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Part 2: "Into the Wilderness"

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Abstract: Nephi's account focuses on the spiritual dimensions of the unfolding Lehite drama. However, he seems to have also been aware of the need to include the broad outlines of its geographical setting. By anchoring this momentous story in the real world of deserts, rivers, and mountains, Nephi gives it more color and depth. Clearly, a thousand years later, Mormon saw the historical and geographical context of a spiritual record significant enough to retain in his editing of the book that now bears his name. These references have become a primary means of establishing Nephi's record as a completely credible account of an ancient journey.

That Nephi kept his own record also proved highly providential when the "Book of Lehi," comprising the 116 pages of translated manuscript, was lost in 1828 through the actions of Martin Harris. As discussed in Part 1, this material was never recovered or re-translated by Joseph Smith. It remains lost today, taking from us the fuller account of Lehi's journey.

PART 2 "Into the Wilderness"

"...the Lord commanded my father, even in a dream, that he should take his family and depart *into the wilderness.*"

(1 Nephi 2:2)

Introduction

Nephi's account focuses on the spiritual dimensions of the unfolding Lehite drama. However, he seems to have also been aware of the need to include the broad outlines of its geographical setting. By anchoring this momentous story in the real world of deserts, rivers, and mountains, Nephi gives it more color and depth. Clearly, a thousand years later, Mormon saw the historical and geographical context of a spiritual record significant enough to retain in his editing of the book that now bears his name. These references have become a primary means of establishing Nephi's record as a completely credible account of an ancient journey.

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Mapping the Journey from the Text

In the introduction to his First Book, Nephi states that his record includes "the course of their travels." A careful analysis of his account reveals that, as promised, Nephi did record a directional statement for every stage of the land journey that his family made across Arabia:

From Jerusalem to the Valley of Lemuel (2:4, 5):

...he departed into the wilderness....by the borders near the shore of the Red Sea and...in the borders which are nearer the Red Sea.

From the Valley of Lemuel to Shazer (16:13):

...we traveled for the space of four days, [in] nearly a south-southeast direction.

From Shazer to the place where Nephi's bow broke (16:14):

...we did go forth again in the wilderness, following the same direction.

From the place where the bow broke to Nahom (16:33):

...we did again take our journey, traveling **nearly the same course** as in the beginning.

From Nahom to Bountiful (17:1):

...we did travel **nearly eastward** from that time forth.

Of course, the *general* directions taken by Lehi and his family in their flight from Jerusalem have never been in question. Rather than moving south west into Egypt, usually thought of as the traditional place of refuge, Lehi and his family traveled south east to the Red Sea and on into Arabia, arriving first in the ancient land of Midian. From their encampment in the Valley of Lemuel, the group then traveled initially in "nearly a south-southeast direction" (16:13) through the inland desert wilderness. As this is, in fact, very close to being the correct direction for land travel down the western side of Arabia, we have to assume that Nephi's directions meant the same that they do today.

We learn from these verses that Nephi could determine, perhaps with the aid of the Liahona, that the direction of travel from the Valley of Lemuel to Shazer was in *nearly* a south-southeast direction. This

effectively means that he could distinguish between directions of less than 22.5 degrees, or less than 1/16th of the compass. The following verse, reporting travel from Shazer to the camp where his bow broke (16:14), confirms his ability to ascertain that there was no change in direction. However, over the next stage of the journey, from the place of the broken bow to the location where Ishmael died, Nephi notes a deviation ("nearly the same course") in the direction.

All this makes it clear that Nephi could accurately determine quite precise, not merely general, compass directions. This ability has especially profound implications when later we examine the final stage of travel, from Nahom to Bountiful.

"Up to" and "down from" Jerusalem

Embedded in the opening chapters of Nephi's account is another remarkable testament to his ability to record accurate, real-world geographical facts. As a native of Jerusalem, Nephi knew first-hand that travel from the city in the Judean mountains in any direction literally meant going "down from" it; and that to travel to Jerusalem was to "go up." Jerusalem's elevated geography is further, uniquely, accentuated by the huge Wadi Arabah to its east, containing the Dead Sea, some 1,300 feet *below* sea-level. In no less than 25 instances, Nephi's first-hand record correctly uses the terms in the same manner that biblical writers also did when discussing the various travels of the family to and from Jerusalem.

Significantly, though, this convention was *not* continued in the Book of Mormon by later authors and editors. While they likely knew that Jerusalem was situated in mountains, that knowledge had less impact and relevance to those who had not personally experienced the topography of the Holy City themselves. Writing years later in the

New World, Nephi himself adapted his terminology to suit, as when he prophesied of a distant day when his descendants would be taught "that we came out from Jerusalem" (2 Nephi 30:4). In this context, speaking of the gradient leading down from Jerusalem or the directions traveled-another point of consistency - would be simply superfluous; unnecessary detail when addressing people who never knew Jerusalem first-hand.

We also find that topographical statements concerning Jerusalem are completely absent from Nephi's brief introduction to the First Book of Nephi. Although it mentions the initial exodus from Jerusalem twice, and the return of Lehi's sons to obtain the records of Laban, there are no qualifying terms referencing geography. It was simply unnecessary detail in a summary. Later writers in the Book of Mormon were not unaware of the term to "go up." In Mosiah 10:10, for example, Zeniff uses the term three times when describing a battle against the Lamanites. Yet, just two verses later (vs. 12), when referring back to the original departure from Jerusalem, there is no "down from" attached to it. This consistency is a striking affirmation of both multiple authorship and of the record's historicity.¹

Places of Refuge

In this part of the world, Egypt, to the southwest, was long thought of as being the land of refuge, the usual place one would head in exile or if seeking safety. From Old Testament times, figures such as Abraham, Jacob, Jeroboam, Jeremiah, and the "remnant of Judah" all sought safety in Egypt, just as Joseph, Mary, and the baby Jesus did centuries later. However, by heading instead southeast, Lehi was entering the main trade route that led into Arabia proper. In Lehi's day, this route was already commercially important. Scholars are still uncovering the extent of the ties between Lehi's land and Arabia, but they are increasingly well attested.²

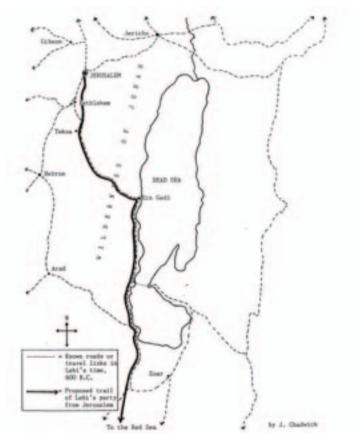
A related dimension to Lehi's flight into Arabia comes from *another* place of refuge over the ages: Sinai, the sacred mount where the divine law was given to Moses. Elijah, for example, fled to Mt. Sinai and lived in a cave there (1 Kings 19:1-21) and Paul may have traveled there after his conversion (Galatians 1:17, 4:24-25). While the traditional candidates for Mt. Sinai lie in the Sinai, some writers have proposed that the biblical Sinai lay in the land of Midian, in Arabia, where Moses had lived some forty years. This concept has the miraculous crossing of the Red Sea taking place across the Gulf of Aqaba, with the Israelites then moving north through Midian to eventually reach their promised land. If such a scenario is considered tenable it would be significant to the Lehite account, as their route passes close to the distinctive Mt. Lawz, its candidate for Mt Sinai. In this scenario, Lehi's escape from Jerusalem would thus have followed the time-honored practice of fleeing to Mt. Sinai to avoid persecution.³

Departing Jerusalem

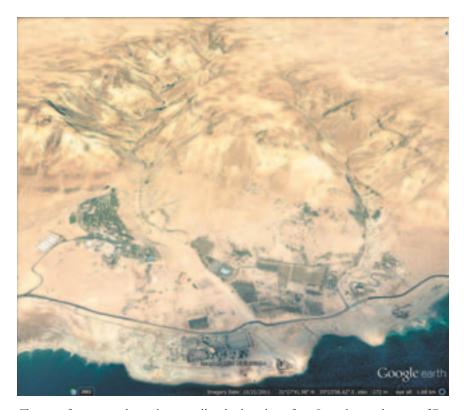
Nephi's plain statement that the family "departed into the wilderness" (2:4) is actually much more descriptive than first appears. Several logical possibilities exist for the route leaving Jerusalem. The eastward descent from Jerusalem down the ancient road past Jericho and across the Jordan River that some commentators have theorized can be discounted; it would have required them to enter the enemy lands of Ammon and Moab before they could turn southwards toward the Red Sea. Escaping eastward would also require days of extra traveling time, a significant factor if some of the group were on foot.

The much more plausible and direct route would see them moving southward past Bethlehem and Tekoa, and then descending through the Arugot valley to Ein Gedi, the freshwater oasis that sits midway on the west coast of the Dead Sea. Known anciently as the *Ascent of Zin*,

many scholars favor this route as the one taken by the wise men from the East who, when warned by God through a dream, "departed into their own country another way" (Matthew 2:12). A less likely, although still possible, alternative has the Lehites continuing southward past Bethlehem and then past Hebron and Arad, down to the southern end of the Dead Sea. In both cases, these routes lead into the wide rift valley of *Arabah*, a name that actually means *wilderness*, just as Nephi had recorded.⁴



Lehi had several options available to him when leaving Jerusalem. The most likely route is marked in *bold*. All possible routes, however, lead into the Arabah ("Wilderness") valley and to the mouth of the Red Sea and the beginning of trade routes deep into Arabia proper. Map courtesy of Jeffrey R. Chadwick.



This view facing west shows the two valleys leading down from Jerusalem to the oasis of Ein Gedi on the western shore of the Dead Sea. The most likely route taken by the Lehite group was known anciently as the *Ascent of Zin*. It is the larger valley, Nahal Arugot, visible in the upper left. It has a permanent fresh-water spring.

In the most likely scenario, therefore, Lehi and Sariah's group would have traveled southwards through the Arabah along the west side of the Dead Sea. This offered an easy passage to the Red Sea, known since the days of Moses as the "way of the Red Sea" (Numbers 14:25, 21:4 and Deuteronomy 2:1 are the earliest references). It is probable that Lehi and his sons knew the area well and had often traversed it in their business activities, which certainly included trade with Egyptian traders somewhere, if not in Egypt itself.

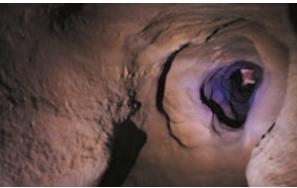


The terrain of the Arabah valley offers easy access to the Red Sea. This view on the Jordanian side of the valley faces southwards.



The journey south to the Red Sea takes the traveler past the lowest point on earth, the Dead Sea, seen here on its western [Israeli] side.





Remains of the ancient copper mines dating back to before Lehi's day are visible today at Timna above and below ground. Underground image courtesy of Alana Aston Orth.

The family of Lehi and Sariah seems to have traveled from Jerusalem without any extended stops until they reached the area of the modern ports of Eilat and Aqaba. These ports lie at the arm of the Red Sea called the Gulf of Aqaba, a distance of about 180 miles/290 km from Jerusalem, or some 8-10 days travel. Shortly before arriving at the Red Sea they would have passed close to the ancient copper mines in the Timna Valley, in operation centuries before Lehi's day. Recent excavations

show that the mines were worked extensively from the eleventh to ninth centuries BC, during the reigns of David and Solomon, but probably by the semi-nomadic Edomites.⁵ As there are also undisputed traces of Egyptian involvement with the mines, including an Egyptian temple, they are an obvious possibility for the source of Lehi's Egyptian connections, and therefore at least one source for Nephi's expertise in metallurgy. With the Timna mines being on the major route to the Red Sea and to Egypt, we can be sure that both men were familiar with them.

The arrival of the Lehite group at the Red Sea was in the area of ancient *Ezion-Geber*, or Elath, a stop familiar to the wandering Israelites under Moses (Numbers 33:35) and later the ancient port of King Solomon (1 Kings 9:26-38). Today named Eilat, it remains a vital shipping port at the southernmost part of modern Israel, and sits only a few miles west of the modern Jordanian city-port of Aqaba. At this point, Nephi's text mentions that they "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" (2:5). In this instance at least, while the term "borders" normally just refers to the divisions between places, Nephi's "borders" were likely marked by mountain ranges.



The first stage of the journey: from Jerusalem into Arabia.





To continue into Arabia proper from Arabah, a traveler must travel down the *east* side of the Gulf of Aqaba, visible behind the Jordanian city port of Aqaba in this aerial view. Aqaba's counterpart, the Israeli city port of Eilat, is visible in the foreground. The ground-level view is taken from Aqaba on the eastern side looking across to Eilat.





The interior plateaus of Saudi Arabia can be accessed through valleys crossing the Mazhafah mountains south of Aqaba, visible in these aerial and satellite views looking southward.

To continue in the same direction would lead into the Sinai and into Egypt, so at this point the Lehite group headed east past modern Aqaba, thus entering Arabia. This then allowed them to travel southeast along the eastern coast of the Gulf of Agaba; however, it is possible to remain on the coast for only about the first 45 miles/73 km. Once the modern Bir Marsha in Saudi Arabia is reached, the Mazhafah Mountains literally reach right to the edge of the sea (thus perhaps the "the borders which are nearer the Red Sea"), leaving no space even for a narrow pathway along the coast. Forced inland by the terrain, several routes offer the traveler access to the interior mountain plateaus. Both the ancient trade routes and modern roads acknowledge this geographical reality; the modern main route south into Arabia leaves the coast at the town of Al Humaydah, roughly midway in the coastal plains. From here, Wadi Jurfayn leads inland to the eastern edge of the Mazhafah ranges, where the Valley of Lemuel must lie. If Lehi followed this conventional trail, it may explain why he seems to have been initially unaware that the valley extended all the way through the mountains to the Red Sea.

Desert Travel Logistics

While their initial escape may have been on donkeys or mules, there can be no question that from the Valley of Lemuel onwards, the Lehite group traveled using camels, the single-humped Dromedary, to carry them, their tents, and other provisions. A mature camel can carry loads of up to a thousand pounds for days without water, although a more typical load would be about half that. No other animal can survive the long stretches of desert travel required. Once loaded, camels need to keep to level ground, thus trails tended to follow plateaus and valley bases through the mountain ranges, at odds with the popular image of loaded camels crossing rolling, golden sand dunes.

Although goats and perhaps mules likely also accompanied Lehi and Sariah's group, camels were the primary means of survival. More than any other factor, the omni-competent camel was the key to allowing travelers to survive heat, sand-storms, hunger, and thirst in the desert. Invaluable for carrying people and goods, camels allowed civilizations in the desert to develop. For a group of six people initially, it is probable a minimum of ten to twelve camels would be needed to transport their hundreds of pounds of tents and supplies; as the group's size increased, more camels could have been obtained by trading.

To the traveler, these remarkable animals provided dung for fuel, skins, hair, and wool for spinning ropes and cloth, and blood and urine for use as liquid in emergencies. Under Mosaic Law, camel meat was forbidden (Leviticus 11:4). Normally camel *milk* would therefore be prohibited also, although it has long been a staple food in the desert diet for the Bedouin, including after the coming of Islam. A less obvious possible contribution of the camel is that otherwise undrinkable well water - often fouled by animals - can be made useable by adding some sour camel's milk. The same mixture of sour milk and water also seals the pores of skin water-bags to avoid water loss by evaporation.

Early accounts such as that of Strabo attest that in the hotter months, desert travel was usually undertaken by night anciently. Because of the time and effort required, tents were not necessarily raised every night when traveling; travelers would use additional clothing, rugs, and camp fires for warmth. In addition to simple star navigation, experienced desert travelers - as Lehi likely was -commonly used observations of birds to judge direction, distance, and locate water sources. Under optimal circumstances, a caravan of laden camels can average about 20–25 miles/32–40 km per day.

Sacrifice in the Wilderness

Nephi records that after the three days of travel into the wilderness, Lehi "pitched his tent in a valley by the side of a river of water. And it came to pass that he built an altar of stones, and made an offering unto the Lord." (2:6-7). This account of offering sacrifice immediately upon arrival is striking: Lehi, as a bearer of the Melchizedek Priesthood, offered sacrifices of thanksgiving on at least three occasions during the journey, and burnt-offering sacrifices to atone for sins on at least two other occasions. As the Nephites lived according to Mosaic Law until the coming of Christ (2 Nephi 5:10, 4 Nephi 1:12), the offering of sacrifice seems appropriate and in accordance with the Law of Moses.⁸

However, it raises interesting questions in the case of the traveling Lehites. Prior to Israel's arrival in Canaan, the portable tabernacle had served as a place where sacrifices could be offered, wherever it was erected. Biblical scholars have long understood that the 12th chapter of Deuteronomy required sacrifices to be confined to a single place once the Israelites arrived in their promised land, pointing to the centralization of worship in Jerusalem under the mandates of King Hezekiah (2 Kings 18:4-22) and the reforms of King Josiah (2 Kings 23) that followed in Lehi's day. These seem to rule out sacrifice being offered outside of the Holy City that was home to Lehi. In fact, we now know that numerous altars and at least twelve lesser temples were in use throughout Israel at various times, some continuing after the temple at Jerusalem began operation.

Moreover, the recovery of several early records has shed significant light on temple worship, and allows us to better understand what the Lord actually intended in this regard. Among the Dead Sea Scrolls the "Temple Scroll" indicates that sacrifices within a "three day journey" from the Jerusalem temple - effectively encompassing the whole land of Israel - had to be performed at that temple. In offering sacrifices in the

Valley of Lemuel, much *more* than three days' distant from Jerusalem, Lehi was not acting against the provisions of the Law.

The "Elephantine Papyri," discovered in 1925, go further in helping us understand this concept. This eclectic array of papyrus records from two 5th century BC fortresses near Aswan in Egypt affirm that a Jewish temple served the Jewish community there for several hundred years. Nor was it the only temple built in Egypt; Josephus discusses another often referred to as the "Temple of Onias" - built at Leontopolis in Heliopolis, apparently to serve the needs of Jewish soldiers and their families in the region.⁹

As to the form of Lehi's altar, the altar uncovered in the Israelite temple at Tel Arad predates Lehi's day, and suggests what he probably built. A central core of earth and clay enclosed within square walls of uncut stones, the altar stood 3 cubits (about 52 inches/132 cm) tall and measured 5 cubits (about 88 inches/223 cm) on each side, as instructed in Exodus 27:1. Each corner was likely horned, following Exodus 27:2. The flint top had a channel for the blood of the sacrificial animal to drain off. The altar was approached by a gently sloping ramp, ensuring modesty for the one ascending, and also symbolizing humanity's gradual upward approach leading back to the presence of God.





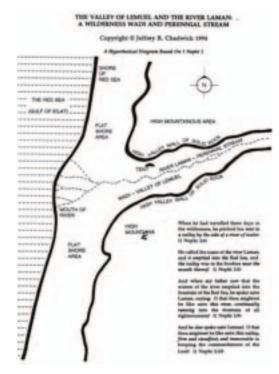
Excavated at Tel Arad, this ancient Israelite sacrificial altar dates to centuries before Lehi's time. Built of stone according to the instructions in the book of Exodus, it has the same dimensions and form as the portable wooden altar of the portable Tabernacle, seen here in a life-sized reconstruction at Timna in southern Israel. Lehi's altar in the Valley of Lemuel was likely built according to this same pattern. Image of Tel Arad altar courtesy of Tim Bulkeley and Creative Commons.

Base Camp in the Valley of Lemuel

A careful reading of 2:5-6 makes it clear that it was not from Jerusalem, but rather from the head of the Red Sea, where the twin cities of Eilat and Aqaba now lie, that the Lehites traveled *another* three

days "in the wilderness." Reaching the Red Sea had already required as much as ten days' travel from Jerusalem, so the "three days" travel further into the wilderness began at this point. This allows us to identify the general area where this significant campsite must have been as three days' travel with loaded camels must be in the order of 50 to 70 miles distant from the Aqaba area.

Here, in a valley beside a "river of water," they set up camp, for what may have been a considerable period. Nephi tells us that their camp was "in the borders nearer the Red Sea" beside a river that "emptied into the Red Sea" (2:5, 8). Lehi used the appearance of the valley, "firm and steadfast, and immovable" (2:10) as an object lesson when exhorting Lemuel, and so the place came to be known as the "Valley of Lemuel" (2:14).



The features of the Valley of Lemuel, based on Nephi's account. Courtesy of Jeffrey R. Chadwick.

Of their eight years in the wilderness, the majority may have been spent here, in Dedan, ancient Midian, safely distant from Jerusalem. The valley was a base camp for them to more properly prepare for the long desert journey that lay ahead and the epic sea voyage that would then follow. Indeed, most of the Old World account takes place while they were living here. From here, Nephi and his three older brothers would return twice to Jerusalem, firstly to obtain the brass records from Laban (resulting also in the unplanned addition of Laban's servant Zoram), and the second time to bring additional manpower in the form of Ishmael's family. Their arrival back at the camp would more than double the size of the group, and the need for adequate food supplies. Nephi's statement that they "gathered together all manner of seeds" (8:1), apparently to augment those brought from Jerusalem, suggests that their stay in the valley was both preparatory and long enough to include at least one growing season.

Ishmael's family provided wives for all the unmarried men in the group and, as noted earlier, apparently also husbands for two daughters of Lehi and Sariah. The five courtships and marriages of Nephi, his brothers, and of Zoram all took place during their time here, before the trek deeper into Arabia began (16:7). As the natural family patriarch and a holder of the Melchizedek Priesthood, Lehi had the authority in the wilderness to not only offer sacrifices, but to officiate in the saving ordinances such as baptism and marriage.

This period offered Lehi the time to read and absorb the brass plates, including the family's genealogy. Seemingly, the family was unaware until this point that they were of the lineage of Manasseh (5:14). In ancient Israel, the extended living family assumed a greater importance than tribal membership; others in that era also were not fully aware of their genealogy, as evidenced by accounts recorded in Ezra 2:62 and Nehemiah 7:64. It is also possible that the family had lived in the Jerusalem area long enough after migrating from the Kingdom of

Israel to simply assume that they belonged to Judah, Benjamin, Levi, or Simeon.

The camp was also a place of revelation. Revelations received by Lehi while in the valley include the pivotal dream of the Tree of Life, a revelation recalled in detail in Nephi's record. Here too, Nephi commenced writing his own account of the events that had brought them to this place. While Lehi retained his prophetic and family roles, we can observe Nephi beginning to emerge as the group's future leader as the early divisions among the party solidified.

Although the distance traveled by the Lehites from Jerusalem to Bountiful could be covered in a matter of months, a clear statement that their travels involved "many years" of journeying comes later in the text, when Nephi's older brothers complain at Bountiful that they and their families have "wandered in the wilderness for these many years" (17:20 and again in 21). The Valley of Lemuel seems the most probable location for much of this time to have been spent.

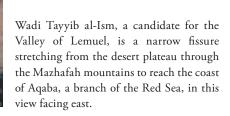
The River of Laman

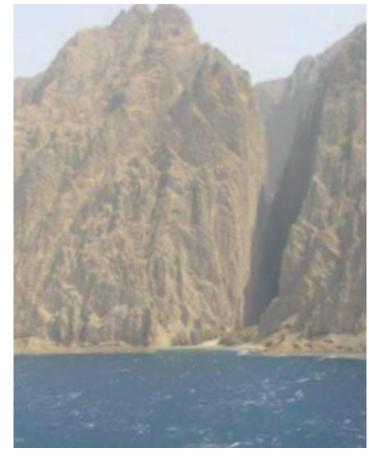
In the Valley of Lemuel, Lehi and Sariah's group camped on the north side of the river, which was named by Lehi for Laman (2:8). The text (2:6, 9) makes it appear that upon arrival, Lehi may not have immediately realized that the river reached as far as the Red Sea, which is unsurprising given the sinuous shape of the wadis in this area. The river "emptied into the Red Sea" (2:3), suggesting that water extended into the Red Sea, although it remains possible that this description may refer only to the river *bed* extending that far. Of course, realizing that it reached the Red Sea increased its value to Lehi as an object lesson for his sons. If we accept the textual hints that they lived in this place for an extended period, the description of the river becomes all the more

interesting; in exhorting Laman, his eldest son, Lehi used the imagery of the river as "continually running" (2:9). If they had the opportunity to see the river through all seasons over a long period, it must have been something more than a seasonal stream or storm run-off, as some writers have theorized. That it seems to have been more than just a dry stream bed running to the Red Sea is suggested from the mention of its waters emptying into the Red Sea (2:8-9), and the fact that it was later described as a "river" that was *crossed* as they left the valley (16:12). As the Arabian Peninsula supposedly has *no* perennial rivers anywhere, now or in the past, any attempt to correlate Nephi's account with the map becomes an interesting challenge.

In fact, while they sometimes include inaccurate and fanciful second-hand elements, two classical accounts support the idea that both northern and southern Arabia two millennia ago had some rivers. In his voluminous *Geography*, the Greek historian Strabo quotes Artemidorus of Ephesus, who lived between the second and first centuries BC, as describing this region of Arabia as "well supplied with trees and water," before adding that "a river" flowed into *Charmothas*, the modern

Umm Lajj in Saudi Arabia. This is too far south, however, to be a possible candidate for the River of Laman.¹¹ The earlier Greek historian Agartharchides described this region similarly.¹²





This view of Wadi Tayyib al-Ism looks inland from the sea. Other images can be viewed at: http://mapcarta.com/12548670/Photos.

The only specific candidate for the Valley of Lemuel and River of Laman proposed to date is the *Wadi Tayyib al-Ism*, which lies about 75 miles/120 km south of Aqaba, and thus within the range of three days' travel. This narrow wadi loops through the southern end of the Mazhafah Mountains and formed the northern border of Midian anciently. There are indications that the small stream running in its base between impressively high terrain, almost to the shore of the sea, may have been larger in earlier times.¹³

However, as there are a number of other wadis arriving at the Red Sea in and near the Mazhafah Mountains, a firm identification remains premature. Moreover, some questions remain about how well this particular wadi fits Nephi's description that the valley mouth "emptied" into the Red Sea (2:8-9). Until the Mazhafah ranges (which are the mountains that must contain the valley) can be examined thoroughly by competent persons, the location of both valley and river will remain open to question.

Travel Through the Wilderness

Lehi and Sariah's group now numbering perhaps about twenty or so persons, including children -did not travel in a vacuum. They were traveling on a major trade route, so contacts with other people were likely quite frequent, but inconsequential, until they reached Nahom. That they *had* contact is indisputable; for example, the only way they could have known the name of Nahom and that it contained a burial area was through local people.

While water sources in the desert are scarce and always attract people, compared to the trade caravans that commonly numbered hundreds and even thousands of camels, Lehi's group was likely inconspicuous enough to attract little attention. Most wells available to travelers were small and irregularly spaced; in only a very few places was there sufficient water to irrigate crops. In accordance with the unwritten laws of desert hospitality, water and pasture resources were freely available to any passing traveler for their personal needs, a courtesy still often practiced today. In this regard, anthropologist Emanuel Marx noted:

...tribesmen do not necessarily reserve pastures for their own use. In South Sinai, for instance, each tribe grants the others the use of pastures in its territory, but reserves for its members the right to build houses, plant orchards, and use smuggling trails...

From his own Arabian experiences, T. E Lawrence ("Lawrence of Arabia") learned that:

...each hill and valley in [the desert] had a man who was its acknowledged owner and would quickly assert the right of his family or clan to it, against aggression. Even the wells and trees had their masters, who allowed men to make firewood of the one and drink of the other freely, as much as was required for their need, but who would instantly check anyone trying to turn the property to account and to exploit it or its products among others for private benefit...Nature and the elements were for the free use of every known friendly person for his own purposes and no more.¹⁷

Lehi and Sariah's small, non-commercial, family group thus represented a non-threatening, low profile to the various tribes they passed along the trade route; it is not likely that they needed to pay levies or other taxes or require special permissions. Where they may have stopped longer to grow crops, their presence likely required negotiation and payment to locals, but would still have remained marginal.

The Place Shazer

After four days' travel from the Valley of Lemuel, the group arrived at a place that they called "Shazer" (16:13). Although we cannot be certain, the name may refer to "twisting or inter-twining" in Hebrew, in which case it may have referred to the terrain. In Arabic, the name may be related to a term meaning a clump of trees. ¹⁸ If the name refers to trees, two locations present themselves as candidates. Roughly four days' travel southeast of where the Valley of Lemuel must have been

are two large oasis areas; one at al-Muwaylih, and the other at Wadi Agharr (also known as Wadi Sharmah).¹⁹ Almost certainly the group was already well inland at this point, so these inland oases remain viable possibilities for Nephi's Shazer.

As they had only traveled four days from their long stay at the Valley of Lemuel, and food supplies were no doubt still adequate, it seems clear that Shazer was intended to be only a brief stop. This may explain why the men in the group apparently headed off from there to hunt fresh meat, the first time that hunting is mentioned in the account. The fact that game was hunted while at Shazer tells us that they were in, or near, a mountainous area. Having "slain food" they returned to their waiting families at Shazer, and seem to have soon continued their journey. The repeated mention of the plural "families" at this time (16:14, 17) also suggests that the five marriages in the Valley of Lemuel had already produced children before Nahom was reached.

Crossing the Fertile Mountains

The mountainous spine running roughly north-south down almost the entire western length of the Arabian Peninsula, known collectively as the Hijaz and Asir Mountains, can be crossed only in a relatively few places. Hints in the account make it seem clear that the group had left the barren coastal plain and moved inland onto the mountain trail no later than upon leaving Shazer. After Shazer, the Red Sea is never again mentioned in Nephi's account. To travel along the coastal plains meant facing oppressive heat, humidity, and leached soils in which little could grow. In contrast, the mountain ranges offered cooler traveling conditions, and occasional fertile pockets where crops could be grown. Small villages and communities spaced along the natural valleys between the ranges offered fodder for animals, and food and water to travelers. Mountains also offered opportunities to hunt game such as gazelle, oryx, ibex, the wild ass, deer, and hare.

Other animals that would *not* have been allowable food under Mosaic Law include the hyena, baboon, wolf, fox, leopard, lion, and snakes. Some of these names help us understand Nephi's earlier reference to being bound with cords by his brothers, and left in the wilderness "to be devoured by wild beasts" (7:16). In particular, hyenas, who often hunt in packs, would have offered a formidable threat to anyone unarmed and alone in the desert.

Led by the Liahona, Lehi's group continued on for many days through the "most fertile" parts of the mountain trails, hunting along the way (16:14-16). Their next stop, not described and left unnamed, seems likely to have been a place where crops could be grown, as they intended to remain there for "the space of a time" (16:17).²⁰ Their supplies may have been depleted, and it would be some time before crops could be harvested; but in any event, it was necessary that they hunt again.

Nephi's Bow

Then follows the intriguing account (16:17-32) in which Nephi's fine "steel" bow breaks, and his brother's bows lose their spring - almost certainly the result of the change from the milder, moister climate of Jerusalem to the dry desert heat. In response to the need for meat to feed the group, Nephi is given direction by the Liahona and fashions for himself from wood a new bow and arrow to successfully hunt game.

Bow technology can be traced back at least 8,000 years, although the use of *metal* in bows developed much later. Fully metal bows, including steel bows, developed anciently in several widely-separated cultures. When the Old Testament refers to bows of "steel" (2 Samuel 22:35) the phrase should probably be translated as bows of "bronze." While much more remains to be learned about metallurgy in his day, Nephi's account of his bow made of "fine steel" (16:18) may actually refer to a wooden double-convex, or composite, bow that had bronze parts or plating for extra strength. Several types of wood ideal for bow-making grow wild in the mountains of Arabia, including tamarisk, acacia, jujube, and various olive species.

Once again, this deceptively straightforward account conceals significant details that indicate an origin far removed from the world of Joseph Smith. In the first place, the symbolism of Nephi being the only person in the group left with a functioning bow was not lost on his older brothers. Bows anciently symbolized leadership and political power and, unsurprisingly, we see that soon after this event, Laman accused Nephi of seeking to rule over the group (16:37, 38). There is another significant detail that only an archer would appreciate: Nephi records three times that his bow broke, but mentions no damage to his arrows. When fashioning a new bow, however, he also reports making a new arrow. The arrows for a heavier "steel" bow would have been unsuitable for a lighter wooden bow, thus the need to match a new arrow to the new bow.²¹



The bow and arrow, the most commonly depicted weapon in ancient Arabia, is often mentioned in the New World account of the Book of Mormon. In this ca. 500 BC bronze

plaque from the Bar'an temple in Yemen, the archers carry short, but powerful, composite bows. They also carry the severed hands of enemies as trophies, a practice that also appears in the Book of Mormon (see Alma 17:37-39).





Examples of metal bows from other ancient cultures.

In view of the hunger experienced after Nephi's bow broke and his brother's bows lost their spring, it is a testament to the faith of Lehi and Sariah that the seeds they were carrying were not used to alleviate their needs, either then or later on the journey. To readers following the journey on a map it may seem surprising that they did not simply turn west toward the abundance of fish available at any point along the coast. Even if they were now traveling on the inland trade route, as the record indicates, the distance to the coast was not great. It is quite

possible that their knowledge of the geography of the Arabian Peninsula this far south was limited; after leaving Shazer, they may not have been aware that their course through the mountains was still roughly parallel to the Red Sea. They lacked boats and nets, of course, plus the skills of fishermen, but the Liahona seems to have directed them toward places where they could hunt, rather than fish. For reasons related to the regional geography of western Arabia and the Red Sea coasts, fish played no role as food for desert travelers in most of Arabia.²²

The Lehyanites

Southeast of the Valley of Lemuel, and perhaps less than a century after Lehi passed through, the kingdom of the Lehyanites, or the "people of Lehy" arose. The site of their ancient capital is today known as *al-Ula*, in the northwest of modern Saudi Arabia. The Lehyanite kingdom continued for about three hundred years until being vanquished by the Nabateans. The obvious similarity on the name to the Book of Mormon Lehites was first pointed out in 1984.²³



This circular structure at Al-Ula in Saudi Arabia is among the surviving traces of the Lehyanite kingdom that flourished soon after Lehi and his group passed through this area. Image courtesy of Lynn M. Hilton.

Little is known of the Lehyanite kingdom and its sudden emergence about 500 BC, but it has been theorized that this people may have arisen from Nephi, and perhaps also Lehi, preaching to local people while in the area. This

could have generated converts who became a political force in the area, then taking Lehi's name in remembrance of a great prophet who lived among them. This scenario suggests some parallels to the story of the prophet *Salih* in the Qur'an, who traditionally preached in this area.

Other interesting hints from local legends about the original Lehyanites, said to be "Jewish," ruins of a "temple," and personal names in use by the culture, including "Nefi" (Nephi), all add to the mystery. Until more information is found about this tribe, its emergence so close in time to Lehi's day means that a connection to the Book of Mormon Lehi can still be considered a possibility. In the end, however, too little is yet known about this period in Arabia's past to be certain, and we are left with only intriguing possibilities.

The Relevance of the Ancient Trade Routes

The incense trade routes likely developed as expansions of much earlier, shorter local trails used to move commodities such as rock salt. Eventually, the trails linked the southern Arabian coast with the Mediterranean region over two thousand miles distant. While trade routes connected available water sources, they also had to follow terrain that was suitable for camel caravans. Although scholars still debate exactly when camels were first domesticated -likely by the second millennium BC -it was the camel's ability to store its own water for long periods that allowed the trade routes through the desert to develop. While water was important, fodder is not stored by camels in any way and is needed more often. Trails therefore took advantage of areas where there was also a chance of some vegetation.

Top-heavy when loaded, the camel is best suited to level ground, offering firm sand or soil footing, rather than rocky and uneven mountain regions. Different breeds of camel were used according to the

terrain they would traverse, and that also dictated the routes, to some extent. As a consequence, trade routes always followed the *easiest* path possible - not necessarily the most direct - through valleys and plateaus, usually avoiding higher ground. As loaded camels cannot traverse steep slopes, constantly shifting sand dunes could add days of travel. Since water holes do not move, modern mapping allows us to reconstruct the ancient desert highways with a fairly high degree of certainty, something not possible in 1830. The following map depicts the major trade routes in Arabia about the time of Lehi.²⁴



The main trade routes across early Arabia avoided the waterless Empty Quarter interior.

Travel in "nearly a south-southeast direction" (16:13-14, 33) along the west side of Arabia roughly parallels the inland trade route, which was one of the most significant economic activities in the ancient world. The wealth from the sale and transportation of incense and other products carried out of Arabia into the Mediterranean area allowed advanced civilizations to flourish in Arabia over many centuries. The monopoly held by the Arabian tribes over the trade routes concentrated the wealth; this allowed architecture, dams, and irrigation systems to

develop that often surpassed those of Europe in size and sophistication. They sustained quite large populations at many locations along the trail.

The rapid rise of Islam in the seventh century AD and the practice of the Haj pilgrimage to the holy cities of Mecca and Medina, themselves adjacent to the incense trail, ensured that significant stages of the trade route remained in use long after the trade in incense largely ended. The collapse of the Roman Empire and the banning of incense in Christian funerals during the fifth and sixth centuries AD contributed not only to the disappearance of the trade routes, but the overall economic decline of southern Arabia.

To early LDS writers on the subject, it seemed obvious that Lehi merely followed the water sources making the trade route possible to eventually arrive at the fertile Bountiful, which was assumed to equate with the incense-growing region. While there is no question that the Lehite odyssey *did* parallel the trade route for a significant distance, the matter is not, as we might expect, so simple. The account of the Lehite journey makes it clear that more was involved than simply following a trade route.

As their time in the wilderness occupied eight years, a distance usually covered by trade caravans in around a hundred travel days, clearly some extended stops must have been made where crops could be grown. In several places they were led by the Lord to detour to fertile areas, or to places where they could hunt. But, more importantly, after leaving Nahom their travel was "nearly eastward," to the coast, a direction that almost immediately led them *away* from any of the trade routes. This final and most difficult stage of their journey was across a region skirting the Empty Quarter, a place almost devoid of water sources, and where travel was avoided anciently, just as it is today.

The Liahona

The Valley of Lemuel lay only about two weeks distant from Jerusalem. Until this point, the Lehites had been guided by local knowledge and by Lehi's dreams and visions. The valley allowed both physical and spiritual preparations for their journey to be completed. Family records were now in hand, along with a greater awareness of their spiritual calling. There was additional manpower in the form of Ishmael's family and Zoram. With all adults married, the group was finally ready to embark on its divinely appointed journey. Again, the word of God came to Lehi directing them to leave on the "morrow."

Until this point, the natural assumption (or hope) of many in the group may still have been that their removal from Jerusalem was only a temporary exile. They may have expected a retreat to a desert oasis, perhaps eventually to Egypt, before returning to their beloved Jerusalem home. Perhaps to allay criticism of Lehi's statements and drive the group onward, a new, more tangible, source of direction was now introduced. It was one that all -even the skeptical -could see and handle, for the following morning as Lehi arose, his mind surely set upon packing up the camp, he beheld upon the ground:

...a round ball of curious workmanship; and it was of fine brass. And within the ball were two spindles; and the one pointed the way whither we should go into the wilderness. (16:10)

In the account, this extraordinary device, divinely provided on the very day of departure into Arabia proper, is called the "ball" (for example in 16:28), the "ball or director" (Mosiah 1:16) or "Liahona, which is, being interpreted, a compass," (Alma 37:38). These verses tell us that the name *Liahona* can refer equally to a ball, director, and compass. A detailed analysis of the term "Liahona" has found strong indications that this was an original Hebrew name given by Lehi to this

singular, unique object. The most likely meaning of this name is "To the Lord is the whither," which we would render in English today as "The direction of the Lord." This sense of the name offers rich etymological connections to the *geographical* direction the two pointers gave, as well as the *spiritual* directions given through the sacred writings that appeared on them.²⁵

While we are not given more than the above description of the Liahona, there are interesting possibilities as to its operating principles. In the first place, the ball was made of brass, an excellent choice of metal for a non-magnetic compass housing. It is worth noting that simple magnetic iron compasses were well known before Lehi's day in both the Old and New Worlds. As to the two spindles, one may therefore have retained a normal compass function by pointing to magnetic north as a directional reference, with the second spindle indicating the direction to travel.

An intriguing possibility for the Liahona's operation comes from a modern engineering principle called the "voting of redundant strings." ²⁶ Used today in everything from telephone and railroad switching to aircraft and spacecraft systems, this principle requires two identical systems operating at the same time. If both systems perform exactly the same, it is assumed that they are correct, as the probability of two failures is statistically insignificant. While additional systems can enhance reliability further, *two*-way voting is the minimum required to indicate failure. Although Nephi stated that "one" spindle pointed the direction of travel, this principle may help us understand why the Liahona had *two* spindles, not one or many. As a single spindle always points in some direction, inspired directions may have been indicated by *both* spindles pointing together, as one. Thus, when they pointed in different directions, they were not therefore in operation.

The divinely sent Liahona, functioning according to the Lehite's faith rather than purely on natural magnetism, was to play a key role from the time of its appearance while they were encamped in the Valley of Lemuel on the borders of the Red Sea (16:10, see also Doctrine and Covenants 17:1). It directed Nephi to a place where he could hunt game (16:30-31), detoured them to the "more fertile parts of the wilderness" (16:16), and functioned as more than a compass in the ordinary sense; it also provided written instructions from time to time. The writings seem to have appeared both on the ball itself (16:27) and also on the "pointers" (16:28-29); presumably in the Egyptian characters used by Lehi and his successors.

The Liahona's "curious" workmanship (16:10 and Alma 37:39) refers to its striking, highly skilled construction, not that it was "strange."²⁷ In fact, Laman had initially complained that it had merely been made by Nephi's "cunning arts, that he may deceive our eyes, thinking, perhaps, that he may lead us away into some strange wilderness," (16:37-38), which is a revealing commentary about Nephi's perceived skill in metallurgy. However, the appearance of divine writing on the ball and on its pointers soon made it evident to everyone that the Liahona was divinely sent.

The primary function of the device, however, was always to point the direction of travel. The 37th chapter of Alma has the clear statement that one of the purposes of the Liahona was to show Lehi's group "the course which they should travel in the wilderness" (39), something that would not have been necessary had they merely been following a trade route. This conclusion is strengthened when Alma points out that the Lehites "did not progress in their journey" and that they "tarried in the wilderness, or did not travel a direct course" (vs. 41-42) because of their lack of faith. Although it is not stated, it seems probable that the Liahona later indicated the turn "nearly eastward" at Nahom, and pointed the way to water sources en route to Bountiful.

The Liahona is not mentioned again until the incident where Nephi is bound during the sea voyage, a story illustrating its directional function and that its operation was faith-based, not simply mechanical (18:12-22). With its fine workmanship judged as being beyond anything man could create (Alma 37:39), the Liahona and the writing upon it became a vivid symbol for future generations in the New World as a type of "the word of Christ," (Alma 37:43-46). It remained in Nephi's possession (2 Nephi 5:12) and was apparently passed on, with the sword and breast-plate of Laban, through the line of Nephite leadership (Mosiah 1:16), thus preserving it for more than a millennium, until the days of Mormon and Moroni. In 1829, the Three Witnesses to the coming forth of the Book of Mormon, Oliver Cowdery, David Whitmer, and Martin Harris, were promised that in addition to the plates, the breastplate and sword of Laban, and the Urim and Thummim, they would see:

...the miraculous directors which were given to Lehi while in the wilderness, on the borders of the Red Sea. (Doctrine and Covenants 17:1)

The location where the Liahona was given to Lehi is here confirmed in modern revelation. However, the accounts of those who saw and possibly handled it in our day fail to add to our knowledge of this remarkable device.²⁸

Other peoples before and after the Lehites used various techniques and tools for navigation on land and sea. Simple magnetic compasses gave the ancients basic directions long before Lehi's time.²⁹ More complex systems also developed; an example being the "Sun Compass" and "Sunstone" used by Viking sailors to plot directions around the clock. Using simple but effective techniques, including light polarized through natural crystals, Atlantic crossings year-round in any weather were made possible.³⁰ The scale of the Lehite journey, however, clearly

required something more substantial, perhaps something that would also be a constant reminder of the need for faith; hence the Liahona.

With its miraculous provision, Lehi and Sariah's group had done all they could do to prepare for what lay ahead. This sacred instrument, offering directional but also spiritual guidance, must be ranked among the greatest of all blessings recorded in scripture, a tangible, daily reminder of God's awareness of them and of God's desire to continually bless them. With this direction available, a journey of unknown duration into regions of which they had no knowledge could begin.

A Review of Lehi's Arabian Crossing

Using *only* scripture, the following geographical details about the journey can be gleaned from First Nephi (all emphasis added):

Lehi lived "at Jerusalem in all his days," probably in the city proper (1:4, 7) and also had a land of inheritance (2:4, 3:16, 22).

Lehi and his family departed into the "wilderness" (2:4).

They arrived at "the borders near the shore of the Red Sea" (2:5).

They traveled in "the wilderness in the borders which are *nearer* the Red Sea" (2:5).

They traveled 3 days journey into the wilderness (2:6).

They camped in a valley beside a river (2:6).

The valley was in the borders near the mouth of the Red Sea (2:8).

The river emptied into the Red Sea (2:8) or into the fountain of the Red Sea (2:9).

Lehi's imagery implies that the river was continually flowing (2:9).

They departed into the wilderness by crossing the river (16:12).

They traveled in nearly a SSE direction for 4 days to the place they called Shazer (16:13), which may indicate a place of "twisting" or "intertwining" terrain, or a "clump of trees."

They went forth into the wilderness from Shazer to hunt game (16:14).

They then traveled "many days" in the same direction, hunting with bows, arrows and slings in the most fertile parts of the wilderness "in the borders near the Red Sea" (16:14-16).

After traveling many days they camped again to rest and obtain food supplies (16:17).

Nephi's steel bow broke (16:18) and his brother's bows "lost their springs" (16:21), probably indicating a change in climate.

Nephi hunted in the top of a mountain (16:30) using a new bow and arrow made of wood, rather than of steel.

They traveled for many days on "nearly the same course" as before (16:33).

They again camped (16:33), evidently in a place where crops could be grown.

Ishmael dies. He is then buried at Nahom, (16:34), a place already known by that name and seemingly nearby.

They traveled "nearly eastward" from that time forth (17:1).

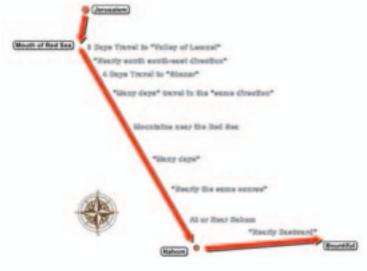
This was the most difficult stage of travel and little fire was used (17:1-3, 6).

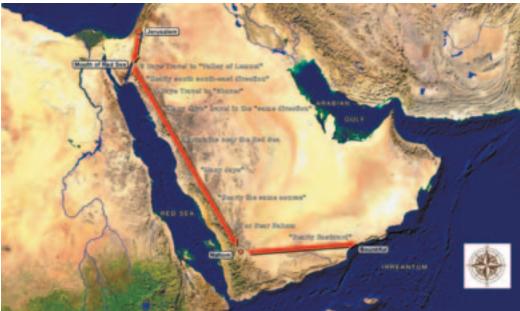
They sojourned in the wilderness a total of eight years (17:4).

They arrived at a fertile coast with fruit, timber, a nearby mountain, and ore source (17:5-11).

Cliffs at Bountiful are implied (17:48).

Nephi "went into" the mount oft to pray and receive revelation (18:3).





The Arabian Peninsula effortlessly provides a completely plausible setting for the terrain and other features described by Nephi.

NOTES

- 1. Warren P. Aston, ""Up to & Down from" Jerusalem: Further indicators of a real-world origin" in Meridian Magazine, February 8, 2012. Available at http://ldsmag.com/article-1-9319/
- 2. For evidence linking Jerusalem with Arabia ca. 700 BC see Yigal Shiloh's "South Arabian Inscriptions from the City of David, Jerusalem" in the Palestine Exploration Quarterly 119/1 (London: The Palestine Exploration Fund, 1987), 9-18.
- 3. The evidence presented by proponents for an Arabian Sinai remains controversial and strongly disputed within mainstream archaeology. A current review of 3 candidates for Mt Sinai (the traditional site in the Sinai, the Midian site in Arabia and Har Karkom in the Negev) can be found in Hershel Shanks, "Where Is Mount Sinai? The case for Har Karkom and the Case for Saudi Arabia," Biblical Archaeology Review 40/2 (March/April, 2014).
- 4. For a fuller discussion on the possible routes from Jerusalem, see Jeffrey R. Chadwick "An Archaeologist's View" in JBMS 15/2 (2006), 70-71 and his "The Wrong Place for Lehi's Trail and the Valley of Lemuel" FARMS Review 17/2 (2005), 197-215.
- 5. See Erez Ben-Yosef et al, "A New Chronological Framework for Iron Age Copper Production at Timna (Israel)" Bulletin of the American Schools of Oriental Research, 366 (Atlanta: American Schools of Oriental Research, 2012), 1-41, accessible online through the lead archaeologist's blog at http://humanities.tau.ac.il/segel/ebenyose/files/2013/08/Ben-YosefETAL12 TimnaRevisited BASOR3673.pdf
- 6. Strabo, Geography, Book 17, 1:45 refers to trade caravans traveling "only by night" before his period, ie. prior to his death ca. AD 23. Also see Charles Doughty's Travels in Arabia Deserta (New York: Random House, 1936), 1:86, 257.
 - On the role of birds and the species that would be encountered along Lehi's trail see the observations of Stephen L. Carr partly based on his first-hand experience, published as "Birds Along Lehi's Trail" in JBMS 15/2 (2006), 84–93.
- 7. Although capable of even more, the load carried by a mature camel on a long journey in hot weather can range from about 350-600 lb. Depending on the terrain, season, breed, maturity of the animal and the load, an average of 20-25 miles can be covered per day. According to Pliny the Elder, the route from Timna to Gaza was covered in "sixty-five stages" or days, for an average of 24 miles per day; see Gus van Beek, "Frankincense and Myrrh" in Biblical Archaeologist 23 (Atlanta: American Schools of Oriental Research, 1960), 69-95. The annual Haj pilgrimages to Mecca over much of the same country that the Lehites traveled over averaged about 20 miles per day. Based on early accounts of the incense trade, Nigel Groom in Frankincense and

- Myrrh (p. 213) estimates a total travel time from the Dhofar or Hadhramaut coasts to Gaza, some 2100 miles, of 65-88 days.
- 8. See David R. Seely, "Lehi's Altar and Sacrifice in the Wilderness" in JMBS 10/1 (2001), 62-69 and the statements in Alma 13: 1-19 about the Nephite priesthood and, by implication, Lehi's. On the types of sacrifices offered, see S. Kent Brown, "New Light from Arabia on Lehi's Trail" in Donald W. Parry, ed. Echoes and Evidences of the Book of Mormon, 62-64 and an expanded discussion in Brown's From Jerusalem to Zarahemla, 1-8.
- David R. Seely, "Lehi's Altar and Sacrifice in the Wilderness" explains how Lehi could offer sacrifice away from Jerusalem while adhering to Mosaic law, although he assumes that Lehi's three days travel into the wilderness was from Jerusalem, rather than from the shores of the Red Sea as 1 Nephi 2:5-6 indicates. In any event, Lehi's group undoubtedly were aware of and passed close by the ancient city now known as Tel Arad, which contained a small operating Temple modeled after Solomon's Temple, complete with altar and Holy of Holies. This Temple operated until just prior to Lehi's time. See D. Kelly Ogden & Jeffrey R. Chadwick, The Holy Land, 175-178. Additional commentary is found in Kevin Christensen, "The Temple, the Monarchy, and Wisdom: Lehi's World and the Scholarship of Margaret Barker" in Glimpses of Lehi's Jerusalem, 449-522. On the Elephantine documents, see Bezalel Porten et al. eds The Elephantine Papyri in English: Three Millennia of Cross-Cultural Continuity and Change, Second Revised Edition (Atlanta: Society of Biblical Literature, 2011), 136, 152-202.
- 10. They departed the Valley of Lemuel in nearly a SSE direction toward Shazer "across the river Laman" (1 Nephi 16:12-13); therefore their camp lay on the north side of the river.
- 11. Artemidorus of Ephesus, sometimes confused with the second century AD writer Artemidorus Daldianus, also from Ephesus, wrote 11 geographical books based on his own travels. Most have been lost except where other early authors quote from him, as in this instance, see Strabo, Geography, Book 7:343, 345.
- 12. Stanley M. Burstein, transl. Agatharchides of Cnidus: On the Erythraean Sea (London: Hakluyt Society, 1990), 151-152. See also John A. Tvedtnes, "More on the River Laman" in Insights 25/3 (2005), 2-3 which also discusses another reported river, probably located in southern Arabia, referenced by Herodotus about 440 BC.
- 13. George D. Potter, "A New Candidate in Arabia for the "Valley of Lemuel"" JBMS 8/1 (1999), 54-63.
- 14. Archaeologist Jeffrey R. Chadwick has proposed that the Valley of Lemuel likely lay in the Bir Marsha area, an assessment based on the distance from the mouth of the Red

- Sea and on the terrain along the coast. See his map and commentary in "The Book of Mormon in the Land of Jerusalem," unpublished course materials used at the BYU Jerusalem Center for Near Eastern Studies in 1993-94. Chadwick argues for the Bir Marsha area generally in his "The Wrong Place for Lehi's Trail and the Valley of Lemuel," in the FARMS Review (2005), 197-215 and in "An Archaeologist's View" in JBMS 15/2 (2006), 68-77. S. Kent Brown reviews the issues involved in "The Hunt for the Valley of Lemuel" in JBMS 16/1 (2007), 64-73.
- 15. The need for Lehi and Sariah's party to seek tribal permissions and pay taxes throughout their journey has been greatly exaggerated by some writers on the subject. The Lehites carried no trading goods or obvious wealth along a route used by trade caravans whose camels typically numbered in the hundreds or thousands. Carsten Niebuhr, for example, witnessed trade caravans that "often numbered more than six thousand camels" see Thorkild Hansen, J & K McFarlane, transl. Arabia Felix: The Danish Expedition of 1761-1767 (London: Collins, 1964), 156 and described a Haj caravan numbering "six thousand," 196. Scriptural hints (eg. Judges 7:12 "camels... without number") and the quantities of incense imported that Herodotus and others recorded suggest that caravans of this size were far from uncommon. Thus, small wonder that the Lehite group, insignificant in comparison, would have attracted little, if any, attention.
- 16. Emanuel Marx, "Back to the Problem of the Tribe" in American Anthropologist 81 (Washington DC: American Anthropological Association, 1979), 124 discusses why a small family group would have attracted little attention.
- 17. T. E Lawrence, Seven Pillars of Wisdom: a triumph (Norfolk, UK: Book Club Assoc, 1973), 84-85.
- 18. See the sources documented at https://onoma.lib.byu.edu/onoma/index.php/ SHAZER, particularly Hugh Nibley, Lehi in the Desert, CWHN 5:78-79 which gives related Semitic forms of the name suggesting a connection to a "clump of trees" or perhaps a small water supply, or both. As we have only an English translation of the name its original meaning remains tenuous.
- 19. Lynn M. & Hope A. Hilton, Discovering Lehi, 111 offers the al-Muywalih site. The Wadi Agharr proposal is found in Potter & Wellington, Lehi in the Wilderness: 81 New, Documented Evidences That the Book of Mormon Is a True History (Springville, UT: Cedar Fort, 2003), 73-78.
- 20. George Reynolds and Janne Sjodahl, Commentary on the Book of Mormon (Salt Lake City: Deseret Book, 1955), 1:167 discusses the practical implications of this phrase.

- 21. The standard text concerning the bow, and weapons in general, in the Book of Mormon remains William Hamblin's comprehensive "The Bow and Arrow in the Book of Mormon" in Stephen D. Ricks and William Hamblin, eds. Warfare in the Book of Mormon (Salt Lake City: Deseret Book and FARMS, 1990), 365-399.

 Additional glimpses of possible bow-types and traditional construction techniques that may have been available in Nephi's day can be found in Lee Lawrence, "History's Curve" in Saudi Aramco World 54/5 (September/October 2003), 2-10. Ancient graffiti suggests that the bow was the most common weapon in early Arabia in warfare and hunting, see Daniel Potts, "Some issues in the study of the pre-Islamic weaponry of southeastern Arabia" in Arabian archaeology and epigraphy (AAE) 9/2 (Copenhagen: Munksgaard International, Nov 1998), 200. The illustration giving a glimpse into 5th century BC bow technology in southern Arabia is a bronze plaque recovered from the Bar'an temple at Marib, Yemen depicting archers carrying composite bows; see St John Simpson, ed. Queen of Sheba: Treasures from Ancient
- 22. The region's geography provides clues explaining an issue that has long puzzled some scholars why fish was usually avoided by the Arabs: the 1200 mile length of the Red Sea isolated, rather than united Egypt with South-west Arabia. In particular, the northern half of the Red Sea was bounded on each side by many miles of barren deserts. The coast is plagued by treacherous coral reefs and small islands, which, combined with the lack of harbors, encouraged piracy and discouraged coastal settlements for catching and selling fish. These factors ensured that the trade routes developed well inland. On the other hand, the eastern coast of Arabia developed numerous coastal settlements where fishing was an important food source.
- 23. Lynn M. & Hope A. Hilton, Discovering Lehi, 75-103.

Yemen, (London: British Museum Press, 2002), 60-61.

- 24. Perhaps the most comprehensive map of the major and minor trade routes yet published is found in Juris Zarins, The Land of Incense: Archaeological Work in the Governorate of Dhofar, Sultanate of Oman 1990-1995 (Muscat: Sultan Qaboos University Publications, 2001), 102. Pages 103-104 list 109 locations and archaeological sites from the Neolithic to the Islamic period appearing on the route map, usually associated with a trade route.
- 25. Jonathan Curci, "Liahona: "The Direction of the Lord:" an etymological explanation," JBMS 16/2 (2007), 60-67 focuses on likely sources for the name "Liahona" rather than its functioning.
- 26. Robert L. Bunker, "The Design of the Liahona and the Purpose of the Second Spindle" in JBMS 3/2 (1994), 1-11. Philip H. Harris, The Voyage: A Sailor's Viewpoint (Bloomington, IN: Xlibris, 2011), 123-134 offers other possibilities for

- the operation of the instrument. For a general treatment of the Liahona, see Alan Miner, The Liahona: Miracles by Small Means (Springville, UT: Cedar Fort, 2013).
- 27. Noah Webster's 1828 American Dictionary of the English Language, available at http://1828.mshaffer.com/d/search/word,curious confirms this usage of the word "curious" and suggests several related meanings.
- 28. No modern descriptions of the Liahona are known. Joseph Smith, in his History, records that he saw "the plates, the Urim and Thummim and the breastplate" [of Laban] buried in the hill near his home (HC 1:52), but left no description of the sword of Laban or of the Liahona. The passing mention by David Whitmer, one of the Three Witnesses, to the "directors" in some of his remembrances seems to be the only account of the Liahona being seen by the witnesses in fulfillment of the promise found in Doctrine & Covenants 17:1. Other references to or descriptions of the instrument from those who presumably saw, and possibly handled it, in modern times remain unknown.
- 29. While consensus science maintains that the compass first appeared in early China, there are reasons for believing that other cultures discovered at least simple geomagnetic compasses earlier. See the discussion in John B. Carlson, "Lodestone Compass: Chinese or Olmec Primacy? Multi-disciplinary Analysis of an Olmec Hematite Artifact from San Lorenzo, Veracruz, Mexico" in Science (New Series), 189:4205 (5 September 1975), 753.
- 30. See, for example, Balázs Bernáth et. al. "How could the Viking sun compass be used with sunstones before and after sunset? Twilight board as a new interpretation of the Uunartoq artefact fragment" in Proceedings of The Royal Society A, Vol. 470, Issue 2166 (London: Royal Society Publishing, June 2014), http://rspa.royalsocietypublishing.org/content/470/2166/20130787.