

SECTION 5: IDENTIFYING THE NEPHITES

Editor's Note: *This paper is the full version of the executive summary available at http://www.fairlds.org/DNA_Evidence_for_Book_of_Mormon_Geography/. This paper was last updated 23 November 2008.*

This document is a partial analysis of the scholarly merits of the evidence and research used by Rodney Meldrum¹ in his firesides and DVD presentation, *DNA Evidence for Book of Mormon Geography*.² Neither FAIR nor this document take any position on the geographic location of Book of Mormon events.³ It is important, however, that Meldrum's theories be analyzed according to the same standards by which other Book of Mormon geography theories are evaluated. To avoid confusion, this paper refers to Meldrum's geographic model as the Limited North American Model, or LNAM.⁴ This document is just one in a series of such analytical documents.

In this document we examine Meldrum's research and conclusions in several sections of his DVD presentation, all relative to his correlations between the Hopewell culture and the Nephites. This examination addresses, specifically, Part 6 of the DVD presentation (titled "Tents, Temples, and Teepees: Cultural Evidence from the Book of Mormon"), Part 10 (titled "Nephite Defenses: Hopewell Defense Systems"), Part 12 (titled "The Mound Builders: Hopewell Mound Building"), Part 13 (titled "Nephite Culture: Hopewell Culture"), and Part 14 (titled "Nephite Implements: North Native American Cultural Ruins, Hopewell Artifacts").

As demonstrated in other sections of the FAIR reviews, the LNAM's analysis of DNA and geographic information are wanting. The problems evidenced in those reviews preclude

¹ This paper follows the scholarly custom of referring to an individual, at first reference, by full name and then subsequently referring to the individual by last name only. We fully recognize Rodney as a brother in the gospel, but in discussing secular issues (such as scholarly research and geographic models) it was felt that continually prefacing his name or the name of any other referenced scholar or individual with "Brother" or "Sister," while accurate, would distract from the readability of the paper.

² Rodney Meldrum, *DNA Evidence for Book of Mormon Geography: New scientific support for the truthfulness of the Book of Mormon; Correlation and Verification through DNA, Prophetic, Scriptural, Historical, Climatological, Archaeological, Social, and Cultural Evidence* (Rodney Meldrum, 2008). The DVD is in sections; citations in this paper reference the DVD's section number and title, followed by an approximate time stamp from the DVD.

³ FAIR recognizes that faithful individuals and scholars can honestly disagree on where Book of Mormon events took place; there is no revealed or officially accepted geography. FAIR provides an online reference to over 60 different geographic models at http://en.fairmormon.org/Book_of_Mormon_geography (click on Book of Mormon Geographical Models).

⁴ Meldrum's model places Book of Mormon peoples in an area roughly covering the Atlantic seaboard to the Rocky Mountains. This name was chosen as descriptive of the general model. We recognize that Meldrum may pick a different name at some point and would invite him to do so.

the Hopewell from being the Nephites of the Book of Mormon. Still, Meldrum's evidence directly related to the Hopewell must be addressed.

Now you've gotten through the hard part, OK? This is forming the foundation. Now we're going to build on this foundation a little bit and see where it goes. Because it's so beautiful, brothers and sisters, when you place things in the right place, all of a sudden...

It's kind of like when you have a puzzle and you get the outer edges done, everything else just starts to make sense. And it becomes actually almost easier and easier as you fill it in. That is the feeling that I got in doing this research. Once it was established by Joseph Smith and the Book of Mormon itself, everything else just started to fill in.⁵

This is an excellent example of allowing one's theories drive one's observations. When one believes that it has been proven that the Hopewell are the Nephites, it is easy to see all sorts of other parallels. But, as you'll see, most of these are either meaningless or misleading. The parallels, offered as evidence, generally suffer from one of two flaws:

1. An isolated demonstration that a feature from the Book of Mormon was present in the Hopewell culture without examining the presence of the same feature in other ancient cultures. Since the feature is present in more than one culture, it is of little evidentiary use in pinpointing a specific geography.
2. A misstatement or misunderstanding of Book of Mormon textual requirements, so what is presented as evidence for a Hopewell correlation with the Nephites is actually not valid evidence.

This paper examines both of these flaws as it relates to the evidence presented in the DVD.

EVIDENCES THAT AREN'T UNIQUE (BUT ARE PRESENTED AS SUCH)

The first major flaw evidenced in the DVD presentation is offering supposed parallels between the Hopewell culture and Nephite culture. The problem is, this evidence would only be convincing if the parallel is unique. For instance, if one shows that culture A and culture B both shared a common trait, the demonstration only has persuasive evidentiary value if it can be shown that the same trait isn't found in cultures C, D, and E. The less unique the trait, the less value it has in establishing a geography for the Book of Mormon.

The following sections examine evidences presented in the DVD that suffer from this particular flaw.

⁵ Meldrum, *DNA Evidence*, section 6, "Tents, Temples, and Teepees," 0:00-0:40.

BREASTPLATES AND HEADPLATES

The Book of Mormon mentions in several places that Nephite warriors used breastplates and headplates as part of their battle implements.⁶ The DVD presentation notes that the Hopewell had “breastplates [and] headplates”⁷ and uses this parallel as evidence that the Hopewell and the Nephites were the same cultures. The DVD does not point out, however, that it is unclear whether such items were always used in Hopewell warfare. Metal items associated with the Hopewell were often dedicated to ritual burial use, not to use in actual warfare.⁸

Further, there were other ancient cultures that used headplates and breastplates. In other words, the Hopewell were not unique in this usage (if they, in actuality, used them in warfare). It is well known, for instance, that Central American cultures used both headplates and breastplates in their warfare—at least by the Spanish conquest.

In an online posting Meldrum handily dismisses the idea of finding the Nephite’s armor of thick clothing⁹ in Mesoamerica:

Imagine an army in Mesoamerica wearing heavy, thick clothing in the tropical heat...yet here they are! It must have been nearly unbearable to wear such clothing in the jungles of Mesoamerica. An army of heavily dressed men in mid-summer in Mesoamerica...not likely.¹⁰

Such an image should not be so hastily dismissed. Maya warriors did, in fact, use such clothing:

⁶ See, for example, Mosiah 8:10; Alma 43:19, 46:13, 44:9, 49:6; Helaman 1:14; or Ether 15:15.

⁷ Meldrum, *DNA Evidence*, section 14, “Nephite Implements,” 0:34-2:20.

⁸ Olaf H. Prufer, “Prehistoric Hopewell Meteorite Collecting: Context and Implications,” *The Ohio Journal of Science* 61/6 (November 1961): 348 notes that “the majority of all Hopewell copper axes shows no signs of use; there are several very large and exceedingly heavy implements of this kind which obviously could not have served functional purposes; copper headdresses and breast plates, no doubt, were used ceremonially... Finally, the ceremonial character of metal objects...is underscored by the fact that they have not been found at village sites.” Thus, while some Hopewell artifacts could have been used in warfare, simply finding a weapon or breastplate does not prove that they had anything more than a ritual function. The DVD fails to demonstrate that the artifacts it uses as evidence were actually used in warfare. If they were not, then the parallel proves nothing relative to the Hopewell and the Nephites.

⁹ See Alma 43:19 and Alma 49:6.

¹⁰ DNA Truthseeker [Rod Meldrum], “Dna Evidence For Book Of Mormon Geography,” Mormon Apologetics and Discussion Board (MADB), May 12, 2008, <http://www.mormonapologetics.org/index.php?showtopic=35020&view=findpost&p=1208425874> (last accessed November 11, 2008), ellipses in original.



Maya warrior in quilted cotton armor, from Lintel 8, Yaxchilan, Chiapas, Mexico, AD 760.



Figure 2: Quilted armor with breastplate.¹²

Figure 1: Quilted armor.¹¹

DEFENSIVE WORKS

The Book of Mormon mentions the use of defensive structures including earthen embankments, for at least part of the Nephite period.¹³ The DVD presentation notes that the presence of defensive structures such as earthen ditches with a stockade on top in Hopewell structures. The DVD only cites examples consistent with the LNAM model. While such examples do exist, they ultimately provide little support for the LNAM because the structures are not unique to the Hopewell.

A Central American model, dismissed by the DVD, also cites extensive earthen fortifications with stockades on top. For example, the city of Becan in the Yucatan is well

¹¹ From William J. Hamblin, "Armor in the Book of Mormon," *Warfare in the Book of Mormon* (Salt Lake City and Provo, Utah: Deseret Book Company and FARMS, 1990), 413. Note that this image post-dates the Nephite period.

¹² "The garment worn by this figure is believed to represent the quilted armor worn by warriors, but the elaboration of the costume and its accoutrements suggest a figure of high rank and noble status." *Costumed Figure, 7th–8th century—Mexico; Maya Ceramic, pigment; H. 11 17/32 in. (1979.206.953); Metropolitan Museum of Art*, online at <http://www.metmuseum.org/> (last accessed November 11, 2008). Note that this figure post-dates the Nephite period.

¹³ See, for example, Alma 49:8. This is the first instance of this type of fortification being mentioned in the Book of Mormon.

known. It is encircled by a moat sixteen meters wide and covers a distance of two kilometers. The enclosed city covers almost 62 acres.¹⁴

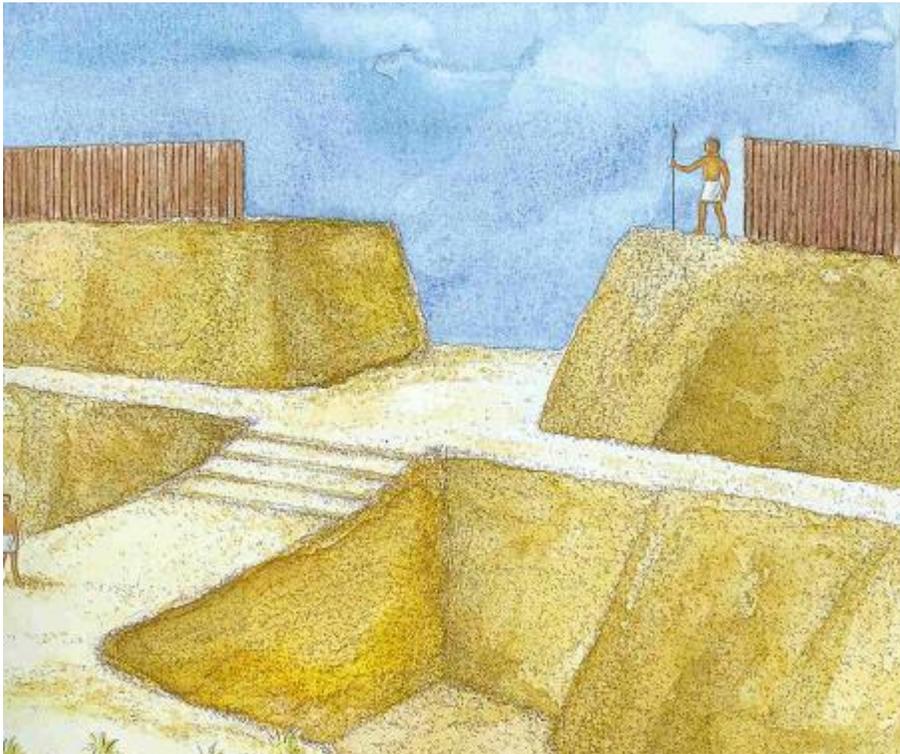


Figure 3. Artist's rendering of Becan fortifications.¹⁵

Nor are such structures unique to the Americas. Given that the principles of defensive warfare do not change, early peoples throughout the world have used similar structures. For example, in Wales in 1000 B.C. similar forts were

constructed in strong, naturally defensible positions, with the earliest forms tending to be constructed with a single (univallate) line of defence, such as a palisade or stout fence. This developed in later periods towards multiple (multivallate) lines of defences and outworks consisting of banks and ditches often revetted and topped with stone walls...¹⁶

Does this mean that the Welsh were Nephites? Or the Maya? Or the Hopewell? Since the use of these type of fortifications were not unique to any one group, they do not provide clear evidence for any one group to lay claim to the title "Nephites." While the absence of

¹⁴ You can see an online reconstruction of this structure at <http://www.mayaruins.com/becan.html> (last accessed November 11, 2008). See also David L. Webster, *Defensive Earthworks at Becan, Campeche, Mexico: Implications for Mayan Warfare* (New Orleans: Middle American Research Institute, Tulane University, Publication 41, 1976), 3.

¹⁵ John L. Sorenson, *Images of Ancient America: Visualizing Book of Mormon Life* (Provo, Utah: Research Press, Foundation for Ancient Research and Mormon Studies, 1998), 133, Andrea Darais, artist.

¹⁶ Royal Commission on the Ancient and Historical Monuments of Wales, online at <http://www.rcahmw.gov.uk/HI/ENG/Heritage+of+Wales/Themes/Living/> (last accessed November 11, 2008).

such fortifications would be a potential weakness, their presence does little to help distinguish the LNAM from other potential geographies.

CITIES

The DVD presents evidence without providing sufficient information for the audience to appropriately assess that evidence:

Alma 50: “And they also in that year began to build many cities in the North, one in a particular manner, which they called Lehi, which was in the North by the borders of the seashore.” It just so happened that this was in Ohio about 90 miles off of the shore of Lake Erie.¹⁷

The viewers are not told what North American city is referenced. Has the city been dated? Does the dating match the date of the founding of Lehi, which is known with precision from the Book of Mormon? Viewers are provided with none of this information, and so are left to trust the DVD’s presentation of information. Such trust is not reasonable given the way that other information in the DVD is presented and documented.

Likewise the DVD claims that

...in this particular one, the stockade wall—this is obviously a sign there—they used 15 to 20 thousand posts, mostly oak and hickory. Now, oak and hickory grow even slower, OK? Those are very hard woods, and they used 15 to 20 thousand posts just for this one stockade. Is it any wonder that they were running out of trees?¹⁸

The question remains—is there any archaeological evidence that the people of this period were running out of trees in the presentation’s proposed location at the proper time? Again, we aren’t told. The presentation implies that such evidence exists, but it provides no way to check the conclusions based upon that implied evidence.

The DVD’s presentation of conclusions based on archaeological findings also contains some questionable statements. For instance:

By the way, archeologically they believe that all of these cities were defensive in nature. Whoever these people were, they weren’t aggressive; they were trying to defend themselves.¹⁹

All city walls are “defensive” in nature. City walls cannot be offensive (used as a weapon); you cannot attack someone with a walled city. But, a walled city can serve as a fortress from which armed groups may go out to attack or raid others. There is no way to tell from the archaeological record—the existence of an ancient walled city—whether the inhabitants of that city were aggressive or not.

¹⁷ Meldrum, *DNA Evidence*, section 10, “Nephite Defenses,” 5:10-5:40.

¹⁸ Meldrum, *DNA Evidence*, section 10, “Nephite Defenses,” 6:56-7:20.

¹⁹ Meldrum, *DNA Evidence*, section 10, “Nephite Defenses,” 4:40-4:55.

LOTS OF DEAD PEOPLE AND AGRICULTURE

The DVD argues that the presence of many dead bodies in a Hopewell mound matches the Book of Mormon, as does the fact that the mound builders were farmers.

The numbers of skeletons are represented to have been “countless.” Does that sound anything like what the Book of Mormon says? Yes.

Look at this, hundreds of individuals thrown into this. This is a burial mound, actually. All these different people; it’s an archaeological site. This is chipped bifaces from this mound. Now, they think this might have been a shovel or a hoe, because the mound builders were agrarian, just like the Book of Mormon said about the Nephites.²⁰

While there were dead bodies in the mound and the mound builders were agrarian, this isn’t exactly supportive of the LNAM. Every socially complex hierarchical society has experienced death from war and high death rates from other causes. It is not particularly surprising that many dead would be found in a burial mound, but since the Book of Mormon never mentions burying the dead in mounds, it is not clear that this does much to prove that the Hopewell and the Nephites were the same. In what ancient culture would there *not* be many dead people, even if we don’t find their remains?

Likewise, while the Hopewell were farmers, they were not alone in that occupation. Many ancient societies were agrarian—any advanced culture requires agriculture to provide a food surplus, allow for specialization, permit settlement in one place, etc. If the Hopewell were *not* agrarian, that would count against the LNAM, but the presence of farming does not uniquely support the LNAM as the correct geography.

NEAR WATER

The DVD presentation notes that the Hopewell established settlements near water, just as we find in the Book of Mormon.

And as you can see, they [the Hopewell] were highly clustered around rivers. Why would ancient people live next to rivers? Water. Exactly. They need to have a clean supply of water. You can’t stay healthy and not have water.²¹

This is a case of stating the obvious—people need water in order to survive. All cultures (not just the Hopewell or the Nephites) require water, and settlement along waterways is typical for pre-modern cultures. Such a setting is not unique to the Hopewell and Book of Mormon peoples, so such a parallel is weak evidence for establish a geographical setting for the Book of Mormon.

²⁰ Meldrum, *DNA Evidence*, section 16, “Nephite Implements,” 6:54-7:30.

²¹ Meldrum, *DNA Evidence*, section 13, “Nephite Culture,” 0:18-0:55.

MISSTATEMENTS AND MISUNDERSTANDINGS

The second major flaw evidence in the DVD presentation is offering an evidence that is based upon a misunderstanding of what the Book of Mormon text says or a misstatement of the text. The following sections examine evidences presented in the DVD that suffer from this particular flaw.

GOLD, SILVER, AND PRECIOUS METALS

The DVD presentation asserts that the Hopewell match the Nephites in terms of access to precious metals:

Now, the copper is very interesting, because there's only a few places on the Earth where native copper exists.

Over here in Salt Lake City, where Kennecott Copper is, the largest pit mine in the world. That has no native copper. All that copper has to be smelted out. When I say native copper, I mean it's just copper that's on the ground. It just so happens that one of the biggest repositories of geologic native copper is right there in the Keweenaw Peninsula in Michigan...²²

The claim that native copper is found "only a few places on the Earth" is false. Most locations with modern copper mines requiring excavation also had some native copper on the surface available for archaeo-metallurgy.²³

Unfortunately, the assertion that native copper is necessary also does not match the description of how the Book of Mormon peoples found their precious metals.

And they did work in all manner of ore, and they did make gold, and silver, and iron, and brass, and all manner of metals; and they did dig it out of the earth; wherefore, they did cast up mighty heaps of earth to get ore, of gold, and of silver, and of iron, and of copper. (Ether 10:23)

This describes a people who don't find copper that's just lying on the ground; they are not working with "native copper." There was, instead, an enormous amount of effort expended on mining for the ore.

Meldrum's account of the geology of precious metals is mistaken:

Here's some copper that's from that area. That's a big, huge piece of native copper. This is two pieces of copper that I actually own. That little bit right there, that's silver, because copper, silver and gold are all typically found together. In fact, what the Kennecott Copper mine [in Utah] produces, one of its primary money makers is gold they get from that mine. They get a lot

²² Meldrum, *DNA Evidence*, section 16, "Nephite Implements," 2:30-3:15.

²³ Christopher N. Watkins, an LDS graduate student, is currently coauthoring a paper on prehistoric native copper use in the American southwest, and provided us with this information by personal communication.

of silver and, again, mostly copper. So, wherever you find copper, you're going to find silver and gold typically.²⁴

This is, in fact, not the case for the Hopewell region. As Dr. John Lund noted,

Four separate mining areas possessing gold, silver and copper are required in order to qualify as the lands of the primary events of the Book of Mormon. Where are those criteria met? The answer is in Mesoamerica, the Southwestern United States, the Northern Rockies, and Western Canada. However, there is no single place east of the Mississippi River, including all twenty-six states, where one can find gold, silver, and copper together in one locale in abundance, much less four separate locations.²⁵

Meldrum claims that Lund “gets an F” for “research homework on metals,” and appeals to “placer deposits” of gold as a solution.²⁶ Such deposits are a collection of minerals in a trap site, such as a river eddy. However, this ignores the fundamental point—the text of the Book of Mormon indicates that the people mined their metals by extensive digging (inconsistent with using tracer deposits), refined them, and became “exceedingly wealthy”:

And it came to pass that they became exceedingly rich, both the Lamanites and the Nephites; and they did have an exceeding plenty of gold, and of silver, and of all manner of precious metals, both in the land south and in the land north...And behold, there was all manner of gold in both these lands, and of silver, and of precious ore of every kind; and there were also curious workmen, who did work all kinds of ore and did refine it; and thus they did become rich. (Helaman 3:9,11)

It is strange that the DVD continues to appeal to the huge Kennecott copper mine in Utah as evidence, which is of no relevance to the geology east of the Mississippi where the LNAM is situated. (As Lund noted, the western Rockies are one place that does have the necessary metals together in abundance. East of the Mississippi does not.) Experts on the Hopewell do not share the DVD's opinion regarding precious metals:

Some artifacts were made from hammered meteorites, since this was the only available source of pure iron. (Iron converts to oxides—rust—easily, so until the advent of smelting [which the Hopewell did not have] there was no other source for iron aside from meteorites.) Other artifacts were made from gold and silver, which are not found in the area. It is unclear from which cultures the iron, gold, and silver were obtained.²⁷

²⁴ Meldrum, *DNA Evidence*, section 16, “Nephite Implements,” 3:57-4:30.

²⁵ John Lewis Lund, *Mesoamerica and the Book of Mormon: Is This the Place?* (Orem, Utah: Communications Company; Distributed by Granite Publishing and Distribution, 2007), 128.

²⁶ DNA Truthseeker [Rod Meldrum], “The River Sidon and the Great Lakes Theory,” Mormon Apologetics and Discussion Board (13 May 2008), online at <http://www.mormonapologetics.org/index.php?showtopic=35553&view=findpost&p=1208426371> (last accessed June 2, 2008).

²⁷ “Information on Hopewell Culture,” [ancestralart.com](http://www.ancestral.com), online at http://www.ancestral.com/cultures/north_america/hopewell.html (last accessed June 2, 2008).

Clearly, this does not match the pattern of the Nephites smelting,²⁸ digging large amounts of earth, and finding gold and silver “in abundance” (though we must be cautious in presuming that what *we* think of as abundance matches the Nephites’ view).

THE MICHIGAN RELICS AS EVIDENCE

It is interesting that the DVD presentation mentions some artifacts that were “declared as fakes or hoaxes” which were taken out of the presentation to avoid controversy. Then, interestingly enough, the presentation still presents information about the artifacts as if they should be considered anyway:

There are things, though, some criteria for determining whether an artifact is a fake. I have actually removed from this presentation artifacts that are very amazing, that depict things like a person on a cross and so forth that were found in different caves. But these artifacts have been declared as fakes and as hoaxes, and so we’ve taken them out to be less controversial.

But the important thing here is that none of them that I know of have gone through these five scientific steps for determining whether or not an artifact is a fraud or is real. These are the five steps that should be taking place:

Was a complete scientific study performed? Is the investigator qualified to do this study? Is the investigator biased or objective? And is the basis for a fake determination clearly stated in a written report? Was the report peer-reviewed?

Those are the only things that need to be done, but these artifacts that have been declared as fakes have not gone through that process that I’m aware of.²⁹

This is a clever step—it allows Meldrum to have the best of both worlds. He can mention that there is an artifact with a man on the cross, thereby planting the idea in the viewers’ minds. He can make a show of scientific objectivity by not overtly including it in his presentation, while still getting the benefit of having mentioned it and implied that it, too, is evidence. He can then call doubters into question by implying that those who have questioned this evidence are not “objective” or “qualified” or “scientific.” And, he gets all

²⁸ “...notwithstanding the fact that Hopewell sites yielded large quantities of metal objects, these were always worked ‘cold’; smelting and casting remained unknown...” (Prufer, “Prehistoric Hopewell Meteorite Collecting,” 341.) Note that since this article was written, some limited evidence for *melting* and casting copper circa 1000 B.C. has been uncovered, but this is distinct from extracting metal from its ore by smelting. (See Ellis J. Neiburger, “Melted Copper from the Archaic Midwest (1000 B.C.),” *North American Archaeologist* 12/4 (1991): 351–360.) Smelting remains unknown: “Of one thing we are certain: no native copper was deliberately smelted.” (John R. Halsey, “Miskabik—Red Metal: The Roles Played by Michigan’s Copper in Prehistoric North America,” *Michigan History Magazine* 67/3 (1983): 35.) Copper smelting requires temperatures of 2200 F, which demands a coal furnace with forced air, and leaves characteristic waste which has not been found. (See Richard B. Stamps, “Tools Leave Marks: Material Analysis of the Scotford-Soper-Savage Michigan Relics,” *Brigham Young University Studies* 40/3 (2001): 220.) We must, however, be careful in using no evidence as evidence of absence. As two authors noted of the gold-rich areas plundered by the Spanish, “Direct archaeological evidence of smelting operations is rare in pre-Conquest Peru and unknown in Mexico for all practical purposes.” (Earle R. Caley and Dudley T. Easby, Jr., “New Evidences of Tin Smelting and the Use of Metallic Tin in Pre-Conquest Mexico,” *Actas y Memorias*, 35a. Congreso Internacional de Americanistas, Mexico 1962, vol.1 (Mexico, 1964), 508.) Yet, it is certain from the historical record that such smelting did occur. Archaeology may yet catch up to the LNAM in this regard, but it has not done so yet.

²⁹ Meldrum, *DNA Evidence*, section 16, “Nephite Implements,” 7:56-9:15.

these benefits without having to present a shred of evidence. If he's going to exclude these artifacts, he should exclude mention of them—as it is, he's still using them as evidence for his theory.

Meldrum's identification of a “man on a cross” in some artifacts “declared as fakes and hoaxes” indicates he is referencing what are known as the “Michigan Relics.”³⁰ When it was correctly pointed out that many reputable scholars have declared the relics to be forgeries, Meldrum responded

Please indicate what non-LDS scholarly journal article you are referencing as relating to the authenticity of the Michigan artifacts? Or are you referring to the Mesoamerican theorists who wrote in a BYU publication that they did their own study and found them to be fakes? What are the chances of any artifact getting an ‘authentic’ label by these pseudo-scientists when doing so would disprove their personal theories attempting to link the Book of Mormon with Mesoamerica? Not likely.³¹

This outburst is unfortunate for its inaccuracy, aggressive nature, and misleading information. Not only does Meldrum charge internationally known scholars at Brigham Young University with being “pseudo-scientists,” with a settled intention to conceal the truth, but he also demonstrates a lack of knowledge of his subject matter.

One of the “pseudo-scientists” rejected by Meldrum is James E. Talmage of the Quorum of the Twelve Apostles, author of *Jesus the Christ*, and an eminent Ph.D. geologist. Talmage made a study of the artifacts soon after their appearance, declared them forgeries, and said so in a paper he co-authored for a non-LDS, peer-reviewed journal.³² Talmage recorded that the stepdaughter of the man who discovered the relics:

...solemnly declared to me that she positively knows her step-father, James Scotford, has made, buried, and dug up many of the articles reported to be genuine archaeological relics. She gave circumstantial details, and agreed to sign a written statement with the proviso that such statement shall not be made public without her consent during the lifetime of her mother, Mrs. Jas. Scotford.³³

Although Meldrum is convinced that only BYU would publish something against the Michigan Relics, there are in fact many non-LDS authors who have published peer-

³⁰ A photo of the forged “Michigan Tablet” of Christ's crucifixion is available in Wayne May, “Christ in North America?” *Ancient American* 4/26, online at <http://ancientamerican.com/article26p1.htm>. Perhaps not coincidentally, May is a tour director with Meldrum offering “The Ultimate LDS Tour” to the Hopewell area (see <http://www.bookofmormonevidence.org/index.php>, last accessed June 5, 2008).

³¹ DNA Truthseeker [Rod Meldrum], “Dna [sic] Evidence For Book Of Mormon Geography, What's your take on this lecture series?,” Mormon Apologetics and Discussion Board, post #32 (12 May 2008), online at <http://www.mormonapologetics.org/index.php?showtopic=35020&st=20&p=1208425876&#entry1208425876> (last accessed May 30, 2008).

³² Frederick Starr, J.O. Kinnaman, and James E. Talmage, “The Michigan Archaeological Question Settled,” *The American Antiquarian and Oriental Journal* 33, no. 3 (1911): 160–164.

³³ James E. Talmage, journal, June 1921; cited in Mark Ashurst-McGee, “Mormonism's Encounter with the Michigan Relics,” *Brigham Young University Studies* 40/ 3 (2001): 187.

reviewed articles about them.³⁴ Thus, we have multiple non-LDS scholars with no interest whatever in placing the Book of Mormon in Central America (or anywhere in the real world) declaring the relics to be fakes. We have a member of the Quorum of the Twelve—also a gifted scientist—who examined the relics and declared them fakes. The same apostle also spoke to a family member who identified the forger and means of forgery. A case for a relic being forged simply doesn't get much more air-tight than this.

In the DVD presentation a testable hypothesis relative to the Michigan Relics is offered. Have the relics been subjected to appropriate study? Were the five criteria offered in the presentation met?

1. Was a complete scientific study performed?

Yes. As already noted, many have been done.³⁵ The findings of the most up-to-date study were published in 2001 by Richard Stamps.³⁶ Numerous other studies were carried out, some within a year of the relics' appearance. These are discussed by Stamps and by Mark Ashurst-McGee.³⁷

2. Is the investigator qualified to do this study?

Yes. The qualifications of Talmage have already been addressed. At the time of his study, Stamps was Associated Professor of Anthropology at Oakland University in Rochester, Michigan. He received help in his study from other qualified scholars.³⁸ Being members of the Church, both Talmage and Stamps would have every reason to find solid evidence *for* the Book of Mormon if the Michigan Relics were authentic.

3. Is the investigator biased or objective?

No one is completely objective. Talmage was at first inclined to accept the artifacts, but the evidence persuaded him they were fakes. Perhaps Stamps was influenced by Talmage, who had already declared the artifacts to be fakes. Meldrum and May also have a bias, since both derive part of their livelihood by not rejecting the Michigan Relics. Bias is everywhere.

³⁴ Francis W. Kelsey, "Some Archaeological Forgeries from Michigan," *American Anthropologist* 10/8 (May 1908): 48–59; Francis W. Kelsey, "A Persistent Forgery," *The American Antiquarian and Oriental Journal* 33/1 (1911): 26–31; Stephen D. Peet, "A 'Stamp' Table and Coin Found in a Michigan Mount," *The American Antiquarian and Oriental Journal* 15 (September 1894): 313.

³⁵ Frederick Starr, J.O. Kinnaman, and James E. Talmage, "The Michigan Archaeological Question Settled," *The American Antiquarian and Oriental Journal* 33/3 (1911): 160–164; Francis W. Kelsey, "Some Archaeological Forgeries from Michigan," *American Anthropologist* 10/8 (May 1908): 48–59; Francis W. Kelsey, "A Persistent Forgery," *The American Antiquarian and Oriental Journal* 33/1 (1911): 26–31; Stephen D. Peet, "A 'Stamp' Table and Coin Found in a Michigan Mount," *The American Antiquarian and Oriental Journal* 15 (September 1894): 313.

³⁶ Richard B. Stamps, "Tools Leave Marks: Material Analysis of the Scottford-Soper-Savage Michigan Relics," *BYU Studies* 40/3 (2001), 210–238.

³⁷ Mark Ashurst-McGee, "Mormonism's Encounter with the Michigan Relics," *BYU Studies* 40/3 (2001), 182–196.

³⁸ In his study, Stamps explicitly thanks T. Michael Smith (archaeologist, Olansing, Michigan), John O'Shay (Anthropology Museum, University of Michigan), Carol DeFord (curator of collections, Cranbrook Institute of Science, Bloomfield Hills, Michigan), and Leon Stodulski and Karen Trentelman (Conservation Services Laboratory, The Detroit Institute of Arts).

In spite of any bias Stamps may have, the best evidence of his scientific judgment is a review of the tests to which the artifacts were subjected and the results of those tests. The test results are unambiguous and numerous, regardless of what one might have believed prior to those tests.

4. Is the basis for a fake determination clearly stated in a written report?

Yes. Stamps' article presents scientific results indicating the various issues with the artifacts. The clay artifacts could not have survived a single Michigan winter due to their composition. Metal artifacts bore distinct signs of the modern tools which created them. In one case, a fly wing is preserved in the chemical wash used to make the relics appear older. The copper used had been smelted (which was beyond Hopewell capabilities) and is even the precise thickness of industrial stock, which strongly suggests it was prepared in the nineteenth century by forgers. The data are presented clearly and unambiguously.

5. Was the report peer-reviewed?

Yes. This was standard practice in Talmage's day and it is standard practice for *BYU Studies*.

Meldrum attempts to rescue the Michigan Relics' reputation by suggesting that none of his five requirements have been met. Either he has not done sufficient research or he is ignoring the data. The fact is, the scientific examination of those artifacts clearly declares them to be modern forgeries. This scientific information is supported by the fact that no more relics were found after the deaths of the forgers, and an affidavit by the daughter of one of the forgers indicates she saw her father creating some of them.

TEPEES AND TENTS

Meldrum titles one section "tepees and tents," though never mentions tepees again. He does, however, mention tents, which the audience is supposed to associate with tepees.

There is an important contrast to be made between the Adena/Hopewell cultures' mode of housing and the indication that there were tents in this region. Both the Adena and Hopewell cultures are sedentary, and as such have permanent structures. Tents are portable dwellings and the cultures whose primary dwellings are tents (most obviously the Plains Indians) use them because their nomadic lifestyle requires the ability to move easily. Note the descriptions of different types of Indians who lived on the Great Plains:

The areas of domestication in the Plains tended to revolve around mobility. Housing for the Western Plains cultures consisted of easily built and dismantled bison skin tipis. Such lodgings allowed for greater mobility, which was of utmost importance for following the hunted game. These small encampments were most likely structured in a semi-circular fashion allowing for protection from animals and other dangers. Stone-ringed fire pits located near the center of the makeshift village offered a meeting place as well as a source of heat. Other smaller fire pits were located near or inside of the individual tipis allowing for individual cooking and drying.

Another form of housing and village life in the Eastern Plains cultures is that of earth homes made from sod and timbers. Most villages were located near

or over looking rivers and streams and were permanent dwelling places for their inhabitants. Most of the houses were located relatively close to one another, again in a circular pattern. Many of the villages used protective barriers similar to the palisades of the Northeast and dry moats for protection from enemies. The Eastern Plains people incorporated gardening into their lifestyles. Crops such as corn, beans, and squash were raised near the village and stored in pits below the floors of the individual houses.³⁹

There is a clear contrast between the housing types of the mobile tribes and the sedentary tribes of the Eastern Plains. Because it is clear that the Adena and Hopewell were sedentary, it is highly unlikely that the mobile tents suggested would have been a form of housing in those areas.

The problem of equating tipis with the “tents” referred to in the Book of Mormon also involves the timing of the Plains Indian cultures. The ability to follow migrating herds and take their tents with them was heavily dependent upon horses, probably introduced into the area only after the 1600s.⁴⁰ As a result, this tipi-culture had its greatest extent from 1750 to 1890, long after the close of the Book of Mormon.⁴¹

Even discounting the problems of a lack of correspondence between time and place, does the Book of Mormon text agree that Lamanites were nomadic? On the contrary, when the sons of Mosiah travel to Lamanite country on their mission (prior to the time of Christ) the Lamanites were clearly living in cities. (This is in contrast to the DVD’s claim that “they didn’t do much in the way of city building.”⁴²) From the descriptions of their kings and kings over kings, they were not only cities, but large ones with a complex social organization. The Book of Mormon text disagrees with the claim that the Lamanites were nomadic throughout most of Nephite history.⁴³

The DVD presentation also does not present evidence which allows viewers to confidently choose between a Mesoamerican setting and the LNAM since tents exist in areas other than the geography presented by the LNAM.⁴⁴

³⁹ “Native American Shelters: Plains,” <http://www.mnsu.edu/emuseum/prehistory/settlements/regions/plains.html> (last accessed June 4, 2008).

⁴⁰ “The Plains tribes adopted a horse culture beginning in the 17th century when escaped Spanish horses were obtained.” (“Plains Indians,” wikipedia.org, http://en.wikipedia.org/wiki/Plains_Indians, last accessed June 3, 2008); “Few Indians lived on the Great Plains before white men brought the horse in the 1600s.” (“Plains Indians,” <http://www.mce.k12tn.net/indians/reports4/plains.htm>, last accessed June 3, 2008). See also the review relative to buffalo evidence at http://www.fairlds.org/DNA_Evidence_for_Book_of_Mormon_Geography/ for other examples of how Plains Indian history is inaccurately presented in the DVD.

⁴¹ “Plains Indians,” wikipedia.org, http://en.wikipedia.org/wiki/Plains_Indians (last accessed June 3, 2008).

⁴² Meldrum, *DNA Evidence*, section 6, “Tents, Temples, and Teepees,” 3:30-3:40.

⁴³ There is some evidence for Lamanite nomadic hunting and gathering early in Nephite history (e.g., Enos 1:20), but this is not the dominant Lamanite lifestyle through most of the Book of Mormon. See the review of buffalo evidence at http://www.fairlds.org/DNA_Evidence_for_Book_of_Mormon_Geography/ for further details.

⁴⁴ See, for example, John L. Sorenson, “Evidence for Tents in the Book of Mormon,” *Pressing Forward with the Book of Mormon*, edited by John W. Welch and Melvin J. Thorne (Provo, Utah: FARMS, 1999), 135–138.

TEMPLES

Meldrum claims that Hopewell temples are more like Solomon's temple than the Mayan temples sometimes associated with Mesoamerican artwork and the Book of Mormon. While he recognizes that the Mayan structures post-date the Nephite period, he insists that making this comparison is "fair game" since some LDS authors have not been clear about the distinction. The DVD makes much of the ceremonial executions and blood rites of Mayan temples, and then concludes that this doesn't match the true temples of the Book of Mormon. This is true, but one must ask—so what? Authors should certainly be careful about associating non-Nephite era structures or artifacts with the Nephites, though analogy can be a useful tool for getting a general "sense" of a culture, as the cautious John Sorenson explained:

Latter-day Saints in the past have often grasped at archaeological straws in supposing that all the ruins [in Mesoamerica] are somehow "Nephite" or "Lamanite." Moreover, few readers of that record compiled by Mormon have gained from it an accurate picture of how the Nephites or Lamanites *may have* lived...

The word *visualizing* in this book [*Images of Ancient America: Visualizing Book of Mormon Life*]...does not mean...that I think the illustrations show specifically Nephite artifacts or scenes.

It would have been ideal had the pictures that are available come exclusively from the portions of Mesoamerica where the Nephites most likely lived and had they dated specifically from their era. Instead, it has often been necessary to use illustrations from pre-Nephite and post-Nephite times and from localities where that people probably did not live. Yet it is as reasonable to use those complementary resources as for books on Bible lands to use pictures of, say, modern desert-dwelling Bedouins to illustrate certain lifeways that may not have changed basically since the days of the Old Testament...

Until a more specific identification can be made of who the Nephites were in Mesoamerican terms, we must often be satisfied with *generic pictures* of their culture that accessible sources provide us.⁴⁵

Mayan temples are not Nephite. Ironically, the DVD commits the same error of which the author complains: it repeatedly uses images of Monk's Mound (near present-day Collinsville, Illinois) to illustrate its claims about "Nephite temples." This mound cannot have been a Nephite temple, since its construction began around 900–950 A.D. and was not completed until 1100 A.D.⁴⁶ It appears that the DVD does not mind using non-Nephite images if they support the LNAM theory.

Given that temples are often built on top of previous structures, a graphic designer or artist must sometimes choose between showing *nothing* (which is also misleading) or showing a structure whose elements date from too late a period. It would be wise if

⁴⁵ Sorenson, *Images of Ancient America*, 1-2, 4.

⁴⁶ "Monk's Mound," wikipedia.org, online at http://en.wikipedia.org/wiki/Monk%27s_Mound (last accessed 5 September 2008).

authors took the essence of Meldrum’s criticism to heart and made very clear their assumptions and sources for all visual images. This remains a challenge in any historical work, not just Book of Mormon studies. Unfortunately, the DVD’s use of Monk’s Mount commits this same error.

So, are Hopewell worship sites more like Solomon’s temple?

Characteristic	Solomon	Hopewell	Mesoamerican
<i>Building material</i>	Stone	Dirt and wood	Dirt and wood, later stone
<i>Enclosures</i>	Walled court	Walled court	Walled court
<i>Place of sacrifice</i>	Open	Before temple, open	Before temple, open
<i>Shape</i>	Rectangular	Rectangular	Rectangular

Neither the Hopewellian nor Mesoamerican building structures can be said to precisely follow an Old World pattern physically. The similarities or differences are in the functions, and those depend upon the people using them, not the buildings themselves. Thus, the bloodthirsty Mayan temples, besides being chronologically too late to be Nephite structures, certainly had little to do with Solomon’s temple. But, this proves little about what the Hopewell did in their temples, or whether another Mesoamerican group kept the Law of Moses as recorded in the Book of Mormon.

THINGS WE AREN’T TOLD (BUT SHOULD BE)

As discussed in other reviews of this DVD, the spread of Hopewell culture was from north to south, rather than south to north from the Mississippi delta as the LNAM requires.⁴⁷ This isn’t the only problem with identifying the Hopewell as the Nephites, however.

The DVD points out concentrations of Hopewell along the northern Florida coast and suggests that this is the land of first inheritance. The problem with such an analysis is that it is inconsistent with how the material is used elsewhere in the DVD. Early in the DVD it is asserted that the Hopewell did not begin as a culture until about 200 B.C. It is suggested that this is because they only have one city, Nephi, until they move north to Zarahemla about that time. As discussed in detail in other reviews of the DVD (in “Section 8: Chronological Evidence”) this is an absolutely critical error, since it contradicts the Book of Mormon text.

There are archaeological problems that compound the error. The LNAM equates the Nephites with the Hopewell and places the Lamanites as nomadic plains Indians.⁴⁸ Were this the case, one would expect to see only settlements in areas that the LNAM identifies

⁴⁷ See the review of DNA evidence at http://www.fairlds.org/DNA_Evidence_for_Book_of_Mormon_Geography/.

⁴⁸ The DVD insists that the Lamanites were nomadic, not sedentary farmers. See the review of buffalo evidence at http://www.fairlds.org/DNA_Evidence_for_Book_of_Mormon_Geography/ for further details.

as Nephite areas. The LNAM identifies the Mississippi delta and the northern Florida Gulf coast as the scriptural Land of First Inheritance. Except for a short time when the Lehitites first landed in the New World, the Land of First Inheritance was under Lamanite control, not Nephite. There should, therefore, be no evidence of settlements in this area, as it was under the control of the nomadic Lamanites.

Yet during the time of the Hopewell (200 B.C. to 600 A.D.), there are extensive archaeological remains of settlements all throughout this area. Such evidence does not square with the LNAM's reading of the Book of Mormon text.

Furthermore, a vital aspect of the Book of Mormon is virtually absent in Meldrum's model—the location of the Jaredites. Even were the Hopewell a perfect fit for the Nephites, we still don't have a match for the entire Book of Mormon unless we also find the Jaredites. The Adena are the culture that preceded the Hopewell, but the important fact is that they preceded them *in the same area*. The Book of Mormon requires that the Jaredites not be in the same area, but rather in the lands north of the Nephites and Lamanites.

The LNAM's Jaredite problem is most obvious when the archaeology around the hill Cumorah is investigated. Since the hill Ramah of the Jaredites is the Cumorah of the Nephites⁴⁹ (a point Meldrum recognizes) then we should find archaeological "Jaredites" in that region. Archaeologist John Clark notes a dilemma for those seeking remnants of Book of Mormon peoples around Cumorah if the New York hill from which Joseph retrieved the plates is equated with the Book of Mormon last battle site of Cumorah/Ramah:

The archaeological record of the New York area seems quite misleading when one looks at sites that have been radiocarbon dated...[There is] a huge gap in time, wherein there is practically no data. Surprisingly, almost nothing is dated within the time period 500 B.C. to A.D. 400, the period of the Nephites.⁵⁰

Specifically speaking of the New York area, Clark notes:

As to cultural practices, the Book of Mormon describes for all its peoples, even the Lamanites, a sedentary lifestyle based on cereal agriculture, with cities and substantial buildings. Thus we should be looking for city dwellers, permanent populations, kings, farmers, and grains. These should start in the third millennium before Christ and persist at least until the fourth century after his death. There should be some climax and nadir moments in developments, and these should occur in specific places on the landscape. New York lacked cities and cereal agriculture until after A.D. 1000 and is thus not the place. We are not missing evidence of Great Lakes peoples, their settlement patterns, or subsistence practices for the time periods under

⁴⁹ See Ether 15:11; compare with Mormon 6:1-11.

⁵⁰ John E. Clark, "Evaluating the Case for a Limited Great Lakes Setting," *FARMS Review of Books* 14/1 (2002): 40.

consideration. These are reasonably well known for each period from a variety of evidence; they simply do not fit the specifications.⁵¹

The precise region in which we should find evidence of Jaredites with large cities—which can be supported only by extensive agriculture—shows no evidence of any cities and no evidence of a grain crop capable of sustaining the Book of Mormon populations at the LNAM candidate site.

CONCLUSION

If the geography and genetics data had supported the LNAM, some of the supposed Book of Mormon parallels with the Hopewell would have been small additions to the model that helped enhance it. Lacking the firm foundation that the DVD supposedly presents, the author sees mounting evidence where there isn't any. The LNAM also ignores contrary evidence that doesn't fit the model.

⁵¹ Clark, "Evaluating the Case for a Limited Great Lakes Setting," 46.