Mapping the Book of Mormon
Pattern Recognition Model
by
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A Lutheran friend challenged: "We know where Jerusalem is, we know where Nineveh is, but you Mormons don't know where anything in the Book of Mormon is." That heightened the desire to know. Maps, histories, dictionaries of all the relevant areas and languages, modern Mayanists' writings, and native chroniclers' writings were collected. The work by Palmer, Norman, Hauck, Ferguson, Sorenson, Chessman, and Jakeman was very motivating, but it was very clear that the puzzle had not been solved with exact names and locations. Still, even at the conclusion of the latest BMAF conference (19 October 2013), Kirk Magleby, in his presentation with John W. Welch, longed for the day when we might know where the Book of Mormon really happened. A variety of geographic models have been espoused and defended almost to blows, but their proponents admit that they do not know the exact locations of any of the many important cities. With all the archaeological evidence available, why such a protracted struggle to find the correct placement of so many important and large cities from two great civilizations that spanned about 2600 years as documented by the Book of Mormon? It is impossible to eradicate the physical evidence of 2600 years of civilization from where the civilization was. The remnants of the people survive uninterrupted even to this day. Could it be that the great difficulty in applying exact Book of Mormon names to known ruins comes from the fact that some of the fundamental assumptions in the search are not correct?

Approach: Mormon scholars start with the Book of Mormon as the guide. They read that the book says A, and B, therefore they conclude C. We all do it, but this is where the confusion starts. There are often multiple interpretations of the clues A and B. Once the clues are lifted from the page, they are no longer "statements of fact", but are contaminated by someone's personal interpretation. May it be proposed that we stay with what the book actually says? The "check-point criteria" for a successful solution to Mormon's puzzle should be the "statements of fact" as they appear in the Book of Mormon – no one's second or third level assumptions or conclusions should form the basis of judgment.

Searching for the solution within such an over-constrained space has not worked. Let the book speak for itself. It is the incorrect assumptions, interpretations, and conclusions that have, heretofore, prevented the discovery of Mormon's lands. If any problem is over-constrained, a correct solution is precluded. For example, the "Narrow Neck" as an isthmus has been the single most confounding assumption to prevent the discovery of Mormon's lands. The smallness of the lands has helped keep them hidden. The Book of Mormon's "whole land northward" and "whole land southward" conjure "continental images", yet only 230,000 Nephites dressed for battle that fateful day. The present population of Guatemala City (Ammonihah) is about 2.3 million. Put one tenth of them, or 230,000, in battle gear and you have the total Nephite army.

Starting assumptions were that the Book of Mormon is true and that Mormon knew of what he wrote. Data was collected for twenty years. After the fact, it can be seen that the solution technique begins with "pattern recognition." To prove any premise that appears to form a

pattern of facts, one simply needs to array all available evidence to see if it corroborates or contradicts the premise. No contradictions are allowed. Unresolved ambiguities are allowed.

Eventually things start to fall into place with no contradictions. For example, Fred Perkins provided a National Geographic map (Land of the Maya: a Traveler's Map) that showed the locations of the significant Maya ruins and on the back was a map (The Ancient Maya World) with little red dots at all of the known ruins, thus graphically conveying where the major population centers were. The greatest concentration was in the Department of Yucatán, which is known to have thrived in the Classic Maya years. The next greatest concentration was in southern Guatemala on the Pacific Ocean side. This piedmont and alti-plano region was occupied by what is now called the Cotzumalhuapa Culture, the center city of which is the many ruins adjacent to the present town of Santa Lucía Cotzumalguapa, Guatemala.

The name Cotzumalhuapa or Cotzumalguapa appears to have been first introduced after the Spanish Conquest. The Cotzumalguapa area has been occupied since the Middle Preclassic period (1000 to 300 BC – later Jaredite and Mulekite years), with a major development in the Late Preclassic period (300 BC to 300 AD – Nephite years), and the most archaeological evidence dating mainly from the Late Classic period (600 to 900 AD – surviving Nephite, Mulekite, Zoramite, and Lamanite remnants).

Findings and correlations of all the evidence processed would indicate that this might be the city of Zarahemla. The oldest name found for the main town in this area is Zakmalá (Recinos 1953, 192). Additional evidence indicates that Mormon might have used an "**r**" rather than a "**k**" yielding Za**r**mala as in Zarahemla (Sa**r**a or Sa**r**ah for Sa**k**a and Antipa**r**ah for Atiquipa**k**e). The Spanish common "r" gets one tap of the tongue and sounds nothing like the "r" in English. (Pate 2012A, 225)

The Spaniards began their conquest of Guatemala in 1524. As part of the subjugation process, the natives were taught to speak, read, and write the Spanish language. Most of the native documents were burned by the Catholic priest, Diego de Landa. The natives started secretly to write their history and legends in the Maya languages using the Spanish alphabet. These documents written by the "chroniclers" have survived and been translated. Several of these, including photocopies of some originals and some copies of the most ancient versions yet available, were graciously provided by Elder Ted E. Brewerton. These documents have been most helpful in the research, specifically *Title of the Lords of Totonicapán* written in Quiché Maya and *The Annals of the Cakchiquels* written in Kakchiquel Maya.

The southern coastal and piedmont area of Guatemala was occupied by a Nahua group known as the Pipil (possibly a diminutive name meaning "boy" applied by the Mexicans who were also Nahua). Their language was Pipil or Nahuat, which Lyle Campbell considers as a related but separate language from the Nahuatl of Mexico. Both are in the Uto-Aztec language group. Scholars have wondered where the Pipil came from and where they went. Robert Carmack has long contended that the Nahua (Teotihuacan) people diffused back into the Guatemala highlands of K'umarkáh (Cumorah) -- too late to be relevant to the Book of Mormon. Ruud van Akkeren rejects Carmack's claim and is calling this diffusion the "Carmack diversion." Van Akkeren has taken an historical genealogy approach and studies the diffusion of family

names. He has used the archives available in Guatemala and Mexico to trace family names to show that the Pipil did not just disappear, but that they diffused into the Maya culture of the highlands (the Quiché and Kakchiquel) and the family names were changed, not by evolution but by direct translation. (Van Akkeren 2005)

The natives know who their ancestors are; it is written in the ancient documents by the "chroniclers." One branch of the Kakchiquel descends from Zactecauh (Recinos 1953, 43). That would possibly be Zedekiah, making them Mulekites. *The Annals of the Cakchiquels* might best be understood from the Mulekite perspective. The Kakchiquel capital city had moved to Iximché by the time of the conquest. The name means "corn tree" (Ramón tree, Brosimum alicastrum). The Aztecs called it Guatemala (mala tree); the Chinese called it the Fu Sang tree. (Pate 2012A, 83-90)

Recognizable names started showing up on the maps and in the native writings. The Quiché capitol at the time of the conquest was K'umarkáh. Could K'umarkáh be Cumorah? We do not have the Quiché type glottals in English – they were not available for Joseph Smith Jr. to use so he probably just left them out. Dropping the glottals K'umarkáh becomes Cumorah. Could the four main family names there (in proper plural Quiché form): *Nehib*, *Tamub*, *Ilocob*, and *Cavikib* (from Hebrew *chavach*: rock, crevice as in a hiding place), be the Nephite, Samite, Jacobite, and Josephite families, respectively? One place name, four family names, extensive native documentation, extensive Spanish documentation, extensive ruins, foundry equipment, a hill (one of about another dozen in the immediate area), a flat expanse for tents and crops, and water – these amount to basic "pattern recognition", a pattern of self-consistent evidence. This is exactly how the ancient Biblical cities were found and continue to be found today.

Nibley might call this "Mormon's milieu", which would be a collection of less significant pieces that in the aggregate form the environment, or the physical or social setting, in which something occurs or develops. The clues found were thrown into the mix and remained fluid until corroborating pieces could be linked. Initially, John L. Sorenson's generic map was very useful, but as the names fell into place, it was better to go back to the source and use only the "statements of fact" rather than other scholars' assumptions and conclusions. It was the rugged topography and the raging rivers that controlled the travel patterns, and it was the volcanic lakes and habitable fertile mountain valleys that controlled placement of the strategic, mountain, fortress-cities. The map that resulted, with the complete justification data, is available at the website MormonTopics.com. (See Figure 1 for small scale overview)

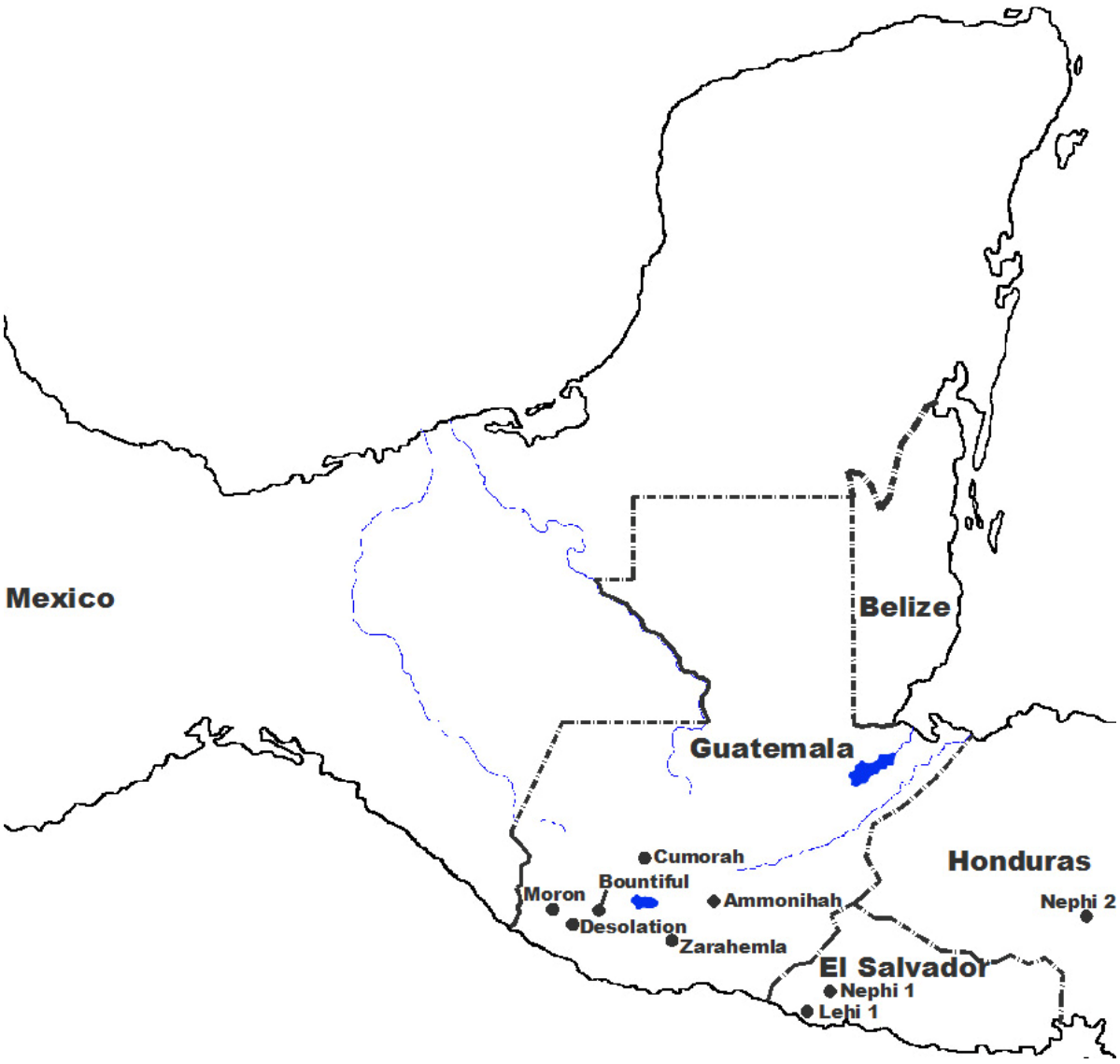

Figure 1. Mormon's lands in Guatemala, Honduras, and El Salvador

The villages Teyocuman (thought to be Teancum) and Zakajuyú ("white earth", thought to be Desolation) are mentioned in the *Annals of the Cakchiquels* and their location is given by the volcano they are near (*Gagxanul*, now Santa María). It appears that these two villages were the two combined by the Spaniards to form the present city of Retalhuleu, Guatemala (Pate 2012A, 209), which means "boundary land" in Quiché. How appropriate. The proposed cities Desolation, Teancum, Lib, and Moron have been found on the northwest side of the Samalá River and the proposed fortress city Mulek, fortress Bountiful, Zarahemla, and other cities have been found on the southeast side of the river.

The proposed fortress Mulek is still visible in a cow pasture on the high river bank, but the fortress Bountiful is in a corn field and is being threatened by a residential subdivision. The Temple Bountiful for the time being is safely in the trees. City Desolation (Retalhuleu, Guatemala) and Bountiful (one half mile north of Cuyotenango, Guatemala) are just 15 miles apart. The Samalá River would be where the "sea divides the land" (Ether 10:20) and where

Hagoth "launched his ship forth into the west sea" (Alma 63:5); so, what is the narrow pass, the narrow passage, the narrow neck of land, the small neck of land, or the narrow passage by the sea?

The *Annals of the Cakchiquels* indicate it is nothing more than a floating wooden bridge made of trees lashed together – the river is too wide and too mean to permit a free-span wooden bridge. The narrow wooden bridge was still in place when Pedro de Alvarado attacked the Quiché. He had a very difficult time crossing. He called it "*rio mal paso*" in his letter to Cortés (Recinos 1952, 64-66, and Guatemala Army 1963, 162). Much blood was spilled, men and a horse lost, as the Quiché fiercely defended the crossing.

The ancient place name in *The Annals of the Cakchiquels* is *Mukulicya*. Recinos translates it as "hidden water" (Recinos 1953, 60fn). Christenson's Quiché dictionary would render it as "covered water." Recinos' translation states, "They went down to *Mukulicya* and *Molomic-chée*" (Recinos 1953, 60). This translation with the capitalization and the coordinating conjunction "and" would indicate two distinct place names. The original handwritten Cakchiquel text is comma-punctuated with commas separating elements of lists. The original text (copy provided by Elder Ted E. Brewerton) does not have a comma or coordinating conjunction -- only *mukulicya molomic chée*. Recinos in a footnote states that *molomic-chée* means "trees together." Going with Christenson's "covered water" and Recinos' "trees together" we have a "wooden bridge." The word "bridge" does not appear anywhere in the Book of Mormon. This location name in the Book of Mormon was translated by Joseph Smith Jr. as the fortress city Mulek. Today this village, adjacent to the Samalá River crossing, is called by the Spanish name Santa Cruz Muluá – Muluá being short for *Mukulicya*, just as Mulek is short for *Mukulicya*. The Hebrew word for "king" (*mlk*) does not appear to have roots in the Quiché language.

The peoples of the Book of Mormon clearly knew the cardinal directions. But, after finding all the relevant cities and lands, it can be categorically stated that Mormon uses the more loose definition of "up the Pacific Coast" as "northward" and "down the Pacific Coast" as "southward."

Model: Lehi's family traveled southward from the Jerusalem area along the western shore of the Arabian Peninsula – a region that included the multiplicity of trails and provender stops for the very large camel trains that traveled the Gold and Incense Road from the time of King Solomon to the second century AD. Lehi's group rested at the river Lehi called Laman (Wadi Azlam – eternal waters), Shazar (Sha-sa-zur – Split Rock, Meda'in Selah or Al-Hijr in Saudi Arabia), and Nahom (Furdat Naham, Yemen) where Ishmael died. They "forked" in the road at Naham (*furdat*, a triliteral Arabic verb meaning "to fork"). On final approach they traveled nearly eastward still following the Gold and Incense Road to the southern terminus seaport of Qana or Cana which Mormon called Bountiful. Today it is called B'ir Ali which means "high well or cistern", named for the volcanic-cone fresh-water lake adjacent to the seaport village. They sojourned in the wilderness for eight years, most of which time was probably spent in Bountiful building the ship. Cana is the name by which Bountiful was found in the Maya writings. Cana from the Hebrew roots and Tul-lum from the Sumerian/Jaredite roots are synonymous and were introduced by direct translation.

They set sail traveling eastward probably following the east flowing Equatorial Counter Current and, according to the legends, landed at Acajutla, El Salvador (Brewerton 2011). They started a land of Nephi. The greater immediate region is known as the land of the Lenca (close to the Hebrew pronunciation of Lehi/Lechi). Lehi died within about 10 to 15 years, at which time Nephi and those who would follow fled eastward about 12 days travel and formed another land of Nephi, later called Lehi-Nephi, in what is today the Comayagua Valley of Honduras. Today the town is known as Leja-Mani meaning "those of Leja" in the Lenca language. Leja is pronounced as Leha in English because the Spanish "j" is pronounced as the English "h". Leha and Lenca are both thought to be Lehi or, as in the Catholic Bible, Lechi – the differences thought to be due to non-standard orthography of the day. Shilom, Shemlon, Shimnilom, Laman, Lemuel 2, Jerusalem, and the Waters of Mormon (a geothermal hot spring about 2 miles southeast of Cane, Honduras) are all in the area and have been identified. (See Figure 2.)

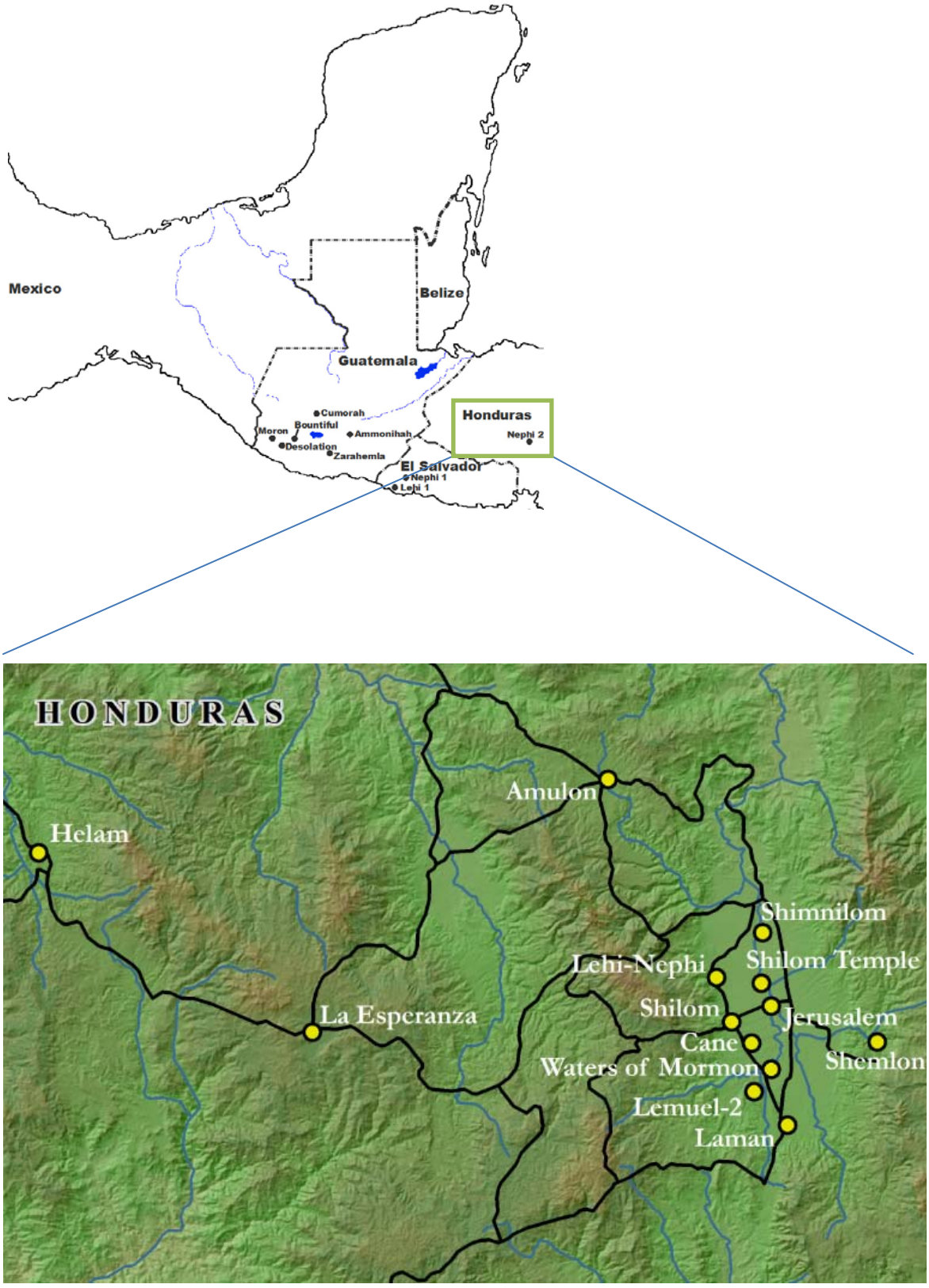

Figure 2. Land of Nephi-2 (Lehi-Nephi) in Comayagua Valley, Honduras

The Lord commanded Mosiah and his people to flee because of the Lamanite threat that was upon them. They traveled about 21 days (comparable to Alma's flight time as recorded in Mosiah 23:3, 24:20, 24:25) back to the west, while avoiding the Lamanites who still occupied the first land of Nephi, and arrived at the land of Zarahemla (Santa Lucía Cotzumalguapa, Guatemala). Virtually all of the surrounding Book of Mormon cities have now been identified. The remainder of the Book of Mormon was acted out in this area with the final battle occurring in the highlands at Cumorah (K'umarkáh) just 40 miles straight north. (See Figure 3) And how did the Golden Plates get to that hill in upstate New York which has been misnamed Cumorah? Moroni delivered them there before he died – but that is a story for another day (Pate, 2009, 69-77).

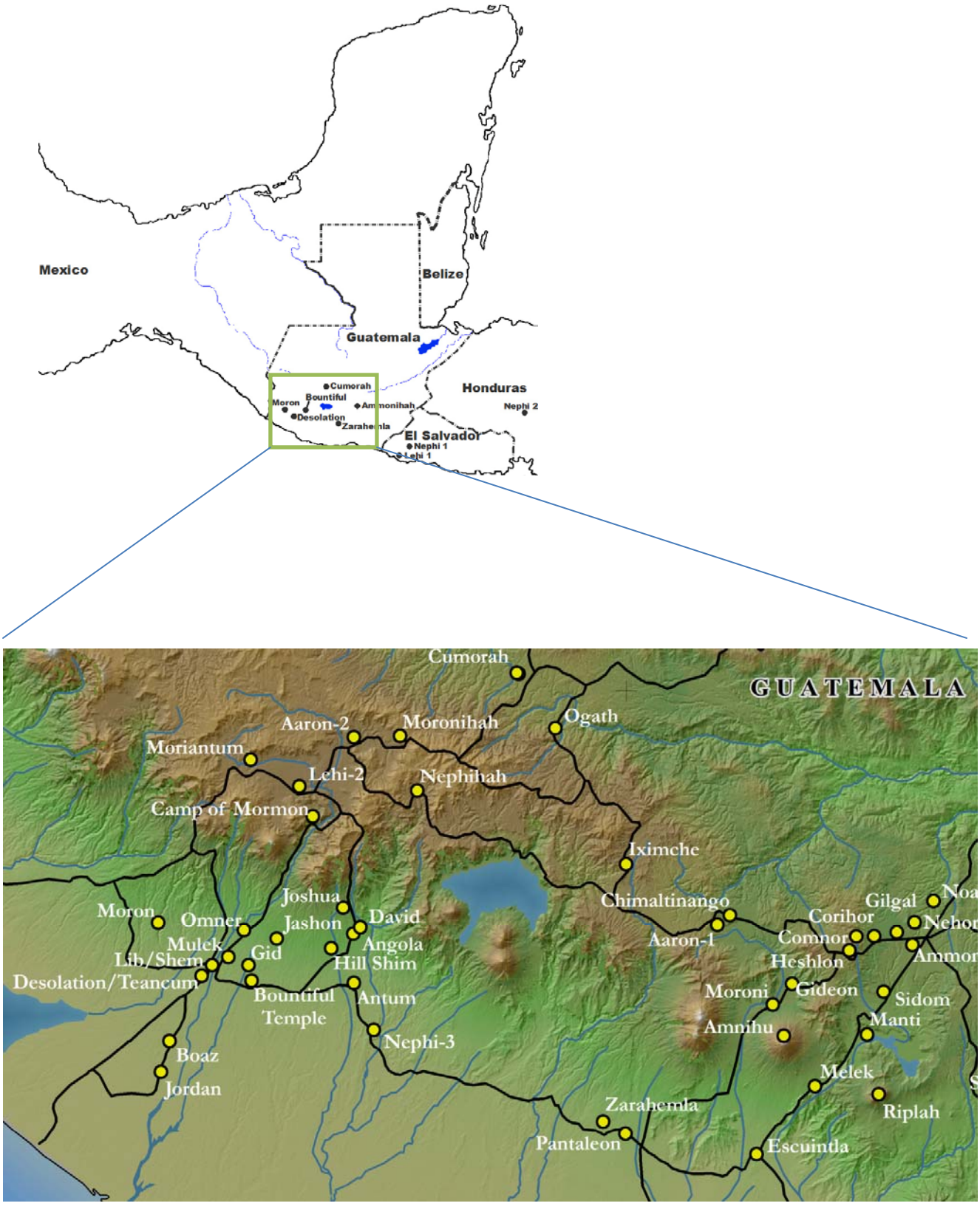

Figure 3. Lands around Zarahemla, Bountiful, and Desolation

Closure: Mormon laid a fascinating puzzle at the feet of inquisitive minds. A complete and accurate solution to this multi-dimensional puzzle requires all relevant disciplines, histories, legends, geography, topography, weather, oceanography, and others. The solution does not belong just to archaeologists, anthropologists, or linguists. See what Linda Schele accomplished with an art degree.

One should start with a blank slate and a fresh paperback copy of the Book of Mormon when evaluating a new geographic model. Do not carry forward constraining assumptions from other models that have not led to success. Demanding correlation with some respected authority, subjects one to contamination by his possibly faulty interpretations or conclusions. Stay with the "statements of fact" from the source. The cities have been found in historical accounts from the natives and overlaid with Book of Mormon clues for verification – there were no contradictions to any of the "statements of fact." It can now be seen what Mormon meant, from his perspective.

It is disconcerting when the search for Book of Mormon lands becomes a "business." Objectivity is lost when money is involved – to say nothing of academic pride. Funding stops when findings deviate from the corporate party line. It is difficult to accept a new finding that will put one's craft out of business.

Olive Branch: There is so much more to be learned that could be learned if the various factions would rely exclusively on facts. Only then is there a hope to focus on the correct real-estate. No legitimate hypothesis can afford to contradict any ancient or modern fact. One need not explain all of the facts, but one may not contradict any of them. Examine the proposed sites from every angle and verify to your satisfaction the quality of the fit. A model that does not provide the names, the ruins sites, and GPS locations of the most longstanding, large, and prominent cities of Nephi, Lehi-Nephi, Zarahemla, Ammonihah, Bountiful, Desolation, and Cumorah is empty and needs more work before it can be proposed as a credible model of Book of Mormon geography. Put something on the table that can be tested against ancient and modern factual evidence.

As for the Heartland proposal, the Indians of the northeast were very intellectually astute and mechanically adept. Charles Mann quotes that they are described as beautiful of stature and build, strikingly healthy specimens, eating an incredibly nutritious diet, working hard but not broken by toil, taller and more robust than those who wanted to move in, lacking the pox scars or rickety limbs common on the other side of the Atlantic, and more amiable to behold though dressed only in Adam's finery. And the Indians' description of the immigrants was that they were physically weak, sexually untrustworthy, atrociously ugly, and just plain smelly -- many of whom had not taken a bath in their entire lives (Mann 2006, 44-46). There is little doubt that the enlightened Indians of the eastern United States are of the house of Israel and are descendants of the Nephites, but that is just not where the Book of Mormon happened – it does not pass the tests. Stay with the Book of Mormon and use only the "statements of fact" and not stacked assumptions and conclusions as the test for verification.

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