think coir string up and down the length of the python, covering it entirely. The operation was very precise - there had to be exactly the right number of strings, and at the correct tension. When Kasmikoya, the senior ropeworker, was ready, he divided his men into pairs, an inside man and an outside man. Each pair worked at passing a strand of the finest-quality coir cord out through a hole in the plank, back through the opposite hole in the keel, round the python, and out again. There the outside man took a turn of the cord around his lever of stout wood, put his feet against the hull, leaned back and hauled the string as tight as he could. On the inside, his partner tapped on the string to help it tighten, and pounded on the python with a mallet to compress the coconut fibres. The string grew tighter and tighter; the python was gradually squeezed small and smaller until it could compress no more. The stitch was temporarily locked with a light wooden peg, and then the whole process began all over again with the next pair of holes.¹¹⁵

Bending Wood

To produce the right curves we softened the timbers in a home-made steam box. ...we would bend the plank into shape, go off to lunch, and return to find that he devil wind had arisen, the humidity had dropped, and the plank had bent away from the shape we wanted. In these difficult days the men began to break out in boils, perhaps because their sweat dried so fast on their skins or possibly because their diet was wrong.¹¹⁶

Treating The Wood And The Caulking

The last of the ribs of the ship were now being fitted. The ribs, too, were stitched into place so that they could flex and slide against the skin of the vessel. A great crossbeam was placed across the ship to take the weight of the mast; the deck was laid on laid on its beams, and the Agatti men, finished with all the stitching, spent a week stuffing coconut fibre plugs into the stitch holes in the planking, a tedious but essential task. I estimate that we had drilled more than 20,000 holes in the planking, and if these holes were not pegged properly the ship would leak like a huge sieve. On the outside of the hull the holes were blocked up with a sticky putty made of molten tree gum mixed with pounded seashells, and rolled out on a board to the consistency of pastry. Finally the Agatti men climbed back inside the hull. Tins of vegetable oil were lowered down to them, and using mops and brushes they swabbed oil on the stitching of the pythons. The coconut fibre soaked up the oil. The ropeworkers told me how important it was to keep the rope oiled if the ship were to survive. If the rope was treated with oil once every four or six months, they said, they would guarantee the ship to last sixty years, or even a century.¹¹⁷

Anti-Fouling

In the final week before launch we applied a coat of anti-fouling to the outside of the hull to protected it from being attacked and eaten by shipworms. The anti-fouling was strictly traditional, a coating of lime mixed with mutton fat and smeared on by hand. We boiled up lumps of fat which we purchased in the suq [market], stirred in the lime powder and set to work.¹¹⁸

Outfitting

...erecting the solid 61-foot main mast with its characteristic forward rake, stringing up the coconut rope rigging, and hoisting the great spars. The silhouettes of sailors scrambling up the Sohar's rigging, and inching their way out along the mainyard, looked utterly natural against the backdrop of the fortress bay.¹¹⁹

Again, this is only a partial list of the scores of skills Nephi needed to master in order to construct a large sailing ship, however, it illustrates why Nephi had a seventh challenge: he needed to engage experienced shipwrights who probably helped him on his ship, or who at least taught him the practical skills needed to build a ship. 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). We believe it was imperative that Nephi needed at least one experienced shipwright to train his building crew. As Severin, an experience shipwright in his own right, put it, "Without these simple, wary men [his Laccadives Islands shipwrights] it would be impossible to build a true replica"¹²⁰.

5) Trained Crew Sail Her

Severin realized immediately that he needed an experience crew in order to sail the *Sohar* to China. He used a totally crew of 20, all participating in the constant work of sailing a ship. The crew's core was his eight Omani professional sailors who truly knew how to sail a big ship. Fletcher reminds us that Nephi never had the luxury of recruiting experienced sailors¹²¹. However, it seems to the authors that Nephi had a higher probability of recruiting experienced sailors in Dhohar, then he had of not beaching his ship in an attempt to maneuver the great ship out of port with an untrained crew. We do not know if Nephi enrolled experienced sailors for his crew. However, prior to leaving port, he needed someone to organize the crew and to teach every man aboard how to perform his responsibilities within the team. Each pair of strong hands was needed to man the sails. Nephi needed someone like Jumah, one of Severin's Omani sailors:

He was a professional sailor. It was an apt description. Jumah had been a blue water dhow sailor all his life. He knew no other trade...

Jumah was a treasure, a storehouse of information about the traditional ways of the Arab sailing ship. He very rarely offered an opinion unless he was asked, but he could give sensible advice based on a wealth of experience. 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.¹²² (S 77)

Severin praised the skill of his Omani crew for having saved the ship on several occasions. Indeed, sailing maneuvers 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, become demasted, having a crew member injured or worse yet capsize. The necessity of a trained crew is most evident during a storm. *Sohar's* professional sailors seemed to respond almost instinctually in such occasions. Severin described the event:

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 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 straighten 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.¹²

Leaving port with a trained crew was not only Nephi's challenge number eight, it was a necessity.

6) Captain to Command Her

Lehi's family embarked from south Arabia with a qualified captain, Nephi. The question remains, "How did Nephi learn to command a multi-sail ship and her crew"? The captains that sailed the ancient waters of the Mediterranean stayed close to the shoreline, seldom venturing out of sight of land. Casson tells us that, "In the Red Sea, because of its dangerous shoals, all vessels sail only during the day, putting in toward nightfall at the nearest available anchorage"¹²⁴. Nephi needed to learn to sail in open seas. Severin comments of the hazzards he faced sailing the *Sohar* to China:

Also, I had to admit that the venture was a risk. 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. Many ships never returned to their home ports, and the losses were horrendous.¹²⁵

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. Fletcher uses Harry A. Morton's work *The Wind Commands: Sailors and Sailing ships in the Pacific* to examine just how difficult it was for Nephi to cross the Pacific Ocean. Believing that Nephi could command such a voyage with no training is senselessness. Fletcher explains:

The dangers of long-distance voyages across the Pacific Ocean are immense and innumerable. An expert authority on ship travel on the Pacific gives many details on its dangers and challenges and adds, 'each of these problems-or challenges-was greater in the Pacific because the Pacific itself is greater.'¹²⁶ We present just a few here:

Immensity of the Pacific Ocean: "Accurate navigation was important to deep-sea sailors on all oceans. But on the huge Pacific it was vital, for against its vastness even the width of the Atlantic seemed insignificant...If [Magellan] had known this ocean's true with— and its incredible emptiness—it is possible that even his spirit would have been daunted. As it was, he pressed on, and his circumnavigation was the major achievement of deep-sea navigation, comparable to the first manned orbit in space travel.¹²⁷

No Landmarks: "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 for skymarks."¹²⁸

Subject to Winds and Tides: "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".¹²⁹ "Ships might have to sail a greater distance to avoid a prevailing wind pushing them onto a leeshore (i.e., the shore of the lee of the ship and therefore the shore onto which the wind is blowing), a great hazard to ships which do not operate well in beating against the wind.... 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."¹³⁰

No wind: It was the wind that counted most.... 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 one¹³¹.

It could be argued that with the Liahona, Nephi didn't need to navigate. As far as we know, the Liahona only provided the direction which they should travel. It is clear that Nephi also knew how to calculate his position in the open sea. Thus it appears that he had learned the Arab's secret of navigation. We know he could determine his position because Nephi realized that during the "terrible tempest" that they were "driven back" four days (1 Nephi 18:13,14). Either from the angle of the sun or the position of the stars Nephi knew that they have pushed back toward their point of origin.

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.¹³² On completing the course, the cadets become junior officers, with many years at sea still ahead before they would qualify to captain a ship. 16 of these courses probably contain principles of seamanship that to a lesser degree were important for Nephi to have known: Advanced Seamanship, Applied Shiphandling 1&2, Basic Seamanship, Celestial Navigation I, Celestial Navigation II, Coastal Navigation, Offshore Operations, Port and Terminal Operations, Sea Term I, II (Deck), III (Deck), IV (Deck), Ship Construction, Shipboard Maintenance, Stability and Trim, Vessel Familiarization and Basic Safety Training, and Watch-Keeping for Undergraduates.

Picture yourself for a moment putting your entire family aboard a large multi-sail ship. You are the captain. Like yourself, the crew as 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 ground? 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? Lewis Carroll hinted of the importance of an experienced captain to the ship and crew:

But the principle failing occurred in the sailing, And the Bellman, perplexed and distressed, Said he had hoped, at least, when the wind blew due East, That the ship would not travel due West!¹³³

Even Severin, an experience sailor wrote about taking command of the replica, "I would need to experiment with the art of early Arab navigation to find out how they steered their ships. I would have to learn about the nature of early Arabian seaborne trade"¹³⁴. Perhaps the best way to illustrate why Nephi had to know how to sail a large sailing vessel before he started his voyage is by looking at three such skills. We will use Severins in each case as he sailed the Arab replica freighter:

Anchoring On A Corral Island

Now we would have to navigate very carefully, for *Sohar* was entering dangerous waters. In my calculations were correct a chain of coral islands, the Laccadives, should lie across our path. These tiny islands, many of them no more than a mile or so long, rise only just above the surface of the sea. The tallest things on them are the coconut palms, and the islands are guarded on their eastern side, the side from which *Sohar was* approaching, by coral reefs which could tear her bottom out.

I had to concentrate, though. This was the first time I had ever taken a fully rigged sailing ship, without an engine, into an anchorage, let alone without any notion of the currents or the state of the tide. There was one moment of alarm when a line of cresting breakers appeared near the spot at which I had chosen to anchor, but a glance through the binoculars showed that the breakers lay on the far side of the anchorage. *Sohar* slid gently through the dark blue water. It was a classic coral island. Half a mile from shore, leadsman still found no bottom at 200 feet. Then suddenly the water changed from darkest blue to a jade green, and we were gliding over the coral ledge.

"Down mizzen!' I called to Mohamed, and the aft sail was brailed up and lashed, and the Omanis lowered the mizzen spar to the deck. Sohar was now within 80 yards of the chosen spot. 'Down jib!' I called.

'Down jib! Down!' echoed Mohammed. The Omanis and Europeans were equally competent in ship commands in both Arabic and English, and the jib, the foremost sail of the ship, vanished like a trick handkerchief in the hands of the conjuror.

'Let go mainsheet. Helm hard over, Khamees,' and the tiller block squealed as Khamess Police, ducking his head to look under the sail, pushed the tiller out to the lee side and brought Sohar's head to wind. Tom eased out the mainsheet, and the mainsail spilled the wind.

'Let go the anchor.'¹³⁵

Wearing

Sometimes the wind changed direction with the passage of a squall so that Sohar began to run in dangerously towards the coast. Then I rang the brass bell which summoned all hands on deck. Up they come, rubbing the sleep from their eyes, and stumbling to their regular positions. 'Khai-or! Wear ship!' The manoeuvre of wearing ship meant shifting the mainsail with its huge mainspar from one side of the mast to the other by swing the whole mass of sail and timber, more than a ton of it, around the foreside of the mast. If the ropes and canvas got in a tangle which checked the smooth swing of the mainspar, the sail would be ripped to shreds, or we could snap the mainspar. It was a difficult and dangerous operation by day, and at night it required real care.

Reducing Sail In An Increasing Wind

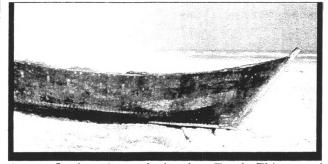
When the wind gets too strong an Arab ship does not reduce the area of sail in the European manner by gathering folds in the canvas. Instead, the Arab sailors change the entire mainsail for a smaller one. Changing a mainsail in a rising wind, with the ship pitching and rolling to the waves, is a spectacular maneuver. We did it aboard *Sohar* for the first time when we were off Cape Comorin, the southern tip of India. The wind was Force 6, and I could feel the ship labouring under her largest mainsail. *Sohar* was no longer running smoothly, but heeled took much weight to the wind. Her bows were beginning to dig into the waves. A short sea, kicked up by the Wadge Bank over which we were passing, struck her hard, and sent sheets of water flying across the waist of the ship. Ida was being seasick. I know that it was prudent to reduce sail now, and not force the ship too harshly until her rigging broke.¹³⁷

Realizing that Nephi had to learn how to sail a large ship does not lessen our appreciation for the Prophet. Nephi was a real person, not a storybook character. We are ever amazed at the resourcefulness and genius of the man. Challenge number nine was achieved, Nephi learned to command a great ship, but "Who taught him?"

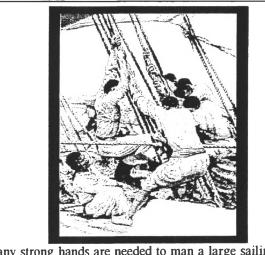
Realizing the challenges Nephi overcame in order to reach the New World, we behold a spiritual, physical and intellectual champion. As Fletcher concludes,

Building Zion in our day will require just as much faith and labor as it took Nephi to build a ship and sail to the promised land in his ship. And reading about Nephi's challenges and how he boldly and faithfully faced them will strengthen our faith and efforts to build Zion in the last days¹³⁸.

Nephi's Great Ship



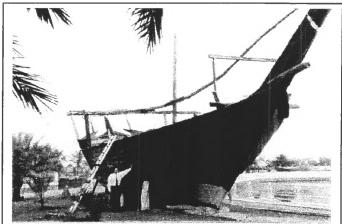
A sewn Sambuq sits on the beach at Taqah. This type of vessel is of ancient design.



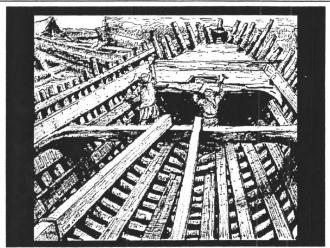
Many strong hands are needed to man a large sailing ship. A trained crew would have been essential.



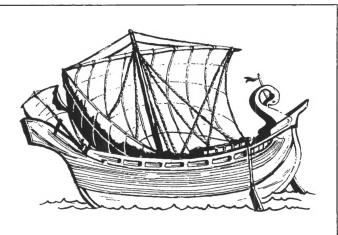
Building a ship required special skills that Nephi would have needed access to.



George standing next to a large Arab Sambuq in Doha, of some 75 feet length. Nephi's vessel would have been larger.



Huge timbers would have been required to build a large ship.



A Phoenician merchant vessel circa 750 B.C.

One day, as I was walking along the wharf, I saw a newly built ship with tall masts and fine new sails which at once caught my fancy.

Sinbad the Sailor.

Chapter 15

Nephi's Harbor

The Monsoons

The power that drove the maritime trade between India and Arabia was the monsoon wind. 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 consistent in their direction. It seems quite possible that the party set off during the summer monsoon traveling the Indian Ocean via India and the Far East, to eventually cross the Pacific Ocean. By early Moslem times Arab trade routes went as far as China and the far east, Abdullah bin al-Qasim in 750 A.D.¹ being the first Arab sailor named in Chinese literature.

Correct timing of the departure was essential to a successful trip to India from Dhofar utilizing the monsoon winds. Lionel Casson described the problems associated with using the monsoon winds for the journey between the Asian subcontinent and Arabia:

What made both 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 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. Even more important is the difference in nature between the two monsoons. The southwest monsoon is boisterous and stormy: to quote Alan Villiers, who wrote from extensive personal experience. "Rain falls heavily during its continuance, and the smaller trading vessels take shelter."²

The trip from the south coast of Arabia to India, a distance of about 2,300 miles, takes about 20 days in a modern Dhow, which is faster than an ancient ship. Casson added some notes of caution. Arriving in India in June, July or August "was to be avoided at all cost" since "during the months of summer, sailing conditions on India's west coast are so dangerous that practically all maritime activity ceases. This is particularly true of the southwestern coast". However a late arrival in India was also to be avoided. Arriving in October, or later "was inadvisable since it would have exposed ships to contrary winds of the northeast monsoon"³ making arrival in India an impossibility.

Nephi's observation concerning the wind direction was not mere chance, he would have been well aware of the monsoons and the timing of the trip, having been informed by the sailors in Dhofar who would have warned him of the calamity that would await any vessel arriving in India too early or lingering too late in the season. Indeed, 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. Tim Severin sailed the ancient Arab trade route to China using the southwest monsoons to drive the ship first to India. On his way from India to Sumatra his ship was caught between changes in the monsoons, and was hit by a rough Northeast monsoon "squalls" and was driven back to the west. Before the southwest monsoons picked up, the *Sohar* was trapped in a doldrums for several weeks and almost ran out of drinking water. Without wind, Severin's ship drifted hopeless away from its destination. Finally the southwest monsoon returned and he was able to sailor her again toward China.⁴

Now compare Severin's account to what we believe happened to Nephi. As they left port they were driven by winds (southwest monsoon) toward the promised land. (1 Nephi 18:8). 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). The southwest monsoon blows constantly for the entire season, a relentless prevailing wind that blows ships toward India. At this time, 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: 12,13). It would seem that by steering a course of their own choosing Laman and Lemuel managed to turn the ship directly into a storm. In Severin's case the southwest monsoon was late in arriving and a northeast squall blew in. Perhaps Nephi left early in the season in the hope of using the full length of the monsoon season to travel as far east as possible before the winds changes direction. It may be that some distance into the journey the wind temporarily shifted back. Nephi wrote of a "great and terrible tempest" that drove them back four days, a northeast monsoon squall (1 Nephi 18:13,14). 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, southwest prevailing winds started again, and Nephi guided "the ship, that we sailed again toward the promised land" (1 Nephi 18:22).

These parallel accounts of sailing in the Indian Ocean reveal an important aspect about the nature of the harbor from which Nephi embarked on his voyage. 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. All the khors and harbors of Dhofar, with the exception of Reysut, open facing southward. The southwest monsoon wind would have pushed the ship back into the harbor. Thus the port had to be wide enough that the ship could be rowed into the sea since ancient ships could not tack in the wind with their square sails. Any attempt to sail out would have grounded the ship on the east bank of the khor. If the ship could be get to the mouth of the harbor it would have faced the real challenge of two hundred yards of very large surf. We visited Dhofar in September during the 1999 southwest monsoon season. Waves were breaking 6 feet high, four rows deep. The sand on the beach at our hotel in Salalah had been almost completely washed away, the narrow strip of beach that remained was fenced off and locked, with bold signs warning guests "Dangerous Surf No Swimming." In other words, since Nephi left during the southwest monsoon season, a narrow port, unprotected from the strong cross winds and rough surf would have been useless to Nephi.

The weather determined one more feature of Nephi's Port. It took at least year, perhaps two, to construct the ship. The ship had to be constructed in a yard which was safe from the high tides and breakers of both the northeast and southwest monsoons. We recall Severin hauling in 300 tons of gravel to build a construction platform over a yard above the tide level to insure the safety of the *Sohar* while it was being built. The moorings and the exit needed to offer protection from both monsoons during both the building and the outfitting and sea trails periods. In other words, the harbor needed to be protected from the elements all year.

The Number of Passengers and Crew

The size of the ship was a direct function of the number of people on board and the provisions carried. The size of the ship would in turn have determined the dimensions of the port Nephi would have needed. To establish if a port existed in Dhofar that could accommodate Nephi's ship, we need a rough census of how many people were in the party. Lynn and Hope Hilton estimated that there were 73 on board Nephi's ship⁵. John Tvedtnes provides what he calls the "maximum possible number" noting that such numbers are rarely reached:

Indeed, if Zoram, the sons of Ishmael, and the four older sons of Lehi each fathered a child once a year during their eight years in the wilderness, as many as forty-nine children could have been born during that time!⁶

Combining Tvedtnes maximum possible number of children, 49, with the 19 adults in the party (17 plus two daughters of Lehi), we have 68 persons.

But are these realistic numbers since the Book of Mormon does not appear to mention so many people? If we assume that 1 Nephi 18:6 "wherefore, we did all go down into the ship, with our wives and our children" means 2 children between all of the married couples there would have been a minimum of 21 people (17 adults and 4 children) on board.

Lehi & Sariah

Ishmael's wife

Ishmael's 2 sons and their families (1 Nephi 7:6)

Ishmael's 5 daughters who became the wives of

Lehi's sons and Zoram (1 Nephi 16:7)

Laman

Lemuel

Sam

Nephi

Zoram

2 children between all of the couples

Jacob and Joseph*

Total absolute minimum number in ship

*who were born in the wilderness and were therefore too young to marry

This number is obviously a gross underestimate. The text of the Book of Mormon gives many clues that tell us there were in fact far more in the ship than this. Let us look at the arguments.

1/Lehi and Sariah had two children while traveling in the wilderness (1 Nephi 18:7)

Neither Lehi nor Sariah appear to have been young when they left Jerusalem since Nephi describes them, while on board the ship sailing to the promised land, as "...my parents, being stricken in years" (1 Nephi 18:17). It may be that Sariah was reaching the end of her childbearing years and that is why they only had two children over that eight year period in the wilderness. We might expect the younger couples to have been more fertile and to have had at least as many children as their parents over that same time period.

2/Nephi's sisters were married.

Nephi's sisters are not mentioned until the family reaches the New World (2 Nephi 5:6) but were married to Ishmael's sons⁷. Nephi went back to get Ishmael's family so his sisters were presumably already married to Ishmael's sons before they left Jerusalem. Since these two couples had been married for at least eight years they most likely had more than 4 children each.

3/ Nephi infers that each couple had a number of children.

"Wherefore, we did all go down into the ship, with *our wives and our children*." (1 Nephi 18:6). Nephi, his brothers and Zoram had married the daughters of Ishmael in the Valley of Lemuel. This was at the early part of their journey, which took 8 years in total. If we assume they stayed at the valley of Lemuel for 2 years, although it may have been as little as 6 months, and married just before they left then they would have been married for a minimum of 6 years before they reached Bountiful. It would be safe to assume that each couple had at least 3 children in the wilderness and probably another one in Bountiful since they may have been there for up to 2 years. Families in the Middle East tend to be large, in Saudi Arabia for example, a country with traditional Middle Eastern ideas about family size, we find the highest birthrate in the world, 12 children per wife is not an uncommon finding.

4/ Nephi states that his "children" traveled on the ship (1 Nephi 18:19).

offspring before they entered the ship.

5/ Laman and Lemuel infer that each couple had a number of children.

"...our women have toiled, being big with child; and they have born *children* in the wilderness and suffered all things, save it were death..." (1 Nephi 17:20).

6/ Lehi blessed the sons and daughters of Laman and Lemuel.

Prior to his death Lehi spoke to Jacob (2 Nephi 2:1), Joseph (2 Nephi 3:25) and the sons and daughters of Laman (2 Nephi 4:3) and Lemuel (2 Nephi 4:8). The implication of the wording is significant

Nep

And it came to pass that after my father had made an end to speaking to the *sons and daughters* of Laman, he caused the *sons and daughters* of Lemuel to be brought before him (2 Nephi 4:8)

It is clear that Laman and Lemuel had at least four children each, and possibly far more. Now it may well be that some of these children were born once they had reached the promised land. Unfortunately we do not know how many years the family had been in the promised land when Lehi gave this blessing, but the text of the Book of Mormon gives us some clues. The counsel and blessings that Lehi gives to his posterity before his death, as recorded in chapters 1-4 of 2nd Nephi, appears to have been one continuous conversation. Lehi starts by recounting his vision that Jerusalem had been destroyed (2 Nephi 1:4). Since Lehi left Jerusalem during the first year of the reign of Zedekiah, Lehi must have spoken these words to his grandchildren at least ten years after the family left Jerusalem. We cannot assume that Lehi received his vision at the exact time Jerusalem was destroyed because Jacob later also saw the vision of the destruction (2 Nephi 6:8), as it appears Nephi may also have done earlier (1 Nephi 19:20). Yet it cannot have been too many years later since Joseph, who was born in the wilderness (1 Nephi 18:7; 2 Nephi 3:1), is still a small child at the time of the blessing. Lehi says to him "...blessed art though Joseph. Behold thou art little..." (2 Nephi 3:25).

The clear implication is that shortly after arriving in the promised land Laman and Lemuel already have at least four children each and probably more for each to have had sons and daughters. Most of them, if not all, were aboard Nephi's ship.

7/ Other members of the group

It would have been the norm for a wealthy man of Lehi's position to have had household servants and slaves. It is hard to imagine Lehi fleeing into the wilderness with only his immediate family members and, in essence, cruelly deserting his faithful servants in a city that was about to be destroyed. The real likelihood that Lehi took with him a large party provides a plausible explanation as to how the Lamanite and Nephite nations became a large multitude so rapidly in the New World. If Lehi took servants and slaves with him to the Land of Promise, why didn't Nephi mention them? Zoram was a servant, so why weren't the other servants mentioned? The answers are straightforward. Zoram was not a servant in Lehi's house. Nephi made two covenants with Zoram before Laban's servant agreed to join his party. First, that if Zoram came with them "he should be a free man like unto us" (1 Ne. 4:33). Second, that he would be given full membership in the family, "thou shalt have a place with us" (1 Ne. 4:34). Being a free man without a family would have had little appeal to Zoram, unless he was given a place of belonging within the context of the tribe. It seems that only with the second oath, to have a "place with us," that "Zoram did take courage at the words" which Nephi spake, and "made an oath unto us that he would tarry with us from that time forth." (1 Ne 4:35) The second oath entitling Zoram to a place as an equal member of the family is later confirmed by the family allowing him to marry the eldest daughter of Ishmael. (1 Ne. 16:7) Had it not been for this oath, akin to an adoption, Zoram's name most likely would not have been mentioned on the plates.

Unfortunately, the omission of menial tribal members from official records has a long tradition, both in the East and the West. Up to the last two centuries the names of women, children and servants were very seldom mentioned in literature. As unfortunate as it might be, historically speaking, formal manuscripts that were preserved were generally written by wealthy men to be read by other wealthy men. A review of the ancient scriptures reveals only a handful of names of women or servants. Nephi was a prophet, but he was also a product of his time. It would have never crossed his mind to have mentioned the names of his sisters (1 Ne. 5:6), the daughters of Ishmael (including the name of his own wife) (1 Ne. 16:7), let alone any of the servants and slaves.

Michael Crichton placed in a novel format the manuscripts of Ahmad Ibn Fadlan's report to the Caliph of Baghdad. In 922 A.D. Ibn Fadlan had been sent as an ambassador to the King of the Bulgars. Besides being from a Near East culture, Ibn Fadlan seems to have shared other similarities with the young Nephi. Crichton writes:

"The Arabs of Baghdad were Muslims and fiercely dedicated to that religion. But they were also exposed to people who looked, acted, and believed differently from them. The Arabs were, in fact, the least provincial people in the world of that time, and this made them superb observers of foreign cultures. Ibn Fadlan himself is clearly an intelligent and observant man."⁸

We do not know how large Lehi's party was, but it seems to us, based on the historical context that each of the women in Lehi's and Ishmael's family would have had a handmaid and each of the men would have had at least one manservant to do menial jobs such as setting up the tents and other heavy lifting. It would be unheard of for wealthy men such as Lehi and his sons to undertake menail tasks. They would have been overseers. Crichton continued:

"Throughout the manuscript, Ibn Fadlan is inexact about the size and composition of his party. Whether this apparent carelessness reflects his assumption that the reader knows the composition of the caravan, or whether it is consequence of lost passages of the text, one cannot be sure. Social conventions may also be a factor, for Ibn Fadlan never states that his party is greater than a few individuals, when in fact it probably numbered a hundred people or more, and twice as many horses and camels. But Ibn Fadlan does not count-literally-slaves, servants, and lesser members of the caravan."

As well as servants one cannot rule out the possibility that some of the local people from Dhofar joined the family. The Omanis have a great tradition of seafaring. When building the ship the family may have had help from the locals. A local young man, or men, would doubtless have been drawn by the adventure and romance of a far journey in the ship and their seafaring skills would have been vital for the ship's crew. Is it possible that some of the darker skinned 'Adites (there are 2 groups of people in Dhofar, the Jebbalis who are notably darker skinned, and the Arabs from northern Oman, who arrived much more recently) accompanied the expedition and later aligned themselves with the Lamanites leading to their relatively darker skins? (2nd Nephi 5:21) Might some 'Adite women have joined the group as nursemaids for the women, now with many children? The Hiltons first put forward the argument that Arabs were part of the group, albeit as polygamous wives to Laman and Lemuel.¹⁰

Nephi's record gives tantalizing hints that there were non-family members aboard the ship. First, the Lord refers to Nephi's party not as his 'family' or 'families', but of "thy people" (1 Nephi 17:8). After they reached the New World, Nephi's group separated themselves from the families of Laman and Lemuel and the sons of Ishmael. He records:

Wherefore, it came to pass that I, Nephi, did take my family, and also Zoram and his family, and Sam, mine elder brother and his family, and Jacob and Joseph, my younger brethren, and also my sisters, and all those who would go with me..." (2 Nephi 5:6)

The question begs asking, "Who was Nephi referring to when he said "and all those who would go with me"? He had already mentioned everyone by name or position in the family, so who else was there that he refers to as "all those"? It certainly seems the group comprised of more than just the family, and for good reason. In the Lord's wisdom the health of the group would have been enhanced by a broader genetic pool. The presence of servants would have meant that there would not be the need for first cousins to marry as the Hiltons proposed¹¹, although this is not an uncommon practice in the Middle east to this day.

But would the children of the nobleman Lehi have intermarried with servants? Obviously not, it appears that all the class barriers were removed when the people united under a common name, in effect being adopted into the family of 'Nephi'. Nephi tells us "and all those who were with me did take upon them to call themselves the people of Nephi" (2nd Nephi 5:9), agreeing to live the law of Moses and, in the process, producing a seemingly egalitarian society with no more social barriers. Nephi noted that the group "began to prosper exceedingly, and to multiply in the land" (2nd Nephi 5:13) an observation that he could have made in his lifetime if there were many adults in the group. Yet the seeds of social discontent apparently merely lay dormant. Only two or, perhaps, three generations after arriving in the promised land Jacob was calling the Nephites to repentance, the same Nephites who only a short time before had sworn to keep the law of Moses, and he told them he was chastising them because "ye...persecute your brethren because ye suppose that ye are better than they." (Jacob 2:13) Social strata appear to have returned as Jacob urged the people to "think of your brethren like unto yourself, and be familiar with all..."(Jacob 2:17). Far from being a classless society it would seem that some of the women were considered of such a lowly station that they were not to be taken as wives but concubines (Jacob 2:27). The presence of servants in the group might help explain why the Nephites could so quickly have fallen back into the problems that beset those who they had left behind in Jerusalem with some members of their group being considered unworthy of the full rights of equal citizenship. Apparently the Lord had led them from Jerusalem so that he "might raise up unto me a righteous branch from the fruit of the loins of Joseph" (Jacob 2:25) but the pattern of behavior of those in Jerusalem (Jacob 2:13) had become mirrored in the New World. The Lamanites, on the other hand, would seem to have done a better job of integrating their society since the Lord holds them up to the Nephites as an example of loving families (Jacob 3:7).

A persistent complaint against the authenticity of the Book of Mormon is that there are larger numbers of descendants of the Lamanites and Nephites than could be accounted for from the members named in each group. Also the Lamanites seem to have consistently outnumbered the Nephites throughout the Book of Mormon yet when the groups split the male heads of household were relatively evenly distributed between the two groups; Ishmael's 2 sons, Laman and Lemuel in one group and Sam, Nephi and Zoram in the other. If there had been others in the group, and if the majority had remained with Laman, then they could have produced proportionally far more offspring over the generations, even accounting for the Lamanites killed in battle by the Nephites.

Our estimate of the number on board must now be increased. Seven couples could have had at least 4 children each, a total of at least 28 children. One servant per adult gives us 17 servants in all, plus one nursemaid per family with children adds 7 maids. In addition some young 'Adite men may have helped to form the crew for the ship. Let's say Nephi used 4 experienced Omani sailors as the core members of his crew. We now have a party of 75, 30 children and 45 adults. This agrees remarkably with Tvedtnes' 68 passengers and the Hilton's estimate of 73 on board the ship, even without the need for polygamous wives¹².

The Size of the Ship

As previously mentioned the size of the ship would have been governed by the number of people who were to travel on it. Since there were around 70 on board and their journey was to be a long one the ship would have been large. To get an idea of what kind of size of Nephi's ship may have been we need to establish what size ships were being built in his time.

Vessels of 60-70 feet length were built c. 1472-58 BC by the Egyptians for Queen Hapshepsut's expedition to Punt, as calculated from the reliefs at her temple in Deir el-Bahri¹³. Phoenician ships are first recorded in Egyptian reliefs in 1400B.C. at the tomb of Kenamon in Thebes. They were similar to Hateshepsut's ships but differed in having shorter hulls and were probably more seaworthy. By the 8th century B.C. the Phoenicians seem to have used round-hulled sailing ships for bulk cargo transport. A pair of Phoenician cargo vessels, which sunk around 750 B.C., was recently discovered 30 miles off the Israeli coast. The ships were believed to be part of a fleet of cargo carriers and according to Lawrence Stager, archeologist from Harvard University, "They probably went down in a storm and each likely carried a crew of 6"14. The larger ship was about 58-60 feet in length, the smaller around 45 feet. The Phoenicians were the most accomplished mariners of their time and according to Herodotus the Egyptian Pharaoh Necho (c. 600BC) is said to have dispatched Phoenician sailors from a port in the Red Sea from whence they circumnavigated Africa, a distance comparable to Nephi's journey to the New World via the Pacific Ocean, returning via the Mediterranean 2 years later. It should be noted however that although the expedition sponsored by Necho covered a similar distance to Nephi's, Necho's followed the shoreline of Africa whereas Nephi undertook a transoceanic crossing. Homer (circa. 8th century B.C.) describes small, twenty oared galleys used for transport as well as larger 100 oared heavy transports estimated to be over 95 feet length in length¹⁵. Greek vases of around this period show that the larger Greek vessels around Nephi's time had a partial deck or a central catwalk above the rows of oars. Over the next few hundred years the decking increased to entirely cover the rowers to protect them from the sun, producing a ship known as a cataphract.

By Nephi's time there was a distinction in design between warships, or galleys, which were longer and narrower, and cargo ships which used sails as their primary source of power. Phoenician merchantmen in 7th century B.C. reliefs at Nineveh show bowl-shaped vessels quite unlike the war galleys. The large merchant ships of Nephi's time were sailing vessels but they usually retained some oars to assist in entering and leaving harbor. Greek pentekontors, galleys with 50 rowers, were not much less than 95 feet in length, but they had no accommodation for the crew and were beached each night and the crew slept on land. Clearly Nephi's crew did not have this opportunity and so sleeping quarters had to be included. For this reason there may well have been a deck on Nephi's ship. In order to provide room for all of the provisions as well as space to sleep over 70 people Nephi's ship must have been at least 80 feet in length and if substantial wood were available for a keel, which apparently it was, it could have been far longer, probably over 100 feet in length. The ship had to be very large by the standards of the day. A merchant ship of 48 feet (15 metres) could have accommodated a cargo of around 165 tons¹⁶ (150 metric tones). Vessels of this size were quite common in the 5th century B.C. and 385-550 tonners (350-500 metric tonnes) were not uncommon¹⁷.

Even at 80-100 feet in length there would have been very little room for the passengers and conditions would have been less than ideal. While the length we are proposing may seem huge in fact a 100 foot vessel would have offered only cramped accommodation for the passengers (see Figure). On 18th June 2000 a 75 foot replica of a Viking Longboat, accurate in every detail, left from Norway to reenact Lief Erickson's crossing of the Atlantic. One note of concern of the crew, which numbered far less than Nephi's ship, was the cramped sleeping conditions. Presumably one of the Lord's design modifications would have been the inclusion of adequate space for all to sleep. We assume that this would have included a full length deck on the ship. After their departure the sons of Ishmael, Laman and Lemuel and their wives, at least 8 adults, are recorded dancing (1 Nephi 18:9) implying again that there was free space and decking. Even so it would have been cramped. Nephi could not make the ship much smaller as an over crowded ship could not survive the high seas of the Pacific. Lionel Casson described the voyage from Africa to the Red Sea, a journey where the seas are not rough:

Indeed the return journey (north up the African coast) is so undemanding that currently merchants entrust their goods, and passengers their lives, to dhows of such modest size and in such wretched condition and so hopelessly overcrowded that they could not possibly survive even the slightest storm at sea.¹⁸

A ship of this length would have needed more than one mast, a feature which first appears in the so called 'Tombe de Nave', an Etruscan ships of the 5th century B.C.¹⁹, and so this may have been another one of the design innovations provided by the Lord.

Other Physical Characteristics of Nephi's Harbor

Open to the Sea

Just because a natural inlet is open to the sea today, does not mean it was opened into the Indian Ocean in Nephi's time. The converse is also true. The presence of sandbars which today close off most of the inlets in Dhofar makes it difficult for us to assess which may have been available to Nephi in 600 B.C. We have historical evidence that some khors which are now closed off were open previously. The shoreline is in a state of flux, currents carry sand which is deposited along the shore forming the sandbars. Great storms have been recorded which burst over the shore destroying many crops, such as the hurricanes of 1286 A.D. and 1325 A.D.. Storms such as these may be responsible for opening inlets back up again to the sea. Khor Rori was open anciently but closed off around the 10th century. Al Baleed was open in the 10th through 16th centuries A.D. yet is now closed off. It would be naïve to assume that all of the khors which are now closed were open in 600 B.C. and as such we must consider that lack of historical evidence that a khor was used as a port anciently probably indicates that it was not open.

Moorings

As discussed in the previous chapter, it was not only essential that Nephi had a place to moor his ship while finishing it and for the conducting of sea trails, his text implies that his ship was resting in the water where they could go "down into" it. Nephi's harbor appears to have had moorings

A Beach With Fruit Trees Near The Building Site

Nephi wrote that the place where they pitched their tents was on the shore and that the place had "much fruit" and so they gave it the name "Bountiful".

Near A Prominent Peak, referred to as "The Mountain"

Nephi was asked by the Lord to go to "the mountain". This would imply that it was not just any height, "*a* mountain", but a special place, "*the* mountain". Since no directions seem to have been given to Nephi as to where this mountain was located, we will assume it was a mountain that was visible from the harbor where Nephi built his ship. (1 Nephi 17:7).

Cliffs Directly Above Deep Water

Nephi brothers became angry with him and attempted to "throw him into the depths of the sea". The operative words here are depths, indicated very deep water, and "throw", a place where he could be physically thrown into deep water. There is no mention of be the brothers putting Nephi in a boat and taking out to sea where he could be thrown in deep water. Thus, there must be a place at the harbor that projects well away from the shoreline out into deep water. Cliffs are a place where one could be thrown from, and where if they fall directly into the sea Nephi would have landed in the water and not been able to swim back to the shore.

We can now build a physical profile of Nephi's harbor which the following characteristics:

1. Protection from winds all year.

- 2. A safe exit into the Indian Ocean during the highest surf of the year.
- 3. Historical evidence that it could accommodate a large sailing ship in difficult weather conditions and be wide enough for a large ship to be rowed out of.
- 4. Open to the sea in the 6^{th} Century BC.
- 5. Moorings.
- 6. A beach with nearby fruit trees.
- 7. A prominent mountain where the Lord could instruct Nephi.
- 8. Cliff above deep water.

We need to remember that no ship could have been built without the harbor having had access to the basic materials needed to construct a large sailing vessel. The ship would have remained a pile of timber without the assistance of experienced shipwrights. Once built it would have gone nowhere without a trained crew and a knowledgeable captain. The requirements for Nephi's harbor were delineated in the previous chapter. To summarise:

Physical Resources

- 1. Large hardwood timbers for the keel, mast, spars, cross beams, bow and stern pieces, and planks.
- 2. Ore to Make Tools.
- 3. Coconuts or other material for ropes (50,000 coconuts were used for the ropes on the 'Sohar' replica).
- 4. Source for sails or materials to make canvas for sails.
- 5. Caulking and anti-fouling material (probably coconuts mixed with oil).

Intellectual Resources

- 1. Experienced shipwrights.
- 2. Sailors capable of teaching, if not joining, Nephi's crew, and the facilities for conducting sea trails.
- 3. Experienced captains with the time to teach Nephi how to command a ship.

An Analysis of All Possible Ports in Dhofar.

There is little argument that the port of Moscha at Khor Rori was the main port in Dhofar during the Frankincense era. The magnificent natural harbor could easily service Nephi's needs for building and launching a large ship, and as archaeologists continue researching the harbor, it appears more and more likely that in Nephi's time it was hosting large ships of Mediterranean empires, Mesopotamia and India. But are we sure, Khor Rori is where Nephi built his ship. There are the modern ports in Dhofar, as well as, several other small inlets. Although Khor Rori is probably where Nephi built his ship, lets consider the other possible sites, which would be the east and west ends of the Salalah bay (Reysut and Mirbat), and the creek inlets, known in Arabia as *khors*. A brief description of each possible site will be provided, followed by a table showing the likelihood that each of the characteristics required of Nephi's Harbor would have existed in the 6th century BC. Starting from the west there are Khor Kharfot (Wadi Sayq); Reysut; Khor Al Quran al

Kabeer; Khor Awqad; Khor Salalah; Khor al Baleed; Khor ad Dhahariz; Khor Suli; Khor Taqah; Khor Rori, and Mirbat.

Khor Kharfot

This site has been suggested as the location of Nephi's harbor by Warren & Michaela Aston²⁰ and, for that reason we cover it here. We do not consider that Kharfot can be realistically considered as a candidate for Bountiful. There is no evidence that Khor Kharfot was ever a port in Nephi's time or at any other time for that matter. There are incidental ruins there, but the theory that it was a harbor in Lehi time is purely suppositional; indeed, the idea that this exposed shoreline was once a 'protected harbor' that could have protected a ship from the southwest and northeast monsoon is far fetched. This was first brought to our attention by Dr. Steven and Pamela Done, avid sailors who have visited shipbuilding yards around the world. On returning from khor Kharfot, they noted that it would have been impossible to launch a ship at the khor Kharfot and that there exist today no timber at the site that could be used for building principle parts of a large ship. Subsequently, we visited khor Kharfot and found their assessment accurate. Kharfot is separated from the Frankincense trail by the Qara mountains, which are considered impassible by camels. Without camels, Nephi's party could not have reached Kharfot with their heavy tents that they pitched on the shoreline (1 Nephi 17:6). There is no known ancient camel trail that led there from the Frankincense trail. In fact even with modern road building techniques wadi Sayq is so inaccessible that there is still no road leading there from inland. The site was probably a wilderness in Nephi time, being on an isolated shoreline 66 miles west of Salalah (Bountiful was populated). Khor Kharfot is some 90 miles away from the nearest source of iron ore. (For a more complete listing of our objections to this site see the 'Appendix' to this chapter.)

Reysut

Reysut sits at the west end of the Salalah plain and is the site of the modern port of Mina Reysut situated 6 miles west of the modern town of Salalah. Reysut may be mentioned in the *Periplus* where Syagrus, described as "the very great promontory", has recently been suggested to be "Ras Sajir 32 miles to the west of Salalah. If this is the case then the cliff-girt fortress where frankincense was stored is probably the ruins of the coastal fort with storerooms and a partially collapsed wall at Reysut²¹. The site has a commanding view of the modern port of mina Reysut with cliffs and mountains nearby. S.B. Miles gives this description of Reysut at the turn of the 20th century:

At the western end of the maritime plain of Dhofar a small bay is formed by a low projecting headland known as Ras Raysoot. This bay is an excellent anchorage in the south-west monsoon, and nearby are the remains of an ancient town, which was at one time an emporium of trade. There is a long lagoon here, into which a large ravine, collecting the water from the hills above, discharges. Off this point the pilgrim steamer William the Conqueror was wrecked in 1860, but the passengers and crew were saved and taken to India in five bughlas. From Ras Raysoot commences a low scarped cliff which extends westward, and at five miles we come to Ras Ahmar, 700 feet high, composed of limestone and cretaceous rocks...²²

The harbor at Reysut faces east and so provided protection from the southwest monsoon, which blows in summer, but none for the winter northeast monsoon. In Dhofar in the summer no fishermen leave the beaches in their small wooden fishing vessels, but those who wish to fish move the Reysut before the summer monsoon sets in so that they can set

out to sea safely. The recent addition of a large breakwater has enabled the port to be used year round. Due to lack of year round protection it was probably never the first choice as a harbor anciently. With no protection from the northeast monsoon, if Nephi used Reysut he would have been forced to build his ship and conduct sea trials in less than 9 months, a highly unlikely feat. As yet there is no evidence that Reysut was used as a harbor in Nephi's time.

Khor Al Quran al Kabeer

Also known as the 'west khor' this is the westernmost inlet associated with the modern town of Salalah. This khor, like all of those to the east of it, until khor Rori, is on a flat sandy beach with no protection from the winds, and a mouth that opens into breaking surf. There is no evidence of use as an ancient port.

Khor Awqad

Closed off to the sea by a sandbar, Khor Awqad, like all of the khors on Salalah's sandy beaches would have offered a harbor but no way to launch a large ship as the inlet opens straight into the breakers.

Khor Salalah

Khor Salalah is a modern bird santuary. It is a large khor and appears quite deep but it has, in common with all of the khors that open directly onto the beach, a relatively narrow opening, which would have made it difficult to guide a large ship into and out of, not to mention the breakers.

Khor al Baleed

Khor al Baleed is in modern Salalah and is now closed off by a sandbar. The khor was associated with a city of the same name, which was built around the 10th century by Persian conquerors who moved the capital to al Baleed from near Khor Rori, some 15 miles (25km) to the east. Khor al Baleed seems to have been a different shape in the past, two arms of which seem to have surrounded the settlement like a moat. Al Baleed is the same city as the port of Dhofar seen on the map of Langren which shows the two waterways apparently meeting to form an island on the coast. The town flourished from the early 12th to the 16th century. It was about 1 mile (1.6 km) long by about 1/3 mile (0.5km) wide. In 1285 Marco Polo described at as " a great and noble and fine city. It stands upon the sea and has a very good haven, so that there is a great traffic of shipping between here and India, and the merchants take hence a great number of Arab horses to that market, making great profit thereby. Much white incense is produced here."

Obviously al Baleed served well as a harbor but it appears to have been used only because Khor Rori silted up. The settlement there post dates Nephi by over 1500 years. It provides no protection from the monsoon winds, and, would if open today, open into breaking surf.

Khor ad Dhahariz

This is a long narrow khor on the east end of modern Salalah. We could find no evidence that this khor was used as a port historically. The khor would seem to be too narrow to birth a large ship the size of Nephi's, and would be exposed to the winds and breaking surf.

Khor Suli

As we mentioned in the previous chapter Juris Zarins has recently found evidence that khor Suli, also called Khor Seive, was used as a harbor by the 'Adites. Khor Suli is a relatively long, narrow, serpentine khor which opens out at its mouth to about 50 feet width. According to the Periplus incense was shipped to Cana from the sachelite country on rafts of inflated skins. There were certain advantages in using this design of vessel in these waters and the design seems to have continued to the present. Bowen commented regarding Dhofar "the custom of fishing from inflated skin floats has persisted in this area because of the poverty and because of the heavy surf that apparently exists at virtually all times, making the use of even the strong, flexible, sewn boats impractical"²³. Khor Suli. like the other khors opening onto the flat sand beach, offers no protection to a large boat as it leaves the mouth of the khor. Any ship would immediately meet a line of breakers as it exited or entered the khor, making sea trials impossible since it seems highly unlikely that a large ship could make its way through the breakers out of and back into the narrow khor mouth. Addressing the significance of this Bowen pointed out the merits of inflated skin boats over wooden ships "...it is surprising to see how well and safely they push off through a heavy surf, such as no boat could live in; and in my experience on this coast, I can with confidence state that they are seldom without a surf as would make the landing of a ship's boat, a hazardous experiment."²⁴ It seems likely to us that khor Suli was used for these smaller vessels such as the rafts of inflated skins. Khor Suli is not protected from the wind, opens into breaking surf, and is too small for have been used by Nephi's ship.

Khor Taqah

Khor Taqah is a bifid khor with one arm bending off to the east and finishing adjacent to a modern plantation, the other arm heading straight inland. It opens onto the sandy shore and this, together with its narrowness, would seem to indicate that it could not have been used by any large vessels. The Khor is exposed to winds and breaking surf.

Prior to the establishment of the city of al Baleed the capital of Dhofar appears to have been a city called Merbat situated near the present village of Taqa (Taqah, Thaka)²⁵. It is thought to be synonymous with the city 'Moscha'. The word 'Merbat' means literally 'moorings' and signifies a place where vessels were moored. The name continues in another town founded in about 600 A.D., the fishing village of Mirbat (Marbat, Murobat, Murobate), about 18 miles (30 km) to the east of the old city of Merbat. The ancient city of Merbat had three khors, or tidal creeks, Khor Suli, Khor Taqah, and Khor Rori, the largest of which was, by far, Khor Rori. All three probably provided anchorage for vessels of different sizes. Merbat is mentioned by the early Arab geographers of the early 3rd and 4th centuries Hijra (9th-10th centuries A.D.) Istakari, Ibn Haukal and Masoodi, but shortly after that the city was destroyed and the capital moved to al Baleed around the 10th century A.D..

The modern town of Taqah is the third largest town in the province of Dhofar. A bronze fishhook found at Taqah indicates that Moscha was inhabited as a maritime community before 1200 B.C. 26 .

Khor Rori

As mentioned previously Khor Rori (Khor Rairi, Khor Reiri) was the site of Moscha, the premier port of the Dhofar plain. Khor Rori is a large waterway extending over 1½ miles inland (see Figure.) The khor is fed by freshwater from Wadi Dharbat, a large natural spillway carrying rainwater from the Jabal Samhan mountains. Wadi Dharbat starts high in the mountains about 27 miles (42 kms) east of Khor Rori. Wadi Dharbat is joined by numerous other smaller wadis as it wends its way down to the coast collecting the rains that fall on an area of approximately 280 square miles (750 sq. kms) of the Jabal Samhan mountains and carrying them to the coast. This wadi is very beautiful and possess some of the most spectacular waterfalls in Oman. It is a favorite picnic spot for both tourists and locals alike. Water can be found in the riverbed of Wadi Dharbat all year round and large numbers of tall trees are found growing there.

Today, there is a sandbank across the khor closing it off from the sea. This was not always present however and its formation was probably one of the reasons the capital port was moved westwards to al Baleed. We can't know exactly what all the other khors looked like in Nephi's time but we can be sure that the mouth of Khor Rori was always this wide since the mouth is made by rock cliffs, unlike all the others. The water both in the khor and in the harbor is deep and must have been much deeper historically as one thousand years of silt now line the bottom. Before the sandbar closed it the khor would have been about 300 yards wide at its mouth. 100 foot high cliffs rise on each side of the mouth producing an impressive natural breakwater out to about 200 yards into the ocean. This was the great strength of Moscha as a port, the natural breakwater provided protection from both the summer southwest monsoons and the winter northeast monsoon, so the port could be used all season, unlike any other on the plain. Finally, the huge cliff breakwaters would allow a ship to sail out 200 yards into the Indian Ocean proper with protection from the surf, at which distance there would be nor fear of breakers catching the ship. (see Figure.) The cliffs that form the mouth of the harbor extend only about 300 yards to the east but run for about 2 miles westward ending at the sandy beach at the town of Tagah.

The earliest known map of the area was produced by Ptolemy, the Alexandrian cartographer of the 2nd century A.D.. There is no original of this map but copies of it appeared by the 12th century. His map bears witness to the efforts of the ancient Greeks who sailed around most of the Arabian coast²⁷. The map shows a port called 'Moscqa', the same as the port of Moscha, also spelled Mosca.

Khor Rori is a magnificent natural setting for a city port, capable of providing shelter for a large number of ocean going vessels at any one time (see Figure.) The west side of the khor has a narrow flat edge with short vertical cliffs about 10 feet high immediately behind it. The east side is flat and gently sloping. Sir Donald Hawley writes:

Trade in Omani frankincense was centered around the port of Samhuram, the remains of which can be seen today at Khor Rori, a short distance north of Salalah. A magnificent setting on a raised promontory peninsula that protrudes into the natural harbor, it is not difficult to imagine why the city was cited there, nor why it eventually declined. From the ruins of the extensive stone buildings there is a clear view of the silted harbor, where

ships must have docked, and a line of breakers across the entrance of the bay suggest that the sand-bar eventually closed the harbor 28

It would seem that a combination of factors led to the decline of the Khor Rori site. The massive reduction in income due to the collapse of the frankincense trade left the occupants of the city severely weakened and unable to defend themselves. Their defeat by the Persians together with the silting of the harbor presumably led to the abandonment of the site.

Mirbat

Mirbat has two harbors, the old and the modern. The modern harbor, with its concrete breakwater, holds many large Arab Dhows. The old harbor seems to be little more than a west-facing beach which would have been protected from the north east monsoon by a small headland. Here ships could have tied up or been beached in the winter. Mirbat offers no protection however from the southwest monsoon and so could only be used as a winter port.

The later portolano charts compiled from the voyages of mariners in the middle ages gave surprisingly accurate details of the Arabian coastline. Langren's map of 1596 was based on the portolanos and shows that by this time the two ports of the plain are 'Murobate' (also known as Mirbat, Marbat) and 'Dofar' (also known as Zafar, Al-Balid, Al-Baleed). This 'Murobate' is the same as the modern 'Mirbat' since the city of 'Merbat' at Taqah was destroyed over 500 years prior to the production of this map.

Comparative Analysis Table

Based on our research we have judged each possible candidate for Nephi's harbor according to the criteria necessary for Nephi's Harbor. The higher the score, the more likely the site could have been the place Bountiful. We rated each criterion for each site by the following scale: 4 - Yes: it is almost certain the criterion applied to the site in Nephi's time, 3 – the criterion probably applied, 2 – it is possible that this characteristic was present, 1 – there is only a very remote likelihood this applied to the sight in Nephi's era, and 0 – No: it is almost certain this criterion was present at the site.

From the results of this comparison we can see that the only five serious candidates for the place where Nephi built and launched the ship, Reysut, Khor Suli, Khor Taqah, Khor Rori, and Mirbat are all on the Salalah plain. But by far the strongest candidate is the port of Moscha at Khor Rori, especially when we consider the village of Taqa and Khor Rori, separated by only two miles, as one site.

	Kharfot	Reysut	Quran al Kabeer	Awqad	Salalah	al Baleed	Dhahariz	Suli	Tagah	Rori	Mirbat
Large enough to accommo-	0	4	0	0	0	4	4	0	0	4	4
date a large ship											
Protected year round from	0	0	0	0	0	2	0	0	0	4	0
monsoon winds											
Evidence of-Ancient Port	0	3	0	0	0	2	0	4	3	4	3
Opened into sea in 6 th 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	Э	0	4	3
Beach with much fruit	0	1	3	3	3	С	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	0	2	0	0	0	1	0	2	2	3	2
timbers for shipbuilding											
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	Э
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	5	2	2	2	3	3	3	2
Captains with time to teach	0		0	0	0	0	0	0	ŝ	m	0
Nephi to captain a ship											
The 'mountain' where Lord	2	2	2	2	2	7	2	ŝ	3	e	m
would appear.											
Instructors, place to teach	0	2	0	0	0	0	0	7	2	e	2
crew											
A mountain with ore nearby	0	3	3	3	3	3	3	С	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

Table to Compare the Possible Ports in Dhofar.

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

Historical Evidence That In Nephi's Time Khor Rori Was The Port For Large Ships

We discussed in the previous chapter that the country of the 'Adites provided a land in harmony with Nephi's description of land of Bountiful. The same can be said of Khor Rori which provides a perfect match for the "place Bountiful" where Nephi built his ship. We have thoroughly established that it was absolutely essential for Nephi to build and launch his ship from a harbor. Evidence of 'Adite colonization and use of khor Rori before 600 B.C. and Hadramauti use in the 1st century B.C. imply that the port was in continuous use throughout this period. But is there evidence that khor Rori was in use in Nephi's time?

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...The one good natural harbour along the southern coast is Aden. Between Ra's Fartak and Ra's al-Hadd there are four large bays...but all are so open to the sea that they give no protection."²⁹ Historical evidence provides us with some information about the ports in use in southern Arabia. Ra's al-Junayz (ra's al-Hadd)³⁰ was a Harrapan (Indian) port of the 1st and 2nd millennium B.C.; Aden and Cana are mentioned by Ezekiel (Ezekiel 27:23), yet these ports are not in Dhofar. Evidence however suggests that the southern coast of Arabia, and therefore the Dhofar coast, was a seaway in Nephi's time. Work published by the Ministry of National Heritage and Culture of the Sultanate of Oman states:

One example serves to illustrate that the seaways around Arabia were to some extent known and explored before Alexander's conquests: the expedition of Darius the great (Achaemenid king of Persia 521-485 B.C.) by sea from the Indus valley to Egypt via Persia, Oman, the Hadramaut coast and the Red Sea.³¹

According to Navanjot Lahiri recent research suggests that a "maritime route from the Mediterranean to India" existed during the period 1000 B.C. to 200 B.C.³². These ships would, of course, have passed along the coast of Dhofar. Spices from India "were brought (via the monsoon winds)...to the ports of South Arabia...This practice was certainly already established in the middle of the first millenium B.C., if not earlier."³³ Unfortunately there are no texts contemporary to Nephi that tell us specifically what ports were used in Dhofar at that time. According to Brian Doe the major ports of south Arabia that served as entrepôts were Aden (Euaemon Arabia), Qana (Husn al Ghurab) and Dhufar (Moscha)³⁴. These ports were presumably in use in Ezekiel's time since Ezekiel, a contemporary of Nephi, mentions both Canneh (Cana) and Eden (Aden)(Bible verses needed). Of the major harbors known to have existed in Nephi's time in southern Arabia, only Moscha could be considered as a candidate for Bountiful. There are several reasons for this conclusion. First, according to Nephi's directions they traveled south-southeast after leaving the Valley of Lemuel which was on the Red Sea (1 Nephi 2:5), followed by a significant turn to the east (1 Nephi 17:1). Reaching Adan or Canneh required no such prolonged journey to the east. Moscha is due east of the place we believe is Nahom (1 Nephi 16:34, 17:1) Second, the fertile Oara mountains above the ancient Arabian town of translated the glyph to say "Ophir", the biblical name of the secret land, where Hiram's Phoenician sailor's loaded their ships.

After Savoy had discovered the enigmatic glyph if the Andes, another inscription appeared, this one in Israel, at Tel Qasile, an ancient site near Tel Aviv that dates from King Solomon's time. The inscription, on a potsherd unearthed by archaeologist, bears this message in Phoenician-Hebrew: *Gold of Ophir, the possession of Beth-Horon, thirty shekels.* The inscription once marked a pot of gold stored in the hold of an ancient Phoenician merchant ship. At its center was the symbol Savoy had found cut into the cliff face of a mountain on ancient Chachapoyan lands.³⁹

The authors are not qualified to attest to the accuracy of Savoy's translation, only noting here that leading Arabian placename expert and Frankincense trail scholar Nigel Groom used the same potsherd from Tel Qasile to discuss the theory that Ophir was located in the Salalah plain of Dhofar⁴⁰. That it is purported that Joseph Smith said that Nephi's ship landed in northern Chile - a relatively short distance from where Savoy discovered his Ophir glyph, and that the Nephite's had the tradition of using the placenames their ancestors had encountered on their journey through Arabia to designate new settlements in the promised land (Midian, Alma 24:5 & Bountiful, Alma 22:29) may prove to be more than coincidental.

But where was the ancient port of Dhofar that was large enough to accommodate the largest vessels of that era, the ships of Tarshish? Presently there are only two harbors in the Salalah plain of Dhofar, the modern ports of Mina Reysut to the west and Mirbat to the east. However, as the Bent's observed in their visit to the area in 1894, "...anchorage of a superior nature existed in the neighborhood in antiquity, which has since become silted up, but which anciently must have afforded ample protection for the boats which came for the frankincense trade."⁴¹ As we already noted, Khor Rori was an ideal natural harbor, with 100 foot tall cliffs bordering each side of a quarter mile wide entrance the port, perfect breakwaters on a giant scale. Within the khor were several natural sea walls were a large ship could be moored, thus the old Arab name for the port, *Merbat*, meaning the 'moorings'.

As we mentioned in the previous chapter Khor Suli was used by the 'Adites in shipping frankincense east to Cana, however, it was too small to service large ships. The port to which the Bent's are referring can be seen today at modern Khor Rori. This port is mentioned in the 'Periplus of the Erythraean Sea'. The *Periplus*, literally meaning 'roundtrip', is an 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 40 A.D. 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; and ships returning from Damirica and Barygaza, if the season is late, winter there, and trade with the king's officers, exchanging their cloth and wheat and sesame oil for frankincense, which lies in heaps all over the Sachelitic country, open and unguarded, as if the place were under the protection of the gods; for neither openly nor by stealth can it be loaded on board ship without the King's permission; if a single grain were loaded without this, the ship would not clear from the harbour.⁴²

The locations mentioned in the Periplus are not always easy to pinpoint because the names of most of the places have been lost without trace to history. Nigel Groom notes:

This confusion is the greater because of the incorrect placing, by Ptolemy, of the frankincense port of Moscha and by the Periplus, of the Bay of Sachalita to the west instead of the east of the "promontory of Syagrus" (Ras Fartak). 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 as *sakil*, meaning a coastal plain, which is the present name of that coastal area.⁴³

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 named the port city Samhuram (Sumhuram, Samaram, Sanhar, Smhrm) which is a composite word meaning 'the plan is great' or 'the great scheme'. Inscriptions inside the Hadrami fort at Khor Rori give the name of the district as S'KLHN or S'KLN⁴⁴. According to an inscription on one of the buildings Samhuram was built by "Asadum Tal'an, son of Oawmum, servant of Il'ad Yalut, king of Hadramaut". King 'Il'ad Yalut, king of Hadramaut, is mentioned as king Eleazus in a Greek mariner's account written some time between 40 and 70 A.D.. Samhuram then had to have been built no earlier than 20 A.D.45. However, on investigating this site we found the same stone 'boats' at Khor Rori that Zarins reported at Khor Suli⁴⁶. It would therefore appear that Khor Rori had also been used by the 'Adites well before the construction of Samhuram⁴⁷. Peter Vine is of the same opinion that the port of Samhuram 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."⁴⁸ The entrance to the port was guarded on the east side by a walled defense known as the citadel situated on a raised promontory of solid rock rising 100 feet above the sea. The three acre promontory was surrounded on three sides by the sea and was only accessible from the north. The remains of houses have been found there. From its prominent position on a large hill next to the khor another building now known as 'The queen of Sheba's palace' dominated the harbor.

Application of Nephi's Criteria To the Port of Khor Rori.

We have discussed the charachteristics of Nephi's harbor and applied these to each of the potential harbors in Dhofar. We will now apply them in greater detail to khor Rori specifically to see how well they pertain to this site.

The Mountain Nearby

Nephi was asked by the Lord to go to "the mountain". This would imply that it was not just any height, "a mountain", but a special place, "the mountain". Jebel Samhan (Mount Sofar, Bible: Sephar) is the tallest mountain in western Oman. It is readily visible from Moscha (Kho Rori) being less than 20 miles to the east. It is one of the few mountains that is mentioned in the Bible and is, like Khor Rori, historically associated with Ophir. The Bible mentions the mountain as a distinguishing landmark of the place where the sons of Joktan, the great great great great grandson of Noah, dwelt.

And Ophir, and Havilah, and Jobab: all these were the sons of Joktan. And their dwelling was from Mesha *as thou goest unto Sephar* a mountain of the east. (Genesis 28:29)

We have not been able to identify the place Mesha mentioned in this verse but it may that it is associated with Moscha, as Ophir is with Dhofar.

Ore Available

The rocks to the west of Jabal Samhan are sandstone and do not hold any iron deposits. Iron ore deposits are found about 40 kilometers (24 miles) from Khor Rori. Reading Nephi's account, 1 Nephi chapter 17, of finding the ore, it appears that he went to the mountain at the request of the Lord (v.7) and was told what the design of the ship should be (v.8). Nephi asked where to find ore (v.9) and was told where to find it (v.10). It just so happens that the ore is found at the base of Jebel Samhan. Since Nephi was a days ride from the rest of the family, he constructed a bellows where the ore was (v.11), and smelted the ore to make tools (v.16). This makes perfect sense, why would he carry the ore back? It would take many journeys to get enough, it was far easier to smelt the ore and make the tools on-site of the deposit and just carry the tools back. It is not until his return (v.17) that his brothers see that he is about to build a ship, and complain. It might also be significant that flint, presumably the stones Nephi used to start the fire for his bellows (1 Nephi 17:11) has been found at Andhur near Jebel Samhan⁴⁹

Trade With India

As noted in the previous chapter, the Omani shipwrights imported their materials from India and the islands thereabout. Large timbers, coconuts in large quantities, rope and sails would all have been available at Khor Rori. Foreign goods that were brought to exchange for the precious aromatics would have been readily available in the port. German Maritime Archaeologist Dr. Norbert Weismann who specializes in Oman, writes: "For Dhofar I do not know any very old documents. Certainly it was involved in the traffic to India in Greco-Roman times, but there was trade with *white India much earlier*.⁵⁰ The site was partially excavated between 1952 and 1962 by Wendell Phillips, an American archeologist. His finds included a bronze figurine from India, stores for frankincense as well as a temple, believed to be to the moon goddess Sin. The Omani Ministry of National Heritage and Culture states:

Nevertheless there can be no doubt that Omani sailors were playing a part in a developing Indian Ocean sea trade upon which the growing prosperity of the South Arabian cultures in south-west Arabia, particularly at the time those of Saba' and Ma'in was largely based. The trade in aromatics conducted both by sea from India and East Africa and by land along the west coast of Arabia, was one of Arabia's principle contributions to the character of the ancient world....A high-quality frankincense was grown in, and exported from, the Dhofar region of modern Oman, where an important city –Samhar- was established near modern Taqah. The civilization of southern Arabia grew from obscure beginnings before 1000 BC, and developed in step with the growth of the great states of the Mediterranean and Persia-its markets. Its growth was the major stimulus to the re-opening and expansion of Indian Ocean maritime routes.⁵¹

Large Timber

The first records of timbers being imported from foreign lands date to an inscription of Ur-Nanshe, King of Lagash in Sumer in about 2520 BC.⁵² The cargoes which the ships from Meluhha (India), Magan (Oman) and Dilmun (Northwest Persian Gulf) carried to Mesopotamian consisted of copper, other metals, diorite, carmelian, onions, spices and wood – which perhaps included Indian teak, as in later historical periods, for ship buildings. The Omani Ministry of National Heritage and Culture 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 BC, describes a type of wood used in Bahrain to build boats, the properties of which conform very closely to teak.⁵³

In ancient Yemen teak was also the wood of preference for building ships, and was imported from India⁵⁴. The implication certainly seems to be that wood for ships in south Arabia has always been imported from India and that even though there may have been a wetter period when Nephi was passing through Arabia there is little evidence to suggest that the increased rainfall was sufficient for teak, or other large trees suitable for shipbuilding, to grow in Arabia, nor, for that matter, that trees suitable for shipbuilding ever grew on the Arabia.

Besides the large hardwoods, coconut timber and fibre as also a main component of south Arabian ships. The Ministry continues:

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. These Islands witnessed a remarkable ship-building activity, of which Abu Zaid Hasan of Siraf, writing in the 10th century, has left us a description:

"There are people, at Oman, who cross over to the islands [i.e. Maldives and Laccadives] that produce the coconut, carrying with them carpenters' and such-like tools; and having felled as much wood as they want, they let it dry, then strip off the leaves, and with the bark of the tree they spin a yarn, wherewith they sew the planks together, and so build a ship. Of the same wood they cut and round away a mast; of the leaves they weave their sails, and the bark they make into a cordage. Having thus completed their vessel, they load her with coconuts, which they bring and sell at Oman. Thus it is that, from this tree alone, so many articles are convertible to use, as suffice not only to build and rig out a vessel, but to load her when she is completed, and in a trim to sail." ⁵⁵

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 Oman⁵⁶. 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 fibre from the palms. Our guess is that Nephi saw coconut palms around Khor Rori. We base this hunch on the following ideas: 1) the monsoons must have washed coconuts up onto the beaches of Salalah for thousands prior to Nephi's arrival; 2) Indian Ocean seafarers had been trading in agricultural products since the third millennium BC. 3.) The Dhofar *Sambuqs*, 'sewn boats', had been built since "great antiquity⁵⁷," around Khor Rori, and since they were sewn together with

coconut fibres, it is possible the coconuts they used were local and 4) evidence suggests that the wealthy Adites cultivated fruits, and if so, why not coconuts?

Even if Nephi were able to find a local supply of coconuts and coconut timber, he still probably needed to rely to some extent on imported timber. Severin suggested:

Historically, nearly all materials for shipbuilding in Oman have been imported from the Indian subcontinent, Oman being lacking in suitable timber for large boatbuilding, though Dhofar province could have provided coconuts for the coir used in fastening the sewn boats...The logical choice for timber for Sohar would have been teak from the Malabar Hills of South India....⁵⁸

Using imported lumber would certainly not contradict Nephi's claim that he worked timbers. Tom Vosmer believes that most of the imported lumber would have been worked into timbers at Dhofar:

In regard to the importation of timber, I would imagine that ancient practice was probably similar to recent - i.e. timber imported as logs and converted 'on the spot' to boat-building timber; this mainly due to the fact that boat-builders themselves would better know what was needed than an exporter in India. Each boat-building process, particularly in the days before plans, grew and changed as an individual boat was built. Best and least wasteful use of timber was achieved by being able to convert the available stock to the demands of the moment.⁵⁹

However, Nephi's text alludes to the fact that the timber they were working had already been cut. He wrote that "we did work timbers of curiously workmanship." (1 Nephi 18:1) How could they have been curious to Nephi and his workers, if they had previously worked the lumber themselves? Apparently, some of the timbers Nephi used to construct his ship were pre-cut in an unfamiliar manner. As noted earlier, "beams and rafters" were being exported from India in ancient times. Presumably, these pre-worked timbers from India would have been fashioned in a matter that was new to Nephi.

It seems highly probable that imported timbers from India were available at Moshca/Khor Rori in Nephi's era should he have needed them. But could Nephi have afforded the imported lumber? In Oman in 1990, a 110 foot Dhow made of imported wood cost up to \$535,000 to build⁶⁰. 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. There are a number of options for Nephi to have afforded the timber. The large party would have arrived at Bountiful with camels that they no longer needed. These would have been eminently marketable at the end of the frankincense trail where camels were used as the principle beasts of burden. It is even possible that Lehi could have sold property or belongings in Jerusalem when at Bountiful. The journey to Jerusalem was only 4 months. He could have left behind a servant to act as an agent. The possibilities are endless. Nephi could have kept contain the costs of the ship by using local timber wherever practical and using the family for labor whenever. We saw acacia used in an Arab Dhow being built in Mirbat. Though acacia is not well suited for boat building, being a short, brittle wood⁶¹, it obviously could have been used for some elements of the structure. Mango was grown in Dhofar and could also have been used⁶². A number of different species occur in Dhofar that produce timber although only the hardwoods Acacia nilotica, Aniogeissus dhofarica, Allophylus rubifolius and Olea europaea seem to have been used to any degree in building⁶³. Ziziphus spina-christi could also have been used in ship building⁶⁴. The fact remains that Nephi built a very large ship and to do that he needed imported wood from India.

As previously mentioned the hardwood species found on the foothills of Dhofar tend to be small and do not produce the large timbers necessary in the construction of large ships. However a unique combination of environmental factors might provide one notable exceptions. The foothills around Khor Rori receive greater rainfall than the Qamar mountains to the west, which only receive the monsoon rains in exceptional years⁶⁵. Coupled with excellent soil which has collected in the large upper valley to Khor Rori, wadi Dharbat and its adjacent slopes, grows large trees. These are the only large trees we have seen in Dhofar. Indeed, the locals call Wadi Dharbat "the valley of the big trees."66 This ecological wonder is only five miles from Khor Rori and each monsoon season the valley takes on the appearance of a rain forest. Wadi Darbat has been designated a National Park and a Nature Reserve. Professor Samir Hanna of Sultan Qaboos University, writes of Khor Rori's upper valley "majestic views of lakes, waterfalls and wildlife; all of this coupled with the surrounding vegetation and the tranquility of the place provide a vision of Paradise."⁶⁷ Although wadi Darbat has been largely deforested we still found large trees and it may be that, in Nephi's time, this small but ideal growing area may have produced enough hardwood trees in ancient times. (Figure)

It appears that all the ancient commodities needed for shipbuilding were available at Khor Rori either grown domestically or acquired by trade. These would have included timber (teak, deodar, etc.); rope from vegetation fibre; 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. However, for the key materials, Nephi probably needed to trade at the port, Moscha at Khor Rori.

Fabric for Sails

As noted in the previous chapter, had Nephi's party made the canvas for their sails, it probably would have taken them as long as complete this task, and it would have taken to complete the rest of the ship. As unlikely as this would have been, they could not have done so without a source of cotton, coconut or other suitable fiber, as well as the knowledge of how to make a high quality canvas.

The ship would have needed a number of sets of sails for the journey, each of which would require quality cloth. In both Greek, Roman and Phoenician ships the standard rigging was similar, a single square sail controlled by brailing lines. The sails were made of light flax or cotton material reinforced with leather strips running horizontally with the brailing lines running vertically through rings sewn into the cloth. According to the Periplus cloth was one of the products that the inhabitants of Dhofar imported in return for their frankincense. What this cloth was we do not know but ships from the Indus valley in the 2nd millennium B.C. carrying wood perhaps carried cotton too⁶⁸. Theophrastus (370B.C.-285B.C.) noted the cotton trees in Bahrain, no doubt introduced from India. Assyrian king Sennacherib (704B.C.-681B.C.) boasted of 'wool bearing

trees' as one of the innovations in his capital, presumably of the same origin. It is quite possible that cotton, as well as timber, would have been an Indian export to Dhofar, whose ancient port was Khor Rori.

The Shipwrights Of Khor Rori

As we discussed in the last chapter the Dhofar area was populated since earliest times, the largest bronze-age settlement in Oman (archaeological site Hagif #240) being situated in Dhofar⁶⁹. Dhofar is the home to one of the most ancient ships built in Oman, the sewn sambuq (boat)⁷⁰. Other Arabian powers with a maritime tradition are recorded in ancient texts as ship builders; Mesopotamia⁷¹, Dilmun⁷² and Magan⁷³. It would seem naïve to think that the peoples of Dhofar, blessed with harbors and maritime interaction with India where timber for shipbuilding could be obtained, as well as having abundant native timber for lesser parts of the ship, did not also build ships.

As Linehan pointed out, to build a ship of this size Nephi would need to be a skilled shipwright, a skill he could not have developed in Jerusalem. Illsley discussed the requirements for building a sophisticated ship:

Beyond the most primitive level the building of even modestly sophisticated boats requires specialists who are able to devote all or most of their time to their trade. A society capable of producing such boats must have developed to the point at which division of labour was an accepted practice and it must also be able to assign wealth and resources to the building of boats.

Nephi could not have simply thrown some planks together to build his ship, he needed specific skills, yet where did he obtain them? John L. Sorensen goes so far as to state "No hint can be found in the text that anyone in Lehi's party had any knowledge whatever of nautical matters"⁷⁴. Nephi could not have developed them in Aqaba since the party only briefly passed through there on their way to the valley. It seems most likely that Nephi developed these skills at Khor Rori, perhaps even under the tutelage of the 'Adite shipwrights. This knowledge would allow him to state that he "did not work the timbers *after the manner which was learned by men*, neither did I build the ship *after the manner of men*." (1 Nephi 17:2).

Shipwrights of Magan, in northern Oman, are mentioned in a text from the Sumarian city of Lagash of about 2000 BC.⁷⁵ From what we can glean from history, it would appear that Dhofar has one of the longest and finest shipbuilding tradition in Oman. The Omani Ministry of National Heritage and Culture states:

The name sambuq is also often used as a general word for "boat". It is also the word used

to denote the sewn boats of the Dhofari coast and may therefore be a term of great antiquity.

Perphaps the most interesting boat type of Oman, in view of its great antiquity, is the sewn sambuq of the Dhofari coast.⁷⁶

The skills of the shipwrights of Dhofar were highly regarded. The Ministry referred to their sambuqs as "always beautiful and exactly made – perhaps more so than any other Omani vessels."

Access To Maritime Skills

Once Nephi's ship was built, he had to acquire the knowledge and apply the skills necessary to make such a challenging and dangerous voyage. In our day to captain a transoceanic ship takes years of study in a Maritime Academy and at least a decade serving under a seasoned captain. If Nephi and his crew were to learn these skills they had to do it just as the first seafaring Arabs had. 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."⁷⁷ 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.

Who then were the great sea captains of their day who had the time to spare to instruct a young man from Jerusalem in sailing? The Greek nautical hand-book 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 come from Dimyrike *(southern India)* and Barygaza (*modern day Broach in India*) which cruise nearby, spend the winter there due to the lateness of the season⁷⁸". 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. This last, and perhaps most precious and important resource Nephi needed, experienced captains who both knew how to sail a large ship across open seas of the Indian Ocean, and who had the time to spend teaching Nephi, were to be found at Khor Rori.

Not only would Nephi need these skills but also the rest of the family. A ship of this size, at least 80 feet in length and at least 100 tons unladen, would need a large crew. Prior to the introduction of Diesel engines Omani ocean-going vessels had crews of between 25 and 40 sailors⁷⁹. The entire family would have needed practical training to learn these vital skills. This would require sea trials, which would also serve to confirm the ship's handling, weight and positioning of ballast etc. Open water trials would need a protected port, preferably with moorings. Nephi's text hints that he crew was well trained on leaving port. First, they all boarded to ship in an orderly, apparently disciplined manner

reflecting a degree of training (1 Nephi 18:6). Second, the first few days at sea seemed to have gone quite smoothly, so much so that some in the party forgot God's hand in their safety and became merry, rude and rebellious (1 Nephi 18:9). This would not have been the case with an untrained crew. Third, even with the Liahona not functioning and while being battered by a storm the overconfident of Laman and Lemuel thought they could command the ship without Nephi (1 Ne. 18:9-15). Obviously they did not consider that Nephi was the only one who could be master of the ship. Where could a large ship have practiced sailing with an inexperienced crew? Again, khor Rori with its remarkably safe entrance and moorings was an ideal training port.

Deep Sea That Someone Can Be Thrown Directly Into

"And now it came to pass that when I said these words they were angry with me, and were desirous to throw me into the depths of the sea." (1 Nephi 17:48)

This is how Nephi describes the climax of the interaction between himself and his brothers Laman and Lemuel, described in chapter 17 of 1st Nephi.

To recap the events that lead up to this: the two brothers murmured against Nephi not believing that he could build a ship and refusing to help in the project. Nephi called his brothers to repentance and after lecturing them about the Lord's leading the children of Israel to freedom Nephi told them "ye are murderers in your hearts" (verse 44). At this point the brothers, infuriated at this accusation, yet never denying it, moved to throw Nephi into the depths of the sea.

As we can see from Nephi's description, this was no boisterous romp between loving siblings, this was not a prank to get their little brother wet, this was an attempt on Nephi's life. It is obvious to us then that merely throwing Nephi into the sea from the shore would not have produced the desired result, he would just swim away a short distance onto the beach and walk off! Throwing Nephi into deep water from a boat would also be unlikely to succeed. Nephi was big and strong and could probably manage to wrestle at least one of the brothers into the water with him. No, to accomplish their intended result they would have to throw him from a great height into deep water. There could be no beach for Nephi to swim up onto, he would have to be crushed by the waves upon the rocks, or dragged out to sea by the current. To be thrown into the depths of the sea he would have to be thrown from a vertical or overhanging cliff so that he would go directly into deep water. If the cliff were not vertical he would be dashed on the rocks and never reach the water. Finally, to cast Nephi into deep water, he and his brothers would have had to have been a place far out from the shoreline, that is, in the "depths" - deep water.

Nephi's description requires tall, vertical or overhanging cliffs with deep water directly below them. Possibly a strong swell to crush Nephi and nowhere to swim to for safety. The shoreline of Dhofar is made up of sand beaches, and in a few places, cliffs. There are vertical and overhanging cliffs between Khor Rori and Taqah. While there are cliffs at Reysut to the west of Salalah they are not vertical nor do they fit the rest of the description for the area since mina Reysut (the modern port of Reysut) is salt water and

plantations could not have been cultivated there. What truly separates the cliffs at Khor Rori from those of any other spot along the Dhofari shoreline is that they are an odd set of two giant rock promontories that reach into sea some 150 yards from the natural shoreline into water we estimate is 25-35 feet deep. (see Figure – Satellite image Taqah – Khor Rori)

Abundant and a wide variety of fruits (1 Nephi 17:5, 1 Nephi 18:6)

To the east of Khor Rori there is a long, wide beach but it has no fruit trees. Immediately to the west there is a small beach about 30 yards wide, but Nephi tells us that the place they camped had much fruit, that is why they called the place 'Bountiful'. This beach is bounded by cliffs and could not have had fruit trees. The cliffs extend 2 miles to the west and then end at Taqah (Merbat) where the beach begins again. This long sandy beach extends to Salalah 20 miles (32km) away.

Modern plantations can be found on the plain from Salalah, in the west, as far as Taqah, in the east. We assume that with a freshwater supply in the khors the inhabitants of Merbat would have cultivated fruits in just the much the saw way as the inhabitants of Taqah do today, shallow sweet water wells or water from the khors. If Lehi's party arrived after monsoon time then the water supply of the town would have been abundant and the trees of the plantation in fruit. Nephi says that "we were all exceedingly rejoiced when we came to the seashore; and we called the place Bountiful, because of its much fruit"(1 Nephi 17:6). Combining Taqah, what was probably the site of the ancient town of Moscha, with the harbor of Moscha at Khor Rori just two miles away, we have a community that fits admirably the description of Nephi's Bountiful. Interestingly when the Nephites reached the New World they named an area "the land Bountiful" and it presumably also had a sizeable port since Hagoth built an "exceedingly large ship" there (Alma 63:5) which was also able to reenter the port (Alma 63:7). The similarity to the Old World Bountiful was obviously not lost on the Nephites when they named the place.

In Arabia, a land known for its desert and its scanty harbors, we have a populated beach with much fruit next to a harbor capable of accommodating the building, launching and the sea trials of a great ship.

Conclusion.

The comparison between the elements Nephi describes in Bountiful, where the family lived and where he built his ship, and our findings at the Dhofar coast around the ancient port of Moscha at khor Rori, show a remarkable similarity. There is not one element that Nephi describes that is missing there and neither is there one thing missing that Nephi would have needed to build, launch and sail a large ship towards the promised land. The port of Moscha provides us with an absolute match for the place where Nephi built his ship with no other site able to come close to matching Nephi's description.

Appendix

Wadi Sayq.

Wadi Sayq has been suggested as the most likely candidate for the place where Nephi built and launched his ship'. Having visited wadi Sayq, as well as all the other potential Bountiful candidates in the area, we will outline our concerns regarding wadi Sayq and show why we hold severe reservations about it's potential candidacy for the title "the Place Bountiful".

Applying the same criteria of judgment to wadi Sayq that we did to all the other potential ports in Dhofar we make the following conclusions.

A harbor with direct access to the sea (1 Nephi 18:8)

Wadi Sayq opens into a small shallow khor, khor Kharfot, which is closed to the sea by a sandy beach. If Nephi had built the ship on the beach there would have been no protection from the monsoon storms and the boat would have been dashed before it could be completed. Alternatively the boat could have built in the khor and sailed over the sandbar to the sea. However that is not possible since the tidal variation is not high enough to lift the ship across the sand. Added to this is the problem that the khor is not deep enough to float a large ship in, being little more than eight feet deep As we know the family did not pull the boat across the sand, since they were already on board, thus the only alternative is that the inhabitants of the Wadi were enlisted to pull the ship into the sea. This is contrary to the text.

To counter this argument the Astons claim that the sand bar would not have been present in Lehi's time making the wadi an open harbor. "Altimeter readings showed that the interior valley was between thirty and fifty feet below sea level, rising gradually to sea level at a point more than a mile from the present beach."ⁱⁱ.

This claim needs to be discussed. Firstly, with regard to the sandbar. There seems to be an assumption that because khor Rori and khor Suli, historically documented ancient harbors, are now closed by a sandbar that it follows that khor Kharfot was once a harbor and the same thing happened there. We know that the sandbar that closed khor Rori developed around the 10th century A.D. The sandbar at khor Kharfot totally closes the entrance to the Wadi. According to David Johnson "If one looks at the archeological material, say, at Wadi Sayq, one sees a whole settlement that is right behind the sandbar,

i In the early 1990's Warren and Michaela Aston identified Wadi Sayq as the most likely site for the 'place Bountiful'. In 1994 they wrote:

[&]quot;The net result, once all possible sites had been examined, was to actually further strengthen the position of Wadi Sayq as the prime candidate for Bountiful". Warren P. & Michaela Knoth Aston. *In the footsteps of Lehi*, p. 53.

[&]quot;*ibid.* p.76

almost all the way across the mouth of the valley except in one little place. The ruins seem to indicate that the sandbar was already there in the Greco-Roman period.ⁱⁱⁱ" The same article dates the Greco-Roman period to 332B.C. to 363 A.D.. It is therefore obviously not credible to make the assumption that khor Kharfot had no sandbar in Lehi's time based on evidence of the dates when Khor Rori was an open harbor. In the absence of evidence that the wadi was used as a harbor in Nephi's time we have to assume, as we have with all the other potential sites, that it was closed.

Without a harbor Nephi could not have built and launched a large ocean-going vessel. Without a harbor khor Kharfot immediately loses any credibility as a candidate for the place Nephi built and launched his ship. For approximately two millennia, and perhaps much longer, the Khor has been closed to the sea and yet we are to believe it was a harbor in Lehi's time. However there is no evidence to support this conclusion, in fact circumstantial evidence would appear to refute it. This rewriting of history, albeit well meaning, would appear to have gone unnoticed for some time and can only be considered unacceptable.

Secondly, with regard to the depth of the supposed inland harbor, according to altimeter readings about a mile inland the floor of the wadi is at sea level, and inland from there the floor drops to 30-50 feet below sea level. We would be interested to know whether these distances were measured or whether they are the subjective opinion of the authors. Our findings seem to us to run contrary to those expressed by the Astons.

About a quarter of a mile inland a small spring flows into the wadi. The water flows towards the sea and collects in a pool behind the sandbar^{iv}. The water here is about 8 feet deep with the top of the pool approximately at sea level (This was determined by standing on the sandbar and looking in each direction...to the sea and the pool. Each was, subjectively, at the same level. A panoramic photo revealed the same result. While not totally accurate this method is probably accurate to within a few feet, which is enough for this issue). Obviously then the wadi about one quarter of a mile inland is higher than sea level since water flows down hill. How did the ship sail from the inland harbor over a hill and into the sea? The only explanation would be that the sand bar formed into the wadi over a quarter of a mile deep. On every other khor in Dhofar that has been closed by a sandbar the sandbar is exactly the same width as the beech and does not continue up inside the wadi. Since a sandbar is formed when currents carrying sand slow down and deposit them it is difficult to see how the sand could have got inland so far. It seems far more likely that this sand constitutes the beach.

Over a mile inland the wadi is supposedly 30-50 feet below sea level. Yet just after a particularly good monsoon year (according to the local inhabitants) we found no lake or even pools of water inland. Where had all the water gone in just one month? It could not have evaporated in that time. It could not have soaked into the rock, since this was supposedly below sea level. If the rock were porous wouldn't we expect the seawater to

ⁱⁱⁱ Journal of Book of Mormon Studies, p.17. Vol. 7, number 1, 1998.

^{iv} Warren P. & Michaela Knoth Aston *ibid.*, p. 52.

seep in? If the rock were porous wouldn't the spring more likely emanate from the deepest portion of the rock wall rather than 30-50 feet higher up, nearer the opening of the wadi?

The subjective opinion of all that have visited the wadi is that by one mile inland one is looking down on the sea, from quite a height. In my opinion by one mile inland one has reached quite a steep slope leading up the wadi side and not a deep 'lagoon'. Even the Astons were surprised at their altimeter reading. The 3-dimensional maps of Wadi Sayq on pp. 50 & 51 of Aston's book, albeit on too small a scale to provide any definitive answer, give no indication of the Wadi falling below sea level just inland. We would suggest that all the evidence indicates that the wadi rises from the sea, that the shallowest part is just behind the sandbar and the water from the spring flows downhill to the sea, not inland to the 'harbor', that there are no pools of water in the wadi inland because the water flows downhill to the sea. I feel this claim of an inland harbor, on which the whole argument for wadi Sayq as Bountiful, ultimately hangs, needs much more thorough investigation. Sending a qualified surveyor to the Wadi might immediately answer this question.

A place where they could build the ship (1 Nephi 18:5)

Historically large ships have been built in harbors. These have a shallow sloping floor on which to build the ship and still water in which to launch it. The ship is tested for water tightness and then pulled back onto the shallow slope for caulking and finishing. Nephi must have needed a similar location.

The floor of the wadi is flat and smooth but the walls are steep and covered by huge boulders. If one accepts the dubious premise that the floor of the wadi was covered with seawater then it is difficult to find a shallow sloping spot on the wadi walls where a boat could have been built and launched and then recovered again. This is probably why there is no evidence that Wadi Sayq has ever been used as a harbor, because it does not have the correct topography. There are a few rudimentary remains there, low walls and a mound, which is thought to have been used as a guide for ships passing along the southern coast of Arabia. However this does not indicate that the wadi was itself a port. If the ship were launched one mile inland it would have to negotiate the long, narrow wadi before the family could reach the sea. With the narrow sloping walls inland and the large boulders, which presumably have been submerged, it is difficult to see how they could have rowed out of the wadi without ripping the bottom out of the ship. It therefore follows that it would be a poor choice for a shipyard, which would seem to be why the locals never used it as such.

Timber (1 Nephi 18:1)

There is no evidence that there was contact with India to allow imported wood to be obtained for building the ship. In order to obtain wood they would need to sail to khor Rori to obtain it, in which case they would need a ship! There are very limited numbers of local hardwood species in the wadi. Most of the large trees are *ficus spp*. and are softwoods. There are same hardwood trees on the mountain slopes but most of these are

small and stunted. The largest trees are found on the floor of the wadi or on the lowest parts of the slopes. The Astons claim that the wadi floor was below sea level and that if the sand bar were not present the wadi would therefore form a harbor. The problem is that then the only locations where all the large trees grow presently would be under seawater. The claim for much timber from large trees would seem contrary to the suggested appearance of the site if the sand bar were not there.

Abundant and a wide variety of fruits (1 Nephi 17:5, 1 Nephi 18:6)

The Astons write: "The fruit referred to-notable for its abundance and not necessarily its variety-was probably the date palm."^v The date palms which litter the floor of the wadi (which would have been under sea water according to the Astons) are probably a recent introduction since date palms do not grow on the beaches elsewhere in the region. They may have been planted or grown from dates dropped by fishermen. Dates form on the palms but in June the monsoon winds and rains come and the dates, which need great heat and sunshine to ripen, never mature. Thus the trees do not produce dates themselves and are not self-propagating. These trees could not be the ones Nephi describes as providing much fruit.

As part of their evidence that Wadi Sayq is Bountiful the Astons describe it as "the most fertile coastal location in the Arabian Peninsula with abundant freshwater, large trees, fruit and vegetation"^{vi} and state that "In comparison with the other five candidates the fertility of Wadi Sayq makes it difficult to conceive of Bountiful being anywhere else on that basis alone."^{vii} Yet they overlook the fact that the reason it is apparently more fertile than other areas of Dhofar is simply that the lack of access has allowed it protection from deforestation. The foothills in Dhofar, known as the haskik, was formerly heavily wooded but have been overexploited^{viii}. This extensive destruction of vegetation is well documented and has occurred in living memory.^{ix}

We need to remember that we should not be seduced by the scenic nature of the Wadi. Nephi called the 'place Bountiful' '*bountiful*' because of its much fruit and wild honey, not because it looked green and fertile.

Ore

 $^{^{}v}$ "And we called the Place Bountiful", by Warren and Michaela Aston. FARMS 1991 p.15.

^{vi} Warren P. & Michaela Knoth Aston. In the footsteps of Lehi, p.43. ISNBN 0-87579-847-0

^{vii} "And we called the Place Bountiful", by Warren and Michaela Aston. FARMS 1991 p.16.

^{viii} . (Anthony G. Miller & Miranda Morris: The Plants of Dhofar, 1988, p.xiii Office of the Adviser for conservation of the environment, Diwan of the Royal court of the Sultanate of Oman. ISBN 07157 0808-2.)

^{ix} Ibid. pxv.

Iron ore deposits have been found at Jabal Samhan, which is about 160 kilometers (100 miles) from Wadi Sayq. There would not appear to be any ore deposits within a realistic distance from Wadi Sayq.

Flints

A close reading of the text shows that the flints were used at the mountain where the ore was found. The presence of flint near wadi Sayq would seem to indicate that this is *not* the site since no ore has been found on the mountain where the Astons claim Nephi received his vision. Flints deposits have been found at Wadi Andhur some 20 miles from Jabal Samhan^{*}, where iron ore has been found.

Accessible seashore (1 Nephi 17:6)

There is no evidence that there was route in Lehi's time leading from the Yemen eastwards over the mountainous plains to Jabal Qamar^{**}. There is no evidence that there were wells or waterholes along the proposed route to support the group. The terrain covered on this supposed route is far too tough for camels^{xii}, which do not cover rocky ground, thus the family would have been forced to carry their supplies. This is highly unlikely. The only documented route from the east is the one proposed by Prof. Juris Zarins, the Frankincense trail from Shabwa to Shisr (Shasar). The opening of the Wadi atop Jabal Qamar is still some 50 miles from the inland side of the mountain range and approximately 100 miles from the Frankincense trail. The family would have encountered similar rough terrain if they had used the frankincense trail to reach Salalah and then headed west along the coast. The way is strewn with mountains that rise many thousand feet from sea level.

Local legend has it that the remains at Wadi Sayq are from a local 'king' who built a settlement there. According to tradition the provisions for the inhabitants were lowered down to them by ropes from the cliffs above. Perhaps this gave rise to the name Khor Kharfot 'Fort inlet'. That the provisions had to be lowered down does not augur well for the claim that the gentle slopes of the Wadi provide access to the hinterland.

^x Nicholas Clapp 1998. The Road To Ubar, p.128. Houghton Mifflin, Boston.

^{xi} For an example of the kind of terrain the family would have had to traverse to gain access to the upper end of the Wadi see the illustration between pages 9 and 10 marked "The general interior area about 10 miles inland of Wadi Sayq" in "And we called the Place Bountiful", by Warren and Michaela Aston. FARMS 1991. It should be remembered that it is proposed that the group, with women, small children and heavily weighed down camels, which are not adept at crossing rocky ground, would have had to cover hundreds of miles of such terrain.

^{xii} To deal with this apparent problem the Astons mention that there are camels in the wadi from time to time. They assume that they come down the wadi to feed. I would suggest that this is not the case. A number of camels and cattle were entering the wadi from the sea side. A narrow path along the base of the cliffs exists and a number of animals were on it when we were there. In contrast there were no camels inland on the more rocky hinterland. Here the Jebalis seem to favor breeding cattle rather than camels.

It remains highly questionable whether Wadi Sayq could not have been reached overland by the group with women, children and animals.

Constant supply of fresh water.

The Astons write "Sayq is the most fertile coastal location on the entire eastern coast of Arabia and also incorporates the largest freshwater source along that coast."^{xiii} This largest freshwater source is presumably the water in the wadi itself and is, in fact, nothing in comparison with the volume of fresh water contained in Khor Rori, or many of the other khors for that matter. This would of course have been under seawater if we are to agree that the sand bar was not present. A freshwater spring is present on the north side of the wadi quite low down on the wadi wall. It is questionable whether that would have existed too if the wadi was filled with seawater. A great deal more work needs to be done to establish the actual depth of the wadi floor and the structures thereon to see what would have been above sea level if the wadi were flooded.

Access to shipwrights.

Since there is no evidence wadi Sayq was a harbor it seems unlikely shipwrights would be found there.

Access to those with knowledge of sailing the Indian Ocean.

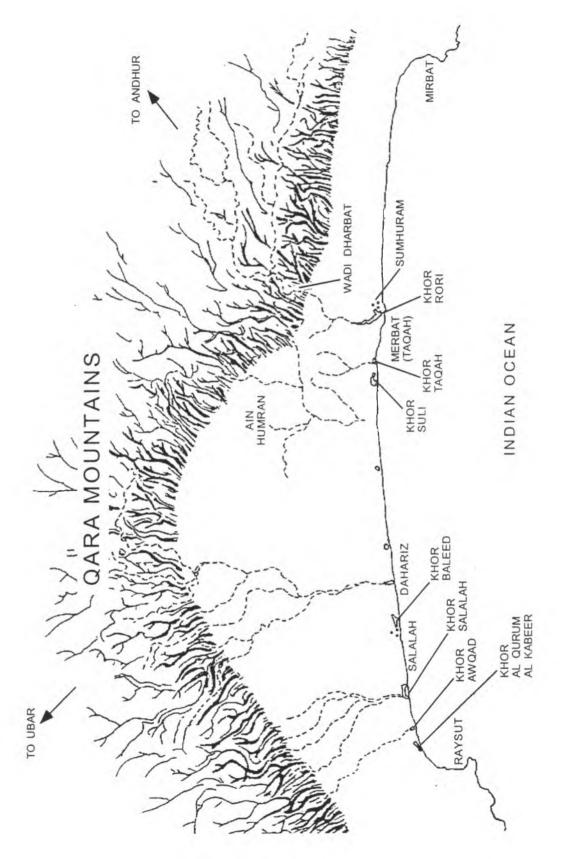
While there may have been small vessels alighting on the beach it seems unlikely that there would have been access to captains of large sailing vessels, for the same reason outlined above.

Material for sails etc.

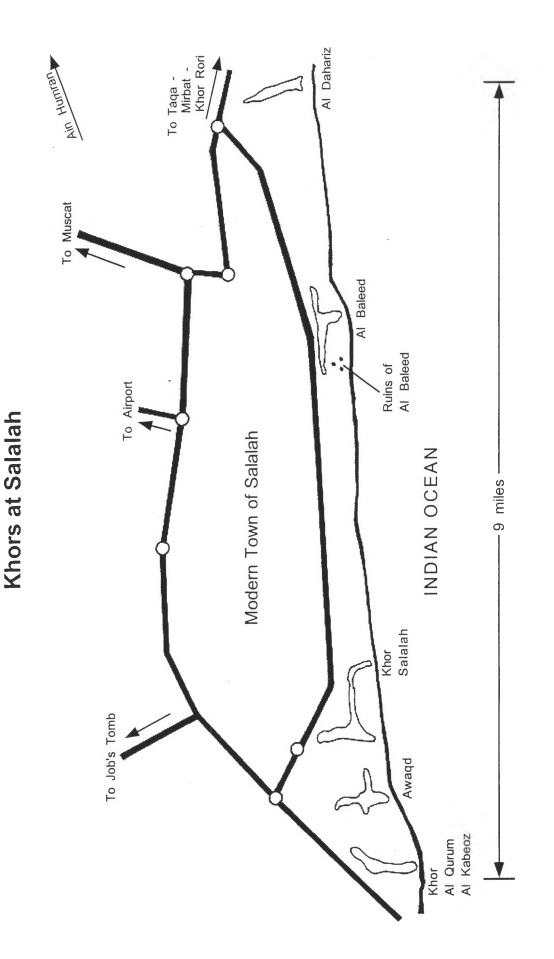
No cotton grows here so where did the sails come from. If the family used their tents why is it that we read of them using them when they reach the promised land? Where could they have found all the coconuts for rope since the first records of coconuts growing in Dhofar are from 1111 A.D. Besides, even today no coconuts grow there and there is not space for the thousands that would have been needed to make all the ropes etc.

In conclusion we remain convinced that when compared with the arguments we would like to propose for the journey of Lehi and his family, along an established and documented trail to a historically documented port, the claims for Wadi Sayq as the site for the 'Place Bountiful' can be seen to be extremely weak. We feel confident, that in time, the reader will find the Khor Kharfot location merely of historical interest and that the weight of opinion will have moved away from Wadi Sayq as a proposed Book of Mormon site.

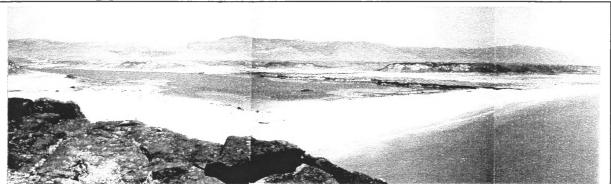
^{xiii} "And we called the Place Bountiful", by Warren and Michaela Aston. FARMS 1991 p.15.



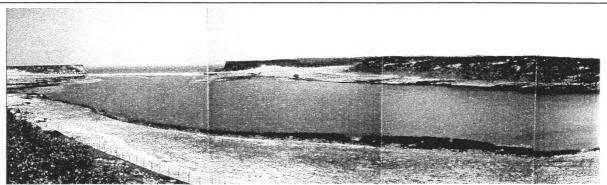




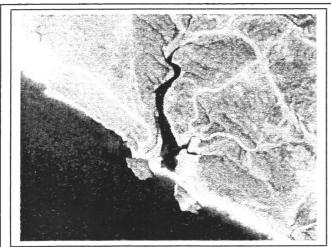
The Harbor



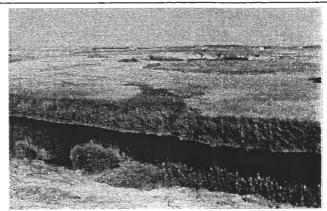
A panorama of khor Rori taken from the top of the west cliffs. The sandbar closing the harbor can be seen in the foreground. The cliffs here are vertical and may well be the place that Laman and Lemuel attempted to throw Nephi into the depths of the sea.



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. 'Ships of Tarshish' probably moored on the shoreline in the foreground. Moscha was the capital port of Dhofar in Nephi's time.

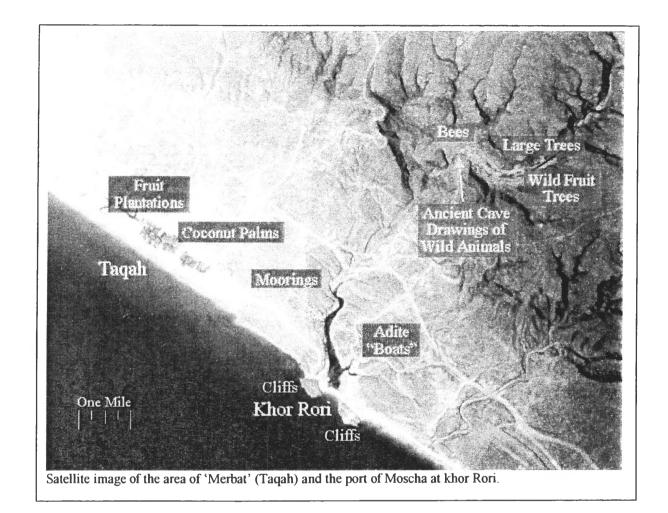


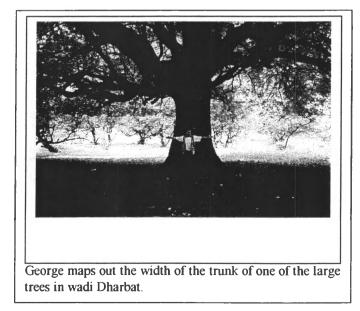
The satellite image shows the amazing cliffs at the mouth of khor Rori. These natural breakwaters combined with the size of the khor to make it the premiere port in Dhofar.

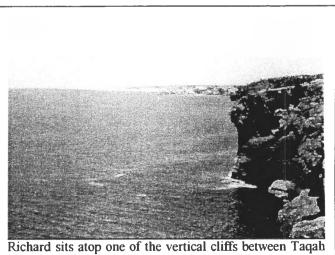


Khor Suli with 'Adite remains in the background. This khor is barely 30 feet wide and probably never was the harbor of choice for large ships.

The Harbor

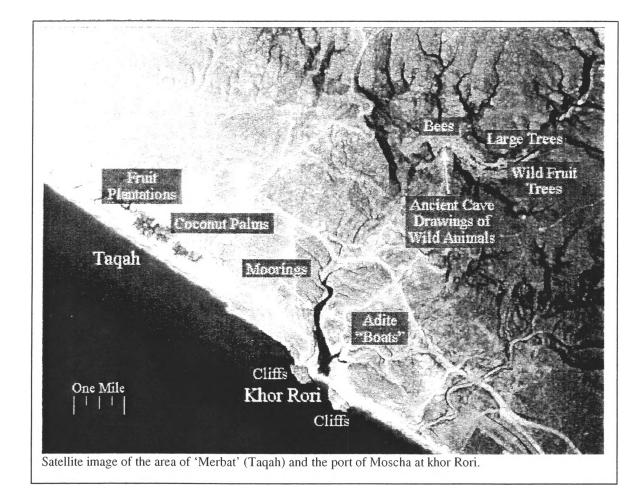




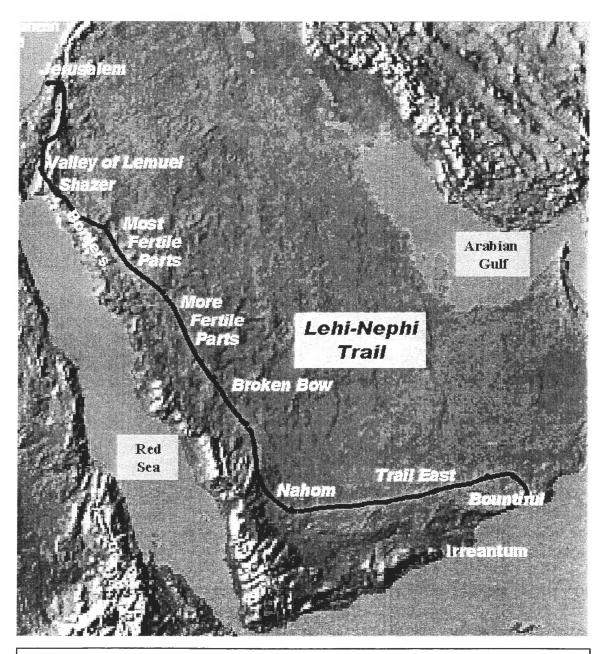


Richard sits atop one of the vertical cliffs between Taqah and khor Rori looking down at the deep water below.

The Harbor.



Map showing the Trail Taken by the Family Through Arabia.



The trail taken by the family from Jerusalem to Bountiful is shown on this map, with the position of the events mentioned in the Book of Mormon marked.

When we are dead, seek for our resting-place Not in the earth, but in the hearts of men.

Jalalu'd-Din Rumi.¹

Chapter 16

A Tribute to Nephi

When we started this book 5 years ago, we dedicated it to two great men; two men who were chosen of the Lord while still in their youth, two men who, through their faith and faithfulness, became great Prophets and leaders of the Lord's church. These young men were, of course, Nephi and Joseph Smith, Jr.. Our thoughts were often turned to the Prophet Joseph Smith, whose translation of the Book of Mormon brings us Nephi's record today. The bold prophet claimed against the world that this was truly an ancient record that he translated. We challenge anyone still doubting this fact to follow Nephi's footsteps through Arabia, and to then deny such a claim. As we have spent some time following the trail taken by Nephi all those years ago we have been struck time and time again by the greatness of the character of the man who passed through all of these ordeals without a murmur.

The study of Nephi's record reveals that it is a brilliantly engineered piece of literature, the internal construction of which not only highlights the intellect of the man Nephi but also the spirituality of Nephi the Prophet, whose purpose in creating this record is to bring souls to Christ, "For the fullness of mine intent is that I may persuade men to come unto the God of Abraham, and the God of Isaac, and the God of Jacob, and be saved." (1 Ne. 6:3,4)

To briefly illustrate the intellect of the man let us look at the structure of the first book of Nephi. It has previously been shown how Nephi's record is a complex piece containing numerous parallels and chiasms. It is not the purpose of this book to deal with this issue in depth but to appreciate in more detail the brilliance of Nephi's writing the reader is most strongly encouraged to read 'Nephi's outline by Noel B. Reynolds² as well as John Welch's 'Chiasmus in the Book of Mormon'³.

Noel B. Reynolds has shown that Nephi's record in the first book of Nephi is composed of two parallel accounts. He calls the first part, found in chapters 1-9, 'Lehi's account' because it is Nephi's abridgement of Lehi's record, and the second, in first Nephi chapters 10-22, 'Nephi's account' as here he makes his own record. Each of these individual records parallels the other in both structure and content while at the same time each one is a chiasm within itself.

At this point we need to discuss 'what is a chiasm?' A chiasm is a literary from which was much used by the ancients but is almost non-existent in the English language. A piece of writing may contain a series of elements or points arranged in a specific order 1-2-3-4. If those same points are then repeated in the text in the same order we call this a parallel, if they are repeated in the reverse order, 4-3-2-1, it is a chiasm. A simple example in English will help to illustrate. We will use a simple quote from Shakespeare's Macbeth: "Fair is foul, and foul is fair." It can be seen how the two elements, 'Fair' and 'Foul', change order. This structure is simple. The Hebrews took this literary form to great lengths creating chiasms of many lines. The Book of Mormon contains large and extremely complex chiasms of many elements and layers, a feature which points to the ancient origins of the book since Joseph Smith would not have known about chiasm as it was not rediscovered until the mid 19th century. It was not until 1854, twenty four years after the first publishing of the Book of Mormon, with the publication of John Forbes' 'The symmetrical structures of scripture'⁴, that the complicated and sophisticated nature of Biblical chiasmus was fully appreciated. Nephi seems to have taken the structure of chiasm one stage further by creating an entire narrative of two parallels whose respective elements form a chiasm.

Interestingly the very reason we are able to identify the chiasms in the Book of Mormon is one of the reasons why it does not read so easily in modern English. Chiasm in the Bible was only discovered when the original, ancient, texts were read. English translations altered the word order sufficiently to rearrange the elements and destroy the chiasms. Joseph Smith, on the other hand, translated the Book of Mormon line by line. This has the disadvantage of making the passages flow less well upon reading but retains This method of translation has seemed odd historically but with the the structure. discovery of chiasm the wisdom of the Lord now becomes apparent since Joseph Smith did not know about chiasm in the books he was translating. Thus when Latter-day Saints claim that the Book of Mormon was translated correctly and is the 'most correct' of any book on earth, we are more 'literally' correct than we often appreciate. Joseph Smith's inspired translation of the books of Nephi provides us with all of the information within the text, both open and hidden, at the minor inconvenience of, at times, slightly stilted sentence structure.

An important feature of chiasm is that it very often turns on a central point, which is the main feature the author wishes to reinforce. According to Reynolds the central point around which the first chiasm in Nephi's account turns is the obtaining of the brass plates. The central point of the second is the building of the boat. Nephi's informs us in the first chapter of first Nephi of the intention behind making his record is to "...show unto you that the tender mercies of the Lord are over all those whom he hath chosen, because of their faith, to make them mighty even unto the power of deliverance." (1 Ne. 1:20)

Bearing in mind Nephi's aim of showing that faith leads to deliverance, let us recount these two stories retelling them as they might have occurred in the locations in Arabia we feel are the ones identified by Nephi. A knowledge of the conditions under which they found themselves during these events helps us to fully appreciate the points Nephi is making. Firstly, the obtaining of the brass plates of Laban. After being commanded to flee Jerusalem and go into the wilderness, Lehi took his family south away from the influence of the Jews. The group entered the land of Midian, ancestral home of Jethro, the father-in-law of Moses. The wilderness here truly was a dreary waste with hardly a blade of grass to soften the dazzling reflection of the sun as it shone down on the weary travelers. We can only guess what must have been going through their minds as they headed into the wilderness.

Lehi seems to have headed into the mountains presumably in the hope of finding shelter and isolation. After three days of trudging through this barren land we can imagine the delight of the family as their trail led them into an opening in the mountains. They traveled through this fertile valley bordered by high peaks into the protection of a small canyon whose mouth lay hidden on the western mountain wall. What relief they must have felt as they moved into the cool shade of the high granite cliffs which would protect them not only from the heat of the sun but also from the attentions of anyone following after them. Here, in the seclusion of the desert, the family could relax, protected by the walls solid rock which towered two thousand feet over their heads, castle walls thrown up by the powers of heaven over the millennia, perhaps with the express purpose of housing this chosen band. But more than this, the Lord had provided for the needs of the family. For in this tiny canyon flowed a river of pure water. Water which gave life to the date palms that would provide food for his family; water that seeped into the soil from which sprang areas of lush, deep grass that would provide the fodder for his animals. Recognizing the hand of the Lord in this, the first thing Lehi did was to take stones from the valley floor around him and build an altar to offer thanks to the Lord. Lehi realized that the Lord had provided for his family, they would survive in this wilderness. Here, after nearly two weeks on the run, Lehi pitched his tent. That night the family fell asleep to the sound of the water babbling over the rocks of the stream bed as it made its way down the canyon.

The sun rose that morning but perhaps the tired family slept in. The shaded valley remained protected from the rays of the early morning sun. As Lehi arose, Rock Doves might have peered down from their roosts on the ledges high overhead, flocks of Tristram's Grackles whistled as they made their way out of the valley to find food. There was life here and Lehi headed down the valley to investigate further. As the women and servants began to set up the camp, the young men accompanied their father down the valley. The group spoke as they walked. With each turn of the canyon they were met with an even more beautiful vista; the towering granite walls, the clear cool stream, the date-laden palms. At each turn the beauty of the creation shouted of the existence of its creator. After some two miles of walking along the banks of the river, the valley widened and a cool breeze blew into their faces. They knew that something was different now. Turning round the last bend of the canyon their gaze met the clear deep blue waters of the Gulf of Aqaba. Into its lapping waves the river emptied.

Across the Gulf was Egypt, her mountains shrouded in the blue morning mist. Inspired by the magnificence of the valley, overcome by the beneficence of the Lord, Lehi turned to his oldest son Laman and said: "...O that thou mightest be like unto this river.

Continually running into the fountain of all righteousness!" (1 Ne. 2:9) And to his next son Lemuel he said "...O that thou mightest be like unto this valley, firm and steadfast, and immovable in keeping the commandments of the Lord." (1 Ne. 2:10).

What a great teaching example. Now, each time Laman would see the river or hear the sound of the water as it wended its way though the valley he would hear his father's words. Every time Lemuel would gaze up at he huge granite walls that looked down on him he would be reminded of his father's hopes for him. Lehi loved them, he named the two most magnificent features of the location after them and at the same time he gave them something great to live up to. Even as the two sat together in some secluded part of the valley planning and complaining they could not escape the teachings of their father!

After some time in the valley, Lehi was told in a dream that his sons should return to Jerusalem to obtain the brass plates from Laban. It would have been about a two week journey back to the city where it is quite possible the boys were known. They would have been in some danger returning and as the weeks passed the worry worked its way around in their mother's mind. As the boy's return was delayed finally things become too much for her and the granite cliffs, which had for so long been their fortress, slowly turned into her prison walls. She was trapped unable to find out the fate of her precious sons.

The ultimate success that they enjoyed in their quest we all know. The Lord provided a means for Nephi to accomplish what the Lord had required of him. Through Nephi's faith they were delivered from Laban's wrath and were able to obtain the plates. But there is another part of the story which should not be overlooked because it involves another means by which the Lord delivered Nephi and one other, Zoram, Laban's servant. Let us look into that.

The political climate in Jerusalem at that time was bubbling over. "Two parties...existed side by side in the land. King Zedekiah, his rulers and princes and probably most of the people favored Egypt while the Prophet Jeremiah and his followers advised submission to Babylon."⁵ We can only assume that Lehi also stood against the will of the king and because of that the Jews "...sought his life, that they might take it away..." (1 Ne 1:20). In this respect it would seem that Lehi shared the same fate as Jeremiah as from the Lacish letters we learn "We find the Sarim (officials) denouncing Jeremiah to the king and demanding that he be executed because of his bad influence on the morale of the people."⁶ Thus Jeremiah stood as firmly against the establishment as Laban, Lehi's kinsmen, solidly represented it, apparently being in command of at least 50 and perhaps even tens of thousands of men (1 Ne 4:1).

From his conduct we can assume that Laban was not a particularly spiritual man and yet when Lehi received the plates and began to read them we are told that they contained "...many prophecies which have been spoken by the mouth of Jeremiah." (1 Ne. 5:13). Why did Laban, an unspiritual man who sided with the king, have the prophecies of an enemy of the state placed on the plates? David Rolph suggests that the keeper of the Brass plates put the words of Jeremiah onto the brass plates directly from the Prophet's

lips, or copied them from the scroll of Baruch, which was given to king Jehoiakim and was cut up into pieces by him, or even from the second scroll made after the first was cut up by the king⁷. If Jeremiah's words were destroyed by the king as subversive, why would Laban risk keeping them? Wouldn't he have followed the king's example and destroyed at least that past of the plates? One wonders how Laban got possession of the plates? Were they handed down to him by ancestors or, more likely, were they public property that Laban had confiscated? We can not say but perhaps this portion of the narrative tells us a little more of Zoram than it does of Laban. Zoram appears to have been in charge of the plates so presumably he could determine what was placed on, or removed from, them. When Nephi, masquerading as Laban, spoke to Zoram in the voice of his master we are told that Zoram was most interested in what the Elders of the Jews were planning. (1 Nephi 4:27) Was this politeness on the part of Zoram or did he have a keen interest in the political state of affairs?

Nephi eventually revealed his true identity to Zoram and something interesting happened. Zoram was afraid for his life and had to be restrained by Nephi. Nephi first promised that he would spare Zoram's life if he would listen to what Nephi had to say (1 Nephi 4:32). He then made an oath that Zoram would be a free man if he accompanied them into the wilderness (1 Nephi 4:33). Zoram remained apparently unconvinced at this stage because Nephi had to speak to him still further, Nephi told Zoram that the Lord had commanded them to 'do this thing' (1 Nephi 4:34). Only at this stage does Nephi tell us that Zoram was satisfied.

And it came to pass that Zoram did take courage at the words which I spake. Now Zoram was the name of the servant; and he promised that he would go down into the wilderness unto our father. Yea, and he also made an oath unto us that he would tarry with us from that time forth." (1 Ne. 4:35.)

Zoram obviously held a high position in his master's household and presumably had some power and authority therein. He had a great deal to lose by joining with Nephi and yet as soon as he heard that the Lord had commanded them to do this thing he immediately joined them and even made an oath to remain with them from that time forth. Zoram left all his possessions behind, perhaps even family, to be with the Lord's anointed. This sounds very much as though Zoram, although associated with those in authority, in fact sided with the prophets and saw this was an opportune time to depart. This assumption is further born out when we look at Zoram's actions following this time. We never read of Zoram murmuring against Lehi or Nephi, Nephi is the only other one who is not reported to murmur on the entire journey. When the family reached the promised land, Nephi eventually left with the righteous members of the family. Zoram and his family went with him (2 Ne. 5:6).

Could one possibly conclude that Zoram had placed the records of the prophet Jeremiah on the brass plates, unbeknownst to Laban? That rather than following his master he followed the Lord and his interest in the plots of the elders of the Jews was as much in the interest of self-preservation as current affairs? He must have known that his position was precarious. If Laban ever read the plates he would immediately become aware of Zoram's politics. Who can know how Zoram felt when he thought that Laban wanted to see the plates. How must his heart have pounded as his mind raced to think of excuses? At first he was confused when he found that Laban was in fact Nephi, but quickly regained his composure and came to the conclusion that now was the time to make the transition from siding with Laban to siding with the Lord's servants.

The obtaining of the brass plates is the central portion of the chiasm of the first nine chapters. Nephi is bringing this part to our attention in order to prove his purpose to show us "that the tender mercies of the Lord are over all those whom he hath chosen, because of their faith. To make them mighty even unto the power of deliverance." (1 Ne 1:20). Nephi tells us that he is abridging the record of his father (1 Ne 1:17) and yet this part of the story is composed entirely of intimate details of what went on in Jerusalem that would only have been available to Nephi. This part is obviously an insertion by Nephi to create that chiasm and to place it at the centre of the narrative. As such, it is interesting to note what Nephi is teaching us here, remembering that Nephi's record was intended for us in the last days. Not only is Nephi successful, an obvious conclusion to anyone reading the story, but also the Lord's tender mercies are extended to Zoram, who has been faithful, even unto the power of his deliverance from the predicament he finds himself in. Nephi is showing that the Lord will save all he has chosen, not just Lehi and his family, who form the centre of the narrative. The Lord put everything in place for Lehi to provide for his family and for Nephi to obtain the plates.

The centre of the second half of Nephi's record revolves around the building of the boat. Now if that event did indeed take place on the cliffs between Khor Rori and Taqah, as we suggest, does this knowledge give us any insights into what happened between Nephi and his brothers, is there any more we can learn? Let me once again suggest a possible scenario placing the events of the story at the location of Khor Rori.

Let us conjecture that Nephi knew that he was to sail to the promised land. In his vision while in the valley of Lemuel he wrote that he "beheld many waters; and they divided the Gentiles from the seed of my brethren (1 Nephi 13:10)

He could learn the rudiments of sailing and shipbuilding from the local but in order to gain more knowledge about the large ocean going vessels and sailing and navigating the Indian ocean at some stage he would have to go to the port at Khor Rori to work. Perhaps he worked on ships or took provisions over to the port from Taqah, it was only a short distance between the two locations. While at the port he would make friends and acquaintances from whom he could slowly learn what he needed to know to make the journey. In the meantime the family remained at Taqah.

Armed with this knowledge we feel that the most likely scenario was that the family lived in or near the city of Merbat. When they camped their first night on the beach this is the last time we read that the party lived in a tent. Presumably from now on they were making their homes there in among the other inhabitant. Merbat would have been a more logical place for the family to stay. Khor Rori was the site of a port, the centre of income for the 'Adites, and seems to have remains of structures associated with the frankincense trade rather than homes. Living on the cliffs between Taqah and Khor Rori would also seem ill advised. One cannot imagine any parent feeling comfortable having their small children playing on a 100 foot cliff with a vertical face and no fence! No, Merbat seems to be the most likely candidate for the place where the family lived.

Since we are identifying Merbat as the 'place Bountiful', the city that the trail led them to. The west end of the city next to the plantations at Khor Taqah, corresponding to the modern town of Taqah, would therefore be the place where they pitched their tents and Khor Rori, 2 miles to the east of the city, is the port where Nephi built the ship. Thus we see that Nephi's story unfolds not in a single spot but in an area where the family lived and worked. This was Nephi's world while they lived in Bountiful.

Armed with this knowledge we find a whole new perspective to the account of Laman and Lemuel's attempt to murder Nephi. Knowing that this event took place on the cliffs between Khor Rori and Taqah does this knowledge give us insights into what happened between Nephi and his brothers.

Let us conjecture: Nephi knows that he is to sail to the promised land. In order to gain knowledge about the large ocean going vessels and sailing and navigating the Indian Ocean at some stage he would have to go to khor Rori. While at the port he would make friends and acquaintances from whom he could slowly learn what he needed to know to make the journey. In the meantime the family remained at Merbat.

In 1 Nephi 17:8 Nephi is told of the Lord that he should build a ship. He is shown where to find ore and makes tools. It was following his return with the tools that Laman and Lemuel saw for the first time that Nephi was intending to build a ship.

And when my brethren saw that I was about to build a ship, they began to murmur against me, saying: Our brother is a fool, for he thinketh that he can build a ship; yea, and he also thinketh that he can cross these great waters. (1 Nephi 17:17)

This story unfolds over many verses. This was obviously not a brief encounter but may have taken the best part of the day, or could even have been a composite picture of events that transpired over a longer period. The conversation between the brothers obviously turned to the purpose of building the ship; Nephi was not taking up fishing or going to become a merchant, he intended to "cross these great waters." More than this Nephi expected them to help "And thus my brethren did complain against me, and were desirous that they might not labor..." (1 Nephi 17:18). Laman and Lemuel gave a number of objections; they did not believe Nephi could build a ship, they didn't want to work, they had spent 8 years wandering in the wilderness-presumably they were happy to stay where they were rather than continue their journey. Here the text gives us some interesting insights. The ship Nephi intended to build was not a small fishing vessel, it was to be a huge ocean going vessel. If it were a small ship would Laman and Lemuel have said "thou canst not accomplish *so great a work*"? (1 Nephi 17:19). How did Laman and Lemuel know that building a large ship was "so great a work" unless they had seen the ships being built, presumably at the shipwrights in Dhofar? Most members we have spoken to have given very little thought to what was involved in the building of the ship and assume that building it was no great feat, yet this is not what Lamam and Lemuel thought. We can only assume that their opinion of what was involved must have been based on some understanding of the subject. In our experience the only people who assume that it was no great task to build a large ship are the ones who have no knowledge of the subject, clearly Laman and Lemuel did not fit in this category.

At this point we have a poignant insight into the character of the great Prophet Nephi. Nephi has been charged of the Lord to single-handedly get the family over the ocean to the promised land. What a responsibility. Nephi knows nothing of seamanship but he sets out the best way he can to start to learn and do what the Lord has asked. It is difficult for us to understand the magnitude of the labor that lay ahead of Nephi but, being an intelligent man, he must have spent a great deal of time trying to work out all that he would need to do to accomplish what the Lord asked of him. It might be the equivalent in this day of the Lord asking us to build a spaceship and take our family to mars! As far as Nephi was aware this was something that nobody had ever done before. Had Nephi factored into the equation that he could at least count on the help of his brothers to build the ship and spread the load from his shoulders?

Nephi continues:

And now it came to pass that I, Nephi, was exceedingly sorrowful because of the hardness of their hearts; and now when they saw that I began to be sorrowful they were glad in their hearts, insomuch that they did rejoice over me, saying: We knew that ye couldst not construct a ship, for we knew that ye were lacking in judgment; wherefore, thou canst not accomplish so great a work. (1 Nephi 17:19)

When the brothers announce their refusal to help, Nephi tells us that he is "exceedingly sorrowful". Not merely sad, not just unhappy, but "exceedingly sorrowful". This is not just a feeling in his heart, because Laman and Lemuel "saw that I began to be sorrowful". Could it be that this was the point where that great man met his darkest hour? Nephi, who had never grumbled, never doubted, was now hit with the reality of the situation of how great this task was. Did he feel that it was beyond his abilities, that it was simply too much for him to do? As they stood by the unworked timbers strewn over the sand did Nephi drop to the ground in absolute dejection? Did he drop the tool in his hand and simply hang his head in despair? When his brothers saw this and they thought that he had given up, they chided him "We knew that ye couldst not construct a ship, for we knew that ye were lacking in judgment; wherefore, thou canst not accomplish so great a work." Isn't this a story that applies to us all? Though we have never been asked to build a ship and take our families across the ocean the Lord asks great things of all of us, that at times can seem beyond our abilities.

The brothers now start to lecture Nephi (1 Nephi 17:20-22). Nephi here does not seem to reply. Perhaps at this point he tries to get away from the brothers and starts to walk up to the cliffs overlooking the ocean. There is little point in staying with the timbers, they are just a reminder to Nephi of his inadequacy. The brothers follow and continue to upbraid Nephi.

When it would appear he has reached the lowest ebb, at this point the Spirit touches Nephi's heart and he utters this most eloquent response. Nephi recounts the story of how the Lord led the children of Israel out of Egypt. Later Nephi wrote:

And I did read many things unto them which were written in the books of Moses; but that I might more fully persuade them to believe in the Lord their Redeemer... I did liken all scriptures unto us, that it might be for our profit and learning. (1 Nephi 19:23).

The story of the Exodus is one that they would have been most familiar with. But here it is told to remind Laman and Lemuel of the similarities between their situation and those of the children of Israel. Nephi told them "now ye know that Moses was commanded of God to do that great work..." (1 Nephi 19:26) to remind them that their father Lehi had also been so charged. The Lord fed the children of Israel in the wilderness with manna (verse 28) as he had made sure that their party found food. Nephi now becomes specific to the brothers in his analogy:

And notwithstanding they being led, the Lord their God, their redeemer, going before them, leading them by day and giving light unto them by night, and doing all things for them which were expedient for man to receive, they hardened their hearts and blinded their minds, and reviled against Moses and against the true and living God (1 Nephi 19:30).

Nephi uses the story of the Exodus to explain why they have been instructed to leave, a point Laman and Lemuel can obviously not see. "Behold, the Lord hath created the earth that it should be inhabited; and he hath created it that they should possess it" (1 Nephi 19:36). "And he leadeth away the righteous into precious lands, and the wicked he destroyeth, and curseth the land unto them for their sakes" (1 Nephi 19:38). Would Laman and Lemuel have perceived a veiled threat here when Nephi tells them the wicked will be destroyed, when this analogy is so obviously pointed at them?

Nephi continues:

"And he did straighten them in the wilderness with his rod; for they hardened their hearts, even as ye have..." (1 Nephi 19:41). "And they did harden their hearts from time to time, and they did revile against Moses, and also against God..." (1 Nephi 19:42). "And now, after all these things, the time has come that they have become wicked, yea, nearly unto ripeness; and I know not but they are at this day about to be destroyed..." (1 Nephi 19:43)

We can but imagine the scene. Nephi is now filled with the Spirit. This great man is standing up on the cliffs, the ocean behind him, the waves pounding 100 feet below, their deep boom only adding emphasis to his words. Was this the man who so shortly before was unable even to carry on? No! Now, filled with the Holy Ghost, this is not an ordinary man, this is a prophet of God calling the wicked to repentance.

Nephi has not finished yet. "Wherefore, the Lord commanded my father that he should depart into the wilderness; and the Jews also sought to take away his life; yea, and ye also have sought to take away his life; wherefore, ye are murderers in your hearts and ye are like unto them." (1 Nephi 19:44)

Laman and Lemuel are by now furious that their younger brother should castigate them in this way, incensed that Nephi would accuse them of being murderers in their hearts. This discussion has by now taken some time and by now the sun may even be setting. Nephi tells his brothers his reason for talking to them in this way: "Behold, my soul is rent with anguish because of you, and my heart is pained; I fear lest ye shall be cast off forever. Behold, I am full of the Spirit of God, insomuch that my frame has no strength." (1 Nephi 19:47)

Overcome by the Spirit perhaps Nephi sinks to his knees for a second time. Laman and Lemuel, not realizing that it is the power of the Spirit and not the weakness of the man that causes Nephi's frame to have no strength, mistakenly think that now is their opportunity to deal with their troublesome brother once and for all and in their anger come forward to take Nephi and throw him over the edge of the cliff, only a few yards away. Here, under the cover of falling darkness and with the sound of the wind and the waves drowning out Nephi's shouts to those back at the harbor, they pluck up the courage to make their move. The wicked brothers are confident that no one will see them from the town below. Unwilling to attack Nephi in the presence of their father they now have that courage knowing that the rest of the family are two miles away on the other side of the cliffs.

And now it came to pass that when I had spoken these words they were angry with me, and were desirous to throw me into the depths of the sea; and as they came forth to lay their hands upon me I spake unto them, saying: In the name of the Almighty God, I command you that ye touch me not, for I am filled with power of God, even unto the consuming of my flesh; and whoso shall lay his hands upon me shall whither even as a dried reed: and he shall be as naught before the power of God, for God shall smite him. (1 Nephi 19:48)

Nephi's words of warning to his brothers are fascinating. Nephi has spent the previous 25 verses comparing his brothers with the children of Israel led to the wilderness by Moses. Yet now he changes the analogy to comparing them to a reed that will wither. The story of Moses would carry great power as Laman and Lemuel could easily see the direct comparison between themselves and the murmuring Israelites on the one hand and Moses and their father and Nephi on the other. But why would a reed be a powerful comparison? They hadn't seen a reed for 8 years while crossing the desert. Why would Nephi suddenly choose a reed? The answer is simple. From the spot of the cliff where they were standing, less than 100 yards below them the banks of the khor are lined with reeds. As Nephi spoke those words, in the lull between the booming of the waves, the sound of the wind rustling through the reed beds would have been all too obvious.

What an incredible story. It is easy to see why Nephi was prepared to spend so much effort writing this for us. In the same way the story of Moses was an instruction to Laman and Lemuel the building of the boat is an instruction to us. It is something that each Christian contends with during their lifetime. The Lord asks a great deal of each of us, something that we are not able to do alone. When we have extended ourselves as far as we are able and realize we are still so far short of achieving what the Lord desires He steps in and grants us success through the Savior.

What is almost as incredible is that every aspect of this story fits in perfectly with the location. There is only one place in all Arabia where the elements are all there together: the ocean, the cliffs, the harbor, the reeds. Moreover that place is exactly where the book of Mormon tells us it should be, the place Bountiful.

One might ask why Nephi went to such effort to create such a monumental work when he could just as easily have written exactly the instruction he wished us to receive. There may be a number of answers. Firstly, Nephi was commanded to make the record (1 Ne. 9:3) and as such he would appear to have wished to do his best to fulfill that commandment to make the small plates even though he didn't know exactly why he was making them: "Wherefore, the Lord hath commanded me to make these plates for a wise purpose in him, which purpose I know not." (1 Ne. 9:6.) Secondly, Nephi is praising the Lord by trying to provide something worthy of his God. Thirdly Nephi is teaching us in the last days. He has an objective which he wishes to emphasize, namely that if we are faithful and endure without murmuring then the tender mercies of the Lord will be over us and deliver us. The commandment to write this record was given some thirty years after Nephi left Jerusalem and it would appear that Nephi took approximately 10 years to write the first 25 chapters (2 Ne. 5:30, 34.) Perhaps the time and distance separating Nephi from the events gave him the opportunity to reconsider events with a different perspective.

The question then springs to mind why did Nephi chose chiasm as the basis for his structure. Isaiah, a great prophet much admired by Nephi, had an excellent grounding in the literary form of his day and yet he used chiasm very little. Richard suggests there is one more chiasm in Nephi's record, one that we can only begin to appreciate now that we are starting to know where the family traveled and that this was the inspiration for Nephi's choice of literary form. That is the chiasm of the journey itself though the Arabian Peninsula.

As Nephi sat in the Americas some 30 years after their departure from Bountiful it certainly wouldn't have escaped his attention that that their journey in Arabia could in some ways be divided into two parts, each a mirror image of the other.

1/Their first encampment was in a valley surrounded by mountains where a river flowed into the sea.

2/The family left that campsite and headed inland.

3/They crossed the mountain range.

4/They made their next camp at a placed they called Shazer, a word associated with trees. (It should be remembered that in Arabic the vast majority of the time the vowels are not included in the spelling. These are added by the reader who is meant to already know the word and its pronunciation. Thus we could represent the word in English as 'Shzr'). Here they could find water and trees providing a stark contrast to the bleak terrain that surrounded them.

5/They traveled in an approximately S.S.E. direction with the mountains between them and the sea. The desert was inland of them.

6//They reached Nahom.

5/They changed direction to travel nearly eastwards with the mountains between them and the sea. The desert was inland of them.

4/They reached their last encampment on the trail east. This was the ancient city of Ubar, found in the town interestingly now called 'Shisr' (variant spelling Shasar). Here they could find water and trees providing a stark contrast to the bleak terrain that surrounded them.

3/The family left that campsite and headed inland.

2/They crossed the mountain range.

1/Their last encampment was in a valley surrounded by mountains where a (seasonal) river flowed into the sea.

At the first and the last campsites we read the stories that make up the centre of the chiasm for each half of first Nephi, the obtaining of the brass plates and the building of the ship, respectively. These are the points that Nephi wants us to pay particular attention to because of the learning principles included. We notice the similarity between each story here.

Obtaining of the Plates of Laban

Laman and Lemuel murmur. (1 Ne.3:5) Nephi urges them to be faithful. (1 Ne. 3:16) Laman & Lemuel beat Nephi with a rod. (1 Ne. 3:28) The Lord intervenes-an Angel teaches Laman and Lemuel. (1 Ne. 3:29) The brothers grudgingly accept the will of the Lord and help Nephi obtain the plates. (1 Ne. 4:4)	Laman and Lemuel murmur. (1 Ne.17:17) Nephi urges them to be faithful. (1 Ne. 17:23) Laman & Lemuel seek throw Nephi into the depths of he sea. (1 Ne. 17:48) The Lord intervenes. Nephi is given power to shake his brothers. (1 Ne. 17:53) The brothers accept the will of the Lord and help Nephi build the boat. (1 Ne. 18:1)
The family is successful in obtaining the Brass plates. (1 Ne. 5:10)	The family is successful in completing the Boat. (1 Ne. 18:5)

Building the boat

There is a third chiasm though, the one of the journey outlined above. The centre of that chiasm occurs at Nahom. It is interesting to note the elements of the Nahom incident and compare them with the stories above:

1/The daughters of Ishmael murmur (1 Ne. 16:35).

2/ Laman and Lemuel seek to kill Nephi and Lehi (1 Ne. 16:37).

3/The Lord intervenes. He teaches the dissenters, who hear his voice (1 Ne. 16:39).

4/ The dissenters repent (1 Ne. 16:39).

5/They obtain food and are saved (1 Ne. 16:39).

Let us now do the same thing as before and apply this story to the location of Nahom that we propose in order to fully realize the significance of the narrative.

The family has been heading south south-east for some 800 miles. At first they encountered many oases with fertile areas. These became less frequent as they left wadi Jizl and wadi Ula and hunting became an ever more important means of subsidizing their

diet. The importance of hunting is apparent from the story of the broken bow, which happened some time before they reached Nahom, quite possibly near the mountains around Bishah. The loss of Nephi's bow was such a set back to the family that even Lehi began to murmur. Eventually Nephi built a bow and after Lehi repented the Lord showed Nephi where to find game. The family moved on to the next campsite which is called Nahom. Here they were aiming for the wells near the junction where a trail led off to the east to Dhofar. They tarried here.

When the family stopped at Shazer we are told that it was for the purpose of hunting: "... we did take our bows and our arrows, and go forth into the wilderness to slay food for our families...' (1 Ne 16:14). Likewise the next time we are told they stop we read "And after we had traveled for the space of many days, we did pitch our tents for the space of a time, that we might again rest ourselves and obtain food for our families." (1 Ne. 16:17). However at Nahom we are not told that their purpose is to hunt even though the family is starving. The reason is simple. Here on the edge of the desert sands there is no game to be found. There is no mountain cover for the hunter, just endless waves of sand that stretch north east for 600 miles. This is the edge of the Rub' Al-Khali, - the empty quarter, where no man goes.

Here the family stopped at one of the wells to the south east of Najran. Surrounded by desert sands, slowly starving to death the daughters of Ishmael looked back over all they had accomplished and complained "...we have suffered much affliction, hunger, thirst, and fatigue; and after all these sufferings we must perish in the wilderness with hunger." (1 Ne. 16:35). Their father had already succumbed to the rigors of the journey; old and malnourished, Ishmael had given up the ghost. Now the travelers had reached their lowest ebb and the unthinkable happens. Laman and Lemuel actually plot to kill their father: "And Laman said unto Lemuel and also unto the sons of Ishmael: Behold, let us slay our father, and also our brother Nephi..."(1 Ne. 16:37).

What state had they reached that now Laman and Lemuel were so devoid of natural affection that they would even kill their own father! When we take into account the culture of the Middle-East and the great respect for parents we realize this is truly an amazing state of affairs.

So here it would seem Nephi's story is about to end. After all their successes, the group seems destined to fall into fratricide and patricide. Even if the remainder of the party were to survive, the disintegration of the group seemed imminent. But even at this lowest time, starving, surrounded by the seemingly endless sands of the desert with his brothers baying for his blood, Nephi remains faithful and once again we are confronted with another proof of his thesis. The Lord personally intervenes and speaks to the brothers, calling them to repentance. They do repent and the Lord blesses the group "insomuch that the Lord did bless us again with food, that we did not perish" (1 Ne. 16:39).

How the Lord accomplished this we do not know. Whether it was by some miracle, like the miracle of the quail for the children of Israel, or by more simple means with some other travelers coming to the well and providing food, we do not know. Suffice it to say Nephi recognized the source of his salvation.

Placed amid the sand dunes of the edge of the land of Nahom we can see the importance of this story. This was a life or death situation and the family appeared to be losing the battle. Here Nephi presents us with some powerful teaching. In spite of the apparently helpless circumstances, Nephi never faltered in his faith and here we are presented with a God who is willing to become actively involved in the affairs of those he has chosen. His tender mercies are literal, not just metaphorical. In his condescension, he was prepared to make a personal visitation to this little group lost in the desert. After Laman and Lemuel were called to repentance by the Angel, when they faltered in their commitment to obtain the plates (1 Ne. 3:29), they continued to murmur (1 Ne. 4:4) but following the chastisement of the Lord, the whole party appears to have immediately repented. What more would you expect. After having experienced the love of their Savior, all thoughts of evil would have been banished. Nephi is telling us that in the last days we can expect the same blessings. In spite of the power of the adversary all around us, who would seek our spiritual lives, causing us to feel, at times, as though we are lost in a desert of evil, the waves of iniquity piled high around us, the Lord will not sit idly by but will become intimately involved in our lives if we are faithful, and our salvation will be assured. What greater message could Nephi have left for us today as we strive to live the same gospel that he so faithfully followed? Abdullah al-Baradduni wrote:

Our land is the dictionary of our people – this land of far horizons where the graves of our ancestors sleep, this earth trodden by processions of sons and sons of sons.

Fununal-adab al-sha'bi fi'l-yaman⁸

As we have joined with the procession of grandfather, father and son across the wilderness of Arabia, that land has become a dictionary to the people of the Lord. As we have shared in Nephi's trials and his triumphs, his record has become an ever-greater witness to us of the greatness of this man. His record, written in the shifting sands of Arabia, is to us now firmly etched upon the cornerstone of our religion and who can deny the great example of him, the author of the first book of the Book of Mormon.

"Those who follow the Apostle, the unlettered Prophet, whom they find mentioned in their own scriptures, in the Torah and the gospel..."

(Holy Quran: VII-157; trans: Yusif Ali).

Chapter 17

A Tribute To Joseph Smith, the Translator

Shortly before his death, father Lehi gathered his children around him and blessed them. To his youngest son, Joseph, he spoke of Joseph of Egypt.

For behold, thou art the fruit of my loins; and I am a descendant of Joseph, who was carried captive into Egypt. And great were the covenants of the Lord which he made unto Joseph. Wherefore, Joseph truly saw our day. And he obtained a promise of the Lord, that out of the fruit of his loins the Lord would raise up a righteous branch unto the House of Israel; not the Messiah, but a branch to be broken off...(2 Nephi 3:4,5).

Lehi rightly identified his day as the time of the fulfilling of that blessing and his

family as that branch to be broken that would be separated. Years earlier, filled

with the Spirit, he had taught his children the same principle, "...and behold are

we not broken off from the house of Israel, and are we not a branch of the house

of Israel?" (1 Nephi 15:12)

Originally, Joseph of Egypt's two sons, Manasseh and Ephraim, received this blessing at the hands of their grandfather, Jacob. However, it only began to be fulfilled in the first camp that Lehi and his family made in the wilderness, Valley of Lemuel. It was at this first camp that the sons of Lehi, who were of the tribe of Manasseh, married the daughters of Ishmael, who were of the house of Ephraim, "Thus fulfilling the words of Jacob...in the 48th chapter of Genesis"¹, wrote Erastus Snow, regarding the 16th verse. Jacob adopted the two sons of Joseph of Egypt as his own (Genesis 48:16), thus making them full tribes in their own right. (Joseph Smith Gen. 48:6)

Many members of the Church of Jesus Christ of Latter-Day Saints are of the lineage of Joseph, through either the houses of Ephraim or Manasseh. Genesis chapter 49 contains the words of a blessing pronounced on the house of Joseph. Doubtless most members of

the Church have read this but probably have not seen an obvious meaning. After finding the location of the Valley of Lemuel we would suggest that the valley gives us a physical key to unlock the meaning, although like any revelation it can obviously be interpreted at many levels.

It was at this first camp at the valley of Lemuel that the sons of Lehi, who were of the tribe of Manasseh, married the daughters of Ishmael, who were of the house of Ephraim, "Thus fulfilling the words of Jacob...(found) in the 48th chapter of Genesis"¹, wrote Erastus Snow, regarding the 16th verse.

"The Angel which redeemed me from all evil, bless the lads; and let my name be named on them, and the name of my fathers Abraham and Isaac; and let them grow into a multitude in the midst of the earth." (Gen. 48:16)

Here in verse 16 we read that Jacob adopted the two sons of Joseph as his own. Ephraim and Manasseh became full tribes in their own right. The two boys were blessed by Jacob (Gen 48:13-19). In Genesis 49 we read that Jacob continued with his blessing of his sons. Joseph was blessed:

22 Joseph [is] a fruitful bough, [even] a fruitful bough by a well; [whose] branches run over the wall:

23 The archers have sorely grieved him, and shot [at him], and hated him:

24 But his bow abode in strength, and the arms of his hands were made strong by the hands of the mighty [God] of Jacob; (from thence [is] the shepherd, the stone of Israel:) 25 [Even] by the God of thy father, who shall help thee; and by the Almighty, who shall bless thee with blessings of heaven above, blessings of the deep that lieth under, blessings of the breasts, and of the womb:

26 The blessings of thy father have prevailed above the blessings of my progenitors unto the utmost bound of the everlasting hills: they shall be on the head of Joseph, and on the crown of the head of him that was separate from his brethren. (Genesis 49:23-26)

It was Joseph who was blessed and yet from this point on we read of the separate tribes of Ephraim and Manasseh. Where then was this blessing of Joseph fulfilled? In light of the fact that we know that the blessing of Ephraim and Manasseh found in verse 16 of Chapter 48 of Genesis was fulfilled at the Valley of Lemuel is it possible that this second blessing of Joseph (i.e. Ephraim and Manasseh together (Genesis 49:23-26)) was also fulfilled there, in part?

22 Joseph [is] a fruitful bough, [even] a fruitful bough by a well; [whose] branches run over the wall:

The party was likened to the fruitful boughs by the well of the valley. (Some translations put 'spring' in the place of 'well'). Here the branches of the vine, the two tribes of the house of Israel, began to bring forth spiritual fruits which passed beyond the walls of the mountains, beyond the walls of the old world and beyond the walls of the ocean.

23 The archers have sorely grieved him, and shot [at him], and hated him:

i Erastus Snow. Journal of Discourses 23:184-185).

Lehi was forced to leave Jerusalem as the people sought his life. While we do not want to fall into the trap of interpreting this passage too literally one is forced to wonder if the archers might represent the army, symbolizing the authorities who opposed the prophets, or could the people have sought his life by shooting at him? But it was here in the Valley Lehi sought refuge from those who hated him.

"But his bow abode in strength, and the arms of his hands were made strong by the hands of the mighty [God] of Jacob..." (Genesis 49:23)

His bow abode in strength. Could this bow be Nephi as the story of the broken bow infers? Laman and Lemuels's bows lose their spring and Nephi's steel bow breaks. Here in the wilderness, after Lehi the Patriarch murmurs (1 Nephi 16:20) Nephi builds a bow and as the sole owner of a bow in the group the support of the party passes over to him.(1 Nephi 16:22-31). The Spiritual implications are obvious. The 'bow' has strong arms which he received from the Lord. Nephi's states almost the same thing when, as a boy, he holds down a grown man and writes: "And now I Nephi, being a man large in stature, and also having received much strength of the Lord..." (1 Nephi 4:31)

An alternative translation for verse 24 is "But their bows were broken and splintered, the muscles of their arms torn apart.ⁱⁱ" Again this is appropriate since those who opposed Lehi were to shortly fall to the Babylonians. The bows which threatened Lehi were to be broken by the power of those who Lehi urged submission to. The irony does not go unnoticed.

25 [Even] by the God of thy father, who shall help thee; and by the Almighty, who shall bless thee with blessings of heaven above, blessings of the deep that lieth under, blessings of the breasts, and of the womb: 26 The blessings of thy father have prevailed above the blessings of my progenitors unto the utmost bound of the everlasting hills:

The party were blessed on their journey with blessings of heaven; the Liahona, angelic visitations, even the intervention of the Lord at Nahom; blessings of the deep: the ocean over which they miraculously passed, blessings of the breasts and the womb: the marriages that took place in that camp site gave rise to two great nations, the Nephites and the Lamanites. Nephi goes to pains to show that when the party are repentant this blessing is realised: "...And our women did bear children in the wilderness. And so great were the blessings of the Lord upon us, that while we did live upon raw meat in the wilderness, our women did give plenty of suck for their children..." (1 Nephi 17:1-2)

26 The blessings of thy father have prevailed above the blessings of my progenitors unto the utmost bound of the everlasting hills: they shall be on the head of Joseph, and on the crown of the head of him that was separate from his brethren

ii The Good News Bible, 1976. The American Bible Society, New York.

The blessings prevailed "unto the utmost bound of the everlasting hills". From the Hijaz mountain range that bound the length of the Arabian Peninsulaⁱⁱⁱ to the mountain chain that bounds the length of the Americas "they shall be on the head of Joseph, and on the crown of the head of him that was separate from his brethren." Not only was Joseph separate from his brethren but also Nephi separated himself from Laman and Lemuel following the death of Lehi. (2 Nephi 5:6,7).

One time more in the scriptures Joseph, rather than Ephraim and Manasseh, received a blessing. Just before Moses departed this earth he blessed the tribes of Israel (Deuteronomy 33). Here again the imagery in the blessing of Joseph is strongly reminiscent of the blessing found in Geneses chapter 48 and once again reminds one of the experiences of Lehi and Nephi. "Precious fruits brought forth by the sun" (v.14), chief things of the ancient mountains (v.15) remind us of the blessings bestowed by "him that dwelt in the bush" (v.16) upon the family while in the Old World. Nephi's efforts to move the people (Ephraim and Manasseh v.17) across the oceans to the land of promise are echoed in the "blessings of the deep" (v.13) because he shall "push the people together to the ends of the earth" (v. 17). The New World imagery is seen in the blessings that come "upon the top of the head of him that was separated from his brethren" (v.16) in association with the "lasting hills" (v.15) the "precious things of the earth and fullness thereof" (v.16).

While we fully appreciate that no scripture is of any private interpretation (2 Peter 1:20) it seemed to us that the story of Nephi and Lehi fit this blessing of the house of Joseph so well that one must surely wonder whether this passage of Genesis does not allude to the story found in the books of Nephi. Certainly we have not come across a more compelling connection than that.

After Lehi taught his son Joseph of his heritage as a descendant of Joseph of Egypt and the blessing to which he was heir, Lehi went on to teach of another descendant of Joseph.

"Yea, Joseph truly said: Thus saith the Lord unto me: A choice seer will I raise up out of the fruit of thy loins; and he shall be esteemed highly among the fruit of thy loins. And unto him will I give commandment that he shall do a work for the fruit of thy loins, his brethren, which shall be of great worth unto them, even to the bringing of them to the knowledge of the covenants which I have made with thy fathers." And his name shall be called after me; and it shall be after the name of his father..."(2 Ne 3:7,15)

This prophecy of Joseph's was realized in Joseph Smith, Jr. One great Prophet saw the ministry of the other though the mists of four thousands years of time. It was Joseph Smith who was to be the welding link in the house of Joseph, restoring the covenants and returning the blessings to the remnant of the house of Joseph on the Americas, the American Indians. But more than this, this Seer would not only bring the Lord's gospel

iii The Good News Bible and The Jerusalem Bible (Darton, Longman and Todd Ltd, London, 1974) both translate verse 26 as

[&]quot;...Blessings of ancient mountains...everlasting hills". The ancient mountains in question would therefore be the mountains of Arabia and the everlasting hills those of the Americas.

of salvation to the members of the House of Joseph but also to the other members of the House of Israel.

"And out of weakness he shall be made strong, in that day when my work shall commence among all my people, unto the restoring thee, O house of Israel, saith the Lord." (2 Ne 3:13)

The effect that Joseph Smith had on the world can only fully be appreciated when we realize that there is no person on this earth who is not affected by his legacy. For it is by way of the gentiles² that the house of Israel will be restored in the last days.

"And now, the thing which our father meaneth concerning the grafting in of the natural branches through the fullness of the Gentiles, is, that in the latter days, when our seed shall have dwindled in unbelief, yea, for the space of many years, and many generations after the Messiah shall be manifested in the body unto the children of men, then shall the fullness of the gospel of the Messiah come unto the Gentiles, and from the Gentiles unto the remnant of our seed" (1 Ne 15:13)

Joseph Smith was responsible for bringing the gospel to the gentiles and thence to the House of Israel. In this way he is like the great Patriarch Abraham, in that through him "shall all the kindreds of the earth be blessed." (1 Ne 15:18).

Perhaps Joseph of Egypt saw the similarities between himself and Joseph (Smith), his namesake: both were falsely accused of crimes and imprisoned, Joseph of Egypt was 17 when he received his revelation (Gen. 37:2), Joseph Smith 17 when the angel Moroni visited him. Both were persecuted when they revealed the contents of these revelations. Both were (preserved) saviors to their people, Joseph of Egypt bringing the bread of life to the people, Joseph Smith bringing the people unto the restore words of 'Bread of Life'. Both Joseph's also brought blessings to the nations in which they dwelt. Joseph in Egypt and Joseph Smith to the United States.

In fact the ascendancy of the United States of America over all other nations, an unlikely proposition in 1830, is a direct result of the restoration of the gospel by the Prophet Joseph Smith. Lehi wrote:

Wherefore this land is consecrated unto him whom he shall bring. And if it so be that they shall serve him according to the commandments which he has given them, it shall be a land of liberty unto them; wherefore they shall never be brought down into captivity; if so, it shall be because of iniquity; for if iniquity shall abound cursed be the land for their sakes, but unto the righteous it shall be blessed forever." (2Ne 1:7).

A similar promise was made to the Jaredites (see Ether 2:12). On April 6th 1830 there were 6 members of the Church in the United States. Yet the gospel had been restored and now the law was present. As the members joined and lived that law, the blessings that would come when the inhabitants of the country would keep the commandments began to be met. The United States grew in prosperity until a decade after Joseph's martyrdom it had become the most powerful economy on earth.

The Lord established Zion in the United States and created prosperity there for His own good purpose. He also established the constitution of that country as a blessing to the world.

"According to the laws and constitution of the people, which I have suffered to be established, and should be maintained *for the rights and protection of all flesh*; according to just and holy principles." (D&C 101:77).

The rights and protection of *all flesh* are established through the constitution according to holy principles. The United States has long been the bastion of the free world being able to protect the rights the free world through the might of its military and further the cause of the free world through the strength of its economy.

Perhaps now we can begin to see the affect that the Prophet Joseph has had on the earth. He has brought salvation to the house of Joseph, to the house of Israel and to the Gentiles. He has brought ascendancy to the United States and through that nation rights and protection of freedom to all flesh. There is no one who is not affected by him. It can now be seen why the Church of Jesus Christ so boldly claims

"Joseph Smith, the Prophet and seer of the Lord, has done more, save Jesus only, for the salvation of men in this world, than any other man that ever lived in it." (D&C 135:3)

Not since father Adam has a prophet had a mission to all the nations, kindreds, tongues and peoples of the earth. Many have belittled the Prophet Joseph but if the world only knew the truth of it they would be clamoring to hear his words. For:

"No man or woman in this dispensation will ever enter into the celestial kingdom of God without the consent of Joseph Smith... He holds the keys of the last dispensation." (Journal of Discourses 7:289-290).

So what does the world make of Joseph Smith...Prophet or fraud? In this book we have looked at only the smallest part of the knowledge given to mankind by the prophet Joseph Smith. We have concentrated on only 18 chapters of the Book of Mormon, a mere 42 pages out of the hundreds and thousands of pages that the Prophet brought forth. Yet there is not a page that we have discussed that does not speak eloquently of the truthfulness of the revelations given, that does not shout out the testimony that Joseph Smith was a true Prophet. Joseph Smith claimed that the Book of Mormon was an ancient record which he translated. His critics have alleged that he, or others, were the true authors and that the Book of Mormon was the modern work of an imaginary young mind. Yet an examination of the process by which Joseph Smith translated the record and the circumstances involved reveals that it is impossible that Joseph Smith could have concocted this story.

Recent evidence indicates that Joseph Smith produced the text of the book of Mormon in an incredibly short time. During the time Joseph translated the text he also had to carry on his everyday life. During the translation period he also moved on horse and buggy from Harmony to Fayette, made at least one (and possibly two) trips to Colesville thirty miles away, received and recorded thirteen revelations that are now sections of the Doctrine and Covenants, converted and baptized Hyrum and Samuel Smith, preached a few days and baptize several people near Fayette, acquired the Book of Mormon copyright and began making arrangements for the Book of Mormon's publication, sought employment, experienced manifestations with the Three and Eight Witnesses, received the Aaronic and Melchizedek priesthoods as well as taking time to eat, sleep and perform all the other household chores of a loving husband. Within this busy schedule Joseph Smith translated the entire Book of Mormon in about 63 days, or just under 8½ days per day. In other words, all of the Book of first Nephi would have been translated in about a week.

By contrast we have been writing this book for four years. We have made numerous field trips each year to examine the terrain and the lands over which Joseph proposed the family traveled. Between us we 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. We have had access hundreds of works which we cite in the bibliography. Yet our 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.

Each original draft of a chapter of this book had hundreds of errors, even with the help of modern word processing programs, and we spend much of our time proofreading each other's work for errors. We invariably return chapters with numerous crossings out on every page. By contrast Joseph Smith made amazingly few changes in the Book of Mormon. About a quarter of the original manuscript is held by the Church of Jesus Christ of latter-day Saints and the pages hold few crossings out. The vast majority of the changes that were made when the book went to publication were spelling, capitalization, punctuation and grammar. This is all the more remarkable when one considers that his wife, Emma reported that, in the late 1820's Joseph "could neither write nor dictate a coherent and well worded letter, let alone dictate a book like the Book of Mormon...The larger part of this labour [of translation] was done in my presence and where I could see and know what was being done...During no part of it did Joseph Smith have any [manuscripts] or book of any kind from which to read or dictate except the metallic [sic] plates which I knew he had. If, he had had anything of the kind he could not have concealed it from me."³ She added, writing to her son:

I am satisfied that no man could have dictated the writing of the manuscripts unless he was inspired; for, when acting as his scribe, your father would dictate to me hour after hour; and when returning after meals, or after interruptions, he would at once begin where he had left off without either seeing the manuscript or having any portion of it read to him. This was a usual thing for him to do. It would have been improbable that a learned man could do this; and, for one so ignorant and unlearned as he was, it was simply impossible.⁴

When Joseph translated he would dictate to his scribe passing through the text only one time. After this, our first attempt at writing, we would categorically attest that in our opinion it is absolutely impossible that anyone could have produce 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.

Finally, the authors know 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 1st 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 ship was built)*, each would have been known only to the Arabs living in the immediate vicinity of each of these places in 1830. We 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?

We 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 this book we have discussed, in detail, some 81 points obtained from the first book of Nephi pertaining to the geography or topography of the trail and his ship and voyage.

What is that 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 1,000,000? 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

This number is over 2.4 Septillion, that also be written 2.4×10^{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 5×10^8 (5 followed by 8 zeros) 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 5×10^8 galaxies in the universe. That makes 2.5×10^{19} stars in existence in all the known universe. 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 and 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 the same galaxy in the universe, the chances of which, I think we would both agree, would be virtually zero. The chances would be the same as you and I 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!

This leads us to the only one possible conclusion, something that the members of the Church of Jesus Christ of Latter-day Saints have claimed for over 150 years. The only conclusion that can be drawn is that the Book of Mormon is an ancient book giving a first hand account of a journey through Arabia by Nephi, and that Joseph Smith truly was what he claimed to be, one who was entrusted with the Book of Mormon by God, and who translated it by the powers of Heaven.

Sir William Tarn wrote the following of Alexander the Great. We feel it would be more appropriately applied to Joseph Smith:

He was one of the supreme fertilizing forces in history. He lifted the civilized world out of one groove and into another; he started a new epoch; nothing could be as it had been.

Our final tribute to Joseph Smith, the man who brought this record of the Book of Mormon to us though countless trials and hardships, is that it is true. Our appreciation goes out to him across the hands of time.

"His genius cast its shadow o'er the world, And in brief time he much achieved and wrought: The Age's Sun was he, and ageing suns Cast lengthy shadows, though their time be short."

Kemal Pas ha-zade⁵

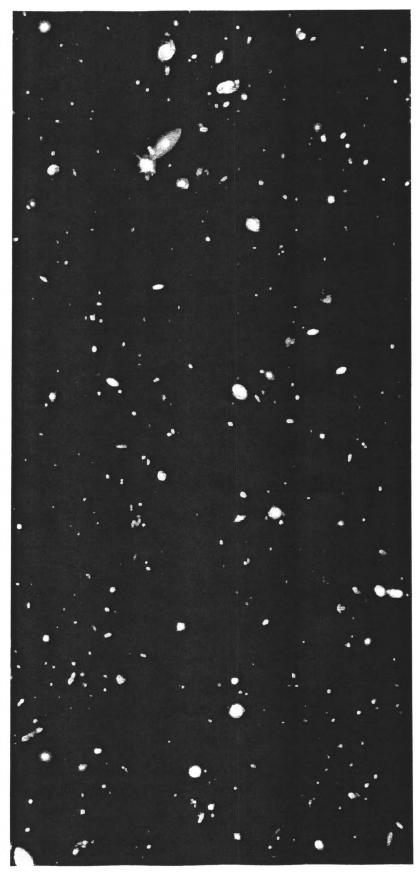
81 points Nephi's makes concerning his journey through the Arabian Peninsula.

1	There was a wilderness the 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' & 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),
	(Aqaba, literally means the 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 can only be approached from the inland side of mountains. (1 Nephi 2:5)
7	The valley is in the 'borders', or mountains, and therefore the valley of Lemuel
	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, 1 Nephi 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 town. (1 Nephi 2:6)
16	It is a river 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 <i>fountain</i> 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 they camped for a 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 BC.
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 provide Lehi with the dream imagery for the 'tree of life'.
	(1 Nephi 8)
23	A stone altar was built in the Valley of Lemuel. (1 Nephi 2:7)
24	There exists a place named Shazer. (1 Nephi 16:13,14)
25	Shazer was the first halt after Lehi joined the Frankincense trail at al Bada'a. (1 Nephi 16:13)
26	Shazer is a four days journey from the valley. (1 Nephi 16:13)
27	Shazer is in the wilderness. (1 Nephi 16:14)

[16:9,10,11,12)
29	Lehi pitched his tents at Shazer, so it needed to be an authorized site for stopping
29	and resting, such were the Frankincense halts.
30	Lehi pitched his tent at Shazer; a must for a desert camp is a source of water. Thus,
50	Shazer must have a source of water. (1 Nephi 16:13)
21	
31	Shazer or Seger (ir,or) meant the 'place of the trees' (Nibley) or 'valley with trees'
22	(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	
55	The men left their women and children in camp while they went into the wilderness to hunt. Sharer must have been a place with provided protection (1 Norbi 16:14)
24	to hunt, Shazer must have been a place with provided protection. (1 Nephi 16:14)
34	Leaving Shazer they traveled 'in the borders near the Red Sea.' Mountains should
25	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
26	wasteland of the northern Hijaz. (1 Nephi 16:14)
36	These 'most fertile' areas are along their trail that runs south-southeast from Shazer.
37	The 'most fertile parts are in ' <i>parts</i> ' i.e. not one large area. (1 Nephi 16:14)
38	The 'most fertile parts' are in the mountains. (1 Nephi 16:14)
39	This part of the trail is called 'The Most Fertile Parts'. The original text of Book of
40	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 of borders,
41	therefore they have left the mountains. (1 Nephi 16:14)
41	They travel through an area they the 'more fertile parts'. (1 Nephi 16:16) 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
42	way. This implies a need for & existence of wild game. (1 Nephi 16:15)
43	After leaving the 'more fertile' parts Lehi's trail is through a land of decreasing
11	fertility.(1Nephi 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
15	16:30)
45	Bow-wood grows in Arabia
46	Bow-wood grows in the mountains near the trail
47	Liahona bearing would point in the direction that would cause great fear. (1 Nephi 16:27)
48	16:27) There exists in southern Archie the place name Nehem (1 Norbi 16:24)
48 49	There exists in southern Arabia the place-name Nahom. (1 Nephi 16:34)
+7	Nahom contains wilderness country. (1 Ne 16:35) where death from hunger is an imminent threat. (1 Ne 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 was a reason for limited fires during 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 Ne 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 Ne 17:6)
61	Lehi camps at shore at the place 'Bountiful'. The fruit trees must be near the shore.
	(1 Ne 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 Ne 18:8)
64	Near the place 'Bountiful' there is 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' has large trees to form timbers for the boat. (1 Nephi 18:1.)
67	Nephi's was a sailing ship, Bountiful was a place were 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", one where the Lord could
	personally appear at, like unto a sacred place or temple.
	There is honey in Bountiful (1Nephi 17:5)
71	The honey in the land Bountiful is from wild bees, the people do not practice
	beekeeping.(1Nephi 17:5)
72	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)
	Bountiful had flint, for Nephi made a fire using stones. (1 Nephi 17:11)
	Bountiful had 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)
	Bountiful was a place where Nephi could learn seamanship. (1 Nephi 18)
	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;
, j	
	Doldrums, and then the return of the original prevailing winds can be found at sea near bountiful. (1 Nephi 18:13-21)

The Hubble 'Deep Space' Shot



see some 1,000,000,000,000 (1 X 10 everything shot of light you see here is a galaxy, each containing about 500,000,000 (5 X 10 piece of space photographed here. This image represents only 1/45,000,000th of the sky. Even the faintest speck of light is a galaxy! Even in this tiniest piece of our night sky man can is now able were to hold a dime at arm's length the size of the President Roosevelt's eye is the same size as the This 'Deep Space' image was taken with the Hubble telescope. To get a perspective of the photo if one ¹²)stars. ⁸)stars. Essentially

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¹ Hugh Nibley, Lehi In The Desert (Salt Lake City: Bookcraft, 1952) p. 125.

Chapter 1 Setting the Scene

¹ David Rolph and Jo Ann H. Seely. Lehi and Jeremiah, Journal of Book of Mormon Studies, vol. 8, number 2 (Provo, Utah: F.A.R.M.S., 1999) 27.

² Benjamin Mazar. The Mountain of the Lord, (New York: Doubleday and Co., 1975). 56.

³ Hugh Nibley (1), Lehi in the Desert, The World of the Jaredites, There were Jaredites (Salt Lake City: Deseret Book and F.A.R.M.S., 1988) 34-42.

Cecil Roth, The History of the Jews, (New York: Schoken Books, 1961), 42.

⁵ Mazar, 57.

⁶ William Fox Albright, *The Jews: Their History*, Ed. Louis Finkelstein (New York: Schoken Books, 1970), 46.

⁷ Nathan Ausubel, *Pictorial History of the Jewish People* (New York: Crown Publishers, 1973), 65.

⁸ Abram Leon Sachar, A History of the Jews, (New York: Alfred A. Knopf, 1930), 68.

⁹ H. H. Ben-Sasson, Editor, A History of the Jewish People, Ed. (Cambridge, Massachusetts: Harvard University Press, 1976), 151.

¹⁰ Other prophets from this era include: Habakkuk, Nahum, Zephanaiah, Urijah son of Shemajah (see Jeremiah 26:20), the prophetess Huldah, and later in exile Ezekiel and Daniel.

¹¹ Ausubel, 65. ¹² Roth, 43.

¹³ Josephus, trans. W. Whiston, The Complete Works of Josephus, Antiquties 10.11.1, (1981), 224-5.

¹⁴ Sachar, 74.

¹⁵ Footnote 1 in John B. Pratt, *Ensign*, October 1998, p.65: "Adar is the 12th month of both the Babylonian and Jewish calendars, so it was near the end of Nebuchadnezzar's seventh year, which had begun in the spring of 598B.C.. The exact date is taken from the tables of R.A. Parker and W.H. Dubberstein, Babylonian Chronology, 626 B.C. - A.D. 45 (1942), 25, where 1 Adar is listed as 15th march on the Julian Calendar."

¹⁶ Quoted from Benjamin Mazar. *Op. cit.*, 59-60. An alternative translation "he encamped against the city of Judah and on the second day of the month of Adar he captured the city (and) seized (its) king. A king of his own choice he appointed in the city (and) taking vast tribute he brought it unto Babylon." is found in A.K. Grayson, Assyrian and Babylonian Chronicles, vol. 5 of Texts from Cuneiform Sources, ed. A.L. Oppenheim et al (1975), 102.

¹⁷ The Egyptian 'Ha', to go down, when applied to travel, means 'to go down to Egypt' (Erman, Worterbuch der Egyptische Sprache II, 472). If Joseph Smith were translating this expression then this would place his land of inheritance to the west of Jerusalem. However, since Nephi uses the expression 'to go down' to mean to travel to Midian, in Arabia, then that interpretation seems less likely than 'down' as a south compass bearing and 'up' as a northerly one.

¹⁸ The Talmud does not share this same opinion of Zedekiah pronouncing him righteous and his tormentors vicious. *See footnote Tractate Shabbat 149a, Sanhedrin 103a.*

¹⁹ Ben-Sasson. 155.

²⁰ Max L. Margolis and Alexander Marx, A History of the Jewish People (New York: Meridian Book & World Publishing, 1958), 110.

²¹ Ibid.

²² Ben-Sasson, 155.

Chapter 2 Escape From Jerusalem

¹ Joseph Fielding Smith (1), The Way to Perfection, 193.

² James E. Talmage, *The Great Apostasy*, Notes, Chapter 1, Note 5 (Salt Lake City: Church of Jesus Christ of Latter-day Saints, 1968).

³ B. H. Roberts (1), *Defense of the Faith and the Saints*, Vol.1 (Salt Lake City: Deseret News, 1907-1912), 409.

⁴ Nibley (1), 135.

⁵ Webster's, Ninth New Collegiate Dictionary (Springfield, Massachusetts: Merriam-Webster, 1986), 1349.

⁶ Graeme Donnan, *The King's Highway* (Amman: Al Kutba Publishers, 1994), 14.

⁷ Ben-Sasson,156.

⁸ Abdulla al-Wohaibi, *The Northern Hijaz, in the Writings of the Arab Geographers 800-*1150 (AD) (Beirut: Al-Risalah, 1973), 196-197.

⁹ Richard Francis Burton, *The Gold-Mines of Midian, and the ruined Midianite cities* (1878) (Cambridge, England: Oleander, 1979), 108.

¹⁰ A team from the Department of Antiquities of Jordan has conducted systematic excavations in the area since March 1997, and these continue under the supervision of Dr. Mohammed Waheeb.

¹¹ This raises an interesting point. Joseph Smith introduced the doctrine of the spirit and office of 'an Elias', one who prepares the way (see Joseph Fielding Smith, Editor, Teachings of the Prophet Joseph Smith (Salt Lake City: Deseret Book Company, 1976), 335-341.). This doctrine is unique to Latter-day Saints. Elias is the New Testament form of Elijah. Both Elijah and John the Baptist were acting in the office and spirit of an Elias (see inspired version John 1:21-18 and Matthew 17:14). The association of John the Baptist and the prophet Elijah in the minds of the people can be seen in the Apostles' answer to Jesus question "Whom do men say that I the Son of Man am?" (Matthew 16:13-14). In July 1999 Dr. Mohammed Waheeb wrote concerning this site: "Not far from the Jordan River, at a distance of one mile to the east, is the place where the Prophet Elijah was taken into heaven in a chariot of fire "and it came to pass, as they still went on, and talked, that, behold, there appeared a chariot of fire, and horses of fire, which parted them both asunder; and Elijah went up by a whirlwind into heaven. And Elisha saw it and he cried. " (II Kings 2:11-13). The itinerary of the Bordeaux pilgrim (333 A. D.) mentioned that "From there to the Jordan, where the Lord was baptized by John, is five miles. Here there is a place by the River, a little hill on the far bank, where Elijah was caught up into heaven." The Roman five miles is equal to four and one-half English miles, the distance from the Dead Sea up stream to Wadi el-Kharrar in Jordan.

Theodosius (530 A.D) says that it was five Roman miles from the Dead Sea to the place where the Jesus was baptized, where there was a church of St. John, but it is not clear whether the church was on the east or west bank of the River. He says explicitly that the Jesus was baptized on the east site (Jordan) and he refers to the little hill where Elijah was taken up. Obviously he means the little hill which was called Hermon, Elijah hill, Jebel MarElyas and recently, Tell el Kharrar. In John 1: 28 and 10:40 there is a clear reference to a specific place for John's work, stating that he was baptizing in Bethabara or Bethany beyond the Jordan ("John answered them, saying, I baptize with water: in the midst of you standeth one whom you know not, even he that cometh after me, the laces of whose shoe I am not worthy to unloose. These things were done in Bethany beyond Jordan where John was baptizing") (John 1:23-29). The question is: where is Bethany beyond the Jordan? The town of Lazarus, two miles east of Jerusalem, has been suggested as Bethany beyond the Jordan. But the Jordan River is about twenty miles from this town. Bethany is located in the text on the banks of the Jordan, and John is said to have baptized there. A team from the Department of Antiquities of Jordan has conducted emergency surveys and systematic excavations in the area since March 1997. Archaeological excavations on the southern bank of Wadi el-Kharrar revealed the presence of several sites, with architectural remains scattered throughout the area approximately two kilometers to the east of the, Jordan River. The discovered sites consisted of churches, water installations, stepped cisterns, colored mosaic floors, stone piles, caves and other facilities. The discovered sites in Wadi el Kharar and the recently excavated sites in Wadi el-Kafrein will shed light on the importance of the eastern side of the Jordan River during the early years of Christianity." What better way could John the Baptist have taught the principle of his calling of an Elias than by choosing to preach in the same place as the hill where Elias (Elijah) was taken into Heaven. It is interesting that Joseph Smith taught of the doctrine of an Elias when the knowledge of the relationship between the place where John the Baptist preached and the hill where Elias (Elijah) was taken into Heaven was only found in an obscure text. One has to question if this is more than coincidence.

¹² Donnan, 18

13 Ibid.

¹⁴ Ibid., 13.

¹⁵ Ibid., 18.

¹⁶ Lynn M. Hilton (1) and Hope A. Hilton, *Discovering Lehi* (Springville Utah: CFI Inc, 1996), 103.

¹⁷ Hugh W. Nibley (2), *Teaching of the Book of Mormon*, Semester 1 (Provo, Utah: F.A.R.M.S., 1988-1990), 122.

¹⁸ Alois Musil. *The Northern Hijaz- a topographical itinerary* (New York: Published under the patronage of the Czech Academy of Sciences and Arts and of Charles R. Crane, 1926), 254.

¹⁹ Ibid., 258.

²⁰ Jakut ibn 'Abdulah ar-Rumi (died 1224) *Kitab mu'gam al-buldan*, Vol. 3 Edited by Ferdinand Wüstenfled (Leipzig, 1866-1873), 259.

²¹ Musil, 272.

²² Nigel Groom (1), *The Dictionary of Arabic Topography and Placenames* (London: Longman, 1983), 41.

²³ William Harms, "Digging out Aqaba's Islamic Past", *ARAMCO World*, March/April 2000, p.13.

²⁴ Hilton, 37.

²⁵ Musil, 254.

²⁶ 2 Kings 16:6 here quoted from the *New Revised Standard Version Bible* (1989). The *Jerusalem Bible*, 1974, (Darton, Longman and Todd, London) and the *Good News Bible*, 1976 (The American Bible Society, New York.) both support the translation that it was the Edomites who recaptured Elath.

²⁷ Burton MacDonald, Ammon, Moab and Edom (Amman: Al-Kutba Publishers, 1994),
46.

²⁸ G. Lankester Harding.. *The Antiquities of Jordan*, (Amman: Jordan Distribution agency by arrangement with Lutterworth Press, England, 1967), 46.

²⁹ This fascinating story of the history and eventual return of the Jews of Yemen to their homeland can be read in Reubon Ahroni's "*Yemenite Jewry*".(See below for ref.).

³⁰ Saphir also records that the Jews of Sanaa had written genealogies which were destroyed in the mid eighteenth century by Rabbi Shalom Iraqi, a prominent Jew from Egypt, whose son was denied marriage to one of their daughters because he could not prove his descent from one of the ancient and noble families. Jacob Saphir 1866. "*'Even Sappir.* Vol. 1, 101.

³¹ Reubon Ahroni. Yemenite Jewry (Bloomington, Indiana: Indiana University Press, 1986), 25.

³² S. Kent Brown (3), "The Exodus Pattern in the Book of Mormon", in *From Jerusalem to Zarahemla*, Religious Studies Center (Provo, Utah: Brigham Young University), 75-98. A summary of those papers which have dealt with this subject are included below, as taken from footnote 1/ of S. Kent Brown (3), Ibid., 90.

I. Notable are George S. Tate, "The Typology of the Exodus Pattern in the Book of Mormon," in Literature of Belief Sacred Scripture and Religious Experience, ed. Neal E. Lambert (Provo, Utah: Religious Studies Center, Brigham Young University, 1981), 246-62; a summary of work by George S. Tate, John W. Welch, and Avraham Gileadi in "Research and Perspectives: Nephi and the Exodus," Ensign, April 1987, 64-65; Noel B. Reynolds, "The Political Dimension in Nephi's Small Plates," BYU Studies 27, no. 4 (fall 1987): 15-37, particularly the Moses-Nephi typology on 22, 24, 29, 33; Terrance L. Szink, "To a Land of Promise (1 Nephi 16-18)," in Studies in Scripture, Vol. 7: 1 Nephi to Alma 29, ed. Kent P. Jackson (Salt Lake City: Deseret Book, 1987), 60-72; and three essays in Rediscovering the Book of Mormon, ed. John L. Sorenson and Melvin J. Thorne (Salt Lake City: Deseret Book and F.A.R.M.S., 1991): Terrance L. Szink, "Nephi and the Exodus," 35-51; Alan Goff, "Mourning, Consolation, and Repentance at Nahom," 92-99; and David R. Seely, "The Image of the Hand of God in the Book of Mormon and the Old Testament," 140-50.

³³ The Good News Bible translates this verse: "So we moved on and left the road that goes from the towns of Elath and Eziongeber to the Dead Sea, and we turned northeast toward Moab." *The Good News Bible*, American Bible Society, New York.

³⁴ Randall P. Spackman, The Jewish/Nephite lunar Calendar, *Journal of Book of Mormon Studies* vol. 7, number 1, 1998, pp. 57-58.

³⁵ David Rolph and Jo Ann H. Seely, Lehi and Jeremiah, *Journal of Book of Mormon Studies* vol. 8, number 2, 1999, p. 28.

Chapter 3 The Borders Nearer the Red Sea

¹ Anonymous, F.A.R.M.S. review notes to the author, July 1998. The author of this critique of George's early work noted "But the Hebrew word is used of non-mountainous areas as well, though its origin may have been in reference to mountain barriers."

² William Facey, *The Kingdom of Saudi Arabia*, Ninth Ed., (London: Stacy International, 1993), 49.

³ Masalik Al - Istahri, According to Jakut, Vol. 2, 77.

⁴ Norman Lewis, Editor, *The New Roget's Thesaurus*, Revised Edition, (New York: Berkley, 1976), "Boundary", 49.

⁵ Ptolemy-, *Geography*, VI, 7:2,27. According to Musil "the northern frontier of Arabia Felix, leaving the shore of the Red Sea between the settlements of Ajla (*Aqaba*) and Hakl, swung off in a northeasterly direction to the as-Sera' mountain range, the southern slope of which separated Arabia Felix from Arabia Petraea. - Ptolemy is concerned with the geographical rather than the political frontiers." Alois Musil, op.cit., p.255. ⁶ Musil, 256.

⁷Abu Ishak Ibrahim ibn Muhammed al-Katib al - Istahri (fl. 890). *Kitab masalik al-mamalik*: edited by M.J. De Goeje in his *Bibl. Geogr. Arab.*, Vol 1 (Leiden, 1870) 12, 14.

⁸ David George Hogarth. *Hejaz before world War I- a handbook*, 2nd Ed., 1917 (Cambridge, England: Falcon-Oleadner, 1978), 6.

⁹ al-Wohaibi, 17 (citing: Qudamah, *Kharaj*, 189)

¹⁰ Yaqut, *Mu'jam*, vol. 2, 205, see Musil, 338.

¹¹ B. H. Roberts (2), Comprehensive History of the Church of Jesus Christ of Latter-day Saints., Vol. I, (Provo, Utah: Brigham Young University Press, 1965), 159.

¹² Groom (1), 91

¹³ Joseph Catafago, Arabic-English Dictionary, (Beirut: Librairie de Liban, 1975).

¹⁴ Hilton (1), 45.

¹⁵ Ibid., 62.

¹⁶ Wes Gardner. Professor of Geology, University of Petroleum and Minerals, Dhahran, Saudi Arabia. Personal communication 1992. This discussion will be continued in more detail in a later chapter.

¹⁷ Zahra Freeth &, Victor Winston, *Explorers of Arabia, From the Renaissance to the End of the Victorian Era*, (London: George Allen & Unwin, 1978), 57.

¹⁸ Tactical Pilotage Charts. Series TPC, Sheet H-5A, Edition 5-GSGS. Produced under the direction of the Director general of the Military Survey, Ministry of Defense, United Kingdom, 1989.

¹⁹ Based on our interview with a Saudi Coast Guardsman I interviewed at Bir Marshad.

²⁰ Burton, 65.

²¹ Webster's, Geographical Names, Arabia.

²² Burton, 212.

Chapter 4 The River of Laman

¹ Joseph Fielding Smith (2), *Teachings of the Prophet Joseph Smith* (Salt Lake City: Deseret Book, 1976), 194.

² Andrew Taylor, *Traveling The Sands, Sagas of Exploration in the Arabian Peninsula* (Dubai: Emirates, 1995), 19-31.

³ Eugene England, *Through the Arabian Desert to a Bountiful* (Provo, Utah: F.A.R.M.S., 1982), 145.

⁴ Ibid., 144-145.

⁵ Nibley, Collected Works of Hugh Nibley, Vol. p. 85; Hilton (2), "In Search of Lehi's Trail", *Ensign*, Sept. 1976; 46, England, 151.

⁶ Nibley, Collected Works of Hugh Nibley, Vol. 5, 50,51.

⁷ Midgley, p. 167.

⁸ As cited in: Nibley, (1) p. 79-80.

⁹ LDS Infobase, CIA World Report.

¹⁰ Ministry of Agriculture and Waters, Kingdom of Saudi Arabia, with the cooperation of the Saudi Arabian United States Joint Commission on Economic Cooperation and The US National Graphic Center and the United States Geological Service, *Water Atlas of Saudi Arabia* (Riyadh: Saudi Publishing, 1984), XV.

¹¹ Nibley, Collected Works of Hugh Nibley, Vol.5, 80,81.

¹² John B. Pratt, *The Ensign*, October 1998, 65.

¹³ Nibley, Collected Works of Hugh Nibley, Vol 5, p. 85.

¹⁴ British Broadcasting Company, Weather Forecast Service.

¹⁵ Encarta, "Red Sea Coastline, Israel", Encarta Multi-media Encyclopedia, Microsoft Corporation, Redmond, Wa., 1994.

¹⁶ Hilton (1),53.

¹⁷ Lynn and Hope Hilton (3), *In Search of Lehi's Trail* (Salt Lake City: Deseret Book, 1976), 63,64.

¹⁸ Kelly Odgen, LDS Church News (Salt Lake City: Deseret News), 6 January 1996.

¹⁹ Saudi Ministry of Agriculture and Waters, Kingdom of Saudi Arabia, Water Atlas of Saudi Arabia, 9.

²⁰ James Sauer, *The River Runs Dry*, Biblical Archaeology Review, (July/August 1996), 63-64.

²¹ Nibley, Collected Works of Hugh Nibley, Vol 5, 50-51.

²² Nibley, Collected Works of Hugh Nibley, Vol. 5, 82,83.

²³ Nibley, Collected Works of Hugh Nibley, Vol. 6, 256.

²⁴ Nibley, Collected Works of Hugh Nibley, Vol. 5, 71.

²⁵ Al-Mawrid, Arabic-English Dictionary (Beirut: Dar El-Lim-Lil Maylayen, 1967), 915.

²⁶ Nibley, *Collected Works of Hugh Nibley*, Vol. 5, 82,83.

²⁷ John A. Tvedtnes, *Hebraisms in the Book of Mormon: A Preliminary Survey*, BYU Studies, Vol. 11, No. 1 (Provo, Utah: Brigham Young University Press), 57.

²⁸ Michael Lloyd Ingraham, Theodore D. Johnson, Baseem Rihani & Ibrahim Shatla. Saudi Arabian Comprehensive Survey Program. ATLAL. The Journal of Saudi Archaeology. Vol. 5 (Riyadh: Published by the Directorate General of Antiquities and Museums, Ministry of Education, 1981), 66. ²⁹ S. Kent (1), "A Case For Lehi's Bondage in Arabia", Journal of Book of Mormon Studies, vol. 6, no. 2 (Provo, Utah: F.A.R.M.S.), 216.

Chapter 5 The Valley of Lemuel

¹ Nibley (1) 79-80.

² Brown (1), 206.

³ Nigel Groom (2), Frankincense and Myrrh, A Study of the Arabian Incense Trade (London: Longman, 1981), 206.

⁴ Webster's, firm, steadfast, immovable.

⁵ *Ibid*, 203.

⁶ Groom (2), 173,211.

⁷ Alan Keohane, *Bedouin, Nomads of the Desert*, (London, Stacey International, 1994), 36.

⁸ Llyod Michael Ingraham, Theodore D. Johnson, Baseem Rihani, Ibrahim Shatla, "Saudi Arabian Comprehensive Survey Program, Preliminary Report On a Reconnaissance Survey of the Northwestern Province", *ATLAL*, *The Journal of Saudi Arabian Archaeology*, Vol 5. (Riyadh: Department of Antiquities, Ministry of Education, 1981), 74 & Plate # 66.

⁹ Ibid, 70.

¹⁰ Ibid, 71.

¹¹ Hugh Nibley, Collected Works of Hugh Nibley, Vol. 6, 245.

¹² LDS Bible Dictionary, *Temple*, 1979 Edition.

¹³ Randolph Linehan sites the The Authorized Version of the Bible to English speaking Churches, later referred to as the King James versions was translated in 1607 and published in 1610. An edition published by Cranston & Stowe in Chicago included the Old Testament, Apocrypha, New Testament and Bible Dictionary. This was apparently a standard marriage present in the 1880's and was illustrated with expensive engravings with soft paper covers for the engravings. The text had extensive note. 2nd Maccabees of the Apocrypha, Chapter 1 verses 33-36 describes the return of the faithful to clean out the Temple to initiate Temple use during the time of the Priest Nehemiah (Neemias in Greek).

33) So when this matter was known, it was told the King of Persia, that in the place where the exiled priests had hidden the fire, there appeared water, and Nehemiah had purified the sacrifices therewith.

34) Then the King, enclosing the place, made it holy, after he had tried the matter.

35) And the King took many gifts, and bestowed thereof on those he would gratify.

36) And Nehemiah called this thing Nephthar, which is as much to say a cleansing: but many men call it Nephi.

In some versions, Nephi is called Naphtha: pure colorless oil which was very rare and found only in certain seeps in Arabia. Some versions calls the substance water (not liquid) and the process nephthar: ritual cleansing, which would be the meaning for the

colloquial noun Nephi. The gist of this story is that the sacred fire, which as buried by Jeremiah had turned into a sacred water (liquid) when the exiles returned to Jerusalem in 560 BC, looking for the temple ark, fire, and instruments. The cleansing of the initial temple sacrifices with the liquid was known colloquially as Nephi, and this took place only 40 years or so after Nephi left "the land of Jerusalem.¹³

¹⁴ William Wordsworth, *Thought of a Briton on the Subjugation of Switzerland*, (1807).

¹⁵ William Blake, *The Marriage of Heaven and Hell*, 1790-3, 'A Memorable Fancy', plates 12-13.

¹⁶ William Blake, MS Note-Book, p. 43.

¹⁷ W.H. Auden, In Memory of W.B. Yeats, 1940, part 3.

¹⁸ Qur'an 2:115,116, Translation of the Qur'an, by Abdulla Yusuf Ali, Sound Vision, New York, 1989.

Chapter 6 Lehi's Dream of the Tree of Life

¹ Nibley, Collected Works of Hugh Nibley, Vol. 6, 264.

² Ibid, 253.

³ Ibid.

⁴ Ibid.

⁵ S. A. Amin. *The Arabian Sun*. Vol. LII, No. 27. July 16th, Dhahran, Saudi Arabia, Saudi Aramco, 1997, 1.)

⁶ Jeanette W. Miller. *The Tree of Life, a Personification of Christ*. Journal of Book of Mormon Studies (Provo, Utah: F.A.R.M.S.) 106.

⁷ Abdul Hameed Al Hashash. General Director of Dammam Museum. Ministry of Education Eastern Province, P.O. Box 1797, Al-Khobar, Saudi Arabia.

⁸ In 490 A.D. a devout Christian slave admonished his master "...the Palm Tree which you worship is devoid of power..." Captain R.L. Playfair, 1859. A History of Arabia Felix or Yemen From the Commencement of the Christian Era to the Present Time (Westmead, England: Reprinted in 1970 by Gregg International Publishing Ltd.), 62.

⁹ Ray L. Cleveland, "Cherubs and the Tree of Life' in Ancient South Arabia, *Bulletin of the American Schools of Oriental Research*, No. 172, December 1963, pp. 55-60.

¹⁰ Ray L. Cleveland, An Ancient South Arabian Necrolis. Objects from the Second Campaign (1951) in the Timna Cemetery. *American Foundation for the Study of Man*. Baltimore: The Johns Hopkins Press, p.28.

¹¹ Angela Clarke, *Bahrain-A Heritage Explored* (London: Meed Books, 1986), 38. ¹² Amin, 1,4.

¹³ Corbin T. Volluz. Lehi's Dream Of The Tree Of Life: Springboard To Prophecy.
 Journal of Book of Mormon Studies. Vol. 2 number 2 (Provo: Utah, F.A.R.M.S.) 35.

¹⁴ Nibley, Collected Works of Hugh Nibley, Vol. 6, 256.

¹⁵ On the surface there would seem to be a direct corellation between the Rod of Iron and the walls of the canyon. Nephi tells us that the gulf, made up by the vertical canyon walls, represents the "word ofGod" (1 Nephi 12:18). The iron rod also represents the "word of God" (1 Ne. 11:25). The Walls and the rod of Iron would thereofore appear to be synonomous. However we should take note that the original text of the Book of Mormon described the gulf as the "*sword* of the justice of the eternal God" and not "the *word*...of the justice" Apparently Oliver Cowdery made an error when copying the word '*sword*'

from the original text onto the printer's copy. (see: Royal Skousen, 'How Joseph Smith translated the Book of Mormon: Evidence from the original manuscript', Journal of the Book of Mormon Studies, Vol. 7, Number 1 (Provo, Utah: F.A.R.M.S., 1998), 31.

¹⁶ S. Kent Brown. Personal communication.

¹⁷ Evidence of tall buildings has been found by the French archeological expedition in Shabwah, although there is no evidence as yet that these tall buildings date back to Lehi's time, nor does it appear that the family traveled that far south.

¹⁸ Nibley, Collected Works of Hugh Nibley, Vol. 5, 45-46.

¹⁹ Volluz, 30.

²⁰ (See Book of Mormon footnote a) 1 Nephi 2:9.

Chapter 7 The Frankincense Trail

¹ We were confused for a long time as to why Nephi would inform us three times (1 Ne. 2:15; 1 Ne. 9:1; 1 Ne. 10:16) that Lehi dwelt in a tent. It was not until August 1999, when Richard was driving down the king's highway in Jordan that he thought he realized the reason. He had stopped near Al Lajjun, east of Karak, to take a photo of a Bedouin tent on the edge of the desert. A woman came out and he asked her permission to take a photo there. She called out to her husband and he came out. I assumed she called him to complain and tell me to go away, as the Saudi Bedouins would have done. As he came out she shouted some more and he rushed back into the tent. This time he came out with his Igal and Ghutra (head dress) in his hand and hastily put them on as his wife chided him. Instead of chasing me away he proudly stood next to his tent, looking his best for the photo (see the fig. of the Bedouin standing by his tent, bottom left, in chapter 2 'Eascape from Jerusalem'.) Richard couldn't help but notice inside the tent the family's entire possessions could be wrapped into a couple of bed rolls; a few pots and pans, plates, cups and a few blankets. He felt embarrassed parked there with more possessions on the back seat of my car than he would ever own. This noble man stood there, his thawb threadbare in places. As he shook his hand to thank him he touched his arm and felt that he had not an ounce of fat on his thin frame. These people were poverty stricken. Theirs was a truly hard existence.

Lehi left his house, gold, jewelry and land and lived in a tent like a poor man, yet he never complained about leaving his possessions behind. What a contrast we see in Laman and Lemuel, who never let Lehi forget that they wanted to return to their wealth. By mentioning the tent Nephi is reminding us of his father's humility, never complaining to God about his loss of worldly things.

² Strabo, *Geography*, Book XVI, chapter 4 § 4.

- ³ Groom (2), 213.
- ⁴ Hilton (2), 54.
- ⁵ Al-Wohaibi, 196,197, 201, 208.

⁶ Kamal Salibi. *A History of Arabia* (New York: Caravan Books, 1980), 10.

⁷ al-Wohaibi, 196-197.

⁸ Nicholas Clapp, *The Road to Ubar* (Boston: Houghton Mifflin Co., 1998), 225.

⁹ Walter W. Müller (1), 1976. "Notes on the use of Frankincense in South Arabia." Proceedings of the ninth Seminar for Arabian Studies, p.131.

¹⁰ Brian Doe (1), Southern Arabia (London: Thames and Hudson, 1971), 55.

¹¹ Maurizio Tosi, Early Maritime Cultures of the Arabian Gulf and the Indian Ocean in 'Bahrain through the Ages the Archeology' (London: KPI Ltd, 1986), 96.

¹³ Tosi, 105.

¹⁴ Ibid p.102.

¹⁵ Jeremiah was not unlike Lehi, Both were businessmen and amateur prophets. Hugh W. Nibley (2), Teachings of the Book of Mormon (Provo, Utah: F.A.R.M.S., 1993), 91. ¹⁶ S.B. Miles, 2,3,498.

¹⁷ Philip K. Hitti, *History of the Arabs* (Hampshire & London: Macmillan Education Ltd. 1970), 41.

¹⁸ Ibid.

¹⁹ Nibley, p. 47.

²⁰ Warren P. Aston, *The Arabian Bountiful Discovered*, Journal of Book of Mormon Studies, Vol. 7. Number 1 (Provo, Utah: F.A.R.M.S., 1978), 6. ²¹ Taylor, 52.

²² Groom (2), 191.

²³ Keohane, 10,11.

²⁴ Pliny, *Natural History*, translated by H. Rackham (London: William Heinemann, 1952) 37-63, Section XXX:53.

²⁵ Taylor, 55

²⁶ Abdullah Saud al Saud, *ATLAL* The Journal of Saudi Arabian Archeology, Vol. 14, (Riyadh: Published by the Assistant Deputy Minister for Antiquities and Museums, Ministry of Education, 1996), 131,132.

²⁷ Charles M Doughty, *Travels in Arabia Deserta*, Vol. 1. (originally published by Cambridge University Press, 1888.), New York: Dover Publications, 1979.

²⁸ Richard Bowen, Jr. "Ancient Trade Routes in South Arabia", *Archeological Discoveries in South Arabia* (Baltimore: The John Hopkins Press, 1958), 38.

²⁹ See map in R.H Kiernan, *The Unveiling of Arabia* (London: George G. Harrap & Co. Ltd, 1937), 27.

³⁰ Strabo, Book XVI, chapter 4.

³¹ G. Lankester Harding, *The Antiquities of Jordan*, (Amman: Jordan Distribution Agency, by arrangement with Lutterworth Press, 1959.), 124.

³² R. H. Kiernan, 27-28.

³³ Hitti, 28.

³⁴ National Geographic Magazine Vol. 195, No. 3, March 1999.131.

³⁵ Hilton (2), 36.

³⁶ Taylor, 18.

³⁷ Hilton (2), 44.

- ³⁸ Hilton (2), 41.
- ³⁹ Charles M Doughty, *Op. Cit.*

⁴⁰ Groom (2), 198.

⁴¹ Freeth, 252.

⁴² Waleed Al-Mansour, Interview with George Potter, Damman, Saudi Arabia: January 10,2000.

¹² Geoffrey Bibby, *Looking for Dilmun* (New York: Alfred A. Knopf, 1970), 221.

⁴³ Randolph Linehan, personal communication with George Potter. Besides several law degrees, Linehan has a degree in Political Science and Anthropology from Yale University.

⁴⁴ Waleed al-Mansour, histories of his family, provided to authors during personal interviews, April 1999.

⁴⁵ Ibid.

⁴⁶ Salibi, 8.

⁴⁷ Keohane, 70.

⁴⁸ Philip J. Baldensperger, *The Immovable East*, Palestine Exploration Fund Quarterly Statement (1922): 170-71.

⁴⁹ Hilton (1) 104,106.

⁵⁰ Examples of maps showing the Frankincense trail inland and no coastal route include: Brian Doe, *Monuments of South Arabia*, 96-97, 1983. Falcon Oleander Press;

William Facey, The Story of the Eastern Province of Saudi Arabia, (London: Stacey International, 1994), 34.

Department of Antiquities and Museums, An Introduction to Saudi Arabian Antiquities (Riyadh: Ministry of Education, Kingdom of Saudi Arabia, 1975), i.

A.R. al-Ansary. Qaryat al-Fau: A Portrait of Pre-Islamic Civilization in Saudi Arabia, (London: Groom-Helm ltd) p.i

Rand McNally Historical Atlas of the World, Rand McNally & Co., Chicago;

Robert Stoker, Yemen: The Politics of the Yemen Arab Republic,.., (Boulder, Colorado: Westview Press 1978), 8.

William Facey, *The Kingdom of Saudi Arabia* (London: Stacey International, 1990), 72. Richard F. Nyrop, *Area Handbook for the Yemens* (Washington, D.C.: U.S. Government Printing Office, 1977), 11.

Radhi Daghfous, Le Yaman Islamique des origines jusaqu'a l'avenement des dynasties autonomes. Tome I (Tunis: Université de Tunis, 1995) 95.

al Saud, 136, Plate 54.

Chris Scarre, Smithsonian Timelines Of The Ancient World (New York: Dorling Kindersley, 1993), 159.

⁵¹ The Heritage of the Kingdom of Saudi Arabia (Washington D.C.: GDG Publications, 1990), 36.

⁵² Ibid., 37.

⁵³ Hitti, 47.

⁵⁴ al-Wohaibi, 325.

⁵⁵ Al-Wohaibi, 370.

⁵⁶ Ibid., 390,391.

⁵⁷ Ministry of Agriculture and Water, *Atlas of Soil, General Soil Maps*, (Riyadh: Kingdom of Saudi Arabia, 1985), made in cooperation with the United States Geological Survey.

⁵⁸ Kiernan, 29, quoting Strabo. *The Geography*. Translation by H.C. Hamilton ad W. Falconer (London, 1854).

⁵⁹ Ross T. Christensen, *Ensign*. August, 1978.

⁶⁰ Warren and Michaela Aston, "*The Place Which Was Called Nahom*," (Provo, Utah: F.A.R.M.S.), Paper AST 91a.

⁶¹ Hilton (1), 127.

⁶² The problem of the coast route is well illustrated in a produced by Foundation for Ancient Research and Mormon Studies (F.A.R.M.S.) and show on its web page (at the date of writing 5/1/2000). The map purports to show Lehi's trail down the Red Sea coast to Nahom. As far as we can tell the route shown on the map going S.S.E. from the coast to Sana is the old route which started south of Jizan (Saudi Arabia) and crossed the Hijaz mountains ending at Dhamar (Yemen), some 50 miles south of Sana. To reach the position of the Nahom marked on this map the family would have had to turn north for 100 miles, a lengthy 'doubling back' conspicuously absent from Nephi's record. Following this route the family would have turned east 100 miles before Nahom. ⁶³ Hilton (3), 129.

⁶⁴ Taylor, 64.

⁶⁵ R.H. Kiernan, *The Unveiling of Arabia* (London: George G. Harrap & Co. Ltd. 1937). 32.

⁶⁶ Kiernan, 26 G. Wyman, as quoted in Kiernan; Freya Stark, *The Southern Gates of* Arabia, 10th edition. (London: John Murray, 1972), 297.

⁶⁷ Burton, 76-77.

⁶⁸ Ibid.

⁶⁹ Hilton (3), 81.

⁷⁰ Bowen, 36.

Chapter 8 Discovering Shazer

¹ Nibley, *The Collected Works of Hugh Nibley*, Vol. 6, 76-77.

² Groom (2), 206.

³ Diodorus Siculus. *Bibliotheca historica*: vol. III, 43 f. Vols 1-3 edited by Fredericus Vogel, vols 4 & 5 edited by Curtius Theodorus Fischer, in Bibliotheca scriptorum graecorum et romanorum teubneriana (Leipzig, 1888-1906).

Barbara Toy, The Highway of the Three Kings, Arabia -From South to North, 162.

⁵ The north celestial pole is not constant and while Polaris, or the pole star, is near the north celestial pole at the moment it has not always been so. The earth is not spinning absolutely still on its axis but is 'wobbling', somewhat like a top, so that the projection of the earth's axis onto the heavens describes a full circle every 26,000 years. This is known as *precession*. The net result is that in 600BC the north celestial pole was approximately 14° (ignoring the minor effects of nutation) from Polaris somewhere between β Ursa Minor and λ Draco. Thus if Nephi were using a 'pole star' for navigation it would not have coincided absolutely with true north (in the same way that Polaris is not on the earth's axis of rotation) and his measurements would consequently be a few degrees off absolute. See Donald Menzel, A Field Guide to the Stars and Planets (London: Collins), 329-331.

⁶ Ibn Khurradadadhbeh, al-Masalik wa al-Mamalik, 1st Ed. B.G.A. Vol. VI, (Leiden 1889).

⁷ Muhammed bin Waki', *Akhbar L-Oudah*, (Cairo: 1947-1950).

⁸ Al-Ya'aqubi, *Tarikh*, (Leiden. 1883).

⁹ Ibn Rosteh, *al-A 'laq al-Nafisah*, 2nd ed., B.G.A., Vol. VII (Leiden, 1892).

¹⁰ Musil. 322.

¹¹ Haggi Halfa. *Giham numa* (Constantinople, 1145 A.H.), 541; Ouoted in Musil, 323-324.

¹² Groom (1), A Dictionary of Arabic Topography and Placenames.

¹³ De L'isle, G. '*Carte de la Turquie, de l'Arabie et de la Perse*'. 1701, [from Atlas de la Géographie. Paris 1715?] fol. BM. Maps. 37.f.13. Also in "G.R. Tibbetts, Arabia in Early Maps (New York: Falcon Oleander Press, 1978), 110.

¹⁴ Ibid.

¹⁵ Clapp, 172.

¹⁶ Claudius Ptolemy, *Geographica*, VI:2f; 27ff.

¹⁷ "Badais may with every justification be identified with the oasis of Bada'a to the south of Laba (La'ban)." Musil, 313.

¹⁸ Ibid., 313.

¹⁹ Ibid., 312.

²⁰ Ingraham, 71.

²¹ Ibid, 74.

²² Musil, 323.

²³ Ibid., 303.

²⁴ Diodorus, *Bibliotheca historica*: vol. III, 43 f.

²⁵ Strabo, *Geography*, XVI, 4:18. Artemidorus alluded to the predilection of the people of the Aleantic gulf (Gulf of Aqaba) to live by brigandage.. "they formerly lived in peace but subsequently took to attacking and robbing the vessels arriving from Egypt "

²⁶ Ingraham, map 5, plate 66.

²⁷ Shihati means "rising ground next to a valley." Groom, *Dictionary of Arabic Topography* and Placenames.

²⁸ Groom, Dictionary of Arabic Topography and Placenames.

²⁹ Ibid.

³⁰ al-Wohaibi, p.42.

³¹ al-Wohaibi, p. 328.

³² Michael McKinnon, Arabia, Sand, Sea Sky (London: Guild Publishing, 1990), 28.

Chapter 9 The Most Fertile Parts

¹ Al-Wohaibi, 315.

² Webster's, 1437.

³ Nibley, *Collected Works of Hugh Nibley*, Vol.6, 229,230.

⁴ Nibley, Collected Works of Hugh Nibley, Vol.6, 89.

⁵ Nibley, Collected Works of Hugh Nibley, Vol.6, 46,47.

⁶ Nibley, Collected Works of Hugh Nibley, Vol.5, 35.

⁷ John Carter, *The Arabian Desert, A Chronicle of Contrast*, (Jedda: Immel, 1983), 16. ⁸ Stacy, 49.

⁹ al-Wobaibi, 59,330,430. The coastal trail lacks both fertile soil and good water. Agriculture seems to have been limited to date palms at al-Nunid, limited tilling a

Ya'quibi – only after rains, and Yanbu where agriculture as made possible after Egyptian engineers brought in irrigation systems in the post-Islamic era. ¹⁰ Taylor, 17. ¹¹ al-Wohaibi, 217. ¹² Groom, 213. ¹³ al-Wohaibi, 217. ¹⁴ Ibid., 214. ¹⁵ Ibid., 216. ¹⁶ Ibid., 201. ¹⁷ Ibid., 215,216 ¹⁸ Ibid., 215. ¹⁹ Groom, Dictionary of Arabic Topography and Placenames. ²⁰ Ibid., 160. ²¹ Ibid., 220. ²² Groom, *Dictionary of Arabic Topography and Placenames*. ²³ Groom, *Dictionary of Arabic Topography and Placenames* (Also see Haiir. Mahiar. Mahajir) ²⁴ Ministry of Education Kingdom of Saudi Arabia, Antiquities Sites of al-Ula and Madain Saleh (Riyadh: Ministry of Education Kingdom of Saudi Arabia). 26. ²⁵ Ibid., 26. ²⁶ Joseph Catafago, *An Arabic and English Literary Dictionary*, 652. ²⁷ Microsoft, Word 2000 software (Redmond, WA, 1999) Thesaurus, "piece". ²⁸ al-Wohaibi, p. 204. ²⁹ Ibid., 208. ³⁰ Ibid., 212. ³¹ Joseph Fielding Smith Jr., *Doctrines of Salvation*, Vol.3 (Infobases: LDS Collectors Library), 344. ³² Hitti, 17-18. ³³ al-Wohaibi, 204. ³⁴ Ibid., 327-328. ³⁵ Ibid., 315. ³⁶ Ibid., 325,326. ³⁷ al Saud, 131. ³⁸ Musil, 322. ³⁹ al-Wohaibi, 127. ⁴⁰ Garth Bawden, "Khief El-Zahrah and the Nature of Dedanite Hegemony in the Al'Ula Oasis", Atlal, The Journal of Saudi Arabian Archaeology, Vol. 3, (Riyadh: Department of Museums, Ministry of Education, 1979), 70. ⁴¹ Ministry of Education Kingdom of Saudi Arabia, Antiquities Sites of al-Ula and Madain Saleh, 13,17. ⁴² Ibid., 13. ⁴³ al-Wohaibi, 220. ⁴⁴ Ministry of Agriculture and Water, Soil Atlas of the Kingdom of Saudi Arabia, 8. ⁴⁵ Collected Works of Hugh Nibley, Vol.5, Part.1, Ch.2, p.35.

⁴⁶ Bawden, 69.

⁴⁷ Bawden, 63.

⁴⁸ Ministry of Education Kingdom of Saudi Arabia, Antiquities Sites of al-Ula and Madain Saleh, 26.

⁴⁹ Ibid., 64.

- ⁵⁰ Ibid., 69
- ⁵¹ Ibid., 69.
- ⁵² Ibid., 67.
- ⁵³ Ibid., 69.
- ⁵⁴ Ibid., 67.
- ⁵⁵ al-Wohaibi, 426.
- ⁵⁶ Ibid., 427.
- ⁵⁷ Ibid., 196.
- ⁵⁸ Ibid., 316, 319.
- ⁵⁹ Ibid., 327,328.
- ⁶⁰ Ibid., 268.
- ⁶¹ Ibid., 160.
- ⁶² Lunde, p. 2.
- ⁶³ Hitti, 19,20.

⁶⁴ Groom (2), 194. Groom calculates the trail from Hijra to Yathrib (Medina) was 215 miles, and a nine to eleven days journey for the commercial caravans. The distance from Dedan to Medina would be approximately 197 miles and an eight to ten day journey. ⁶⁵ Keohane, 22.

⁶⁶ Ministry of Education Kingdom of Saudi Arabia, 10.

The More Fertile Parts and The Camp Of The Chapter 10 **Broken Bow**

¹Groom, 193

² The Asir, *Saudi Arabia at a Glance*. Braodcast on Saudi channel 20th June 2000.

- ³ Hilton (2), 138.
- ⁴ Doe, 67.

⁵ Groom (2), 213.

⁶ *Times and Seasons*, Vol. 6, 799.

⁷ Nibley, *Collected Works of Hugh Nibley*, Vol. 6, 225-226.

⁸ Hilton (1), 113. The Hiltons suggest that Nephi was on the coast and that his steel bow broke because of the high humidity there. Nephi was a youth when he left Jerusalem with a boy's bow. He was now a powerful young man with strength far beyond what the bow was designed to withstand. It follows that the bow, now potentially many years old, most likely broke because it was stressed beyond its design limits.

⁹ H. Walrond, in C.J. Longman and H. Walrond, *Archery* (London:1894), 288.

¹⁰ Jacob, Altarab. Beduinleben, 131f in Hugh W. Nibley (3), Lehi in the Desert, 3rd edition. Salt Lake City: Bookcraft, 1952, 1993). 68.

¹¹ Hilton (1), 113.

¹² A.C. Western and McLeod W, "Wood Used in Egyptian Bows and Arrows", *Journal of Egyptian Archaeology* 81 (1995), 77-94.

¹³ James P. Mandeville, *Flora of Eastern Saudi Arabia* (London: Kegan Paul International Ltd, 1990), 19.

¹⁴ Mandeville, 462.

¹⁵ Ibid., 206.

¹⁶ Encyclopaedia Britannica Vol. 18 (1976) 210.

¹⁷ Anthony Huxley and William Taylor, *Flowers of Greece and the Aegean*, (London: The Hogarth Press. 1989), 109.

¹⁸ Evergreen Garden Works 2000 Descriptive catalogue-Punica. http://evergreen gardenworks.com/punica.html.
 ¹⁹ David Computer Manual M

¹⁹ David George Hogarth, *Hejaz before World war I. A Handbook*, p. 2nd ed. (Cambridge, England: Falcon-Oleander Press, 1917), 136.

²⁰ A. ehrenbergiana, A. tortilus, A. mellifera, A. oerfota, A. hamulosa, A. asak, A. etbaica, A. origena and A. abyssinica. Miller and Cope, Flora of the Arabian Peninsula and Socotra, volume 1, (Edinburgh: Edinburgh University Press, 1996), 18-20.

²¹ König, P.. 'Vegetation und Flora im südwestlichen Saudi-Arabien (Asir, Tihama)', *Diss. Bot.*, 1986101:257.

²² Anthony G. Miller & Miranda Morris, *The Plants of Dhofar* (Oman: Office of the Adviser for conservation of the environment, Diwan of the Royal court of the Sultanate of Oman 1988), 176.

²³ Ibid., 178.

²⁴ Ibid., 333.

²⁵ Ibid., 333.

²⁶ A. Al Hubaishi and K. Müller-Hohenstein, *An Introduction to the Vegetation of Yemen*. (Eschborn: GTZ, 1984), 209. P, Scholte, A. Al Khueidi, and J.J. Kessler, *The Vegetation of the Republic of Yemen (Western Part)* (Sana'a: Environmental Protection Council, 1991).

²⁷ Al Hubaishi, 56.

²⁸ Mandeville, 206.

²⁹ Miller, 19-20.

³⁰ As quoted in Anthony Huxley and William Taylor, 115.

³¹ Miller & Morris, 216.

³² The WorldBook Encyclopaedia, Vol. 14, 750. Chicago: World Book Inc, Encyclopaedia Britannica.Vol. 16 (1976), 936.

³³ The Encyclopedia American Vol. 20, (Danbury, Connecticut: Grolier incorporated: 1976), 712..

³⁴ Academic American Encyclopaedia, Vol. 3, 426. Grolier Inc.,.

³⁵ Neil Holland, email to the authors, Oct. 12, 1998.

³⁶ Neil Holland, email to the authors, December 5, 1998.

³⁷ Miller & Morris, 216.

³⁸ T.G. Tutin, Editor, *Flora Europaea*. Vol. III Diapensiaceae to Myopoaraceae, (Cambridge, England: Cambridge University Press. 1972), 55.

³⁹ Ibid., 216.

⁴⁰ Sheila Collonette. *Illustrated Guide to the Flowers of Saudi Arabia* (London: Scorpion Publishing, 1985), 'O. europaea'.

⁴¹ D. F. Vesey-Fitzgerald, Vegetation of the Red Sea coast of Jedda (Saudi Arabia: J. Ecol., 1955), 45:547-562.

⁴² König, P. 'Zonation in the Mountainous Region of South-western Saudi Arabia', In Kürschner, H, Editor, Contibutions to the Vegetaton of Southwest Asia, *Beih. Tübinger: Atlas Vordenen Orients*, Anr24. (1986):137-166.

⁴³ The Phoenicians called the Rock Hyrax 'shaphan'. When the southern Iberian coast was first colonized they mistook the rabbits for the hyrax and named the new territory 'land of the hyraxes (or Shaphan)'. Spain therefore owes its name to these humble animals.

⁴⁴ H. Kummer, A.A. Banaja, A.N. Abu-Khatwa, A.M. Ghandour, *A Survey of Hamadryas Baboons in Saudi Arabia. Fauna of Saudi Arabia*, 1981, Vol 3. (Basle, Switzerland: Pro Entomologia, c/o Natural History Museum), 441.

Chapter 11-Nahom

¹ In an attempt to locate Nahom in a fertile and inhabited location the following interpretation of verse 35 has been put forward by Warren and Michaela Aston:

"The casual reader may at this point wonder why the daughters of Ishmael would complain so strongly that they might "perish from hunger" if they were encamped at a relatively fertile area. At first glance it appears almost as a contradiction. But if we read the verse in context, it seems clear that their complaint was a general one...Clearly they were in a fertile place (else why would they have tarried for "the space of a time"?), but they knew that their final stop was only temporary and not their final destination." Warren and Michaela Aston. 1991 "The Place Which Was Called Nahom," F.A.R.M.S., paper AST-91a and "In the Footsteps of Lehi", 21.

One wonders why they would complain "we must perish in the wilderness with hunger" if they were in an inhabited place. It seems like a strange 'general' complaint when they had traveled 1400 miles and had not perished with hunger. Why would they think that this would happen then or in the future?

² There is a footnote to this scripture in the Book of Mormon referring the reader to 1 Nephi 18:13 which states "Wherefore, they knew not whither they should steer the ship, insomuch that thee arose a great storm, yea, a great and terrible tempest, and we were driven back upon the waters for the space for three days; and they began to be frightened exceedingly lest they should be drowned in the sea; nevertheless they did not lose me." While this scripture uses the same phrase "driven back" that occurs in Mosiah 1:17, the rest of the story does not fit the storm episode. Mosiah 1:17 states that the lord smote them with famine and sore afflictions yet there is nothing to indicate that on the ship they were suffering from famine, quite the contrary, there was dancing and singing. 1 Nephi 18:6 tells us that the ship was well provisioned with fruits, meat, honey "and provisions according to that which the Lord had commanded us." The family would only suffer famine if their supplies were low. But their supplies could not have been low because after the storm they continued to sail for "the space of many days" (1 Ne. 18:23). If the supplies were low they could not have continued for "many days". The only way to apply this verse to the storm is to invent additions to the Book of Mormon, which Nephi never

placed there, e.g. they stopped off to plant crops somewhere and so the famine ended. It seems far easier to us to apply this scripture to the Nahom incident where it all makes far more sense.

³ Hugh W. Nibley, The Improvement Era, September 1950, 708.

⁴ Jenner & Groom, map of South Arabia.

⁵ In: Kiernan, 31.

⁶ A. Sprenger, *Post und Reiserrouten*, vol. 3. 1864, 14.

⁷ Freya Stark, *The Southern Gates of Arabia* (London: John Murran, 1936), 313.

⁸ Brian Doe (2), Monuments of South Arabia (New York, Falcon-Oleander, 1983), 144.

⁹Archeological Discoveries in South Arabia, figure 33 'Map of Southwest Arabia', compiled by Freso Heybroek.

¹⁰ Stark, map 'The Incense Route of Arabia', Appendix. Care must be taken with Freya Stark's map. Richard Lebaron Bowen noted "Freya Stark attempted to trace the incense route, but used a sketch map full of serious geographical errors." (Bowen, 36).

¹¹ Richard Covington. New Light on Old Yemen. Aramco World, Vol. 49, No. 2, (Dhahran: Saudi Arabia, Saudi Aramco, 1998), 4.

¹² Ibid.

¹³ Remy Audouin, Jean-Francois Berton, Christian Robin: Towns and Temples –the emergence of the south Arabian civilization, General People's Congress, http://:www.gpc.org.ye/ancient.html, 1997), 2.

¹⁴ Ibid., 6.

¹⁵ Covington, 4.

¹⁶ Werner Daum, Editor, Yemen: 3,000 years of art and civilization in Arabia Felix (Innsbruck: Pinguin-Verlag, 1987), 9-11.

¹⁷ Walter W. Müller (2), *Outline of the History of Ancient Southern Arabia*. (General People's Congress (http://www.gpc.org.ye/ancient.html, 1997), 1.

¹⁸ Daum, 10.

¹⁹ Hitti, 54.

²⁰ Covington, 4.

²¹ Tim Mackintosh-Smith, Yemen-Travels in Dictionary Land (London: John Murray, 1997), 32.

²² Ibid., 30.

²³ As found in Playfair, 48.

²⁴ Audouin, 2.

²⁵ Archeological Discoveries in South Arabia, (John Hopkins Press, 1958), 36.

²⁶ Ibid., 76.

²⁷ Audouin, 6.

²⁸ Strabo as recorded in: Doe (1), 69.

²⁹ Robert W. Stookey. 'Yemen: The Politics of the Yemen Arab Republic' (Boulder, Colorado: Westview Press), 11.

³⁰ Ibid., 13.

³¹ Doe (1), 67.

³² Ibid.

³³ H. St. J.B. Philby, *Sheba's Daughters* (London: Methuen, 1939), 42.

³⁴ Stark, 302-303: records:

"This northern road is a shortcut to the Minean lands. It still exists and is used by caravans between Hadhramaut and Yemen whenever there is a condition of comparative tranquility along that wild border. I was in the Hadhramaut at such a time, and met one of these caravans coming by way of 'Abr and Shabwa. The following itinerary for this route was written down by the grandfather of the present 'Attas Sayyids of Huraidha in Wadi 'Amd, and I copied it from his MSS. In Huraidha: he collected the names form beduin, and I give it for what it may be worth. No European has been along this way.

'Arudh 'Ain (border of Hadhramaut)'Abr (marked on maps)Mlais (tiny hamlet)Mishainiq (spring)Shira (wadi, good water)Hadhbar a; Ja'aid (hill in wilderness with water)Khailaifa (little water)Najran:8 days altogether.

³⁵ Taylor, 129,137.

³⁶ Musil, 243.

³⁷ Ross T. Christensen, *Ensign*, August 1978.

³⁸ Warren and Michaela Aston. "The Place Which Was Called Nahom," F.A.R.M.S., paper AST-91a and "*In the Footsteps of Lehi*" (Salt Lake City: Deseret Book, 1991), 10. ³⁹ Nigel Groom, "A sketch map of South West Arabia. Royal Geographical Society,

London, 1976.

⁴⁰ S. Kent Brown (4), "The Place That Was Called Nahom": New Light from Ancient Yemen." Journal of Book of Mormon Studies, Vol. 8, Number 1 (Provo, Utah: F.A.R.M.S., 1999.), 66.

⁴¹ Playfair, 4.

⁴² F.A.R.M.S. reviewers comments, personal communication to the authors, compiled by M. Gerald Bradford, FAX dated July 15th 1998, 4.

⁴³ Hilton (1), 125.

⁴⁴Aston, 18.

⁴⁵ Concerning the politics of Yemen in 1973 we read "However, the most important by far was Sinan abu Luhum, long-time governor of al-Hudayda province and a leader of the Nahm tribe in the Bakil tribal confederation...He was reputed by many to have become the chief broker of Yemeni politics and able to make and unmake governments almost at will." Robert D. Burrowes, The Yemen Arab Republic: The Politics and Development, 1962-1986 (Boulder, Colorado: Westview Press, Inc, 1987), 50.

⁴⁶ Philby,381.

⁴⁷ The account was published in 1872 by Halevy as "Rapport sur une mission archeologique dans le Yemen" in Journal Asiatique, VI, XIX, pp. 1-98, Paris 1872.

⁴⁸ Havyim Habshush, Edited by S.D. Gotein, *Travels in Yemen* (Jerusalem: Hebrew University Press, 1941), 37.

⁴⁹ Philby, 398.

⁵⁰ Salibi, 34. .

⁵¹ Ahmed Fakhry. An Archaeological Journey to Yemen (March-May, 1947), volume 1,. Service des antiquit et de l'Egypte (Cairo: Government Press, 1952), p. 13.

⁵² Habshush, 36. "The mountainous country was covered with hot vapors which gave it a 'rusty' appearance. This part of the Nihm land suffers frequently from shortage of rain, which often compels the inhabitants to take up nomadic ways of life".

⁵³ Paul Dresch, *Tribes, Government and History in Yemen* (where: publisher, 1989), 24. ⁵⁴ Ibid., 3-6.

⁵⁵ Mackintosh-Smith, 32.

⁵⁶ Brown (2), 79.

⁵⁷ Habshush, 37.

⁵⁸ Aston. In the Footsteps of Lehi, 124.

⁵⁹ Salibi, 34.

⁶⁰ Ibid., 34. "It may be assumed that this central oligarchy did not have much control over the Minaean colonies which sprouted, in time, at great distances away from the home base (one such colony seems to have thrived in the Moabite highlands east of the dead sea, where the village called Ma'in continues to exist to this day."

⁶¹ Musil, 243.

⁶² Aston, 24.

⁶³ Musil, 261.

⁶⁴ From the Queen of Saba to a Modern State. 2. http://www.gpc.org.ye/ancient0.html
⁶⁵ Walter W. Müller (2), 7.

Chapter 12 The Trail East

¹ For a summary of Near Eastern Bow Symbolism see: Nahum Waldman, 1978 Jewish Quarterly Review 69:82-88, as reproduced in 'The Breaking of the Bow', Provo, Utah: FARMS.

² Remy Audouin, Jean-Francois Berton, Christian Robin: Towns and Temples –the emergence of the south Arabian civilization, 1997, General People's Congress, hppt\\:www.gpc.org.ye\ye\ancient\, 3.

³ 'Arudh 'Ain (border of Hadhramaut); Abr (marked on maps); Mlais (tiny hamlet); Mishainiq (spring); Shira (wadi, good water); Hadhbar a; Ja'aid (hill in wilderness with water); Khailaifa (little water); Najran: 8 days altogether.

⁴ Freya Stark, *The Southern Gates of Arabia*, p.302-3. John Murran, London, 1936. ⁵ *ibid* p. 303.

⁶ R.A.B. Hamilton, "Six Weeks in Shabwa," Geographical Journal, 100 (1942), p.110.

⁷ Ibn Mujawir vol. 3 p.144. MSS in British Museum. As quoted in Stark.

⁸ Stark, 310.

⁹ Groom, 165,166.

¹⁰ Stark, 315.

¹¹ Jurius Zarins. Archeology Vol. 50 Number 3, May-June 1997. 'Atlantis of the sands'. www.archeology.org/9705/abstracts/ubar.html

¹² Ibid.

¹³ "Know that in the beginning there were twelve male children of 'Ad son of Uz son of Aram son of Shem son of Noah, and God gave them power He gave to no one else.": The Tales of the Prophets of al Kisa'i, trans. W.M. Thackston, Jr. (Boston: Twayne Publishers, 1978), 109.

¹⁴ Clapp, 202.

¹⁵ Peter Vine. *The Heritage of Oman* (London: Immel Publishing, 1995), 39.

¹⁶ Clapp, 205.

¹⁷ A Los Angeles lawyer with a background in archeology, who had made a previous reconnaissance trip across the Mahra region of Yemen.

¹⁸ John Noble Wilford. "Ruins in Yemeni Desert Mark Route of Frankincense Trade", New York Times, Tuesday, January 28, 1997.

¹⁹ Lee Siegel, Washington Post, 11th Feb 1992.

²⁰ Reported by Hugh Davies & R. Barry O'Brien, The Daily Telegraph, Feb 1992.

²³ Thomas Abercrombie, Arabia's Frankincense Trail. National Geographic Vol. 168.
 No. 4. October 1985, 487.

²⁴ Ibid.,191. "An ancient oasis appears to have extended east from Shisur along a fault line that tapped an aquifer charged by the runoff from the Dhofar Mountains. To this day, the wadi overlying this fault is called Umm al-Hait, the Mother of Life." Footnote 2, 306.

²⁵ Ferdinand Wustenfeld, *Jacut's Geographisches Wörterbuch*. (Leipzig: Bei F.A. Brockhaus, 1869), 897.

²⁶ Indeed when George Potter first proposed his theory to me there was no evidence to support it other than his conviction that the Book of Mormon was a true record. This confirmation that Nephi's record was a true account of a crossing of an existent trail only came later.

²⁷ Brown (1),.205.

²⁸ Nigel Groom (2),.213.

²⁹ Taylor, 137

³⁰ Ibid., 108

³¹ Stanley Cramp ed., Handbook of the Birds of Europe the Middle East and North Africa, Vol. 1 (Oxford: Oxford University Press, 1977), 38.

³² Taylor, 138.

³³ Kingdon, 239.

³⁴ Ibid., 102.

³⁵ Hugh Nibley, *The Improvement Era*, May 1950, 382.

³⁶ Bostock & Riley, trans. *The Natural History of Pliny*, vol. 2 (London: Henry G. Bohn, 1885), 252.

³⁷ Hitti, 25.

- ³⁸ Clapp, 276.
- ³⁹ al Saud, 130.

⁴⁰ Clapp, 243.

⁴¹ Ibid., 140.

⁴² Salibi, 9,10.

⁴³ Ben-Sasson, 156.

⁴⁴ Margolis, 110,111.

⁴⁵Ibid., 111.

⁴⁶ Salibi, 31-32.

⁴⁷ al Saud,134.

⁴⁸ As quoted in Clapp, 257.

⁴⁹ Charles J. Lyall, Ancient Arabian Poetry (London: Williams and Norgate, 1930) 113.

⁵⁰ The Koran, N.J Dawood, trans. (New York: Penguin Books, 1981), 159-160

⁵¹ Stark, 313.

⁵² Ibid., 303.

⁵³ Clapp, 188.

²¹ John Beasant, "History Yields its Secrets in Ubar." Gulf News, Thursday March 5th 1992, p.12.

²² Sir Donald Hawley, *Oman*, The Jubilee Edition (London. Stacey Publications,1997), 245.

⁵⁴ Taylor, 95
⁵⁵ Taylor, 113
⁵⁶ Miller & Morris, 176.
⁵⁷ Ibid., 286.
⁵⁸ Clapp, 221-222.
⁵⁹ Lyall, 64.
⁶⁰ Clapp, 89.
⁶¹ Taylor, 118
⁶² Ibid., 126
⁶³ Clapp, 254.

Chapter 13-The Land Bountiful

¹ The Alexandrian Codex in the British Museum has the name more correctly spelled 'Sophar', more in keeping with the Arabic 'Dhofar' or 'Zophar'. S.B. Miles, *The Countries and tribes of the Persian Gulf* (London: Frank Cass & Co. Ltd., 1966), 498.

² Historically two locations existed in southern Arabia that carried the name 'Dhofar'. The first, Dhofar Al-Zaid, came to an end with the Himyarite dynasty in the 6th century A.D.. This second 'Dhofar' is Dhofar Al-Sahil, the port of the frankincense growing area, which the Himyarites annexed in order to control the frankincense trade. This Dhofar Al-Sahil, we will refer to simply as 'Dhofar' from now on. In fact 'Dhofar', which was probably not the name of the port itself but referred to the area in which the port was located, "continued to flourish, as it had done for thousands of years as a thriving and populous seaport; but the ancient history of it has faded into oblivion..." (S.B. Miles, 499), until recently.

³ Clapp, 174-5.

⁴ S.B. Miles, *The Countries and tribes of the Persian Gulf* (London: Frank Cass & Co. Ltd., 1966), 261.

⁵ Theodore Bent and Mrs. Theodore Bent, *Southern Arabia* (London: Smith, Elder & Co. 1900), 230.

⁶ Miller & Morris, p.xiii.

⁷ Ibid., pxv.

⁸ Richard L. Bowen, Jr. (2), "The Primitive Watercraft of Arabia", *American Neptune* 12 (1952): 187-88.

⁹ Michael Rice, *The Archeology of the Arabian Gulf* (New York: Routledge, 1994), 76. ¹⁰ Groom (2), 218.

¹¹ David Neev and K.O. Emery, *The Destruction of Sodom, Gomorrah, and Jericho: Geological, Climatological, and Archeological Background.* (New York: Oxford University Press, 1995), 119.

¹² Samir Hanna and Mohammed Al-Belushi, *Caves of Oman*, (Ruwi, Oman: Sultan Qaboos University & International Printing, 1996), 119-120)

¹³ Clapp, 215.

¹⁴ Hugh Nibley, *The Improvement Era*, September 1950, 708.

¹⁵ Eugene England, 'Through the Arabian Desert', *Book of Mormon Authorship*, Editor Noel B. Reynolds, (Salt Lake City: Bookcraft, 1982), 152.

¹⁶ D.T. Potts, "From Qade to Mazun", Journal of Oman Studies 8 pt.1 (1985): 93.

¹⁷ M.C.A. MacDonald, "North Arabia in the First Millennium B.C.E.," in Jack M. Sasson, *Civilizations of the Ancient Near East*, 4 vols. (New York: Charles Scribner's sons, 1995), 4:1355.

¹⁸ Groom (2), 112.

¹⁹ Miles,360.

²⁰ Clapp, 221-222.

²¹ Werner Daum, Editor. Yemen: 3,000 years of art and civilization in Arabia Felix (Innsbruck: Pinguin-Verlag, 1987), 10.

²² Ibid., 207.

²³ Ibid., 278

²⁴ Clapp., 207.

²⁵ William J. Hamblin, "Pre-Islamic Arabian Prophets", *Mormons and Muslims*, Spiritual Foundations and Modern Manifestations, Edited by Spencer J. Palmer (Provo: Brigham Young University, 1983), 95.

²⁶ Webster's, 672.

²⁷ Webster's , 672.

²⁸ Hilton (2), 51.

²⁹ Pliny, XII 63-65 as recorded in Doe, 19.

³⁰ Miles, 515.

³¹ Bertram Thomas. Arabia Felix-Across the Empty Quarter of Arabia.1932. Charles Scribner's Sons. New York.

³² Hamblin, 96.

³³ Abdullah Yusuf Ali, Meaning of the Holy Qur'an, 1991

³⁴ Hamblin. 52, (see Yaqut, vol. 1, 155)

³⁵ The Tales of the Prophets of al Kisa'i, trans. W.M. Thackston, Jr. (Boston: Twayne Publishers, 1978), 109-110.

³⁶ "Insights", May 2000, Foundation for Ancient Research and Mormon Studies (FARMS) at Brigham Young University, P.O. Box 7113, University Station, Provo, Utah 84602, 7-8

 37 Doe (1), 13.

³⁸ Calvin H. Allen, Jr., *Oman: the modernization of the sultanate* (Boulder: Westview Press, 1987), 21-25.

³⁹ Donald Hawley (2), Oman and Its Renaissance (London: Stacey International, 1977, 153-60), 120.

⁴⁰ In Stephanie Halford and Mike Southworth "Oman Piques LDS Interest", *The Daily Universe*, Vol. 51 issue 135, Tuesday April 7th, 1998, 1.

⁴¹ John Weelan, *Oman* (London: Middle East Economic Digest), 8)

⁴² Doe (1), 55.

⁴³ Tosi, 101.

⁴⁴ Herodotus referred to the early inhabitants of the Erythraean sea as *Ichthyofagoi*, fish eaters)

⁴⁵ Tosi, 101.

⁴⁶ Ibid.,106.

⁴⁷ Ibid., 01-102.

⁴⁸ Miller & Morris:

These are:

- 1. *Bentia fruticulosa*-seed heads regarded as very nutritious fodder, gathered by herders to feed delicate or sickly livestock
- 2. Blepharis sdhofarensis-green seeds regarded as the very best fodder for cattle.
- 3. *Pistacia falcata*-Unripe berries are bitter and were preferred by the women who traditionally preferred the sour tasting acid fruit.
- 4. *Rhus somalensis*-sweet, delicious red berries. Historically large quantities were eaten.
- 5. Sarcomstemmia viminale-whole plant eaten as well as the fruit.
- 6. Carolluma flava- delicious fruits when young.
- 7. Rhytidocaulon fulleri- an uncommon plant with edible fruits.
- 8. *Grewia villosa*-fruits eaten both while immature and green and also when ripe when they are dark red.
- 9. *Grewia tenax*-the fruits were a popular food source in the dry areas where less fruit was available. Tastes like maize.
- 10. Grewia erythraea-sweet, small, delicious fruits.
- 11. Grewia bicolor-formerly a significant food source.
- 12. Ziziphus spina-christa-in earlier times the fruit of this 10m tree was an important source of nourishment.
- 13. Ziziphus leucodermis-Smaller fruit than z. Spina-christa but equally sweet and delicious, found outside the area of monsoon rainfall. Formerly the fruit was of great nutritional importance. The fruits used to be gathered and stored becoming wrinkly with age.
- 14. *Ficus sycamrus*-produced figs which were formerly of vital importance. They could be stored in dry places to be eaten later.
- 15. Cordia perrottetti-a medium sized tree. The fruit formed a cheap and sustaining nourishment to the peoples of the plains.
- 16. Salvadora persica-has edible berries which taste peppery when ripe.
- 17. Citrus aruntifolia-Lime.
- 18. *Loea europaea*-Olives.

Sweet fruits used in absence of sugar or honey as sweeteners.

- 1. Ruttya fruticosa-(important bee forage. Red flowers-Sept/Nov.
- 2. Commiphora gileadsis
- 3. Commiphora habessinica-After the rainy season the branches are cut to produce a sugary liquid. Fruit doesn't ripen every year but is considered good when it does ripen.
- 4. Grewia mollis
- 5. Capparis cartilaginea
- 6. Bosica arabica
- 7. Olea-Produces a honey
- ⁴⁹ Aston, 54.
- ⁵⁰ Ibid.
- ⁵¹ Pamela Done. Personal journal April 13th 1997.
- ⁵² Oman Piques LDS interest, The Daily Universe, vol. 51, issue 135, April 7th, 1998, 1.
- ⁵³ S. Kent Brown, personal communication, August 1998.

⁵⁴ "Nephi's Tools: An Overview of Iron Ore Occurrences in Oman," FARMS Project Report published in "*Insights*", May 2000, p. 7-8. Foundation for Ancient Research and Mormon Studies (FARMS) at Brigham Young University, P.O. Box 7113, University Station, Provo, Utah 84602 ⁵⁵ Clapp,127.

⁵⁶ Ibid., 221-222.

⁵⁷ Ibid.

⁵⁸ Vine, 50.

⁵⁹ Al Qazzouini (died 1283A.D.) Athar Al-Bilad wa alchbar al-abad (monuments of countries and reports of far away places) 56.

⁶⁰ Hanna, 100, 103.

Chapter 14 Nephi's Great Ship

¹ James E. Talmage, The Great Apostasy, Notes, Chapter 1, Note 5 (Salt Lake City: Deseret Book, 1968), 16.

² James E. Smith, *Review of Books on the Book of Mormon*, LDS Infobase), 265

³ Nibley, Collected Works of Hugh Nibley, Vol.6, 25.

⁴ Thor Heyerdahl, Sea Routes to Polynesia (New York: Rand NcNally & Company, 1968), 37-50.

⁵ Andrew Sharp, Ancient *Voyagers in Polynesia* (Berkeley, CA: University of California Press, 1964), 62-74.

⁶ Robert J. Matthews, "Notes on 'Lehi Travels'" Brigham Young University Studies 12, no. 3 (Summer 1972):312-314, spelling, punctuation, and capitalization altered.

⁷ Webster's, "ship".

⁸ Webster's, "boat".

⁹ Lyle L. Fletcher, From the Wilderness Of Arabia to the Precious Land of Promise, (written for F.A.R.M.S. Provo, 1999), 25, 26.

¹⁰ Ibid., 21.

¹¹ Tim Severin, *The Sindbad Voyage* (New York: G.P. Putman's Sons, 1983), 18.

¹² Ibid., 20.

¹³ Lionel Casson (1), Ships and Seafaring in Ancient Times (Austin, TX: University of Texas Press, 1994), p. 11.

¹⁴ Severin (1), 14.

¹⁵ Tom Vosmer, Director of The Traditional Boats of Oman Project, Maritime Museum of Western Australia, email to authors 25 May 2000, Tom Vosmer – Email May 25, 2000 (Tom Vosmer Research Institute for Cultural Heritage Curtin University of Technology PO Box U 1987 Box U 1987 PERTH, WA 6845 Australia Tel/Fax (08) 9336 1716 Email <<u>PVOSMER@cc.curtin.edu.au</u>).

¹⁶ Tim Severin (2) "Construction of the Omani Boom Sohar," in Sean McGrail and Eric Kentley, eds., Sew Plank Boats, BAR International Series 276 (Oxford: B.A.R., 1985), 285.

¹⁷ MNHC (Omani Ministry of National Heritage and Culture), Oman, a Seafaring Nation, 2nd Edition, (Sultanate of Oman: Oriental Printing Press, 1991), 108. ¹⁸ Fletcher, 24. ¹⁹ Sherren Ratnagar, Encounters: The Westerly Trade of the Harappa Civilization (New Delhi: Oxford University Press, 1981), 158.164. ²⁰ MNHC, 62. ²¹Ibid., 22,110. ²² Footnote 1 Nephi 18:23) ²³ John Illsley, *History and Archaeology of the Ship*, *Lecture Notes*, *Nautical* Archaeology, (Banger University, May 5, 2000), http://www.history.bangor.ac.uk/shipspecial/shlecmen.htm. ²⁴ MNHC, 154. ²⁵ Ibid., 146. ²⁶ MNHC, 146. ²⁷ Illsley, #20. ²⁸ Groom (2), 50. ²⁹ Ibid. ³⁰ Illsley, #25. ³¹ Ibid., #22. ³² Ibid., # 31. ³³ Ibid. ³⁴ Ibid., # 32. ³⁵ 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 have that sailed by Nephi. ³⁶ Harry Morton, The Wind Commands: Sailor and Sailing Ships in the Pacific (Middletown, CT: Wesleyan University Press, 1975), 164. ³⁸ Severin (1), 82. ³⁹Ibid., 162. ⁴⁰Ibid., 163. ⁴¹ Ibid., 81. ⁴² Ibid., 132. ⁴³ Ibid. ⁴⁴ Ibid., photos. ⁴⁵ Archors, 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. ⁴⁶ Illsley, # 34. ⁴⁷ Lionel Casson (2), *The Periplus Maris Erythraei* (Princeton, NJ: Princeton University Press, 1989), 283. ⁴⁸ Severin (1), 66. ⁴⁹ Frank Linehan, Personal communications with the authors, June, 1999. ⁵⁰ Miles, 412. ⁵¹ Shirley Kay, *Seafarers of the Gulf* (Dubai, UAE: Motivate Publishing, 1992)..43.

⁵² Bahrain National Museum, Manama, Maritime Display, on October 16, 1999.

⁵³ Two of the three ships in which Christopher Columbus made his historic voyage in 1492 were caravels, the *Niña* and the *Pinta*. A typical caravel of the late 15th century may be described as a broad-beamed vessel of 50 or 60 tons burden; some were as large as 160 tons. About 75 feet (23 m) long, the typical caravel had two or three pole masts.' *Britannica CD 99 Multimedia edition*.

⁵⁴ Jose Maria Martinez Hidalgo, ed. By Howard I. Chapelle, 'Columbus' ships. (Mass: Barre Publishers, 1966), p.93. Estimates 60 feet long Martinez prefers 10 feet longer.
 ⁵⁵ Nibley, Collected Works of Hugh Nibley, Vol.5, 123.

⁵⁶ Ibid., Vol. 8, 277-78.

⁵⁷ MNHC, p 108.

⁵⁸ Severi (1), 207.

⁵⁹Ibid., 20.

⁶⁰ John L. Sorensen, *The Book of Mormon: First Nephi, The Doctrinal Foundation*. (1988) 'Transoceanic crossing', p.257.

⁶¹ Severin (1), 18.

⁶² Ibid., 207.

⁶³ William Shakespeare, The Merchant of Venice (1596-98) act 1, sc. 3,1.

⁶⁴ Diary of Brigham Young, 290-291.

⁶⁵ Ibid, 291.

⁶⁶ Severin (1), 18.

⁶⁷ Our thanks go to Dr. Steven and Pamela Done, avid sailors, who after visiting wadi Sayq, pointed out to us that a large sailing vessel could not be launched into breaking surf. Their insights lead to our line of thought that culminated in this article.

⁶⁸ Bent, 233,240.

⁶⁹ Bowen (2), 190.

⁷⁰ Ibid.

⁷¹ Djazirat al-Arab," *The Encyclopedia of Islam*, new ed., 8 vols. (London: E.J. Brill, 1960), 1:535-36.

⁷² Bent, 230.

⁷³Severin (1) 51-52.

⁷⁴ Kay,48.

⁷⁵ Severin (1), 77-78.

⁷⁶ Ibid., 80.

⁷⁷ Gene Savoy, Andean Explorers Foundation & Ocean Sailing Club website, http://www.aefosc.org/notes.htm, May 5, 2000.

⁷⁸ Severin (1), 37,38.

⁷⁹ Ibid., 42.

⁸⁰ Ibid., see photographs.

⁸¹ Ibid., 43.

⁸² Severin (2), 279-80.

⁸³ Email from Tom Vosmer, 24 May 2000.

⁸⁴ Illsley, # 12.

⁸⁵ Email from Tom Vosmer, 25 May 2000

⁸⁶ Fletcher, 28.

⁸⁷ Thomas D.S Key, *Journal of the American Scientific Affiliation*, Vol. 37, No. 2, Jun 1985. 96-99.

⁸⁸ Ratnagar, 164-165.

⁸⁹ Ibid., 40.

⁹⁰ Severin (1), 31.

⁹¹ Norbert Weismann, email correspondence with authors, Kamen, Germany, <u>0230774382-0001@t-online.de</u>, 17 May 2000.

⁹² MNHC, 154,155.

⁹³ Severin(1), 40.

⁹⁴ Ibid., 41.

⁹⁵ Fletcher, 21.

⁹⁶ 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.

⁹⁷ Nigel Groom(2) 51.

⁹⁸ Lionel Casson (3), Ancient Trade and Society (Detroit: Wayne State University Press, 1984), 285.

⁹⁹ Fletcher, p. 26

¹⁰⁰ Severin(1), 102.

¹⁰¹ Ibid., 132.

¹⁰² Ibid., 133.

¹⁰³ MNHC, 113.

¹⁰⁴ Severin(1), 41.

¹⁰⁵ Ibid., 42.

¹⁰⁶ Morton, 207.

¹⁰⁷ Severin(1), 132.

¹⁰⁸ Ibid., 45.

¹⁰⁹ Ibid., 58.

¹¹⁰ Ibid., 58,59. ¹¹¹ Ibid., 54.

 112 Ibid., 54.

¹¹³ Ibid., 55.

¹¹⁴ Ibid., 55.

¹¹⁵ Ibid., 56.

¹¹⁶ Ibid., 62.

¹¹⁷ Ibid., 68.

¹¹⁸ Ibid., 68.

¹¹⁹ Ibid., 79.

¹²⁰ Ibid., 46.

¹²¹ Fletcher, 31.

¹²² Severin(1), 77.

¹²³ Ibid., 158.

¹²⁴ Casson (3), 187.

¹²⁵ Severin(1), 18.

¹²⁶ Morton, 161. ¹²⁷ Ibid., 163. ¹²⁸ Ibid., 167. ¹²⁹ Ibid., 187-188. ¹³⁰ Ibid., 190,191. ¹³¹ Ibid., 197. 132 Maritime Academy. California webpage. July 6. 1999. The www.mma.mass.edu/academic.../courselist.gry?code=mt&name=Marine%20Transportion ¹³³ Lewis Carroll (Charles Lutwidge Dodgson), The Hunting of the Snark (1876) 'Fit the Second: The Bellman's Speech'. ¹³⁴ Severin(1), 17. ¹³⁵ Ibid., 108,110. ¹³⁶ Ibid., 142. ¹³⁷ Ibid., 144.

¹³⁸ Fletcher, 9.

Chapter 15 Nephi's Harbor

¹ Norbert Weismann, German Maritime Archeologist specializing in Oman, e-mail communication with the authors, 17th May 2000.

² Casson (2), 283

³ Ibid., 290.

⁴ Severins (1), 156-175.

⁵ Hilton (1), 143.

⁶ John A. Tvedtnes, *Review of Books on the Book of Mormon*, reviewing John C.

Kunich "Multiply Exceedingly: Book of Mormon Population Sizes", (LDS

Infobase), 24.

⁷ Sydney B. Sperry. 'Did Father Lehi have Daughters Who Married the Sons of Ishmael?' *Journal of Book of Mormon Studies*, Vol.4 Number 1, F.A.R.M.S., 235.

⁸ Michael Crichton, *Eaters of the Dead, The Manuscript of Ibn Fadlan Relating His Experiences with the Northmen in A.D. 922.* (New York: Ballantine Books, 1976), p. 12. ⁹ Ibid., 22.

¹⁰ Hilton (1), 139-147.

¹⁴ Dina Kraft In The Deep For A Long Time-Oldest Shipwrecks Ever Discovered In The Zmreditterranean.

http://abcnews.go.com/sections/science/DailyNews/shipwrecks990623.html 1/21/2000 See also: MIT News June 23rd 1999. http://web.mit.edu/newsoffice/nr/1999/ship.html ¹⁵ Illsley, #24/1.

¹⁶ A 'ton' here is the U.S. 'short ton' of 2,000lbs.

¹¹ Ibid., p.71.

¹² Ibid., p.143.

¹³ Illsley, #16/1.

²³ Bowen (2),190.

²⁴ Ibid., 190.

²⁵ Miles, 502.

²⁶ Clapp, 215.

²⁷ G.R. Tibbetts, *Arabia in Early Maps* (New York: The Oleander Press, 1978), 16.

²⁸ Vine, 50.

²⁹ Djazirat al-Arab, *The Encyclopedia of Islam*, new ed., 8 vols. (London: E.J. Brill, 1960), 1:535-36.

³⁰ S.B. Miles wrote "The port of Soor, near Ras al Had, has a name identical with that of Tyre or Soor in the Mediterranean, and was, beyond doubt, the prototype of it. (*Here he is referring to Herodotus who wrote that the Phoenicians came to Palestine from the Persian Gulf, a tradition that we have encountered from many residents of the eastern province of Saudi Arabia and also Oman*). The town pf Soor, part of which is called Elijah, is situated on a rocky eminence at the mouth of a serpentine creek, and has always possessed one of the most useful, safe and commodious harbours for native craft on the Oman coast." (Italics added). Miles, 2.

³¹ MNHC, 2.

³² Nayanjot Lahiri, *The Archeology of Indian Trade Routes up to c. 200B.C.*. (Delhi: Oxford University Press, 1992), 394.

³³ Jean-Francois Salles, "Achaemenid and Hellenistic Trade in the Indian Ocean", in Julian Reade, ed., *The Indian Ocean in Antiquity*. (New York: Kegan Paul International, 1999), p.254.

³⁴ Doe(1), 55.

³⁵ Bertram Thomas, *The Arabs* (London: Thornton Butterworth, 1937), 262.

³⁶ Groom (2) 49-50.

³⁷ Salibi (2), 185.

³⁸ LDS. Bible Dictionary 'Tarshish'.

³⁹ Andes Exploration Foundation, May 20, 2000, http://www.aefosc.org/ophir/index.htm

⁴⁰ Groom (2), 49.

⁴¹ Bent, 240.

- ⁴² In Vine, 51.
- ⁴³ Groom (2), 110.
- ⁴⁴ Doe (2), 21.
- ⁴⁵ Clapp, 114.

⁴⁶ Clapp, 116. Nuggets of incense have been found in all parts of Samhuram (Doe (2),147) suggesting that it was a storage facility for incense prior to shipping. However the Periplus notes frankincense "lies in heaps all over...open and unguarded." We noted that the 'boats', rings of rock, at khor Suli were small as were then boats in the upper portion of khor Rori, where the khor was smaller. There were far larger ring structures

¹⁷ Illsley, #32/1.

¹⁸ Casson (3), 189-190.

¹⁹ Illsley, #32/1.

²⁰ Aston, 5-11.

²¹ Vine, 52.

²² Miles, 519.

adjacent to Samhuram, where the khor is deep and wide. This leads to the conclusion that these 'boats' may have been a perimeter into which the incense was placed prior to shipping. The small ones would load a small vessel and are found in the small khor Suli and in the shallower part of khor Rori. The large rings are found adjacent to where the large ships would have moored under the watchful eye of the overseers in Samhuram, which may have been an administrative centre where the incense was weighed and where permission for departure was granted. The Periplus notes that "It is impossible, either by stealth or openly, to embark on a ship without Royal authorization, and if anyone takes a single tiny lump of it, the ship cannot weigh anchor."

⁴⁷ The "Adites made unique trihedral arrowheads, dating of which shows that the 'Ad inhabited Dhofar from 4,500B.C. to 500A.D. (Clapp *Op. Cit.*, p224.) The migration of the 'Ad to the Dhofar mountains took place in about 2,500 B.C. (Clapp *Op. Cit.*, p230.) ⁴⁸ Vine, 50.

⁴⁹ Clapp, 127.

⁵⁰ Norbert Weismann, email correspondence with authors, Kamen, Germany, <u>0230774382-0001@t-online.de</u>, 17 May 2000.

⁵¹ MNHC, 20.

⁵² MNHC, 14.

⁵³ MNHC, 107,108.

⁵⁴ A. Sprenger: *Post und Reiserouten*, 1864. As recorded in Stark, 294.

⁵⁵ MNHC, 107.

⁵⁶ George Fadlo Hourani, Arab Seafaring in the Indian Ocean in Ancient and Early Medieval Times (Princeton: Princeton University Press, 1951), 91.

⁵⁷ MNHC, 146.

⁵⁸ Severin(2), 279-280.

⁵⁹ Tom Vosmer: e-mail communication with the authors 9th June 2000.

⁶⁰ Kay,47-48.

⁶¹ Illsley, #12/1.

⁶² Norbert Weismann e-mail communication with the authors 17th may 2000.

⁶³ Acacia nilotica-an excellent building wood preferred over *Aniogeissus dhofarica* which frequently split with age; *Aniogeissus dhofarica*-commonly occurring endemic tree was an important source for timber for building; Allophylus rubifolius-A small tree up to 5m tall which provided good building wood but is not common; *Olea europaea*-grows 2-3m tall. Strong termite proof wood is used in building. The beams and rafters of the town houses and the strong roof-supporting pillars of stone houses were made of this wood whenever possible. It is the hardest, closest grained wood of the area. *Ziziphus spina-christi* was probably never common enough to have been used for building to any great degree. Other timber producing trees in Dhofar, albeit soft wood, include: *Boscia arabica*; *Prosopis cineria*-a leguminous tree found at Mughsin; Pappea capensis-found only in one area east of Jabal Samhan; *Ficus vasta*-grows up to 45m tall, although only seen to 20m in Dhofar. It is the tallest tree in Dhofar; *Tamarindus indica*-a commonly occurring tree; *Delonox elata*; *Sterculia africana*; *Lannea* species;; *Euphorbia smithi*; *Blepharispermum hirtum*; *Adansonia digitata*-the baobab; *Ficus sycamorus*-5-10m tall (up to 20m elsewhere); *Ficus salicifolia*; *Ficus lutea*.

Anthony G. Miller & Miranda Morris: *The Plants of Dhofar*, 1988, Office of the Adviser for conservation of the environment, Diwan of the Royal court of the Sultanate of Oman. ⁶⁴ Tom Vosmer, e-mail communication with the authors 11th June 2000.

⁶⁵ Rob Baldwin, The Sultanate of Oman, Internet site, <u>http://www.arabian</u> wildlife.com/vol2.2/oma.htm.

⁶⁶ Ahmed Musallam Al-Kathiry, Ettin Tours, P.O. Box 2195 Salalah, Oman.

⁶⁷ Hanna,103.

⁶⁸ Geoffrey Bibby, *Looking for Dilmun*. (Harmondsworth, England: Penguin Books Ltd.),
 208.

⁶⁹ Clapp, 215.

⁷⁰ MNHC, 146.

⁷¹ Five thousand year old models of reed boats, covered in pitch, have been found in Sumaria.

⁷² Bahrain National Museum. General Editor Peter Vine. 1993.pp.46-47.

⁷³ 'Shipwirghts of Magan" are mentioned in a text from the Sumerian city of Lagash of about 2050B.C., MNHC, 16.

⁷⁴ John L. Sorensen, *The Book of Mormon: First Nephi, The Doctrinal Foundation*. 'Transoceanic crossing'(1988), 257.

⁷⁵ MNHC, 146.

⁷⁶ Ibid.

⁷⁷ Tosi., 94.

⁷⁸ Periplus of the Erythraean sea as quoted in. MNHC, 26.

⁷⁹ MNHC, 96.

Chapter 16-A Tribute to Nephi

¹ Translation of the Persian inscription on the cover of Vol. II: *The Pearl-Strings; A History of the Resuli Dynasty of Yemen*, by 'Aliyyu'bnu'l-Hasan 'El-Khazreji, trans. by the late Sir J.W. Redhouse ed. & Trans. J.W. Rehouse, Ed. E.G. Browne, R.A.Nicholson & A. Rogers. Leyden: E.J. Brill, Imprimerie Orientale, 1907.

² Noel B. Reynolds, *Book Of Mormon Authorship, New Light On Ancient Origins*, (Salt Lake City: Bookcraft, 1982), 53.

³ *ibid*. p33

⁴ John Forbes, '*The symmetrical structure of scripture*', (Edinburgh: T. & T. Clark, 1854), as quoted in John Welch, Chiasmus in the Book of Mormon, *Book of Mormon Authorship*, Reynolds, p. 38.

Chapter 17-A Tribute To Joseph Smith, the Translator

⁵ J.W. Jack. Palestine.Exploration Fund Quarterly. 38, p.177.

⁶ W.F. Albright. Palestine Exploration Fund Quarterly, 38, p.175.

⁷ Rolph, 30.

² The word 'gentile' here is used meaning those individuals who are members of the House of Israel by adoption rather than by birth

³ Statement of Emma Smith to her son Joseph Smith III, February 1879 cited in *The Saints Herald*, volume 26, pp.289-290. October 1st 1879.

⁴ Daniel H Ludlow. A companion to your study of the Book of Mormon, p.24.

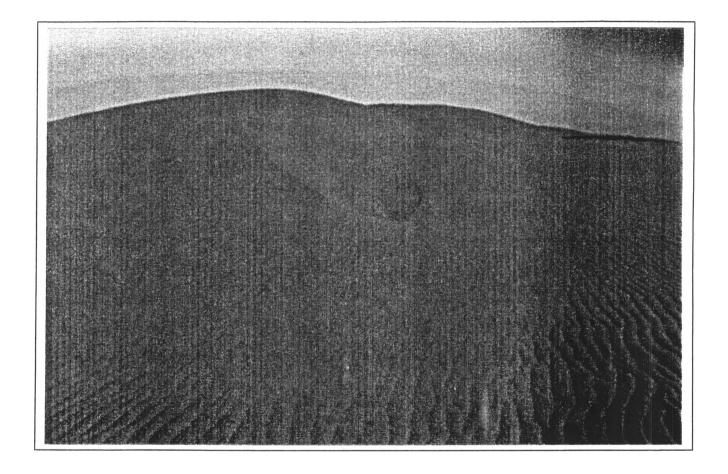
⁵ Translation of the Turkish inscription on the cover of Vol. II: *The Pearl-Strings; A History of the Resuli Dynasty of Yemen*, by 'Aliyyu'bnu'l-Hasan 'El-Khazreji, trans. by the late Sir J.W. Redhouse ed. & Trans. J.W. Redhouse, Ed. E.G. Browne, R.A.Nicholson & A. Rogers, (Leyden: E.J. Brill, Imprimerie Orientale, 1907).

⁸ Abdullah al-Baradduni, *Fununal-adab al-sha'bi fi'l-yaman*,1995. As recorded on p.i. Tim Mackintosh-Smith, *Yemen-Travels in Dictionary Land* (London: John Murray, 1997).

¹ Erastus Snow. Journal of Discourses 23:184-185.

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