New Technology and Ancient Voyages

"Hagoth, he being an exceedingly curious man, therefore he went forth and built him an exeedingly large ship . . . and launched it forth . . . and whither she did go we know not." (Alma 63:5, 8)

The potential of advanced scientific techniques for giving us new information about ancient history has sometimes been overhyped, yet real advantages are becoming apparent. Interestingly, however, the findings are more likely to produce fascinating new questions than to settle old ones neatly.

A recent example comes from study of the genetic (DNA) makeup of cotton. Half a century ago botanical studies revealed that the common New World species that yielded the cotton fibers used in the civilizations of Peru and Mesoamerica had resulted from a combination of an Old World species with some American wild type. Those who believed that voyagers crossed the ocean from Asia to America, including prominent botanists, argued that the most likely way this genetic joining of cottons took place was that humans in boats brought cotton seeds with them.

Subsequently, radiocarbon dating of archaeological specimens showed that cotton was in use in Mesoamerica at such an early date (on the order of seven thousand years ago) that introduction of Old World cotton by any voyage seemed out of the question. Today, DNA analysis has confirmed that indeed cotton has been growing in this hemisphere for so long that the only logical means for it to have arrived in the New World so early was by natural accident—probably by floating on the ocean.

But a new study comes up with a new question. Botanist Jonathan Wendel and colleagues at Iowa State University have shown from an investigation of the DNA composition of cotton species worldwide (in Africa, Australia, and America) that indeed interhemispheric sharing had to have taken place long ago, before human hands could have been involved. But they also found one species that grows in the Isthmus of Tehuantepec area in southern Mexico that shows an unexplained hybridization with or descent from an African cotton. The botanists cannot establish a mechanism for this connection, although it may have happened "during the last several thousand years."[1]

Note that recent evidence from linguistics[2] and art[3] may indicate some kind of voyaging connection between Egypt and southern Mexico, perhaps less than three thousand years ago. Such a voyage or voyages might have introduced the African cotton characteristics. One possibility for such a voyage that occurs to Latter-day Saints in terms of the Book of Mormon is the ship that brought Mulek to the promised land, although other possibilities exist.

Incidentally, the Iowa State study of cotton also demonstrated that a native species found in Hawaii was directly linked genetically with the most common domesticated cotton of Mexico. A voyage by humans from Mesoamerica into Polynesia may be the explanation. Even more mysterious is the fact that Wendel's data show that a unique cotton on the Galapagos Islands west of South America is directly tied to a species in Baja California, thousands of miles to the north! David H. Kelley of the University of Calgary has demonstrated from language, myth, and calendar data that a voyaging party from western Mexico must have reached Polynesia, possibly by way of South America, a couple of thousand years ago.[4]

Other recent applications of new technologies to old questions appear to produce both answers and questions about voyaging from southeast Asia to the Americas and about the use of drugs native to the Americas among

ancient Egyptians.

Research by John L. Sorenson, originally published as a FARMS Update in Insights *(December 1996): 2.*

Notes

1. See Jonathan F. Wendel, Andrew Schnabel, and Tosak Seelanan, "An Unusual Ribosomal DNA Sequence from Gossypium gossypioides Reveals Ancient, Cryptic, Intergenomic Introgression," *Molecular Phylogenetics and Evolution* 4/3 (1995): 298–313.

2. See John L. Sorenson, "Old World People in the New? (Part 2)," *Insights* (June 1995): 2.

3. See Rafique A. Jairazbhoy, *Ancient Egyptian Survivals in the Pacific* (London: Karnak House, 1990) and *Rameses III: Father of Ancient America* (London: Karnak House, 1992).

4. See "Tane and Sina: A Uto-Aztecan Astronomical Cult in Polynesia," in *Circumpacifica*, *Band II: Ozeanien*, *Miszellen*, ed. Bruno Illius and Matthias Laubscher (Frankfurt: Peterlang, 1990), 137–56.