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Abstract The author updates his 1989 key for judging the merits of theories that attempt to locate Book of Mormon events in the real world. His “internal” geography of the book is based exclusively on what the book itself says about locations, distances, and directions. Six components (“transects”) of this geography are treated in detail, and ten crucial tests of geographical relatedness are proposed.

Revisiting “A Key for Evaluating Nephite Geographies”

JOHN E. CLARK

This essay abridges my critical evaluation published twenty-two years ago of two Book of Mormon geographies by F. Richard Hauck and John L. Sorenson.¹ I recognized at the time that proposals for real-world (external) settings for Book of Mormon lands and cities come and go with the regularity of LDS general conferences or market forces, so what was needed was a timeless instrument for judging any geography that may come along—not just assessments of the geographies then in play. The main objective of my essay was to outline a key for assessing all external geographies based on information in the Book of Mormon, the ultimate authority on all such matters. I was exposed to M. Wells Jakeman’s Book

of Mormon geography in three classes while an undergraduate at Brigham Young University in the 1970s, but it was not a topic that much concerned me. Consequently, as a necessary step in writing a critical assessment of Hauck’s geography in light of Sorenson’s geography, I first had to spend several months reconstructing an internal geography (baseline standard) for comparative purposes. The current abridgment conserves my proposed internal geography—or key—for evaluating external Book of Mormon geographies, removes dead arguments for the geographies reviewed, and corrects some textual and illustration errors in the original essay.

It has been my experience that most members of the Church of Jesus Christ of Latter-day Saints, when confronted with a Book of Mormon geography, worry about the wrong things. Almost invariably the first question that arises is whether the geography fits the archaeology of the proposed area. This should be our second

1. John E. Clark, “A Key for Evaluating Nephite Geographies,” *Review of Books on the Book of Mormon* 1 (1989): 20–70. The two books were F. Richard Hauck, *Deciphering the Geography of the Book of Mormon* (Salt Lake City: Deseret Book, 1988); and John L. Sorenson, *An Ancient American Setting for the Book of Mormon* (Salt Lake City: Deseret Book, 1985).

question, the first being whether the geography fits the facts of the Book of Mormon—a question we all can answer without being versed in American archaeology. Only after a given geography reconciles all of the significant geographic details given in the Book of Mormon does the question of archaeological and historical detail merit attention. The Book of Mormon must be the final and most important arbiter in deciding the correctness of a given geography; otherwise we will be forever hostage to the shifting sands of expert opinion. The following is my opinion of what the Book of Mormon actually says. I focus here only on those details that allow the construction of a basic framework for a Nephite geography; I leave more detailed reconstructions to others. Of primary importance are those references that give relative distances or directions (or both) between various locations or details that allow us to make a strong inference of either distance or direction.

What I propose is an internal geography of the Book of Mormon; a guiding concern is parsimony. For example, consider the critical geographic feature: the narrow neck of land. Was it an isthmus or a corridor? The Book of Mormon indicates that “it was only the distance of a day and a half’s journey for a Nephite, on the line Bountiful and the land Desolation, from the east to the west sea” (Alma 22:32). An east sea is not explicitly mentioned. Elsewhere we learn that the Nephites fortified the narrow-neck area that ran “from the west sea, even unto the east; it being a day’s journey for a Nephite, on the line which they had fortified and stationed their armies to defend their north country” (Helaman 4:7). An east sea is not explicitly mentioned here either. Some read more into this text than is unambiguously stated. One can call into question the generally accepted

narrow-neck/isthmus correlation based on these passages. It still remains equally likely, however, that Mormons have been reading these two passages correctly all along. A non-isthmus narrow neck (read “narrow corridor”) requires too many unjustified supporting assumptions; Occam’s razor in this instance favors the isthmian alternative.

I provide below my reading of geographical passages in the Book of Mormon. I have tried to minimize the number of assumptions made about the meaning of a passage. Some inferences and guesswork are inevitable given the nature of the text. I will be explicit about these, thereby allowing others to reject those inferences that fail to meet their standards of reasoning.

My initial assumptions about the geographic references found in the Book of Mormon are (1) Assume a literal meaning. (2) Assume no scribal errors unless internal evidence indicates otherwise. (3) Assume no duplication of place-names unless the text is unambiguous on the matter. (4) Assume that all passages are internally consistent and can be reconciled. (5) Assume that uniformitarian rather than catastrophic principles apply to the actual Book of Mormon lands (i.e., that the locality where the Book of Mormon events took place was not unrecognizably altered at the time of the crucifixion, that geographic details in the small plates and in the book of Ether are therefore compatible with those in Mormon’s and Moroni’s abridgment, and that the principles of natural science that apply to today’s environments are also pertinent to Nephite lands). (6) Assume that the best internal reconstruction is one that reconciles all the data in the Book of Mormon with a minimum of additional assumptions.

Reconstructing an Elemental Geography

During the days of Alma and General Moroni, Book of Mormon lands consisted of three sectors that could be considered Nephite, Lamanite, and former Jaredite. The depopulated Jaredite lands constituted the land northward; Nephite and Lamanite lands lay in the land southward. Nephite lands, known as the land of Zarahemla, were sandwiched between the ancient Jaredite lands to the north and the Lamanite land of Nephi to the south. A narrow neck of land divided the land northward and the land southward; thus Book of Mormon lands were shaped like an hour-glass (fig. 1). The land southward was further divided into northern and southern sectors by a narrow strip of wilderness that ran from the east sea to the west sea. Nephites inhabited the lands north of this wilderness divide, and Lamanites controlled those to the south. As evident in figure 1, Nephite lands were quadrilateral, having four sides and four corners. We could quickly estab-

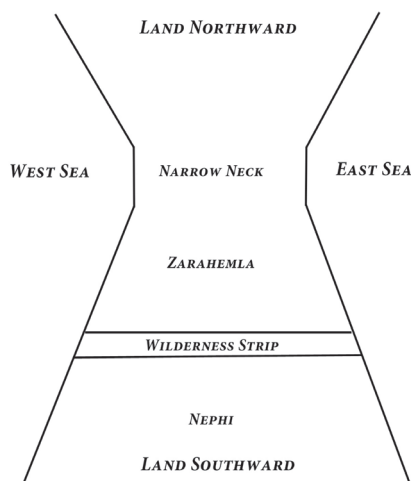


Figure 1. General Features of Book of Mormon Lands.

lish the size and shape of Book of Mormon lands using simple geometry if we knew the length and direction of at least three of its four borders. And if we could link at least one important locality in Lamanite and Jaredite lands to an established point in the Nephite land of Zarahemla, we would have the basic skeletal structure of Book of Mormon lands—and a key for evaluating competing Book of Mormon geographies.

An elemental framework of Book of Mormon geography can be reconstructed with just seven points or six transects (a line connecting two of these points), as shown in figure 2. The following sections consider each transect shown in figure 2 and present the data, inferences, and conjectures used to determine the distance between each pair of localities. To anticipate my argument, the southern border of Nephite lands was considerably longer than its northern border; and the western border was much longer than the eastern border.

Before proceeding with the specifics of each transect, I need to clarify how I am treating distance and direction. I assume that the Nephite directional system was internally consistent and that this consistency persisted throughout the period of their history. I do not pretend to know how Nephite “north” relates to the north of today’s compass, and such information is irrelevant for reconstructing an internal geography. I do assume, however, that regardless of what any “real” orientation may have been, Nephite north was 180 degrees from Nephite south, and both were 90 degrees off of east and west. The directional suffix *-ward* used in the Book of Mormon is here loosely interpreted to mean “in the general direction of.” Thus I read “northward” as “in a general northerly direction.” Finally, all directions are directions from “somewhere.” I assume

the central reference point was the city of Zarahemla, located in the “center” of the land of Zarahemla (Helaman 1:24-27).

Distances in the Book of Mormon are more problematical than directions. My assessments of distance are based on travel times, whether stated, inferred, or conjectured. Distance as “time” is familiar to most of us. When asked how far it is from Provo, Utah, to Burley, Idaho, for example, I quickly respond that it is three and a half hours rather than 220 miles. If my dad is driving, the “distance” (in terms of time) is considerably less—and significantly more if my mother is driving. Similar concerns with velocity are relevant to Book of Mormon accounts. I have converted all travel times into “units of standard distance” (USD), analogous to our “miles” or “kilometers.” *The USD is based on one day’s normal travel over flat land.* Travel through mountainous or hilly “wilderness” is considered to be half of the normal standard in terms of actual linear distance covered. In other words, two days of travel through the wilderness would cover the same as-a-crow-flies distance as one day’s travel on a plain, this because of the extra vertical and lateral movement necessitated by more difficult terrain. Internal evidence in the Book of Mormon is convincing that “wilderness” refers to mountainous regions filled with wild beasts. Some Book of Mormon travel accounts involve the movement of men, women, children, animals, and food stores, while others concern armies in hot pursuit or blind retreat. For purposes of our USDs, travel of children and animals comes under the normal standard—being more susceptible to ground conditions or terrain. Army travel (war speed) is calculated at 150-200 percent of normal (or 1.5-2 times as fast). These estimates are proposed as approximations that will allow us to reconstruct

the relative length of each border of Nephite lands. My goal is to work within the limits of precision dictated by the text; all measures given here are merely approximate. I have not adjusted my estimates of distance to fit any preconceived notions of where these places may actually be. Such interplay between text and modern maps is inappropriate and results in forcing the text to fit one’s notions or desires for placement of Book of Mormon lands.

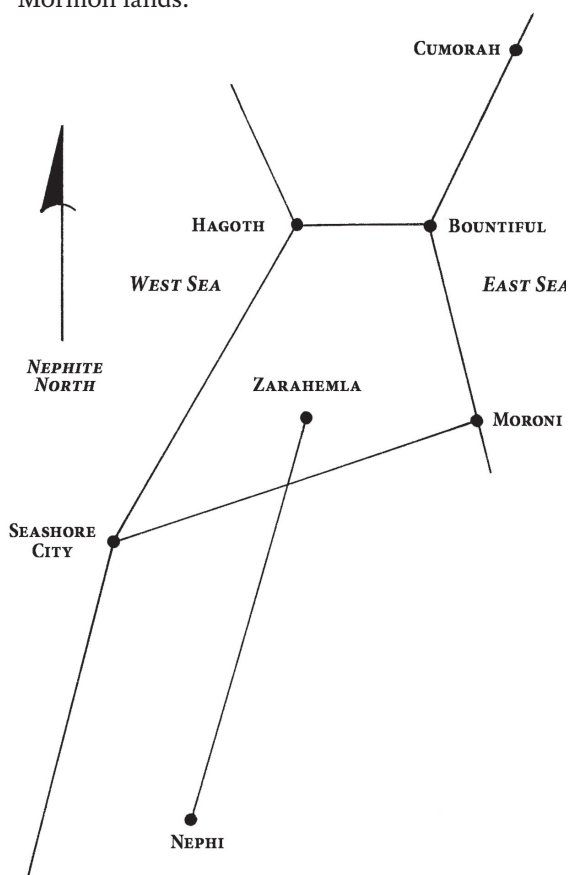


Figure 2. *Elemental Structure of Book of Mormon Lands.*

I. Hagoth to Bountiful

I have designated the NE and NW corners of Nephite lands as “Bountiful” and “Hagoth,” respectively. These points define the east-west line that traversed the narrow neck separating the land northward from the land southward. “Hagoth” (not used as a place-name in the Book of Mormon) marks the place where Hagoth and his adventurous group embarked on their journey from the west sea to the lands northward. “Bountiful” was near the land of Bountiful and north of the city of Bountiful. This northern border of Nephite territory is one of the most poorly known and controversial transects that we will consider. As noted above, the Book of Mormon apparently specifies precise travel times for this area. But the short distances involved (one to one and a half days) cannot be squared with any known isthmus (without special conditions or travel rates being specified). The critical data for this transect are listed below numerically; inferences and conjectures are listed alphabetically.

1. The lands of Desolation and Bountiful met in the narrow neck of land that divided the land northward from the land southward (Alma 22:30–32).
2. A narrow pass or narrow passage led from the land southward to the land northward and was near the borders of the land of Desolation (Alma 50:34; 52:9; Mormon 2:29; 3:5).
 - a. “Borders” probably refers to the southern border that adjoined the land of Bountiful (see 4 and 7).
3. The narrow pass “led by the sea into the land northward, yea, by the sea, on the west and on the east” (Alma 50:34).
 - a. Both the west and east seas are referred to here.
4. The city of Desolation was in the land of Desolation near the narrow pass and perhaps near the sea or a large river that led to the sea (Mormon 3:5, 8).
5. The city of Bountiful was the northernmost (and most important) fortification of the eastern border of Nephite territory during the days of General Moroni. Its purpose was to restrict access to the land northward and to keep the Nephites from getting boxed in by the Lamanites (Alma 22:29, 33; 50:32–34; 51:28–32; 52:9; Helaman 1:23, 28; 4:6–7).
6. The city of Bountiful was less than a day’s southward march of the eastern seashore and near a wilderness to the southwest; plains lay to the south (Alma 52:20–22).
7. The “line” between the land of Bountiful and the land of Desolation ran “from the east to the west sea” and was “a day and a half’s journey for a Nephite” (Alma 22:32; see 3 Nephi 3:23).
 - a. Since the east “sea” is not specified, maybe the travel distances were not meant to be
- b. The narrow pass was close enough to each sea that its location could be described by reference to both. This suggests that the narrow pass was near the center of the narrow neck of land.²
- c. This passage, coupled with 1 and 2, is clear evidence that the narrow neck was indeed an isthmus flanked by seas, to the west and to the east.
- d. The narrow pass paralleled the flanking seas and coastlines and thus ran in a north-south direction.

2. Amalikhiah’s attempt to seize this pass and Teancum’s encounter with Morianton may suggest that the narrow pass was actually closer to the east sea (John L. Sorenson, personal communication, 1988).

from sea to sea, but from the west sea to a point to the east.

- b. The short travel times for what apparently was a significant distance suggest travel over relatively flat terrain (see section VII below).
8. The Nephite-inhabited land of Bountiful extended “even from the east unto the west sea” (Alma 22:33).
 - a. The land of Bountiful stretched across the narrow neck from the west sea and at least close to the east sea (compare 6).
9. A fortified “line” extended “from the west sea, even unto the east; it being a day’s journey for a Nephite, on the line which they had fortified” (Helaman 4:7).
 - a. The travel referred to here may pertain to only the portion of the narrow neck that was the “fortified line” (see 7a).
 - b. This probably was flat land (see 7b).
 - c. I have assumed that the journey referred to here was foot travel. If water transport was involved, the distance traveled could have been greater.
10. Hagoth built “an exceedingly large ship, on the borders of the land Bountiful, by the land Desolation, and launched it forth into the west sea, by the narrow neck which led into the land northward” (Alma 63:5).
 - a. The wording here suggests that the parallel lands of Bountiful and Desolation may not have stretched all the way to the west sea (but compare with 7, 8, and 9).
 - b. The west sea at this location may have been a natural port or embayment that would have allowed launching a large ship without difficulty.

From all of the above it seems abundantly clear that the narrow neck was an isthmus

(rather than a narrow corridor) of relatively flat lowlands (see Alma 22:32). Therefore, all travel distances should be at least normal standard, but they may have been marching (or running) distances between fortifications.³ If so, 1-1.5 day’s journey would have been 2-3 USD in terms of our proposed standard measure of distance. This would have been the *minimum* width of this area.

It is noteworthy that the east “sea” or sea-shore is never specifically mentioned in conjunction with the land of Bountiful. The phrasing is consistent, regardless of which cardinal direction is specified first—“east to the west sea” (7), “east even unto the west sea” (8), and “west sea, even unto the east” (9). This suggests that the failure to mention the east “sea” is not due to mere grammatical parallelism or elliptical thought based on word order. We should, therefore, entertain the possibility that the land of Bountiful did not run all the way to the east sea. The shared border between the lands of Bountiful and Desolation, along a “line,” ran east-west to the west sea or very near to the west sea (see 10). This “line,” which was at one time fortified, could have been a natural feature of some kind, such as a river or a ridge, that would have afforded natural advantage to the Nephite forces against attack (in terms of protection or vantage).

The narrow pass appears to have crossed the line between the lands of Bountiful and Desolation and thus would have been located north of the city of Bountiful and south of the city of Desolation. Both cities were located on the eastern edge of their lands, probably within a day (USD) of the sea (see 4 and 6). The hypothetical NE point “Bountiful” of our northern transect, then, would have been located to the north and

3. Sorenson, *Ancient American Setting*, 17.

probably east of the city of Bountiful; I estimate 1 USD in both directions.

As noted, a plausible (if not probable) interpretation of the travel distances (1-1.5 days; 2-3 USD) for the narrow neck is that they refer only to the “line” from the west sea to the east. I follow this interpretation here and add at least 1 day USD to extend the eastern end of this “line” to the east sea. I consider 4 USD a reasonable estimate of the northern border of the greater land of Zarahemla. This distance is consistent with the facts of Limhi’s expedition. As Sorenson points out,⁴ this group of explorers unknowingly passed through the narrow neck and back to Nephi in their unsuccessful search for the city of Zarahemla. The narrow neck had to have been wide enough that travelers going north-south could pass through without noticing both seas from one vantage point, including the narrow pass.

In sum, our working assumption will be that the narrow neck was oriented east-west and was about 4 USD wide.

II. Bountiful to Moroni

Extensive data for the eastern border come from the accounts of Moroni’s campaign against Amalickiah (and later Ammoron), who attempted to break through the Nephites’ fortified line in Bountiful and gain access to the land northward. Bountiful was the northernmost and most important fortification of the Nephites’ eastern flank.

1. Moroni drove the Lamanites out of the east wilderness into their own lands to the south of the land of Zarahemla; people from Zarahemla were sent into the east wilderness “even to the borders by the seashore, and [to] possess the land” (Alma 50:7, 9) “in the borders by the seashore” (Alma 51:22).

2. The city of Moroni was founded by the east sea and “on the south by the line of the possessions of the Lamanites” (Alma 50:13).
 - a. As discussed above, a “line” could be a natural feature such as a river.
3. The city of Nephihah was founded between the cities of Moroni and Aaron (Alma 50:14).
 - a. Nephihah was westward from Moroni, and Aaron was westward from Nephihah (see section IV.4).
4. The city of Lehi was built north of Moroni by the borders of the seashore (Alma 50:15).
5. A contention arose concerning the land of Lehi and the land of Morianton “which joined upon the borders of Lehi; both of which were on the borders by the seashore.” The people of Morianton claimed part of the land of Lehi (Alma 50:25-26).
 - a. These cities would have to have been in close proximity to be fighting over land, which had to have been close enough to each city that it could be worked effectively from each (compare Alma 50:36).
6. The people of Lehi fled to the camp of Moroni; the people of Morianton fled north to the land northward. The people of Morianton were headed off at the narrow pass by Teancum and brought back to the city of Morianton (Alma 50:27-35).
 - a. The narrow pass appears to have been the most logical way to get to the land northward.
7. Amalickiah took the city of Moroni; the Nephites fled to the city of Nephihah. The people of (the city of) Lehi prepared for battle with the Lamanites (Alma 51:23-25).
 - a. The city of Nephihah was off the most direct, or easiest, route to the land northward.

4. Sorenson, *Ancient American Setting*, 17.

- b. The city of Lehi was next in line for the Lamanite attack.
 8. Amalickiah “would not suffer the Lamanites to go against the city of Nephihah to battle, but kept them down by the seashore” (Alma 51:25).
 - a. Nephihah was inland from the seashore.
 9. Nephites from Moroni, Lehi, and Morianton gathered at Nephihah to battle (Alma 51:24).
 - a. Nephihah was readily accessible from these three cities, probably northwest of Moroni (see 7a and 8b) and southwest of Lehi and Morianton.
 10. Amalickiah took the cities of Lehi, Morianton, Omner, Gid, and Mulek, “all of which were on the east borders by the seashore” (Alma 51:26), but did not take the city of Bountiful. (Mention of taking Nephihah in that verse is probably a scribal error, as it was captured much later; see Alma 59:5–11.)
 11. Teancum camped on the borders of Bountiful; Amalickiah camped “in the borders on the beach by the seashore” (Alma 51:32). Teancum killed Amalickiah; the Lamanite armies retreated to the city of Mulek (Alma 52:2).
 - a. The seashore was close to the southern border of the land of Bountiful.
 - b. This section of seashore had a beach.
 12. Teancum fortified the city of Bountiful and secured the narrow pass (Alma 52:9).
 13. There was a plain between the city of Bountiful and Mulek. From the city of Bountiful, Teancum marched to Mulek near the seashore and Moroni marched in the wilderness to the west (Alma 52:20, 22–23).
 - a. Moroni marched southward at the edge of the eastern wilderness.
 - b. The city of Bountiful was within 1 USD of the eastern seashore to the south.
 - c. There was no city between Mulek and the city of Bountiful (otherwise, the Nephite stratagem of “decoy and surround” would have had little chance of being successful; the Lamanites would not have been decoyed out of their fortress if there had been a Nephite fortress in their line of pursuit).
 14. The Nephites took Mulek by stratagem. The Lamanite armies chased Teancum’s forces “with vigor” from Mulek to the city of Bountiful in one day and started back for Mulek when they were trapped and defeated by Moroni’s and Lehi’s forces (Alma 52:21–39).
 - a. The city of Bountiful was within one day’s travel (war speed) of Mulek, or about 1.5 USD.
 15. The city of Mulek was one of the strongest Lamanite cities (Alma 53:6).
 16. After taking Mulek, the Nephites took the city of Gid (Alma 55:7–25).
 - a. Gid was the next significant city to the south of Mulek.
 17. From Gid, Moroni prepared to attack the city of Morianton (Alma 55:33).
 - a. Morianton was south of Gid.
 18. Moroni and his armies returned from a campaign at Zarahemla against the king-men and traveled eastward to the plains of Nephihah. They took the city, and the Lamanites escaped to the land of Moroni (Alma 62:18–25).
 - a. The cities of Moroni and Nephihah were east of the city of Zarahemla.
 - b. Nephihah was on a coastal plain but near the edge of the eastern wilderness, inland from the city of Moroni (see 8 and 9).
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19. Moroni went from Nephihah to Lehi; the Lamanites saw the approaching army and fled from “city to city, . . . even down upon the borders by the seashore, until they came to the land of Moroni” (Alma 62:32).
- Some smaller settlements seem to have been involved in the Lamanite retreat, but only the larger fortified cities are mentioned by name.
 - Moroni’s army traveled from a point near Nephihah to Lehi and south to Moroni in one day (war speed). Lehi and Nephihah were probably within 1 USD, and Lehi and Moroni were probably 1 USD apart; Nephihah and Moroni probably were not more than 1.5–2 USD apart.
20. The Lamanites “were all in one body in the land of Moroni” (Alma 62:33); they were “encircled about in the borders by the wilderness on the south, and in the borders by the wilderness on the east” (Alma 62:34). They were camped inside the city of Moroni (Alma 62:36). General Moroni drove the Lamanites out of the land and city of Moroni (Alma 62:38).
- The city of Moroni was not right next to the seashore but was separated by a “wilderness.” Given the setting, it may have been a swampy, lagoon-estuary “wilderness” rather than a hilly area. (The city sank beneath the sea at the time of the crucifixion; see 3 Nephi 8:9; 9:4.)
 - The seashore was close to the city of Moroni. I estimate a distance of 0.5 USD.
 - The city of Moroni was on the edge of the southern wilderness, or on the borders of Lamanite lands.
21. The sons of Helaman, Nephi, and Lehi began their missionary travels at the city of Bountiful; they traveled to Gid and then to Mulek (Helaman 5:14–15).
- They visited Gid and Mulek in reverse order of the Lamanite attack and Nephite reconquest (see 10, 14, and 16). Barring scribal error (for which there is no evidence), this missionary journey suggests that Gid was not directly in line with Mulek. One could get to Gid without going through Mulek, and on some occasions it was logical or convenient to do so.
 - Since Mulek appears to have been near the seashore, or at least in the middle of the coastal plain (see 13), this passage suggests that Gid may have been inland from Mulek.
- In summary, the Lamanite drive to the land northward along the eastern border of the land of Zarahemla proceeded from south to north. They took the cities of Moroni, Lehi, Morianton, Omner, Gid, and Mulek. Bountiful, the final obstacle in their path, withstood their attack. Later, the Lamanites took the city of Nephihah. In their counteroffensive, the Nephites regained Mulek, Gid, Nephihah, Morianton, Lehi, and Moroni and drove the Lamanites into the southern wilderness. The recapture of Omner is not mentioned, suggesting that it was inland from the main line of fortifications. I have reconstructed the settlement pattern as shown in figure 3. In the absence of specific information, I assume a distance of 1.5 USD between adjacent fortifications in a string of fortifications (the “day” or “day and a half’s journey for a Nephite”). Where we have accurate information, this appears to have been about the distance (e.g., Bountiful to Mulek). Also, 1.5 USD is just a day’s travel, or less, at war speed. Spacing fortifications this far apart would mean that every place on the fortified line would
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be within a half day’s travel from a fortification. The only question, then, is which cities constituted the fortified line. I consider them to have been Bountiful, Mulek, Gid, Morianton/Lehi, and Moroni. As Gid was probably inland from Mulek, the direct distance from Bountiful to Gid would have been less than the 3 USD expected

by this spacing. The distances of the other cities were discussed above.

In conclusion, the direct-line distance from the city of Bountiful to Moroni was about 5 USD; adding another day’s travel (the distance from the city of Bountiful to point “Bountiful”) gives us a total distance of 6 USD for the eastern transect.

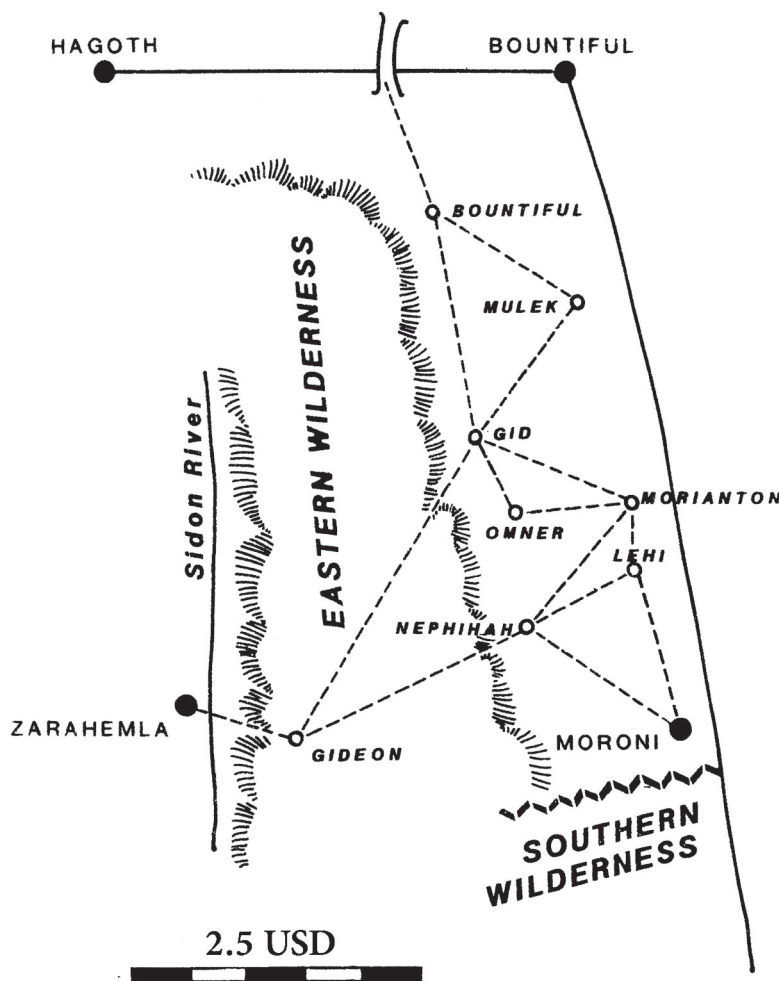


Figure 3. The Northern and Eastern Borders of Nephite Lands.

III. Moroni to Seashore City

The city of Moroni was the eastern anchor of a string of fortified cities that stretched from the east sea to the west sea, paralleling the southern narrow strip of wilderness that separated the land of Zarahemla from the land of Nephi. The westernmost city of this chain was an unnamed city on the west coast. Calculating distances along the southern fortified line is more problematic because it crossed two wilderness zones, east and west, of unknown width. We do have clues that the eastern wilderness was wider and lower than the western wilderness (this is discussed more fully in section VII). The Sidon River Basin was thus ringed with “wilderness” on all sides. Information for estimating the length of the southern frontier comes from Helaman’s campaign in the Manti quarter and Moroni’s forced march on Zarahemla against the king-men.

1. “Helaman did march at the head of his two thousand stripling soldiers, to the support of the people in the borders of the land on the south by the west sea” (Alma 53:22). The Lamanites came into the area from “the west sea, south” (Alma 53:8).
 - a. Helaman came from the north, probably from Melek (see Alma 35:13; 53:11-16).
 - b. The Lamanites came eastward from the west coast through the western wilderness, probably through a pass (see section IV.10a).
 - c. The Lamanite attack probably continued eastward.
 - d. The seashore city may have been a Lamanite possession rather than a Nephite fortification. The political affiliation of this city does not affect our consideration of its position in calculating the distance to the west sea.
2. Helaman and his “two thousand young men” marched to the city of Judea to assist Antipus (Alma 56:9).
 - a. Helaman must have marched southward from Melek to Judea.
3. Lamanites controlled the cities of Manti, Zeezrom, Cumeni, and Antiparah (Alma 56:13-14).
 - a. These cities were probably major fortifications that we would estimate as spaced at 1.5 USD intervals (see section II). They were probably arranged from west to east in the order listed.
4. The Nephites kept spies out so the Lamanites would not pass them by night “to make an attack upon [their] other cities which were on the northward” (Alma 56:22). The cities to the north were not strong enough to withstand the Lamanites (Alma 56:23).
 - a. Nephite fortifications were north of the Lamanite-controlled cities.
 - b. Lamanite strongholds probably were strung out east-west (the captured fortified line of the Nephites).
 - c. The Nephite fortifications were close enough together that they could watch their newly fortified line and protect the weaker settlements to the north.
5. “They durst not pass by us with their whole army” (Alma 56:24). “Neither durst they march down against the city of Zarahemla; neither durst they cross the head of Sidon, over to the city of Nephihah” (Alma 56:25).
 - a. Zarahemla was at a lower elevation than the fortified cities on the southern frontier.
 - b. A route connected Nephihah, on the east coast, with the cities on the southern frontier of the Sidon River Basin.

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- c. The Lamanite-controlled cities, including Manti, were west of the Sidon.
 - 6. In a Nephite stratagem, Helaman’s army marched “near the city of Antiparah, as if [they] were going to the city beyond, in the borders by the seashore” (Alma 56:31). Antipus waited to leave Judea until Helaman was near Antiparah. The Lamanites were informed of troop movements by their spies. Helaman fled “northward” from the Lamanites (Alma 56:32–36).
 - a. The city of Antiparah was near the route to the seashore city. It was probably the westernmost city of the Lamanite-controlled strongholds in the Sidon River Basin.
 - b. Helaman’s natural course to this route to the seashore took him close to the city of Antiparah (otherwise the stratagem would not have been effective); Helaman traveled westward. Judea must have been east and somewhat north of Antiparah.
 - c. Judea was within a day’s march of Antiparah.
 - 7. The Lamanites pursued Helaman northward until night time. Antipus chased the Lamanites who were chasing Helaman. The Lamanites began their pursuit before dawn. Helaman fled into the wilderness and was hotly pursued all day until nighttime. The Lamanites chased them part of the next day until Antipus caught them from the rear.
 - a. Helaman was traveling at maximum speed for about a day and a half, probably northward along, and just inside, the edge of the western wilderness. He and his troops could have traveled 3 USD. They did not pass any cities worthy of note in that time.
 - b. If Helaman’s travel was east-west (which I doubt), through the wilderness, it would indicate a width for the western wilderness of at least 3 USD.
 - 8. The Nephites sent their prisoners to the city of Zarahemla (Alma 56:57; 57:16).
 - a. Zarahemla was on a route from Judea, undoubtedly northward.
 - 9. The Lamanites fled Antiparah to other cities (Alma 57:4). The Nephites next attacked and surrounded Cumeni. They cut off the Lamanites’ supply line and captured their provisions. The Lamanites gave up the city (Alma 57:9–12).
 - a. Cumeni was the next fortification in the line from Antiparah.
 - b. The Lamanite strongholds were adjacent to their territory to the south.
 - 10. The Lamanites arrived with new armies but were beaten back to Manti; the Nephites retained Cumeni (Alma 57:22–23).
 - a. Manti was east of Cumeni (see 9a).
 - 11. The Nephites attacked Manti; they pitched their tents on the wilderness side, “which was near to the city” on the borders of the wilderness (Alma 58:13–14).
 - a. Manti was not in the wilderness (south) but was very close to it (see also Alma 22:27).
 - 12. The Lamanites were afraid of being cut off from their supply lines; they went forth against the Nephites and were decoyed into a trap. Helaman retreated into the wilderness, and Gid and Teomner slipped in behind and took possession of Manti. Helaman’s army took a course “after having traveled much in the wilderness towards the land of Zarahemla” (Alma 58:23). At nightfall the Lamanites stopped to camp; Helaman continued
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- on to Manti by a different route. When the Lamanites learned that Manti had fallen, they fled into the wilderness (Alma 58:25-29).
- a. Helaman traveled south from Manti and made a loop (east or west) that brought him back to Manti. He was able to travel in a north-south and east-west direction within the southern wilderness.
13. The Nephites retook possession of all their cities in the southern sector. Many Lamanites fled to the east coast and were part of Ammoron's successful attack on Nephihah (Alma 59:5-8).
 - a. Coupled with the preceding data (see 12), this suggests an east-west route from Manti to Nephihah through the eastern wilderness (see also Alma 25:1-5; 43:22-24).
 - b. The southern wilderness permitted travel in a north-south direction (see section V) as well as in an east-west direction, suggesting the absence of major natural barriers that would prohibit travel.
 14. General Moroni marched from the city of Gid with a small number of men to aid Pahoran against the king-men at Zarahemla (Alma 62:3). Moroni raised "the standard of liberty in whatsoever place he did enter, and gained whatsoever force he could in all his march towards the land of Gideon." Thousands flocked to the standard "in all his march" (Alma 62:4-6).
 - a. Moroni's march took him through many unnamed places; thus he was able to press thousands into his army.
 - b. Moroni traveled westward through the eastern wilderness.
 - c. Given Moroni's purpose of raising an army en route to Zarahemla, it is unlikely he took the most direct route to Gideon.
 - d. The eastern wilderness was probably several days' march wide; a reasonable estimate for the distance from Gid, or Nephihah, would be several days USD. (Army speed through the wilderness would be about the same as normal travel on a plain.)
 - e. A route connected Gid to Gideon.
 15. Pahoran and Moroni went down to Zarahemla; they slew Pachus and the recalcitrant king-men and restored Pahoran to the judgment seat (Alma 62:7-9).
 - a. Gideon was in an upland position eastward from Zarahemla.
 - b. Gideon was the first major city to the east of the city of Zarahemla (see 16).
 16. In an earlier battle, Alma's army pursued the Amlicites from a hill east of the Sidon (and the city of Zarahemla) all day. When it grew dark, they camped in the valley of Gideon (Alma 2:17-20; 6:7).
 - a. Considered with 17 (below), Gideon could have been no more than 1.5 USD eastward from Zarahemla and the river Sidon and may have been less than 1 USD.
 - b. The hills and uplands leading to the valley of Gideon were within a half day's travel of the Sidon.
 - c. These uplands can be considered the western fringe of the eastern wilderness (see section II.1).
 - d. From the above, it follows that the Nephites had major settlements and fortifications in the zone they considered to be wilderness. (The Lamanites also inhabited the wilderness zones.)
 - e. In conjunction with 14 (above), it follows that the eastern wilderness ran from Gid
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and Nephihah to a western margin close to the river Sidon.

17. Alma’s spies followed the Lamanites to the “land of Minon, above the land of Zarahemla, in the course of the land of Nephi” and saw the armies of the Lamanites joining forces with the Amlicites (Alma 2:24).
 - a. Minon was southward from Gideon on a route that led to the land of Nephi (probably meaning the more restricted area around the city of Nephi).
 - b. Minon occupied an upland position.⁵
18. Later, on a missionary journey, Alma traveled southward from Gideon “away to the land of Manti.” He met the sons of Mosiah coming from the land of Nephi (Alma 17:1).
 - a. The land of Manti was southward from Gideon and probably from Minon (see 17).
 - b. The upland route from Gideon to the south was connected with the upland route from the land of Nephi to Zarahemla (see section V).
 - c. A spur of this route led down to the Sidon Basin and the city of Manti, to the west.
19. The land of Manti was located on the east and west of the Sidon, near the river’s headwaters in the southern wilderness (Alma 16:6–7; 22:27; see also 5).
 - a. The city of Manti was directly south of Zarahemla along the Sidon.
 - b. Manti may have occupied a peninsular position (if we have interpreted these east and west passages correctly and barring scribal error) between two major tributaries of the Sidon that joined downstream

from Manti as the main channel of the Sidon. Thus the Sidon could easily have been considered to be both east and west of Manti.⁶

20. Returning to General Moroni, he and his new battle-proven recruits marched from Zarahemla to the city of Nephihah (see section II.18).
 - a. A route connected Zarahemla and Nephihah; this undoubtedly passed through Gideon.
 - b. Nephihah was east or eastward from Zarahemla.

In estimating the length of the southern defensive line, we lack information for a direct route from Moroni to Manti and the city by the seashore. We can get a close approximation, however, by summing the western half (Manti to the seashore city) with the eastern half (Zarahemla to Moroni). The logic for doing this is that Manti and Zarahemla are on a direct north-south line defined by the course of the river Sidon. Lines or transects that are perpendicular to the same line should be parallel.

As mentioned, we are using the 1.5 USD estimate for the spacing of the Manti-Zeezrom-Cumeni-Antiparah chain. The failure to mention a Nephite counteroffensive against the city of Zeezrom may indicate that it was offset from the direct east-west line. We relied on similar reasoning in our placement of the east coast cities of Omner and Gid, and for consistency of argument we apply the same standard to Zeezrom. Of necessity, Zeezrom must have been offset to the south, given the circumstances of the war. Therefore, the projected 1.5 USD between Manti-Zeezrom and Zeezrom-Cumeni would not have con-

5. Sorenson (personal communication, 1988) believes that I have misplaced Minon; he argues that it was on the west side of the Sidon, upriver from Zarahemla. This placement does not affect our calculation of the length of the Nephi-Zarahemla transect.

6. J. Nile Washburn, *Book of Mormon Lands and Times* (Salt Lake City: Horizon, 1974), 97.

stituted 3 USD of linear east-west distance, but would have been less, as shown in figure 4. I estimate 2.5 USD between Manti and Cumeni. From Cumeni to Antiparah would have been another 1.5 USD, but this was probably not directly east-west along our hypothetical Moroni-Seashore City transect. The circumstances of the Nephites' decoy-and-surround stratagem against the city of Antiparah suggest that it may have been slightly northward from the Manti-Cumeni line, as I have shown in figure 4. The remainder of the line to the seashore city requires even more guesswork. Antiparah was close to the western wilderness and to the route or "pass" through this wilderness. As the western wilderness appears to have been more narrow than the eastern wilderness (see section VII), which we estimate at 2.5 USD, I consider 1.5 USD a reasonable estimate for the width of the western wilderness. I calculate another day's normal travel from the western fringe of the western wilderness to the seashore, or only 0.5 USD from the edge of the wilderness to the seashore city. Thus our estimated distance from Manti to the west seashore is 6.5 USD.

In the previous section (II), we calculated the distance from the east sea, slightly east of the city of Moroni, to the city of Nephihah to be 2 USD (see fig. 3). We estimated an additional 2 USD of direct-line distance from Nephihah (probably directly south of Gid) through the eastern wilderness to the city of Gideon (see 14d) and another 1-1.5 USD to the city of Zarahemla (see 16a), located north of Manti and east of Moroni (see 14-16, 20; Alma 31:3; 51:22). Thus our best guess of the distance of the eastern half of the southern transect is 5 USD.⁷ This gives us a ballpark figure

of 11.5 USD for the Moroni-Seashore City transect. If the city of Zarahemla was directly west of the city of Moroni (as indicated by General Moroni's travels) and Manti was directly south of Zarahemla (as indicated by Alma's travels), then 11.5 USD would underestimate the distance from Moroni to Manti (which would be the long side of the Manti-Zarahemla-Moroni triangle). But given the imprecision in our directional information, our estimates of the width of wildernesses, and our estimates of the distance and placement of Nephite fortifications, we cannot justify the extra distance (1 USD).

IV. Seashore City to Hagoth

The information in the Book of Mormon is too inadequate for even guessing the distance of this western transect; the Nephites largely ignored this coast. The only other coastal city we know of is Joshua, occupied by General Mormon's army in their doomed retreat from the land of Zarahemla to their final stand at the hill Cumorah (Mormon 2:6). As an approximation of the length of the western border, we can estimate the distance from Zeezrom (which may have been the southernmost Nephite fortification; see figure 4 and section III) to Hagoth, or to the Hagoth-Bountiful transect (fig. 2). The key to this reconstruction is the city of Melek, which appears to have been a well-protected city west of the city of Zarahemla. The people of Ammon (Anti-Nephi-Lehis) were sent from the land of Jer-shon (on the east coast, south of the city of Bountiful) to Melek (Alma 27:22; 35:13). This movement accomplished a dual purpose. It gave Moroni and his army room to defend the east coast from Amalickiah's attack, and it secured the people of

7. Sorenson (personal communication, 1988) suggests that the distance between Moroni and Manti was greater than what I have estimated. The account of the Lamanite attack on Manti (Alma 43) is convincing

evidence of his interpretation. The Manti-Seashore City transect could have been 3-4 USD wider than I show in figures 3, 4, and 6.

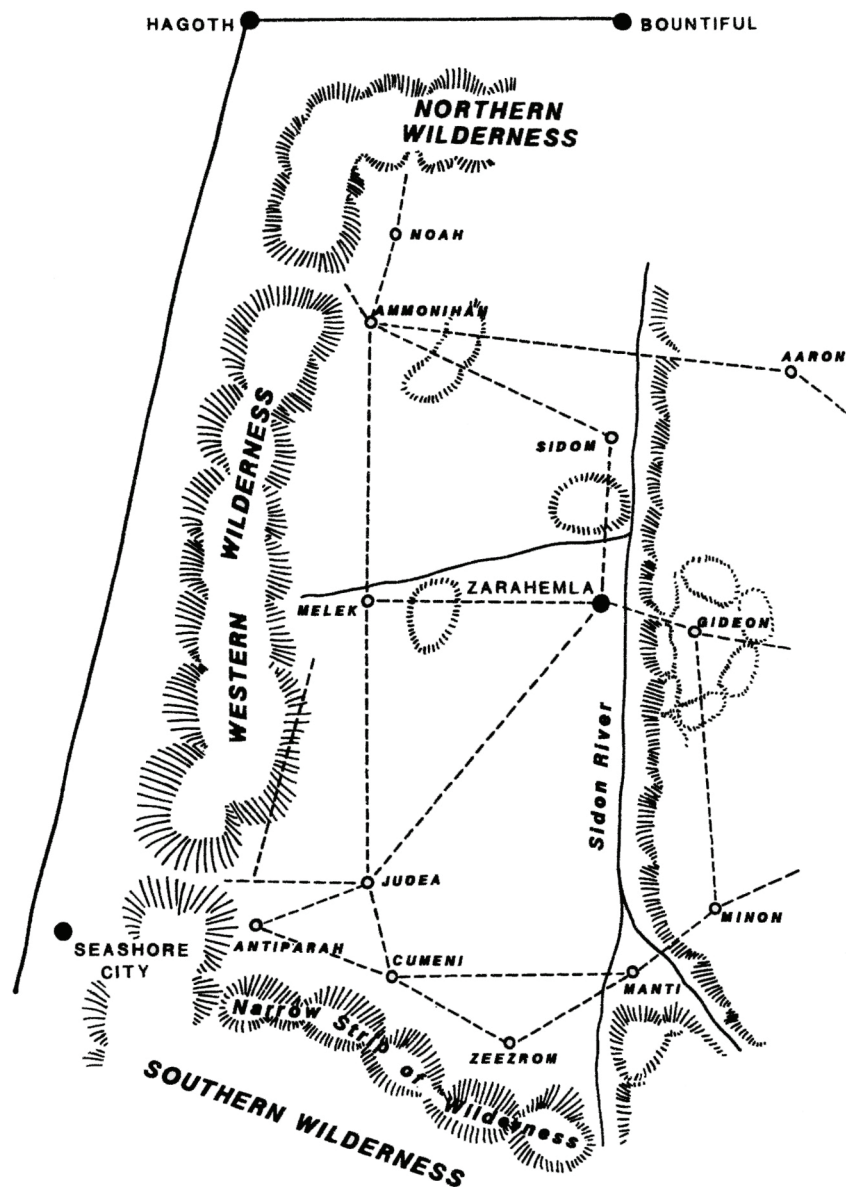


Figure 4. The Southern and Western Borders of Nephite Lands.

Ammon, sworn pacifists, in the heart of the land of Zarahemla, away from the battle zone. Judea was probably at least several days' march south of Melek (see section III.1, 7a). Helaman's northward flight before the Lamanite army at Antipa-

rah suggests a long stretch without a Nephite city worthy of mention (see section III.7a). (I consider it more probable that the journey of Helaman's army in the wilderness was along the edge of the western wilderness and in a northerly direc-

tion—from which they, like their Lamanite pursuers, dared not turn “to the right nor to the left” [Alma 56:37, 40]—rather than toward the sea-shore.) Thus I estimate at least 3 USD for the minimum distance from Melek south to Judea. The data listed below allow the reconstruction of the northern half of this transect; see figure 4.

1. Alma left the city of Zarahemla “and took his journey over into the land of Melek, on the west of the river Sidon, on the west by the borders of the wilderness” (Alma 8:3).
 - a. Melek lay west of the city of Zarahemla and near the eastern edge of the western wilderness.
 - b. The route from Melek went “over” higher ground, probably a large hill or range of hills.
 - c. Melek was probably at a higher elevation than the city of Zarahemla.
2. People came to Alma “throughout all the borders of the land which was by the wilderness side. And they were baptized throughout all the land” (Alma 8:5).
 - a. Melek was the major settlement in this area of the “wilderness side.”
 - b. As other data in the Book of Mormon indicate that Alma baptized by immersion (Mosiah 18:14–15), there may have been a good water source near Melek.
 - c. Given its location at the edge of an upland wilderness, the water source was probably a river that ran past Melek eastward toward the Sidon.
3. Alma departed Melek and traveled “three days’ journey on the north of the land of Melek; and he came to a city which was called Ammonihah” (Alma 8:6).
 - a. As both of these cities appear to be in the Sidon Basin, the land was probably relatively flat; Alma’s three days’ travel can be considered as 3 USD.
 - b. Ammonihah was north of Melek.
4. Cast out of Ammonihah, Alma “took his journey towards the city which was called Aaron” (Alma 8:13).
 - a. A route connected the cities of Aaron and Ammonihah.
 - b. The route was probably not westward (the wilderness side) or southward (the land Alma had just passed through).
5. Alma returned to Ammonihah and “entered the city by another way, yea, by the way which is on the south of the city of Ammonihah” (Alma 8:18).
 - a. Alma had not entered (or been cast out of) this southern entrance on his previous visit; he may have exited north of the city.
 - b. The preceding suggests that Aaron was north or east of Ammonihah. But we know that it had to have been adjacent to the land of Nephiah (Alma 50:13–14); therefore, Aaron was located eastward of Ammonihah.
6. Alma and Amulek left Ammonihah and “came out even into the land of Sidom,” where they found all the people who had fled Ammonihah (Alma 15:1).
 - a. Ammonihah and Sidom were probably adjacent cities.
 - b. There were enough room and resources (land) at Sidom to absorb the influx of the Ammonihah refugees.
 - c. The trip from Ammonihah to Sidom may have required travel up and over an upland area, hence the phrase “come out.”⁸

8. See Sorenson, *Ancient American Setting*, 201, for a discussion of this point.

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- d. Sidom may not have been on the Ammonihah-Aaron route (see 4).
 - e. Sidom was probably eastward from Ammonihah. Melek lay to the south and Noah to the north (see 10 below).
7. Alma baptized Zeezrom and many others in the land of Sidom (Alma 15:12-14).
 - a. Again, this suggests ready surface water such as a river.
 - b. Travel eastward from Ammonihah would have been toward the river Sidon.
 - c. It is quite likely that Sidom was on the river Sidon.⁹
 - d. Given Alma’s travels to this point (Zarahemla-Melek-Ammonihah-Sidom), Sidom would have been north of the city of Zarahemla.
 8. Alma and Amulek left Sidom and “came over to the land of Zarahemla” and the city of Zarahemla (Alma 15:18).
 - a. The route from Sidom to Zarahemla led over higher ground.
 - b. This route was probably southward from Sidom (see 7d).
 9. Lamanite armies “had come in upon the wilderness side, into the borders of the land, even into the city of Ammonihah” (Alma 16:2). The Lamanites completely “destroyed the people who were in the city of Ammonihah, and also some around the borders of Noah” (Alma 16:3).
 - a. The Lamanites came up the west coast and crossed the western wilderness from west to east, probably through a pass (see 10).
 - b. Ammonihah was on the interior side of this wilderness; hence the Lamanite attack came without warning.
 - c. Noah was the city in closest proximity to Ammonihah.
 - d. Given 9c, Sidom and Aaron were more distant from Ammonihah and probably in a direction that would not have led past Noah.
 - e. Noah was probably within 1-1.5 USD of Ammonihah.
 10. The Lamanites approached the rebuilt and fortified city of Ammonihah and were repulsed (Alma 49:1-11). They “retreated into the wilderness, and took their camp and marched towards the land of Noah” (Alma 49:12). They “marched forward to the land of Noah with a firm determination.” Noah had been a weak city but was now fortified more than Ammonihah (Alma 49:13-14).
 - a. The Lamanites repeated their same point-specific traverse of the western wilderness, coming from the west coast to Ammonihah. This repeated eastward traverse of the western wilderness suggests a special route (see also section III.6 and Mormon 1:10; 2:3-6). All known travel through the western wilderness tended east-west, suggesting that north-south travel was not feasible. (The probable exception is Helaman [section III.6-7], who was probably just traveling through the edge of the wilderness.) All of these data suggest a formidable wilderness that could be traversed only through a few passes. (This would explain why Melek, located on the eastern edge of the western wilderness, could be considered a secure position for the people of Ammon.) The western wilderness was clearly more impenetrable than the wildernesses on the south and east.
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9. See Sorenson, *Ancient American Setting*, 205, for detailed discussion of this possibility.

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- b. The Lamanite retreat from Ammonihah took them back to the wilderness (westward) from which they marched to Noah.
 - c. From all of the above, the most probable location for Noah was north of Ammonihah. (We have no mention of it on Alma's journey to Ammonihah from the south.)
 - d. Had Noah been east of Ammonihah, the Lamanites would not have had to retreat to the wilderness side of Ammonihah (assuming that there was not another wilderness east of Ammonihah).
 - e. Given 10d and 9d, the cities of Sidom and Aaron were likely located eastward from Ammonihah, as suggested (see 6a and 4b).
 - f. Our 1.5 USD rule between fortified cities does not apply to Noah. It was a weak city, undoubtedly under the protection of Ammonihah. Thus 1 USD between it and Ammonihah is a better estimate.
11. The land of Zarahemla had a northern wilderness area (not specifically described as such) that lay between Noah and the lower narrow-neck area (see Alma 22:31; Mormon 3-5).
- a. It follows that Noah was still some distance from the narrow neck. I estimate 2 USD as a ballpark figure. This would include the distance from Noah to the southern fringe of the northern wilderness, the wilderness itself, and travel from the northern foot of the wilderness to our Hagoth-Bountiful line (see section VII). Our 2 USD is a minimal estimate; obviously, the distance could be much greater. I am assuming, however, that the northern wilderness was not significantly wider than the eastern wilderness that we estimated at 2.5 USD.
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We are now in a position to estimate the length of the western border, along the "wilderness side," of the land of Zarahemla. This is shown in figure 4. The estimated total length is 11 USD, or about the same estimated length as the southern border.

V. Nephi to Zarahemla

The central travel route of the Book of Mormon was that connecting the Nephite capital of Zarahemla to the city of Nephi, the capital city of the Lamanites. Of all the transects considered here, this route is the best documented. The route passed inland over the narrow strip of wilderness that separated the land of Zarahemla and the land of Nephi, which I have been calling the southern wilderness (from a Nephite/Zarahemla perspective).

- 1. Mosiah₁ and his group departed the land of Nephi and went into the wilderness; they were "led by the power of his [God's] arm, through the wilderness until they came down into the land which is called the land of Zarahemla" (Omni 12-13).
 - a. Mosiah₁ relied on divine guidance to travel to Zarahemla.
 - b. The land of Zarahemla was at a lower elevation than the land of Nephi and the southern wilderness.
 - 2. King Mosiah₂ was desirous to know "concerning the people who went up to dwell in the land of Lehi-Nephi, or in the city of Lehi-Nephi; for his people had heard nothing from them from the time they left the land of Zarahemla" (Mosiah 7:1).
 - a. The land of Nephi was "up" from the land of Zarahemla.
 - b. There was no contact between the two lands.
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3. Zeniff led a party from Zarahemla “to go up to the land” of Nephi; they traveled many days through the wilderness (Mosiah 9:3).
 - a. The wilderness between Zarahemla and Nephi was many days wide.
 4. Mosiah₂ granted sixteen strong men that they “might go up to the land of Lehi-Nephi, to inquire concerning their brethren” (Mosiah 7:2). Ammon led the group up to Nephi (Mosiah 7:3). “And now, they knew not the course they should travel in the wilderness to go up to the land of Lehi-Nephi; therefore they wandered many days in the wilderness, even forty days did they wander” (Mosiah 7:4).
 - a. There had been no communication between the people of these two capitals.
 - b. The wilderness was such that it was easy to get lost. This suggests a labyrinthian arrangement that allowed travel in all directions.
 - c. Forty days of wilderness travel (20 USD) is a high estimate for the distance between Nephi and Zarahemla.
 5. After forty days they came to a hill north of the land of Shilom, and from there they went down to Nephi (Mosiah 7:5-6).
 - a. Nephi was located in a highland valley; the wilderness to the north of the city of Nephi was “up” from the city.
 6. King Limhi sent forty-three people into the wilderness to search for Zarahemla: “And they were lost in the wilderness for the space of many days, yet they were diligent, and found not the land of Zarahemla but returned to this land, having traveled in a land among many waters, having discovered a land which was covered with bones of men, and of beasts, and was also covered with ruins of buildings of every kind” (Mosiah 8:7-8). King Limhi had sent “a small number of men to search for the land of Zarahemla; but they could not find it, and they were lost in the wilderness.” They found a land covered with bones and thought it was Zarahemla, so they returned to Nephi (Mosiah 21:25-26). They brought back the Jaredite record as a testimony of what they had seen (Mosiah 8:9).
 - a. The Limhi party obviously got to the land northward near the area of final destruction of the Jaredite people, or the hill Ramah (the Cumorah of the Nephites).
 - b. They did not know the route to Zarahemla.
 - c. They apparently passed through the narrow neck of land without realizing it.
 - d. They must have traveled through the area the Nephites called the eastern wilderness. Any other northward route would have taken them through the Sidon Basin (near the west sea) or along the east sea. They did not know the route to Zarahemla, but they must have known at least three key facts concerning it: that it lay to the north, that it was an inland river valley, and that a wide wilderness separated Zarahemla and Nephi.
 - e. Given the preceding, we suspect that the eastern wilderness was quite wide and, at this time, sparsely populated.
 - f. Sorenson suggests that the Limhi party must also have had a general idea of the distance between Nephi and Zarahemla,¹⁰ in which case they would not have traveled much more than twice the expected distance. This would place the hill
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10. Sorenson, *Ancient American Setting*, 140.

Ramah/Cumorah in the southern part of the land northward.

7. Limhi and his people escaped from Nephi with women, children, flocks, and herds and traveled “round about the land of Shilom in the wilderness, and bent their course towards the land of Zarahemla, being led by Ammon and his brethren” (Mosiah 22:8, 11). “And after being many days in the wilderness they arrived in the land of Zarahemla” (Mosiah 22:13).
 - a. The land of Shilom was north of the city of Nephi.
 - b. Zarahemla was “many days” from Nephi, even when the route was known—assuming that Ammon discovered the route during his wanderings to Nephi.
8. The Lamanite army chased Limhi’s group into the wilderness, but they got lost after they pursued them for two days (Mosiah 22:15–16).
 - a. It was easy to get lost, even when the trail was fresh; the route from Nephi to Zarahemla was not obvious.
9. The Lamanite army that had followed Limhi “had been lost in the wilderness for many days” (Mosiah 23:30); they stumbled onto the wicked priests of King Noah in the land of Amulon (Mosiah 23:31). The people of Amulon and the Lamanites searched for Nephi, and they came upon Alma’s group at Helam (Mosiah 23:35).
 - a. The wilderness was a virtual maze; the Lamanites could not even find their way back home after only two days’ travel in the wilderness.
 - b. The mutual aid of the people of Amulon and the Lamanites was a case of the blind leading the blind. The wilderness must have been such that people could walk in circles.
- c. This wilderness area was not populated, or was only sparsely populated, at this time. (They could not ask anyone directions for the way back.)
10. Alma and his group had “fled eight days’ journey into the wilderness” to escape the armies of King Noah who were searching for them in the land of Mormon, and they arrived in Helam. They took their grain and flocks (Mosiah 23:1–3).
 - a. This travel distance is wilderness speed and thus is only 4 USD or less.
11. The land of Mormon was in the “borders of the land” of Nephi (Mosiah 18:4; Alma 5:3).
 - a. Mormon was located on the edge of the territory immediately surrounding the capital of Nephi. It was probably not more than 1–1.5 USD from Nephi.
12. Mormon was near a “fountain of pure water.” Alma hid there from the searches of the army of King Noah; people gathered from the city of Nephi to hear Alma speak, and many were baptized (Mosiah 18:5–16). Alma and his group departed into the wilderness from the waters of Mormon.
 - a. The waters of Mormon were in close proximity to the lesser land of Nephi.
13. Alma and his followers escaped Helam by night. They took flocks and grain and departed into the wilderness, “and when they had traveled all day they pitched their tents in a valley” that they called Alma (Mosiah 24:18, 20).
 - a. This travel distance is also wilderness speed and is only 0.5 USD.

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- b. Given all the baggage that Alma’s party packed around, my USD estimates may be inflated.
14. Alma and his group fled the valley of Alma and went into the wilderness. “And after they had been in the wilderness twelve days they arrived in the land of Zarahemla” (Mosiah 24:24–25).
- a. The land of Zarahemla was not the same as the city of Zarahemla; the city must have been some additional distance removed.
- b. We standardize this travel distance, as before, to 6 USD.
15. The Lamanites could not follow Alma past the valley of Alma, owing to divine intervention (Mosiah 24:23).
16. The sons of Mosiah went up to the land of Nephi to preach; “they journeyed many days in the wilderness” (Alma 17:8–9).
- a. These eager missionaries should have had adequate travel instructions as to the route; it was still “many days” of travel.
17. On their return trip to Zarahemla, the sons of Mosiah met Alma as he was “journeying from the land of Gideon southward, away to the land of Manti” (Alma 17:1; 27:15–16).
18. Nephi and his small party fled “into the wilderness” from the land of first inheritance “and did journey in the wilderness for the space of many days” until they came to the place they called Nephi (2 Nephi 5:5–8).
- a. Nephi was a favorable place for settlement.
- b. We know that Nephi was a highland valley (see 5). Thus Nephi’s trip from the coast involved at least some travel eastward (see 19).
19. The Lamanites lived in the wilderness “on the west, in the land of Nephi; yea, and also on the west of the land of Zarahemla, in the borders by the seashore, and on the west in the land of Nephi, in the place of their fathers’ first inheritance, and thus bordering along by the seashore” (Alma 22:28).
- a. The west coast of the land southward was extensive, consisting of three parts: the area west of the land of Zarahemla, the area west in the land of Nephi, and the area of the Nephites’ landing.
- b. The area of first inheritance was south of the land of Nephi.
- c. Given 19b, Nephi’s many days’ journey to the land of Nephi (see 18) was probably mostly northward.
- d. It is probable, therefore, that the highland valley of Nephi was closer to the west coast than to the east coast since much of the travel appears to have been northward rather than eastward. (The east coast is not mentioned in accounts of Lamanite lands, other than the area just south of the city of Moroni.)
- e. The Lamanites inhabited the wilderness areas and at one time occupied the wildernesses to the east, west, and south of the Nephites.
20. Jerusalem was “a great city” “joining the borders of Mormon” (Alma 21:1–2). Jerusalem, Onihah, and Mocum were submerged under water at the time of the Lord’s crucifixion—“waters have I caused to come up in the stead thereof” (3 Nephi 9:7). Compare this to the very different phrasing for the city of Moroni: That “great city Moroni have I caused to be sunk in the depths of the sea” (3 Nephi 8:9; 9:4).
- a. Jerusalem was near the waters of Mormon.
-

- b. This must have been a very large body of water to be able to rise and cover a whole city, and possibly three cities.
- c. This body of water was located near Nephi, and vice versa, in a highland area; it therefore must be a large lake.¹¹
- d. The three most obvious points of these passages are that (1) it was a long journey from Nephi to Zarahemla (2) through wilderness lands (3) in which it was easy to become lost and “wander.” The best information on distance comes from Alma’s account; his group traveled twenty-one days from the waters of Mormon to the land of Zarahemla. It is unlikely, however, that this represents direct lineal distance. In their journey to Helam, for example, it was not their intention to go to Zarahemla, and we cannot reasonably presume that they traveled in that direction during this eight-day leg of their trek. The total distance would have been 10.5 USD by our measure. I have reduced this to an estimated 9 USD between the land of Zarahemla and Nephi (assuming that the waters of Mormon were within 1 to 1.5 USD of Nephi). On the other hand, I assume that the point where they entered the “land of Zarahemla” was still some distance from the city of Zarahemla. I have taken the point of Alma’s reunion with the sons of Mosiah as a likely candidate for this entrance. This would still have been 2 USD from the city of Zarahemla.

The city of Helam and the valley of Alma were plotted with the assumption that the city of Nephi was near the west coast (see Alma 22:28). I have also assumed that the waters of Mormon

were to the west of the city of Nephi (fig. 5). This assumption does not affect the placement of the city of Nephi on our transect, but rather only the placement of Helam and Alma. Our general picture of the size and shape of Book of Mormon lands is not affected by this assumption.

VI. Bountiful to Cumorah

The information on this transect is less precise than that for all other transects. We know that the hill Cumorah was known as the hill Ramah to the Jaredites and was near the area of their final destruction (Ether 15:11). We know that the hill Cumorah was “in a land of many waters, rivers, and fountains” (Mormon 6:4), undoubtedly the same area visited by Limhi’s party that had “traveled in a land among many waters, having discovered a land which was covered with bones of men” (Mosiah 8:8), a land with “large bodies of water and many rivers” (Helaman 3:4). This was “an exceedingly great distance” from the land of Nephi (Helaman 3:4). The land near Cumorah was probably also the destination of Morianton’s group who fled past Bountiful for the land northward, “which was covered with large bodies of water” (Alma 50:29). We also learn from the Jaredite account that the hill Cumorah was near the eastern seashore (Ether 9:3; also 14:12–13, 26). Mormon and his army had retreated northward from the city of Desolation, past the city of Teancum (Mormon 4:3) and other cities, before they came to Cumorah.

From all the above we know that Cumorah was north of Desolation and near the seashore. It had to have been at least 3 USD north of point “Bountiful,” given Mormon’s retreat through the seashore city of Teancum—assuming our 1.5 USD rule for the spacing of major fortifications. We placed Desolation 1 USD from our Desolation/

11. Sorenson, *Ancient American Setting*, 176.

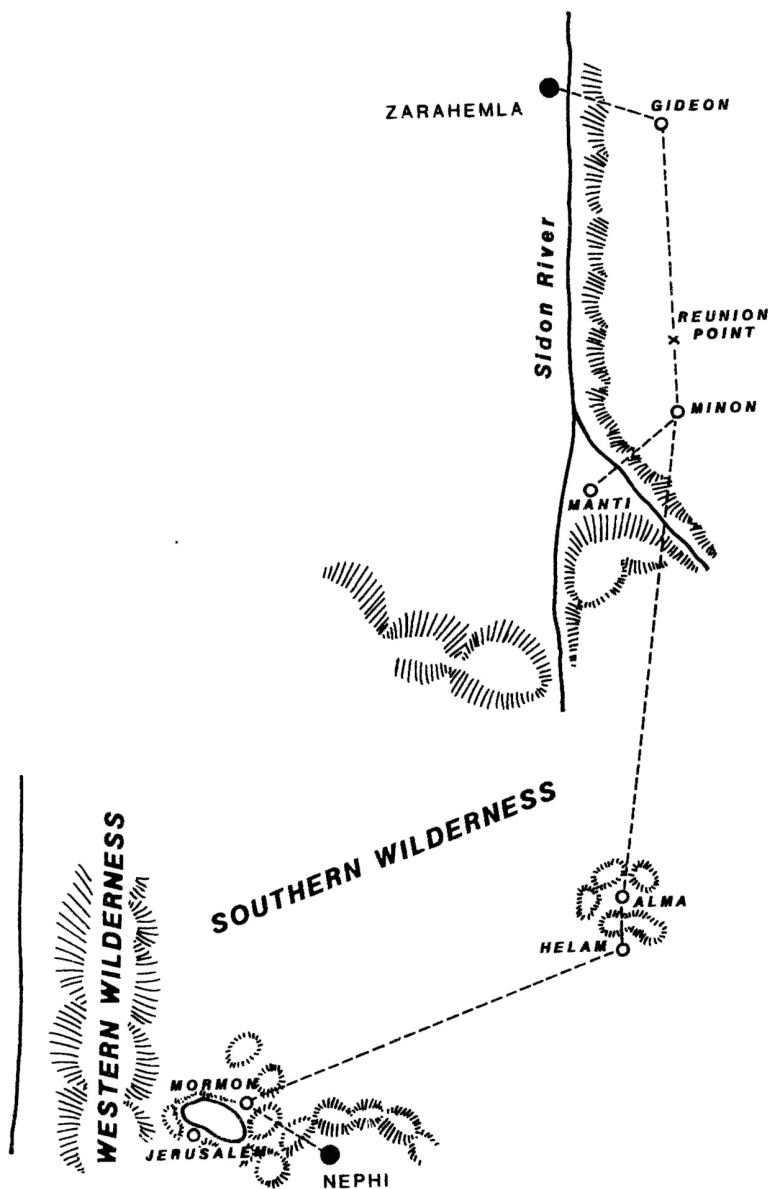


Figure 5. The Nephi-Zarahemla Transect.

Bountiful line. I have assumed that Cumorah was several days’ USD from the point of our last firm data (somewhere north of Teancum). This gives us an estimated 6 USD, or the same distance

from our hypothetical point “Bountiful” as the southernmost Nephite city of the eastern coast, Moroni. Obviously, the hill Cumorah could have been much farther north than this. But as noted

(section V.6f), the facts of the Limhi expedition suggest that the hill Cumorah would be in the southern part of the land northward—as does the story of Morianton’s group. Finally, the name *Desolation* undoubtedly derives from the evidences of the Jaredite destruction (Alma 22:30). As we have seen, this was the land just north of the narrow neck. For all these reasons, I have placed the hill Cumorah as shown in figures 2, 6, and 7.

VII. A Relative Geography of the Wilderness

As apparent in the preceding discussion, several of the measures of distance depend on our assessment of the various wilderness areas. It will be worthwhile to consider them in more detail here. These wildernesses are considered to be upland areas of mountains or hills. Wilderness surrounded the Sidon River Basin and the lesser land of Zarahemla on all four sides. Of these, the northern wilderness is the most poorly known and is not specified by name. It was from this northern wilderness that the Lamanites launched their final and decisive offensive against the Nephites who were in the land of Desolation in the land northward. The Lamanites came “down” upon the Nephites, and the Nephites went “up” to battle the Lamanites (Mormon 3–5). Keeping in mind that directions relate to one’s own point of reference, we read that the people of Zarahemla landed near the land of Desolation (Alma 22:30) and “came from there up into the south wilderness” (Alma 22:31). This “south wilderness” would have been north of the city of Zarahemla, the place that they finally settled. Therefore, from the perspective of the later Nephites, this area would have been a northern wilderness. In precise terms, the real situation was probably

somewhat more complicated. We know that the southern border of Nephite lands was two to three times wider than the northern border in the narrow neck. We also know that the western wilderness and eastern wilderness ran north-south, paralleling the western and eastern coastlines. Given the restricted northern border, these two wildernesses must have converged near the narrow neck and north of the city of Zarahemla. This area would have been considered a northern wilderness only for those traveling north within the Sidon Basin; for those traveling along the coasts, it would have been the northernmost part of the western or eastern wilderness.

The key to our relative geography of the wilderness is the western wilderness known as Hermounts (Alma 2:34–37). We saw previously that the western wilderness stretched from the Nephite lands southward to the place of the Nephites’ landing on the western coast, a place south of the land of Nephi (Alma 22:28). This sounds like a mountain chain that paralleled the western coastline (fig. 6). We saw previously that the Nephites did not inhabit this wilderness zone or the narrow coastal plain to the west. The western wilderness was apparently a natural barrier of such magnitude that it provided protection against attack. This was true except of the points where natural routes lead through the wilderness; I argued above that these were passes through the wilderness. As noted, all travel within this wilderness tended in an east-west direction—in contrast with the other wilderness areas. I take this as evidence that travel in a north-south direction was not feasible under normal conditions. All the above suggests that the western wilderness was higher than the other wilderness zones. This wilderness also seems to have been near the borders of the west sea (Alma 22:28). Unlike the eastern

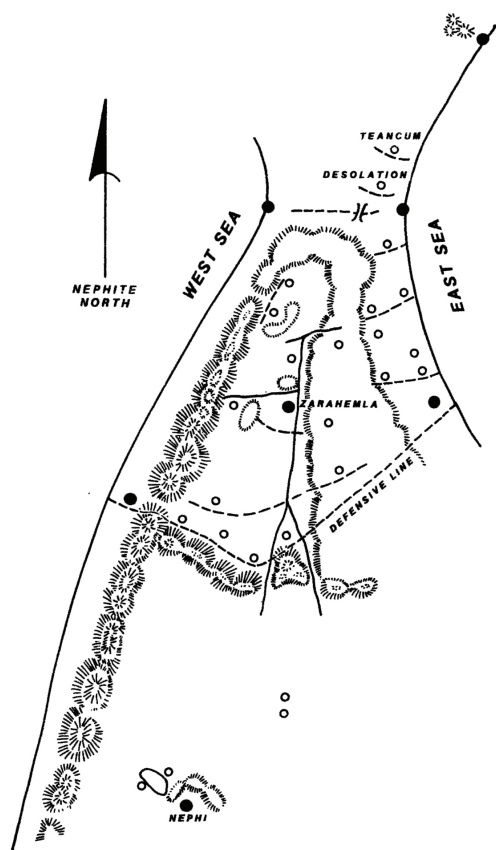


Figure 6. Nephite Lands and Defense System.

coast, no plains are mentioned for the west coast, suggesting that the mountains dropped quickly to the coast. If it was a high mountain range, it must have also been relatively narrow. I therefore consider it to have been the most narrow of all the wilderness zones. All of these features would have made the western wilderness a prominent and obvious feature of the landscape, and one having great military value. It is doubtless significant that this is the only wilderness given a specific name, the wilderness of Hermounts. Names for natural features are rare in the Book of Mormon. We have generally interpreted the presence of a name to indicate a prominent feature (e.g., hill Cumorah, river Sidon, waters of Mormon).

I take as my working assumption, then, that the western wilderness was higher and narrower than all the others. This wilderness, however, apparently did not extend to the narrow neck of land. This means that the western wilderness must have sloped down toward the narrow neck. Also, the western wilderness logically had to converge with the eastern wilderness (to form our northern wilderness) before they reached the narrow neck. Each of these wilderness zones probably also became more narrow as it sloped down to the narrow neck. If true, it follows that the easiest passes through the wilderness of Hermounts would have been in the north rather than in the south. The repeated Lamanite attacks on the city of Ammonihah (see fig. 4) make sense in this regard. These northern passes would have been lower and shorter.

We saw in the discussion of the Nephi-Zarahemla transect that the southern wilderness was a bewildering labyrinth of possible travel routes. Also, it was at least 9 USD wide, undoubtedly the widest of the four wilderness zones surrounding Zarahemla. But this wilderness was also referred to as a narrow strip of wilderness that ran from the “sea east even to the sea west” (Alma 22:27), a curious description for the widest strip of wilderness in Book of Mormon lands. The narrow strip probably was the northern fringe (immediately bordering the Nephite land of Zarahemla) of this greater southern wilderness. This seems clear in the description of Ammon’s group that “departed out of the land, and came into the wilderness which divided the land of Nephi from the land of Zarahemla, and came over near the borders of the land” (Alma 27:14; see 47:29). This suggests that they went “over” a final, narrow strip of wilderness before dropping down into the land of Zarahemla. If the narrow strip

of wilderness was immediately south of the land of Zarahemla, it would explain why Lamanite forces consistently entered the southern borders of Nephite lands near the city of Manti (Alma 16:6; 43:22–24), which was located at the head of the Sidon (Alma 22:27). The Sidon had its headwaters in the southern wilderness (Alma 16:6); one logical route or pass into the southern borders of Nephite lands would have been down this river pass. It may have been favored because the narrow strip of wilderness offered natural protection and prohibited travel into the Sidon Basin.

The remainder of the southern wilderness must have been uniformly difficult, with possibilities of travel in many directions, no impassable obstacles in any particular direction, and no major landmarks to guide those who became lost. This would have been a very different kind of wilderness than Hermounts and probably the narrow strip of wilderness. The southern wilderness adjoined the upland region that the Nephites called the eastern wilderness near the borders of the land of Antionum, or near the city of Moroni (Alma 31:3).

The eastern wilderness appears to have been similar to the southern wilderness. We have seen that the eastern wilderness was settled by the Nephites. It also must have been quite wide. Again, we have the testament of the Limhi party. The eastern wilderness is the only logical place where they could have traveled and not have either discovered Zarahemla or realized they were lost. I am assuming here that this group of travelers would have realized that they were lost had they traveled near one of the seas. They must have been searching for a large inland basin drained by a major river. Sight of an ocean would have been sure evidence that they were lost and/or should travel inland. General Moroni's travel

from Gid to Gideon also suggests a wide wilderness. We saw earlier that the eastern coast was an area with at least several plains (near Bountiful and Nephihah).¹² In contrast with the western wilderness, this suggests a more gradual drop to the sea. All this evidence indicates an eastern wilderness that was lower and wider than the western wilderness. Travel through the eastern wilderness was both east-west and north-south. It was also settled by the Nephites—indicating a rather hospitable “wilderness.”

The only detail we have of the northern wilderness is that it existed. We lack information that would indicate its width. But it must have been relatively low, given its proximity to the lowlands of the narrow neck. As noted, most of what we have been calling the northern wilderness was probably the northern end of the eastern wilderness (as suggested in the data about the city of Bountiful). I assume, therefore, that it was most like the eastern wilderness in terms of its potential for settlement and travel. It was apparently heavily populated during the days of General Mormon, as evident in the Lamanites' attacks against the Nephite stronghold at Desolation (Mormon 3:7; 4:2, 13, 19).

I have used all of this relative information about Book of Mormon wildernesses in completing our general map of Nephite lands shown in figures 6 and 7.

VIII. A Question of Seas

The critical reader at this point may be wondering why no north sea or south sea is shown in any of the figures. There are two references in the Book of Mormon that mention or appear to allude to these seas. In Helaman 3:8 we read that

12. Sorenson, *Ancient American Setting*, 39.

the Nephites “did multiply and spread, and did go forth from the land southward to the land northward, and did spread insomuch that they began to cover the face of the whole earth, from the sea south to the sea north, from the sea west to the sea east.” Support for this statement comes from the description of the narrow neck. “And now, it was only the distance of a day and a half’s journey for a Nephite, on the line Bountiful and the land Desolation, from the east to the west sea; and thus the land of Nephi and the land of Zarahemla were nearly surrounded by water, there being a small neck of land between the land northward and the land southward” (Alma 22:32). There is much more, and less, in these passages than meets the eye, and they deserve special attention.

A careful reading of these two passages will show that they are talking about two different things. The first refers to the land northward *and* the land southward; the second is in reference to the land southward *only*, comprising the land of Zarahemla and the land of Nephi. It is also clear that the second passage refers to the east sea and the west sea on both sides of an isthmus. A similar passage describes the founding of the city of Lib in the narrow-neck area: “And they built a great city by the narrow neck of land, by the place where the sea divides the land” (Ether 10:20). This is also a clear reference to an isthmus and perhaps a large river running into the east sea across the narrow neck, thus “dividing the land” (see 3 Nephi 19:10–13 and section I.4).

The solution to this problem may be quite simple. The passage in Helaman may have been meant in a metaphorical rather than a literal way. Explaining away difficult passages as metaphors goes against one of my guiding assumptions for dealing with the text, but in this case I think it is well justified. North and south sea probably

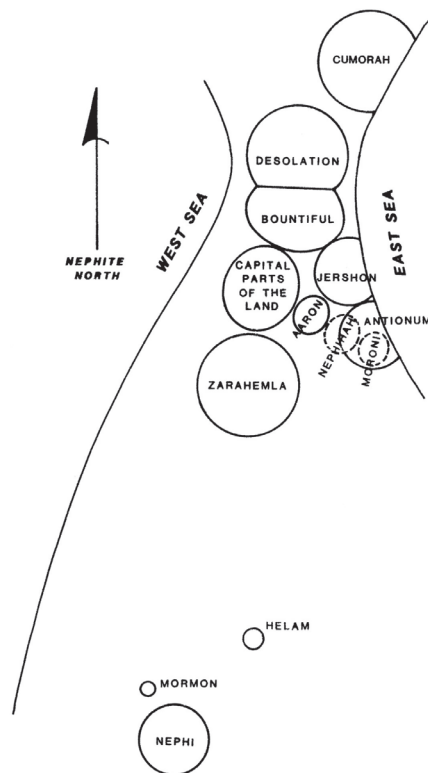


Figure 7. *Some Book of Mormon Lands.*

have no more concrete meaning than the phrases “whole earth” (Alma 36:7; Helaman 11:6; 14:22; 3 Nephi 8:12, 17) and “as numerous as the sands of the sea” (Alma 2:27; Mormon 1:7). Mormon waxes poetic whenever describing the Nephites’ peaceful golden age of uninterrupted population growth and expansion. This is understandable given the circumstances under which he wrote and his knowledge of the certain doom of his people. It is interesting that in a parallel passage describing the same sort of population expansion, no north or south sea is mentioned: “And thus it did come to pass that the people of Nephi began to prosper again in the land, and began to build up their waste places, and began to multiply and spread, even until they did cover the whole face

of the land, both on the northward and on the southward, from the sea west to the sea east” (Helaman 11:20).

I am convinced that the reference to a north sea and a south sea is devoid of any concrete geographical content. All specific references or allusions to Book of Mormon seas are only to the east and west seas. Any geography that tries to accommodate a north and south sea, I think, is doomed to fail. But we cannot dismiss the reference to these seas out of hand. If they are metaphorical, what was the metaphor?

Figure 8 shows a conceptualization of Nephite lands. The city of Zarahemla and the lands immediately surrounding it were the “center” (Helaman 1:24–27) or “heart” (Alma 60:19; Helaman 1:18) of the land (fig. 7). The surrounding lands, to the various wildernesses, were considered quarters of the land. A Bountiful quarter (Alma 52:10, 13; 53:8; 58:35) and a Manti quarter (43:26; 56:1–2, 9; 58:30) are mentioned. Moroni was another “part” of the land (Alma 59:6). We lack information on the eastern quarter; my designation of “Melek” is merely my best guess.

We have seen that the Nephite lands were surrounded by wilderness on every side. And, conceptually, beyond each wilderness lay a sea to the south, north, west, and east. Thus the land was conceived as surrounded by seas or floating on one large sea. The land was divided into a center and four quarters. Each quarter duplicated the others. The quartering of the land was not the way most of us would do it, by making a cross following the cardinal directions, but was a cross as

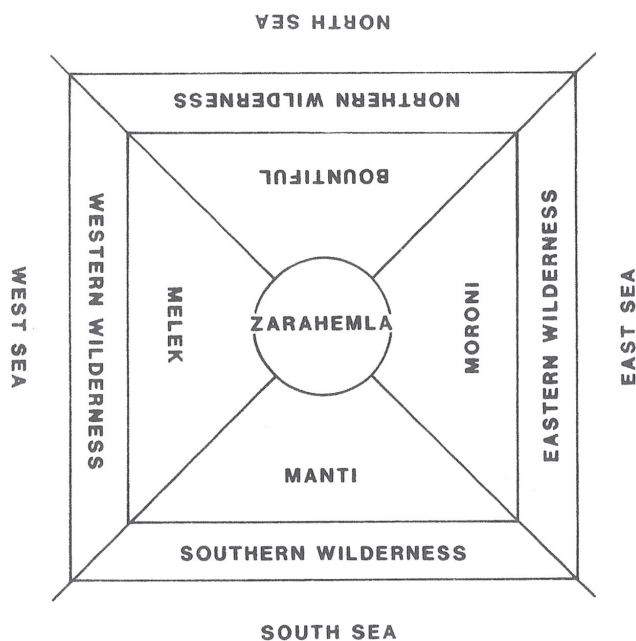


Figure 8. *The Conceptualized Nephite World.*

shown in figure 8. Such a conception of the world would not be out of place in the Middle East at the time of Lehi; and it is remarkably close to the Mesoamerican view of their world. It is not my purpose here, however, to discuss the Nephites’ concept of their universe; others are more qualified for this task than I. The main point is that the reference to north and south seas fits nicely into the Mesoamerican scene as part of a metaphor for the whole earth and was probably used in a metaphorical sense in the Book of Mormon.

Ten Points of Nephite Geography

The data needed to plot the six transects of our elemental geography have given us a rather complete view of Nephite lands, but we have essentially ignored the details of Lamanite and Jaredite lands. In previous discussion I listed the data for the convenience of those who want to rethink the

elementary internal geography proposed here or to evaluate any of the many external Book of Mormon geographies now available. I have reduced the information in preceding sections down to a scorecard of ten points that can be used to judge the plausibility of any proposed external geography.

1. I am convinced that the narrow neck of land was an isthmus flanked by an east sea and a west sea. It separated the land northward from the land southward.
2. The known coastlines of the land southward varied significantly in length. The western sea bordered the land of Zarahemla, the land of Nephi, and the land of the Nephites' first inheritance. The eastern sea, however, is known to have bordered only the land of Zarahemla. This gives us at least three times as much western coastline as eastern coastline known to have been used by the Nephites and Lamanites.
3. As noted, there were also important differences in the wildernesses. The eastern wilderness appears to have been much wider and lower than the western wilderness. The southern wilderness was much wider than the eastern wilderness. The northernmost portion of the southern wilderness was the narrow strip of wilderness. There was also a wilderness to the north of the city of Zarahemla.
4. The cities of Zarahemla and Nephi were in large valleys. Zarahemla was in a large river basin; Nephi was located in a highland valley. The Zarahemla Basin was much larger than the valley of the city of Nephi.
5. The river Sidon drained the Zarahemla Basin; it ran northward from its headwaters in the southern wilderness, just south of Manti. We lack information on the Sidon's course north of Zarahemla. Given the relative elevations of the eastern and western wildernesses, the Sidon most likely drained into the east sea. As noted, the Sidon skirted the western flanks of the eastern wilderness. The Zarahemla Basin was at least several USD wide west of the Sidon.
6. The information for the waters of Mormon suggests that it was a highland lake of significant size. It was also located within a day or two (USD) of Nephi.
7. Zarahemla was located in a large basin drained by a large river. Zarahemla was near the center of the land and was surrounded by Nephite fortifications that protected the center. There were also wilderness or upland areas in all four directions from Zarahemla. Zarahemla was about three weeks' travel from the capital city of Nephi located to the south. The key Nephite fortification of Bountiful lay several days' travel to the north.
8. Nephi was three weeks' travel south of Zarahemla in a highland valley; it was also near a large lake, the waters of Mormon.
9. Bountiful was north of Zarahemla and near the narrow neck of land. It guarded the route to the land northward. Bountiful was only about five days' travel from Moroni.
10. Cumorah was in the land northward near the eastern seashore. It was probably not more than six to eight days' travel from the city of Bountiful and may have been considerably less.

I have argued above that there are two tests for a valid and satisfactory geography—the first test being the more important. This does not mean, however, that a geography that meets this first test is necessarily correct. The second test will be to evaluate it against the backdrop of its proposed

ancient American setting. The simple expectation is that the archaeological sites identified as Book of Mormon cities should be in the right place (in relation to all the rest) and date to the right period of time. Moreover, they should have the features

mentioned for them in the Book of Mormon, such as walls, ditches, temples, and towers.❏

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