

## The Tamarisk tree, and Manna from Heaven

Excerpt from *The Bible as History* (pp. 129-130) <sup>1</sup>

As far as the famous manna is concerned, we have reliable information from the botanist. To anticipate, anyone who is interested in manna will find it on the list of exports from the Sinai peninsula. Further, its supplier is registered in every botanical index of the Middle East, it is the *Tamarix Mannifera*, Ehr.

There is no lack of fully authenticated descriptions of its occurrence. The following eye-witness account is almost five hundred years old.

“In every valley throughout the whole region of Mt. Sinai there can still be found Bread of Heaven, which the monks and the Arabs gather, preserve, and sell to pilgrims and strangers who pass that way.”

These words were written in 1483 by Breitenbach, Dean of Mainz, in an account of his pilgrimage to Sinai.

“This same Bread of Heaven,” he continues, “falls about daybreak like dew or hoarfrost and hangs in beads on grass, stones, and twigs. It is sweet like honey and sticks to the teeth. We bought a lot of it.”

In 1823 the German botanist G. Ehrenberg published a paper <sup>2</sup> which even his colleagues received with incredulity. His explanation seemed indeed to ask people to believe too much, namely that this notorious manna is nothing more than a secretion exuded by tamarisk trees and bushes when they are pierced by a certain type of plant-louse which is found in Sinai.

A hundred years later an organised manna expedition was under way. Friedrich Simon Bodenheimer and Oskar Theodor, botanical experts from the Hebrew University at Jerusalem, set out for the Sinai Peninsula, to clear up the disputed question of the existence of manna once and for all. For several months the two scientists investigated the dry water-courses and oases in the whole area of Mt. Sinai. Their report causes a sensation. They not only brought back the first photographs of manna and fully confirmed the findings of Breitenbach and Ehrenberg, but also established the factual truth of the Biblical description of the desert migration of the people of Israel.

Without the plant-louse mentioned first by Ehrenberg there would in fact be no manna at all. These little insects live primarily off tamarisks which are a type of tree indigenous to Sinai. They exude a peculiar resinous secretion, which according to Bodenheimer is about the same shape and size as coriander seed. When it falls to the ground it is white in colour, but after lying for some time it becomes yellowish-brown. Naturally the two scientists did not fail to taste the manna. Bodenheimer's verdict was, “The taste of these crystallized grains of manna is peculiarly sweet. It is most of all like honey when it has

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<sup>1</sup> Keller, Werner, *The Bible as History* (Hodder & Stoughton, 1956) 2nd ed., Barnes & Noble, NYC, 1980, 1995.

<sup>2</sup> *Symbolae Physicae*.

been left for a long time to solidify.” “And it was like coriander seed, white: and the taste of it was like wafers made with honey,” says the Bible (Exo 16.31).

The findings of the expedition likewise confirmed the other features of the Biblical description of manna. “And they gathered it every morning, every man according to his eating: and when the sun waxed hot, it melted (Exo 16.21). Exactly in the same way today the Bedouins of the Sinai peninsula hasten to gather up their “Mann es-Samâ,” the “Manna from Heaven,” as early as possible in the morning, for the ants are keen competitors. “They begin gathering when the ground temperature reaches 21 degrees centigrade,” says the report of the expedition, “which is about 8.30 a.m. Until then the insects are inert.” As soon as the ants become lively, the manna disappears. That must have been what the Biblical narrator meant when he said that it melted. The Bedouins prudently do not forget to seal the manna they have collected carefully in a pot, otherwise the ants pounce on it. It was just the same as Moses’ day during the sojourn in the desert. “But some of them left it until the morning: and it bred worms...” (Ex 16.20)

The incidence of the manna depends on favourable winter rains and is different from year to year. In good years the Bedouins of Sinai can collect 4 pounds per head in a morning — a considerable quantity which is quite sufficient to satisfy a grown man. Thus Moses was able to order the children of Israel to “gather of it every man according to his eating” (Ex 16.18).

The Bedouins knead the globules of manna into a purée which they consume as a welcome and nourishing addition to their often monotonous diet. Manna is indeed an exportable commodity, and if it is carefully preserved, forms an ideal “iron ration” since it keeps indefinitely. “And Moses said to Aaron: Take a pot an put an omer full of manna therein, and lay it up before the Lord, to be kept for your generations” (Exo 16.33). Tamarisks with manna still grow in Sinai and along the Wadi el Arabah right up to the Dead Sea.

So far we have listened to science. But the question that has to be asked is whether we have not at this point crossed the frontiers of science and entered the territory of the unknown, the sphere of the miraculous? For it is clear beyond all possible doubt that the Bible does not intend us to think of this as something that happened in the normal course of events, but as an act of God.

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*Then Abraham planted a tamarisk tree in Beersheba, and there called on the name of the LORD, the Everlasting God. (Gen 21:33)*