

# Recent Advances in the Research of the Nabatean and Roman Negev

Tali Erickson-Gini and Yigal Israel, Israel Antiquities Authority

A hundred years have passed since Alois Musil carried out his detailed survey of Nabatean and Roman sites in the Negev Desert of Israel (Musil 1907). Since that time a wealth of information has been collected in archaeological surveys and excavations carried out in the region, many of which are still indebted to the early work of the Czech surveyor. Intensive field research carried out in the Negev Highlands and the Arava Valley since the early 1980s has provided invaluable material evidence of Nabatean and Roman occupation in the region. Extensive archaeological excavations have been carried out at caravan stations and forts along the Nabatean trade routes, as well as at Nabatean settlements. Also during this period, several systematic archaeological map surveys have been conducted in different parts of the Negev Highlands that have significantly contributed to our understanding of the presence and distribution of campsites and isolated permanent sites.

The Negev Emergency Survey carried out by members of the Israel Department of Antiquities between 1978 and 1988, under the direction of Rudolph Cohen, was responsible for many of the excavations and surveys in the region, particularly along the Nabatean trade routes and Roman military highways (Cohen 1993). More recently, excavations have been renewed at a number of sites and new sites have been surveyed and excavated by members of the Israel Antiquities Authority (IAA) and Israeli universities (Fig. 5).

The main historical periods referred to here include the Hellenistic period, from the time of Alexander the Great to the Hasmonean conquest of the Negev by Alexander Jannaeus at the end of the 2nd century BCE, the Nabatean/early Roman period, from the late 1st century BCE until the Roman annexation of Nabatea in 106 CE, and the Late Roman period, between 106 CE and 363 CE.

## Hellenistic Nabatean Sites

Between 1981–1985 Cohen's team carried out extensive excavations at the site of Mo'a in the central Arava Valley. Here a small fort was first established by the Nabateans in the Hellenistic period (Fig. 7), which was later reoccupied from the late 1st century BCE until the early 3rd century CE (Cohen 2000: 75-80).

The excavations at Mo'a were complimented by the excavation

of two Hellenistic Nabatean forts constructed a few kilometers further north at 'En Erga and 'En Rahel. The earliest fort, at 'En Erga, appears to have been abandoned before it was actually occupied due to a severe earthquake in the 3rd century BCE (Korjenkov and Erickson-Gini, forthcoming). It was replaced by the fort constructed a kilometer to the west at 'En Rahel (Fig. 4). This fort guarded the early Nabatean trade route, the 'Darb es-Sultan', that ran from the Arava, skirting the Ramon Crater, past the Nabatean fort at 'En Ziq, and through the Negev Highlands to Gaza. The fort at 'En Rahel was reoccupied around the end of the 1st Century BCE after a hiatus of several decades. It was destroyed by an earthquake before the Roman annexation of Nabatea in 106 CE and, unlike Mo'a and 'En Hazeva, it does not appear to have been occupied by the Romans (Erickson-Gini, Israel and Nahlieli, forthcoming). The fort is notable for the preservation of abundant organic remains including wooden objects, papyrus fragments, textiles and basketry (Shamir 1999). On the plain below the fort a Hellenistic farmstead, aqueducts and a 1st-century-CE caravansary were discovered. A Hellenistic Nabatean presence has also been detected further north at the site of 'En Hazeva and also at Be'er Menuha in the Arava Valley. The remains of a fort from the same period were uncovered at 'En Tamar on the southern shores of the Dead Sea.

Cohen's team excavated a Nabatean fort occupied in the Hellenistic and Early Roman periods at 'En Ziq in the Nahal Zin Valley, and another constructed over an Iron Age fort at Qasr Ruheibeh near Rehovot-in-the-Negev. Other Hellenistic Nabatean sites, including Horvat Ma'agura in the central Negev Highlands (Cohen 2000: 95–96), were also reoccupied in the 1st century and into the 2nd century CE, and Late Roman military forts were often constructed on these sites.

At the major site of Oboda, located in the central Negev Highlands, pottery and coins from the Hellenistic Nabatean occupation of the site were uncovered in the military camp and the Late Roman residential quarter. These finds appear to be associated with campsites to the north and east of the acropolis (Erickson-Gini 2002).

Renewed excavations at Nessana uncovered coins of the Hasmonean king Alexander Jannaeus. This and other finds have prompted the excavator, D. Urman, to suggest that Nessana was

conquered by the Hasmoneans in the early years of the 1st century BCE. Later Nabatean remains were detected below the East Church and under a residential area opposite the East Church at the foot of the tell (Urman and Harpak 1994: 49–50). Several kilometers to the south at Be'erotayim, Cohen's team found evidence of Nabatean occupation in structures originally constructed in the Persian period (Orion and Eini 1988: 28).

### Early Roman Nabatean Sites

In the late 1st century BCE, the Nabateans established the road between Mo'a and Oboda through the Ramon Crater (Fig. 6). In order to do so they cut a pass into the steep northern cliff face of the Ramon Crater, the Ma'ale Mahmal. These developments correspond with the beginning of the production and year-round trade of perfumed oils produced at Petra. A number of small sites established to guard this route between Mo'a and Oboda were excavated by Cohen at Horvat Qazra, Me'zad Har Massa, Me'zad Nahal Neqarot, Sha'ar Ramon, and Ma'ale Mahmal (Figs. 8–9; Cohen 1993). With the exception of Me'zad Har Massa, these sites continued to be occupied after 106 CE until the early 3rd century CE. Sha'ar Ramon, located next to the Ramon Crater and the spring of 'En Saharonim, was the major site along this route. It contained a caravansary with bathing and baking facilities. Nabatean covered cisterns were found next to Me'zad Nahal Neqarot (Fig. 10) and Me'zad Ma'ale Mahmal. A small open shrine was found outside the fort at Horvat Qazra. Nabatean Debased Painted Ware bowls dated to the late 2nd and early 3rd centuries CE were found buried next to the altar.

The 1989 excavations in the area of the acropolis at Oboda uncovered a structure abutting the eastern end of the South Church which may have functioned as a Nabatean temple (Negev 1991). In 1999–2000 extensive excavations were conducted in the Roman army camp at Oboda, and the camp was partially restored by teams from the Israel Antiquities Authority (Fig. 11; Fabian 2001; Erickson-Gini 2002). Remains of a Nabatean building dated to the second half of the 1st century CE were found under the principia on the western side of the camp. Jewish coins from 68 CE were found on the floor of this early structure (Erickson-Gini 2002: 115).

The Nabatean fort located a few kilometers southwest of Oboda at Me'zad Nahal Avdat was excavated in 1986 by Y. Lender (Lender 1988). Nabatean pottery dated to the 1st and 2nd centuries CE, an ostrakon in Nabatean script and a coin of Trajan were found in the fort. In Lender's survey a second building

containing pottery from the 1st century CE was found near the fort. Northwest of Oboda a large building of unusually fine ashlar construction containing Nabatean and Roman pottery was found on a ridge over Nahal Besor. This building may have functioned as a Nabatean temple (Cohen 1985: 58–59; Haiman 1991: 22).

Along the Oboda–Mampsis road, skirting the Big Crater, several Nabatean and Roman sites have been surveyed and excavated. These include a tower containing Roman pottery at Horvat Haluqim and further north a Nabatean building at Horvat Hazaza (Cohen 1981: 42–45; 2000: 73–74). The building, which may have been a Nabatean temple, was excavated again in 2001. It was constructed in the mid-1st century CE, when the road became an important link between Oboda and Mampsis. Numerous fragments of Nabatean figurines and exceptionally fine ashlar architecture have been found at the site (Haiman 1991: 22; Erickson-Gini, forthcoming a).

Along the Oboda–Mampsis road, Nabatean remains and pottery dated to the first and second centuries CE were found at the site of Me'zad Yeruham. Another Nabatean site was surveyed further north on the banks of Nahal Avnon, next to the remains of an Iron Age fort. On the same road, excavations were renewed in the Late Roman fort at Horvat Bor in early 2001 on behalf of the IAA (Israel and Erickson-Gini, forthcoming). The fort was constructed in the Diocletianic period at a site that was apparently first established by the Nabateans in the 1st century CE. This site was severely damaged by the construction of the modern highway and few remains from the earliest occupation of the site have survived other than an arched cistern still in use by the local Bedouin. The cistern was constructed in the same manner as the arched cisterns found at Me'zad Neqarot and Me'zad Ma'ale Mahmal (see above).

At Mampsis, excavations to the north of the town wall concentrated on three buildings which appear to be Nabatean caravansaries constructed in the 1st century CE. A. Negev identified Building VIII as such, and noted the presence of bathing facilities. This building apparently continued to function with renovations into the 3rd century CE and was also occupied in the Byzantine period. Building XXII, located further north, displayed signs of earthquake damage and subsequent renovations (Israeli 1993: 94–95).

Salvage excavations conducted in several other areas of the site include a Nabatean midden located north of the settlement, in use between the mid-1st and early 2nd centuries CE, an area next to the southern wall of Building XII and the excavation of Building XXV east of the British police building. Three phases

were discerned in Building XXV dating from the early 2nd century CE until 363 CE when the structure was destroyed in the earthquake that damaged many other sites in the region, including Petra and 'En Hazeva (Figs. 13–14; Erickson-Gini 1999).

Excavations were renewed at Elusa in the Roman theater and the cathedral. Preliminary examination of finds from the Roman theater suggest that it was constructed in the late 2nd or early 3rd century CE (Goldfuss and Fabian 2000).

In the central Arava Valley Cohen's excavations at Mo'a uncovered a Nabatean caravansary constructed next to the fort in the 1st century CE and occupied into the 2nd century CE. This structure contained a small bathhouse supplied with water transported by an aqueduct from an open pool. Other structures at the site include caves with built facades and what may be a small shrine or temple on a hilltop southeast of the caravansary (Cohen 2000: 75–80).

At the site of 'En Hazeva in the central Arava Valley pottery found in the area of the Iron Age fortress and below the 4th-century CE Roman fort indicates a Nabatean presence in the Hellenistic and early 1st century CE. The ceramic and numismatic material proves that the site continued to be occupied by the Roman army after 106 CE until the early 3rd century (Cohen and Israel 1996: 88–91). A recent examination of the pottery from this site and the Nabatean/Roman fort of Dafit in the southern Arava Valley suggests that some vessels may have been produced in the Red Sea port of Aila (Dolinka 2003: 88).

### Late Roman Sites

The site of 'En Hazeva was reoccupied during the Diocletianic military build-up towards the end of the 3rd century CE, when a fort with four corner towers was constructed on the tell. Other structures, including a cavalry camp and a bathhouse, were also constructed in this phase. These buildings were severely damaged in the earthquake of 363 CE, but were repaired and occupied as late as the 6th century CE.

Excavations in the Late Roman residential quarter at Oboda, located outside the Byzantine town wall near the acropolis, revealed three phases of construction dating to the 1st through the early 5th centuries CE (Figs. 12, 16; Erickson-Gini 2001). At least five dwellings were constructed around 300 CE and occupied throughout the 4th century CE. These buildings were destroyed and abandoned in wake of a severe earthquake sometime in the early 5th century CE. In one of the rooms destroyed by the earthquake several lines of Nabatean script were found written

in ink on large fragments of plaster (see Negev this volume).

Extensive evidence of the massive military build-up in the region in wake of the transfer of the Tenth Legion from Jerusalem to Aila at the end of the 3rd century CE has been found throughout the Negev. Along the Ma'ale Akrabbim road between 'En Hazeva and Mampsis, small forts and surrounding structures date to the late 3rd and early 4th centuries CE (Cohen 2000: 100–103). This series of forts includes Mezad Sa'if, Rogem Safir, Horvat Safir, Mezad Safir and Mezad Yorqeam (located between Mezad Safir and Mampsis). At least twenty coins of Constantine I were recovered at Mezad Sa'if. At Horvat Rogem pottery dated to the 3rd and 4th centuries CE was found in the fort. Soundings carried out in building remains outside the fort produced sherds of Nabatean pottery. Pottery dated to the 3rd and 4th centuries CE was found in the square fort of Mezad Safir and 2nd to 3rd century pottery in the remains of a building outside the fort. Other Late Roman military installations include Mezad Dafit, located about 20 kms north of the Tenth Legion headquarters at Aila, Mezad Yotvata where a 4th-century military inscription was found (Meshel 1989:237–238; Roll 1989) and Mezad Be'er Menuha. Earlier Nabatean structures were also found at these sites.

Late Roman milestones, dated to the late 3rd and early 4th centuries CE, were found between Yotvata and Be'er Menuha near Kibbutz Yahel, confirming the presence of a north–south road on the western edge of the Arava Valley used by the Roman army (Avner 1995; Kennedy 2000: 194)

### Archaeological Map Surveys in the Negev Highlands

(Table 1)

Systematic archaeological map surveys have been carried out in different parts of the Negev Highlands, several of which have been published by the Israel Antiquities Authority. These surveys cover large areas of up to one hundred square kilometers and provide valuable data on smaller sites: lone buildings and more often campsites containing pottery but lacking definite architectural features, dating to the Nabatean and Roman periods. Such smaller Nabatean sites appear to have been more numerous in the vicinity of Nabatean settlements.

In the survey of Har Nafha (Lender 1990a) which includes the Oboda area, forty-two Nabatean sites were found, including that of Mezad Nahal Avdat. About one-third of these sites appear to have been established along the Nahal Avdat road that connected Oboda with the Kadesh Barnea area in northern Sinai. Forty Roman sites were recorded in the same survey (Lender

1990a: xxiii). Numerous rock drawings and several Thamudic inscriptions were found in this area (Halloun 1990; Lender 1990b).

Nabatean and Roman sites were more numerous further west in the central Negev Highlands in the area between Oboda and the Kadesh Barnea region. In the southeastern Har Hamran region twenty-six Nabatean and thirteen Late Roman sites were found. Of the Nabatean sites, only two, located near Nahal Sirpad, were permanent structures. Both buildings were constructed of massive dressed stones and had square or rectangular plans with rooms located around a central courtyard (Haiman 1993: 15). According to Haiman, these structures are similar in size and construction to those found at three Nabatean sites in the eastern Har Hamran region. A structure with nearly identical features uncovered at Oboda revealed evidence for its construction in the 1st century CE (see above). In the southwestern Har Hamran region ten sites, seven of which were encampments, were identified as Nabatean while only two sites appear to have been Roman (Haiman 1986: 19, 243).

In the Sobata region the number of Nabatean and Late Roman sites rises dramatically, with fifty-four Nabatean/Early Roman sites, and one hundred Late Roman sites recorded (Baumgarten, forthcoming c).

The area surveyed between Oboda and Mezad Yeruham in the Sede Boqer region revealed that little if any settlement activity took place here in the Nabatean and Late Roman periods. Only eight Nabatean sites were discovered, three of which were also occupied in the Roman period, suggesting that the area was mainly a transit zone of the Oboda–Mampsis road (Cohen 1981: Map 4). Further west, in the area around the Petra–Gaza road, only eleven Nabatean sites, including four watchtowers located along the Nahal Besor leg of the Petra–Gaza road, were recorded (Cohen 1985:xiii). Six sites described as dating to the Roman period were also found in that survey (Cohen 1985:88). These numbers are similar to findings from map surveys conducted further north in the Mashabe Sade and Revivim regions. In the Mashabe Sade survey (Baumgarten, forthcoming b) only 14 Nabatean/Early Roman sites were recorded and these appear to have been campsites associated with the road through Nahal Revivim from the vicinity of Mezad Yeruham towards Elusa and Sa'adon. Eighteen Late Roman sites were found in the same area. Similarly, the survey of the Revivim region, south of Elusa, produced only six Nabatean/Early Roman sites, mainly campsites near roads. Twenty-one Late Roman sites were found in this area (Baumgarten, forthcoming a).

In the region of the Ramon Crater, the Nabatean sites appear to have been mainly campsites. In one map survey area, only ten such sites were found (Rosen 1994: 18), while in the northeast area of the Crater and the eastern Mishor HaRuhot plateau twenty Nabatean and eleven Roman period sites were recorded (Rosen 1985). Further west, in the region of Har Ramon, only three Nabatean and seven Roman-period sites were recorded (Haiman 1999: 11). In the survey of the southwestern Mizpe Ramon region, Nabatean painted ware was found at thirty-five sites, fourteen of which comprised large permanent structures occupied in the 2nd and 3rd centuries CE. Seventeen Late Roman sites were recorded in the same area (Haiman 1991: 21–22).

Surveys to the south and southwest of the Ramon Crater, in the vicinity of the ancient road between Aila and Gaza, the 'Darb el-Ghazza', revealed only a small number of sites from both periods. In the Har Loz and Har Hame'ara regions only 12 Nabatean and Late Roman sites were recorded (Avni 1985). In the Har Saggi region only ten Nabatean sites, all of them campsites, were found. Fifteen Roman sites were also found in this region, a third of which produced exclusively Roman-period pottery. Some of these sites were associated with structures and animal pens (Avni 1992: 17–18).

### **Complementary Studies**

A number of studies on specific subjects, conducted in Israel and abroad, have proven to be highly valuable in processing the results of recent fieldwork. These studies include the chronology of Nabatean painted vessels and other wares from Petra (Schmid 1996; Schneider 1996), a chronology of Nabatean piriform unguentaria found at Petra (Johnson 1987), neutron activation analysis of Nabatean pottery found in the Negev and Jordan (Amr 1987; Gunneweg et al. 1988; Bedal 1998), pottery produced in the Nabatean and Early Roman periods at Aqaba (Dolinka 2003) and in the Late Roman period at Elusa (Fabian and Goren 2002), a corpus of Eastern terra sigillata ware (Hayes 1985a), a corpus of Late Roman pottery (Hayes 1972), a chronology of "Gaza" wine jars produced in the 1st through 7th centuries CE (Majcherek 1995) and a study of textiles, basketry and cordage found at 'En Rahel (Shamir 1999).

### **Concluding Remarks**

The research conducted in the Negev in recent decades has produced an array of exciting discoveries that has helped to

sharpen our understanding of Nabatean activity in the region. The earliest archaeological evidence points to Nabatean trade routes through the Negev as early as the 3rd century BCE. Actual Nabatean colonization appears to have taken place in the last decades of the 1st century BCE at Oboda and Elusa with the establishment of a new road between Mo'a and Oboda by way of the Ramon Crater. A second wave of colonization appears to have taken place along secondary routes in the middle of the 1st century CE at Mampsis, Sobata and Rehovot-in-the-Negev. New evidence points to a continuation of Nabatean trade and settlement in the Negev after the Roman annexation of Nabatea in 106 CE and as late as the early 3rd century CE. The collapse of the international trade system in the 3rd century appears to have forced the local inhabitants to seek an alternative means of livelihood in the form of agricultural production, and inter-regional trade was prompted in the early 4th century by the massive deployment of the Roman army in the region. The indigenous Nabatean inhabitants in the Negev maintained close cultural ties with Petra as late as 363 CE and new evidence also suggests that the Nabatean language, script and religion survived well into the Byzantine period until the adoption of Christianity in the 5th century CE.

The on-going archaeological research of Nabatean and Roman sites in the Negev is a significant contribution to the field of Nabatean studies, revealing the role of this particular region in the framework of Greater Nabatea as well as during the period it was under Roman rule.

Table 1: Map Survey Results of Nabatean and Late Roman Sites in the Negev Highlands

<b>Map no.</b>	<b>Area</b>	<b>Surveyor</b>	<b>Nabatean – Late Roman Sites</b>
159	Revivim Northwest	Baumgarten (forthcoming a)	27
163	Mashabe Sade	Baumgarten (forthcoming b)	32
166	Shivta Northeast	Baumgarten (forthcoming c)	154
167	Sede Boqer West	Cohen (1985)	17
168	Sede Boqer East	Cohen (1981a)	8
196	Har Nafha	Lender (1990a)	82
198	Har Hamran Southwest	Haiman (1986)	12
199	Har Hamran Southeast	Haiman (1993)	39
200	Mizpe Ramon Southwest	Haiman (1991)	52
201	Mizpe Ramon	Rosen (1985)	31
203	Har Ramon	Haiman (1999)	10
204	Maktesh Ramon	Rosen (1994)	10
206-207	Har Loz and Har Hame'ara	Avni (1985)	12
225	Har Saggi	Avni (1992)	25