

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*,¹ describes how the English colonisation of the New World was analogised through the use of the bee. New colonies were hived-off to prosper in America, the new “land of milk and honey.”² The industry of the bee—and its sought after honey and wax—made it a popular symbol of a righteous economy.³ The skep hive is well-known in masonic heraldry, a symbol also used by the Mormons across the old 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: 2-3 describes the provisions that they carried on their initial journey: flocks, fowls, fish, bees, and seeds. Only the bees are named in the original

¹ Horn 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 waxmoth in particular, devastated bee colonies in the early 19th century. Also, the lack of a smoker made apiculture a cumbersome affair. In 1851, Lorenzo Langstroth invented a hive with removable frames, which made it easier to manage bee colonies and protect them from intruders. Still, conditions before 1850 were favourable enough for beekeeping that New York state was described as a “beekeeper’s paradise” (Crane 1999: 307). This was true of the United States in general east of the Mississippi.

³ Crane 1999: 604–607.

⁴ See Hunter 2004.

⁵ “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” (Parker 1992).

“Jaredite”:

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.

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 (for the Old World Jaredites are portrayed as migratory beekeepers of some prowess) will be of interest to students of the Book of Mormon.

Near Eastern⁷ Apiculture

Before humans directly husbanded bees, “honey-hunting” was the favoured method for acquiring wild honey, and is still practised in some parts of the world today. Intrepid hunters smoke bees out of the hive and take the honeycombs. Evidence for honey-hunting reaches back to the Mesolithic period.⁸

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).⁹ The earliest evidence for hive beekeeping (apiculture) comes from the Old Kingdom of ancient Egypt. In the Old Kingdom (5th dynasty – 25th/24th centuries BC) a stone bas relief from the sun-temple of Niuserre Any at Abu Gurob shows a scene of the gathering, filtering and packing of honey,¹⁰ demonstrating that from a very early period, beekeeping was already well established in Egypt.¹¹

Peasant beekeepers today in Egypt use much the same technology as shown on such tomb-paintings. The typical pipe hive is about a meter long. They are stacked together, imitating logs. The ends are sealed, with small holes allowing the bees to escape.

⁶ The setting of the Jaredite homeland at the “Great Tower” is assumed by most Mormons to mean the Tower of Babel mentioned in Genesis 11, a story with obviously Near Eastern origins: “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*, <http://scriptures.lds.org/gsj/jrdbtrth>. For more on the Jaredites and Deseret, see Webb 1936; Sorenson 1968; Nibley 1976, 1981, and 1988; Hoskisson 1990; Barney 2006a and 2006b.

⁷ Evidence for hive beekeeping in other early Eurasian civilisations (Indus valley, China) is slight. See Crane 1999: 163.




⁸ See figure 1, appendix.

⁹ See figure 2, appendix.

¹⁰ See figure 3, appendix.

¹¹ Other scenes: wall-painting from tomb of Rekhmara (Thebes, 18th dynasty, 15th century BC) and Pebes (Thebes, 25th dynasty, 7th century BC). See Crane 1999: 163-166. Crane (1999: 171) believes that Egyptian apiculture was initiated in the bee-rich delta during the Predynastic period.

The hives are typically made of mud or clay.¹²

Ancient Egypt¹³ 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; the temple of Neith at Sais was called “the house of the bee.” Most famously, the symbol of the bee was used in royal titlature from the very foundation of the Egyptian state. By the 1st dynasty 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). This title was on two occasions¹⁴ (for “superstitious reasons”)¹⁵ written as  instead with the red *dšrt* crown  of Lower Egypt replacing *bty*.¹⁶

There are no textual references to beekeeping in ancient Syria-Palestine prior to the late Hellenistic period.¹⁷ 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 milk and fruit syrup.”¹⁸ Explicit biblical mentions of bee honey refer to wild honey (e.g. Deut 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 evidences 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 10th/9th centuries was recently discovered.¹⁹

Regarding ancient Turkey, Hoffner states that, “the land of the Hittites was a bee-keeping country since the earliest times of recorded history.”²⁰ The bee features in the oldest Hittite myths, those of the vanishing god Telepinu.²¹ In the Hittite Old Kingdom (c. 1650-1430) we can read references to apiculture in the laws:

[If] anyone steals [2] or 3 beehives, formerly the offender would have been exposed to a bee-sting. But now he shall pay 6 shekels of silver...²²

¹² See figure 4, appendix.

¹³ Brewer and Redford 1993: 125.

¹⁴ 1. Kopt. 8, 11; 2. Urk. iv. 150, 12. See Gardiner 1957: 504 (S3).

¹⁵ Gardiner 1957: 504.

¹⁶ One also notes the bee antenna on the *dšrt* sign. A further connection between *dšrt* and bees and bee-products are the different grades of honey in ancient Egypt, one of which was called *dšrt*—“red” honey. See Brewer and Redford 1993: 127 and *passim*.

¹⁷ 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 del Olmo Lete and Sanmartín 2003: 618-9 s.v. “nbt.”

¹⁸ John the Baptist’s famous honey was probably not from bees, and was certainly not cultivated in any case. See Kelhoffer 2005.

¹⁹ Tel Rehov excavations press release, September 2nd, 2007: “Hebrew University excavations reveal first Biblical period beehives in ‘Land of Milk and Honey’” (<http://www.rehov.org/bee.htm>). This validates Neufeld’s assertion (1978) that the Levant was home to pre-Hellenistic apiculture.

²⁰ Hoffner 1974: 123.

²¹ Version 2 ¶15 [Translation: Hoffner 1990: 18]: “Hannahanna sent a bee: You go search for [my son] Telepinu. 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.”

²² Hittite Laws 92 (Hoffner 1995).

I am not aware of references to beekeeping in ancient Iran before the Sassanid period, but peasant beekeeping is widespread in Iran today. Eva Crane notes that Iran has a greater variety of traditional hives than any other area.²³

Evidence for apiculture in Mesopotamia is scarce. In a culture that has produced literally hundreds of thousands of extant cuneiform tablets, detailing every conceivable aspect of life, including agriculture, their silence on the topic of 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 and it is difficult to know which one is intended in a given passage.)²⁴ The bee does not feature prominently in Mesopotamian texts, and not at all in art. Most of the Akkadian words for “bee” appear only in lexical texts²⁵ (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 Šamaš-reš-ušur, a regional governor on the Syrian Euphrates in the middle of the 8th 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.²⁶

I, Šamaš-reš-ušur, the governor of the land of Suḫu and Mari, I brought bees (*ḫabubītu*)—that collect honey and which from the time of my fathers and forefathers no-one had seen nor brought to the land of Suḫu—down from the mountains of the Ḫabḫa-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.

Such stelae are prone to bombast, but given the absence of beekeeping in the cuneiform record, we should perhaps take Šamaš-reš-ušur 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 period (22nd century BC) 1 shekel of silver bought only 2 pounds of *lāl* (“honey”). In contrast, the same amount of silver could have bought 300 litres of dates.²⁷ In Mesopotamia the scarcity of bees is simple to explain: most of the Iraqi plain is simply too hot with a flowering season too short to sustain apiculture (without modern technology). Only in the mountainous north are native honeybees found.²⁸

Some ancient cultures attached a great deal of significance to bees and bee-products. We have seen the high price of honey in Mesopotamia. Its value across the Near East was in its use as a sweetener, in brewing beer, and as an ingredient in magico-medical recipes.²⁹ Wax was used for writing boards and in the lost-wax method of

²³ Crane 1983: 52.

²⁴ See Volk 1999: 280.

²⁵ E.g. *Ḫ* XIV 325/332 (Landsberger 1962).

²⁶ Cavigneaux and Ismail 1990: 321-456; Col. IV 13 – Col. V 3.

²⁷ Volk 1999: 284, suggesting we are dealing here with bee honey and not date syrup.

²⁸ Volk 1999: 290.

²⁹ Mesopotamian medical texts show that honey was used in medicinal treatments for the eyes, ears, and mouth, as an anti-inflammatory, and internally when mixed with a drink. See *Chicago Assyrian Dictionary* D, “*dišpu*,” 161-162.

sculpture.³⁰ In Egypt, honey was also used for funerary offerings, temple rituals, and as rations for important officials. From the Middle Kingdom an important state official was called the "Overseer of the Beekeepers."³¹

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 ones) 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.³² Pliny (XXI.43.75, 23-79 AD) describes the moving of hives along the River Po:

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.

Writing in 1740, a French traveller 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.³³ 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.³⁴ Beekeepers in modern Israel move their hives from the Galilee to the Golan and back according to the season.³⁵ An interesting re-enactment 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."³⁶

The value of bees in a nomadic journey would be high: as a food source the calorific value of a regular honey supply would be useful. Honey is also a useful trading commodity. Libyan nomads, for example, traded honey and wax for sugar, tea, rice and cloth.³⁷ Migratory beekeeping was the means through which bee species were introduced to new regions. For example, it is thought that Iranian beekeeping was introduced to Iran from Pakistan via Baluchistan.³⁸

Pre-Columbian American Beekeeping

³⁰ 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.

³¹ Brewer and Redford 1993: 127.

³² See figure 5, appendix.

³³ See Crane, 1983: 42.

³⁴ From the Zenon papyri (IV, No. 59368). See Crane 1999: 348 and Edgar 1931.

³⁵ See figure 6, appendix.

³⁶ See Horn 2005: 80-81.

³⁷ Neufeld 1978: 224-5. He also notes the presence of nomadic beekeeping in West Africa.

³⁸ Crane 1999: 354.

The *apis mellifera* species was not found in the New World until it was imported from about the 17th century AD onwards.³⁹ The indigenous American bee is the *melipona* (a stingless bee) and produces only about 1kg of honey per year (compared with *apis mellifera* which can produce 50kg). Nevertheless, pre-Columbian Americans did indeed have a knowledge of beekeeping and made the most of the *melipona*.⁴⁰ 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.⁴¹

The earliest archaeological evidence for American apiculture comes from the Late Preclassic Maya period (300 BC to 300 AD).⁴² 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,⁴³ and the ancient Mayan pantheon included a bee god called Ah Mucan Cab.⁴⁴

³⁹ Crane 1983: 33.

⁴⁰ Crane 1999: 288-98.

⁴¹ Transl. Calkins 1974.

⁴² The Inca and Aztec civilisations settled at altitudes too high for apiculture.

⁴³ Crane 1983: 246.

⁴⁴ Crane 1999: 291.

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Appendix

Fig. 1: Prehistoric honey hunter, eastern Spain, c. 6000 BC (from Gould and Gould 1988: 2).



A prehistoric honey gatherer has climbed a tree carrying a basket to hold honeycomb. She is reaching into the hive while angry bees fly about. Eastern Spain, 6000 B.C.

Fig. 2: Near Eastern honeybees (from Volk 1999: 280).

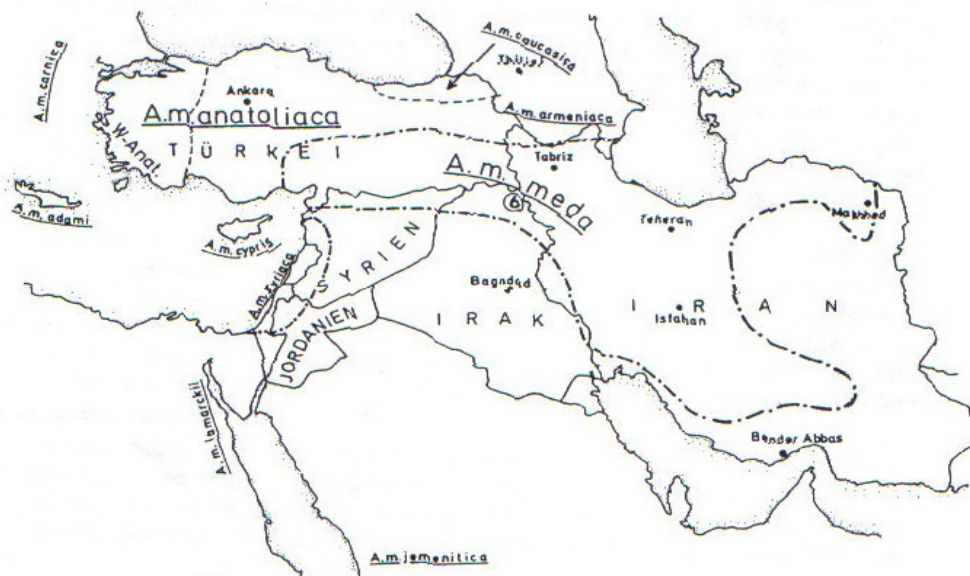
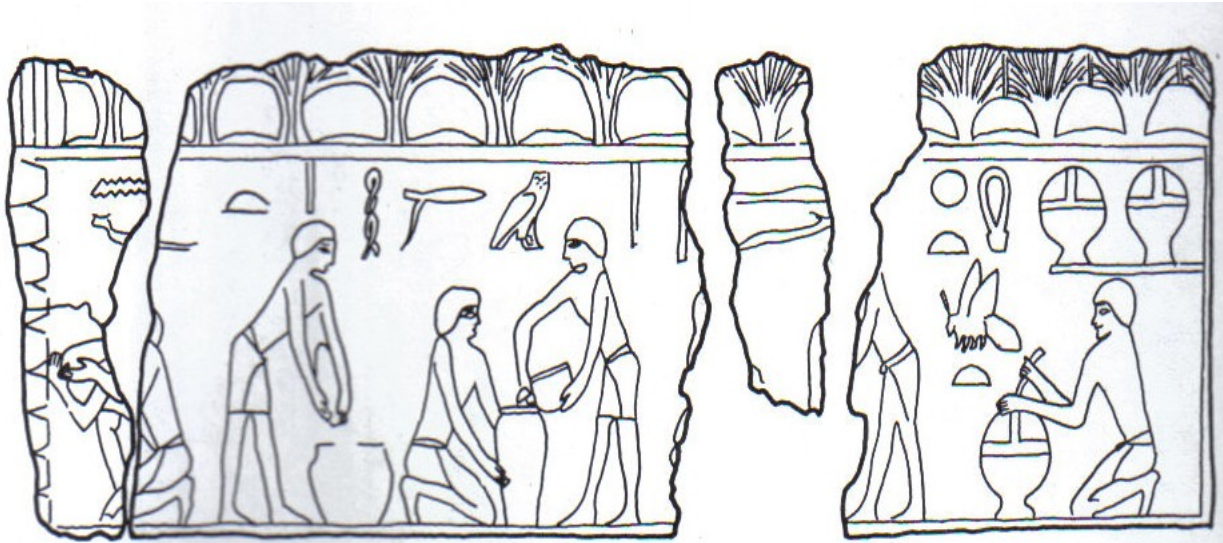


Abb. 1 Verbreitung der verschiedenen Honigbienenrassen des Nahen Ostens (nach Ruttner, F., Biogeography and Taxonomy of Honeybees (Berlin Heidelberg New York 1988) 180, fig. 11.3; A.m. = *Apis mellifera*).

Fig. 3: Bas relief from the sun-temple of Niuserre Any (from Brewer and Redford 1993: 126).



9.10. *Breathing or blowing smoke into a hive. Niuserre's Temple, Abu-Gurob, Dynasty V.*

Fig. 4: Mud Hives in Middle Egypt (from Crane 1983: 40).

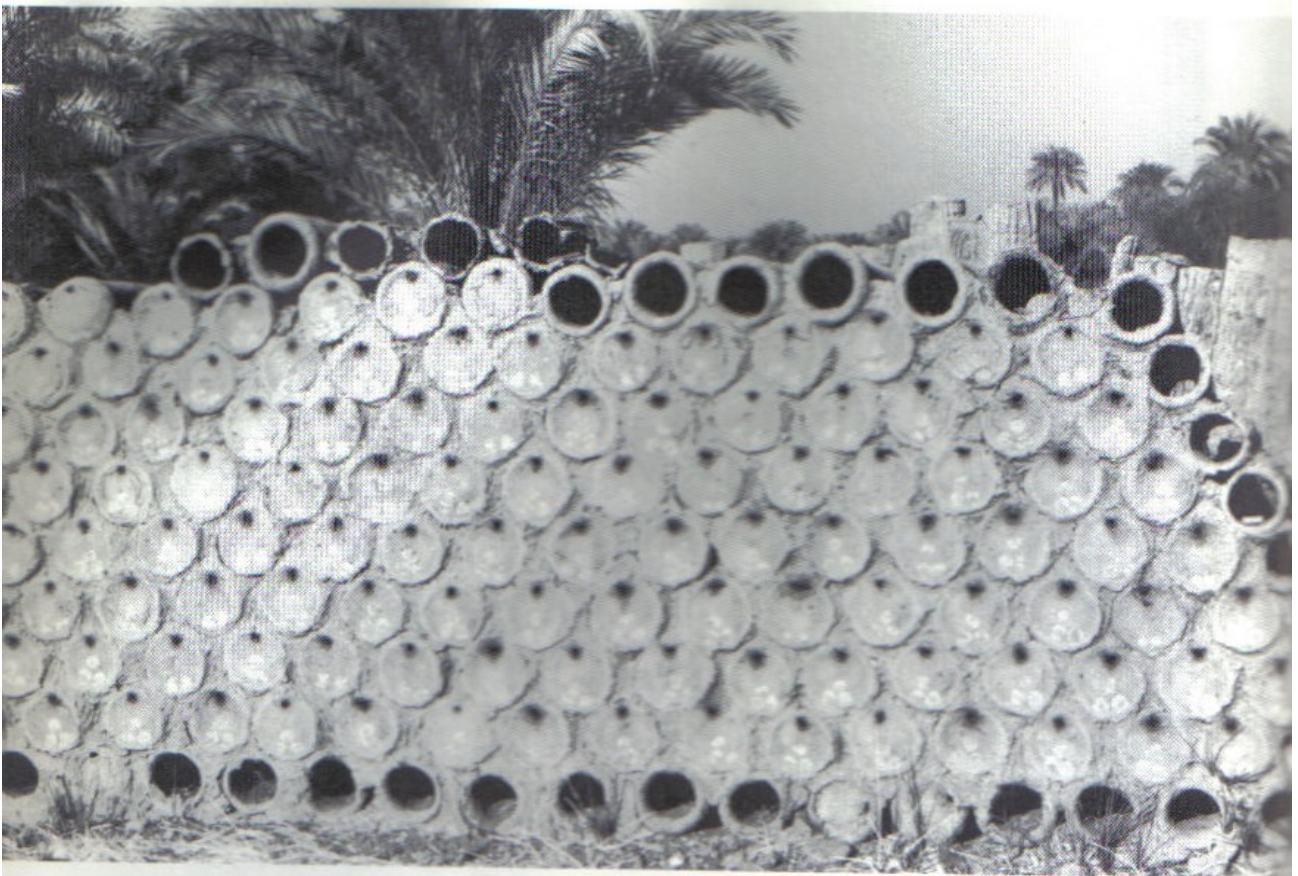


FIG. 21 *Bank of 400 cylindrical hives of unbaked mud near Assyut, Middle Egypt, 1980.*

Fig. 5: Portable cane hives in Morocco (from Crane 1983: 55).



Fig. 6: Hives near Karmi'el in the Galilee (Ronan James Head).

