

SECTION 9: NEPHITE STRUCTURES

Editor's Note: *Due to the brevity of this paper, no executive summary is necessary. See http://www.fairlds.org/DNA_Evidence_for_Book_of_Mormon_Geography/ for more information. This paper was last updated 1 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 relative to chronological evidence. This examination addresses, specifically, Part 11 of the DVD presentation, which is titled "Nephite Structures: Hopewell Structures."

STONE CITIES

In discussing Nephite structures, the DVD begins by laying a foundation for everything that will follow—that Nephite structures were built of wood, but Mesoamerican structures were all stone, therefore Nephites could not have been in Mesoamerica.

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.

There is a problem with this foundation, however: it is built upon a profound misunderstanding of the extant knowledge about Mesoamerica. Note how the DVD starts to lay the foundation:

What was the primary building material used in the Book of Mormon?
Because the cities down in Central America are primarily made out of what?
Stone. OK?⁵

This is demonstrably untrue. There are certainly impressive stone cities and ruins in Mesoamerica, but it is a mistake to conclude that these made up the whole city. Regional centers tended to have a core of buildings made of more durable materials, such as brick, stone, and earth. Most of the rest of the city was made of wood and mud ("wattle and daub") construction.⁶ The majority of people would have lived in wood/mud structures, not the impressive stone monuments that exist to the present day.

One expert describes how even the important buildings were built of perishable materials in the area often suggested as the Book of Mormon lands:

Owing to the scarcity of suitable, easily worked building stone, even the largest and most elaborate southern Maya⁷ buildings were usually constructed of perishable materials, such as pole and thatch, wood, or adobe blocks.⁸

Most of us naturally pay more attention to the stone architecture of Mesoamerica for several reasons:

- a. Cities built of wood are perishable, especially in the humid, warm climate of Central America.⁹ Thus, the stone portions of cities are more intact, but this does not mean that cities in Central America were "primarily made out of...stone," as the DVD asserts. Stone is primarily what we see today on superficial examination; it was not the major building material used historically.¹⁰

⁵ Meldrum, *DNA Evidence*, section 11, "Nephite Structures," 0:00-0:15.

⁶ One of the classic textbooks on the Maya says: "Throughout the Maya area the remains of most domestic buildings indicate that they were constructed in the same manner as are contemporary Maya houses. Typically, a pole framework supports a thatched roof; walls are usually wattle and daub, a woven lattice of sticks plastered with a thick coating of adobe (mud mixed with straw or other binder). In the hottest regions, house walls are often unplastered, allowing the passage of cooling breezes. More substantial houses may have foundations of stone, or rough stone walls smoothed with plaster." [Robert J. Sharer, *The Ancient Maya*, 5th edition (Stanford, California: Stanford University Press, 1994), 631.]

⁷ The "southern Maya" is the area thought to be the cradle of Mayan civilization and culture. For a map and discussion, see http://en.wikipedia.org/wiki/Southern_Maya_area (last accessed 3 September 2008).

⁸ Sharer, *The Ancient Maya*, 631.

⁹ Of wooden artifacts, Sharer notes, "Only the hardest species of wood have survived the damp climate of the Maya lowlands, and the only wooden objects that have been recovered had been in situations protected from the weather." (Sharer, *The Ancient Maya*, 657.)

¹⁰ "Except for the masonry 'palaces' of the elite," notes Sharer, "the vast majority of...residences in the Maya area are detected archaeologically as low earthen or rubble platforms." (Sharer, *The Ancient Maya*, 467.)

- b. More archaeological work has been done on stone architecture than on the more common wooden structures and much more has been *published* about stone architecture. This does not mean, however, that wood architecture was rare or less common than stone.¹¹
- c. Stone buildings are simply more impressive than the subtler remains of wood construction, and so make better posters, tourist destinations, and magazine covers.

It is also important to note that many of the iconic Mesoamerican stone ruins date to *after* the Book of Mormon period, despite the unfortunate tendency of some graphic designers to use images of these ruins as if they were Nephite.

It is also well known that later cities in Mesoamerica were built upon the remains of earlier cities. Thus, many wooden buildings, if they have already not decayed, would be under later ruins and not visible without extensive archaeological work.

Despite what may be popularly thought (and promulgated in the DVD presentation), the remains of wooden buildings do exist in Mesoamerica, but they are less impressive or obvious than stone monuments. For example, wooden houses often take the form of “house mounds,” meter-high elevations that appear to be earthen hills but actually contain the remains of an ancient dwelling.¹² Only an expert’s eye might detect them, and the DVD provides us with no such expertise.

The DVD also misrepresents the views of those with whom it disagrees (those who propose a Mesoamerican geography):

It is extremely clear from this scripture [Helaman 3:9] that they used wood. And if we’re looking for temples made out of stone, then we’re looking for the wrong kind of temples. Because these temples were made from timber.¹³

The problem with such a statement is the inference that Mesoamerican scholars insist on temples made of stone; they do not. Mesoamerican scholars such as Brant Gardner emphasize that,

Guatemala is blessed with extensive hardwood forests, and woodworking is archaeologically attested. In fact, woodworking was presumably more widespread than the surviving samples, since the Mesoamerican climate and the passage of millennia since Nephi’s time would destroy most wooden

¹¹ Sharer describes the difficulties in assessing this aspect of Maya life: “...there will at any site be an unknown proportion of residences that the [archaeologist] missed, either because they lacked platforms, have been completely destroyed, or are so deeply buried as to be undetectable. At Tikal, for example, it was estimated that the actual number of ancient residents was 10 percent greater than the mapped total of residence platforms. At Copan this factor was higher (between 39 and 50 percent), and at the badly disturbed site of Santa Rita Corozal, it was much greater (between 50 and 100 percent).” (Sharer, *The Ancient Maya*, 468.)

¹² This has been known for decades. The first major study of low-status dwellings was Robert Wauchope, *House Mounds of Uaxactun, Guatemala* (Washington: Carnegie Institution of Washington, 1934). For the practice of counting house mounds to estimate population, see Gordon R. Willey, “The Structure of Ancient Maya Society: Evidence from the Southern Lowlands,” *American Anthropologist* 58/5 (October 1956): 777–782.

¹³ Meldrum, *DNA Evidence*, section 11, “Nephite Structures,” 1:30-1:50.

items...it is more likely that Nephi would have used the various hardwoods that were locally available [for his temple].¹⁴

BURNING CITIES

The DVD presentation compounds the confusion by claiming:

If this was a Nephite city, made out of wood, what would be the easiest way to destroy it? Right; exactly—fire. So, are there any indications in the Book of Mormon itself for cities being burned with fire? And sure enough, there are. Third Nephi 8: “And many great notable cities were sunk and many were burned, and these cities...were caused to be burned with fire. And also the city of Lehman and Josh and Gad and Kishkuman.” They were all burned with fire.

What about in Ether and the Jaredites? Sure enough, he says, “They did enslave both the women and children, they did burn the cities.” These were not stone cities; these had to have been wooden cities.¹⁵

Remember that Meldrum is the only one claiming that those who posit a Mesoamerican geography require Book of Mormon cities to be made of stone. But, he’s also wrong on the issue of fire—stone buildings and cities can and do burn. A stone city is not *only* made of stone. There are many other materials within buildings, used as part of the structures’ construction and furnishings. Once fires are started, masonry can become unstable and stones can shatter from the heat, leading to further destabilization of the building.

There are many examples of such fires from around the world. European cathedrals are gigantic stone structures and yet they were repeatedly threatened by fire. The magnificent gothic cathedral in Chartres, France, has been the site of numerous churches. A wooden church from the fourth century A.D. was burned by the Duke of Aquitaine in 743; Danish pirates destroyed it by fire again in 858. The church was rebuilt in stone, only to be consumed by fire in 1020—something which the DVD suggests ought to be impossible. A Romanesque stone building was entirely destroyed by fire in 1194 A.D., save for one facade, the towers, the foundation, and crypt. Another fire threatened in 1836, but fortunately the stone and glass was unharmed.¹⁶ During the construction of the cathedral, it was also burned down once and narrowly escaped this fate a second time.

Closer to home, Latter-day Saints are well aware that after Brigham Young led the exodus to Salt Lake, arsonists burned the Nauvoo Temple. The temple was constructed of stone but was ravaged by fire just the same. Clearly, a stone building is not immune to fire.

In an ancient American environment, the classic Aztec symbol for a conquered city was a burning temple, and burning stone temples played an important role in Aztec warfare:

¹⁴ Brant A. Gardner, *Second Witness: Analytical and Contextual Commentary on the Book of Mormon*, 6 volumes (Salt Lake City: Greg Kofford Books, 2007), 2:100, 102.

¹⁵ Meldrum, *DNA Evidence*, section 11, “Nephite Structures,” 4:02-4:40.

¹⁶ Etienne Hovet and Malcom B. Miller, *Chartres Cathedral* (Saint-Dié, France: Haute-Vosge Impressions, 1985), 16–20.

The initial objective, however, was to induce the city to submit, not to destroy it. Thus, except in raids by non-Aztecs, burning was largely restricted to temples and their associated buildings. Firing a town's main temple was the ultimate sign of victory and was a devastating blow, for several reasons. The temples were usually the most heavily fortified sites within the city, and burning them meant that the enemy had succeeded in penetrating and overcoming the strongest resistance. More pragmatically, the temple precincts also contained the city's armories. Thus, burning them deprived the embattled army of additional arms and war supplies, so the act was devastating even when it was accomplished by stealth or deception.

Burning a city to accomplish its defeat was not common. But depending on the town's willingness to negotiate, the city might be burned if it did not surrender once its main temple had been fired.¹⁷

Stone cities can be burned, and they *were* burned in Mesoamerica, as well as everywhere else in the world.

CONCLUSION

In conclusion, anyone who contends that Mesoamerican cities were primarily built of stone, that Mesoamerican scholars agree that they are primarily built of stone, or that stone structures cannot be burned betrays a limited knowledge of archaeology and history. The LNAM gains little by relying on such flawed arguments; it certainly doesn't gain advantage of those who prefer a Mesoamerican geography.

¹⁷ Ross Hassig, *Aztec Warfare* (Norman: University of Oklahoma Press, 1988), 105.