ANCIENT CULT SITES IN THE NEGEV AND SINAI DESERTS

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During the years 1977–1982, while carrying out archaeological surveys and excavations in the southern Negev and eastern Sinai, I encountered a number of intriguing sites that had escaped serious scrutiny by previous explorers and surveyors. Many of these seemed to be of a cultic nature, although proof of this was not immediately forthcoming. This paper will briefly describe these cult sites and discuss some of their ramifications. (The other types of desert sites will be published in the near future.) The cult sites fall into three categories: (1) māṣsebot sites, (2) "open sanctuaries" and (3) cairn lines (Fig. 1).

MĀṢSEBOT SITES

Thirty of these were found in the surveyed area, very often in immediate proximity to settlements of the fourth and third millennia B.C.E.1 One was discovered by Avner Goren in Wadi Daba'yeh in eastern Sinai, another by Yaniv Golan near ‘Ain Qetura, and the rest by the author, who also excavated 10 of them, including three in the Uvda Valley (Had. Arch. 72 [1983]: 76–77). These sites are all characterized by upright stones — the biblical māṣsebot — standing either alone or in groups of curved or straight lines, arranged with their heights symmetrically graduated (Pls. 13–14). There were seven sites with single māṣsebot, one with a pair, three with groups of five, four with groups of seven, one cluster of nine, two groups of 16 standing in a long line, four circular arrangements (Pl. 15:1) and one site in the Uvda Valley that consisted of a great number of upright stones in no clear order.

These upright stones are crude and undressed, usually 80–150 cm. in height, occasionally as high as 2 m.; there are also some extremely small ones. In front of them there is often a semicircular line of fieldstones one course high (Pl. 13:3; 14:1–2) demarcating a small cell. The floor of the cell, sometimes stone-paved, is invariably lower than the surrounding surface, much like the floors of contemporary dwellings (see, e.g., Amiran a.o. 1980:6; Beit Arieh 1981:34). Several features are usually present next to the upright stones: offering tables, altars and stone basins, often found in situ. The offering table is a flat stone set at the foot of the māṣsebot (Pls. 13:3; 17:1–2). The altars are of three kinds: (1) a small pavement of flat stones covered with and surrounded by layers of ash and charcoal (Pl. 14:2); (2) a shallow pit with a single flat stone at its centre (Pl. 14:3); (3) a concavity about 50 cm. deep lined with slabs (Pl. 15:2). The basin is generally a stone with a natural hollow (Pl. 16:3), but in one case the stone was worked around the hollow (Pl. 15:1) and in another there was a well fashioned granite bowl instead.

In the sites that were excavated the finds were scanty but illuminating. They include fanscrapers (in three sites), shell bracelets (three sites), shell beads (four sites), grinding stones in groups of three (two sites) and one copper pendant (Pls. 15:3; 16:1–3). These were all found at the foot of the māṣsebot. Flints and pottery sherds were also collected from the surface in the

1 This number does not include the māṣsebot sites observed by the author in the Negev Highlands nor the māṣsebot found in cultic sites of other types.
Fig. 1. Distribution of cult sites according to author's survey. (Note: symbols represent relative, not absolute numbers).
vicinity of the massebot and their associated habitation sites. On the whole, the archaeological data indicate a date in the fourth or third millennia. However, radiocarbon samples have rendered the following dates: 6960±70 B.P. (sample PTA 3621) and 5670±85 B.P. (sample RT 648B) for two sites in the Uvda Valley; from a site in Wadi Zalaqa in eastern Sinai three dates were derived: 5690±50 (sample PTA 3655), 5590±70 (sample PTA 3633), 5440±80 B.P. (sample RT 648A). The results are based on a half-life of 5568 years. These dates are partially antedating the artifactual evidence, and if calibration is adopted (after Klein a.o. 1982), the resultant dates are even some 800 years earlier, meaning that some of the sites may be far older than previously suspected. At the same time, it should be noted that many of them show clear signs of continued use throughout the Early Bronze Age and in some cases into the beginning of the second millennium B.C.E.

In most locations the massebot face east, but in the Uvda Valley there are two single ones facing west. There is also a group in Wadi Zalaqa that is unique in that the upright stones are oriented to the northeast — probably towards the prominent peak of Ras el-Kalb, visible from the site.

Upright stones are also very common in the tumuli tombs of eastern Sinai and the Negev Highlands (Pls. 17; 18:1), dozens of which have been investigated by the author. Usually they are set into the eastern wall of the tumulus (e.g., at Yeruham, Giv'at Zafit and in eastern Sinai), but sometimes they are on the southern side (Ramat Barnea). Four such tombs were excavated in eastern Sinai. Two of them contained skeletons buried in a fetal position facing east, the same orientation as their accompanying massebot. In the other two, only a few skull fragments, symbolically buried, were discovered, a phenomenon that is found in other tombs as well. (I thank Israel Hershkovitz for identifying the bone material.)

Two of the tombs in wadi Zalaqa rendered the radiocarbon dates given above from the fourth millennium B.C.E. (or fifth, with calibration), indicating a much earlier date for the beginning of tumuli construction than previously supposed. This date also applies to a cluster of upright stones standing 12 m. away from these tumuli.

The number of upright stones incorporated into the tumuli tombs corresponds closely to those in the groups not associated with the tumuli, and many of these tombs are likewise adjoined by offering tables, altars and low, stone-bordered cells (Pls. 17; 18:1).

The erection of massebot in the desert regions was not confined to the early millennia. Thousands of small Nabatean massebot have been recorded, mainly in encampments dating from the 2nd century B.C.E. to the 6th century C.E. Nearly two thousand of them have been counted in the Uvda Valley alone. These small upright stones likewise occur as singles, pairs or triads (Pl. 18:2–3) but also in fours and fives. There are several groups of fives in which one stone is set apart from the rest (Pl. 19:1), a phenomenon that was also observed in an Iron Age I group of five at Timna (Rothenberg 1972:112; Fig. 33; Pl. 110). A long row of Nabatean standing stones was found in the Uvda Valley (Pl. 19:2) in an alignment very similar to that of the fourth millennium B.C.E. discovered nearby.

The Nabatean massebot are not oriented to any particular point of the compass but stand with their backs to the hill behind them (Avner 1981; Had. Arch. 68–69 [1982]:93–97; 70–71 [1982]:66–67; for Nabatean massebot in general, see Patric 1982).

The tradition of erecting massebot continued also in the Early Arab period (7th–8th centu-
ties C.E.); many of them have recently been discovered in Umayyad settlements in the Negev Highlands by Yehuda Nevo (personal communication). This tradition continues in desert regions even today (see below).

In order to fully appreciate the ramifications of the desert massebot, we must consider them together with similar phenomena throughout the Near East. From published accounts, I have compiled a list of 185 occurrences of such upright stones in Mesopotamia, Anatolia, the Levant, Transjordan, the Negev and Sinai. This list covers the Natufian period to the end of the Iron Age. Later sites are not included, neither are the innumerable cases in which they are incorporated into tumuli tombs nor those in the Sahara or Arabian deserts.

Several conclusions may be drawn by examining this evidence.

(1) There is no basic difference between the massebot of the desert and those of the settled lands, and their appearance remains the same throughout the ages.

(2) The number of upright stones in the groups repeats itself consistently: singles in 49%, pairs in 8%, triads in 12%, quintets in 4%, septets in 9%, enneads in 2% and groups of 16 in 3%. Other numbers are either extremely rare or non-existent.

(3) The same features were found associated with the massebot from the earliest times to the latest: paved floors in 12% of the groups, offering tables in 18%, altars of various types in 16% and basins or lavers in 18%.

(4) Most (55%) of the massebot face east; however, other orientations also repeat themselves.

(5) From the earliest times onwards unhewn or crudely hewn upright stones can be found together with well-dressed ones. However, it should be noted that the undressed stones are especially common in the desert, while dressed ones are more prevalent in the fertile lands, where they appear mainly in the second and first millennia B.C.E.

(6) In many cases (28%) the massebot stood either inside or outside of temples or shrines, while the remains in many other locations were characteristic of "high places."

The purpose and significance of these upright stones have long been a subject of scholarly speculation. Some argue for a cultic interpretation, namely that they represent deities (Conder 1885:196 ff.; Robertson-Smith 1889:265 ff.; Moore 1912:2982), whereas others have emphasized various functions such as commemoration of events and persons, witnessing of treaties, or demarcation of tombs and borders (Key 1915; Burrows 1934; Avi-Yonah 1950; Albright 1957; Broshi 1968; Graesser 1972; Canby 1976). The previously published evidence together with our new data from the desert seems to support the cultic interpretation in view of the following considerations:

(1) The frequent appearance of the massebot in or around cult places, where they are associated with altars, offering tables and basins (for the ritual use of basins and lavers, see Exod. 24:6; 40:7,11; 2 Chr. 4:6; Petrie 1906:106 f.; 190).

(2) Their predominant orientation to the east, facing the rising sun, which is believed to radiate, life, fertility and strength, while the less common orientation toward the setting sun may be connected with the cult of death (Bar-Yosef a.o. 1983); the other orientations have cultic significance as well. The concept of sacred orientation seems to have been firmly established already in the seventh millennium B.C.E. For example in the Çatal Hüyük temples, depictions of fertility and life were found on the western walls (i.e. facing east), whereas
symbols of death appeared on the eastern walls (Mellaart 1967:104).

(3) The crude nature of many of the massebot even when they stand next to monumental architectural features. This may be better understood in the light of the biblical command of using "unhewn stones" for religious purposes (Deut. 27:6; Josh. 8:30; 1 Kgs. 6:7).

(4) The recurrence of massebot in groups of same numbers. This can hardly be a coincidence, since the same deity groups are well known in the art and mythology of the ancient Near East. The most common are pairs, triads and septets, which correspond to the most frequent massebot groupings. Quintets and enneads are less frequent in both cases, while other groupings are either rare or absent. The three most common deity groups seem to have been well established already in the seventh millennium (Mellaart 1967: passim; 1975:108).

The interpretation of the massebot as representing deities does not necessarily stand in contradiction to the other meanings ascribed to them. It is even possible that they evolved from an initial cultic concept, in other words, the stones fulfilled other functions by virtue of the divine spirit that dwelt in them. For example, the "Great Stone" set up by Joshua at Shechem (Josh. 24:27) was a witness to the covenant, much like the gods that were called upon to witness and guarantee the treaties between Esarhaddon and the vanquished kings (ANET:533–541) or between Hannibal and Philip V (Polibius VII 9:2–3; Barré 1983).

In this light the massebot in the tumuli tombs can hardly be explained as simply grave markers. In view of their recurrence in the tumuli in the same numbers and alongside the same cultic features, they can best be interpreted as representations of deities set up to protect the tombs and spirits of the dead. This idea is strongly supported by the upright stones that were erected inside the burial caves in Benei Baraq and Givataim before the entrances were sealed (Kaplan 1963; Sussman and Ben-Arie 1966).

Another point that emerges from the compiled data is that 52% of all the massebot included in this list were located in the desert (not including those in the innumerable tumuli). During the early millennia the desert massebot were abundant, whereas they were extremely rare in the fertile lands. Not until the third millennium did their number increase in the settled countries, and only in the second millennium did they become really common. We may therefore assume that the massebot of later periods had their origin in the desertic culture. This is corroborated by their abundance in the deserts of the Sahara, the Arabian peninsula and Transjordan2 and by the continuation of this tradition into the Nabatean and Early Arab periods — and even later.

2. "OPEN SANCTUARIES"

This term refers to structures that are basically open courtyards, located mostly along ancient desert routes, occasionally near dwelling sites (Fig. 1). The first of these were discovered by Alphonso Nussbaumer and myself in 1969, one concentration near Wadi Radadi

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2 For the Sahara, see Tillner 1981; Milburn 1983; for Arabia, see Harding 1964: Pl. 15:3; Winnet and Reed 1970:12; Zaris a.o. 1979; Gilmore, Al-Ibrahim and Murad 1982; Schmidt 1982: Abb. 31; for Transjordan, see Conder 1885:258–272;1889 passim; Mallon 1924; Albright 1924; 1926; 1934; Musil 1926:16, 31; Glueck 1934: 44–47; 1939:127–129; Kirkbridge 1969; in Sinai, Rothenberg 1974; 1979:116. Standing stones occur in many other parts of the world as well (see, e.g., Gomes 1983; Kenoyer 1983).
northwest of Eilat and another two structures at the foot of Gebel Khashm et-Taref west of Eilat. At the time no interpretation was ascribed to them. In 1979, when I came across additional structures of this sort in the Uvda Valley, I suggested that they had a cultic function, but this idea met with resistance. Since then another hundred such structures have been documented by survey,3 and five of them were excavated, so there is now more evidence on which to base this interpretation.

Two main types of open sanctuaries are most common. The first is a rectangular courtyard, up to 15 x 28 m. in size, defined by a double line of fieldstones one course high. Along one of its long walls there is an elongated narrow cell built of vertical slabs or stone courses up to 80 cm. in height (Fig. 3:2; Pl. 19:3). In one of the Uvda Valley sanctuaries a group of small massebot was unearthed inside the cell, and a similar discovery was made in Sinai (Rothenberg 1979:100 ff.). In another excavated cell in Wadi Zalaqa there was a small basin lined with stone slabs dug into the floor.

The second type of sanctuary is similar but somewhat smaller than the first and lacks the long cell (Fig. 3:3; Pl. 20:1). In the centre of the courtyard there is often a circular stone installation. This immediately brings to mind the circular feature in the courtyard of the Chalcolithic temple at En-gedi (Mazar 1963; Ussishkin 1980:11). Dr. Amihai Mazar (personal communication) has recently suggested that sacred trees, the biblical asherot, were planted in such installations (see also Mazar 1982:38). In one installation of this type excavated near Wadi Radadi there was a standing stone supported by smaller stones (Pl. 20:2).

The two types of open sanctuaries were found together as “twin temples” in five locations: 12 pairs in the Gebel Khashm et-Taref cluster, three near Wadi Radadi, three at Gebel Hamra (Gebel el-Humra on Survey of Israel maps), four in the Ramon Crater and one in Wadi Zalaqa (Figs. 1; 3:4; Pl. 20:3). All except the last of these have the same layout, namely the first type of sanctuary on the left and the second to its right, slightly set back.

The open sanctuary in the Uvda Valley, discovered by the author in 1979 and excavated by Ora Yoeger in 1980 (Yoeger 1983), is particularly interesting. It has a squarish courtyard (11 x 12 m.) in which four altars were dug into the floor and lined with stone slabs. These altars are identical to those found with the massebot groups and are similar in shape to the grand basin in the Arad temple complex (Amiran a.o. 1980:9). The levels from which the altars were dug vary considerably, indicating a long period of utilization for the sanctuary. The corners of the courtyard are oriented to the cardinal points of the compass (Fig. 3:8) — as is the case in about 80% of the sanctuaries that I have examined. The western corner of the courtyard is truncated by a rectangular cell (1.5 x 4 m.), marked by slabs vertically inserted into the earth. A group of 16 miniature massebot, surrounded by four larger stones, stood in the centre of this cell. This sanctuary apparently combined two concepts of sacred orientation: the corners of the courtyard to the cardinal points of the compass, while the diagonal position of the small cell created a north-south orientation for its long axis and enabled the massebot to face east.

Open sanctuaries, like the massebot shrines, are sometimes found adjacent to or incorpo-

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3 The main cluster at Gebel Khashm et-Taref was detected by Mordechai Eshkol, those of Gebel Hamra and Har Shani by Amihud Naor, those of Makhtesh Ramon by Zvi Lederman and a structure near Yotvata by Benny Shalmon. The others were found by the author.
Fig. 2. Open sanctuaries, chain links and tumuli at Gebel Khashm el-Taref, schematically represented.
rated into tumuli tombs (Fig. 3:5–6). Upon excavating such a composite structure, the stone courses of the long cell were found bonded to those of the tumulus in such a manner as to confirm their contemporaneity (Pl. 21:3). A single skull fragment, probably a symbolic burial, was found inside the tumulus. In other places sanctuaries were built within or beside tumuli concentrations. The most common type is a long narrow cell (up to 80 m. in length) without courtyard (Fig. 3:1). A number of these were discovered by the author in Sinai and many more in the Negev by Mordechai Haiman (1983), Jacob Baumgarten and Yigael Israeli, as well as in northern Sinai (Rothenberg 1979:110).

Among the other features often associated with open sanctuaries, especially those appearing in concentrations, are the long (up to 500 m.) “chains” of small stone circles, each approximately 1.5 m. in diameter (Fig. 2; Pl. 21:1). Similar circles appear near some of the massebot shrines. In one such circle excavated near a sanctuary in Wadi Zalaqa, a small massebah was uncovered with an offering table at its base, much like the finds in the circular installation at Wadi Radadi (see above). Such stone circles have been excavated in Arabia, revealing symbolic burials of camel bones, copper points and alabaster items (Zarins, Murad and al-Yaish 1981:29).

Especially intriguing are the figures of animals depicted by the vertical insertion of small stone slabs in the ground. In the Khashm et-Taref area several groups of these were found opposite the southern corners of some of the sanctuaries. In the best preserved group nine animals can be discerned, although their generic identification is difficult (Fig. 4). These animals are about 1.7 m. long and all but one have an eye of dark flintstone. One was excavated (Pl. 21:3) by Avi Gopher and Neigel Goring-Morris, who also drew the figures. (I thank them for their help).

Another series of zoomorphic figures was discovered by the author on the eastern side of the Uvda Valley sanctuary and excavated together with O. Yohev, who published them unilaterally (1983:120–121). One of the figures appears to be an oryx, judging by its straight horns and tail. The others — which have “spots” of dark flint stones inserted within their body outlines — may be leopards. (This identification was suggested by Shraga Strage of the Eilat Field School, who participated in the excavations.)

The technique of portraying figures by inserting small stone slabs into the earth is a hitherto unknown form of artistic expression. Conceptually it differs little from rock art or glyptics. However, this technique was not limited to animals; geometric designs are also found, and in some cases such slabs form curious installations or delineate the borders of a sanctuary (Pl. 21:3).

Several of the open sanctuaries have rendered radiocarbon dates. From the Wadi Zalaqa agglomeration, which includes two open sanctuaries, three dates were obtained, all in the mid-fourth millennium (see above). An earlier date was derived from the Uvda Valley sanctuary: 6560±60 and 6400±60 B.P. (mid-fifth millennium B.C.E., or mid-sixth if calibration is taken into account). Artifactual evidence from other open sanctuaries also points towards a fifth to third millennium date.

The group of open sanctuaries as Har Shani near Eilat (Fig. 1) should be mentioned for its bearing on the chronological range of the phenomenon. Here 13 structures were found, most of them roughly circular and rather poorly preserved. Large ash pits and stone-lined basins
were located nearby. The finds associated with these structures range from the Chalcolithic to the Roman-Byzantine periods, but the Early Iron Age (13th–11th centuries B.C.E.) predominates. One structure was excavated and yielded pottery of the three types common at Timna (Rothenberg 1972:105–110, 153–163), an Egyptian ushabti figurine fragment and other datable evidence. The layout of this structure resembles that of the Uvda Valley sanctuary — a square courtyard with its corners oriented to the cardinal points — but in this case the rectangular cell truncates the eastern corner, and there were no massebot inside it. A hearth in the courtyard and a large ash pit outside were excavated and radiocarbon analysis of the material produced dates of 510±60 C.E. (sample RT 648F) and 480±180 C.E. (sample Rt 648G). These dates are also indicated by the gleanings of Nabatean and Byzantine pottery and glass from the site. We therefore have evidence attesting the continuity of the sacred tradition of this site over some four thousand years, a phenomenon that is known in ancient urban centers but astounding in an open desert site!

The tradition of open sanctuaries in the desert continues into later periods and even up till today. At Beer Ora, north of Eilat, an open-air church of the Byzantine period was discovered by Rothenberg (1972:221). This is a rectangular structure, marked off by a double line of copper slag slabs stuck vertically into the ground. There was an apse on its eastern side, but after the Moslem conquest a mihrab was added to its southern side, turning it into a mosque.
Open-air mosques are common throughout the Near Eastern deserts to this day; for analogies in Sinai, see Meshel (1971:54) and for Saudi Arabia, see Zarins (1980:11). In some cases there is even a standing stone in the mihrab (Waechter and Seton-Williams 1938: Pl. 10, Plan 1).

In spite of the simple appearance of our open sanctuaries they have much in common with the temples of the ancient Near East.

(1) Their basic unit is a broadroom, like most of the Chalcolithic and Early Bronze Age temples in the Levant (Mazar 1980:62, n. 3).

(2) Many of them are arranged in pairs. Such “twin temples” appear already in the Neolithic period at Haçılars (Mellaart 1970:26, southwest and northeast temples), and later in sites such as Arad (Ancient Arad I: Pl. 191; Amiran a.o. 1980:8), Megiddo Stratum XIX (Megiddo II: Fig. 390; Donayevski and Kempinski 1973:167–168), Beyəçsultan Strata XVI–XIV (Lloyd and Mellaart 1962:29–56). Twin temples were erected to serve pairs of gods. Bearing in mind the clear differentiation between the two standarized types of open sanctuaries in the Negev and Sinai, it is tempting to attribute each to a specific deity, one male and the other female. We may even dare to speculate that the left-hand structure was dedicated to the god and the right-hand one to the goddess (Pl. 20:3; Fig. 3:4).

(3) Orientation of the corners to the cardinal points of the compass is found in many Near Eastern temples, especially in Mesopotamia. It first appears in Eridu temples XVI–XVIII, dated to the fifth millennium B.C.E. (Lloyd and Safar 1984: 121; Pls. VI, VIII; Heinrich 1982:23, 28; Abb. 61–62) and has therefore been regarded as a tradition of Mesopotamian origin. But now we see that this tradition was already well established in the desert at the same time or even earlier. In this respect the Ghasussian temple at En-gedi should be recalled again. The main hall of the complex faces south, the preferred orientation of dwelling houses of this period (see Epstein 1977), while the eastern hall is connected to the enclosure wall at its opposite corners, probably in order to orient it to the cardinal points. In effect, the En-gedi complex may also be a twin temple.

(4) The leopard depictions in the stone “drawings” near the Uvda Valley sanctuary resemble the wall paintings of leopards at Çatal Hüyük (Mellaart 1967: Pls. 18–21; VI), particularly in their upraised tails. Both at Çatal Hüyük and Hacilar figurines of goddesses together with leopards were found (Mellaart 1970: Figs. 196–197, 228–229; Pls. CXXVII, CLV, CLVI; Mellaart 1967:203; Figs. 49, 52; Pls. 73–76; IX, X). By analogy, we are inclined to view the Uvda Valley leopards as deities, and the fact that they all face eastwards may support this theory. Noteworthy are the stone “drawings” of leopard cubs standing on the backs of adult animals (Fig. 5). Again we are reminded of Çatal Hüyük where calves’ heads were depicted on top of the larger heads of bulls (Mellaart 1967: Fig. 32). The excavator regards these as young and adult male deities.

Among the great variety of structures found in the Sahara (Tillner 1981; Milburn 1983) there are some that closely resemble the open sanctuaries of the Negev and Sinai. In the Arabian desert there are also many similar structures, mainly of the long narrow type, which have been called variously “tails” (Bibby 1968:50–52), “tapered structures” (Zarins a.o. 1980:24; Zarins, Murad and al-Yaish 1981:29; Zarins, Rabbini and Kamal 1982: Pl.43b; Gilmore, Al-Ibrahim and Murad 1982:15; Pls. 6a, 8b, 16c), “troughs” (Zarins Murad and al-Yaish 1981:28; Pl. 10) and “Grabbouten” (Schmidt 1982:171; Abb. 68). In northern Sinai
Fig. 5. Reconstructed stone “drawing” of leopard and cub from Uvda Valley.

Rothenberg termed them “wall tombs” (1979:110). In most cases no interpretation was suggested for these long structures, and it is not clear whether they served as tombs at all, although in Luristan similar structures were found that did serve as tombs (van den Berghe 1973: Pl.V). It should also be noted that long massive structures of the same nature but more monumental are known elsewhere in Israel, for example, the Kabur el Beni Israim north of Jerusalem (SWP III:101–103) and the tombs on the hills of Manasseh (Olami 1981:101).

3. CAIRN LINES

Lines of cairns are present along many of the ancient desert routes, usually on the heights above the roads, but sometimes at the waysides (Fig. 1; Pl. 22:1–2). These were first identified by early explorers such as Palmer (1871:355), Wilson 1906:28–30), Petrie (1906:63–64), Conder (1885:213–214) and Wooley and Lawrence (1914–1915:41). The individual cairns are approximately one metre in diameter and stand about two metres apart from each other. The number of cairns varies from line to line: chains of seven, twelve and fourteen are common but by no means exclusive; the numbers are apparently of no significance. The longest line, found in Wadi Hesi in eastern Sinai, consists of 80 cairns divided into groups of 10 and 70 by a tumulus tomb (Pl. 22:3).

The author has encountered more than 80 cairn lines in the southern Negev and Sinai. Many others were discovered by Negev Survey teams headed by Dov Nachlieli, Jacob Baumgarten, Mordechai Haiman (1983) and Steven Rosen in the Negev Highlands, in northern Sinai (Sass 1980:172) and in southern Sinai by Avner Goren (unpublished). The artifacts that I collected among the cairns were mainly flints of the fifth-third millennia, but those in northern Sinai have been ascribed to the Intermediate Bronze Age (MB I). In all likelihood the cairn lines have the same time-span as the other cultic phenomena discussed above, i.e. up till modern times. In present-day Arab villages we find similar chains of cairns (qannatir or māṣḥad) often painted white.

Although cairn lines have not as yet been sufficiently studied, we can, once again, suggest a cultic interpretation based on the following observations:
Careful attention was paid to their construction. Many of them have a smooth cylindrical shape and are built of well sorted undressed stones laid in even courses (Pl. 23:1).

The large number of well-worn paths climbing up to the hilltop cairn lines indicate frequent visitation.

Cairn lines are most often found in close association with tumuli, *nawamis*, tombs in rock shelters (Pl. 23:2) or open sanctuaries.

A different version of the cairn line was found near Bir Sawana in eastern Sinai; here the cairns were replaced by *massebot* supported by stone heaps (Pl. 23:3). Similar lines of upright stones were described by Petrie (1906:63–64).

In two locations in the Uvda Valley, *massebot* were found next to a cairn line.

The inner stones of a cairn are usually blackened (Pl. 24:1). This may be due either to burning, or the presence of organic material. According to the first possibility, the cairns could have served as altars, while organic material, perhaps more likely, would point to the common practise of pouring oil or blood libations on stones (Gen. 28:18; 35:14; Exod. 24:6; Herodotus III:8; see also Robertson-Smith 1889:229 ff.).

Cairn lines are also found in the Sahara and Arabia (Tilnner 1981:15; Milburn 1983:256; Doe 1971:236 f.; Zarins, Murad and al-Yaish 1981:31; Pl. 37c; Gilmore, Al-Ibrahim and Murad 1982:15 f.; Schmidt 1982: Taf. 23, 68). Here too they occur in association with tumuli and *nawamis* tombs, open sanctuaries and ancient roads.

The early explorers who first described the cairn lines in the Negev and Sinai all ascribed to them a cultic function, mainly by analogy with contemporary practise among the local Arabs in connection with sanctified places. Indeed, a combination of this information and our field data leads us to reaffirm the early explorers' cultic interpretation; it seems that the cairns were erected along the desert routes at sacred sites or spots from which such sites were visible, some of them near tombs of revered persons. During the process of periodic visitations or pilgrimages, paths were worn, additional cairns erected and some sort of libation or sacrifice was made.

4. ANCIENT DESERT ROADS

Since the great majority of cultic sites are located along desert routes, these roads warrant a short description.

When an ancient track crosses a flat area it becomes bifurcated into a number of parallel bands that spread across the desert surface. On an international highway like the Darb e-Shawi or Darb GhaZZa (Fig. 1), this stripped section may reach a width of 200 m. (Pl. 24:2), whereas a local path will form a strip only a few tens of metres wide. When a topographic obstacle is encountered, the branches of the track join together to form one narrow winding trail. Since the roads are still visible today, it would be interesting to know just how old they actually are. In several places we did find datable evidence. For example, just west of the Gebel Khassan el-Taref sites, there is a broad circular courtyard superimposed on a section of branching tracks (Pl. 24:3). The pottery and flint artifacts collected here point to a fourth-third millennia date for the structure, meaning that the road was established prior to that time. It is not unreasonable to assume that the entire network of desert roads had been established by the fourth millennium B.C.E.

Finally, we should note that it is not only in the Middle East that cultic sites and features are
to be found along ancient or traditional roads but that the phenomenon is worldwide, as reflected even today by the crossroad chapels of Europe and wayside prayers niches of the Far East (see also Kosambi 1960; Chartkoff 1983).

SUMMARY

The Negev and Sinai deserts contain an astonishing number of cultic sites and installations. Those discovered and documented in the field so far represent only a fraction of the true total. Similar sites exist in deserts throughout the Near East, and several cultic features seem to have occurred in the desert before they found their way into the fertile lands. It is not impossible that the materially inferior desert cultures had an influence on the spiritual concerns of the settled peoples to the north. Indeed, various scholars have detected desetic elements in the culture and religious practises of the ancient Near East (Canby 1976:125; Finkelstein 1966:113–114; Jacobsen 1970:35; Roberts 1972).

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REFERENCES


1. Single *massebah* in the Uvda Valley.

2. Pair of *massebot* in Wadi Zalaqa, looking from east.

3. *Massebot* triad near Bir Sawane, eastern Sinai; offering platform at base.

ANCIENT CULT SITES
1. Group of five massëbot near Wadi Daba'yeh, eastern Sinai.

2. Group of seven massëbot in Wadi Sa'al, eastern Sinai, with stone surface surrounded by ash and charcoal in front.

3. Ennead of massëbot in Wadi Sa'al, eastern Sinai, with shallow hearths in front.
1. Massebot circle in Uvda Valley after reconstruction. Note basin inside circle.

2. Sunken altar lined with slabs near massebot group in Uvda Valley. Note ash and charcoal inside.

3. Fan-scrapers from a massebot group in Wadi Zalaqa, eastern Sinai.

ANCIENT CULT SITES
1. Offering deposit from a *massebot* group in Wadi Watir, eastern Sinai. Upper two rows: shell bracelets; lower row, right: sliced seashells; left: dentalium.

2. Copper pendant from a *massebot* shrine in the Uvda Valley.

3. Single *massebah* in the Uvda Valley. At left: naturally hollowed stone basin; in front: two groups of three grinding stones.

ANCIENT CULT SITES
1. *Massebot* as façade of tumulus tomb in Wadi Marah, eastern Sinai, with two main *massebot* at centre, offering table in front.

2. *Massebot* triad incorporated into tumulus tomb in Wadi Zalaqa, eastern Sinai; offering table and circular stone cell in front.

3. Group of five *massebot* as façade of tumulus tomb near Darb el-Haj, west of Eilat.

ANCIENT CULT SITES
1. Group of seven *massebot* as façade of tumulus tomb in Wadi Marah, eastern Sinai.

2. Single Nabatean *massebah* in the Uvda Valley.

3. Nabatean triad of *massebot* in the Uvda Valley with offering table at base.
1. Group of five Nabatean massebot in the Uvda Valley, one standing apart from the rest.

2. Nabatean massebot line in the Uvda Valley, some fallen and others broken.

3. Open sanctuary with elongated stone cell near Gebel Khashm et-Taref, west of Eilat.

ANCIENT CULT SITES
1. Open sanctuary without elongated cell in Wadi Zalaqa, eastern Sinai, after restoration.

2. Circular installation in open sanctuary near Wadi Radadi, northwest of Eilat.

3. Pair of open sanctuaries near Gebel Khashm et-Taref.

ANCIENT CULT SITES
1. Chain of stone circles in Gebel Khashm et-Taref cluster.

2. Zoomorphic "rock drawing" near open sanctuary at Gebel Khashm et-Taref.

3. Tumulus tomb integrated into open sanctuary in Wadi Zalaqa, eastern Sinai.

ANCIENT CULT SITES
1. Cairn line at edge of cliff on top of a hill in the Negev Highlands.

2. Four cairn lines at encampment at foot of Ma'ale Shaharut near Yotvata.

3. Section of long cairn line in Wadi Hesi, eastern Sinai.

ANCIENT CULT SITES
1. A cairn near Uvda Valley.

2. Tomb constructed in niche, Uvda Valley.

3. Line of massebot-CAIRNS near Bir Sawana, eastern Sinai.

ANCIENT CULT SITES
1. Cairns near Uvda Valley. Note blackened inner core.

2. Track bifurcation on Darb Ghazza, northwest of Eilat.

3. Ancient site superimposed on old bifurcations of Darb e-Shawi, west of Eilat; light-coloured paths postdate site.

ANCIENT CULT SITES