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A Few Thoughts from a Believing DNA Scientist

John M. Butler


1065-9366 (print), 2168-3158 (online)

The Book of Mormon does not give sufficient information about the background of Ishmael’s wife, the wives of Ishmael’s sons, and Nephi’s sisters to test the mitochondrial DNA of the group. Other problems for critics’ assertions include the uncertainty of Lehi’s possession of an Abrahamic Y chromosome and the complete disregard for the entire Jaredite population (remnants of which may have survived their final battle). Confident scientific conclusions are difficult to attain and cannot replace a spiritual witness of the truthfulness of the Book of Mormon.
Recent claims concerning the supposed absence of DNA evidence in support of the Book of Mormon have caused me to investigate more closely what the record itself has to say on the topic. The mitochondrial DNA (mtDNA) lineage of Nephi’s children (and of Laman’s offspring) would come through Ishmael’s wife since the four oldest sons of Lehi as well as Zoram married the five daughters of Ishmael (see 1 Nephi 16:7). Unfortunately, Ishmael’s wife is of unknown background and heritage. In fact, she is mentioned only twice in the Book of Mormon (see 1 Nephi 7:6, 19) and may have died before Ishmael since she is not mentioned as a mourner when Ishmael dies at Nahom (see 1 Nephi 16:34–35). Perhaps the historical information in the large plates of Nephi, or even the 116 pages translated in 1828 and lost by Martin Harris, could shed some light on Ishmael’s wife’s background if only we had access to them.

The wives of Ishmael’s two sons (see 1 Nephi 7:6) would also potentially introduce additional mtDNA lineages into the Nephite and Lamanite descendants, as would Nephi’s sisters (see 2 Nephi 5:6). But, again, the Book of Mormon record is silent regarding their backgrounds. Thus, we are left without enough information from the Book of Mormon record itself to identify definitively an appropriate genetic source population that could be used to calibrate the claims of the Book of Mormon. Likewise, we do not have sufficient information to declare the Book of Mormon not true.

While Lehi’s direct male offspring would possess a copy of his Y chromosome, it is unclear whether or not these offspring would also have Manasseh, Joseph, Jacob, Isaac, and Abraham in their patrilineage, because Lehi is listed only as “a descendant of Manasseh” in Alma 10:3. Lehi could meet the definition of a descendant of Manasseh from a large number of genealogical lineages without being in the direct patrilineal line and possessing an Abrahamic Y chromosome. In addition, the fact that Mormon uses the phrase pure descendant of Lehi to describe himself in 3 Nephi 5:20 would seem to indicate that Lehi’s lineage was a rare one in Mormon’s day.

Interestingly absent from the critics’ contentions is mention of the Jaredites. The Jaredite nation existed for more than 1,500 years before the Lehites arrived in the promised land. This group spanned at least 29 generations (see Ether 1:6–33) with combinations of marriages between people whose background we know virtually nothing about. The Jaredites most likely traveled from central Asia to northeast Asia and then via barges to the New World (see Hugh Nibley, Lehi in the Desert; The World of the Jaredites; There Were Jaredites [1988], 181–82). Genetically, their path of travel would have seemed much like land passage across the Bering Strait if others along that route joined them and Asian bloodlines entered their group as they traveled. After arriving in the New World, the Jaredite people had hundreds of years to grow and spread across parts of the continent, perhaps encountering and intermarrying with other groups of unknown origin.

We usually think of the Jaredite nation as being completely annihilated in the final battle between the armies of Coriantumr and Shiz (see Ether 15). However, the prophecy of Ether states that all of Coriantumr’s household would be destroyed if he did not repent (see Ether 13:20–21), which does not necessarily mean all of the descendants of the original Jaredite colonization party. It is entirely conceivable that one or more groups had broken away from
the main Jaredite colony and survived outside of the record describing the downfall of the Coriantumr and Shiz camps. In fact, Hugh Nibley has argued for some kind of interaction and influence between the Jaredite and Lehite groups because of the continuance of such Jaredite names as Korihor (see Alma 30; Ether 7:3) and Coriantumr (see Helaman 1:15) in Nephite times (see Nibley, Lehi in the Desert; The World of the Jaredites; There Were Jaredites, 245). While it is possible to speculate endlessly about scenarios that would make Book of Mormon story lines compatible with current DNA evidence, the record itself is simply not descriptive enough to provide definitive calibration points with which to make confident scientific conclusions.

Thus, we are left where we started (and where I believe the Lord intended us to be)—in the realm of faith. A spiritual witness is the only way to know the truthfulness of the Book of Mormon. Although DNA studies have made links between Native Americans and Asians, these studies in no way invalidate the Book of Mormon despite the loud voices of detractors. 

The major work that attacks the Book of Mormon on the grounds of supposed DNA evidence is that of Thomas W. Murphy, “Lamanite Genesis, Genealogy, and Genetics,” a chapter in American Apocrypha, edited by Dan Vogel and Brent Lee Metcalfe (Salt Lake City: Signature Books, 2002). Murphy recently completed a Ph.D. in anthropology from the University of Washington, and he currently teaches at Edmonds Community College in Lynnwood, Washington, where he is the only full-time member of his department. His skills are in the cultural heritage of Native Americans, and he has little or no scientific background. For more on him and the media attention that his work has received, consult http://www.fairlds.org/pubs/murphy.pdf.

—ED.