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A Brief Survey of Ancient Near Eastern Beekeeping

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Abstract The Book of Mormon includes a narration of the

Jaredites and records that this people brought honeybees with them from the Old World to the New World. A study of the history of beekeeping in the ancient Near

East supports the plausibility of the Jaredites' story.

A Brief Survey of Ancient Near Eastern Beekeeping

Ronan James Head

And they did also carry with them deseret, which, by interpretation, is a honey bee; and thus they did carry with them swarms of bees. (Ether 2:3)

The figure of the honeybee has played a small but interesting role in American history. For example, Tammy Horn, in *Bees in America: How the Honey Bee Shaped the Nation*, describes how the English colonization of the New World was analogized through the use of the bee. New colonies were "hived off" to prosper in America, the new "land of milk and honey." The industry of the bee—and its sought-after honey and wax—made it a popular symbol of a righteous economy. The skep hive is well known in Masonic heraldry, a symbol

^{1.} Tammy Horn, *Bees in America: How the Honey Bee Shaped a Nation* (Lexington: University Press of Kentucky, 2005).

^{2.} The European honeybee was introduced to North America with the early English colonists, but the period before 1850 represents a rather primitive time for American apiculture. Foulbrood spores, and the German wax moth in particular, devastated bee colonies in the early nineteenth century. Also, the lack of a smoker made apiculture a cumbersome affair. In 1851 Lorenzo Langstroth invented a hive with removable frames that made it easier to manage bee colonies and protect them from intruders. Still, conditions before 1850 were favorable enough for beekeeping that New York state was described as a "beekeeper's paradise." Eva Crane, *The World History of Beekeeping and Honey Hunting* (London: Duckworth, 1999), 307. This was generally true of the United States east of the Mississippi.

^{3.} Crane, World History of Beekeeping, 604-7.

also used by the Latter-day Saints for the land of Deseret.⁴ The hive on the seal of the state of Utah (and elsewhere) is a direct allusion to a bee described in the Book of Mormon, and although the use of the bee as a symbol of industry is not restricted to Mormonism, *Deseret*, the particular name of the Mormon bee, is unique.⁵

The Book of Mormon narrates three migrations from the Old to the New World. The first—that of the Jaredites—involved the migration of a small band of people, led by the brother of Jared, from what the Book of Mormon calls the "great tower." The brother of Jared and his companions are described as being well prepared for a long migration when they left the tower. Ether 2:1–3 describes their provisions on their initial journey: flocks, fowls, fish, bees, and seeds. Only the bees are described by their original Jaredite name, *deseret*:

And it came to pass that Jared and his brother, and their families, and also the friends of Jared and his brother and their families, went down into the valley which was northward, (and the name of the valley was Nimrod, being called after the mighty hunter) with their flocks which they had gathered together, male and female, of every kind. And they did also lay snares and catch fowls of the air; and they did also prepare a vessel, in which they did carry with them the fish of the waters. And they did also carry with them deseret, which, by interpretation, is a honey bee; and thus they did carry with them swarms of bees, and all manner of that which was upon the face of the land, seeds of every kind.

^{4.} See J. Michael Hunter, "The Mormon Hive: A Study of the Bee and Beehive Symbols in Nineteenth-Century Mormon Culture" (master's thesis, California State University, Dominguez Hills, 2004).

^{5. &}quot;The beehive and the word *deseret* have been used variously throughout the history of the Church. The territory settled by the Mormon pioneers was called the State of Deseret. The emblem of the beehive is used in the seal of the State of Utah and is a common decoration in Utah architecture, symbolizing industriousness. Brigham Young's house in Salt Lake City is called the Beehive House. Early Sunday schools were part of the Deseret Sunday School Union. A vital part of the Church Welfare Program carries the name Deseret Industries." Stephen Parker, "Deseret," in Daniel H. Ludlow, ed., *Encyclopedia of Mormonism* (New York: Macmillan, 1992), 1:371.

Because the Old World Jaredites are portrayed as migratory beekeepers of some prowess, and given the commitment of the Church of Jesus Christ of Latter-day Saints to the historicity of the Jaredite account, it is hoped that the following survey of Near Eastern⁶ apiculture will be of interest to students of the Book of Mormon.

Near Eastern Apiculture

Before humans directly husbanded bees, "honey hunting" was the favored method for acquiring wild honey and is still practiced in some parts of the world today. Intrepid hunters smoke bees out of the hive and take the honeycombs. Evidence of honey hunting reaches back to the Upper Paleolithic period (ca. 15,000 BC).

The so-called European honeybee (*apis mellifera*) is found in the Near East from central Iran, across the Zagros and Taurus Mountains into Anatolia and the Levant, and into Egypt (but not in Iraq or the Arabian Desert). As will be seen, the evidence for hive beekeeping in the ancient Near East is strong.⁷

^{6.} The setting of the Jaredite homeland at the "great tower" is assumed by most Latterday Saints to mean the Tower of Babel mentioned in Genesis 11, a story of obvious Near Eastern origin: "[The Brother of Jared:] A Book of Mormon prophet. He and his brother founded the Jaredite nation when they led a colony of people from the Tower of Babel to a promised land in the western hemisphere." Guide to the Scriptures, s.v. "Jared, Brother of," http://scriptures.lds.org/gsj/jrdbrthr (accessed 10 September 2008). For more on the Jaredites and Deseret, see R. C. Webb [J. E. Homans], Joseph Smith as a Translator (Salt Lake City: Deseret News Press, 1936), 42-45; John L. Sorenson, "Years of the Jaredites" (FARMS paper, 1969), available at maxwellinstitute.byu.edu (accessed 23 September 2008); Hugh Nibley, The Message of the Joseph Smith Papyri: An Egyptian Endowment, 2nd ed. (Salt Lake City: Deseret Book and FARMS, 2005); Nibley, Abraham in Egypt, 2nd ed. (Salt Lake City: Deseret Book and FARMS, 2000); Nibley, Lehi in the Desert; The World of the Jaredites; There Were Jaredites (Salt Lake City: Deseret Book and FARMS, 1988); Paul Y. Hoskisson, "An Introduction to the Relevance of and a Methodology for a Study of the Proper Names of the Book of Mormon," in By Study and Also By Faith: Essays in Honor of Hugh W. Nibley, ed. John M. Lundquist and Stephen D. Ricks (Salt Lake City: Deseret Book and FARMS, 1990), 2:126-35; Kevin L. Barney, "Robert C. Webb," By Common Consent (18 October 2006), http://www.bycommonconsent.com/2006/10/robert-c-webb (accessed 17 September 2008); and Kevin L. Barney, "On the Etymology of Deseret," BCC [By Common Consent] Papers 1/2 (3 November 2006), http://www.bycommonconsent.com/2006/11/bcc-papers-1 -2-barney (accessed 17 September 2008).

^{7.} The evidence for hive beekeeping in other early Eurasian civilizations (such as the Indus Valley and China) is slight. See Crane, *World History of Beekeeping*, 163.

The earliest evidence for hive beekeeping (apiculture) comes from the Old Kingdom of Egypt (third millennium BC).⁸ A stone bas-relief from the sun temple of Niuserre Any at Abu Gurob depicts the gathering, filtering, and packing of honey, demonstrating that from a very early period beekeeping was well established in Egypt. Peasant beekeepers in Egypt today use much the same technology as that shown on ancient tomb paintings in Thebes.⁹ Typical pipe hives made of mud or clay are about a meter long and are stacked together, imitating logs. The ends are sealed except for small holes that allow the bees passage.

Ancient Egypt was rich with bee imagery: the tears of Re were believed to become bees, the Pyramid Texts state that Nut can appear as a bee, and the temple of Neith at Sais was called "the house of the bee." Most famously, the symbol of the bee was used in royal titulature from the very foundation of the Egyptian state. By the first dynasty (3100–2900 BC), the king was known as *nsw bty*, "He of the Reed and the Bee," the bee being the heraldic symbol of the Red Land (Lower Egypt). For "superstitious reasons" on two occasions, this title was written instead with the red *dšrt* crown of Lower Egypt replacing *bty*. In

There are no textual references to beekeeping in ancient Syria-Palestine prior to the late Hellenistic period.¹² The Hebrew word for honey, *debaš*, like Akkadian *dišpu*, can refer to both bee honey and any number of sweet substances. Thus Canaan may have been the "land of

^{8.} Crane believes that Egyptian apiculture was initiated in the bee-rich Nile delta during the Predynastic period. See Crane, *World History of Beekeeping*, 171.

^{9.} See Crane, World History of Beekeeping, 163-66.

^{10.} Douglas J. Brewer, Donald B. Redford, and Susan Redford, *Domestic Plants and Animals: The Egyptian Origins* (Warminster, Eng.: Aris and Phillips, 1993), 125.

^{11.} Alan Gardiner, *Egyptian Grammar, Being an Introduction to the Study of Hieroglyphs*, 3rd rev. ed. (Oxford: Griffith Institute, 1957), 503–4. One also notes the bee antenna on the *dšrt* sign. A further connection between *dšrt* and bees and bee products has to do with the different grades of honey in ancient Egypt, one of which was called *dšrt* —"red" honey. See Brewer, Redford, and Redford, *Domestic Plants and Animals*, 127 passim.

^{12.} There is no clear evidence for apiculture from the Late Bronze Age archive at Ugarit in Syria, but it is interesting to note in passing that the word for "honey" is *nbt*, which in other Semitic languages means "bee." See Gregorio del Olmo Lete and Joaquín Sanmartín, *A Dictionary of the Ugaritic Language in the Alphabetic Tradition* (Leiden: Brill, 2003), 618–19, s.v. "nbt."

milk and fruit syrup."¹³ Explicit biblical mentions of bee honey refer to wild honey (e.g., Deuteronomy 32:13). It must be noted, however, that our understanding of ancient Levantine apiculture is changing: until recently it was believed that no conclusive archaeological evidence for beekeeping in the Levant had been found, but this has changed in light of the excavations at Tel Rehov in Israel, where an apiary dating to the tenth or ninth century BC was recently discovered.¹⁴

Regarding ancient Turkey, "the land of the Hittites was a bee-keeping country... since the earliest times of recorded history." The bee features in the oldest Hittite myths, those of the vanishing god Telepinu. Laws of the Hittite Old Kingdom (ca. 1650–1430 BC) refer to apiculture. One example reads,

[If] anyone steals [2] or 3 bee hives, formerly the offender would have been exposed to bee-sting. But now he shall pay 6 shekels of silver.¹⁷

I am not aware of references to beekeeping in ancient Iran before the Sassanid period (AD 224–651), but peasant beekeeping is widespread in Iran today. Eva Crane notes that Iran has a greater variety of traditional hives than any other area.¹⁸

^{13.} John the Baptist's famous honey was probably not from bees and was certainly not cultivated in any case. See James A. Kelhoffer, "John the Baptist's 'Wild Honey' and 'Honey' in Antiquity," *Greek, Roman, and Byzantine Studies* 45 (2005): 59–73.

^{14.} Tel Rehov excavations press release, 2 September 2007: "Hebrew University excavations reveal first Biblical period beehives in 'Land of Milk and Honey'" (http://www.rehov.org/bee.htm, accessed 10 September 10, 2008). This validates Edward Neufeld's assertion that the Levant was home to pre-Hellenistic apiculture. "Apiculture in Ancient Palestine (Early and Middle Iron Age) within the Framework of the Ancient Near East," *Ugarit-Forschungen* 10 (1978): 219–47.

^{15.} Harry A. Hoffner Jr., Alimenta Hethaeorum; Food Production in Hittite Asia Minor (New Haven: American Oriental Society, 1974), 123.

^{16. &}quot;Hannahanna sent a bee: You go search for [my son] Telipinu. When you find [him], sting his hands and feet and make him stand up. Then take wax and wipe him off. Then purify him and make him holy again. Then conduct him back here to me." Harry A. Hoffner Jr., trans., *Hittite Myths*, ed. Gary M. Beckman (Atlanta: Scholars Press, 1990), 18.

^{17.} Hittite Laws 92. Harry A. Hoffner Jr., "The Hittite Laws," in Martha T. Roth, *Law Collections from Mesopotamia and Asia Minor*, ed. Piotr Michalowski (Atlanta: Scholars Press, 1995), 211–47, quotation on p. 228.

^{18.} Eva Crane, The Archaeology of Beekeeping (Ithaca: Cornell University Press, 1983), 51.

Evidence for apiculture in Mesopotamia (ancient Iraq) is scarce. In a culture that has produced literally hundreds of thousands of extant cuneiform tablets detailing every conceivable aspect of life, including agriculture, the silence on beekeeping is striking. One notable problem surrounds the Mesopotamian word for "honey." Akkadian dišpu (Sumerian làl) refers either to date syrup (Arabic dibs) or honey, so it is difficult to know which one is intended in a given passage.¹⁹ The bee does not feature prominently in Mesopotamian texts and not at all in art of the region. Most of the Akkadian words for "bee" appear only in lexical texts²⁰ (i.e., not in everyday usage), and there is no technical vocabulary associated with beekeeping. The first recorded mention of beekeeping in the cuneiform record comes from the stele of Šamašreš-uzur, a regional governor on the Syrian Euphrates in the middle of the eighth century BC who claimed to have brought down bees from the mountains (presumably the Taurus, an area with a rich beekeeping tradition), and had been the first to do so:

I, Šamaš-reš-uzur, the governor of the land of Suhu and Mari, I brought bees (habūbītu)—that collect honey and which from the time of my fathers and forefathers no-one had seen nor brought to the land of Suhu—down from the mountains of the Habha-people and settled them in the gardens of the town of Algabbaribani. They collect honey and wax. I am proficient in the "cooking" of the honey and wax and so can the gardeners.²¹

Such stelae are prone to bombast, but given the absence of beekeeping in the cuneiform record, we should perhaps take Šamaš-rešuzur at his word. That bee products might have been an expensive import in Babylonia is suggested by the cost of honey. In the Ur III

^{19.} See Konrad Volk, "Imkerei im alten Mesopotamien?" in Horst Klengel and Johannes Renger, eds., *Landwirtschaft im Alten Orient* (Berlin: Reimer, 1999), 284.

^{20.} See, for example, Benno Landsberger with Anne D. Kilmer, *The Fauna of Ancient Mesopotamia*, part 2 (Rome: Pontificium Institutum Biblicum, 1962), 35.

^{21.} Antoine Cavigneaux and Bahija Khalil Ismail, "Die Statthalter von Suḥu und Mari im 8. JH. v. Chr.," *Baghdader Mitteilungen* 21 (1990): 400, specifically col. iv, line 13–col. v, line 3.

period (twenty-second century BC), one shekel of silver bought only two pounds of làl ("honey"). In contrast, the same amount of silver could have bought three hundred liters of dates.²² In Mesopotamia the scarcity of bees is simple to explain: most of the Iraqi Plain is simply too hot and with a flowering season too short to sustain apiculture (without modern technology). Only in the mountainous north are native honeybees found.²³

Some ancient cultures attached a great deal of significance to bees and bee products. We have seen the high price of honey in Mesopotamia. Across the Near East its value was found in its use as a sweetener, in brewing beer, and as an ingredient in magico-medicinal recipes. Wax was used for writing boards and in the lost-wax method of sculpture. In Egypt honey was also used for funerary offerings and temple rituals and as rations for important officials. In the Middle Kingdom (2040–1640 BC) an important state official was called the "Overseer of the Beekeepers." 26

Nomadic Beekeeping

Both the ancient world and contemporary traditional apiculture elicit some evidence for nomadic beekeeping, what the Germans call *Wanderbienenzucht*. Ancient hives (and modern Near Eastern peasant hives) were most often shaped like pipes or logs (where bees naturally swarm) and were made from pottery, wicker, mud, clay, and wood. All of these hives would be portable on pack animals and boats. Pliny the Elder (AD 23–79) describes the moving of hives along the River Po:

^{22.} Volk, "Imkerei im alten Mesopotamien," 284, suggesting we are dealing here with bee honey and not date syrup.

^{23.} Volk, "Imkerei im alten Mesopotamien," 290.

^{24.} Mesopotamian medical texts indicate that honey was used in medicinal treatments for the eyes, ears, and mouth; served as an anti-inflammatory; and was taken internally when mixed with a drink. See *The Assyrian Dictionary of the Oriental Institute of the University of Chicago*, ed. Ignace J. Gelb et al. (Chicago: Oriental Institute, 1959), 3:161–62, s.v. "dišpu."

^{25.} In the lost-wax method, a sculpture is made from wax and encased in clay. Molten metal is poured into the clay and the wax runs out; when the clay is broken, a metal sculpture remains

^{26.} Brewer, Redford, and Redford, Domestic Plants and Animals, 127.

When food for bees is lacking in the immediate neighbourhood, the inhabitants put their hives in boats and take them by night five miles upstream. The bees emerge at dawn, feed and return every day to the boats. They change the position of the boats until they sink low in the water under the weight and it is realised that the hives are full. Then the boats are brought back and the honey harvested.²⁷

Writing in 1740, a French traveler described migratory beekeeping in Egypt: at the end of October (the end of the flowering season in Upper Egypt), the hives were placed on boats and floated down the Nile. At places where plants were still in flower, the boats were halted and the bees allowed to forage.²⁸ Around 250 BC an Egyptian papyrus records the petition of beekeepers from the Faiyum oasis begging for their hives to be moved by donkey due to irrigation flooding.²⁹ Beekeepers in modern Israel move their hives from the Galilee region to the Golan region and back according to the season. An interesting reenactment of the Jaredite bee exodus is found in the Mormon pioneer story. Two contemporary commercial beekeepers in Idaho tell the story of a great-grandfather "who brought bees to Utah, strapped to the back of a covered wagon, with Brigham Young."³⁰

The value of bees in a nomadic journey would be high because of the calorific value of a regular honey supply. Honey is also a useful trading commodity. Libyan nomads, for example, traded honey and wax for sugar, tea, rice, and cloth.³¹ Migratory beekeeping was the means through which bee species were introduced to new regions. For example, it is thought that beekeeping was introduced to Iran from Pakistan via Baluchistan.³²

^{27.} Natural History XXI.43.75.

^{28.} See Crane, Archaeology of Beekeeping, 42.

^{29.} From Zenon Papyri (P.Cair.Zen. IV 59368). See Crane, World History of Bee-keeping, 348; and Campbell C. Edgar, Zenon Papyri in the University of Michigan Collection (Ann Arbor: University of Michigan Press, 1931).

^{30.} See Horn, Bees in America, 80-81.

^{31.} Neufeld, "Apiculture in Ancient Palestine," 224–25. He also notes the presence of nomadic beekeeping in West Africa.

^{32.} Crane, World History of Beekeeping, 354.

Pre-Columbian American Beekeeping

The *apis mellifera* species was not found in the New World until it was imported from about the seventeenth century AD onward.³³ The indigenous American bee is the *melipona* (a stingless bee). It produces only about one kilogram of honey per year (compared with *apis mellifera*, which can produce fifty kilograms). Nevertheless, pre-Columbian Americans did indeed have knowledge of beekeeping and made the most of the *melipona*.³⁴ Cortés wrote to the king of Spain in 1519 about the extent of beekeeping among the Indians of Cozumel (Mexico):

The only trade which the Indians have is in bee hives, and our Procurators will bear to Your Highness specimens of the honey and the bee hives that you may commend them to be examined.³⁵

The earliest archaeological evidence for American apiculture comes from the Late Preclassic Maya period (ca. 300 BC-AD 300).³⁶ Modern peasant apiculture in the Yucatán is reminiscent of Egyptian beekeeping: hives (often hollowed-out logs) are stacked vertically on a rack. The lost-wax technique was known in the New World,³⁷ and the ancient Maya pantheon included a bee god called Ah Mucan Cab.³⁸

A Final Note

Any study of the possible material culture background of historical Book of Mormon peoples has to make careful use of the interesting data provided by Ether 1–3, including the suggestion that the Jaredites were migratory apiculturalists. This brief study

- 33. Crane, Archaeology of Beekeeping, 33.
- 34. Crane, World History of Beekeeping, 288-98.
- 35. Charles F. Calkins, "Beekeeping in Yucatán: A Study in Historical-Cultural Zoogeography (PhD diss., University of Nebraska, 1974), as quoted in Crane, World History of Beekeeping, 292. Calkins cites the original translated source as Hernán Cortés, Letters of Cortés: The Five Letters of Relation from Fernando Cortes to the Emperor Charles V, trans. and ed. Francis A. MacNutt (New York: Putnam, 1908), 1:145.
 - 36. The Inca and Aztec civilizations settled at altitudes too high for apiculture.
 - 37. Crane, Archaeology of Beekeeping, 246.
 - 38. Crane, World History of Beekeeping, 291.

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has demonstrated the widespread evidence for beekeeping, including migratory beekeeping, in the ancient Near East. A further discussion of this evidence, and the implications that may arise from it, will be the subject of future research.