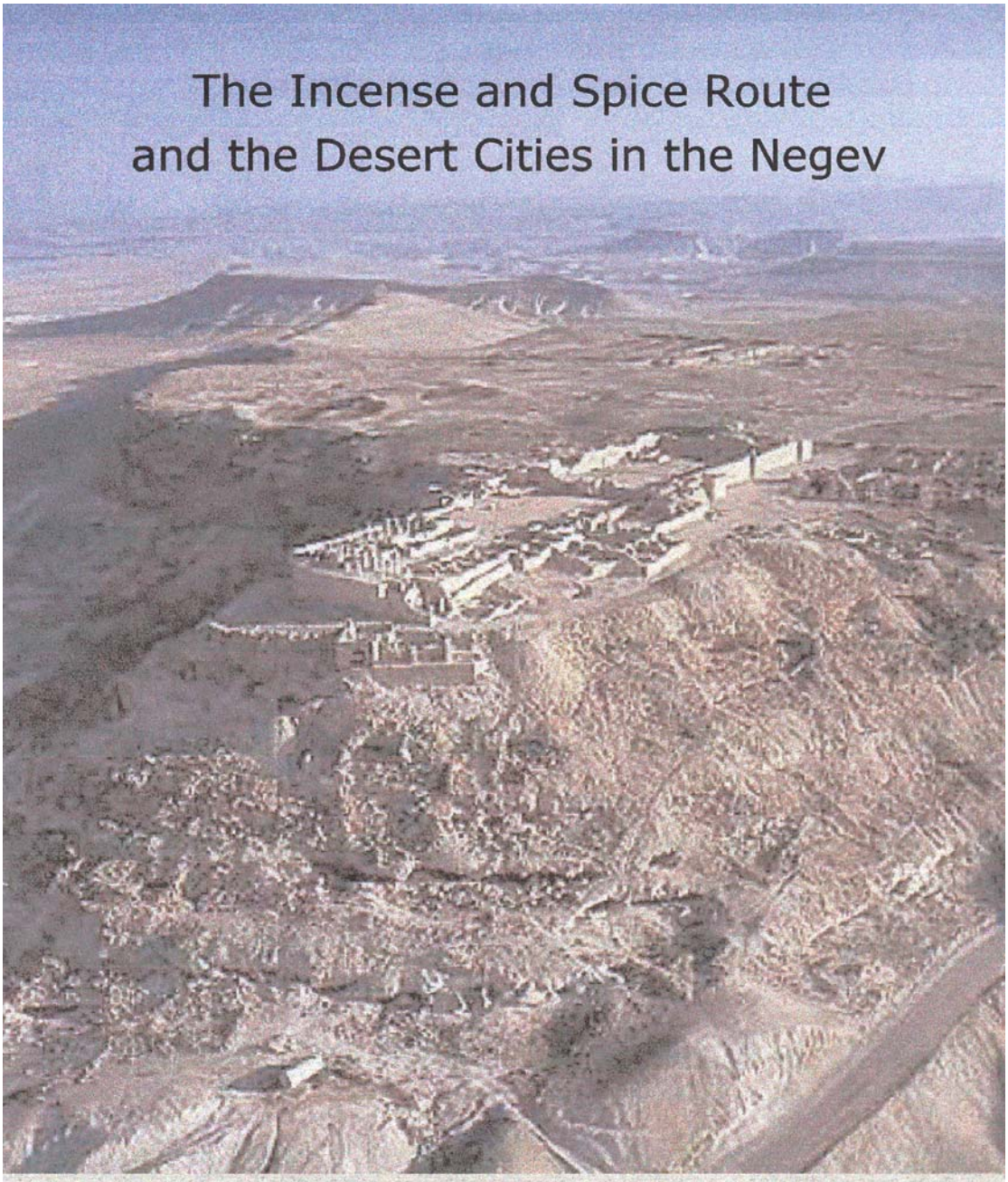
The Incense and Spice Route and the Desert Cities in the Negev



World Heritage Nomination

January 2003

State of Israel

UNESCO

PATRIMONIO MUNDIAL · WORLD HERITAGE · PATRIMOINE MONDIAL











פורום תיירות נגב



“Then thou shalt see and be radiant and thy heart shall throb and be enlarged; because the abundance of the sea shall be turned unto thee the wealth of the nations shall come unto thee. The multitude of camels shall cover thee and of the young camels of Midian and Ephah all coming from Sheba; they shall bring gold and frankincense and shall proclaim the praises of the Lord.” The Old Testament, Isaiah, Chapter 60, 5-6.

“Who is this that cometh up out of the wilderness like pillars of smoke, perfumed with myrrh and frankincense with all fragrant powders of the merchant” The Old Testament, Song of Songs, Chapter 3,6

Pliny’s Description - “After the frankincense is collected, it is conveyed by camel to Sabota, and one of the gates of the city is opened to receive the merchandise. The kings enacted a permanent law that it is a serious crime for a camel bearing frankincense to divert from the main road. In Sabota, the priests levy a tithe on the frankincense for the god known as Sabin … From here, the merchandise may be conveyed through the land of the Gebbanites only, and therefore tax must be paid to the king of this people as well. **Their capital is Thomna, which is 1487.5 miles [2380 km] from Gaza in Judea, located on the coast of the Mediterranean. The journey is divided into 65 stages [36.6 km each], at each of which is a rest station for the camels.** Regular portions of frankincense must be paid to the priests of the lands, their kings, and their scribes. In addition, portions are also taken by guards at gates and their servants. In addition to these, they must pay all the way, in one place for water, elsewhere for a place at the way station, and also for food. Thus, expenses come to 688 denarii even before reaching the Mediterranean. Then our imperial tax officials must be paid again. Because of this, **the price of good frankincense can be six denerii per liter, average frankincense can be five denarii, and the third type can be three denarii”.**

Pliny, *Historia Naturalis,* 12:32: 63-65

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1. IDENTIFICATION OF PROPERTY

1. Identification of Property:

1a. Country: Israel

1b. Region: Negev

1c. Name of Property: The Incense and Spice Route and the Desert Cities in the Negev

1d. Coordinates of boundaries of the core site and other sites included in the nomination:
Core site shown on map (scale 1:50,000) and individual sites shown on maps at a scale of 1:50,000.

Site	Co-ordinates	Town/ Regional Council	Area in Hectares	
			Core Zone	Buffer Zone
Core*	South-East (Moa) 35 9' 39"E 30 32' 28" N North-West (Avdat) 34 46' 30" E 30 47' 47" N	Arava-Tichona through Ramat Negev	6,314	62,592
The Cities				
Haluza	34 39' 28" E 35 5' 51" N	Ramat Negev	52	278
Mamshit	35 3' 4" E 31 1' 34" N	Dimona	242	514
Shivta	34 37' 54" E 30 52' 53" N	Ramat Negev	47	484

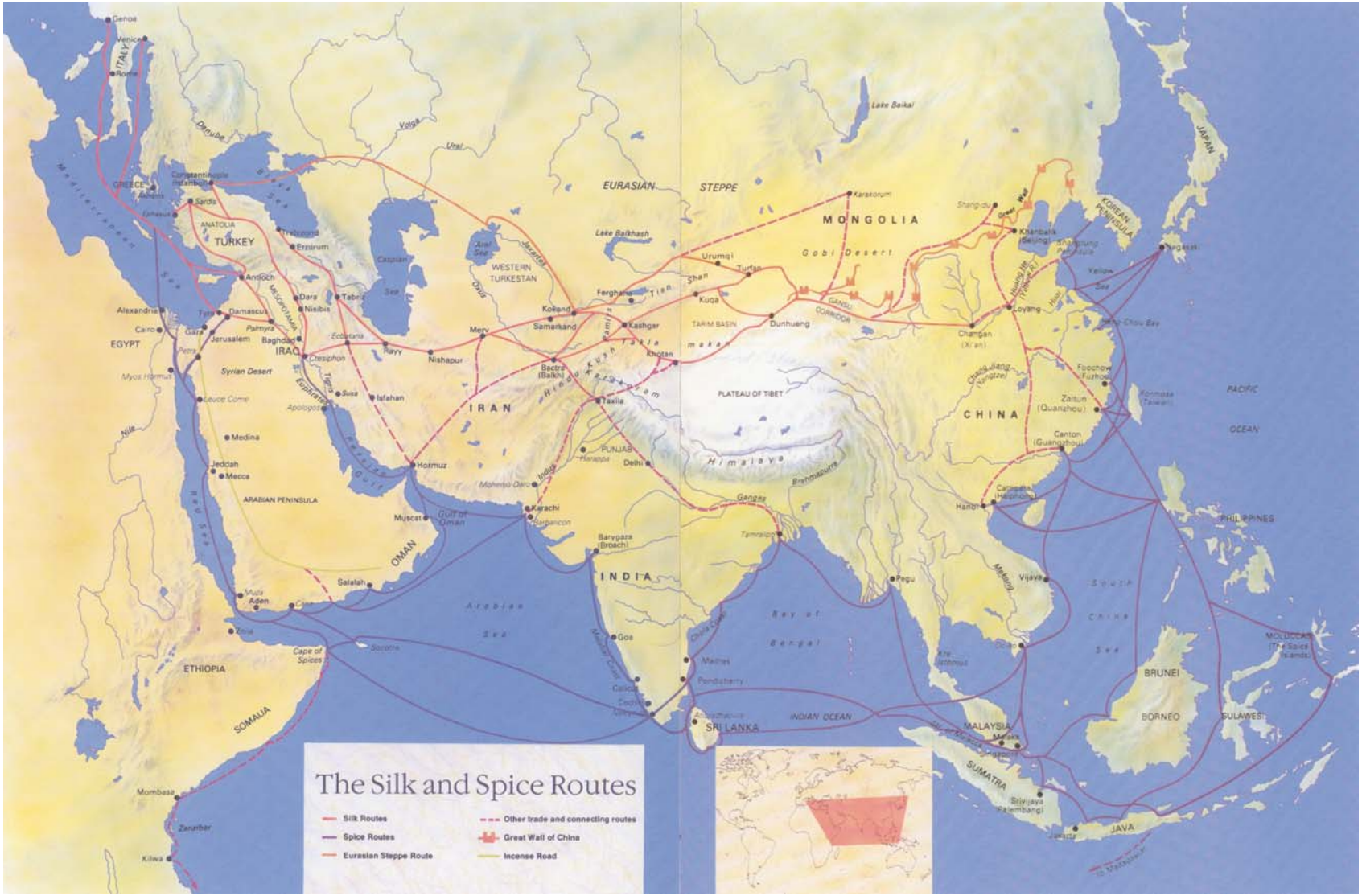
***Linear property 65 km long, average 1.0 km wide and buffer zone average 10 km width.**

Other fortresses are included in the core area and described in the text. The following are their coordinates, for information:

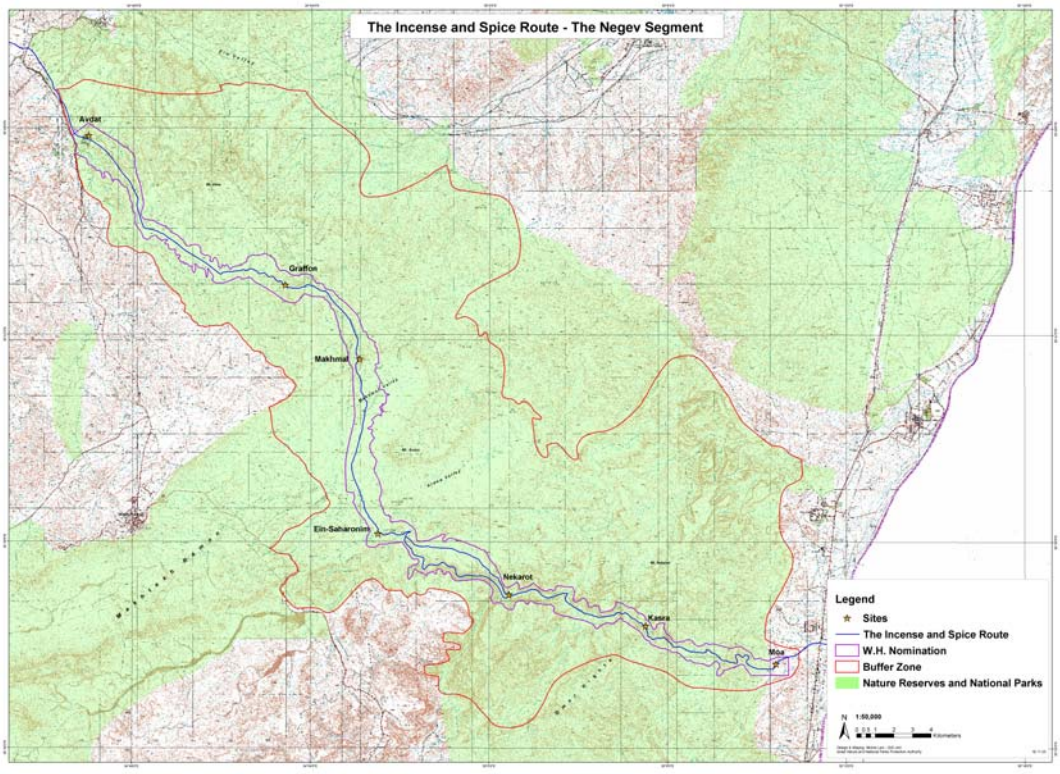
Site Name	UTM Grid	Israel Grid	Longitude	Latitude
Kazra	7002.3828	1585/9966	35^0 5' 23"	30^0 33' 33"
Nekarot	6929.3843	1500/9985	35^0 0' 3"	30^0 34' 34"
Ein-Saharonim	6858.3874	1439/0016	34^0 56'14"	30^0 36' 14"
Makhmal	6847.3967	1431/0110	34^0 55' 43"	30^0 41' 19"
Graffon	6804.4008	1388/0148	34^0 54' 25"	22^0 28' 46"

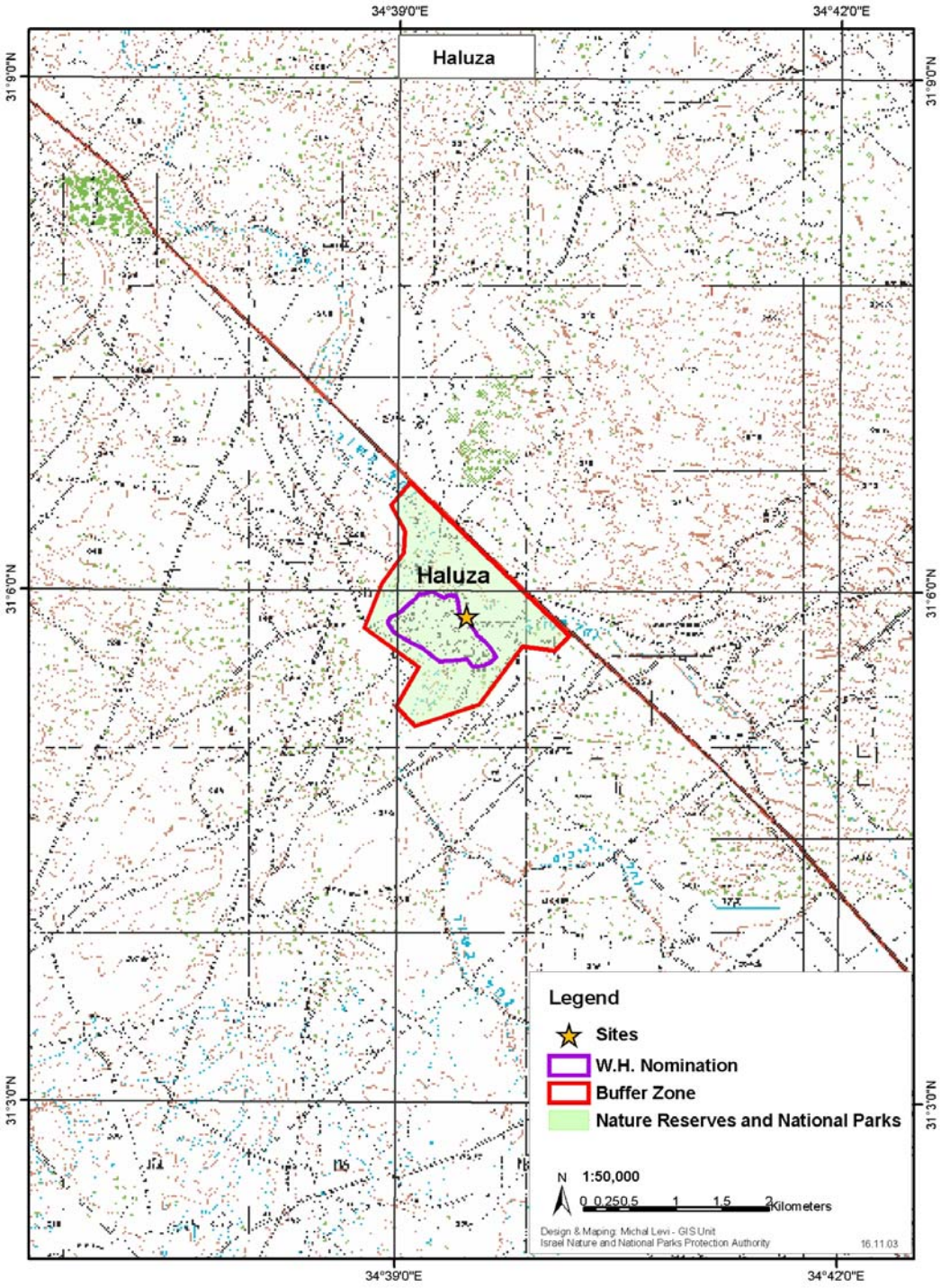
1e. Maps and plans showing boundary of area proposed for inscription and of any buffer zone: Attached: maps 1:50,000 scale

1f. See table above.


The Silk and Spice Routes
Silk Routes
Spice Routes
Eurasian Steppe Route
Other trade and connecting routes
Great Wall of China
Incense Road
EURASIAN STEPPE
MONGOLIA
CHINA
IRAN
INDIA
TURKEY
EGYPT
IRAQ
ARABIAN PENINSULA
ETHIOPIA
SOMALIA
OMAN
SRI LANKA
PHILIPPINES
BRUNEI
BORNEO
SUMATRA
JAVA
JAPAN
PACIFIC OCEAN
INDIAN OCEAN
Arabian Sea
Bay of Bengal
South China Sea
PLATEAU OF TIBET
Himalaya
Gobi Desert
Lake Baikal
Lake Balkhash
Caspian Sea
Black Sea
Mediterranean Sea
Red Sea
Persian Gulf
Gulf of Oman
Genoa
Venice
Rome
Athens
Constantinople (Istanbul)
Sardis
Ephesus
Trebizond
Erzurum
Antioch
Alexandria
Tyre
Damascus
Palmyra
Jerusalem
Cairo
Gaza
Petra
Baghdad
Ctesiphon
Ecbatana
Rayy
Nishapur
Merv
Tabriz
Dara
Nisibis
Susa
Isfahan
Apologos
Leuce Come
Myos Hormus
Medina
Jeddah
Mecca
Hormuz
Muscat
Salalah
Aden
Mocha
Zeila
Cape of Spices
Socotra
Mombasa
Zanzibar
Kilwa
Karachi
Barygaza (Broach)
Goa
Calicut
Cochin
Madras
Pondicherry
Pegu
Malacca
Srivijaya (Palembang)
Java
Karakorum
Urumqi
Turfan
Kucha
Kashgar
Khotan
Bactra (Balkh)
Samarkand
Kokand
Ferghana
Taxila
Harappa
Delhi
Punjab
Dunhuang
Changan (Xi'an)
Loyang
Khanbaliq (Beijing)
Hangzhou
Canton (Guangzhou)
Zaitun (Quanzhou)
Foochow (Fuzhou)
Hanoi
Champa (Vietnam)
Vijaya
Tamralipti
Great Wall
Yellow Sea
Korean Peninsula
Shantung Peninsula
Hwang He (Yellow R.)
Chang Jiang (Yangtze)
Gansu Corridor
Tarim Basin
Taklamakan
Hindu Kush
Pamirs
Tian Shan
Volga
Ural
Danube
Aral Sea
Western Turkestan
Indus
Mahenjo Daro
Brahmaputra
Ganges
Malabar
Coromandel Coast
Malay Peninsula
Molucca (The Spice Islands)
Sulawesi
Kra Isthmus
Formosa (Taiwan)
Hainan
Tonkin (Haiphong)
Hangchow Bay
Nile


ISRAEL NATURE AND NATIONAL PARKS PROTECTION AUTHORITY
MEDITERRANEAN SEA
AKKO
HAIFA
ZEFAT
TIBERIAS
SEA OF GALILEE
AFULA
NETANYA
NABLUS
TEL AVIV
JERUSALEM
ASHQELON
HEBRON
EIN GEDI
DEAD SEA
ARAD
BEER SHEVA
DIMONA
MITZPE
ELAT
AVIGDOR ORGAD
N
0 20 KM.
LEGEND
N.P. - NATIONAL PARK
N.R. - NATIONAL RESERVE
1. NIMROD'S FORTRESS N.P.
2. NAHAL HERMON N.R. (BANIAS)
3. TEL DAN N.R.
4. HURSHAT TAL N.P.
5. NAHAL AYOUN N.R.
6. HULA N.R.
7. TEL HAZOR N.P.
8. ACHZIV N.P.
9. YEHIAM FORTRESS N.P.
10. BAR'AM N.P.
11. KORAZIM N.P.
12. YEHUDIYYA N.R.
13. GAMLA N.R.
14. KURSI N.P.
15. HAMAT TIBERIAS N.P.
16. EIN AFEK N.R.
17. ZIPPORI N.P.
18. MT. CARMEL N.P.
19. HAI BAR CARMEL N.R.
20. NAHAL ME'AROT N.R.
21. BET-SHE'ARIM N.P.
22. TEL-MEGIDDO (ARMAGEDDON) N.P.
23. KOHAV HAYARDEN (BELVOIR) N.P.
24. MA'AYAN HAROD N.P.
25. GAN-HASHLOSHA N.P. (SACHNE)
26. BET-ALPHA N.P.
27. BET-SHEAN N.P.
28. CAESAREA N.P.
29. ALEXANDER RIVER N.P.
30. SAMARIA N.R. (SEBASTE)
31. MEKOROT HAYARKON N.P.
32. AFEK N.P. (ANTIPATRIS)
33. SOREQ CAVE N.R. (STALACTITE AND STALAGMITE CAVE)
34. EIN-HEMED N.P. (AQUA-BELLA)
35. CASTEL N.P.
36. JERUSALEM WALLS N.P.*
37. QUMRAN N.P.
38. HERODION N.P.
39. ASHQELON N.P.*
40. BET-GUVRIN - MARESHA N.P.
41. EIN-GEDI ANTIQUITIES N.P.
42. EIN-GEDI N.R.
43. MASADA N.P.
44. TEL ARAD N.P.
45. ARAD VISITOR CENTRE
46. ESHKOL N.P. (HABSOR)
47. TEL BEER-SHEVA N.P.
48. MAMSHIT N.P. (KURNUB)
49. SHIVTA N.P.
50. BEN-GURION'S BURIAL PLACE N.P.
51. EIN-AVDAT N.P.
52. AVDAT N.P.
53. MAKHTESH RAMON VISITOR CENTRE
54. HAI-BAR YOTVATA BIBLICAL WILDLIFE N.R.
55. CORAL BEACH N.R.
* UNDER LOCAL MANAGEMENT


The Incense and Spice Route - The Negev Segment
Avdat
Grafton
Makhtesh Gadol
Ein-Saharonim
Nekarot
Kasra
Moa
Legend
Sites
The Incense and Spice Route
W.H. Nomination
Buffer Zone
Nature Reserves and National Parks
N
1:50,000


Haluza
Haluza
34°39'0"E
34°42'0"E
31°9'0"N
31°6'0"N
31°3'0"N
Legend
Sites
W.H. Nomination
Buffer Zone
Nature Reserves and National Parks
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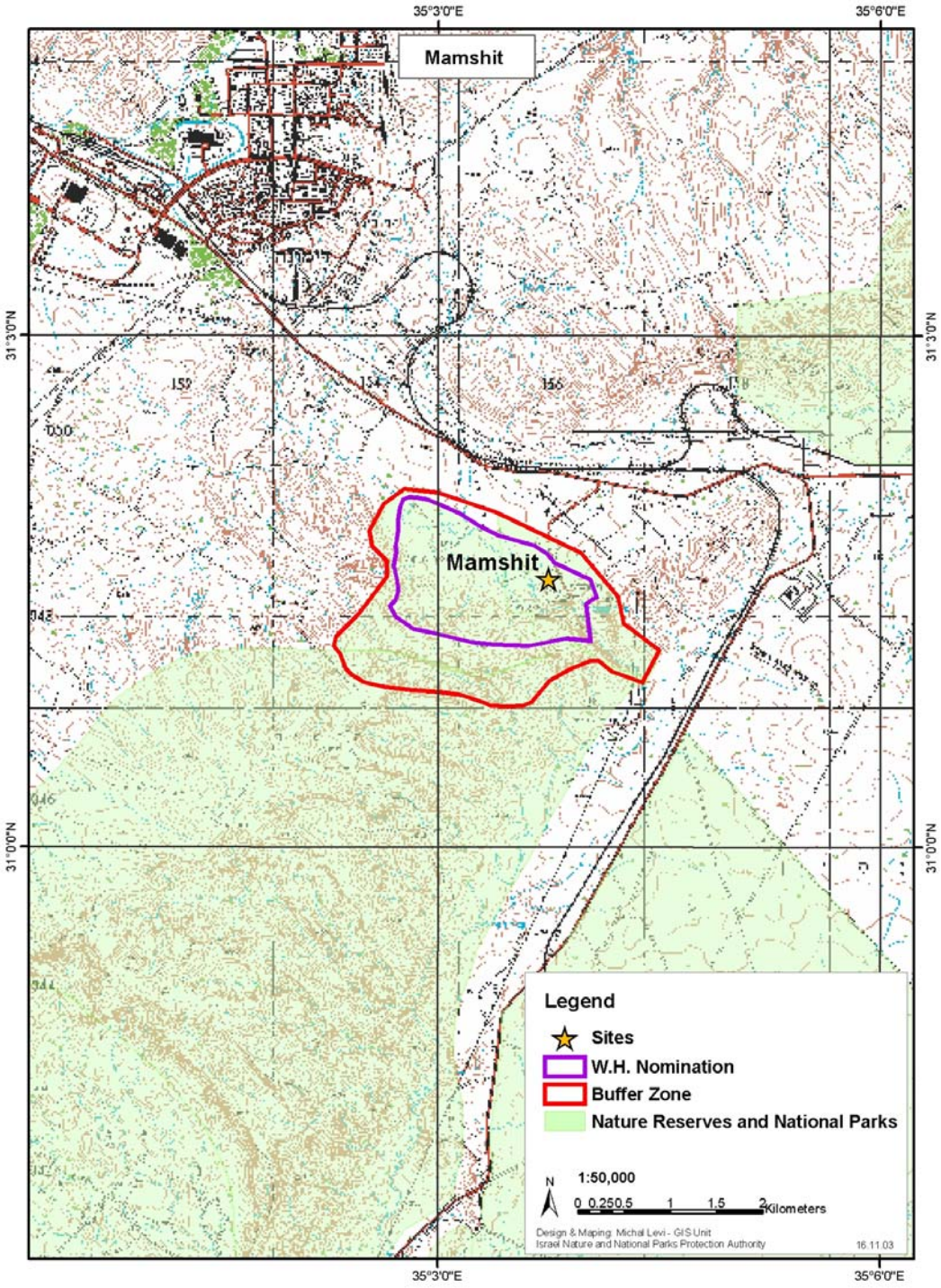
Design & Maping: Michal Levi - GIS Unit
Israel Nature and National Parks Protection Authority
16.11.03


Mamshit
35°3'0"E
35°6'0"E
31°3'0"N
31°0'0"N
Mamshit
Legend
Sites
W.H. Nomination
Buffer Zone
Nature Reserves and National Parks
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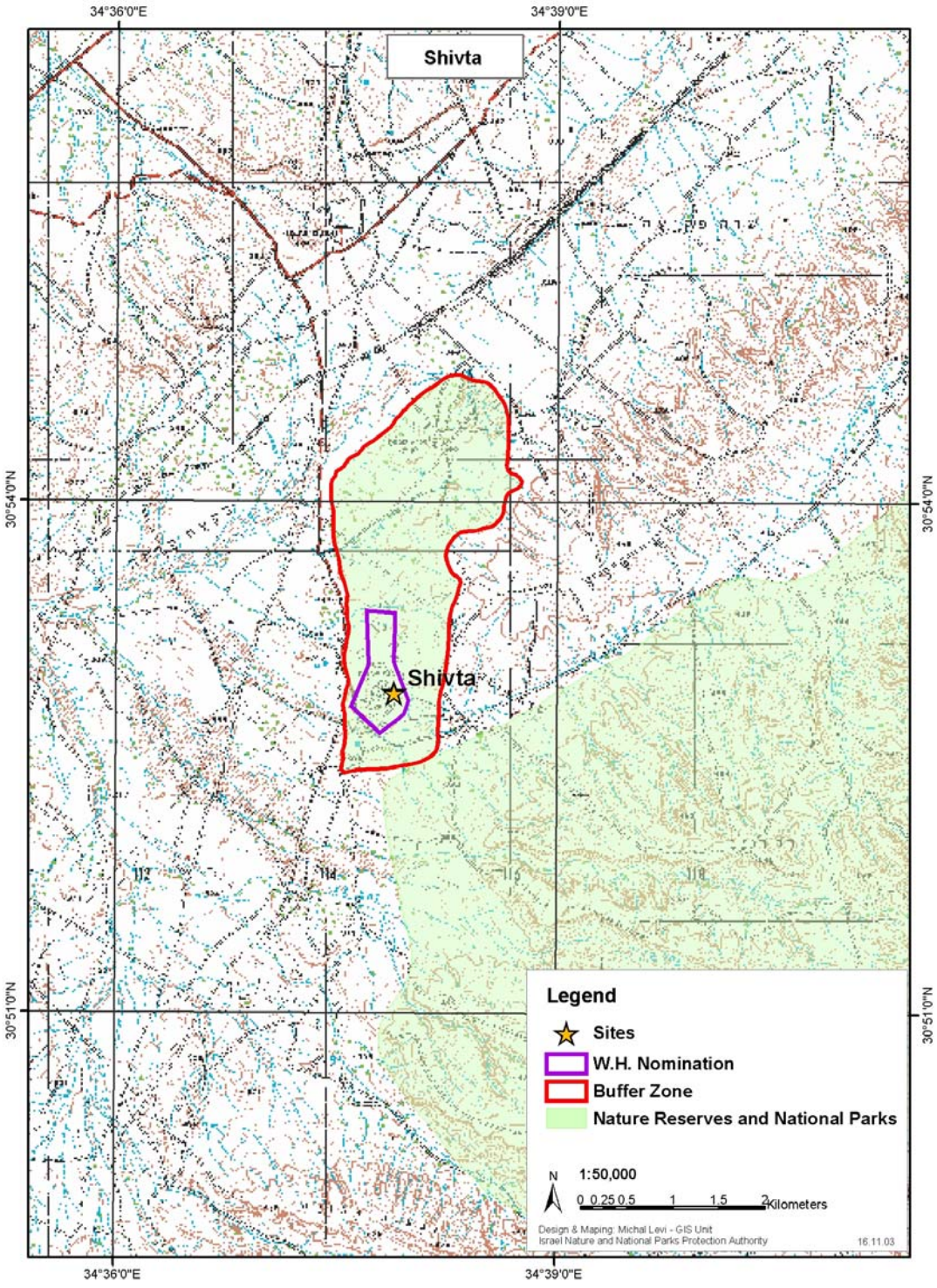
0 0.250.5 1 1.5 2 Kilometers
Design & Maping: Michal Levi - GIS Unit
Israel Nature and National Parks Protection Authority
16.11.03


34°36'0"E
34°39'0"E
Shivta
30°54'0"N
30°51'0"N
Shivta
Legend
Sites
W.H. Nomination
Buffer Zone
Nature Reserves and National Parks
N
1:50,000
0 0.25 0.5 1 1.5 2 Kilometers
Design & Maping: Michal Levi - GIS Unit
Israel Nature and National Parks Protection Authority
16.11.03

2. JUSTIFICATION FOR INSCRIPTION

2a. Statement of Significance:

Frankincense and Myrrh are aromatic resins extracted from bushy-thorny trees, that grow only in today's Oman, Yemen and Somalia.

For thousands of years those resins were considered as one of the most precious commodities moving between Rome and India. Recent evidence even shows that during the Ming Dynasty frankincense was exported to China, in exchange for Chinese porcelain. According to Christian tradition, the three wise men, visiting baby Christ in Bethlehem, brought gold, frankincense and myrrh as gifts.

These resins, at times more precious than gold, had both philosophical and practical use. No matter what religious rites were observed, incense had to be burned to carry the prayers up to heaven. Frankincense was used to embalm corpses (when Pharaoh Tutankhamun's tomb was opened in 1922, one of the sealed flasks still released the smell of the incense). It was used during burial ceremonies and cremations, as well as for medical and cosmetic purposes (having notable skin preserving properties).

The Bible is rich with references to both frankincense and myrrh, as are many other sources. An Egyptian inscription, dated 2800 B.C., documents expeditions to the land of Punt (the extreme south of the Red Sea) from where Egypt was importing large quantities of incense. Other sources tell us about Alexander the Great who wanted to conquer Arabia in order to control the production and trade of incense. Incense is frequently mentioned and discussed in Roman, Byzantine and Arab sources.

Though frankincense was very precious, it was used in staggering quantities. According to ancient documents, the annual consumption of incense in the Temple of Baal in Babylon was 2.5 tons and Nero burned a full year's harvest during the funeral ceremonies of his wife. Thus, whoever had any involvement with incense, whether growing, producing, carrying, selling, or protecting it, had the potential of becoming very influential and extremely wealthy.

Carrying large quantities of the most precious goods in the world, the incense routes became the main arteries for a booming trade and a developing civilization over a huge area between the Mediterranean and south Arabia. The Frankincense and Spice Road was as significant to the world's cultures as was the Silk Road. The political, economic, social and cultural significance of this route in the past is indisputable.

The "Incense Route" is two thousands kilometers long. About one hundred kilometers cross the southern part of Israel – the Negev. Since the third century B.C., and following the domestication of the camel, this section of the road was highly developed.

The majority of the remains along and around the route, in the Negev, are of the Nabataean culture. From the third century B.C. to the second century A.D. the Nabataeans were the people who transported frankincense and other goods across the big deserts, along 2000 kilometers of rough, dry areas, to the Mediterranean coasts. The last and most critical part of their route crossed the Negev.

The establishment of the incense trade completely changed the Nabataean economy, and, as a result, their whole life style. As a poor pastoral community they were divided into tribes and ancestral homes. A man's association to his tribe and family determined his status.

The new economy, and the prosperity that came with it, rendered pastor and goat breeding obsolete. There was also no need to wander any more. On the contrary, with the establishment of the trade routes, the Nabataeans gathered along the route and built permanent camps, where most of the population lived.

It became necessary to get organized, build roads, and secure the caravans and the population. These factors, together with the immense wealth gathered among the Nabataeans, brought on a change. At the end of the process the Nabataeans became an established kingdom, ruled by a king, with a highly developed administrative system, a regular army, relations with other countries, etc.

The Nabataean capital was Petra, which, while they were still a pastoral people, had served as their city of refuge, a place of shelter.

The tangible remains around and along the route, in the Negev, manifest its importance and wealth brought through the incense trade. It is represented by ruined cities, caravanserais, camps, watchtowers, fortresses, army camps, and remains of paved roads, agriculture and ingenious ways of collecting water.

Though representing just one twentieth of the total length of the road, the special features and the uniqueness of the Negev section of the route justify its nomination as a World Heritage Site, along with the other elements already nominated by other states (Oman and Jordan). The specific explanations for the justification are given under the comparative study and criteria headings.



Frankincense

2b. Possible Comparative Analysis:

Their fear of the Romans made the Nabataeans divert the caravans, moving along the part of the route that goes through the Arava and the Negev, to a course that they could protect. The need for a secured course did not arise throughout the whole space extending from the frankincense source in the south to the region of the Arava valley. Crossing the Arava brought the Nabataeans closer to the Romans, who occupied Eretz Israel, north of the Negev. The Empire's borderline, which was the border of the populated area, passed through the south of the Dead Sea, via Beer-Sheva and up to Rafiah. Since the Romans frequently crossed this line, the Nabataeans kept the caravans away from the Romans' reach.

The space between the Arava and the north-western borders of the Negev is divided into two different sections, located south and north of the line marked by the big cliff in the north of Makhtesh Ramon. Both sections have no close comparison all along the rest of the Incense Route due to their proximity to the Roman limes to less desert areas and to the final destination of the caravans.

The First Section:

The first section, the more southern of the two, is very dry. The average quantity of rainfall is 40-80 mm. a year, and the rain is usually irregular and random. The desert vegetation is slight and grows only in the wadi gorges. The topography of the region is harsh. Many wadis cross it and in between there are mountain ridges and peaks. All the wadis drain east, towards the Arava and the Dead Sea, and flow from the south-west to the north-east. This direction, which is not compatible with the walking axis between Petra and the Mediterranean, forced the travelers to use only short parts of each wadi and cross ridges leading to the parts of other gorges whose direction fitted, for a certain distance, their travel direction. The deep drainage basis at the Arava split caused the subversion of the wadi and the creation of deep canyons, which made the movement of people and caravans difficult.

The desert climate, the harsh topography and the small quantity of pastor, rendered the area unpopulated and even pastoral-nomad communities did not inhabit it. Despite the afore mentioned drawbacks, the region has a great advantage. Its landscape is dramatic, impressive and diverse.

In order to keep the caravan route away from the Romans' reach, the Nabataeans relinquished familiar and comfortable routes, which crossed the Negev north of this area, and chose to travel through this region. This choice involved giving up topographical convenience and shorter courses, as well as proximity to water sources.

Crossing this section was especially difficult, but moving the route to a distanced place, protected by nature and unfamiliar to the Romans, provided the Nabataeans with the security they needed. Since passage options were limited, they selected one defined and well-established course, something that was not needed throughout the area extending from the south of Arabia to the Arava. Difficult crossing points were treated and paved, especially along the ascents to the mountain ridges.

The need for security made the Nabataeans build towers and fortresses, which regularly housed army units, along the way. Water facilities were constructed nearby, a primal necessity in this desert region. Humble worship places, typical of desert communities, including the Nabataeans, were set along the route, as well as near the towers and the fortresses. This feature is unique to the stretch of the route west of the Arava, and cannot be found anywhere else along the route carrying the caravans from Oman and Yemen.

The most outstanding example of relinquishing topographical convenience in favour of security is the fact that the route passed inside the width of Makhtesh Ramon and climbed on over its tall cliff in order to reach the hills of Avdat.

The Second Section:

Climbing over the top of the Makhtesh Ramon cliff brought the route to the second, northern section through which it crossed the Negev.

This section is totally different from the first section. It is dry, but not as barren as the first, and its topography is much more convenient.
The water divide between the Arava basin, the Dead Sea and the Mediterranean basin lies in the south of this region. Only a few rivers flow towards the Arava split and the Dead Sea. These rivers start their way north of the Ramon cliff, and in their upper part they are still moderate. The course of the route could have easily bypassed the canyon areas. All the other rivers flow to the Mediterranean and therefore the differences in height, from their beginning to their end, are not very big, and they do not create canyon riverbeds.

Most of the region is flat, descending in a moderate slope towards the sea. The wide open spaces characterize the whole area. Near the cliff the region rises to a height of about 1000 meters above sea level and, as a result, the quantity of rainfall is larger, attaining an average of 80-100 mm. a year. This climate allows the growth of varied vegetation all over the area and not just in the gorges. These conditions do not change much with the descent in height because the lower the height the closer is the region to the sea and the green area. The vegetation and climate conditions provide pastor suitable for pastoral communities, and in the past the area was inhabited by large concentrations of Nabataean population.

Since nature did not offer any hiding places and did not set any obstacles for movement in the area, it was not suitable for a strategy of obscuring the course of the route, as was done in the southern section. However, this strategy was not necessary. The ecological conditions which brought the Nabataean population to the region provided another solution – the caravans traveled in a friendly environment and the high concentration of the population was enough to deter the Romans from attacking the caravans.

The need for a permanent population presence, together with the immense changes in the economy and the social structure of the Nabataeans, resulted in a cessation of nomadism and the establishment of permanent camps, housing many people all over the region. Seven of these camps became permanent settlements with public buildings made of stone or hewn into the rock. These structures included temples and

ritual constructs, burial facilities, water wells, and industrial and military facilities. Most of the population still lived in tents but had stopped wandering and was enjoying the high economic standard.

Remnants left in these settlements include public buildings and structures hewn into the rock, as well as tent areas where ceramics, stone fences, workshops and hearths were found.

These settlements continued to develop from the 2nd century onwards. Houses, army camps, and temples were built, and, later, churches. These settlements lived on for a thousand years – from the third century B.C until the seventh century A.C.

This is a unique phenomenon, rarely found in the deserts of the world. It is apparent only in the Negev part of the Incense Route, making it unique.

In 106 A.C. the Romans occupied Petra and the Nabataean areas in Jordan and in the Negev. With the change of government, the Nabataeans lost their independence. The population in the occupied territories remained Nabataean and their descendents continued to live in the region until the 8th century, perhaps longer. Those who joined them were mainly officials.

The frankincense trade remained in the hands of the Nabataeans who continued to use the route for a while longer. Later, the trade was transferred to other routes, more profitable for the Romans.

Nevertheless, the region was not abandoned. On the contrary, the settlements flourished and grew; stone structures replaced the tents. The population concentration in the Negev served as a rear guard for the border of the new empire, which ran along the historic highway, from Philadelphia (Amman) to Ayala (Akkaba). The Romans paved parts of the Incense Route, and set milestones, marked in Greek, along the way. During the Byzantine period the Negev settlements continued to serve as rear guards for the Empire's border. Following the growth of population in the whole of Eretz Israel they too continued to grow. The empire, which was by then Christian, invested money and effort in the Negev settlements, building churches and monasteries, as well as roads to serve pilgrims, monks seeking solitude in the desert, and mainly travelers moving between the Holy Land, Sinai and Mount Sinai.

The Arab occupation in the 8th century changed the geo-political conditions: the region no longer hosted a border that needed the support of an established rear guard. The Arabs occupied the whole area and had no political or military interest in supporting the Negev population. Christian pilgrims stopped coming and the income sources went dry. The settlements were gradually abandoned, and, together with them, the route. Within several decades they had vanished from the region and pastoral nomads, once again, populated the Negev.

2c. Authenticity/Integrity:

The parts of the Incense Route that are proposed for inclusion in the World Heritage list maintain the highest level of authenticity. Since they are located in the desert, decay is relatively slight. The region was not populated from the 7th century until the 20th century, and, even today, the route passes through unpopulated areas. As a result, man-made damage was limited. The same is true for the paved parts of the route, the milestones set along it, and the ascents.

Authenticity is therefore high in all elements of the road, structures and installations. Among the towns, Shivta is considered one of the best preserved ruined cities in the world.

All conservation works carried out on the various structures along the route and in the settlements, especially in Avdat and in Mamshit, preserve the authenticity and integrity of the sites.

2d. Criteria under which inscription is proposed (and justification for inscription under these criteria)

The Negev section of the "Frankincense and Spice Road" is proposed for nomination under criteria iii and v.

Criterion iii: Bear a unique, or at least exceptional, testimony to a cultural tradition or to a civilization which is living, or which has disappeared.

The main cultural tradition to which this nomination bears a unique testimony is the ancient use of frankincense and its immense importance to the Hellenistic-Roman world. The effects of this tradition in this area are related to the trade in these precious goods, the need to carry them by huge camel caravans over long distances, and the immense wealth the trade brought to the region. The tangible evidence is the road itself (which does not exist in any other parts of the caravan's route); fortresses built to protect the caravans when getting close to the borders of big empires; worship and water installations used mainly by the soldiers manning those fortresses; and seven big tent camps which, following the economic prosperity, became large and prosperous towns.

Criterion v: Be an outstanding example of traditional human settlements or land use, which is representative of a culture (or cultures), or human interaction with environment, especially when it has become vulnerable under the impact of irreversible change.

Four very special and outstanding elements of this nomination meet the definitions under this criterion:

- The ancient trade route and its remains (road, mile stones, ascents, caravanserais).
- The fortresses built to protect the road, with their water installations and worship sites.

- The cluster of towns that were built in a relatively hostile environment and, in spite of it, flourished for several centuries.
- The sophisticated agricultural system, which made use of every rare drop of rain and every possible available and fertile strip of land.

All these are examples of outstanding land uses and ingenious ways of adapting to desert environment, not as a nomadic society but rather as a prosperous society residing in towns.

2e. Justification of the nomination as Cultural Landscape

While natural elements remained intact, the societies living in the desert, then as well as nowadays, learned how to survive and even live well, making the best out of what the nature could provide. While doing so, in the most sustainable way, without the destruction of their natural environment and with full understanding of its values and powers, they left traces of ingenious ways of "living in and with nature". These traces constitute an important part of the nomination and for their special characteristic should undoubtedly come under the definition of "cultural landscapes".

The state party thinks that it would be of importance and of special interest to raise here the issue of trails in the desert which do not leave traces. It would be important for this nomination as well as for future nominations of other segments of this route, by other state parties, or other desert routes. This nomination includes paved and well marked parts of the route, including mile stones (points 7 and 9 under chapter 3 of the nomination file). These well defined and marked segments are in flat and open areas, where without some kind of signage one could get easily lost. Other segments of the incense route are passing through dry desert valleys (wadis), which were chosen for their natural properties, providing for easier accessibility and ways of collecting and hiding water. These sections did not need any artificial features to mark the route or to direct the caravans, the strong topographic features make the route. There is no doubt also that after the crossing of thousands of loaded camels, the route was visible and covered with traces. But, whoever witnessed a desert river flood, (or sand storms in other kind of deserts) will not be surprised to find out that all these traces were washed away and nature is back to "origin". This is an annual cycle, since the floods happen almost every winter. The only traces left were the man-made ones, such as fortresses, caravanserais, water cisterns etc., normally at a one day caravan's distance from each other. All these man-made elements are included in the nomination, but not less important are the non existent road, the one used for hundreds of years with no need to pave it or for any signs to mark it. This is done by nature and nature alone is the reason why the route was there. It is the main reason for which this section of the nomination should be considered as one of the best examples and a model for a "cultural landscape".

3. DESCRIPTION

3a. Description of Property

3b. History and Development

3c. Form and date of most recent records of property

3d. Present State of Conservation

3e. Policies and programs related to the presentation and promotion of the property.

A. Core Area

1. **Moa Fortress and Caravanserai**
2. **Kasra Fort**
3. **Nekarot Fortress**
4. **Ein Saharonim – Ramon Gate Caravanserai**
5. **Makhmal Ascent and Fortress**
6. **Graffon Fortress**
7. **Milestones along the Route**
8. **Different Elements along the Route**
9. **Road Sections along the Incense Route**

B. Individual Sites

10. **Avdat**
11. **Haluza**
12. **Mamshit-Kurnub**
13. **Shivta**

C. General

14. **Agriculture**
15. **General Description of Geology and Landscape**

1. Moa Fortress and Caravanserai

Location:
In the centre of the Arava Valley, north of Omer river.
Coordinates: 1624/9947 Israel Grid
35 9’ 39”E 30 32’ 28” N

Description:

The Caravanserai:
Size: 40x40 meters.
A square complex.
Entrance: through a narrow passage flanked in the north-western corner of the complex.
The north side and the south side included 5 rooms each.
The west side included several rooms, containing the bath facilities.

The Fortress:
Size: 17x17 meters.
A square building, with a central courtyard surrounded by 11 rooms.
Entrance: in the north-western corner.
An olive press and other agricultural plants were found in the southern room and in the courtyard.
A stone staircase is located in the north-western corner.

The Water Pool:
Size: 11x9 meters.
Located north of the fortress. The pool, built of limestone, is sunk into the ground.
Situated close to the water source, the pool is filled by the underground spring.
A water canal connects the pool with the bath complex of the caravanserai.

Technology:

The Caravanserai:
The complex was built with dressed limestone, medium to soft in hardness.
The walls are composed of outer and inner limestone shells, with an earth and rubble core.
The roof was supported by stone arches in each room, and covered with stone slabs extending from one arch to another.
The walls were lime plastered.

The Fortress:
The complex was built with rough conglomerate limestone, set in irregular courses of different heights. This stone appears in slab form, quarried from the hill on which the fortress stood.
The walls were composed of inner and outer slabs, a small stone shell, and a minimal earth core. They were plastered with mud.
The roof was made of wood logs and earth-lime coating.

State of Conservation:

The Caravanserai:
The walls have survived up to a height of 1.00-1.25 meters.
The western wall, with the bath complex and softer stone, exhibits signs of severe deterioration.
The complex is mostly unexcavated, which has ensured its stable conservation state.
Small remnants of lime plaster have survived on the exposed walls.

The Fortress:
The complex underwent a complete conservation intervention in 1995.
The walls have survived up to a height of 3 meters.
Remnants of lime and mud plaster are still apparent.

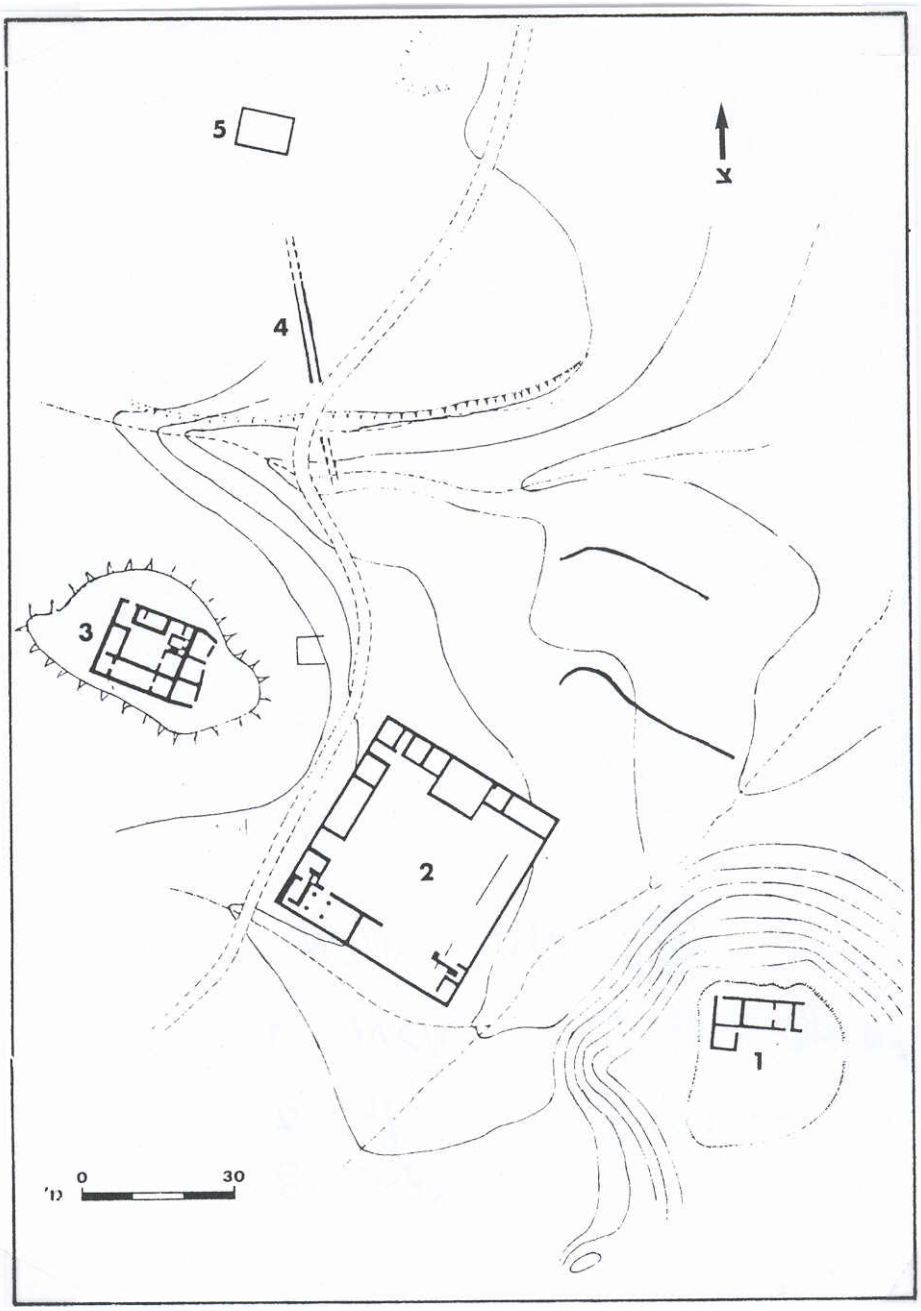
Conservation Management Plan:
The site of Moa is located in a designated nature reserve, and is legally protected.
The Nature and Park Authority's local ranger weekly inspects the site for vandalism and other damages.
The Authority's site conservators inspect the site before and after the rainy season.
Reports of damage and intervention are regularly field.





4

Moa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...of occupation were identified (strata 3A and 3B).

MO'A (KHIRBET MOYAT 'AWAD). A site located near Naḥal 'Omer in the central Arabah (map reference 1624.9947) was identified in 1934 as the remains of a Roman fort by F. Frank, who drew a plan of the central structure (44 by 41 m). Only two or three courses of stones survive. West of this structure Frank noticed the remains of an older fort, and to the east yet another small structure. A. Alt, relying on Frank's discoveries, identified the site with Asuada, a fort mention in the *Notitia Dignitatum* (XXXIV, 32). Glueck collected Nabatean sherds on the surface. Later, G. E. Kirk stated that the site dated, at the latest, to the second century CE. F. M. Abel and



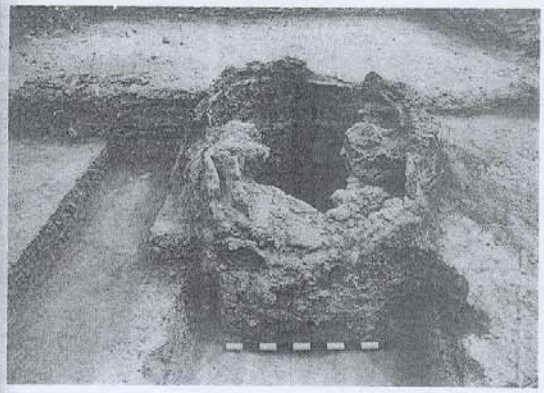
Mo'a: general view of the fortress in area B.





Mo'a: oil press in the fortress in area B.

Mo'a: brick kiln.



M. Avi-Yonah were inclined to identify Khirbet Moyat 'Awad with Mo'a, which appears on the Medeba map; not all scholars agree. The site has been surveyed by A. Negev, B. Rothenberg, M. Gichon, Z. Ilan, and others. In 1980, a survey was conducted by a team headed by D. Nahlieli, as part of the Negev Emergency Survey. R. Cohen excavated the site from 1981 to 1984, on behalf of the Israel Department of Antiquities and Museums. The excavations, conducted in six areas (A–F), exposed the site's six main structures.

Area A. In area A, the main structure, a "khan," was cleared. It was square, each side being approximately 40 m long. Its ashlar-built walls were preserved to a height of about 1.25 m. The entrance, at the northwestern corner, was a mere narrow passageway (width, c. 1.7 m) between two identical rooms (towers?, 4.5 by 4 m). Four additional rooms were found along the northern side of the building, with pillars to support the arches on which the ceiling had rested. Along the southern side (length, 41 m) five rooms were cleared. Their walls were covered with painted plaster, a fragment of which (0.8 by 0.4 m) survives; it features a striped pattern in black, yellow, and red. Lying on the floor of the room in which the plaster fragment was preserved were two wooden beams (diameter, c. 15 cm); one was 4 m long. On the west, a large room (6 by 5 m) held four stone column bases. A stone bench was built along its eastern wall. This was probably the apodyterium of a bathhouse, whose other rooms were found along the building's western side. At least two building stages were identified in these rooms: from the end of the first century and the beginning of the second century.

Area B. In area B, to the west of the khan, a square fortress (17 by 17 m) was cleared. It contained eleven rooms around an unroofed courtyard (8 by 7 m) containing numerous cooking installations. The gate (4.5 by 3 m) was at its northwestern corner. Its plastered limestone walls were preserved to a height of some 3 m. Some of the stone lintels over the doors of the rooms were found in situ. Large numbers of wooden beams were found in the rooms that probably had supported a clay ceiling. One of the rooms contained a crushing stone that may have been used as an olive press; a stone vat was found in the courtyard. Other installations in the same room were probably crushing and pressing devices. Near the northeastern corner of the fortress were the remains of a staircase (2.5 by 2.5 m).

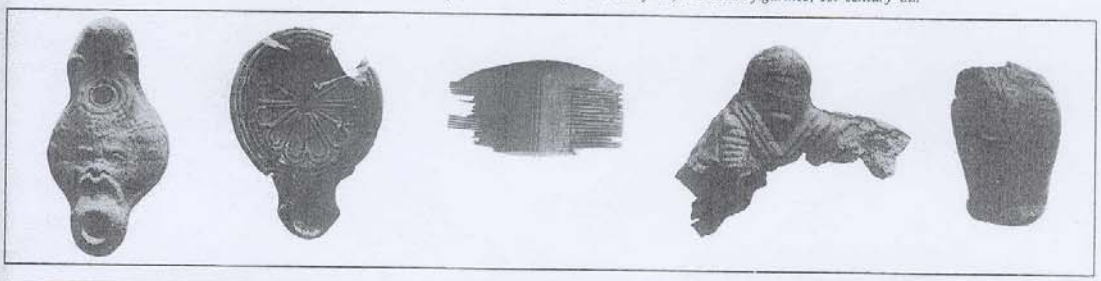
Three building stages were identified in most of the rooms. The pottery assigned to the first stage included lamps and juglets from the third to second centuries BCE and coins of Ptolemy III (246–221 BCE). Ceramic finds from the second stage included painted Nabatean bowls, lamps, juglets, jugs, cooking pots, and storage jars typical of the end of the first century CE, as well as coins of Aretas II (c. 100 BCE), Aretas IV (9 BCE–40 CE), and Rabbel II (70–106). The third stage was represented by a large quantity of pottery, including bowls, lamps, and flasks from the second to third centuries CE and coins of the emperors Trajan (98–117), Commodus (180–192) and Caracalla (211–217). Wicker baskets, mats, fabrics, and wooden utensils were found in all three stages. Also in evidence were large quantities of olive and date pits, as well as the shells of almonds and other nuts. Surveys were also conducted of agricultural terraces over a wide area.

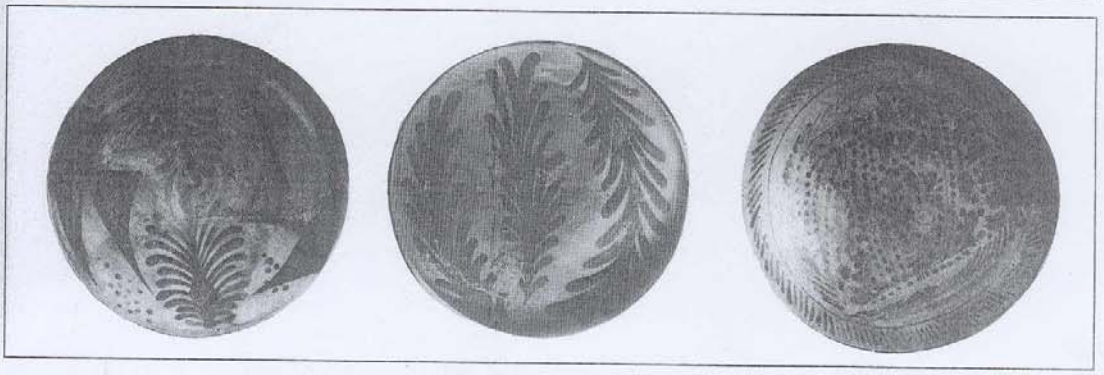
Area E. In area E, west of the khan, a building was discovered near two caves on the slope that had been used as dwellings or stores. The southern part of the building had been destroyed in a violent conflagration. Along its northern side (length, 20 m) were the foundations of four rooms. Only one level of occupation could be identified, featuring sherds and coins of the first century CE. A notable find was a Nabatean document written on papyrus, of which a few lines survive.

Area F. In area F, north of the khan, the excavators partially cleared another large structure. A pool (11 by 9 m) was discovered at the northwestern corner of the site, as was an aqueduct that channeled water from the pool to the bathhouse in the khan.

The excavators concluded that Mo'a was an important road station on the Petra–Gaza road, first built in the third to second centuries BCE. It probably reached its zenith in the reign of the Nabatean king Aretas IV. It continued in use after the Roman annexation of the Nabatean kingdom in 106 CE, until the end of the third century.

*Mo'a: **(left to right)** Nabatean oil lamps; wooden comb, 2nd century CE; Nabatean figurines, 1st century CE.*





Mo'a: painted Nabatean bowls.

2. Kasra Fortress

Location:
On the edge of a flat mountaintop, above the Kasra Wadi.
Coordinates: 1585/9966 Israel Grid
35^0 5’ 23”E 30^0 33’ 33”N

Description:
Size: 5.0x5.5 meters.
An almost square watchtower.
3 rooms, measuring 14x5.5 meters, are located south of the tower.
The central room served as an open courtyard for the tower and the other two rooms.
A small worship complex is located south east of the fortress.
A water hole complex, which served the inhabitants of the site, is located close to the wadi, north of the site.

Technology:
The site was built in two stages: first the tower and then the rooms.
The complex was constructed with roughly cut fossilized limestone of medium hardness.
The roof was, most likely, made of wood logs.
The walls were composed of outer and inner stone shells, with an earth and rubble core.
Regularly laid courses, with heavier stones, can be found in the corners of the complex.

State of Conservation:
The sight underwent a major conservation intervention in 1996 and is in a good state of conservation.
The walls have survived up to a height of 3 meters.

Conservation Plan:
The site is within a designated Nature Reserve and is patrolled for damage/vandalism on a weekly basis by the Authority’s local ranger.
The Authority’s site conservator regularly inspects the site before and after the rainy season.



5



6

Kasra Fortress

Ḥorvat Qaẓra, looking toward the fortress.



ḤORVAT QAẒRA. A site situated on the summit of a hill above Naḥal Qaẓra (map reference 1585.9966) was first surveyed in 1934 by F. Frank, who named it Qaṣr el-'Abd, drew plans of it, and dated it to the Roman period. Later, the site was surveyed by N. Glueck, M. Gichon, B. Rothenberg, A. Negev, and others, who considered it a road station on the ancient Nabatean Petra–Oboda–Gaza highway. The site was subsequently surveyed by a team from the Negev Emergency Survey directed by D. Nahlieli. A salvage excavation was conducted in 1981 by R. Cohen, on behalf of the Israel Department of Antiquities and Museums. The excavation showed that the first structure on the site was an almost square tower (5.5 by 5 m), built of ashlars. Its walls (thickness, 0.5 m) were preserved to a height of some 3 m. Its entrance was on the south. On the floor a few sherds and a coin of the emperor Caracalla (212–217) were found. In a second stage, three rooms (total area, c. 14 by 5.5 m) were built south of the tower; the central room (5.5 by 4.5 m) was used as an open



Ḥorvat Qaẓra: structure from the Roman period.

3. Nekarot Fortress

Location:
Atop a low hill on the north bank of the Nekarot Wadi.
Coordinates: 1500/9985 Israel Grid
35^0 0' 3"E 30^0 34' 34"N

Description:

Tower and Yard:
Size: 8x7.5 meters.
An almost square two-story tower.
The tower has 3 rooms; the entrance is situated at the east-southern corner.
An open yard, measuring 8.5.x5 meters, is adjoined from the east.

Ruined Complex:
Size: 12x17 meters.
A rectangular complex, located east of the tower.
6 rooms, measuring 6.2x5 meters, surround the central courtyard.

Small Watchtower:
This one-room complex, measuring 3x4 meters, is situated on a hill, east of the main complex.

Hidden Water Pool Complex:
Situated on the south bank of the Nekarot Wadi, atop a small hill, in a little, hidden riverbed.
A roof, measuring 7x7 meters, covers the complex.

Technology:

The Main Tower:
The building was constructed with roughly dressed, medium hard limestone.
The walls were made of inner and outer stone shells with an earth and rubble core.
The roof was, most likely, built with wood logs.
The floor was made of compressed clay-earth.

The Water Pool Complex:
The building was constructed with cut limestone of medium hardness.
The inner and outer shells of the wall were laid with limestone mortar. The core was made of earth and rubble.
The inner walls were plastered, with about 3 layers of lime and ceramic mortar, 4-5 cm. thick.
The roof was laid on three parallel limestone-plastered arches, with stone slabs covering the roof openings.
The building was specifically situated to receive the rushing floodwaters, with a sink pool and an entry canal. The remaining overflow waters were wisely diverted around the complex so as not to cause damage.

State of Conservation:
The main tower and water complex underwent a full conservation treatment in 1995.
The complex east of the tower has survived up to a height of one-two courses.
Almost all of the tower walls have survived up to a height of 3 meters.
The water pool building has remained almost intact with roof slabs, arches, walls, windows, plaster, and canals.

Conservation Plan:
The site is located in a designated Nature Reserve and gets the same treatment as the Moa and Kasra sites.



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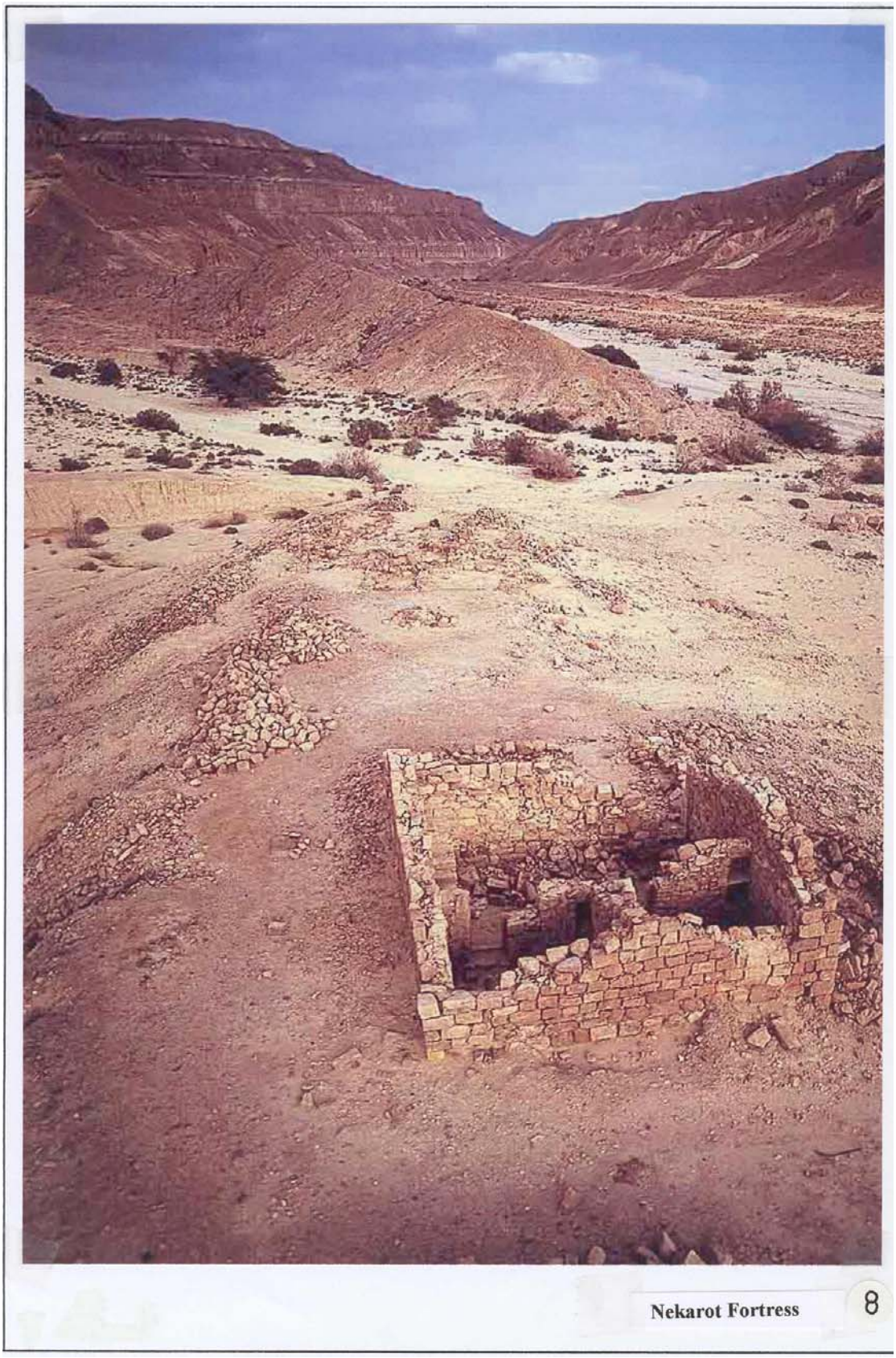
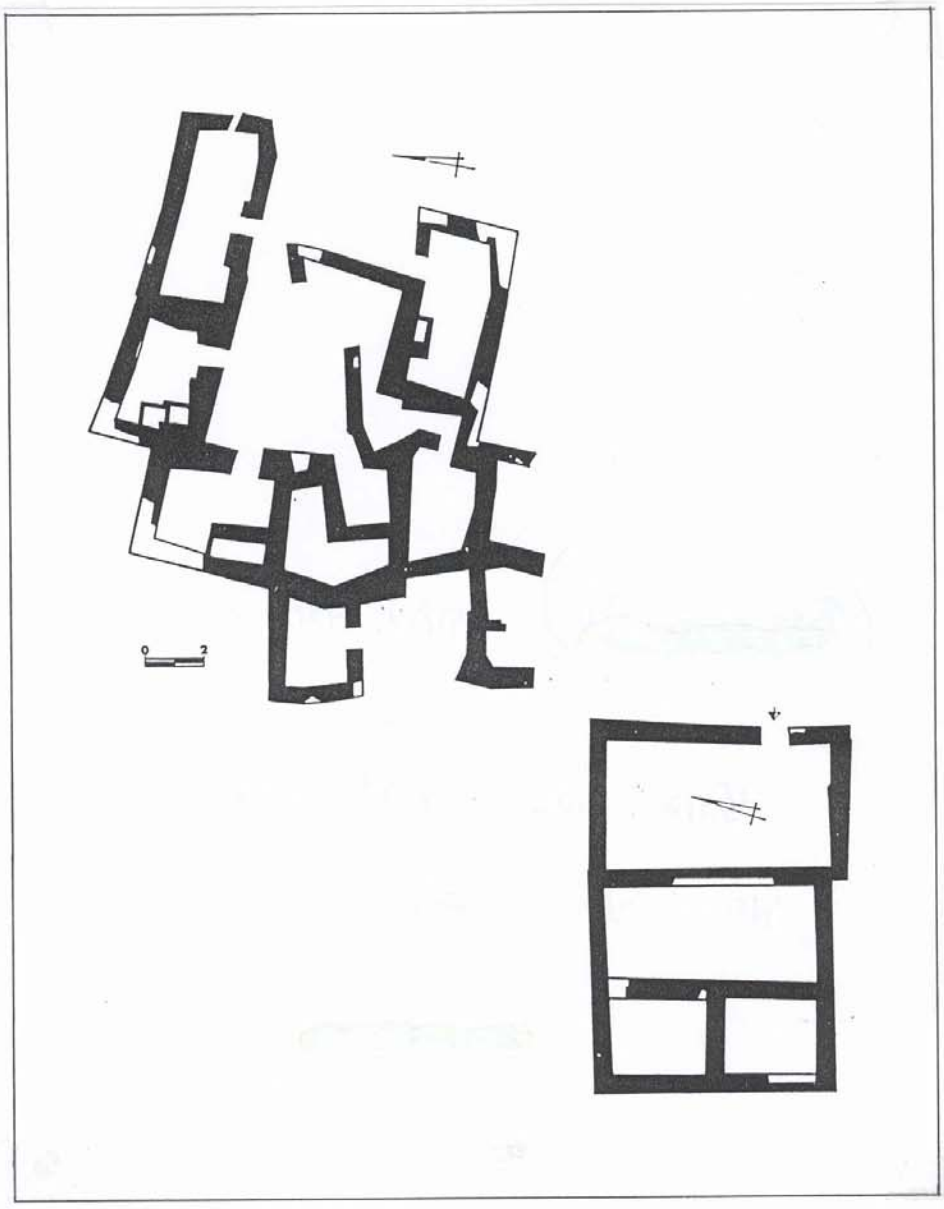
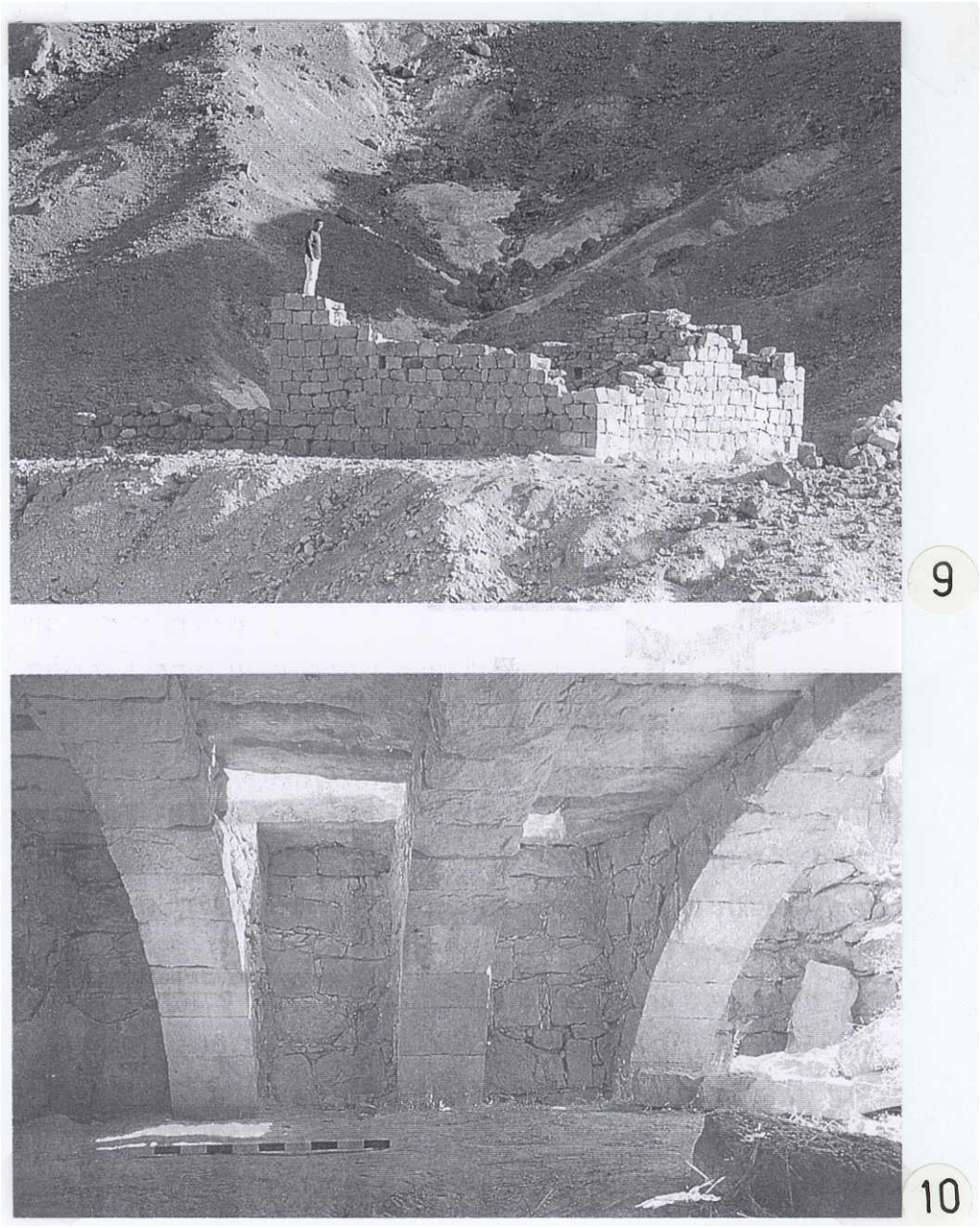
Nekarot Fortress



Nekarot Fortress 8



Nekarot Fortress



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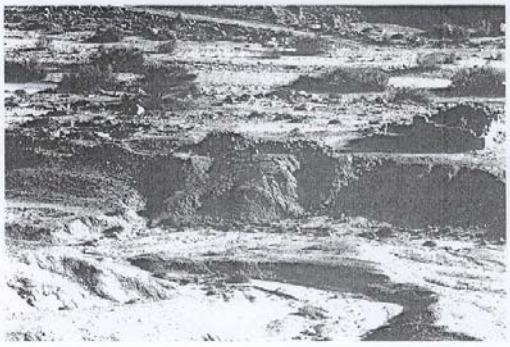
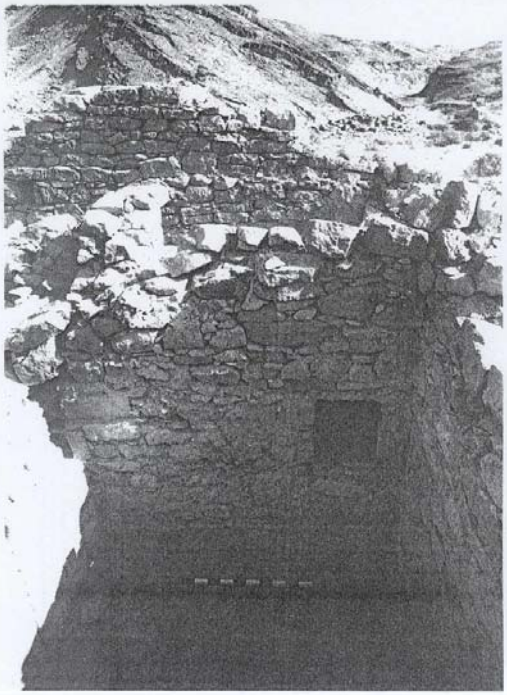
Mezad Neqarot: general view.

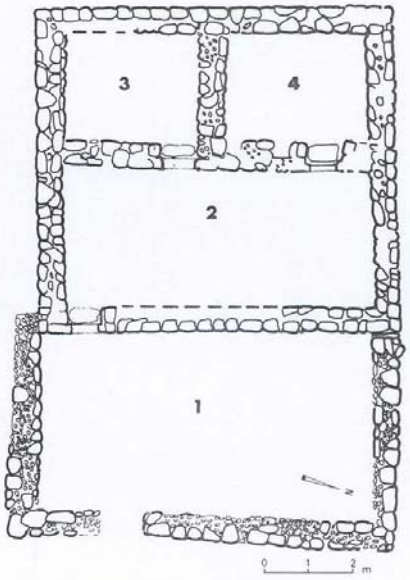


Mezad Neqarot: detail of structure A, Roman period.



MEẒAD NEQAROT. A site situated on a low hill near the north bank of Naḥal Neqarot (map reference 1500.9985) was first surveyed in 1932 by F. Frank, who called it Qaṣr Wadi es-Siq and drew a plan of it; he dated the remains to the Roman period. Later the site was surveyed by N. Glueck, M. Gichon, B. Rothenberg, A. Negev, and others, who considered it a road station along the Nabatean Petra–Oboda–Gaza highway. The site was also surveyed by a team under D. Nahlieli and Y. Israel for the Negev Emergency Survey. In 1981–1982, R. Cohen directed salvage excavations here, of four structures, on behalf of the Israel Department of Antiquities and Museums. Two of the structures were on a low hill near the northern bank of Naḥal Neqarot: the first (A) on the western part of the hill and the second (B) some 20 m to the east. On the summit of a hill east of the structures stood a small watchtower (structure C). The fourth structure (D) was a stone-built pool on the slope of the ridge south of the bank of Naḥal Neqarot.

Structure A. Structure A was an almost square tower (8 by 7.5 m) with an adjoining unroofed courtyard to the east. The tower, which originally had two stories, was preserved to a height of some 3 m. Its walls were 0.6 m thick and it consisted of three rooms: two small rooms on the west (each 3 by 2.5 m) and a long hall to their east (7 by 3 m). The entrance to the tower (width, 0.8 m) was at the southeastern corner of the hall. Each room opened onto the hall through a separate doorway. Steps climbing up the northern wall of the hall led to the upper story. The height of the ceiling was approximately 2.20 m. Three cupboards were found installed in the walls of the northwestern room and one in the southern room. Beneath the debris in the rooms were two beaten-earth floors, one about 15 cm above the earlier one. The ceramic finds included oil lamps, bowls, and cooking pots typical of the second and third centuries. The material dumped near the structure contained coins of Emperor Elagabalus (218–222).



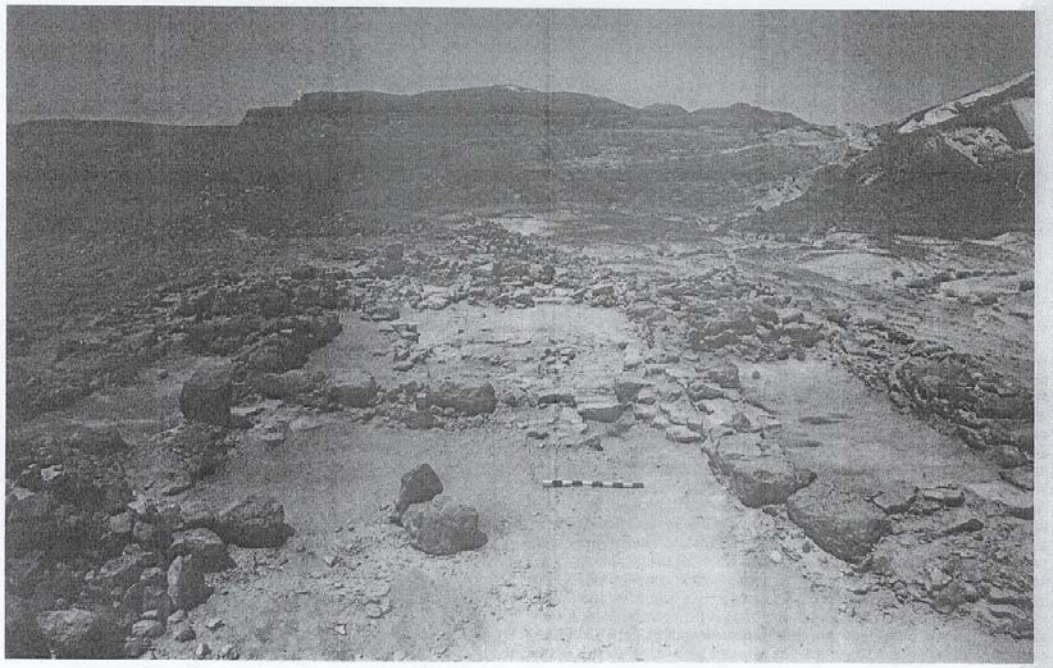
Mezad Neqarot: plan of structure A, Roman period.

Structure B. Structure B was probably destroyed by the builders of the tower; its building stones were plundered to its foundations. The original plan was probably rectangular (c. 17 by 12 m) and consisted of six rooms around a central courtyard (6.2 by 5 m). At a later stage, two rooms were added on the southern side and two or three on the west. The structure most probably consisted of three wings. The western wing contained three rooms (total area, c. 12 by 4 m), two of which measured 3.5 by 3.5 m each. These rooms were entered directly from the courtyard; access to the third (3.7 by 2 m) was indirect—through a narrow corridor (width, 0.6–0.75 m), at the end of which two steps led down into the room. The northern wing (11 by 3.5 m), to the east of the western wing, contained two rooms. The western room (3.5 by 2.1 m) was entered directly from the courtyard; the eastern, elongated room (5.5 by



Mezad Neqarot: staircase to the second story of structure A, Roman period.

Meẓad Neqarot: general view of structure B, Nabatean period.

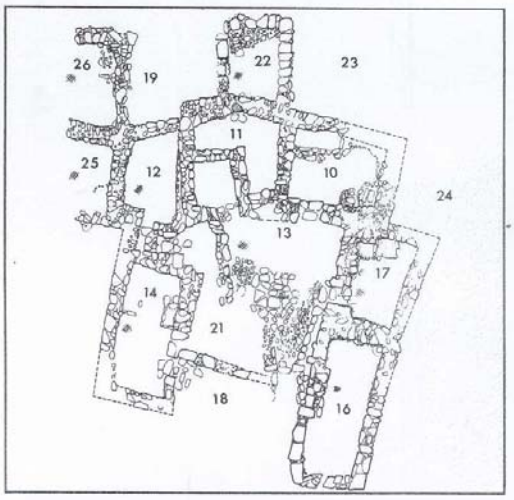


2.1 m) was accessible only from the entrance square of the entire structure, east of the courtyard. The southern wing contained a long room (6.5 by 3.5 m), also entered from the entrance square. The rooms contained installations of various sizes. The entrance (width, c. 0.6 m) to structure B was at the northeastern corner of the courtyard; it contained a stone bench along its northern wall. The courtyard was paved with large, flat stones in the center and small paving stones along the sides. The pottery found on the floors included painted Nabatean bowls, juglets, oil lamps, and cooking pots typical of the first century. Also found were Nabatean coins of Aretas IV (9 BCE–40 CE) and Malichus II (40–70 CE).

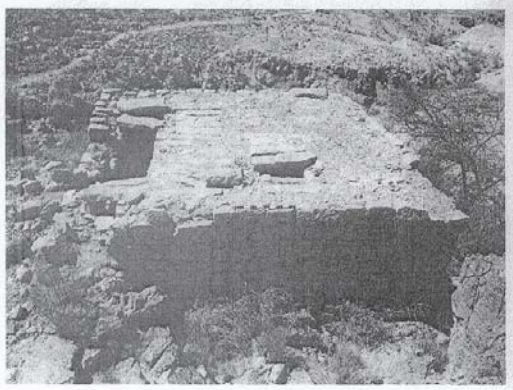
The Small Watchtower (Structure C). The watchtower (c. 4 by 3 m) was a room whose walls (thickness, c. 0.6 m) were preserved to a height of about one meter. Its entrance was at the southwestern corner.

The Pool (Structure D). The pool, which was built of ashlars, was square (c. 7 by 7 m). It was preserved almost entirely to its original height, including the ceiling: on the north the height of the walls was approximately 3.5 m; elsewhere it was 2.5 m. The ceiling was built of flat stone slabs (length, c. 1.4 m; width, 0.4 m; and thickness, 0.3 m), resting on three arches approximately one meter apart. The inner walls of the pool were coated with several layers of plaster (or mortar).

MEẒAD SAYIF. A fort was located on the Ma'ale 'Aqrabim route, on the watershed, between Naḥal Bitron on the east and Naḥal Sayif on the north and west (map reference 1662.0297). The entrance to this square (7.1 by 7.1 m) fort was at the center of its southern wall; the passageway was 0.7 m wide. Along the inside of its eastern wall a staircase led to the upper story. The wooden beams and pressed material found in the debris indicate that the ceiling rested on a central arch. The finds on the floor included pottery typical of the third and fourth centuries CE and twenty coins from the reign of



Meẓad Neqarot: plan of structure B, Nabatean period.



Meẓad Neqarot: the pool.

4. Ein Saharonim – Ramon Gate Caravanserai

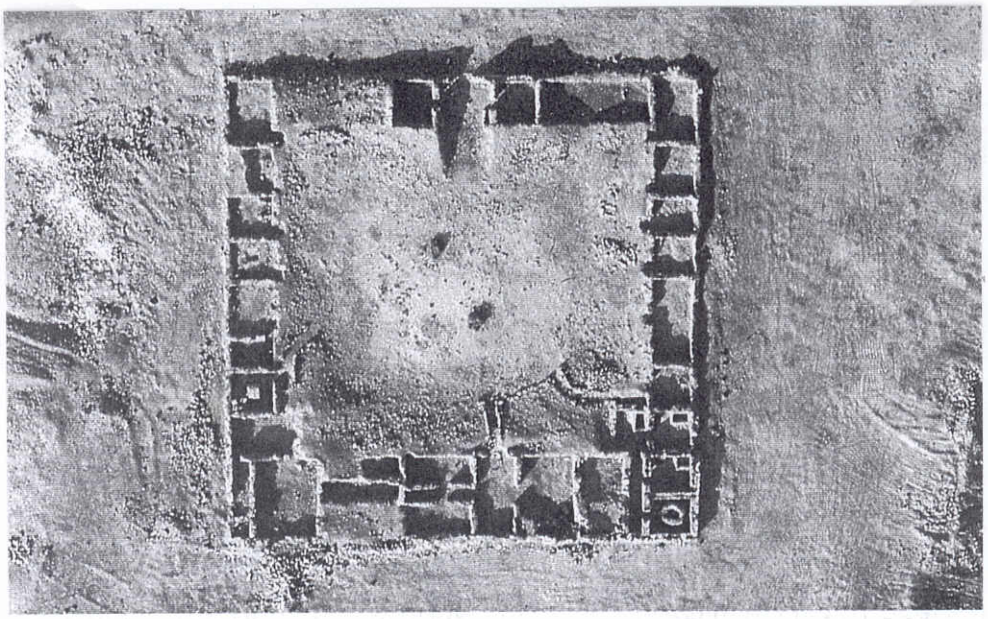
Location:
On a hill above the Saharonim Spring in the Ramon Makhtesh.
Coordinates: 1439/0016 Israel Grid
34^0 56’ 14”E 30^0 36’ 14”N

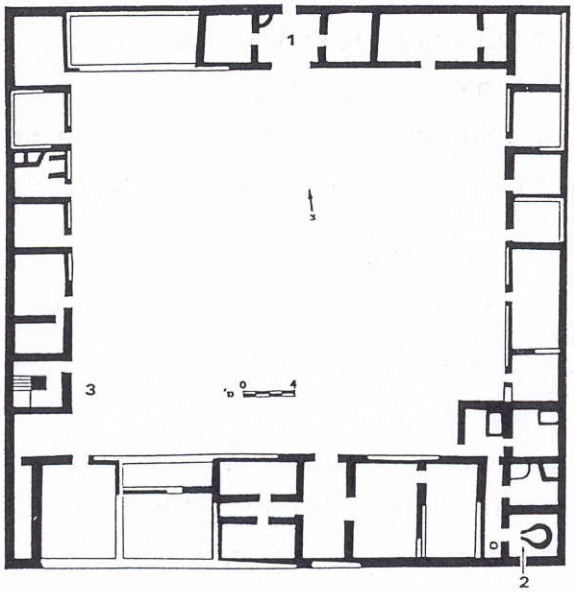
Description:
Size: 42x42 meters.
A square complex, with a central courtyard surrounded by rooms.
The entrance, flanked by a guardroom on each side, was in the middle of the north side.
The western and eastern flanks served as workshops for craftsmen.
The southern flank served as the living quarters, with built plaster pools and a brick cooking-stove.

Technology:
The complex was built mainly with soft clay stones, dressed and locally quarried.
Arches supported the roofs, which were made of stone slabs.
The walls were built with inner and outer shells, and an earth and rubble core in regular courses.
The walls were mud plastered, possibly with a lime plaster layer.
Lime mortar and fired clay bricks of local materials were used in the facilities quarter.

State of Conservation:
Due to their exposure to the climate, the building stones suffer from decay.
The decay is in the form of crumbling, slicing and degradation.
The facilities quarter exhibits a high state of conservation of plaster and fired brick, both in shape and in material.
The site underwent major conservation intervention in 1990 and in 1997.

Conservation Plan:
Due to its decaying exposed stone, the site is monitored more closely than other Incense and Spice Road sites.
The site is in the midst of the Ramon Makhtesh Nature Reserve and is regularly monitored, as are Moa and Kasra.
Conservation crews carry out yearly maintenance before and after the rainy season.





Ein Saharonim



11



12

Ein Saharonim



13

Ein Saharonim

MEẒAD SHA'AR RAMON. A site on a low hill near 'En Saharonim (map reference 1439.0016) was first surveyed in 1932 by F. Frank, who called it Qaṣr el-Maḥalle and dated it to the Roman period. A. Alt identified the site with the Roman-Byzantine Moahila, mentioned in the *Notitia Dignitatum* (XXXIV, 14). It was later surveyed by G. E. Kirk, N. Glueck, M. Gichon, B. Rothenberg, and others, who identified it as a road station on the Nabatean Petra–Oboda–Gaza highway. In 1982–1983, the square fort (c. 42 by 42 m) was excavated by R. Cohen, on behalf of the Israel Department of Antiquities and Museums.

The fort consisted of rooms arranged around a central courtyard (32 by 31 m). The walls (thickness, 0.6 m) were preserved to a height of 1.5 to 2 m. The main gate (2 by 1.8 m) was built at the center of the northern wall; it was flanked by communicating guardrooms (each 3.6 by 3 m), which were probably originally towers. Nine rooms (each c. 3.5 m wide) were cleared along the eastern wall; one room contained a plastered basin (1.7 by 1.2 m; c. 0.8 m deep). Another room contained a circular clay oven (diameter, c. 2 m) in its center. The floor of the oven was made of small stones. Inside it cooking-pot and other sherds were found, along with many camel bones. A narrow corridor (width, c. 1.5 m; length, 8 m) separated the rooms on the east from those along the southern wall. At the southern end of the corridor a small, circular installation, made of clay, held a complete glass bowl and numerous sherds.

The rooms along the southern wall were arranged in three wings. An inner courtyard (7.5 by 3.5 m) separated the two east wings from one another. The easternmost wing included two large rooms (7.5 by 3.6 m; 7.5 by 4.5 m). The second wing contained two long rooms (6 by 2.5 m), between which ran a narrow corridor (width, c. 1 m). The western wing contained three rooms and was probably accessible directly from the courtyard. At the end of the southern wall, running along the western wing, was a narrow corridor (width, c. 1.5 m), to the north of which was a staircase around a square, central pillar, consisting of six steps to the upper story. Along the western wall, north of the staircase, were six rooms.

Two building stages were identified in most of the rooms. To the first stage belonged an assemblage of pottery (painted Nabatean bowls, oil lamps, juglets, and cooking pots) typical of the first century, and coins of the Nabatean kings Aretas IV (9 BCE–40 CE) and Rabbel II (70–106). To the second stage belonged ceramic finds characteristic of the second to third centuries. Also found were coins of Antoninus Pius (138–161), Commodus (180–192), and Caracalla (211–217).

The plan of Meẓad Sha'ar Ramon is identical with that of the so-called khan at Mo'a. The finds indicate that the fort was built in the Nabatean period, probably at the end of the first century CE, as a road station on the ancient Petra–Oboda–Gaza highway. It continued in use without significant modifications after the annexation of the Nabatean kingdom to the Roman Empire in 106.

RUDOLF COHEN

5. Makhmal Ascent and Fortress

Location:
On the northern edge of the Ramon Makhtesh, above the Makhtesh ascent.
Coordinates: 1431/9111 Israel Grid
34^0 55' 43"E 30^0 41' 19"N

Description:

The Fort:
Size: 7x6.5 meters.
The fort is almost square.
Two stone-built square columns, located in the centre, divide the tower into two rooms.
The arched entrance is on the south side.
Remnants of a stone staircase can be seen in the south-western corner.

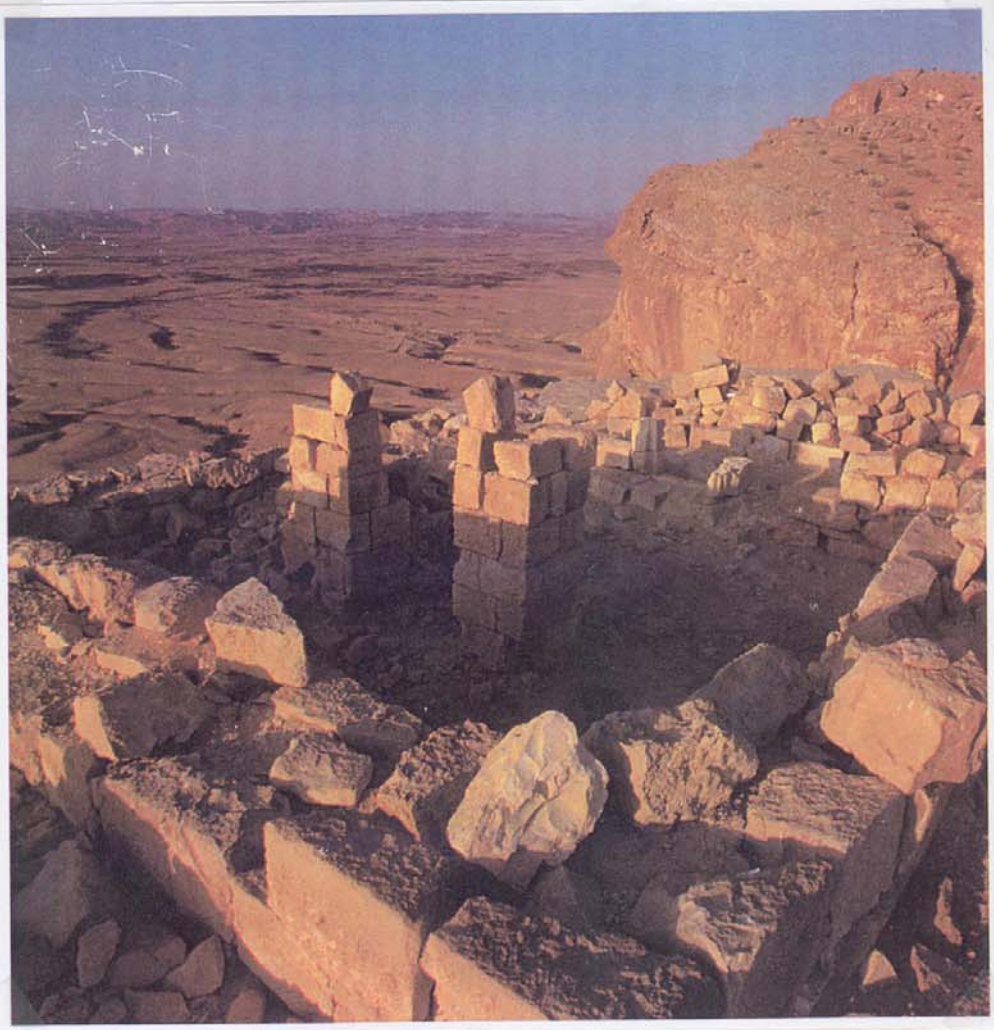
The Covered Water Pool:
Size: 8x4.75 meters.
A stone-built rectangular pool.
The rain-flood water canal leads to the pool from the north-east.
Pool capacity: 150 cubic meters.

Technology:
The fort and the pool were built from locally quarried, medium hard limestone.
The walls consist of inner and outer limestone shells and an earth and rubble core.
Stone arches supported the roofs, which were made of stretches of stone slabs.

State of Conservation:
The walls of the fort have survived up to a height of 1.5-2.0 meters.
The pool has barely survived.
Since its last excavation in 1982, the site, which is not completely excavated, has not been conserved.

Conservation Plan:
The site is located in the Ramon Makhtesh Nature Reserve, thus protected by law.
A major conservation treatment is currently being planned for the year 2002.
The site will be monitored and maintained, in the manner of Saharonim Fort.

The Ascent:
The bottom of the Makhtesh, and the fortress at the top of its northern cliff, are connected via a man-made ascent. This path, which is partly cut in the rock, partly built with retaining walls, uses the special geological, easy access. It is the best preserved ascent in the stretch crossing the Negev.



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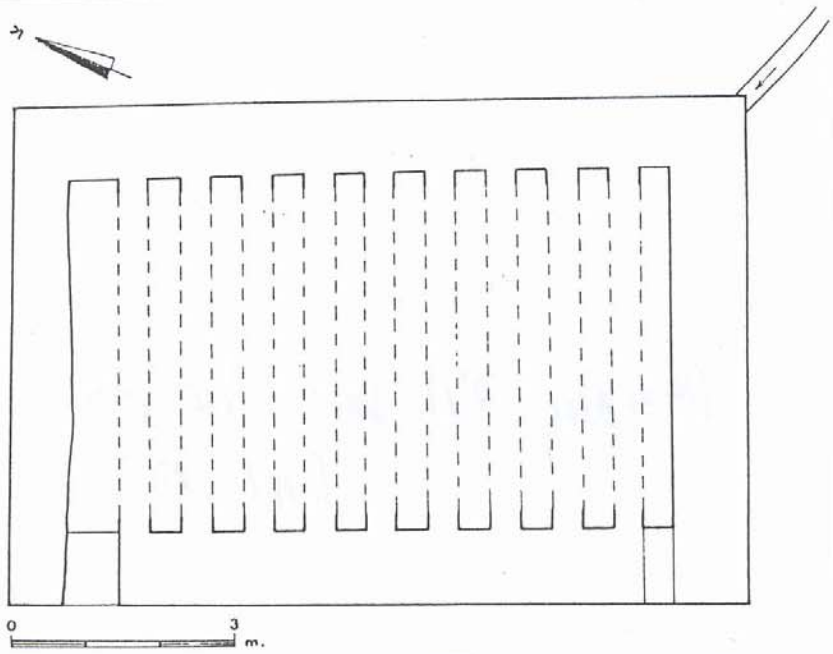
Makhmal Fortress



Makhmal Cistern



15

Makhmal Ascent

Mezad Ma'ale Mahmal: general view.



MEẒAD MA'ALE MAḤMAL. The site at the top of Ma'ale Maḥmal (map reference 1431.9111), on the edge of the northern cliff of Makhtesh Ramon, was first surveyed in 1937 by G. E. Kirk, who was also the first to examine Ma'ale Maḥmal. In 1960, it was surveyed by B. Rothenberg and M. Gichon. In 1965, a trial excavation was carried out here by Z. Meshel, Y. Tsafrir, and R. Cohen, in the course of a survey of the road from Sha'ar Ramon to 'Avdat (Oboda). The excavation was completed by Cohen in 1982. The almost square fort (7 by 6.5 m) was divided into two parallel halls (each c. 5.6 by 2.6 m); each was preserved to a height of some 1.8 m. A staircase in the southern part of the western hall led to the upper story. The one-meter-wide entrance to the fort was pierced in the center of the western wall. Parts of the arch that originally spanned the entrance were found in the debris. Two floors were identified, with a fill 0.3 m deep in between. On the earlier floor a few isolated sherds, probably dating to the first century CE, were found. The finds on the upper floor were typical of the third to fourth centuries CE: an oil lamp, a small bowl, a late Nabatean painted bowl, a flask, and two coins from the third century issued under the emperor Gallienus (260–268).



Mezad Ma'ale Mahmal.

6. Graffon Fortress

Location:
Atop a small hill, on the south bank of the Graffon Wadi, near the Graffon ascent.
Coordinates: 13885/01485 Israel Grid
34^0 54' 25"E 22^0 28' 46"N

Description:
Size: 6x6 meters.
A square fort, similar in construction to the Makhmal Fortress.
East of the fortress, close by, there is a building consisting of 5 rooms, which served as living quarters.
On top of the Graffon ascent stands a small lookout tower measuring 2x2 meters.

Technology:
The site is made of locally quarried dressed stone and constructed in the same technique as the Makhmal Fortress.
The walls were covered with rough lime plaster.

State of Conservation:
The walls have survived up to a height of 0.8-1.0 meter.
Since the last excavation/probe, no conservation treatment was done in the site.
The site is partly excavated.

7. Milestones along the Route:

Location:
5 groups, each consisting of two stones, were discovered in the Nafha Highlands, between the Graffon ascent and Avdat.
6 groups, each consisting of two stones, were discovered in the Ramon Makhtesh, between the Makhmal Fort and Saharonim Fort.

Description:
Each milestone was made of 2-3 sections.
All of them were cylindrical, some with a square base made as a separate unit.
All the sections, carved from the hard limestone found in the vicinity, were roughly smoothed. A softer limestone was used in the Ramon Makhtesh, along with a rough, gray hard stone.
The final cylindrical shape of the column sections was rough, sometimes asymmetric.
Two stones were used as road direction signs rather than as distance markers.

State of Conservation:
Most of the milestones are not in situ, though close to their original location.
The gray hard limestone in the Ramon Makhtesh tends to split along the stone veins, crack and disintegrate.
2000 years of exposure have caused an overall decay to most stones: weathering, crumbling, and cracking.



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Milestones

8. Different Elements along the Route

Location:
On route.

Rest and Worship Sites:
Archaeological remains, made of simple fieldstones, one course high, which are difficult to date, presumably served as worship and rest stops. They were probably used by travelers throughout the Classical, Byzantine and Islamic periods. Each culture arranged the worship-rest stops according to its own religion and needs.

Line-Temple:
Typically found, in varying versions, in the Ramon Makhtesh, sometimes with a stone circle in the centre.

Cell-Complex - Jacob's Ladder:
Two parallel lines of fieldstones, divided into cells, laid every 1-2 meters. Alongside each cell there is a small installation. Three systems were surveyed, one of which lies between the Nekarot and the Saharonim Fort.
Some systems have 1-2 cells, some are over 100 meters long.

Round Installations:
Diameter varies from 0.5 to 15 meters. Four systems were found, some of which are alongside the "cell-complex". Some have platforms for offerings.
Some are polygonal rather than round.

Upright Mark Stones:
A carefully chosen fieldstone, its base stuck in the ground with a slab in front for offerings.
Sites may have 1,2, or 3 upright mark stones. These stones represented gods and deities in Nabataean culture.
Stones are found along the route, near the Kasra Fort.

Small Stone Piles:
Small stone piles in a straight line, laid every two meters, about one meter high. These are found mainly near road intersections.

Large Stone Piles:
Large stone piles in dangerous places, mountain ascents, on the edge of the abyss…
Each traveler would add a stone to the pile to ensure his safe passage.
These piles are found along the route, on ascents and main wadi intersections.

Overall State of Conservation:
Since most of these elements are one course high and are usually found away from the beaten tourist track, they have survived quite well. Most are unrecognized by today's travelers, so they have not been touched since the abandonment of the route in ancient times.



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Tumuli



A small temple (worship site) on the road 19



20

Sulam Ya'akov (Jacob's Ladder)

9. Road Sections along the Incense Route

Location:
Topography and field survey divide the route into three main sections:
- Southeast section: Petra → Arava sites
- Central section: Arava → Makhtesh Ramon – Central Negev sites
- Northwest section: Central Negev → Gaza sites

Description:
The road sections can be easily identified by the following, still apparent, characteristics:
- Fieldstones were removed from the main track.
- The fieldstones were set along the sites (not along the whole route but on particular sections) to mark the width of the main track.
- There is a flow with the topography, rarely challenging or changing natural slopes and fields.
- Sections with narrow and sharp slopes were adjusted to the topography with minimum intervention. Small holes were filled with earth and stones, while the interfering bedrock was rarely cut.
- The width, varying from wide to very narrow, suggests that the road was suitable only for camel and mule travel and not for carriage travel.
- There are several "mile stones" concentrations along the route.

Technology:
Surviving sections of the road, especially in the Nafha Highlands, exhibit the following simple road construction technology:
- Survey was used to choose a topographically suitable route.
- Surface fieldstones were removed and used as side border stones.
- The road was measured and the milestones set.
- The bedrock was cut; retaining walls were built on sharply sloped ascents.
- Observation and guard posts secured the caravans traveling along the route.
- Caravanserais provided shelter; water was supplied from water cisterns.
- Unlike the Roman roads, the Nabataean desert roads are not bedded or paved.

Conservation State:
- Most of the original route has been surveyed and documented.
- The majority of the surviving road sections are closed to 4x4 vehicle traffic, to prevent any irreversible damage to the ancient camel routes.
- The remains of the original route are intact, mainly due to the careful survey and the choice of topography done by the Nabataeans, who managed to divert the floods and the free flow of sudden rain that characterize the region.
- Today, all the elements that comprise the Nabataean desert road can be easily observed.



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Typical landscape of the Negev, crossed by the road.



22

Road Sections

10. Avdat - Oboda

Location:
On the north-western edge of the Ramon-Nafkha highlands, 80 meters above the surrounding plains.

Description:
The size of the town: 300x400 meters.
The town includes the following main sites:
Late Roman tower-fort; burial caves; farmhouse; potter's workshop; military camp; acropolis; Nabataean temple; 2 churches; fort; Byzantine dwelling caves; bathhouse; and a main street in the late-Roman quarter.

State of Conservation:
The town is built from locally quarried, well dressed, medium to hard limestone.
Throughout the ages it had suffered from earthquakes.
Wall construction, and arch-supported roofs – are all similar to the fortress and have survived to a considerable height.
Massive excavations and reconstruction were carried out in the 1960's, 1970's and 1980's.

Conservation Plan:
Avdat is a designated National Park, with visitors' facilities and a management plan.
Since 1995, a closely monitored conservation plan has been implemented with a full-time site conservator, employed by the Authority, who heads the conservation work crews.
Conservation of walls, plasters and soft stone are the main tasks.



AVDAT (sometimes spelled Ovdat), also Oboda and Eboda in historic sources.
Founded in the fourth or beginning of third century B.C.E. as a Nabatean station on the main route between Petra and Gaza – part of the Incense Route.
During first century B.C.E. and first century C.E. it became also an important center for breeding sheep, goat, and camels and important agricultural center.A big Roman military camp was also build in this period.
Like all Nabatean cities and kingdom, was annexed to Roman Provincia Arabia in 106 CE.Second and third centuries were periods of prosperity for Avdat, with many monumental construction projects. Incorporated in the defense system of the Eastern Roman Empire, in the time of Diocletian. When Christianity becomes state religion, churches replace pagan temples.
Abandoned following the Arab conquest in 636 CE.
First visited by Western traveler in 1807 (Seetzen). First surveyed in 1870 by Palmer and Drake and later by several other expeditions conducted by Avi-Yona and Negev between 1958 and 1961. Between 1975 and 1977 and later in 1989 further excavations were conducted by A. Negev. The Roman camp was partly excavated and studied by T. Ginny in 1998.

OBODA

IDENTIFICATION

Oboda was named for a Nabatean king, whose name has been preserved in the Arabic 'Abdah. The *Tabula Peutingeriana* shows Oboda to have been situated on the main Aila (Elath)–Jerusalem road. It has been identified by all scholars with Eboda of Arabia Petraea mentioned by Ptolemy (V, 17, 4). However, according to this writer, Ptolemy's Eboda was a village east of the Arabah and thus, this identification is unacceptable. Oboda (Ὄβοδα) is also mentioned by Uranius, quoted by Stephanus of Byzantium. It appears in a papyrus from Nessana (no. 39), tentatively dated to the sixth century CE. Its identification with 'Abdah is certain, in view of the similarity of the ancient and the Arabic names and the geographical locations. Furthermore, the name Oboda occurs in third-century CE Nabatean-Greek inscriptions found at Oboda. The site lies in the Negev desert on a spur of a mountain ridge running from southeast to northwest (map reference 1278.0228). At its highest point it is 655 m above sea level.

HISTORY

Oboda was founded at the end of the fourth or the beginning of the third century BCE as a station on a junction on the caravan routes from Petra and Aila to Gaza. Temples were constructed there during the reigns of Obodas III (30–9 BCE) and Aretas IV (9 BCE–40 CE). During that period it became an important center for sheep, goat, and camel breeding and the manufacture of Nabatean pottery. The military camp for the camel corps guarding the caravan routes, which stood northeast of the town, may also date from that time. During the reign of Malichus II (40–70 CE), Oboda suffered destruction at the hands of pre-Islamic Arab tribes. Under Rabbel II (70–106 CE), agricultural projects were developed in the vicinity, as is evidenced by dedicatory inscriptions on libation altars found there.

Oboda was not adversely affected by the annexation of the Nabatean kingdom and the rest of the Negev into the Provincia Arabia in 106 CE. The second and third centuries were a period of great prosperity for the town, and in the third century CE a suburb was constructed on the southern spur of the city's ridge, in part on the ruins of Nabatean residences. An old Nabatean temple was dedicated to the local Zeus (Zeus Oboda) and a shrine to Aphrodite was built on the acropolis, apparently on the spot where a former Nabatean sanctuary had stood. A large catacomb (en-Nuṣrah) was dug into the southwestern slope. Construction in the Late Roman town went on as late as 296 CE.

In the time of Diocletian, the town was incorporated in the defense system of the eastern Roman Empire. Early in his reign, a fortress was built on the eastern half of the acropolis hill. Part of the local population was mobilized to serve as a militia against threatening Arab tribes. The payments from the imperial military treasury helped in the town's economy. With the advent of Christianity in the Negev, by the middle of the fourth century, two churches and a monastery replaced the pagan temples. Most of the remains of agricultural works in the town's vicinity belong to this period, when its economy rested, at least in part, on the cultivation of a fine variety of grapes and wine production. Oboda was abandoned after the Arab conquest in 636 CE.

EXPLORATION

U. J. Seetzen was the first traveler to reach 'Abdah (1807). In 1838, E. Robinson located Oboda at 'Auja el-Ḥafir (later identified as Nessana). The town was surveyed by E. H. Palmer and T. Drake in 1870. In the summer of 1902, A. Musil conducted a more detailed survey, and in the winter of 1904 'Abdah was thoroughly explored by A. Jaussen, R. Savignac, and L. H. Vincent on behalf of the Ecole Biblique et Archéologique in Jerusalem. In 1912, the site was visited by a team headed by C. L. Woolley and T. E. Lawrence, on behalf of the Palestine Exploration Fund. W. Bachmann, C. Watzinger, and T. Wiegand, serving as officers of the unit for the Preservation of Monuments attached to the German-Turkish army, came to the area in 1916 and drew precise sketches of the churches and some architectural details. In 1921, A. Alt published a corpus of the Oboda inscriptions known at that time.

The exploratory soundings made at 'Abdah by the Colt expedition brought to light the large Late Nabatean building at the southern end of the town and investigated the southwestern tower of the Late Roman-Byzantine fortress, which they identified as Hellenistic. Extensive excavations were undertaken from April 1958 until June 1961 by the National Parks Authority. The 1958 excavations were directed by M. Avi-Yonah and those of 1959–1961 by A. Negev. In 1975, 1976, and 1977, excavations at Oboda were conducted on behalf at the Institute of Archaeology at the Hebrew University of Jerusalem and the Israel Department of Antiquities and Museums, directed by Negev and R. Cohen. In 1989, excavations were again conducted on behalf of the Hebrew University, directed by Negev.

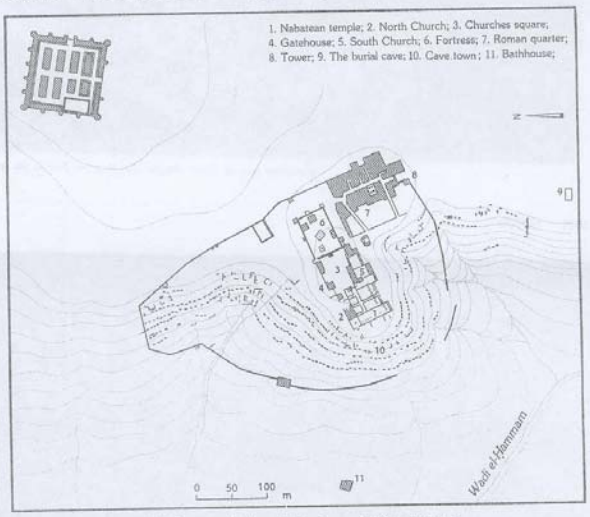
EXCAVATION RESULTS

THE NABATEAN PERIOD. The results of the excavations point to a possible division of the Nabatean period into three subperiods: (1) Early Nabatean (the third and second centuries BCE); (2) Middle Nabatean (the time of Obodas III, 30–9 BCE, and of Aretas IV, 9 BCE–40 CE); and (3) Late Nabatean (the time of Rabbel II, 70–106, CE until the foundation of Palaestina Salutaris).

The early period is represented by ceramic and numismatic finds only. Hellenistic pottery, including an early type of stamped Rhodian jar handles (320–280 BCE), was found on the western side of the acropolis and in a dump in the Nabatean town. In the same dump, and in the region of the Nabatean potter's workshop, the excavation yielded Ptolemaic and other coins minted in towns in Asia Minor in the third and second centuries BCE. No pottery for most of the first century BCE was unearthed, which may indicate that Oboda was deserted at that time as a result of the conquest of Gaza by Alexander Jannaeus. No building remains pertain to the Early Nabatean period; a large campfire was found under a building from the Middle Nabatean period, east of the Nabatean military camp.

The earliest structures found so far at Oboda may be assigned to the time of Obodas III. The 1989 excavations at Oboda, and the 1990 excavations at Kurnub (Mampsis), enabled phases to be distinguished within the Middle Nabatean period. The earliest structures were built completely of hammer-dressed stones, as against the ashlar construction of the later phase.

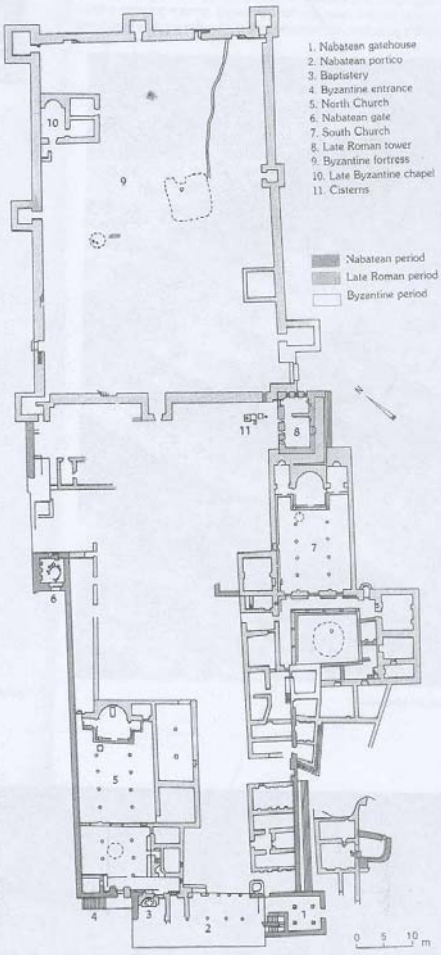
The Temple of Obodas III(?). In the past, the building was thought to be the



Oboda: general plan of the site and military camp.

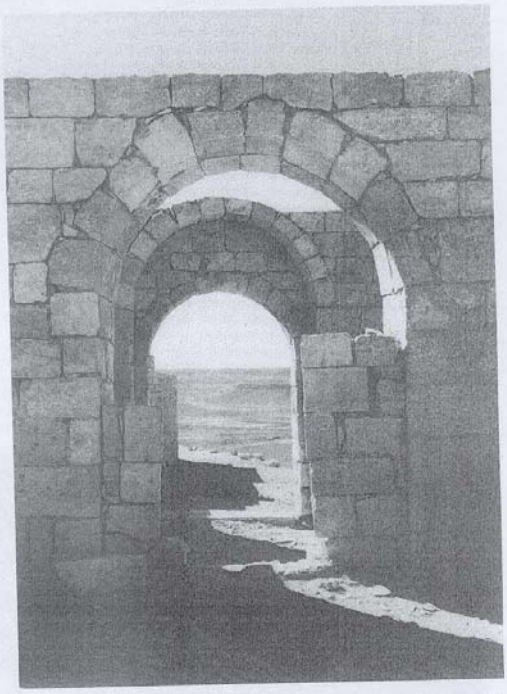
southwestern corner tower of the Late Roman-Byzantine fortress, whose southern and western walls are supported by heavy taluses. Because of the similarity of the taluses with those at the so-called Hellenistic fort at Nessana, members of the Colt expedition conducted trial excavations in this building in 1937. They dated the taluses to the Hellenistic period. Within the tower sections of frescoes in a geometric design were discovered. The Colt expedition suggested that the building had a continuation extending to the south. Partial excavations by this writer in 1961 revealed part of a large portal in the southern wall of the tower; other sections of frescoes were also discovered, of the Fourth Style at Pompeii. At this stage, the relative stratigraphy of the building became clear. The earliest stratum is the so-called tower. The gate of the fourth-century CE fortress was built against its eastern wall. The old roofing system of the "tower" was replaced by arches springing out of pilasters built against the long walls. At the same time, or somewhat later, the southern and western walls of the "tower" were supported by very heavy taluses. At this stage, a door was opened at the northeastern corner of the "tower" onto the open court between the two churches. The South Church was built against the western talus, possibly around 450 CE.

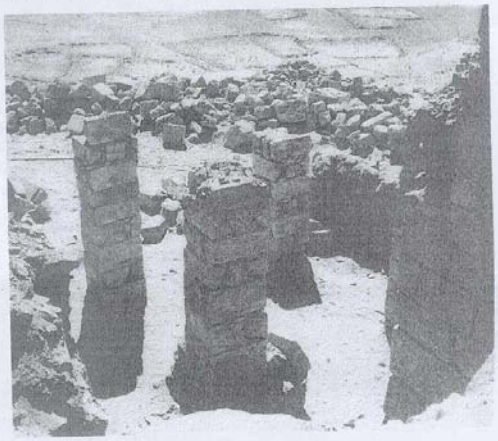
In the 1989 excavations, the area adjoining the talus on the south was excavated. Heavy foundations, made of large hammer-dressed blocks of stone and belonging to a wide and narrow hall, were uncovered. In part, the foundations were based on the natural rock, at a depth of 2.5 m. Similarly, part of the "tower" was excavated down to the earliest floor level. The entire portal, now blocked by the talus, was exposed to its full height of 2.5 m. The hall was divided by a partition wall into two parts. The larger part, forming two-thirds of the total width, has two niches, one on either side of the portal; the smaller part, constituting one-third of the total width, has a niche on the southern wall. The plan that emerged is of a tripartite temple (11.08 by 13.72 m), with a porch, hall, and adyton, the well-known plan of Nabatean temples in Moab. The main difference between the Oboda and the Moab temples lies in the unusual division of the adyton. The space with the two niches was probably dedicated to Dushara and Allat, or another pair of traditional Nabatean deities, and the smaller space perhaps to the



General plan of the acropolis.

Northern gate of Nabatean tower, narrowed by additional doorposts in the Byzantine period.





Nabatean stepped tower.

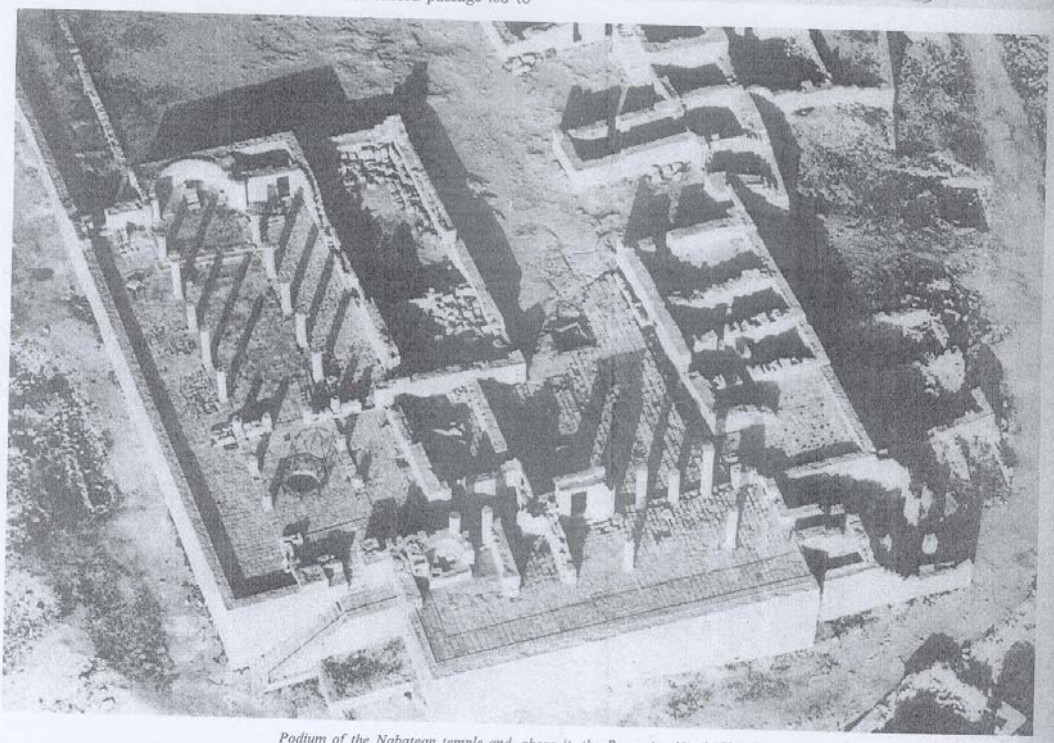
veneration of the deified Obodas. The pottery and the style of the decoration are that of the last quarter of the first century BCE. In some places three layers of painted plaster were observed, indicating that the building was used until about the end of the third century CE. The architectural frame of the portal, which originally led from the porch to the hall, and some segments of the columns of the portico, were reused in the atrium and to decorate the main portal of the nearby South Church. These elements were made of sandy limestone, which is so different in quality from the type of stone employed in the other temples at Oboda; the indication is that they belong to an earlier phase of the Middle Nabatean period.

The large sacred compound on the acropolis may have been built late in the reign of Obodas III, or in the early days of Aretas IV. The spur of the mountain to the northwest of the early temple was leveled. Traces of this leveling can be seen where the Byzantine pavement was removed in ancient times in the western section of the acropolis, south of an annex building of the North Church. In order to prepare a suitable building space, the rock was buttressed by high retaining walls on the north (56 m long), west (51 m long), and south (32–58 m long). The western wall was 6 m high. Rubble and dirt were used to fill the space between the retaining walls and the rock. It was in this fill that a large quantity of Nabatean and Early Roman potsherds was found, among which were small, painted votive bowls used in the ritual.

The acropolis was made accessible by two, or possibly three, entranceways. One was built at the eastern extremity of the northern retaining wall and the other in the southwestern corner; the third was apparently built in the opposite, northwestern corner and later replaced by a flight of stairs leading to the North Church. The first entrance is a tower (7 by 7 m) built of large stones with a ceiling supported by three arches. It had two portals, on the west and on the east. During the Byzantine period the western portal (3.4 m wide) was blocked, the eastern portal was narrowed, and the entrance chamber was paved with stone. Beneath the pavement a large amount of Nabatean sherds and a dedicatory inscription referring to Aretas IV was found. In the Byzantine period, a milihouse was installed in the chamber. The second entrance, in the southwestern corner of the acropolis, consisted mainly of a courtyard (10 by 6 m) with roofed wings supported by four pillars. Extending from the eastern porch was a roofed passage, three arches of which rested on the eastern wall of the court and on the eastern wall of the tower standing in the courtyard's northwestern corner. All of the arches were overlaid with stone slabs, a few of which still stand in situ. The roofed passage led to

Bronze statuette of man wearing a toga, from the hoard of the Nabatean temple.





Podium of the Nabatean temple and, above it, the Byzantine North Church.

Aerial view of the Nabatean military camp, looking southwest.



the tower (4 by 3.6 m), which was ascended by means of a spiral staircase that wound around a thick pillar. Above the three arches of the passage was a chamber, in the ruins of which a treasure trove was found of Nabatean pottery, Roman bronze objects (one of which, a lamp, bears a Nabatean dedicatory inscription), and two marble tablets bearing Nabatean inscriptions dating to the second regnal year of Aretas IV. This entranceway led to the open square above it, on top of which was a porch.

The open square (23 by 9.4 m) was constructed by erecting its western retaining wall approximately 9 m from the rock and then running the wall parallel to the rock. Between the rock and the wall, parallel partitions were built to buttress the high wall and to serve as foundations for the pavement of the square. Except for the retaining wall and the pavement, nothing has remained in the square from the Nabatean period, except the column drums and other architectural details that were reused in later periods. These remains, which include Nabatean capitals and column drums with marks made by Nabatean stone dressers, seem to have been piled up in the southwestern corner of the square in the Byzantine period. Similar Nabatean masons' marks were discovered on the eastern row of columns in the porch. All of these fragments may have belonged to a Nabatean shrine erected in the later days of Obodas III. Nabatean building fragments (of limestone so hard it has the quality of marble and of exquisite workmanship) were also found embedded in the walls and pavements of the nearby North Church. One of the building blocks has part of a monumental Nabatean dedicatory inscription on it that may include the name of the builder of the shrine. Except for one large capital, decorated with a human figure and an eagle, all the other decorated stones are aniconic.

The Nabatean Military Camp. The Nabatean military camp is a square structure (100 by 100 m) situated northeast of the acropolis. It was built of large hammer-dressed blocks of stone and fortified by two corner and two middle towers on each side. At the middle of the southern wall is the main gate. The very important caravan route that led from the heart of the Nabatean kingdom ended there. The gate was built of large blocks of hard limestone, of the quality employed in the construction of the temple. The wide *via principalis* running from the gate, and a similarly wide road running east–west, divide the camp into quarters. Each of the eastern and northern quarters houses four barracks, each two built back to back, with five rooms in each row. In the unusually wide streets in front of the barracks were the military camel sheds. The southwestern quarter probably housed a large building. Halls and rooms were built all along the interior of the camp's outer walls. The pottery found in the barracks, below the floor of the gate, in one of the corner towers, is from the Middle Nabatean period. Coins found in robbers' trenches indicate that the camp was partly dismantled in the first quarter of the fourth century CE, probably when the Late Roman-Byzantine fortress was constructed on the acropolis. The large ashlars from the gate were used to build a chapel in the camp's northeastern corner. To the west of the camp, early visitors to the site observed the ruins of a reservoir, of the type discovered at Sobata, probably for the camels. Drinking water for the soldiers was obtained from the large cisterns excavated on the slope north of the camp. Close to the camp, to its north, are remains of a monumental tomb, dated by a coin of Aretas III (87–62 BCE) and by a Late Hellenistic molded bowl. In the same region, a high place from the time of Trajan was discovered in 1977. Excavations in some of the rooms of the barracks indicate that the soldiers cleaned the camp down to the rock floor, perhaps when they were summoned to fulfill military duties at another district in the kingdom in about 25 CE.

Camel Sheds and Goat and Sheep Pens. The terrain on the entire plateau and on the slopes of the mountain is covered by a large number of enclosures of different shapes and by low walls made of field stones. The field-stone foundations of the tents used by the soldiers' attendants were found in the corners of the enclosures. The enclosures were surveyed mostly from the air by this writer in 1989 and 1990. In this period, Oboda apparently supplied large quantities of meat to caravans and the army. Saltpeter, which is used to cure meat, was found in two caves at Oboda.

The Nabatean Potter's Workshop. A potter's workshop was uncovered to the east of the town. This unique installation extended over an area of approximately 140 sq m and comprised three units:

1. The room for working the clay. This room was an enclosure with walls built of field stones. The roof was probably thatch. In the corner of the enclosure was a circular basin 1 m in diameter and 0.5 m deep. A basket of finely levigated clay was found in the basin.

2. The room for the potter's wheel. In the center of this room was a truncated cone 0.8 m high, and 1 to 1.1 m in diameter. That was probably the base for the potter's wheel. On three sides of the cone was a bench 3.9 to 4.5 m long,

Imported Roman lamp, from the workshop.



Nabatean inscription on the side of a libation altar, 98 CE.



probably used for drying the finished vessels and displaying pots for sale. A pile of bowls was found lying near it, together with numerous broken vessels.

3. The kiln. The kiln was a cylindrical construction (3 m in diameter, 2.3 m high), built of field stones set in mortar. The lower section was the firehouse. Vessels ready for firing were placed above a floor pierced with holes. Judging from the finds there—coins, Arretine and Puteolan imported ware, Augustan Italian lamps, and locally produced Herodian lamps—the potter's workshop can be regarded as having been in operation from about 30 BCE until about the middle of the first century CE. It has provided a basis for a chronology for Nabatean pottery.

No private buildings belonging to the Middle Nabatean phase were discovered at Oboda. This writer believes that the inhabitants dwelt in tents. Traces of an encampment were observed close to the edge of the plateau, east of the Nabatean military camp. The area was strewn with typically Nabatean pottery of the period and standing stelae representing the deities venerated by the tent dwellers. A similar phenomenon was observed at a Nabatean campsite northwest of Elath, and traces of a Nabatean encampment were located east of Elusa.

Evidence of a settlement at Oboda in the time of Rabbel II—large complexes in two terraced valleys and several houses—has been found mainly south and west of the town. In each of the valleys, two pairs of libation altars made of hard limestone were found. They bear dedicatory inscriptions from the years 18 and 28 of Rabbel II. Fragments of two similar altars were discovered in the fill of the courtyard of the Byzantine fortress, that probably originated at a nearby Late Nabatean shrine.

The annexation of the Nabatean kingdom, including the Negev, by Rome in 106 CE did not bring about any change in Nabatean Oboda. This is attested by the epigraphic evidence. A Nabatean inscription commemorating the construction of a building, dated to 107, was found in a cave on the western slope. Another Nabatean inscription was discovered embedded in the eastern wall of the Late Roman-Byzantine fortress; it also dealt with the dedication of a building erected at Oboda following the Roman annexation and formation of the province of Arabia. In 1977, private buildings were located on the northwestern part of the slope, one with a stable similar to the one at Kurnub (Mampsis). Houses belonging to this period were found there under structures from later periods, as well as at other parts of the site.

THE LATE ROMAN PERIOD. Although historically Late Roman, the second to mid-fourth centuries may still be considered Late Nabatean. Numerous Greek inscriptions attest that the citizens of Oboda were still of Nabatean stock. Only a few remains scattered on the western half of the acropolis, where

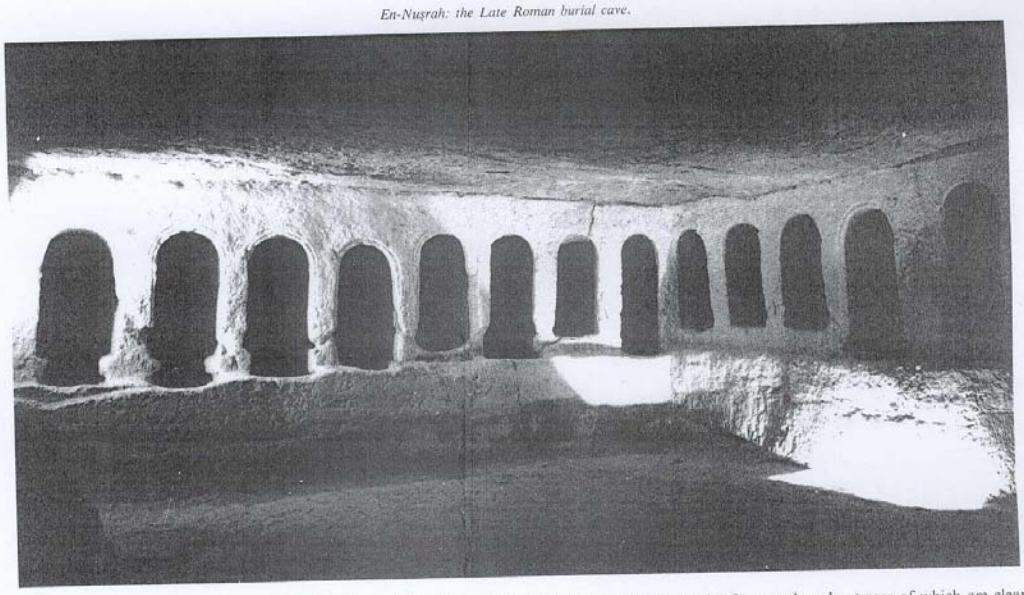
Building block with monumental Nabatean dedicatory inscription from Nabatean temple, perhaps mentioning its builder.







En-Nuṣrah: the Late Roman burial cave.



Nabatean shrines once stood, can be ascribed to this period with any certainty. However, a great number of Greek inscriptions from the second half of the third century mention building activities at the site. This indicates that the buildings on the acropolis were still standing throughout the Late Roman period. Most of the inscriptions refer to Zeus Oboda (Ζεὺ Ὄβοδα). One inscription refers to a building dedicated to Aphrodite that was faced with white stone, and another mentions the Greco-Egyptian god Apis. A small inscribed incense altar, also belonging to this period, was found on the acropolis. Eight Greco-Nabatean inscriptions were engraved on the lintel of the portal leading from the Nabatean porch of the Obodas temple to the paved court. These commemorate the dedication of a temple to Zeus Oboda in 267–268 CE, possibly to be explained as a rededication of the old Nabatean temple. An inscription, found on a segment of a column on the porch, mentions the construction of a roof. The temple of Obodas(?), described above, was also used in this period. North of this temple, sections of walls dated by a small cache of coins to the first decades of the third century CE were excavated in 1989. These could have belonged to the temple of Aphrodite. A considerable number of coins from the third and fourth centuries speaks for activity at the site.

The Late Roman Quarter. The Late Roman quarter is situated to the southeast of the acropolis. Its main street runs in a north–south direction. The dwellings in the quarter were built around courtyards. Their walls were made of rather small and well-dressed stones.

The tower in the southwest was also cleared. From the inscription (discovered by A. Musil in 1902) above the lintel in the northern wall of the tower—the only doorway giving access to the building—it appears that the tower was erected in 293–294. The tower (9.6 by 9.6 m) is three stories high and apparently was an observation post. In the lower story, an entrance chamber was found. On the southern side are two doorways. One of them leads to a long narrow chamber with narrow slot windows for illumination and ventilation high up in the walls. The second opens onto a large hall where three ceiling arches were found in situ. The chambers were coated with a thick, whitewashed plaster. In the northeastern corner of the hall a low entrance leads to a small space beneath the staircase of an upper chamber. A doorway in the eastern wall of the entrance chamber leads to the upper story, of which only several stone courses and thresholds have been preserved. From the eastern side of this upper story, stairs lead to a still higher level. This tower is the latest dated specimen of a Nabatean tower—the end of a three-hundred-year-old history of tower construction. In it the Nabatean architect contrived every possible device to protect the building from earthquakes. The perfect state of preservation of its lower story and roof testifies to his skill.

The finds show that the houses in the Late Roman quarter were used until the beginning of the Byzantine period. Because no Christian remains were found here, it would seem that during the time the churches were constructed—from the mid-fourth century onward—the quarter already lay in ruins. Perhaps this was the result of an earthquake, traces of which are clearly discernible. This could well have been the earthquake of 363 CE, which caused a great deal of damage in the Near East.

The Burial Cave (en-Nuṣrah). This cave, discovered in the southwestern slope, was identified by Jaussen, Savignac, and Vincent as the tomb of Obodas. It was attributed in the 1959 excavations to the Late Roman period. Four Greek funerary inscriptions—one dating to 241 CE—were discovered in the vaulted entranceway and its vicinity. From the inscriptions and the great quantity of pottery found, this layer can be dated to the middle of the third century. A new analysis of the burial cave's plan may indicate that the original construction of this loculi burial may well date to the first half of the first century CE. There are other burial caves in the vicinity, all of the same loculi type. It is thus possible that this burial ground is from the Middle Nabatean period and was reused in later times.

The Khan. The khan, or caravanserai, is situated to the north of the Nabatean potter's workshop. It was excavated in 1977. The building, 22.5 by 31 m, has a large court (12 by 19 m) in the middle of it. It is built of ashlars. The southern wing is occupied by three large halls, and the eastern wing by six rooms, one of which was a kitchen. Steps built along the eastern flank led to an upper story. There are also rooms and halls on the building's two other flanks. The building, dated by coins and pottery, is from the Late Nabatean period; it was in use until the middle of the fourth century. Among the pottery finds are Nabatean painted cups and bowls from the latest phase of this class of painted pottery.

THE BYZANTINE PERIOD. Three phases are distinguished at Oboda in the Byzantine period, although the demarcation among them is occasionally blurred: (1) the mid-fourth to the mid-fifth centuries; (2) the mid-fifth century to about 636 CE; and (3) from 636 to the end of the seventh century.

The earthquake that apparently damaged the Late Roman residential quarter and the Nabatean southern retaining wall of the acropolis occurred just before the beginning of the first phase. To that period must be attributed the semicircular buttresses built to consolidate the retaining wall and the southern and western walls of the adyton of the temple of Obodas, as well as the new entrance at the northern side. It is also possible that in this phase the northeastern Nabatean entranceway was converted into a Byzantine mill-house. The main structures on the acropolis also belong to this phase. The acropolis was divided into two main sections: a fortress in the eastern section and a church and annexes in the western section.

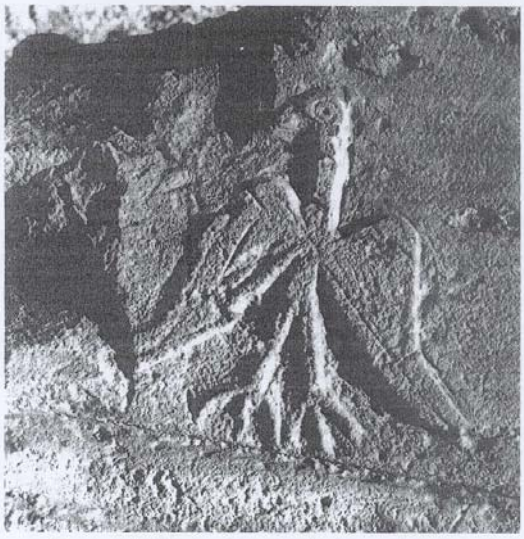
The Fortress. The fortress is a rectangular structure, about 0.5 a. in area. The walls are 1.6 to 2 m thick. The courtyard measured 61 m from east to west; its eastern and western sides are 39 and 41 m long, respectively. The outer walls of the fortress were built partially of stones from dismantled Late Nabatean houses. A Nabatean inscription from 126 CE was found on one stone. Other stones display typical Nabatean dressing. Stones for the interior walls of the fortress were taken from the walls of the Nabatean military camp. The fortress

The acropolis: remains from the Late Roman and Byzantine periods.



has twelve towers (three on each wall) of unequal size that were ascended by stairs attached to their walls. The main gate (2.7 m wide) is on the southwestern side of the fortress. Its arch has been preserved. The gate was protected by two towers; the western one is the adyton of the old Nabatean temple (see above). On the northwestern side of the fortress is another, smaller gate. On its outer lintel a cross and other Christian symbols are carved. There are also three posterns. One is in the east. Beneath its southern doorpost a deep, narrow pit was discovered whose purpose is unknown. The door in the middle tower on the west was found blocked with various materials, among which was a large, heavy round olive press. It seems to have been sealed in haste before the Arab conquest (in an earlier interpretation this preparation was ascribed to an anticipated Persian conquest). The other postern, located in the northwestern corner, had been blocked with masonry.

Inside the fortress there are only two permanent structures: a chamber (6 by 5.5 m) attached to the south wall and a chapel in the northeastern corner. The chapel is built of large blocks of smooth, hard limestone, quarried at Oboda in the Middle Nabatean period. These probably were taken from the southern gate of the Nabatean military camp. In 1989, the excavation of the foundations of the chapel revealed that it was built above a large oven from the Middle Nabatean period. The chapel (10 by 8 m) is built of large dressed stones. It contains two chambers; the northern one has a single apse and two small cubicles on its southern side. Many jar sherds, some bearing Greek inscriptions and dipinti, were discovered in this structure. The chapel was not damaged in the Arab conquest. At the center of the fortress is a cistern (7 by 4 m) with a capacity of 200 cu m. Two channels supplied rainwater to the fortress. One channel was in the east and conveyed water collected in the vicinity of the fortress. The second hugged the outside of the southern wall. Both channels passed underneath the fortress walls. Northwest of the large cistern was another, smaller cistern (diameter, 2.4 m), belonging to one of the Nabatean phases.



Fragment of a Byzantine doorjamb with a young eagle in relief.

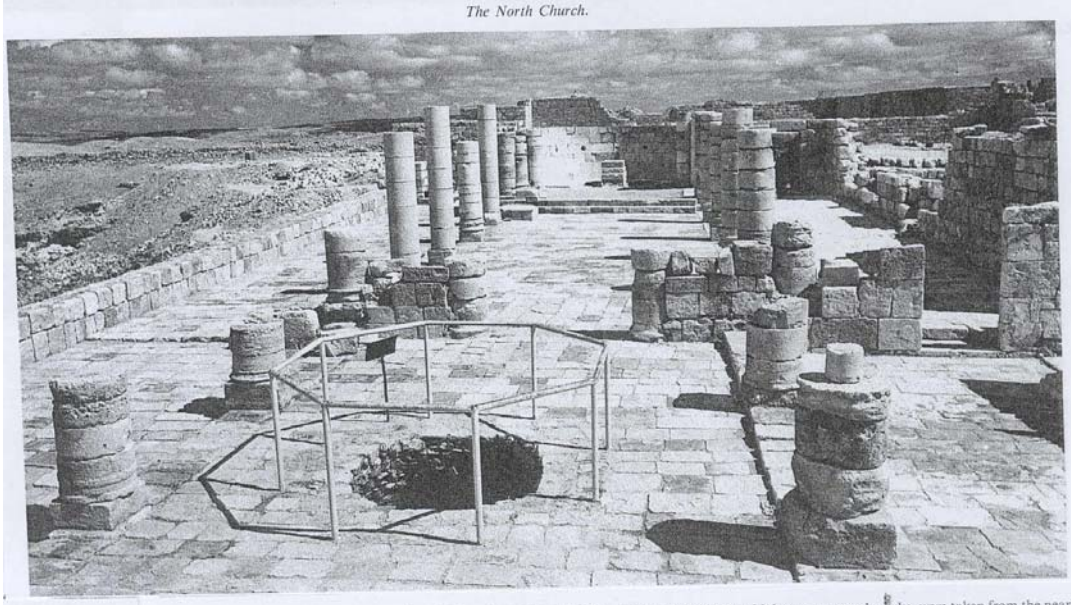
In this writer's opinion, the excavations at Oboda and Mampsis suggest that the fortress at Oboda, the fortress at Nessana, and the city wall at Mampsis were built in the first quarter of the fourth century. A *numerus*, or unit, of the local militia force, numbering about 200 to 250 persons, was stationed at Oboda.

The North Church. The North Church also belongs to the first phase of the Byzantine period at Oboda. West of the fortress is an unpaved square (51 by 40 m) that was originally part of the Middle and Late Nabatean sacred compound. It is supported on the northern side by the large Nabatean retaining wall. In its southeastern corner is a large cistern, the measurements of which equal that of the large cistern in the fortress. Originally, it supplied water to the nearby temple of Obodas.

The North Church is situated at the northwestern corner of the acropolis and is the oldest church at Oboda. On its northern side it leans on the Nabatean retaining wall. A considerable quantity of Nabatean decorated stones was used in the construction of its walls and floor. A large building block, on which a dedication to Apis was engraved, was embedded in its southeastern corner.

The North Church is slightly deflected from a true easterly direction. It is a basilica, with a single apse and a room on the north. A chapel and several service rooms—one of them possibly fulfilling the functions of a prothesis—adjoin the basilica on the south. The apse does not face the hall directly, apparently in order to correct the deviation in the orientation of the structure. Set in the apse is a sort of step that supported a wooden bench for the clergy (synthronon). In its center was a stone pedestal for the bishop's seat. The apse has two projecting arms that form a letter T. These arms were enclosed by a chancel, and in each the stumps of legs of small altars were found. Above the altars, reliquaries containing remnants of saints were placed. There are two rows of five columns in the basilica. A cistern in the center of the atrium has a sump at its base that is coated with a pink, water-resistant plaster. In the course of the excavations, scores of column drums and capitals from the church were found in the cistern. Apparently, they were thrown there at the end of the Byzantine period, when the church was burned and the site turned into a sheepfold. In the rooms at the southern side of the church, bronze objects, a reliquary, and a small inscribed altar table were found.

The North Church.



BAPTISTERY. West of the atrium is a narrow lane, 2.5 m wide. A doorway in its western side leads to a flight of steps. These steps were built during the Byzantine period, to allow access to the church compound, after the Nabatean entrance was destroyed. A second doorway leads from the lane to the baptistery.

Two pillars, whose bases alone have been preserved, supported the roof of the baptistery. The font is cross shaped (each arm is 1.35 m long); it was built of rubble and clay, coated with plaster, and faced on both sides with thin marble slabs. At the bottom of the font is a drainage pipe. Adjoining this font is a smaller one for infant baptisms. The whole structure leans on the corner of the large northwestern retaining wall from the Nabatean period.

The South Church. The South Church, or the Martyrium of Saint Theodore, as it is identified by an inscription engraved on an epitaph (see below), is oriented northeast because it abuts the adyton of the first-century BCE Nabatean temple (see above). The west wall of the adyton was supported by a rounded retaining wall that leans against the church's central apse. The church is a basilica, divided into a nave and two aisles by two rows of seven columns each. The first column in each nave is engaged in the wall of the apse, and the last in the west wall of the church. All the columns were placed on a square plinth and an Attic base. The sanctuary, which is T-shaped, is two steps higher than the nave. The chancel surrounding the bema has three openings: one leading to the single apse, and two to two square rooms flanking the apse. In the eastern wall of each room are semicircular niches, at the base of which are reliquaries for relics of saints and martyrs. One such container, in the shape of a small marble sarcophagus, was found in the debris of the church. In these rectangular rooms the ritual of martyrs was performed. Faint traces of unidentified paintings were found on a wall in the northern room. In the debris in the church, a small altar table, dedicated by Victor and Kasiseos, sons of Stephan, for the salvation of their souls was discovered. Remains of a similar table, dedicated by the same persons, were found also in the ruins of the North Church. In the room south of the apse, fragments of the church's great altar and a circular marble paten, on which the bread and wine were exhibited during mass, were found. Two pairs of chancel screens made of local limestone were also discovered: one pair was decorated with crosses encircled by wreaths, and the other pair, made of imported marble, was decorated with palm trees and bunches of grapes. Close to the southwestern corner of the bema the round, 1.25-m-wide base of the preaching pulpit (ambo) was placed. The church is paved with limestone slabs.

Five tombs, two of two-story burials, were discovered in the aisles. An additional tomb was found in the room south of the apse, and three more in the atrium. The earliest dated epitaph is of 541, and the latest, of the head of the local monastery, is of 618. The early epitaph is of a man brought to burial in the Martyrium of Saint Theodore. The name of the same saint was found engraved on fragments of marble chancel screens and on a wall painting in a dwelling cave from the Byzantine period on the west slope (see below).

The atrium has three colonnades, whose hard limestone column segments, some of which carry Nabatean masons' marks, were taken from the nearby temple of Obodas. The doorposts and their capitals, of typically Nabatean style, apparently also came from the temple. Underneath the floor of the atrium are the rooms of the monastery, and northwest of it is the belfry. A plastered round box was found built in the floor of an annex to the north of the basilica; this treasure box, which was found empty, was covered by a stone slab with a lock.

The South Church was apparently built in the middle of the fifth century. It was set on fire apparently in 636, during the Arab conquest. Half-burned wooden beams of the roof were found on the floor.

The Farmhouse. To the east of the Late Roman quarter is a large farmhouse

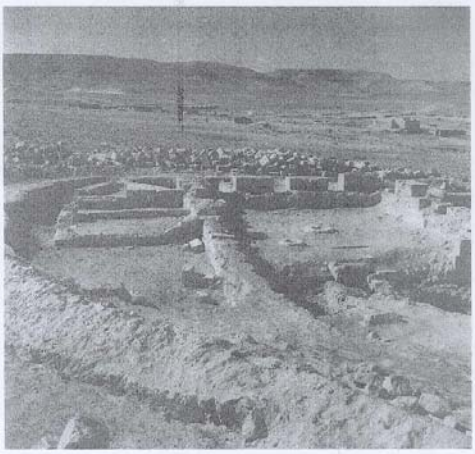


Tombstone inscription from 551 CE, from the South Church.

Byzantine winepress.



that was excavated in 1975. It was built on the ruins of an equally large Nabatean building. It measures approximately 15 by 35 m. Its western wing contained living rooms and a kitchen and its eastern wing, some service rooms. In one room a flat camel's shoulder blade was found, on which were inscribed, in ink, in Greek, details referring to the management of the farm. A winepress is situated at the southeastern corner of the farmhouse.



Byzantine winepress.

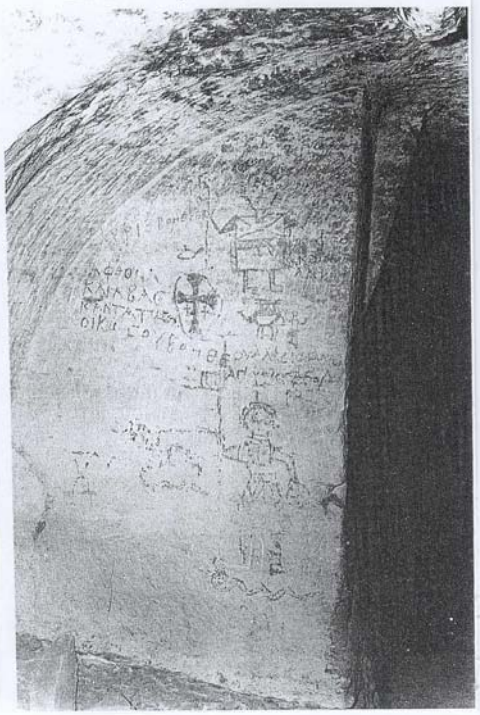
Winepresses. The four winepresses discovered at Oboda are similarly constructed. The press near the southern gate of the Late Roman-Byzantine fortress has a square treading area (the length of a side is 5.7 m) around which nine cubicles of unequal size are arranged. Their total area is 6 to 9 sq m. The grapes were stored in baskets in these cubicles prior to the treading process. The cubicles open out onto steep slopes that conveyed the grapes to the treading area, 0.6 m below their floor level. The treading area was paved with stone flags (now removed) and coated with thick plaster. It slopes toward a small, centrally situated sump (0.4 by 0.4 m). A channel runs along the bottom of this sump beneath the pavement of the treading area toward a container for the newly pressed wine (3 m in diameter, and preserved to a height of 1.1 m). The grape skins would sink to the bottom of the container. The sump is constructed of packed rubble and clay and coated with thick plaster. South of it are storerooms.

House and Cave. The Byzantine town consisted of 350 to 400 residential units of caves and houses arranged in terraces along the western slope of Oboda. One unit is situated 45 m beneath the acropolis in the lower residential tier. The house and adjacent cave form one dwelling unit, typical of Byzantine Oboda. The complex is entered from the south to an enclosed court (10 by 4.5 m). A flight of steps in the southern wall of the courtyard led to an attic, which has not been preserved. On the northern side of the courtyard are two halls. The latter was roofed with stone flags laid on top of three stone arches, all of which have been preserved. In the western section of the hall are a pantry (5.7 by 2.25 m) and a bench attached to the wall. The pantry and the walls of the hall contain niches that may have served as cupboards.

Two other doorways were found in the courtyard; the northern one was blocked at a later period. The southern doorway leads to another room. Along its northern wall a sewage drain was built that extends outside the house. A narrow passage on the west leads to another complex of chambers constructed at a later date. South of the corridor is a small chamber (2.5 by 2.25 m) paved with large stones. On the western side of the paving, small receptacles end in an inclined gutter that protrudes outside the house wall (lavatory).

To the west of the building are courtyards that are 2.3 m lower than the building. The walls of these structures are thick and built of large, coarsely

Entrance to the Byzantine "Cave of the Saints."



chiseled stone chunks. The work indicates a utilitarian approach to construction, without embellishment. The spaces were apparently shops in which products of the house were sold.

The cave is entered through the hall to the north of the interior courtyard. Two chambers (the larger one is 6 by 12 m in area), partly built and partly rock cut, link the two parts of the house-cave unit. On the eastern side of the larger hall lies a rock partition shaped like a demiarch. On it, in red ocher, are drawn the figures of Saint George and Saint Theodore and Greek inscriptions. A wide doorway leads eastward to another chamber (c. 5 by 5 m), along whose northern and eastern walls low benches were cut. There also are rock-cut niches higher up. The corners of the room are decorated below the ceiling with carved heads and bunches of grapes, while a cross is carved into the ceiling itself. All the rooms have smooth, hollowed-out recesses for lamps and packs. The recesses are painted red.

A doorway in the eastern wall leads to a central hall, 20 cm lower than the one in front of it. The walls of the hall have small niches for oil lamps. In the ceiling, rows of projections are cut (and painted red) from which bunches of dried fruit and vegetables once hung. A doorway inserted in the hall's eastern wall leads to another hall (5.5 by 7 m) that has benches cut in the rock on three of its sides. A stone bench runs along the eastern wall of the main hall; the bench has two rows of hollows in which jars may have been placed upright. The other benches also appear to have been employed as bases for jars, although they lack hollows to hold the jars. The passage between the two halls could be blocked when necessary. The cave itself seems to have served as a wine cellar; the new wine was strained on the bench in the western hall and was then stored for fermentation in the eastern hall.

Additional openings in the northern wall of the central hall lead, on one side, to a small pantry and, on the other side, to rock-hewn bins that probably were used to store grain or dried fruits. Early surveys suggested that this cave was once part of the Nabatean necropolis, but later excavations indicated that it was not earlier than the Byzantine period and from the outset was hewn as a wine cellar and storage place.

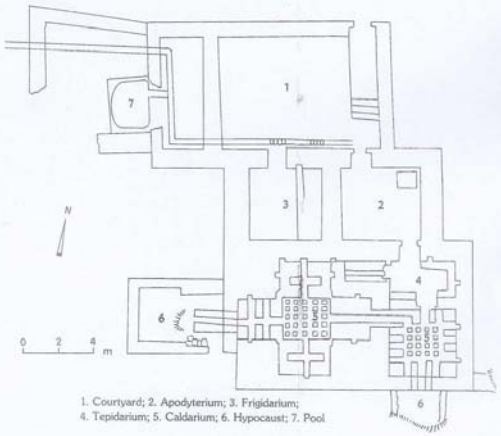
The Bathhouse. The bathhouse is situated in the plain at the foot of the hill. On its side, a well 60 m deep supplied the bathhouse with water. North of the bathhouse is a courtyard (19 by 6.3 m); it was a temporary structure, as evidenced by the two shallow pilasters in its center. In the northern wall of the bathhouse are two doorways. One leads to a chamber containing a pool coated with water-resistant plaster (4.4 by 4.1 m large and 1.35 m deep). This was apparently the frigidarium. Its ceiling has been completely preserved. The second doorway leads directly to the hot-bath section. From the passage, an opening leads into a small room containing three stone benches, apparently the dressing room; from there one entered the hypocaust (4 by 4 m). The brick ceiling of the latter has not been preserved, but the debris of the sixteen brick pillar bases has been uncovered.

Adjacent to the south side of the bathhouse was a brick flue that conveyed the heated air from a furnace. Two flues on the south side and three each on the west and east directed the heated air into a network of clay pipes, many of which have been preserved intact near the western wall. Two grooves run the entire length of the eastern wall, opening above the room's vaulted roof and serving as exhausts for excess heat. Small apertures in the ceiling served as windows.

West of the hot-bath room is the cross-shaped caldarium. In its center is the hypocaust, which contains the bases of the twenty brick pillars that supported the roof of the installation. The northern, southern, and western arms of the cross contain bathtubs constructed of brick fragments and water-resistant clay. The bathtubs were heated by means of channels (also cross shaped) connected to the hypocaust. The whole chamber was heated by a furnace situated to the west of the building and by a channel from the first hypocaust. Slits in the walls surrounding the bathtubs acted as exhausts for the excess steam. The rooms have a domed roof supported by four spherical pendentives. Part of the dome has been destroyed. It appears to have contained a central aperture for light and ventilation. The water was evacuated from the building by means of a channel, large segments of which were discovered in the courtyard north of the bathhouse. The bathhouse at Oboda is one of the best-preserved Byzantine buildings of this type found so far in the country.

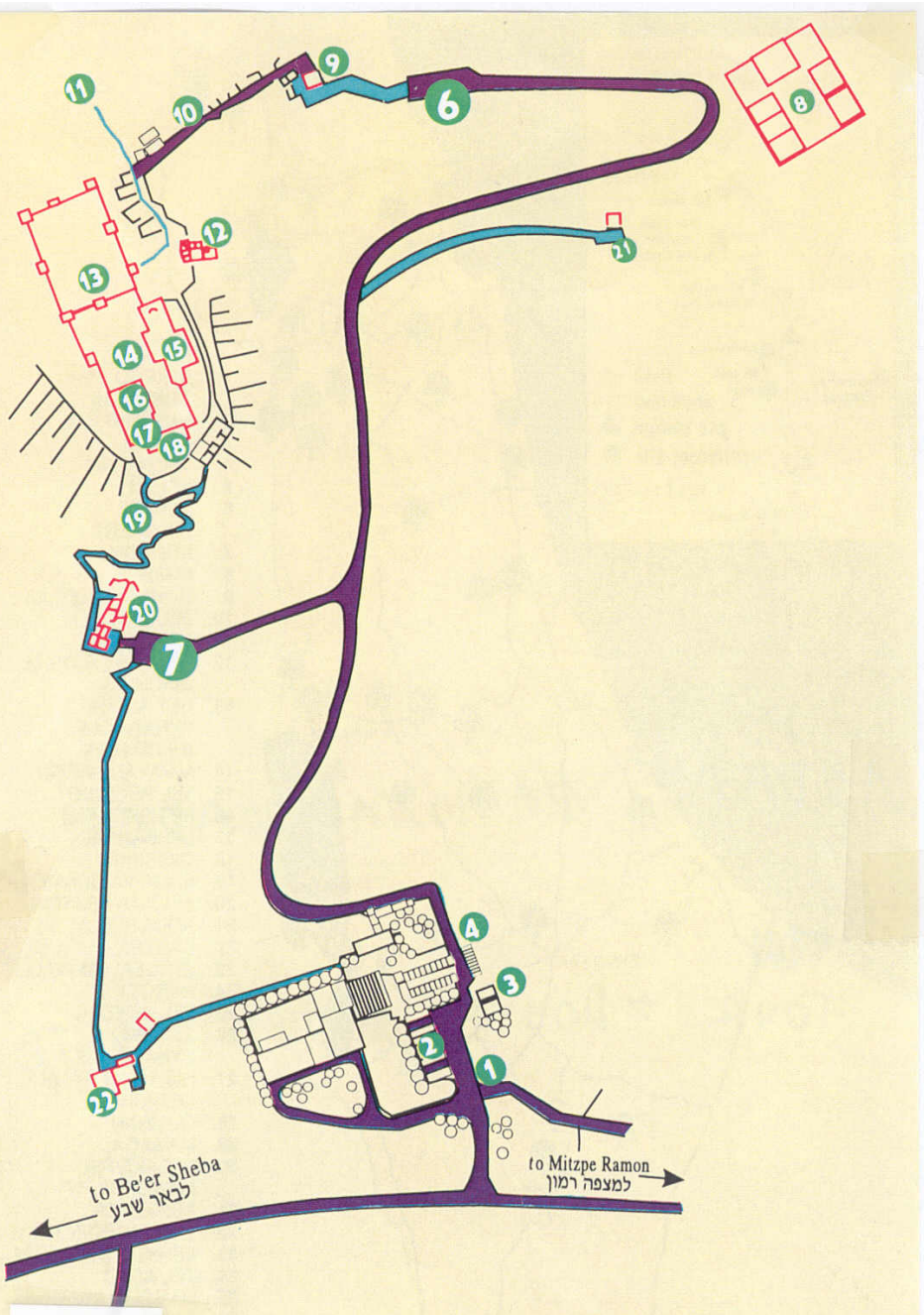
Main publications: A. Negev, *The Nabatean Potter's Workshop at Oboda*, Bonn 1974; id., *Tempel, Kirchen und Cisternen*, Stuttgart 1983, 53–96, 153–167, 181–192; id., *The Late Hellenistic and Early Roman Pottery of Nabatean Oboda* (Qedem 22), Jerusalem 1986.
Other studies: E. H. Palmer, *PEQ* 3 (1871), 1–80; A. Jaussen et al., *RB* 13 (1904), 403–424; 14 (1905), 78–89, 235–244; M. J. Lagrange, *CRAIBL* (1904), 279–298; Musil, *Arabia Petraea* 2, *Edom*, 106–151; J. Clédat, *Annales du Service des Antiquités de l'Égypte* 10 (1910), 234–237; 12 (1912), 145–168; Woolley–Lawrence, *PEFA* 3, 93–107, 143–145; T. Wiegand, *Sinai*, Berlin 1921; M. Avi-Yonah, *CNI* 10/3–4 (1959), 23–35; id., *RB* 67 (1960), 378–381; M. Avi-Yonah and A. Negev, *ILN* (Nov. 26, 1960), 944–947; A. Negev, *IEJ* 9 (1959), 274–275; 11 (1961), 127–138; 13 (1963), 113–124; 15 (1965), 185–194; 17 (1967), 46–55; 24 (1974), 153–159; 36 (1986), 56–60; 41 (1991), 62–80; id., *Archaeology* 14 (1961), 122–130; id., *BTS* 40 (1961), 4–13; id., *Ariel* 16 (1966), 12–19; id., *Cities of the Desert*, Tel Aviv 1966; id., *PEQ* 99 (1966), 89–98; 101 (1969), 5–14; 108 (1976), 125–133; 114 (1982), 119–128; id., *Die Nabatäer: Ein vergessenes Volk am Totem Meer*, Munich 1970, 48–51; id., *RB* 79 (1972), 381–398; 80 (1973), 364–383; 81 (1974), 397–420; 83 (1976), 203–236; id., *Aufsteig und Niedergang der römischen Welt* 2/8, Berlin and New York 1977, 520–586; id., *LA* 28 (1978), 87–126; 39 (1989), 129–142; id., *MdB* 19 (1981), 11–15, 28–31; id., *The Greek Inscriptions from the Negev*, Jerusalem 1981, 11–45; id., *Antike Welt* 13 (1982), 2–33; id., *Nabatean Archaeology Today*, New York 1986; id., *Qedem* 22 (Review), *JNES* 50 (1991), 66–69; id., *BAR* 14/6 (1988), 30–31; J. Naveh, *IEJ* 17 (1967), 187–189; R. Rosenthal, ibid. 24 (1974), 95–96; D. Chen, *LA* 35 (1985), 291–296; J. Gunneweg et al., *Jahrbuch des römisch-germanischen Zentralmuseums Mainz* 35 (1988), 315–345; S. Noja, *Studia Semitica Necnon Iranica* (R. Macuch Fest.), Wiesbaden 1989, 187–194; J. A. Bellamy, *Journal of Semitic Studies* 35 (1990), 73–79.

AVRAHAM NEGEV



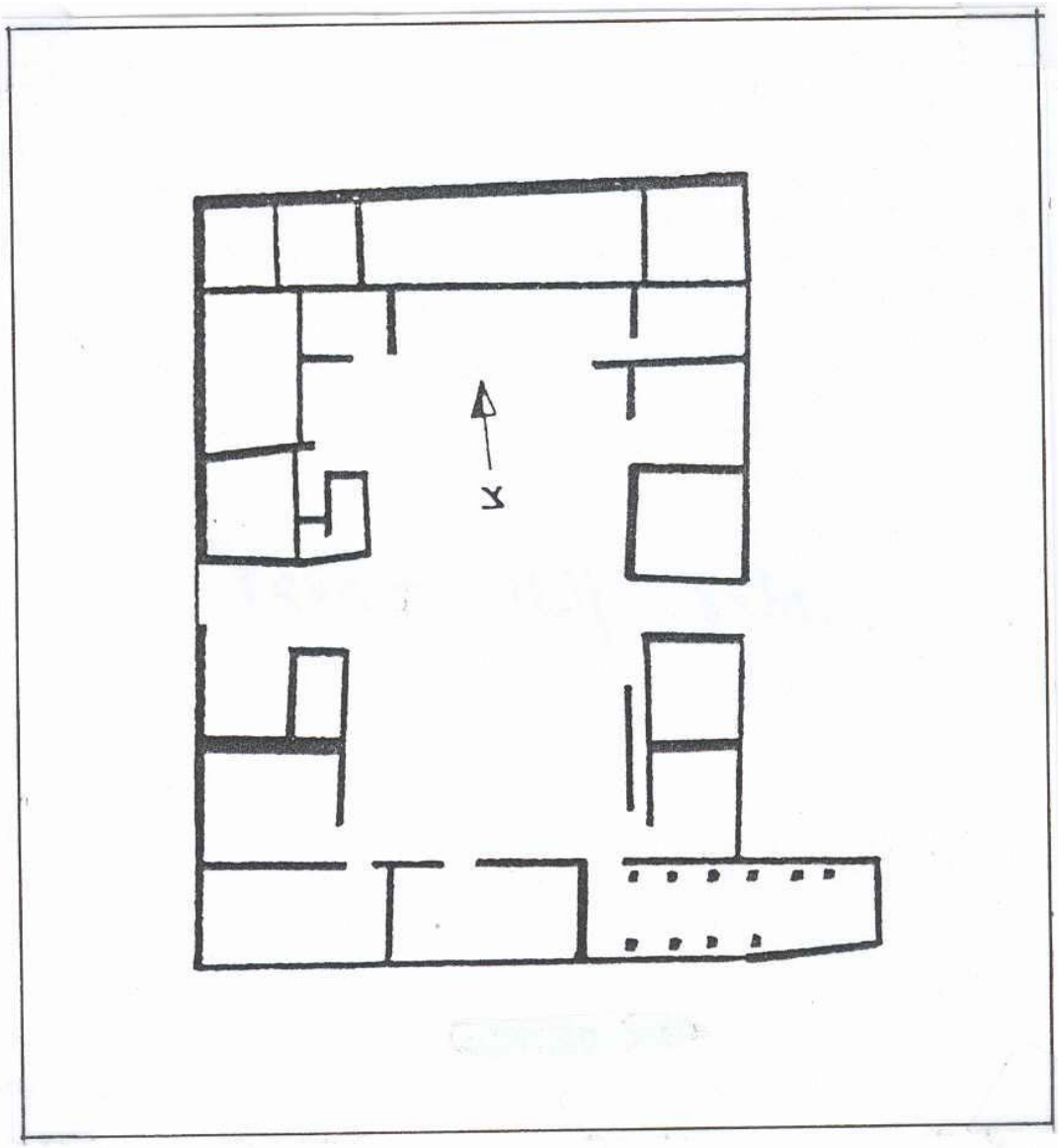
1. Courtyard; 2. Apodyterium; 3. Frigidarium; 4. Tepidarium; 5. Caldarium; 6. Hypocaust; 7. Pool

Plan of the Byzantine bathhouse.



LEGEND

1. Entrance
2. Parking lot
3. Toilets
4. Map of site
5. Road — Path —
6. Upper parking lot
7. Lower parking lot
8. Roman villa
9. Roman tower
10. Roman Quarter ("Spice Route")
11. Nabatean pottery workshop
12. Wine press
13. City fortress
14. Church Square
15. Southern church
16. Northern church
17. Baptistry
18. Observation point & Nabatean temple
19. Cave City
20. Byzantine house & cave of the wine merchant
21. Roman burial cave
22. Bathhouse



Avdat - Caravanserai



24

Avdat - Visitors' Centre



25 Avdat



26

Avdat



Avdat – presentation: "The Frankincense Caravan"



Avdat - presentation: "The Winemaker"

11. Haluza

Location:
Surrounded by large-scale sand dunes, this most northern of the Nabataean towns lies 21 km. south of modern Beer-Sheva.

Description:
Very few excavations and shifting sands make the survey of the city plan rather difficult.
A recent excavation of the town unearthed: streets; a wine press; a theatre; two churches; and a late Roman tower.

State of Conservation:
The town is built with locally quarried, well dressed, medium to soft limestone.
The soft stone, when exposed, turns into a deteriorating chalkstone and, with the years, slowly disappears.
The lime plaster, protecting the stones, also decays and is lost once the stone is exposed.
Badly excavated, exposed foundation, and lack of rain-flood water control have contributed to the decay of the buildings.
Excavations in the theatre and the main church in the past three years have included conservation, maintenance, re-burial and drainage control.

Conservation Plan:
A complete conservation management plan is underway as the site is a designated National Park.
The local Authority's ranger weekly monitors the site for vandalism and damages.

Haluza or Elusa in historic texts.
Founded by the Nabateans in the third century B.C.E., as a station on the Incense Route. Flourished in the late Nabatean and roman period and later became the most important city in the Byzantine Negev and a capital of the district. In the fifth century the majority of population was still pagan, though there was already a Christian community. Unlike other Negev cities, Haluza was not abandoned following the Arab occupation.
The first serious survey of the site took place in 1973. It was followed by excavations and probes which took place in 1979-80, and focused on the theatre and the Eastern church. More recent excavations are being carried since 1998 by the Ben Gurion University.



29

Haluza

ELUSA

IDENTIFICATION

Elusa, a town in the Negev desert about 20 km (12.4 mi.) southwest of Beersheba (map reference 117.056), was founded in the Hellenistic period and existed until the beginning of the Arab period. Its ancient name has been retained in the Arabic name el-Khalasa. In his *Geography* (V, 16, 10), Ptolemy mentions Ἔλουσα as one of the settlements in Idumea west of the Jordan River. The city appears on the *Tabula Peutingeriana* 71 Roman miles from Jerusalem, 53 Roman miles from Thamaro, and 24 Roman miles from Oboda. On the Medeba map it is shown as a large settlement east of Φωθις and south of Ἰεθορ. It is shown on the map as a site defended by towers, above which rise several buildings with red roofs, possibly the city's main churches. According to Stephanus of Byzantium it was a city in Palaestina Tertia, once in Arabia. It is also mentioned by later Byzantine sources. Elusa is frequently mentioned as a district capital in the Nessana papyri, and in the Greek-Arabic papyri in the form of el-Khalus. The Hebrew name Ḥaluṣa is found in Genesis 16:7 in the Jerusalem Targum, where it is appended to the name Shur as an explanation or description. The Arabic name el-Khalus is still used in a fifteenth-century document. The name probably originates in the Nabatean personal name *Ḥlṣt*.

EXPLORATION

The site was discovered and identified by E. Robinson in 1838, during the course of his investigations of the area. In 1897, A. Musil visited Elusa for the first time. In his following visits, Musil noted the destruction of a large public building, possibly the East Church (see below). An expedition organized in 1905 by the Ecole Biblique et Archéologique Française in Jerusalem, in which A. Jaussen, R. Savignac, and L. H. Vincent took part, explored Elusa and uncovered some Byzantine and pre-Byzantine tombstones. The first attempts to prepare a plan of the city's remains were made in 1914 by C. L. Woolley and T. E. Lawrence. They also discovered and published an early Nabatean inscription and a great number of Greek inscriptions. In 1917, Elusa was surveyed by the German scholars W. Bachmann, C. Watzinger, and T. Wiegand. In 1921, A. Alt published the Greek inscriptions found up to that time. J. H. Iliffe, inspecting the site in 1933, was the first to find Nabatean and Hellenistic black-glazed pottery. The first exploratory excavation was organized in 1938 by the Colt expedition, under the direction of J. T. Colin Baly. Under the direction of A. Negev, an extensive survey of the site was undertaken in 1973, on behalf of the Hebrew University of Jerusalem, and exploratory excavations were made in 1979, on behalf of the Hebrew University and Ben-Gurion University of the Negev. In 1980, systematic excavations were conducted by the Hebrew University and Mississippi State University, and in 1990, an aerial survey was carried out for the Hebrew University, both under the direction of A. Negev.

HISTORY

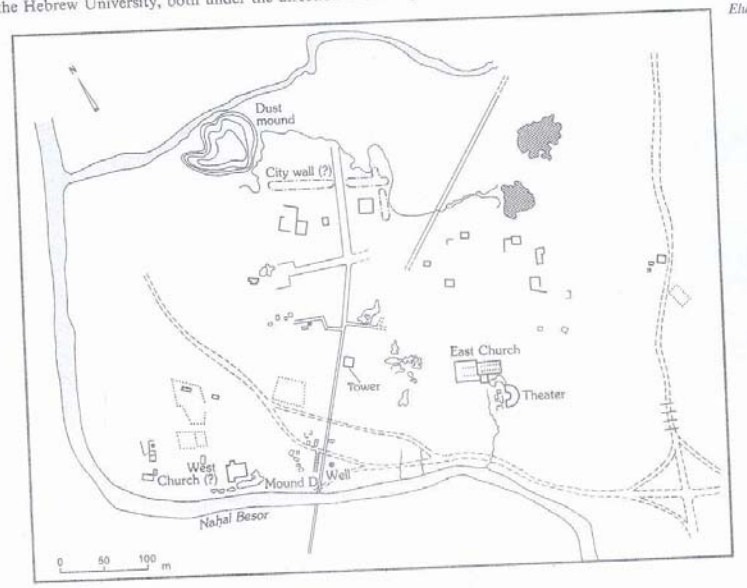
Evidence that Elusa was one of the settlements founded in the Negev in the third century BCE by the Nabateans is provided by the Rhodian jar handles and Hellenistic pottery found there, which are similar to examples uncovered at other Nabatean cities in the area: Petra, Nessana, and Oboda. A pottery lamp (as yet unpublished), now at the Rockefeller Museum in Jerusalem, has also been assigned to this period. It bears an inscription some scholars once regarded as Hebrew. In the opinion of G. E. Kirk, it attests to commercial relations between Elusa and the Hasmonean kingdom. It seems that during that period Elusa was a station on the main caravan route from Petra by way of Oboda and Elusa to Gaza.

The archaic Nabatean inscription, which mentions the name of Aretas, "king of Nbtw" (Nabatu), and was assumed by the publisher of the inscription to refer to Aretas II (c. 106 BCE), is now believed to refer to Aretas I (c. 168 BCE). It discloses that a Nabatean settlement existed at Elusa in about 168 BCE. The Nabatean pottery found at Elusa indicates that a Nabatean settlement also existed here in the days of Aretas IV (9 BCE–40 CE).

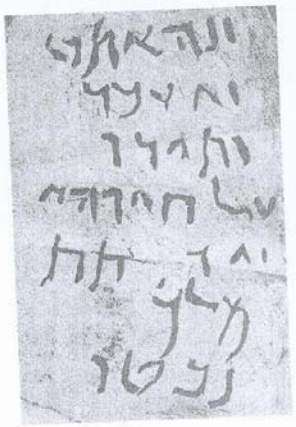
Ptolemy lists Elusa (*Geog.* V, 16, 10) among the settlements of Idumea west of the Jordan. Elusa enjoyed its greatest prosperity in the Late Nabatean and Late Roman periods and became the chief city in the Byzantine Negev. The earliest testimony to this effect is two letters, from the years 356 and 359, written by Libanius, the famous rhetor, an inhabitant of Antioch (*Epistolae* 101 and 536). Its importance in this period is attested also by the *Tabula Peutingeriana*. Other sources attest to the existence at Elusa in the late fourth and early fifth centuries of a community of idol worshippers and a small community of Christians, dwelling side by side. In his *Life of Hilarion* (ch. 25, *PL* 23, col. 41), Jerome relates that a shrine to Venus was located at Elusa in the mid-fourth century; Hilarion visited the town with a following of monks and converted the first of the population to Christianity. The presence of a pagan majority and a Christian community in the early fifth century is attested also in Nilus' *Narrations* (VI, *PG* 79, cols. 673, 676). However, an official Greek inscription from 454–455 CE, found in the theater at Elusa, bears no Christian symbols. Tombstones from this period, one dated 426, provide no evidence of Christian burials at Elusa. The earliest dated Christian epitaph was inscribed in 519 CE, or possibly even later (see Alt, *GIPT*, no. 59, and l. no. 57). The bishops of the city who took part in the councils of Ephesus (431) and Chalcedon (451) bore Nabatean-Arab names.

The pilgrim Theodosius, who visited the country in about 530, related that Elusa was three stations from Jerusalem and seven stations from Aila. Antoninus of Placentia described Elua (also written in several variants), which seems to be Elusa, as situated "at the beginning of the desert that stretched to Sinai" and in this connection mentions the bishop who held this seat. In many of the Nessana papyri, especially in the military papyri of the period between

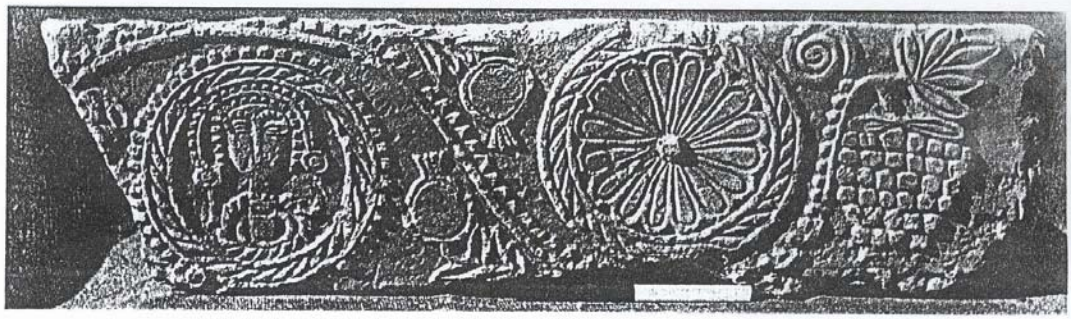
Elusa: general plan of the city.



Archaic Nabatean inscription mentioning "Aretas king of Nbtw."



Byzantine lintel.



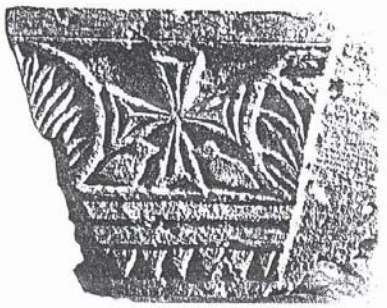
about 500 and 596 (papyri 14–30). Elusa is referred to as the capital of the region of the village of Nessana. A papyrus from the church archives (papyrus 46, dated 605), also mentions Elusa as the capital of the district. A document from the military archive (papyrus 39) tentatively dated to the mid-sixth century, possibly listing payments of *annona militaris*, records Elusa as receiving 792 solidi only, as against 1,356 to 1,414 received by Nessana, Oboda, and Mampsis. This writer believes that the reason for this inequality of payments is that Elusa, housing the military command of the region, was situated in the better-protected interior of the district and thus required the protection of a smaller military force.

Elusa retained its status as a district city in the Arab period. Among the Nessana papyri are the archives of Georgius, son of Patricius of Nessana, which contain bilingual documents written in Greek and Arabic, from the years 674 to 689 (papyri 60–67). In their superscription, a recurrent notation occurs: "To the men of Nestan [Nessana], in the district of el-Khalus [Elusa], in the province of Gaza."

SURVEYS AND EXCAVATIONS

It was once believed that Elusa was despoiled of its stones in the nineteenth and early twentieth centuries for the construction of modern Gaza and Beersheba. The survey and excavations of 1973 and the following years proved that this was not the case. Most of Elusa lies covered under wind-blown sand and dust. The plan of the site made by Woolley and Lawrence furnished little information beyond the fact that the city was surrounded by an irregular wall with three gates on the north and one on the east. A well was found in the southwestern part of the city, near the edge of the valley. Their survey also located the site of the cemetery from the Hellenistic period and uncovered a number of tombstones—the earliest are dated to 426 and the latest to 565, or possibly 599 (Alt, *GIPT*, nos. 49, 57, 59). Colt's expedition confined itself to a limited inspection of the area and the dumps around it. The excavators were able to distinguish pottery vessels from the Hellenistic to the Early Arab periods. Further investigation of the rubble proved that the city reached the height of its prosperity in the third and fourth centuries.

THE SURVEY OF 1973. The aims of the 1973 survey were to test the assumption of the despoliation of Elusa, to locate the various suburbs of the city, and to direct limited-scale trial excavations. At first one of the city dumps was excavated, one of many—as already noted by Lawrence and Woolley and the Colt expedition—dominating the northwestern part of the city. The dumps, however, were unusual because they contained mostly sand and dust and very little pottery and other artifacts. They were most probably formed in the Late Roman period, when wind-blown sand and dust were removed from the city's streets and courts. The main body of the city is elliptical in shape; it is delimited by Naḥal Besor, which runs southeast–northwest, and by Naḥal Atadim, its tributary, which runs in the same direction and joins the main wadi northwest of the city. Hellenistic pottery was found mainly at the northwestern part of the site, later occupied in the Byzantine period. The Nabatean towns of the Middle and Late Nabatean periods flourished in the eastern third of the site. The other two-thirds of the site hold remains from the Late Roman and Byzantine periods. At the beginning of the Late Roman period, the network of streets was laid. The main, very wide streets run parallel to the wadis and are intersected by streets running from northeast to southwest.



Pillar capital from the Byzantine house

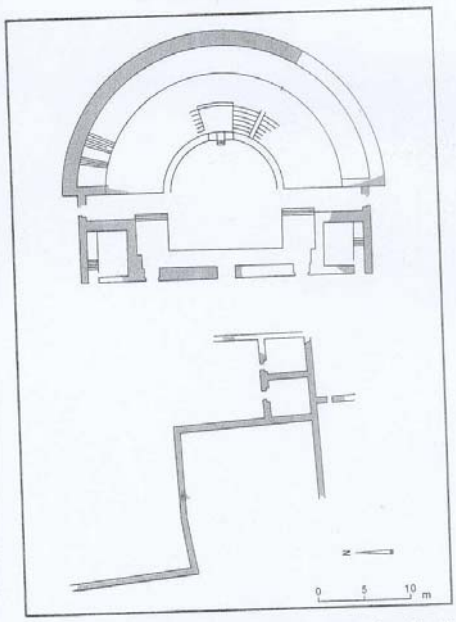
Elusa was never surrounded by a wall, but as was the case at Oboda and Mampsis in the pre-Dioeletianic period, it was defended by a series of towers that faced the wadis. One such tower in the western part of the city, facing Naḥal Atadim, was partly excavated. It is of the Nabatean type of defensive tower (c. 10 by 10 m), with four rooms. The tower was excavated to the level of its narrow slot windows. The tower still rises to a height of more than one story.

Except for the well already mentioned, and many others that were discovered, the western city was supplied with water by means of a chain of rectangular reservoirs, filled manually from the wells along the main wadi. One such reservoir, partly excavated, is 10 by 5 m and 2 m deep. Lead and clay pipes supplied water to a bathhouse and private dwellings along the street. Above the northern bank of Naḥal Besor the outline of two very large churches was traced, one at the western and the other at the eastern part of the town.

On the eastern third of the site the outline of a theater; the ruins of a large public building, perhaps a temple; and a residential quarter were observed, all from the Nabatean period. One house in the northeastern quarter was partially excavated and was found preserved to the full height of its ground floor. Throughout the site numerous decorated architectural elements were collected, in great part Nabatean capitals. These display the full development of the Nabatean capital: from the purely plain classical type to its culmination in the Nabatean-Byzantine type, in which the Nabatean projecting boss and horns were replaced by palmettes and a cross as its crowning element. South of the city, above the bank of Naḥal Besor, the remains of kilns in potters' workshops were found. The remains of what probably was a stadium were found southeast of the town; to the north, on the flat ground above Naḥal Atadim, is the outline of a hippodrome. Above the steep northern bank of Naḥal Atadim cemeteries were discovered from Nabatean and Late Roman times.

THE EXCAVATIONS OF 1979 AND 1980. The 1979 season of excavations was dedicated to trial digs at the theater, situated in the southeastern quarter, which proved to be Nabatean. More work on the theater was done in 1980. It was built on flat ground. The cavea is approximately 35 m in diameter. On its eastern side is a semicircular structure, consisting of two parallel, thick walls (the outer wall is 1.7 m wide and the distance between the walls is 2.97 m). This corridor regularly houses the *vomitoria* in a Roman theater, but at Elusa it was made to contain an artificial fill of earth to support the cavea, which leans against it on the west. The fill contained numerous potsherds and glass from the Middle Nabatean–Early Roman period, but no later than the middle of the first century CE. The seats of the cavea, made of blocks of limestone, lean against the western side of the inner wall. Most of the stones were robbed, leaving only traces in the foundation, made of gray concrete mixed with stones; one of the sloping gangways is preserved, however. In the middle of the lower part of the cavea there is a box seat (2.8 by 2.9 m) surrounded by walls, for nobility or priests. At the bottom of the cavea is a nicely paved orchestra. In the orchestra, in front of the box, is a small podium that may

The theater: general plan.



have held a statue. The orchestra is 13 m in diameter; its length to the *pulpitum* is 19.4 m. It is paved with large limestone slabs. At a later period, a fence, built of paving stones laid on their sides, left a space 1.5 m wide between it and the cavea. The purpose of the fence is unknown. At both ends of the cavea are vaulted corridors, the parodoi, that served as entrances. The western part of the structure is taken by the *scaena frons*. It consists of two side towers (the northern tower measures 4.4 by 5.2 m), above which stairs led to the upper tiers of seats. In the *scaena frons* (1.42 m wide) are three portals (the middle portal is 1.8 m wide, and the northern portal measures 1.57 m) that lead to a shallow, paved space (1.8 m wide in front of the middle portal, and 5 m wide in front of the northern portal). Stairs on either side lead down to the orchestra. In the debris of the northern portal an inscribed lintel was found, dated to 454–455 CE, that refers to the laying of a new floor. At the central portal two classical Nabatean capitals were found. The pottery in the fill of the circular corridor and below the layer of ash found in the northern parodos dates the construction to the first half of the first century CE. The orchestra's use in the Byzantine period is dated by the cooking ware found on its floor. In the debris, the lower part of a white marble life-sized statue of a man was found, which is probably from the Middle Nabatean period.

The theater at Elusa, like similar ones at other Nabatean sites, was connected with a cult, either practiced at a temple, as at Sahr in the Ledja, or with funerary rites, as was probably the case in the large theater at Petra. A mausoleum was found at a short distance to the east of the theater. The nearby East Church was probably built on the site of a Nabatean temple.

West of the theater, a large building from the Byzantine period was partially excavated. It apparently housed shops. This building had a small courtyard with a cylindrical cistern; two rooms south of the courtyard also were unearthed. On its west side the building leans on a thick wall built of field stones; the wall is 3 m high. The wall was apparently built before the construction of the Byzantine building, but its relationship to the theater is not yet clear.

THE EAST CHURCH. Although during surveys several churches were located, the East Church was chosen for partial excavations because of the short distance (36 m) between it and the theater. It was hoped that a Nabatean temple would be found underneath it. Its unusually large atrium, similar to the theater in some Nabatean temples, pointed in this direction.

Due to its unusually large size (29.6 by 77.4 m), the church was excavated in a series of sections at specific crucial points. The spacious atrium (28 by 32 m) had colonnades on four sides of eight or nine columns. The eastern portico (6.12 m wide) was paved, like the rest of the church, with large slabs of Proconessian marble. It is wider, and higher by three steps, than the other three porticoes. The roof of the portico rested on eight massive limestone

Greek inscription from the scaena frons *area giving an account of the repaving of the theater in 454–455 CE.*

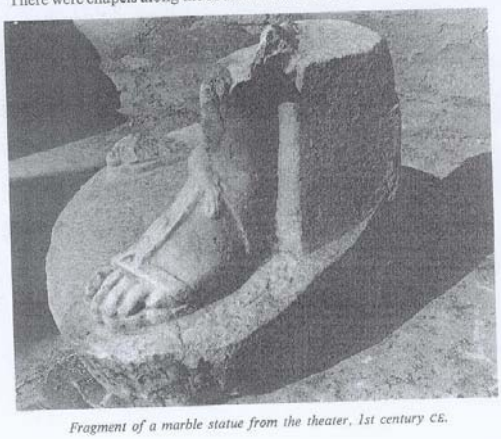


columns. The middle of the three entrances leading from the portico to the basilica is almost 3 m wide. The basilica (17.7 by 39.45 m, external measurements) has two rows of ten marble columns to a row. The large Corinthian capitals and their matching Attic bases were all made of Proconessian marble. The nave is 7.27 m wide, and the aisles are of unequal width—4.35 and 4.5 m; the wider one is in the southern aisle. The T-shaped sanctuary is extremely large, and the bema is 2.5 column spaces deep. It has two steps facing the nave and one facing each aisle. The nave and aisles end in apses. The central apse is 5.65 m wide and 2.47 m deep. The northern apse is 3.58 m wide and 2.26 m deep. The southern apse is larger, being 3.82 m wide and 2.32 m deep. Most of the space within the central apse is occupied by a seven-step structure (2.47 by 1.39 m) that was originally faced with marble and by a bronze balustrade. This was probably the base of the bishop's throne, which identifies this church as the local cathedral. The presence of the throne prescribed the location of the 2-by-2.55-m altar well beyond the chord of the apse. The hexagonal marble ambo is in the northwestern corner of the bema, as in all other churches in the central Negev. The small marble capital that supported the wooden ambo was found in the debris. It was decorated with red paint and gold leaf and has an open-winged eagle on one of its sides. Fragments of chancel screens were found, that were decorated with crosses and wreaths. The chancel posts were typical of those found elsewhere in the Negev.

Evidence of a cult of martyrs was found in the debris of the southern apse. The floor of the apse was decorated with an eight-pointed star, made of a disc of marble and of variegated opus sectile sections. A small one-legged altar table, which may have held a reliquary, stood in front of the apse, behind the main chancel, in a small subsidiary chancel.

Sections cut in the area behind the three apses revealed that they dated to a late phase in the history of the church. The side apses were originally two rectangular rooms. The central apse they flank was itself originally wider and deeper; its size was reduced when it was faced with a shell one building stone wide. Both the original and the later central apse were faced with marble. No material was found to date the two phases, but their features are comparable with other churches in the Negev that date to about 350 CE and 450 CE.

There were chapels along the southern flank of the building. One of them



Fragment of a marble statue from the theater, 1st century CE.

Elusa: Corinthian capital from the East Church.



encampment. In a sandy environment with very little vegetation, areas of hard-packed loess revealed Middle Nabatean-Early Roman pottery and blackened stones from campfires. The Nabateans apparently pitched their tents there.

Robinson, *Biblical Researches*, 201–202; E. H. Palmer, *PEQ* 2 (1870), 35; Musil, *Arabia Petraea* 2, 202–203; A. Jaussen et al., *RB* 14 (1905), 253–257; F. M. Abel, ibid. 18 (1909), 89–166; E. Huntington, *Palestine and its Transformations*, London 1911, 121, 124; Woolley–Lawrence, (*PEFA* 3), 4, 30–31, 108–110, 138–143; T. Wiegand, *Sinai*, Berlin 1920, a.l.; A. Alt, *Die griechischen Inschriften der Palaestina Tertia*, Berlin 1921, 26–31; J. H. Iliffe, *QDAP* 3 (1934), 132–134; T. J. Colin Baly, ibid. 8 (1938), 159; H. D. Colt, *PEQ* 68 (1936), 216–220; G. E. Kirk, *PEQ* 73 (1941), 62; C. J. Kraemer, Jr., *Excavations at Nessana* 3, Princeton 158, passim; G. Lombardi, *LA* 22 (1972), 335–368; A. Negev, *BTS* 164 (1974), 8–18; id., *IEJ* 24 (1974), 153–159; 26 (1976), 89–95; id., *RB* 82 (1975), 109–113; 83 (1976), 545–557; 88 (1981), 587–591; id., *The Greek Inscriptions from the Negev*, Jerusalem 1981, 73–76; id., *MdB* 19 (1981), 4–46; id., *Antike Welt* 13 (1982), 2–33; id., *ESI* 1 (1982), 34–35; id., *Tempel, Kirchen und Zisternen*, Stuttgart 1983, 228–245; id., *Recherches Archéologiques en Israël*, 210–223; id., *Nabatean Archaeology Today*, New York 1986; id., *BAR* 14/6 (1988), 37; id., *LA* 39 (1989), 129–142; Y. Dan, *IEJ* 32 (1982), 134–147; J. D. Elliott, Jr., "The Elusa Oikoumene" (Master's thesis, Mississippi State Univ. 1982); P. Mayerson, *IEJ* 33 (1983), 247–253; id., *Zeitschrift für Papyrologie und Epigraphik* 69 (1987), 251–260; E. Ruschenbusch, ibid. 53 (1983), 123–148; R. Wenning, *Die Nabatäer: Denkmäler und Geschichte*, Göttingen 1987, 141–144; S. Margalit, *LA* 39 (1989) 143–164.

AVRAHAM NEGEV

12. Mamshit-Kurnub

Location:
This most eastern of the Nabataean towns lies east of modern Dimona.

Description:
Mamshit has been extensively excavated and a general plan of the town, its streets and complexes, is legible today and includes: city wall; caravanserai; lavishly built private houses and complexes, a western church; an eastern church; a Nabataean fort; a market street; public pool and bathhouse, and cemeteries.

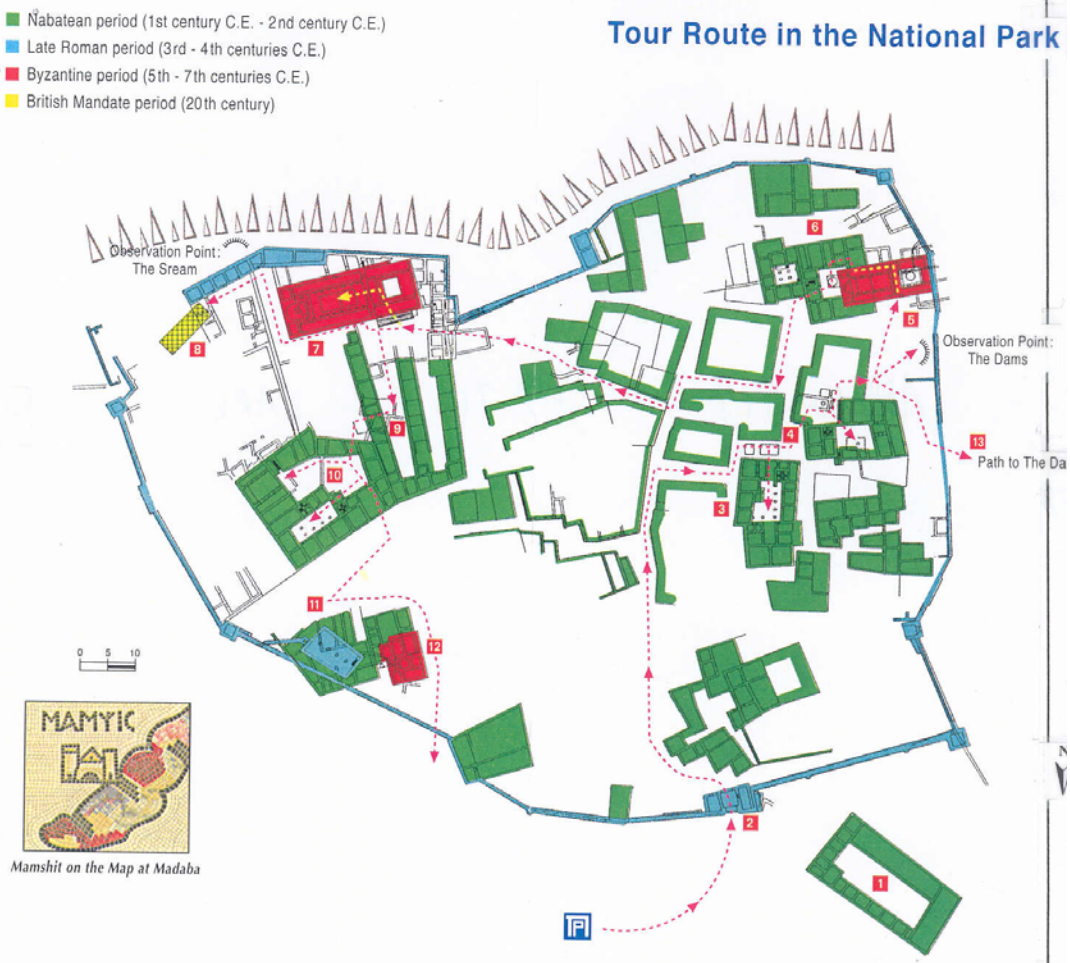
State of Conservation:
This small town has survived earthquakes and fire destruction fairly well, and exhibits remarkable state and quality of conservation. It is built with a medium to hard dressed limestone.
Much restoration has been carried out in excavated complexes.
Conservation of fragile elements (frescoes, mosaics, plasters) and walls has been carried out since the last decade.

Conservation Plan:
Mamshit, included in a conservation and management plan, is being professionally surveyed. On-going conservation projects are implemented according to budget/manpower availability.
Future plans for conservation (2002) include the bathhouse, the surrounding town wall, and the mosaics and plasters of the eastern church.



Mamshit or Kurnub or Mampsis

Evidence from excavations show that there was no settlement on this site prior to the first century B.C.E. It is first mentioned in the mid second century CE, by Ptolemy. Mamshit is first described by traveler Seetzen, in 1807 and its first detailed description and drawn plan was done by Musil in 1901.Dams and watch towers outside the city walls were described first by Woolley and Lawrence in 1914. Following the construction on the site, of British police station, a thorough survey was carried out by G.E. Kirk and P.L.O.Guy.
The first archaeological soundings were carried out by Applebaum in 1956revealing nine layers and four occupational strata. Between 1965 and 1967, then in 1971,1972 and 1990excavations were carried out by A. Negev on behalf of the Hebrew University of Jerusalem. These are the excavations which established the stratigraphy of mamshit and its foundation period to the first century B.C.E.



Mamshit-Kurnub National Park:

1. Caravanserai
2. Gate
3. The House of the Prosperous
4. The Tower
5. The Western Church – the Nile Church
6. Typical Nabataean House
7. The Eastern Church – The Martyrs Church
8. Museum
9. The Market
10. Nabato House
11. The Pool
12. Bathhouse



31

Mamshit-Kurnub

KURNUB

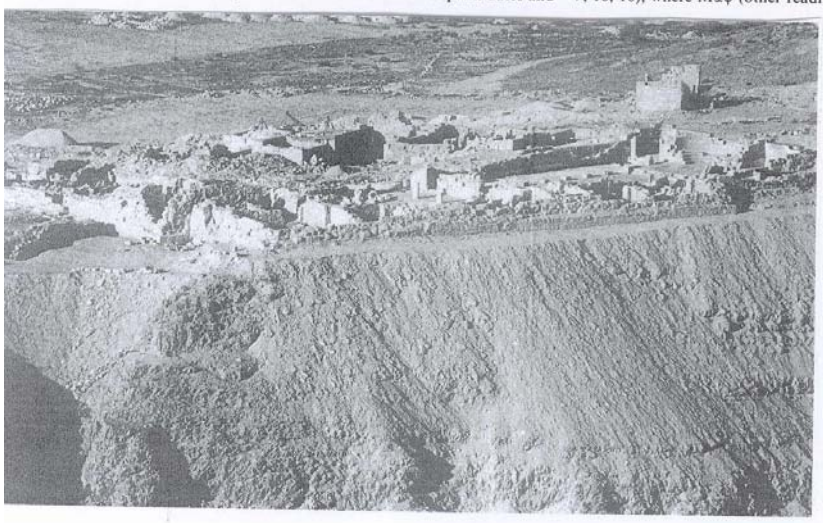
IDENTIFICATION

Kurnub (Mampsis) is in the central Negev desert, 40 km (25 mi.) southeast of Beersheba at the junction of the Jerusalem–Hebron–Aila (Elath) road and the road to Arabah and Edom (map reference 156.046). In antiquity there were probably also roads that connected Mampsis with Gaza and Oboda. Medieval Arabic lexicons explain the name Kurnub—the Arabic name by which the site is known today—as a kind of food made of palm dates and milk. Some of them suggest that the noun and verb may have come from the Nabatean language. R. Hartman's suggestion to identify Kurnub with Mampsis is generally accepted.

HISTORY

Mampsis is first mentioned in the mid-second century CE by Ptolemy (*Geog.* V, 16, 10), where Μάψ (other readings Μάψις, Μάψα) and Ἔλουσα are listed with the cities in Idumea. The city is later mentioned in Late Roman and Byzantine sources. Eusebius (*Onom.* 8, 8) relates that the village and military post of Thamara (probably 'En Ḥaẓeva) is one day's journey from Μάμψις, on the road from Hebron to Aila. In Saint Jerome's translation of this passage the site is called Mampsis. It seems that Mampsis also appears in the sixth century tax edict of Beersheba (Alt, *GIPT*, no. 1, the date is uncertain). Hierocles (*Synecdemos* 721.8; c. 530 CE) and Georgius Cyprius (*Descriptio orbis Romani* 1049; c. 600 CE) list Mampsis with the other cities in the province of Palaestina Tertia. On the Medeba map, an arched gateway flanked by towers, above which a red-roofed building rises, possibly the city's cathedral, appears under the name Μάμψις.

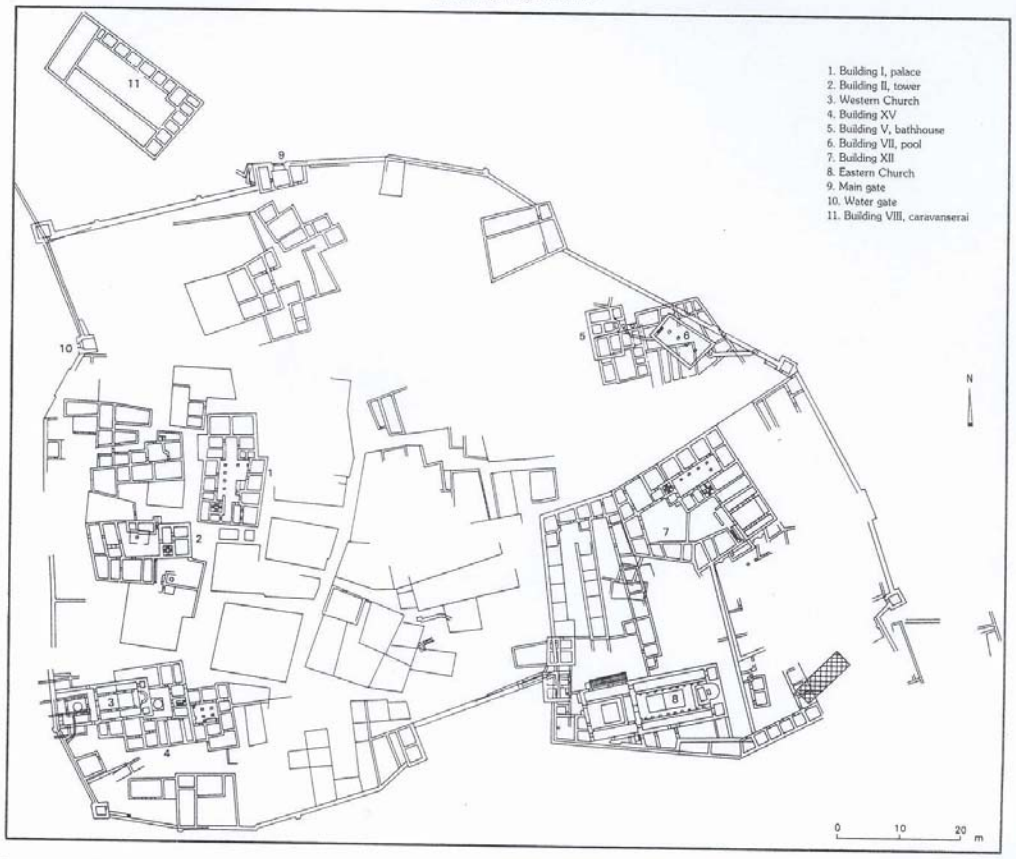
There is another reference to Μάμψις in one of the Nessana papyri



Kurnub: eastern part of the town.

From the Encyclopedia of Archaeological Excavations in the Holy Land, 1993

Kurnub: plan of the town.



(P Nessana no. 39, probably of the mid-sixth century CE). This papyrus contains two rosters of cities together with sums of money. In the first list, Mampsis appears fourth in the list, preceded by Nessana and followed by Oboda, with slight differences in amounts between the three. The scholar who published the document suggested that the sums of money in the list refer to taxes on agricultural products paid by wealthy farmers and the *limitanei*. According to this writer, this is unlikely because Mampsis's arable land is only a small fraction of that at Nessana and Oboda, and the estimated population of Mampsis (around 1,500) was far smaller than Nessana's (around 4,000) and half of Oboda's. This writer suggests that the list originated in an imperial or provincial office and records the *annona militaris* (military rations sometimes reckoned in money) paid to army units and units of the militia recruited in the three above-mentioned fortified cities.

Some scholars have identified Mampsis with *mmšt* on *lamelekh* seal impressions from the Iron Age II. There is, however, no archaeological proof for such an identification because no Israelite pottery has been found at Mampsis or its surroundings. It is, furthermore, not at all certain that *mmšt* is indeed the name of a town. The modern Hebrew name Mamshit was not adopted on the strength of this identification, but in an attempt to restore the original Semitic form of the name Mampsis.

EXPLORATION

In a marginal note on the map of U. J. Seetzen's voyage (1807) the name Kurnupp appears with the Arab names of the other Negev towns. At Kurnupp, Seetzen saw the remains of a fortress at the foot of a low hill, as well as traces of vineyards and orchards. E. Robinson viewed the site from a distance in 1838 and described it as a city built of cut stones. He subsequently distinguished what appeared to be churches or other public buildings. E. H. Palmer visited the site in 1871 but left only a short description of the ruins. The first detailed description of the site was provided by A. Musil (1901), who also drew a plan of the ruins. Musil noted that the city was surrounded by a wall flanked by towers and had churches in both its western and eastern parts. On Musil's plan the Eastern Church is shown in a separate walled area shaped like a triangle. The description is of particular importance because this eastern area was subsequently damaged by later building activity. Musil also noted the large tower in the western part of the town and the well in the valley to its south. C. L. Woolley and T. E. Lawrence drew up another plan of the remains in 1914 but without furnishing much detail. They did, however, record the dams and watchtowers around the city. They described the city as rather weakly defended against the Bedouin. They also noted both the gates of the city and, in its western part, remains of a large building near the tower. A large structure north of the Eastern Church is called the serai by them. In their opinion, the public buildings occupied about one quarter of the total area of the city. J. H. Illife visited Kurnub in 1934 and found Nabatean pottery and terra sigillata ware.

The most recent and most detailed survey was carried out by G. E. Kirk and P.L.O. Guy in 1937, on behalf of the Palestine Exploration Fund, following the construction of a police station on the site. Dissatisfied with Woolley and Lawrence's plan, they drew up a new, more detailed one. North of the town, near the northern gate, they found the remains of two very large buildings that had been covered by dunes. They also discovered a cemetery about one km (0.6 mi.) north of the town, with Nabatean pottery, terra sigillata ware, and black-glazed sherds on the surface. In the city proper, the surveyors noted two large ashlar buildings (appearing on their plan as A and B) and attributed them to the Roman rather than the Byzantine period. They further established that the two churches had probably been squeezed into a town plan that already existed before their construction. In the eastern quarter of the city, the surveyors noted a large building about 40 m long, with a row of rooms on either side of a central corridor.

In 1956, S. Applebaum, on behalf of the Hebrew University of Jerusalem,



Western part of the town.

carried out trial soundings near the inner side of the city's western wall. He discovered nine levels in four occupational strata, as follows: level II: fifth to seventh centuries CE; level V: fourth to fifth centuries CE; level VIII: fourth century CE; level IX: third century CE or earlier. Applebaum dated the beginning of settlement in the excavated area (2.5 by 2.5 m) to the third century CE. At the end of that century, building activity was resumed, and at the end of the fourth century or the beginning of the fifth, a large part of the settlement was destroyed. At that time, the Western Church (see below), erected only a short time earlier, was also damaged. In the sixth or seventh century, there was a short period of intensive building activity, and during that time the city's street plan—visible today—was drawn up. Applebaum ascribed the construction of the city wall to this period. Applebaum's conclusions are now being challenged in view of the new excavations' results.

From September 1965 to October 1967, and again in 1971–1972, excavations were carried out at Kurnub, on behalf of the Hebrew University of Jerusalem, under the direction of A. Negev. The excavations were conducted in five main areas: the city fortifications, the western quarter, the eastern quarter, the caravanserai, and the Nabatean and Roman cemeteries. The pottery and building remains date from the Middle Nabatean period (the end of the first century BCE and the first century CE), the Late Nabatean period (second and third centuries CE), the Late Roman period (fourth century CE), the Byzantine period, and the Early Arab period.

Excavations were resumed in 1990, on behalf of the Hebrew University, again under the direction of A. Negev. Excavations were carried out in some of the buildings partially excavated from 1965 to 1967, and in two newly discovered buildings north of the city.

EXCAVATION RESULTS

MIDDLE NABATEAN PERIOD. Nabatean potsherds and fragments of eastern sigillata ware were found scattered on the site (western sigillata ware was completely absent). Coins of Aretas IV (9 BCE–40 CE) were also found. The remains of several structures from the Middle Nabatean period could be identified. The large building, XX (fortress?), discovered in the northeast—the highest part of the city—is quite certainly from this period. It is a rectangular building, with heavy outer walls and an oblong central court surrounded by small rooms. Most of the building was destroyed, first when the Eastern Church and later when the modern police station were built. A Nabatean defensive tower (10 by 10 m)—a typical staircase tower—is incorporated into the southwestern corner of the market building (building IV). Middle Nabatean pottery was found in the tower's foundations. The foundations of a large building (building XXIV) underlie a street and some of the rooms on the eastern flank of the market building (building IV). Another large building (building XIX) was discovered near the northern city wall, which partly overlies it. Building XIX consists of a large courtyard, with a row of rooms on its northwest and long narrow storerooms on its southeast. The building was demolished when a large pool (building VII) was built on the same spot. Part of the building lies outside the area enclosed by the wall from the Late Roman period. Remains of still another building from the same period were discovered beneath the courtyard of the Western Church and to the north of it. Occupation layers from this period were discovered under the towers of the northern gate (together with painted Nabatean pottery and numerous coins) and under the eastern wing of the palace (building I). There, fragments of "Herodian" lamps and eastern sigillata ware were discovered together with Nabatean lamps. Other finds from this period were uncovered in the cemetery (see below). Although the nature of this early town is yet unknown, it was no smaller in size than the city of the later period.

LATE NABATEAN PERIOD. In the Late Nabatean period, a completely new town plan was laid out, whose streets were determined largely by the location of the mansions of the rich. The main street cut through the town from north to south, separating the public buildings from the residential area. Three buildings in the quarter west of the main street were identified as Nabatean by their masonry and other architectural details. A large building (building XII) in the eastern quarter forms a separate self-contained and fortified unit.

Building I. Building I, situated in the center of the western part of the town, is



Building II, Late Nabatean period.



Left, top and bottom: two coins of Molcho II, year 4.

Below: coin of Rabbel and Sekilat, year 3 of Rabbel.

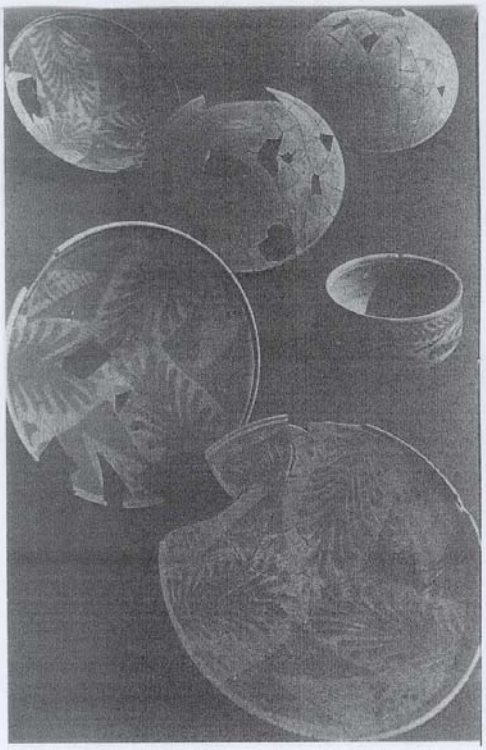
a structure of considerable size (its length from north to south is 35 m; its width, 20 m). It consists of two separate units, on a somewhat asymetrical plan, that were built within a short time of each other and joined. Because of its unique plan and splendor, the excavators assumed this to be the palace of the city's governor. The entrance was in the south, through a narrow corridor; steps occupy the entire width of the corridor and lead down to an inner courtyard (19 by 6 m). West of the corridor is a guardroom. Along the western and northern walls of the courtyard stood a colonnade of square pillars that supported arches. Round columns were probably placed on it. The colonnade reached the balcony of the upper story. A door in the southeastern part of the courtyard leads to a hall whose western part is elevated. Two engaged pillars and two columns, preserved in situ, separate the two areas. The column bases do not belong to any of the classical orders and are apparently Nabatean. The floor of the hall was probably made of wooden planks. The part of the hall facing the door had a stone roof, but the rest of it was either open to the sky or covered with perishable materials. This may have been a guest room, in the fashion of the oriental diwan. Another doorway, near the first one, leads to a room on a lower level. In the room's southern wall, cupboards were built, between the arches of the roof, probably for storing documents.

West of the courtyard additional rooms were built on the unleveled bedrock. They may have served as storerooms. A door in the southwestern corner of the courtyard gives access to a stairway, almost completely preserved, leading to rooms and a balcony on the upper floor. Only a few courses of this story are extant. Signs of floors and other construction from an earlier period were found in the rooms east of the courtyard. On the floors and between them Nabatean painted sherds, lamps, and coins were found together with Herodian lamps. This may have been the site of a Nabatean house in the first half of the first century CE. An arched passage (7.5 by 4 m) leads to the other, more sumptuous part of the building, which consists of six rooms paved with stone slabs. The bases and capitals of the doorposts have nonclassical moldings. One typical Nabatean capital was discovered in situ. The voussoirs show typical diagonal Nabatean tooling. This part of the house—its north, west, and east sides—was probably the residential wing. The outer walls of the house are constructed of carefully smoothed ashlars. Inside, the doors, adjacent walls, and the arches are also of ashlars. The rest of the walls are built of chipped stones and show traces of white plaster.

In building I, coins from three periods were found: Nabatean (below Late Nabatean floors): Aretas IV (two coins, 9 BCE–40 CE), Malichus II (two coins, 40–70 CE), and Rabbel II (70–106 CE); Late Roman: from Septimius Severus (193–211 CE) to Gallus (351–353 CE); Byzantine: Theodosius I (379–395 CE) to Justinian (527–565 CE).

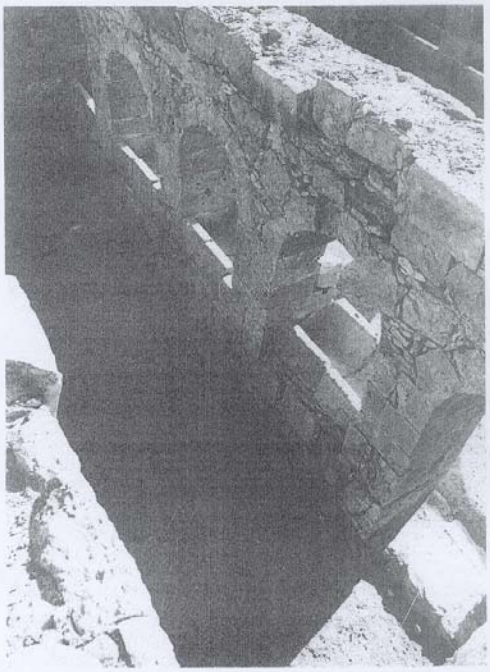
Building II. Building II, situated to the west of building I, is a square tower (10 by 10 m) with a courtyard containing a roofed water reservoir. The outside walls of the tower are built of ashlars, and the lower courses built of rather hard stone; some of the blocks are 3 m long and more. The upper courses, like those of the upper story, are built of smaller and softer stone. The entrance to the building was through a door on the west, which led to three rooms (4 by 4 m each) with high narrow windows and stuccoed walls. The westernmost room gives access to a stairway built around a heavy square pier that shows typical Nabatean tooling. The stairway leads to the upper story, of which two courses are preserved in situ, as are the threshold and the doorposts of the building. The whole building still stands to a height of about 5 m. This tower seems to have been the administrative center of the city, serving also as an observation post, from which watch could be kept on the water-storage installations at Naḥal Mamshit. A paved courtyard containing a water reservoir extends to the west of the building. The lower part of the reservoir is cut into the rock: the upper part is built of hewn stone. To the west of the courtyard are long narrow storerooms. South of the courtyard is a suite containing one large hall with two oblong, narrow rooms, one on either side of the hall. These were probably for official guests. At the northeastern corner of the courtyard, several steps lead to a raised platform. This installation was used for loading and unloading goods. There were no artifacts found by which this building could be dated, but the great size of the stones embedded in its foundations may date its construction to the Middle Nabatean period. Coins found in this building were from the time of Constantine I (308–337 CE) to Justinian (527–565 CE); two coins were identified as Late Roman.

Building XI. Building XI is situated in the southwestern part of the city. Its western half was destroyed when the Western Church was built; the rooms of its southern wing were incorporated into the church. The building measured approximately 27 m from north to south and 35 m from west to east. In a courtyard at its center is a cistern with arches, roofing, and its water-drawing hole preserved in situ. South of the courtyard three rooms are arranged in the form of a basilica—a wide nave set between two elongated aisles. The western and eastern walls of the central hall contain doors and four arched "windows". Mangers built into the sills of the windows indicate that the elongated rooms served as stables. Other rooms are situated north and east of the courtyard. Another door gives access to a staircase leading to an upper floor; the staircase was built around a strong rectangular pier. Several stone courses of the upper story have survived. Southwest of the court is a small room whose plan is unusual. Its eastern half is vaulted, with a flat roof, while its western half was open to the sky. Built into the western wall is a tall,

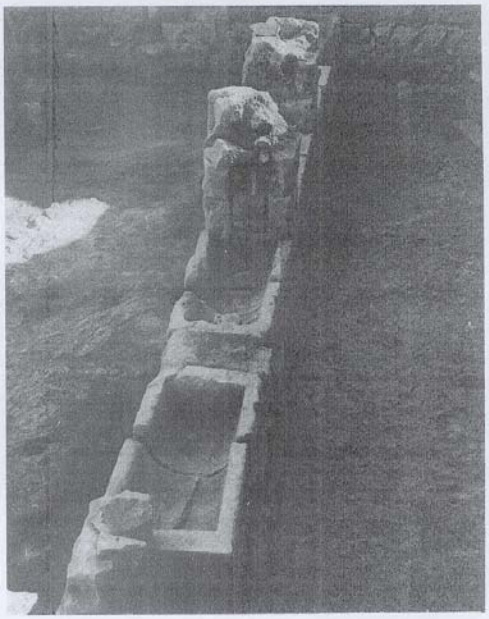


Painted Nabatean bowls from funerary meals in the Nabatean cemetery.

Building XII. Late Nabatean stable.



Building XII: troughs in the stable.



rectangular niche. It is possible that in lieu of a proper temple, this small room served as a house-shrine (no new temples were built in the Late Nabatean period). The statue of the deity was apparently placed in the niche, while on the flat roof frankincense was burnt and libations were poured.

In the Byzantine period, the plan of the building underwent several changes; some of the doors were blocked and new ones were added. The inner windows in the stable were blocked by masonry, and the central hall was partitioned by a wall, to provide for living space. Coins of Constantius II (337–361 CE) were found in the debris and on floors; one coin from the second half of the third century, four coins from the fourth century, and one from the Byzantine period were also identified.

Building XII. Building XII, another building from the Late Nabatean period, is situated in the eastern part of the town. It forms a complex (about 40 by 40 m) of several units, all erected during the same period. The facade of the building, oriented northwest, is 40 m long and has a single entrance that leads to a large vestibule with arches.

A doorway in the southern wall of the entrance hall opens onto a large courtyard that is irregular in form; the courtyard gives access to the different parts of the building. At the eastern side of the courtyard a gamma-shaped stylobate was discovered on which stood columns with typical Nabatean capitals. The stylobate was connected to an oblong stairway that led to the roofs above the stables and to a most elaborately planned lavatory. The stable is of the type described for building XI (see above), but was considerably larger and more lavishly decorated.

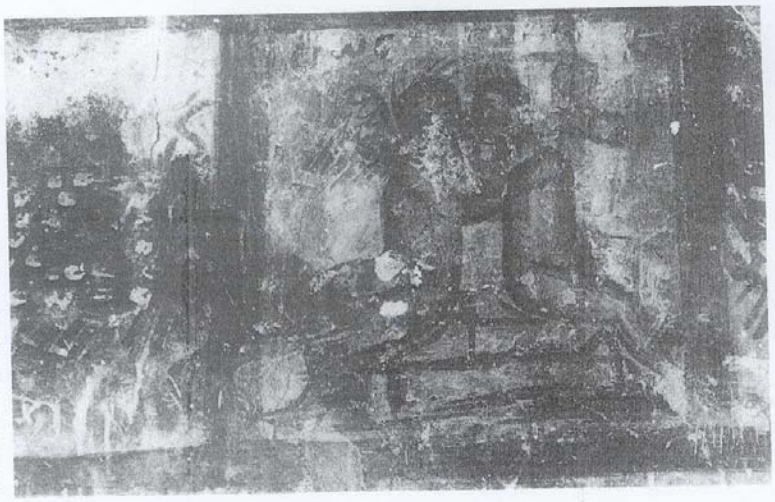
The residential wing occupied the northeastern part of the mansion. A vestibule and a large room form a suite for visitors just before the entrance to this wing. Another small vestibule, with Nabatean-type doorposts, decorated with a human mask, a bull's head, and an amphora, leads into a rather narrow, oblong courtyard (6 by 15 m), with two Nabatean type staircases (built around central piers)—one leads to rooms in the upper story and the other to the upper level of a treasure room. The floors of the upper story were decorated with mosaics. In one of the rooms in the lower story a large cistern (with a capacity of 300 cu m) had been hewn in the rock.

The treasure room is south of the courtyard. The vestibule leading into it is decorated on the upper half of its walls and on its ceiling arches with two bands of frescoes that depict men and women walking with various objects in their hands. One scene appears to be Leda and the swan. The lower band contains various standard decorations, among them a small panel depicting two winged beings seated on a couch, who are identified by a Greek inscription as Eros and Psyche. On the stones of the arches, naked men and clothed women hold palm fronds in their hands. Their feet are on the wall and their heads are at the center of the arches, where the head of a young man is depicted in a medallion. The paintings were influenced by third century CE Roman paintings. In the ruins of the staircase a large bronze jar was found with 10,500 Roman silver dinars and tetradrachms. The earliest were four silver coins of Rabbel II (70–106 CE); about 2,000 were dinars and tetradrachms of Trajan (98–117 CE) and Hadrian (117–138 CE); and the remaining ones were tetradrachms of Septimius Severus (193–211 CE), Geta



Building XII: Nabatean capital decorated with a bull's head, from the decorations at the entrance to the residential wing.

Wall painting in building XII.



(211–212 CE), Caracalla (188–217 CE), and Elagabalus (218–222 CE). Most of the coins were minted in Syria. The dinars of Trajan were minted over Nabatean coins of Rabbel II, quite certainly in the new mint of the Provincia Arabia. This hoard represents the wealth of a horse breeder. Building XII was also occupied in the Byzantine period. Interconnecting doors in the residential part of the building were blocked, and Christian symbols were engraved on lintels and doorpost capitals. It is in this period that building XII, building IV, and the Eastern Church were connected by a wall on the east, forming a separately defended unit.

In 1990, the rooms in the western and southern wings were excavated. These were in constant use from the Late Nabatean to the end of the Byzantine periods. In one of the rooms a forge was discovered. The pottery in the room indicates that it was used in the Early Arab period.

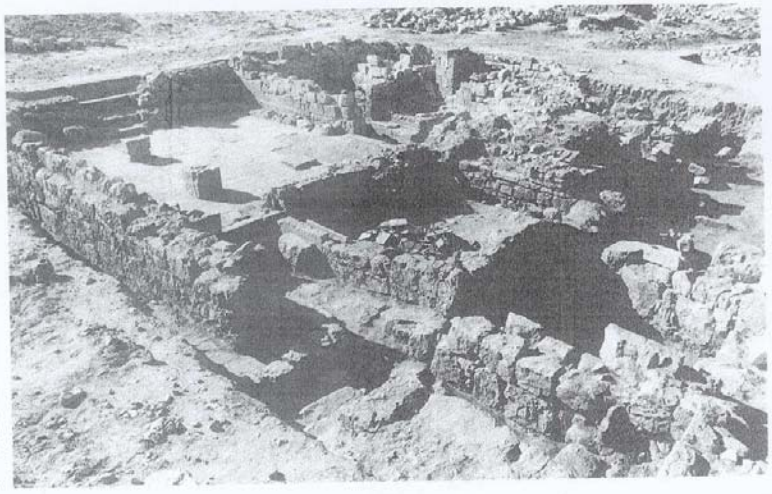
The coins found in building XII were of Constantius II (337–361 CE), Constans (337–350 CE), Anastasius (491–518 CE), Justin I (two coins, 518–527 CE), and Justin II (565–578 CE). Twenty-two coins were from the fourth century, and one was from the fourth to the fifth centuries.

Building IV. Most of building IV was excavated in 1990. It consists of two streets along which three rows of shops are grouped. The southern part of the building is built on the foundations of a large building (building XXIV) from the Middle Nabatean period. The original assumption that the building existed in the Late Nabatean period, in which neighboring building XII was built, now seems doubtful; it is probable that the rooms built against neighboring building XII are earlier than the part of the building that remains. An examination of the plan of building IV shows that it is directly related to the Eastern Church, which it adjoins. The pottery and numerous coins found in most of the rooms are from the fourth century and later. They and the numerous cooking and baking ovens found in the rooms also cast doubts on the previous identification of building IV as a market. Other possibilities are that these rooms housed hermits, or recruits in the local militia (see the discussion of buildings XXII–XXIII below).

In building IV, coins were found of Malichus II (40–70 CE), Rabbel II (70–106 CE), Septimius Severus (193–211 CE), Claudius II Gothicus (268–270 CE), Aurelian (two coins, 270–275 CE), Julian (361–363 CE), Valentinian II (375–392 CE), Theodosius I (379–395 CE), Arcadius (383–408 CE), Anastasius (491–518 CE), Justin I (two coins, 518–527 CE), and Justinian I (minted 527–538 CE). Also found were one coin from the second to the third centuries, twenty-three coins from the fourth to the fifth centuries, and five coins from the Byzantine period.

Building VII, the Public Pool. Building VII is a large installation (about 18 by 10 by 3 m) situated on the northeastern side of the city, near the city wall, at a slight distance from building XII. Its outer and inner walls are built of large hewn stones, but the faces of the stones in the inner wall are rough. Four engaged pillars in the northern and southern walls and four pillars in the center of the pool indicate that the structure was roofed—probably with wood because the distances between the pillars are too great to be spanned by stone slabs. A short water conduit leads from the city wall to a square water tank attached to the eastern wall of the pool. The water was brought by water carriers and pack animals from the water-collection systems in the wadi to the west, and from the subsidiary water-collection system to the east of the town. The pool was apparently built in the Late Nabatean period and continued in use in later periods, as indicated by the water conduit, which was built at the same time as the later city wall.

Building V, the Bathhouse. Building V lies near the city wall, adjacent to the public pool. An entrance on the west leads into a courtyard that occupies its southern side. In the center of the courtyard was an enclosure with four pillars, probably belonging to a roofed colonnade. Stone benches line the walls of the courtyard, which probably served as a dressing room (apodyterium). Stairs in the northeastern corner lead to a room containing two cold sitting baths (frigidarium), one of them octagonal and the other round. A doorway in the western wall of this room leads to another room whose walls and floor are coated with waterproof plaster; this room probably served as a lukewarm bath (tepidarium). The hot bath (caldarium) consisted of three rooms, with very thick walls, sunk deeply into the ground. The rooms occupied the entire northern side of the building. The first room (on the east) contains the remains of a water-heating stove, from which a brick channel leads to the other two rooms. The columns of the hypocaust and several of its arches were discovered in situ, while pottery pipes of the the upper heating system were found in the rubble. The water-supply system as well as the waste-water evacuation system were also discovered. The bathhouse can



Remains of the bathhouse (building V).

only be dated approximately. Although the pottery found there belongs to the Byzantine period, it cannot be used conclusively for dating because such pottery was also uncovered in typical Nabatean buildings. Thus, the bathhouse, which was in use in the Byzantine period, could have been built in the Late Nabatean period.

Building VIII, the Caravanserai. Building VII is a large structure (approximately 23 by 42 m), a short distance outside the later city wall, near its northwestern corner. However, remains of walls from the Middle Nabatean period, discovered between building VIII and the city wall and underneath it, indicate that building VIII was not isolated. It had a large court, large halls to the west and south, and rows of rooms along its northern and eastern sides. The rooms on the northern side have two systems of roofing arches—an early one, running north–south, and a later one, running east–west. This building was almost completely excavated in 1990. In order to construct the new east–west roofing system, a deep hole was dug at the base of the wall and filled with stones. Above this fill the arch-supporting attached pilaster was built. In the southernmost room of the eastern wing, debris consisting of hypocaust bricks was found—possibly from a bathhouse that was part of the caravanserai. In the long hall extending along the southern side of the building, columns found in situ indicate that the hall's roof was timber or an even lighter material, and was supported by the columns and lateral walls.

Coins were found of Aretas IV (two coins, 9 BCE–40 CE), Malichus II (two coins, 40–70 CE), Rabbel II (70–106 CE), Caracalla (198–217 CE), Aurelian (270–275 CE), Probus (276–282 CE), Diocletian (284–305 CE), Constantine (two coins, 308–337 CE), Constantius II (337–361 CE), Constantius II or Constans (337–361 or 337–350 CE), Valentinian II (375–392 CE), Theodosius I (379–395 CE), and Arcadius (385–408 CE); two coins are from the second to the third centuries, thirty-eight coins are from the third to the early fifth centuries CE, and four are from the Byzantine period.

The Water-Supply System. The water-supply system of Mampsis was surveyed by Woolley and Lawrence. They suggested that the three dams built in Naḥal Mamshit were constructed to prevent erosion of the agricultural land northwest of the wadi. They offered as evidence the fact that the two upper dams were completely silted up, and that only the lower dam was fully visible. This, however, is not the case. The lower dam is 24 m long, 11 m high, and 7.8 m wide at its upper part. It is revetted by hewn stones set in a hard mortar and its interior is composed of large stones embedded in mortar. The head of the dam was covered by numerous layers of flint mixed with mortar, which produces a rock-hard cement. The face of the dam has deep grooves from streams of water and rolling stones. The middle dam is 50 m upstream. It is 20 m long and 5 m wide at its head. The upper dam is 35 m from the middle dam. It is 53 m long and 3.4 m wide at its head. The faces of the middle and upper dams are perpendicular, unlike the lower dam, whose face is oblique. Because of the construction of a new dam downstream by the British authorities in the 1940s, two thirds of the lower dam is now covered with silt. From the dams, a stepped path cut in the rock leads up to the city.

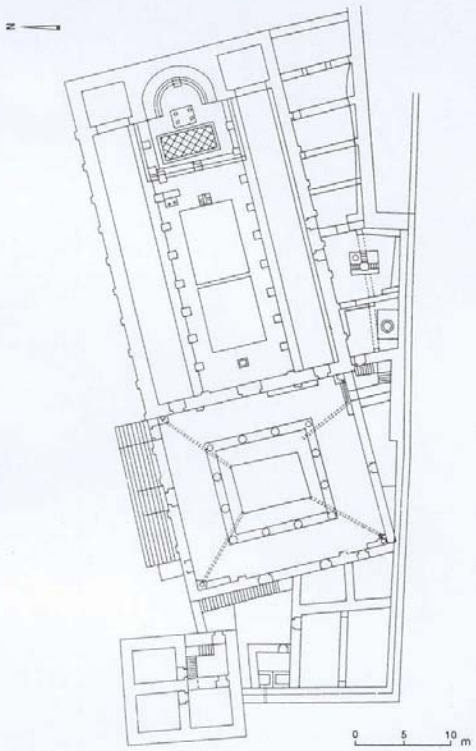
To the east of the city, in a tributary of Naḥal Mamshit, Woolley and Lawrence discovered another water-conservation system. It was built above the upper waterfall of the steep and narrow wadi. It is 20 m long and 3 m high. The expedition discovered still another water-supply system south and west of the city. On the upper third of the slope of the mountain rising above the city, a narrow, shallow channel 2 km (1 mi.) long was made. It emptied the rainwater into a small pool west of the city. These were the only water resources at Kurnub in the Late Nabatean period. Apparently, in the Byzantine period a well was dug in Naḥal Mamshit southeast of the town.

THE LATE ROMAN PERIOD. Because of their excellent construction, the buildings of the Late Nabatean period served the population in the Late Roman period as well. Evidence for the Late Roman occupation is supplied by the pottery and numerous coins found in and around the city.

The City Wall. The city wall was apparently constructed in the Late Roman period, and it appears that its entire length was constructed simultaneously. Initially, a wall 0.7 to 0.8 m wide was built, but it was subsequently more than doubled. Coins found in its foundations date it to the time of Diocletian. The wall, which is defended by corner towers and salients of differing length, encompassed an area of about 10 a. Its course is irregular because it adapts both to topography and to include several earlier buildings. It is approximately 900 m long.

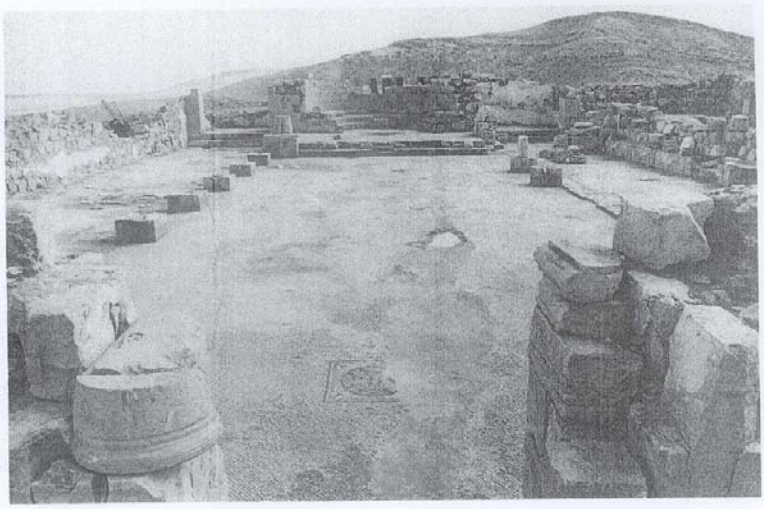
The wall was built of hewn stones, laid in regular courses, with a filling of broken stone and plaster. Here and there sections of the wall can be seen to be built of stones in secondary use. There were two gates in the wall—the main gate on the north and a secondary smaller gate on the west. It is noteworthy that the main gate does not conform to the course of the Late Nabatean main street. The main gate is defended by two towers of unequal size. At some time the width of the walls of the towers was also doubled. Although Middle Nabatean and Early Roman pottery was found underneath the floors of the towers, there are no earlier building remains. The stone-paved gate hall was roofed by three arches. In the debris the iron linings of the towers' wooden doors were found. The doors were destroyed by fire, burying the lining in a thick layer of ash and charred wood. The smaller western gate is an opening in the wall defended by a pair of heavy doorposts. This gate was apparently added to help in bringing the water supply from the dams in the wadi. There were two posterns in the wall, which apparently were blocked in the Byzantine period. Additional evidence for the fate of Kurnub in the Late Roman–Early Byzantine periods was discovered in buildings XXII–XXIII (see below).

Plan of the Eastern Church.



BYZANTINE PERIOD. The Eastern Church. The Eastern Church is built on the highest point in the city, at the place once chosen for the Nabatean citadel. The church complex includes the church proper, a chapel, a baptistry, annexes (a monastery?), a bell tower, and a small bathhouse. The entire complex measured 55 by 35 m. The church was unusually well built. Its outer walls are of finely dressed ashlars; to alleviate the heavy impression created by a high wall more than 50 m long, nonfunctional shallow pilasters, crowned by deeply engraved rosettes, were built all along it. This method of construction is Roman and was employed only rarely in the Byzantine period. Due to the limitations of the terrain, the church is approached by a broad flight of stairs, leading to three entrances in the northern wall of the atrium (15 by 18 m), the four sides of which were surrounded by a colonnade. In the center of the atrium was a cistern (6 by 5 by 4 m). The roof of the cistern was supported by four arches, and the water was supplied by gutters in the four corners of the atrium. Traces of the gutters and the drains that carried the water under the floor of the atrium were found. From the atrium (there was no narthex) three entrances open onto the nave and two aisles. The interior measurements of the church are 27.5 by 15 m; the width of the nave is equal to that of the two aisles. The roof of the church was supported by two rows of columns and by two engaged pillars in each row. The columns were placed on stone squares—not on the stylobate founded on the rock, as originally planned—which made the nave narrower by about one meter. The slanting roof had a frame of wooden beams covered with clay roof tiles. A raised bema was reached by two steps. The church included a central inner apse, flanked by rectangular rooms with no apse. On the stones of the apse numerous invocations were engraved in Arabic, probably by Arab passersby in later times. The altar stands on the chord of the apse, to its west. A bench, composed of three steps,

The Eastern Church, looking east.



extends around the apse. In the middle of the bench, steps lead up to the base of the bishop's throne.

In the excavation of the lateral rooms in the summer of 1971, remains of a cult of saints and martyrs were discovered. Reliquaries had been built into the floors of the two side rooms, with small altars above them. In addition, in a corner of the side room on the south, a small grave was found with a single bone in it; the bone apparently belonged to a saint. A paving stone above the grave has a hole in its middle, through which oil could be poured. In the 1990 excavation, the removal of part of the floor of this side room produced a tomb whose floor was of green roof tiles. The coverstones of the tomb were decorated with colorful paintings of a palm branch, reminiscent of the paintings in building XII. The bones had been carefully collected by the builders of the church and deposited somewhere else.

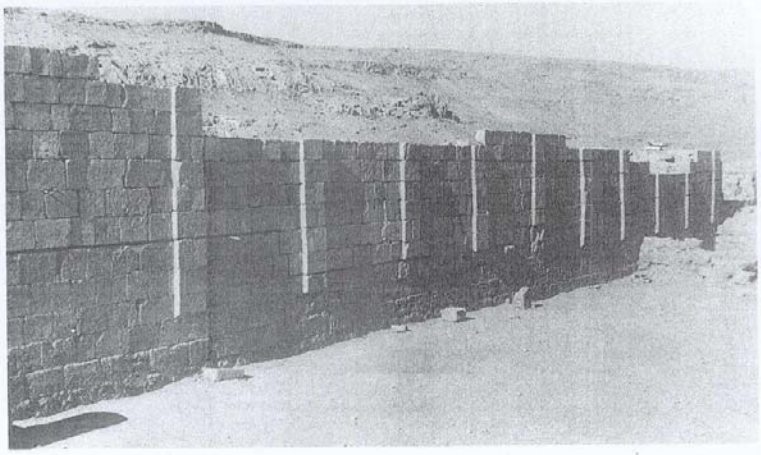
Below the floor of the side room on the north, a structure, probably a charnel house, was found. The remains of an ambo on a marble base were found northwest of the bema. The aisles were paved with stone slabs and the nave with mosaics in simple geometric patterns. Two large crosses appear in the mosaic, opposite the entrance and in front of the bema. Along the southern wall of the southern aisle are two stone benches. A door in the southern wall of the basilica opens into a chapel (16.25 by 3.5–6.5 m). The chapel's sanctuary takes the form of a bema, raised by one step above the floor of the hall, and separated from it by a chancel. There are benches along the northern and southern wall. This chapel could have been used for the preparation of catechumens. An opening in the western wall of the chapel communicates with the baptistery, which has a cruciform font set into the floor. The font was covered with a baldachin on four colonnettes, decorated with crosses on their capitals. An opening in the northern wall of the baptistery led the newly baptized Christians into the basilica. Three doorways in the western wall of the atrium give access to five annex rooms, one of which held two bathtubs large enough to sit in. South of the bathhouse are three rooms, possibly belonging to a small monastery. A staircase in the southeastern corner of the atrium leads to a gallery on top of the colonnade. These southern annexes were constructed later than the church and the western annexes. Because the rooms in the south are built against the city wall, their plan is irregular. The line of the wall was moved when the annexes were erected. Other alterations can be distinguished in the church—in the stairway leading to the atrium and at the entrances to the aisles.

The northwestern corner of the Eastern Church is built against a tower. The tower is similar in form and plan to building II but is somewhat smaller (8 by 8 m). Its method of construction is different, however. Its outer walls and the door frames on the interior were built of large blocks of soft limestone, yellowish in color and smoothly dressed. The walls on the interior were made of large blocks of harder, hammer-dressed stones. In between the two faces of the wall is a thick filling of small stones and gray mortar, which has the consistency of cement. The tower, which has four rooms, is entered from the east. The entrance room is on the southeast, and also contains stairs, the lower ones built of stone, and the upper ones probably of wood, as may be deduced from a beam found in the rubble. The doors of the rooms are arched. This tower was apparently the bell tower of the church. In the ruins of the tower a sundial was found that probably marked the hours of the church services. At noon the shadow fell into a grooved cross.

Coin finds in the church are of Aretas IV (9 BCE–40 CE), Diocletian (284–305 CE), Theodosius I (two coins, 379–395 CE) Arcadius (383–408 CE), Anastasius (491–518 CE), Justin I (two coins, 518–527 CE), Justinian (527–565 CE) Six coins are from the fourth century, three are from the fourth to the fifth centuries, and one is Byzantine.

The Western Church. The Western Church is situated in the southwestern corner of the city, near the wall. West of the church is an atrium surrounded by colonnades and with a small cistern in its center. In the southwestern corner of the atrium several steps lead to a small structure of hewn stones. It probably served as the base of a large wooden beam, which was beaten to summon the faithful to the church. Outside the atrium were small ovens built of rings of baked clay, probably a bakery for the bread used in the eucharist.

The three openings leading from the atrium into the basilica were decorated with a frame of moldings running in a continuous line. The inner measurements of the church are 17.5 by 10 m; except that it is smaller than the Eastern Church, the two are nearly identical in plan. The Western Church also has annexes on the southern side, but has no baptismal font. The Western Church seems, however, to have been more elaborate than the Eastern Church. The aisles were paved with stone slabs and the nave and intercolumnar spaces with colored mosaics. The western field of the nave is covered



Partially restored northern wall in the Eastern Church.

Nave mosaic in the Western Church.



with octagonal medallions filled with birds and baskets of fruit, all on a background of geometric patterns, spirals, and double axes. The central field is a geometric carpet containing a dedicatory inscription (mentioning a certain Nilus who built this holy place). In front of the bema two peacocks are represented flanking an amphora from which a vine emerges. On a narrow band, between the peacocks and the steps of the bema, are three dedicatory inscriptions, again naming Nilus and two wardens of the church. Mosaics of intersecting circles and various other geometric patterns also

The Western Church, looking east.



appear on the bema, except for the area of the altar. The intercolumnar spaces are paved with geometric panels, continuous bands of flowers, and a band with representations of assorted fruits, a checkered pattern, a swastika, and other geometric designs. The church was destroyed by a violent conflagration; parts of wooden beams and roof tiles were found in the debris, together with stone and marble fragments.

Coin finds are of Aretas IV (9 BCE–40 CE), Probus (276–282 CE), Constantius II (two coins, 337–361 CE), Theodosius I (379–395 CE), and Marcianus (450–457 CE); and four coins from the fourth century and one Byzantine coin.

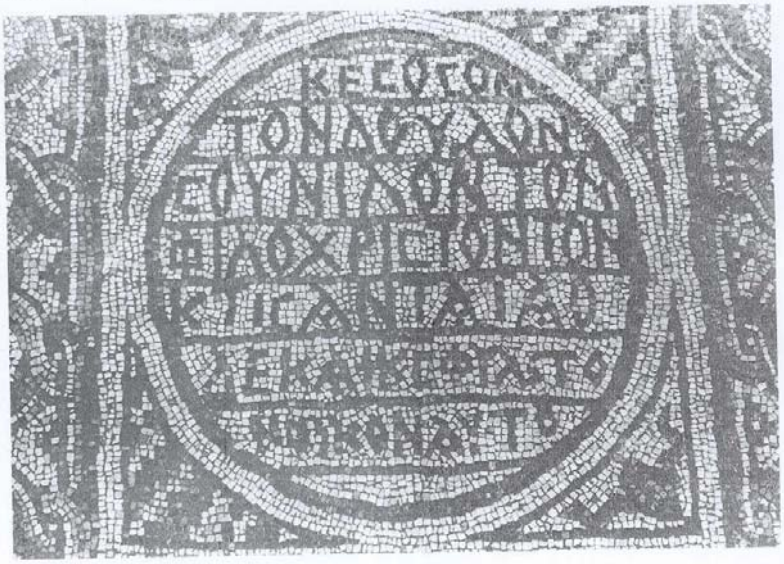
The Dating of the Churches. The inscriptions in the Western Church contain no evidence to date its construction. The only indication for dating the Eastern Church is the two crosses in the mosaic pavement. Because depicting the cross on the floor of a church was prohibited after 427 CE, the excavator concluded that the building had been erected prior to that date. The date is also confirmed by the discovery of a number of coins of Constantine and Theodosius I. However, the coins from the middle of the fourth century CE that were found in the fill of the altar point to an earlier date for the construction of the church.

More extensive excavations, whose objective it was to learn the date and method of construction of the Western Church, were undertaken in 1990. The excavations revealed that in order to construct the Western Church, a large foundation pit the size of the planned building was made. At places the trench penetrated a level from the Middle Nabatean period, represented by thick layers of ash containing typical pottery from that period. The foundations of the Late Nabatean building XI had been laid above those layers. To this period apparently belongs a coin of Probus (276–282 CE). In order to consolidate the fill for the foundation pit after the Church was completed, walls were built perpendicular to the church. A coin found in the upper levels of the trench was from the second half of the fourth century CE. In addition to the excavations in the rooms flanking the apse in the Eastern Church (see above), an additional trench perpendicular to the outer eastern wall of the church was dug. A coin of Diocletian (284–305 CE), which belongs to the prechurch period was found, along with two coins, one of Theodosius I, and the other from the second half of the fourth century. They belong, in all probability, to the period of construction of the Eastern Church.

BUILDINGS XXII–XXIII. Buildings XXII–XXIII, which are almost completely covered by sand, are apparently the large buildings noted by Kirk and Guy in 1937. They are 40 to 70 m from the caravanserai (building VIII). In 1967, one of the long walls of the larger building, XXII, was exposed and found standing 4 to 6 courses high. In 1990, the walls of both buildings were traced by the excavation's trenches, and some of the rooms were completely or partially excavated. An architectural analysis indicated that building XXIII is earlier.

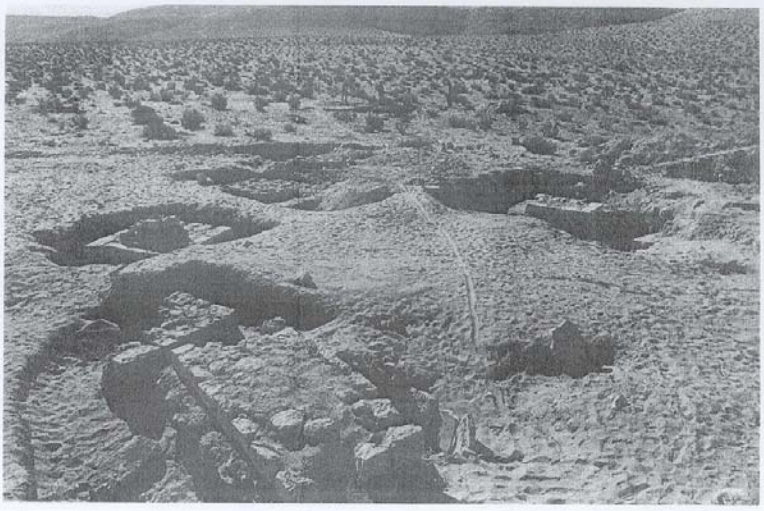
Building XXIII is an almost perfect square (30.3 by 30.24 m). Except for its doorposts and roofing pilasters, which were made of hewn stones, its remaining parts were built of large hammer-dressed blocks of hard limestone. Only two to three courses of the building remain. As rather small quantities of building blocks were found in the debris, it is clear that the building was looted for building material in antiquity.

The building is entered from the east via a spacious vestibule also leading to a large court on the west (28.6 by 29.25 m). There are two rooms on the north and a hall (5.47 by 11.30 m) to the south of the vestibule. The rooms and the hall are spanned by arches, but because the distance between the arches and the lateral walls is too great for stone slabs, wooden beams must have been used. All the rooms were paved, but the flags were taken away at the same time the building stones, doorposts, lintels, and thresholds were robbed. Changes were introduced in the rooms at a later period. Pottery from the Middle Nabatean period, the time the building was constructed, was found outside the western wall of the court. In the rooms and hall much pottery from the fourth to fifth centuries CE was found. Except for the regular household wares, the pottery repertoire included many types of imported wares from major pottery-production centers in the Byzantine world. In some of the rooms large quantities of coins also were found. It seems that in this period the extant stumps of walls supported walls and roofs of light perishable materials.



Dedicatory inscription of Nilus in the Western Church.

General view of the Nabatean cemetery.



Building XXII was built against the western wall of building XXIII and is thus from a later period. As with building XXIII, all outer walls and walls facing the court were built of ashlars. This large building (35.8 by 45.25 m) was entered through a gatehouse at the southeastern corner, with a guardroom and an office on one side and a suite of two rooms on the other. Most of the southern side of the building is occupied by a hall (5.85 by 18.3 m) whose roof rested on four columns. The hall is entered from the large court (29.25 by 24.7 m). Along the eastern side of the court are eight rooms of equal size (approximately 4.9 by 3.9 m), and on the west two halls and three rooms. A wide opening in the center of the court (3.34 m) and two narrower ones (2.08 m) lead from the court to a hall (7.8 by 24.7 m) that occupies the whole northern side of the building. Along the axis of the hall a row of pillars supports nine arches. The northern and southern halls were roofed with wood. The floors of the building were apparently stone flags, but they have been dismantled, as were the walls and the wooden roofs. As attested by the pottery found in the foundations of a pillar, building XXII is from the Late Nabatean period. The building was dismantled by the middle of the fourth century CE, perhaps by the builders of the churches. The pillars and the arches were left standing but were destroyed by an earthquake, possibly the fierce tremor of 363 CE. Subsequently, the remaining stumps of walls were used—from the latter part of the fourth century onward—by well-to-do people, as one may judge by the pottery they used. This writer suggests that both buildings XXIII and XXII were schools, in the fashion of the Greek gymnasium, in which Nabatean architects and master builders learned the arts of architecture and construction.

THE CEMETERIES. Three cemeteries have been located in the city: the Byzantine necropolis about 500 m west of the city, the Nabatean necropolis about 800 to 1000 m north of the city and a cemetery about 200 m northeast of the city, that probably is to be attributed to the Late Nabatean period or to the time of the annexation of the Nabatean kingdom into the Provincia Arabia.

The Northern Cemetery. Extensive excavations were carried out in the northern cemetery. As early as 1937, Kirk and Guy discovered black-glazed pottery and typical Nabatean ware there and identified the area as a cemetery. In a survey carried out at the beginning of the 1967 excavations, only Nabatean, Early and Middle Roman pottery, and a few Byzantine sherds were found. In all, twenty-five burials and funerary structures were excavated. The tombs usually are in two parts: the grave proper, sometimes built as a stone case covered with stone slabs, into which a wooden coffin was placed, or a pit about 2 m deep in which the coffin was deposited. Sometimes a monument was erected above the tomb, and sometimes a stela was placed in front of the monument. Only the bases of most of the monuments remain. Two monuments in fairly good condition can furnish information about their construction. Three types of monuments can be distinguished: a solid square stone structure (with a base 2 by 2 m), a solid rectangular monument (1.2 by 2 m); and a hollow square monument (about 4.8 by 4.8 m). It seems that the solid monuments were in the shape of a stepped pyramid, while the hollow ones were built like a mausoleum rising above the tomb.

The burials could be dated to the first half of the first and second centuries CE by the objects found in some of the tombs. Silver denarii of Trajan were found in two tombs, and clay seals for sealing documents, made from impressions of city coins from Petra from the time of Hadrian, were found in another. An ossuary-type tomb contained a large number of human bones, as well as a coin from year 4 of Rabbel II (74 CE), two Early Roman lamps, and a painted Nabatean bowl. It is not clear when the bones in this tomb were collected. Quantities of gold jewelry were found in the tombs, including figures of a goddess and of dolphins, both of which held a place of honor in Nabatean art. In the topsoil of the cemetery the remains of funerary meals were found near tombs, as well as small square and rectangular tables, on which the meals were served. Among the vessels found—mainly bowls and cooking pots—a few were painted. Outstanding is a small bowl painted with dolphins.

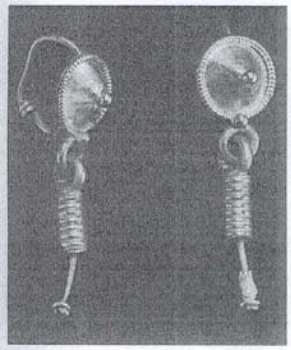
Above one of the ossuary tombs a mass burial is dated by coins from the first decade of the fourth century CE. In the summer of 1971, several additional tombs were excavated in the western part of the cemetery. They were dated by pottery lamps and vessels to the late second to third centuries CE. The tombs differ in the manner of burial. In the early burials the body was deposited in the ground, but in the later ones it was laid in a stone-built cist grave.



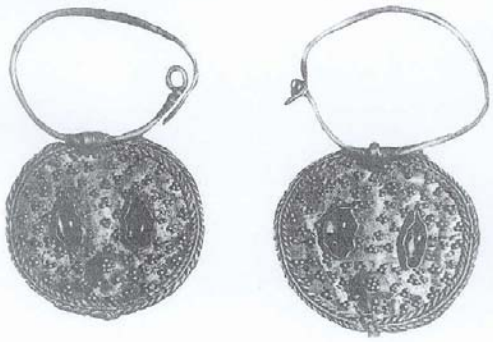
Ossuary tomb (108) in the cemetery.



Seal impression from the cemetery.



Kurnub: (left and right) gold earrings from the cemetery.



The Northeastern Cemetery. The northeastern cemetery was discovered in 1967. Two solid, rectangular monuments, similar in tooling and manner of construction to those in the northern cemetery, were found, one carved with the symbol of Dushara. Two Roman inscriptions were found, one of a cavalryman of Cohors I Augusta Thracum, the other of a centurion of Legio III Cyrenaica. Military units were stationed in the Provincia Arabia from its inception and apparently included a garrison at Kurnub, which guarded the road ascending from the Arabah. Seven other tombs, while they lack tombstones, are marked by large boulders. The tombs in this cemetery are arranged side by side, unlike those in the northern cemetery, which were placed haphazardly. All the burials in this cemetery were cremations; the monument was built on the site of the pyre. One of the cremation tombs with a monument was excavated in the summer of 1989. The ashes of the cremated bones had been deposited in an intentionally perforated early second century CE cooking pot. A second tomb with a monument had been looted by tomb robbers, who left behind a similar cooking pot.

The Western Cemetery. A few trial soundings in the western cemetery enabled it to be dated to the Byzantine period. It is the largest of the three cemeteries at the site. The remains of a large building there probably belong to a chapel. In 1990, several inscriptionless tombstones were found—among them a stela with a round top and one with a large cross. They are similar to those found at Elusa and Reḥovot.

CONCLUSIONS

The city of Kurnub is unique among the Negev towns. The quality of its construction is outstanding, and its public buildings occupy a larger area of the town than is seen elsewhere in the Negev. It appears that Kurnub was not founded during the initial penetration of the Nabateans into the Negev, but at a later date. It was a new station on a secondary trade route leading from Petra to the Negev, via the so-called ascent of the 'Aqrabim. It gained importance in the Late Nabatean period, when Roman road engineers cut wide steps all along the steep ascent. Kurnub's prosperity in the Late Nabatean period, mainly after the incorporation of the Nabatean kingdom into the Provincia Arabia, parallels the earlier prosperity of Oboda, which was due probably to the construction of the Via Nova in Transjordan by Trajan. During this period, trade was replaced by horse breeding. If this site is indeed Mampsis, its prosperity in the Late Roman period can be attested to by the garrisoning there of a military unit to guard the road from Jerusalem to Aila (Eilat). Occupation of the site continued in the Byzantine period, probably because of the necessity of maintaining contact with Transjordan. Unlike the other towns of the Negev, agriculture did not play an important role in economic life at Kurnub because little agricultural land surrounded it. If this writer's analysis of the military papyri from Nessana is correct, Roman military units were replaced in the fourth century by a locally recruited militia that was paid by imperial or provincial authority. As the latest coins found on the site are not later than the middle of the sixth century CE, Kurnub was probably destroyed by Arab tribesmen before the Arab conquest of 636, when the other Negev towns were conquered. It is likely that Kurnub was temporarily occupied by the Arabs following the conquest.

Main publications: A. Negev, *The Architecture of Mampsis: Final Report* 1–2 (Qedem 26–27), Jerusalem 1988.

Other studies: Robinson, *Biblical Researches* 12, 616, 622; F. Krause and H. L. Fleischer, *Kommentar zu Seetzen's Reisen*, Berlin 1859, 403; Musil, *Arabia Petraea* 2 (Edom), 25–28; Woolley–Lawrence, *PEFA* 3, 121–128; W. F. Albright, *JPOS* 4 (1924), 153 n. 1; 5 (1925), 44–45, n. 70; J. H. Iliffe, *QDAP* 3 (1934), 133; G. E. Kirk, *PEQ* 70 (1938), 216–221, 236–239; S. Applebaum, *IEJ* 6 (1956), 262–263; A. Negev, *Israel Numismatic Journal* 3 (1965–1966), 27–31; id., *CNI* 18/4 (1966), 17–23; id., *IEJ* 16 (1966), 145–148; 17 (1967), 46–55, 121–123; 19 (1969), 89–106; 21 (1971), 110–129; 24 (1974), 153–159; id., *Ariel* 15 (1966), 79–86; id., *BTS* 90 (1967), 6–17; id., *Raggi Zeitschrift für Kunstgeschichte* 7 (1967), 67–87; id., *ILN* 6737 (1968), 32–33; 6738 (1968), 25–27; id., *RB* 75 (1968), 407–413; 80 (1973), 364–383; 81 (1974), 397–420; 93 (1976), 545–557; id., *PEQ* 101 (1969), 5–14; id., *Archaeology* 24 (1971), 166–171; id., *Jahrbuch für Numismatik und Geldgeschichte* 21 (1971), 115–120; id., *Antike Welt* 3/4 (1972), 13–28; 13 (1982), 2–33; id., *Journal of Jewish Studies* 25 (1974), 337–342; id. (with R. Sivan), *Rei Cretariae Fautorum, Acta* 17–18 (1977), 109–131; id., *Coins of the Decapolis and the Provincia Arabia* (eds. A. Spijkerman and M. Piccirillo), Jerusalem 1978, 32–35, 110–115, 236–239, 274–277; id., *House and City Planning in Ariel Lands* (ed. G. Golani), London 1980, 3–32; id., *The Greek Inscriptions from the Negev*, Jerusalem 1981, 69–72; id., *MdB* 19 (1981), 33–36; id., *Tempel, Kirchen und Cisternen*, Stuttgart 1983, 97–126, 130–152, 168–180; id., *Recherches Archéologiques en Israël* 210–223; id., *Nabatean Archaeology Today*, New York 1986; id., *BAR* 14/6 (1988), 38–39; id., *Aram* 2 (1990), 337–365; M. G. Jarret, *IEJ* 19 (1969), 215–224; J. C. Mann, ibid., 211–214; A. Lemaire, *LA* 82 (1975), 15–23; R. Rosenthal, *IEJ* 26 (1976), 96–103; id., *Israel Numismatic Journal* 4 (1980), 39–54; D. Chen, *LA* 31 (1981), 235–244; J. Patrich, *IEJ* 34 (1984), 39–46; id., *The Formation of Nabatean Art*, Jerusalem 1990; R. Wenning, *Die Nabatäer: Denkäler und Geschichte*, Göttingen 1987, 145–152.

AVRAHAM NEGEV

KURSI

IDENTIFICATION

Tel el-Kursi is situated at the mouth of Wadi es-Samak, on the eastern shore of the Sea of Galilee (map reference 2113.2478) and is traditionally identified with the site of the miracle of the Gadarene swine (Mt. 8:28–34; Mk. 5:1–20; Lk. 8:26–39). According to the Gospels, the miracle took place at Perea, or "the other side," which is the eastern shore of the lake. Each of the three Gospels names the place differently: Matthew calls it Gadara; Mark, Gerasa; and Luke, Gergesa. The three names apparently refer to different locations; according to Origen, the miracle actually happened at Gerasa. Since the end of the third century CE, however, Christians have identified a site on the eastern shore of the Sea of Galilee as the location in question.

Topographical and archaeological studies done in the nineteenth century suggested Tell el-Kursi as a suitable identification, both because of the name and in view of its physical features. Some scholars, however, preferred to locate the site at the southern part of the eastern shore. Excavations at the mouth of Wadi es-Samak in the early 1970s settled the question.

EXCAVATIONS

In 1970, when a new road to the Golan was being built, a hitherto unknown site came to light in the el-Kursi valley, some 300 m east of the mound. The discovery was followed by four consecutive seasons of excavation (1970–1974), directed by V. Tzaferis, on behalf of the Israel Department of Antiquities and Museums. As a result an ancient Christian basilica and the remains of a walled monastery were cleared.

THE MONASTERY. During the four seasons of excavations only part of the monastery was cleared: the wall (in its entirety), the main gate in the wall, and residential quarters in the northern part of the monastery. The wall surrounded the monastery, forming a large rectangular enclosure (120 by 140 m). It was built of well-dressed basalt stones, covered with light-colored plaster and decorated with floral patterns. The monastery's main entrance was located in the middle of the western wall. It consisted of a stone-paved gate and an attached structure, probably first used as a hospice or an inn, that was later converted into a watchtower.

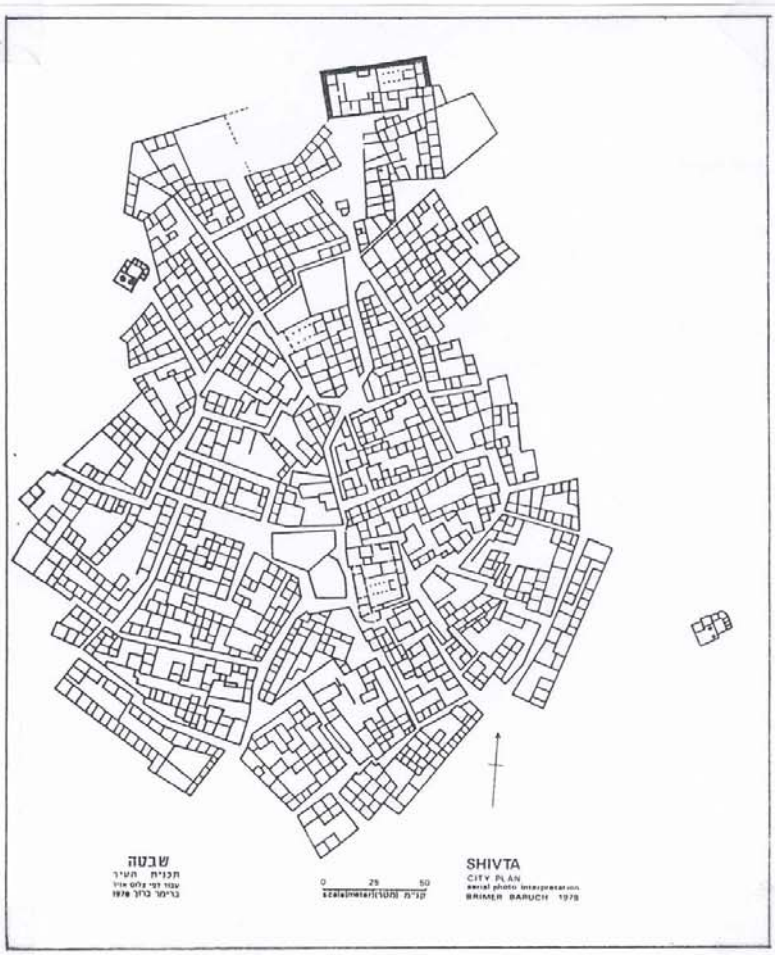
13. Shivta - Sobata

Location:
In the central Negev, 10 km. south-west of Beer-Sheva.

Description:
The town is built mainly from a hard limestone, except for curved elements, which are made of a medium to soft stone.
It has survived the earthquakes well and except for its main monuments remains unexcavated.
The main buildings/complexes include: streets formed by joining house stone fences throughout the town; a pool; stables; three churches; the governor's house; a town square; a restored farm, and three wine presses.

State of Conservation:
Shivta exhibits a remarkable state of conservation: houses with second and third floors, delicate carved stone elements, church apses and domes. The town is often referred to as the Pompeii of Israel.
Restoration works were sporadically done in the 1970's.
Conservation intervention has been implemented since 1996.

Conservation plan:
The last conservation intervention in the governor's house was carried out in 2001.



SHIVTA or Sobota (sometimes Sobata)
Established probably in the later years of the Nabatean king Obodas III (30-9 B.C.E). The city enjoyed prosperity period mainly from the second century on, when the Nabateans developed sophisticated desert agriculture and horse Breeding. First churches were build in Shivta by the middle of the fourth century. It was probably abandoned in the eighth or ninth century.

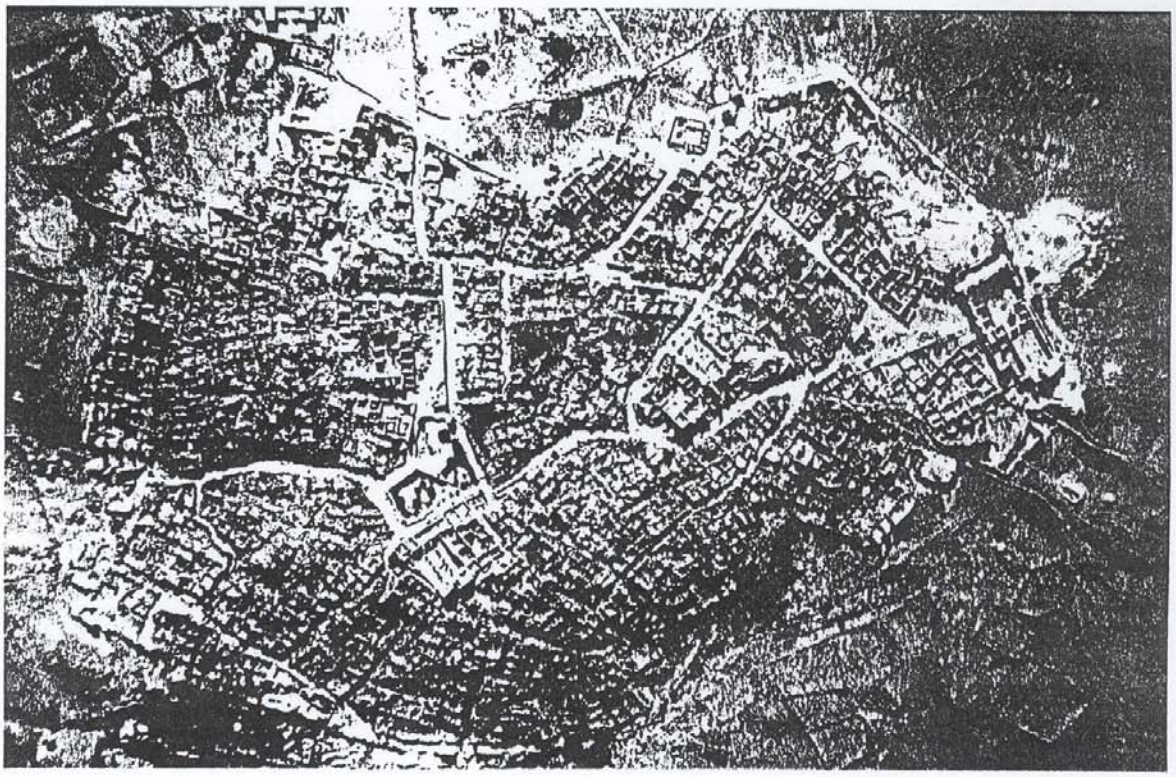
SOBATA

IDENTIFICATION

Sobata (Isbeita, or Subeita in Arabic; Shivta in Hebrew), a town in the central Negev desert, is situated about 40 km (25 mi.) southwest of Beersheba (map reference 114.032). It was founded in the Middle Nabatean–Early Roman period and flourished mainly in the Late Nabatean–Late Roman and Byzantine periods. The Arabic name preserves the ancient one. This is known from two Nessana papyri, P79 from the early and P75 from the late seventh century. A faulty reading in Nilus' *Narrationes* (VII, *PG* 79, col. 688), written in the early fifth century, also refers to Sobata; the text was emended by F. M. Abel. The meaning of the name is obscure. Abel considered it a Semitic-Nabatean name. A. Negev looks for the origin of the name in the rare Nabatean personal name Shubitu.

EXPLORATION

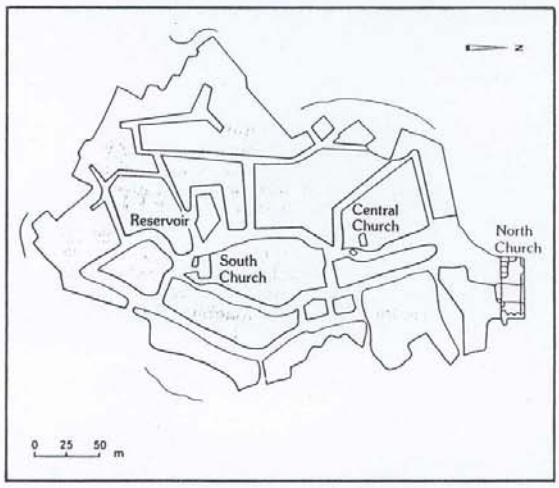
The ruins at Sobata were described for the first time in 1870 by E. H. Palmer, and the first general plan of the city, with its most important buildings, was



Sobata: aerial view of the city.

From the Encyclopedia of Archaeological Excavations in the Holy Land, 1993

Sobata: general plan of the town.



drawn by A. Musil in 1901. Musil's plan, however, is not exact. He failed to notice that the city's streets were slightly curved. In 1905, the site was visited by an expedition from the École Biblique et Archéologique Française in Jerusalem, with the participation of A. Jaussen, R. Savignac, and L. H. Vincent. They located the Byzantine cemetery and several tombstones with inscriptions from the end of the sixth century CE, and found a short Nabatean dedicatory inscription from the time of Aretas IV among the ruins of the city. In 1914, C. L. Woolley and T. E. Lawrence drew more accurate plans of the town, its churches, and several houses. In 1916, the Committee for the Preservation of Monuments of the German-Turkish army sent an expedition to Sobata under the direction of W. Bachmann, C. Watzinger, and T. Wiegand. Its main contribution is the fine aerial photographs they took. From 1934 to 1938, the first large-scale excavations were conducted at Sobata on behalf of New York University and the British Archaeological School in Jerusalem, under the direction of H. D. Colt. The results of these excavations were never published, however. From 1958 to 1960, the buildings and streets were cleared by the Israel National Parks Authority, under the supervision of M. Avi-Yonah.

During several surveys directed by A. Negev from 1970 to 1976, the site and plan of the Nabatean town were studied and a new chronology for the churches and the town evolved. From 1979 to 1982, A. Segal made limited-scale investigations and excavations on behalf of the Ben-Gurion University of the Negev. Sobata's town plan and plans of the central church and four private buildings could then be drawn. Research was resumed in 1985 in the North Church by S. Margalit. Solutions were proposed to some typological–chronological problems pertaining to the churches in the Negev. The city plan of Sobata was again analyzed by J. Shershevski in 1985.

HISTORY

Occupation at Sobata began in the Middle Nabatean period. The settlement was founded on a road that links Oboda, Sobata, and Nessana, by way of a chain of small, as yet unidentified settlements. Nabatean Sobata was established in the early part of the reign of Aretas IV (9 BCE–40 CE), or perhaps even earlier, in the later years of Obodas III (30–9 BCE). During this time, and especially during the reign of Rabbel II (70–106 CE)—that is, in the Late Nabatean period when the Nabateans began to engage in desert agriculture and horse breeding—the city enjoyed a period of prosperity. It was quite large, occupying more than a third of the built-up area of subsequent periods. The history of the city in the third and fourth centuries is not known, but in this writer's opinion, the first churches in the town—the South Church east of the public reservoirs and the North Church on the northern outskirts of the town—were built by the middle of the fourth century. Following the Arab conquest, Sobata, like the other towns in the western central Negev, continued to exist for about another two hundred years. On the basis of the pottery found there—Arab glazed ware and pottery cast in a mold—the site's excavators suggested that the Arab settlement there did not cease until the thirteenth or fourteenth century CE. The earlier date of the eighth to the ninth centuries seems more reasonable, however. At that time settlement also ended at Nessana and Elusa.

EARLY ROMAN PERIOD. In an early survey of the site, a Nabatean dedicatory inscription to the god Dushara was discovered from the time of Aretas IV. The Colt expedition located a Nabatean dump southwest of the city that contained typical Nabatean and Early Roman pottery. This material was published by G. Crowfoot, who erroneously dated it to the second and third centuries CE. The Nabatean settlement founded on the northern bank of Naḥal Zeitan flourished in the Middle and Late Nabatean periods.

LATE ROMAN PERIOD. The history of Sobata in the Late Roman period is not well known. The town may have been resettled at the end of the third century CE when the central Negev was fortified by Diocletian and his successors. They erected fortresses at Oboda and Nessana, and surrounded Mampsis (Kurnub) with a wall, but there is no positive evidence for their activities at Sobata.

BYZANTINE PERIOD. The name Sobata is missing in the Nessana papyrus (P39) that lists the recipient towns of the *annona militaris* in the Negev, which may suggest that the city had no permanent garrison. On the other hand, there is abundant evidence of agriculture in Sobata's immediate surroundings and in the area of Naḥal Lavan, which attests to Sobata's having been an important civil agricultural settlement. Near the city, in Naḥal Lavan, the remains of large plantations and several individual farms were discovered. Additional information about the production and management of those farms is provided by the archaeological finds at Oboda and Nessana and by the Nessana papyri, many of which deal with water rights and land distribution. Sobata also seems to have been an important monastic center in the Byzantine period, as well as the site of regional Christian pilgrimages. Judging by some of the epitaph formulae found in the North Church, and by inscriptions found elsewhere in the town, Sobata enjoyed a high standard of education, notwithstanding the fact that it was situated at the very end of the civilized world. The town, however, should not be understood as having been at the end of the Western world, but at the head of the Semitic-Nabatean-pagan (and later Christian) world.

EARLY ARAB PERIOD. The history of Sobata in the Early Arab period is obscure. At the time of the Arab conquest, the Christian population here, as at Nessana, was not harmed. The Arabs built a mosque near the South Church, taking care not to damage the adjoining baptistery. It seems that the existing Christian community lived side by side in peace with the new Muslim population. The settlement at Sobata probably did not exist longer than that of its neighbor, Nessana. It was apparently abandoned in the eighth or ninth century CE, at the latest.

EXCAVATION RESULTS

A large water cistern from the Nabatean period was found halfway between Mizpe Shivta (q.v.) and Sobata. Inside the cistern were traces of the characteristic Nabatean technique of stone dressing, and a pilaster with niches symbolizing Dushara and other Nabatean deities. Inside the Nabatean town itself, which occupies the southern and southwestern parts of the site, a large double reservoir was constructed on the northern fringes of the built-up area. Rainwater was collected from the gently sloping terrain by means of an intricate network of channels. Amid the ruins south of the reservoir was a staircase tower, resembling the ones at Nabatean Mampsis. To the southwest, the Colt expedition excavated a building containing a stable from the Late Nabatean period, similar to the stable in building XII at Kurnub (Mampsis), but did not establish its date or function. The stable house was cleared again by Segal and a plan of the house was made. The pottery found on the floors was from the fourth and fifth centuries CE, but this indicates the late use of a house built in the second century CE

PLAN OF THE BYZANTINE TOWN. The Byzantine town covers an area of about 20 a. (according to measurements taken by Segal and later by Shershevski, which differ greatly from previous, much higher, and exaggerated estimates). It measures 430 m from north to south and 330 m east to west and lies on the shoulder of a ridge that slopes gradually to the center of the town and even more steeply to the south, in the direction of Naḥal Shivta. The city was not walled, nor did it have a fortified citadel, but the houses and the walls of their courtyards and gardens were built in continuous lines that terminated at the end of nine streets. There was a gate at the end of each street that could be locked. The houses and their spacious courtyards were not built close together. In the opinion of the excavators, there were gardens inside the city. The streets are quite wide (average width, 4 m). There were three city squares.

Most of Sobata's explorers believed that this town, whose streets turn and twist, was built without a definite plan. However, this writer believes that the layout may have been intentional; the town's builders limited the number of streets that would open into the area outside the town, where their fields and some of the cisterns were located. Inside the built-up area, numerous lanes led to all parts of the town and ended at the doors of the houses at the edge of the town. Water supply being the major problem, the town planners chose to use some of the streets for conveying rainwater to the two large reservoirs in the center of the town and to the numerous cisterns scattered throughout it. The layout of the streets seems to have been adapted to this need, and in this matter the builders of the Byzantine town probably followed Nabatean planning: using the gentle slope to collect rainwater in reservoirs. The Byzantine streets thus ran along the course of the ancient channels, some of which can still be

traced in the lower part of their course in the vicinity of the reservoirs. The need to cope with water collection also explains the large number of public squares and the width of the streets.

In this writer's opinion, the construction of the Byzantine town began in the first half of the fourth century CE, with the erection of the South Church. The population must still have lived in the older, Nabatean houses, which, if contemporary Kurnub can serve as an example, required little repair. Irregularities in the plan of the South Church—the absence of a proper atrium and the disharmony between its eastern and western parts—attest to the building's having been squeezed into an already built-up area. The same problem—inserting new buildings into an existing town plan—faced the builders of the two churches at Kurnub. At about the same time, the North Church and monastery were built at the town's northern extremity, beyond the water-catchment area. There they would not interfere with the functioning of the water-supply system. It was only later, possibly from the fifth century onward, that the central and northern quarters were built.

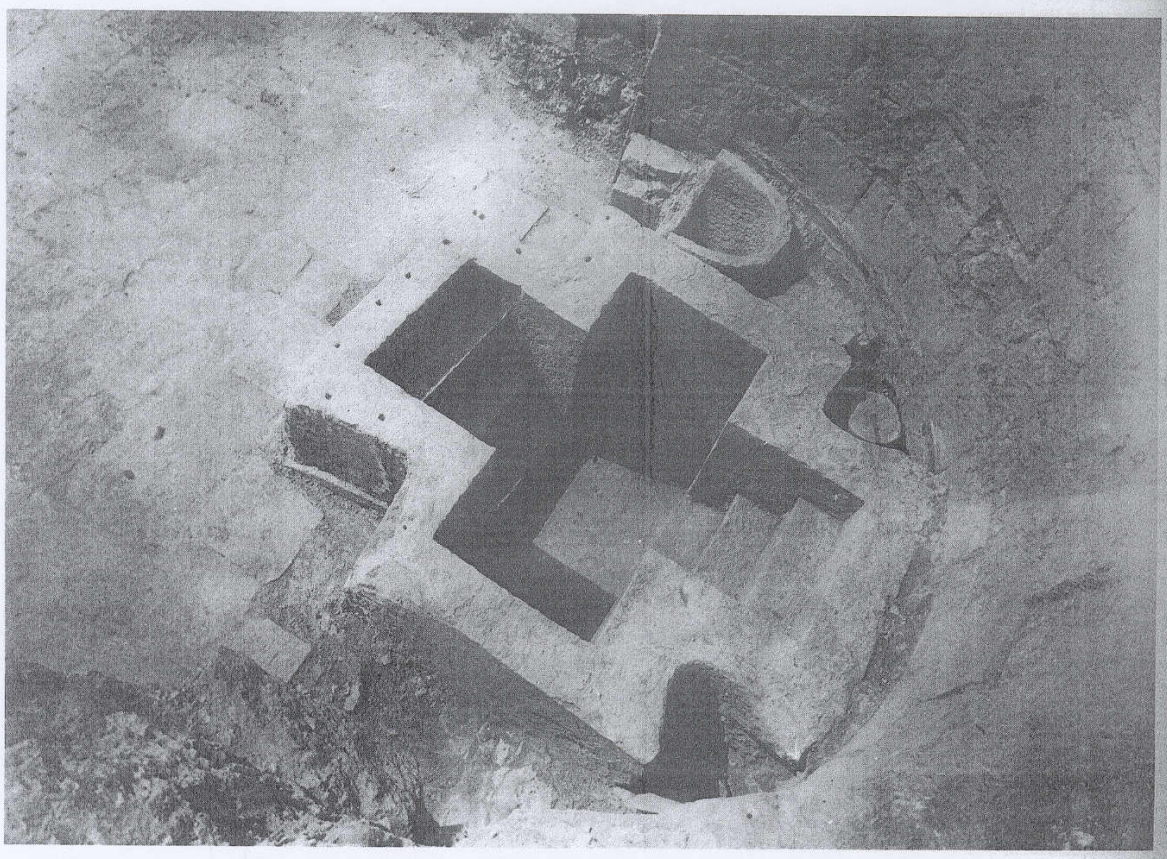
Three different kinds of stone were used to build the houses: hard crystalline stone for the foundations and lower parts of the walls, softer crystalline stone for the lintels and doorposts, and soft and brittle limestone for the upper parts of the walls. The narrow doors have lintels, whereas the wider ones are arched. The rooms are roofed with arches that rest on engaged pilasters that spring directly from the walls and are covered by stone slabs. The inner walls were covered with thick layers of plaster. The walls are 0.6 to 0.7 m wide and were built, Nabatean fashion, with ashlars or hammer-dressed stones on the exterior, coarsely drafted stones on the interior, and a filling of broken stones and mud, which served as insulation. The floors were paved with stone slabs. On the street side, the walls have no windows or only very narrow ones. The wall cupboards were built of stone; only the shelves were wood.

The houses were entered through a small hall that led to a courtyard, from which all the rooms were entered. The opening of the cistern in which the rainwater running off the flat roofs was collected was in the courtyard. This type of house and courtyard is common in the east. Sometimes the cistern was connected to a channel carrying runoff water from the adjoining streets, as well. The stairway leading to the second story was also in the courtyard.

The Reservoirs. The two large Nabatean reservoirs were reused in the Byzantine period. They are the link between the older Nabatean town and the newer central quarter. The reservoirs, irregularly shaped polygons, were interconnected and built of stones set in mortar and coated with waterproof plaster. Steps led to the bottom. The southern reservoir has a capacity of 700 cu m and the northern one about 850 cu m. It was the duty of the citizens to clean the reservoirs and, according to information in Byzantine Greek ostraca, this obligation was fulfilled.

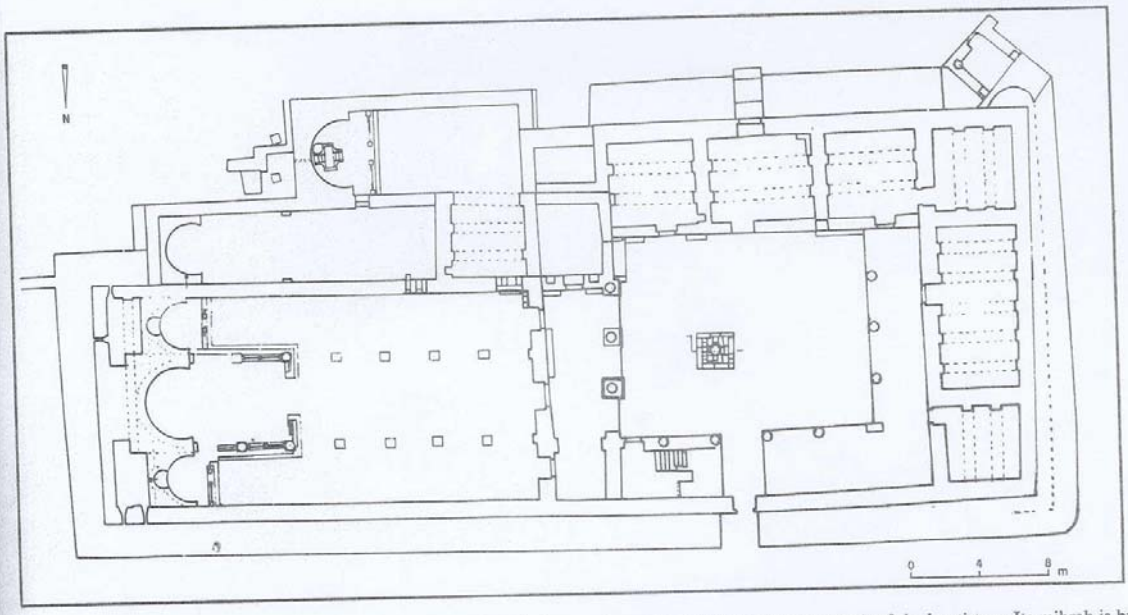
CHURCHES. South Church. From the excavations carried out by the Colt expedition, only the plan of the South Church has thus far been published. Because the church was erected after the construction of the two reservoirs south of it, the builders, for lack of space, were unable to provide it with an atrium, as in the other two churches. It had a narthex, but it did not serve as a vestibule linking the church directly with the outside. The church's entrance is in the southwest corner of the narthex, from which only two entrances lead into the church proper. The church is built on a nearly square plan (17.6 m long and 18.2 m wide) and is divided into a nave and two aisles by two rows of six columns each. The four eastern columns form part of the chancel screen erected on the bema. In front of the northwest corner of the bema is the square base of the ambo. The excavators assumed that this church, like the two other churches at Sobata, was triapsidal. According to Negev, however, this was not the case. The church was originally built as a monoapsidal structure with two rectangular rooms, one on either side of the apse, similar to the plans of the earlier churches at Kurnub, Oboda, Nessana (North Church), and the early stage of the East Church at Elusa. All of these probably date to the second half of the fourth century CE. In a later stage, probably in the early sixth century, the rectangular rooms were blocked and replaced by small lateral apses, with small niches in their curving rear walls. They held the remains of stone-built reliquaries, attesting to a cult of martyrs to which the other churches were dedicated.

The central apse is twice the height of the lateral apses, above which there were chambers, probably entered from the upper story. The three apses were not built on the same axis, and the southern wall of the church deviates slightly southward. The nave is paved with marble slabs and the aisles with limestone slabs. The apses are plastered and decorated with paintings of religious subjects. Woolley and Lawrence identified the scene as the Trans-



Baptistery in the South Church.

Plan of the North Church.



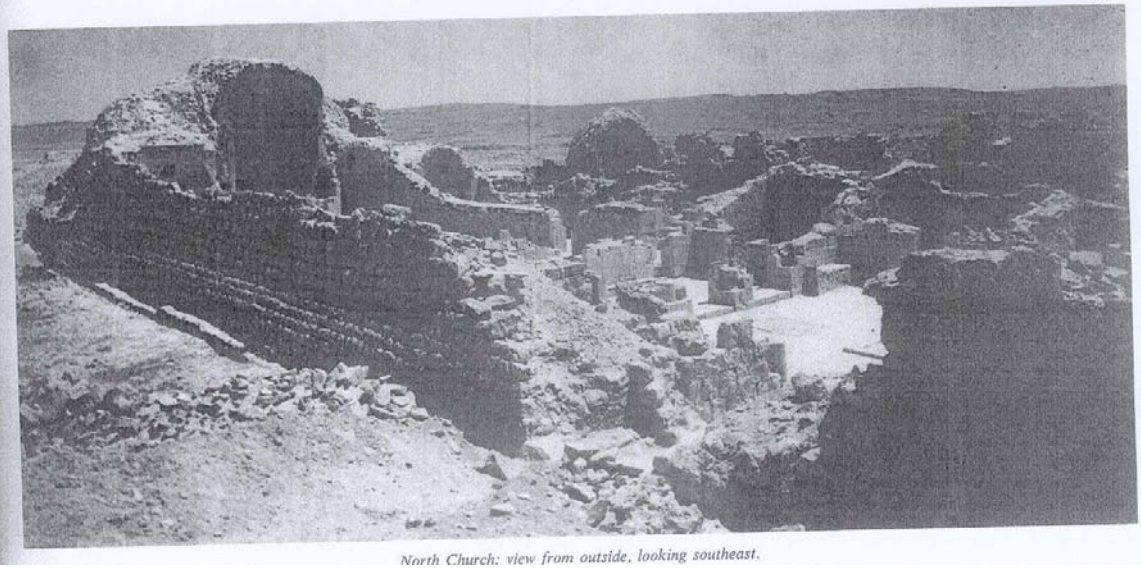
figuration of Jesus (Mt. 17:1–13). Jesus appears crowned by a halo in the center of the scene. Below his feet is the kneeling figure of Peter; John stands to his right. Moses and Elijah also were identified. This same subject is treated in the Monastery of Saint Catherine in the Sinai desert. Only faint traces of the paintings remain.

North of the church stood a chapel and a baptistery. They were entered from a small room north of the narthex, which led to an open square. In front of the square is a small exedra with two columns. A cruciform baptismal font (the length of each arm is 1.5 m) was cut out of a monolith and set inside an ashlar-built apse. Inside the font, at its eastern and western ends, steps lead to its bottom. North of the large baptismal font is a font for infant baptisms, also cut from a monolith. Southeast of the baptistery is a tower, which may have been the bell tower. North of the basilica is an earlier annex, a small courtyard surrounded by rooms. Two inscriptions were found in the church compound. The earlier one was engraved on a lintel and attests to the construction of an annex to the church as early as 415 to 430 CE. The other inscription, in the floor of the southern aisle, states that the pavement was laid in 640 CE.

A mosque was erected to the north of the baptistery. Its miḥrab is built against the north wall of the baptistery, and it seems that the builders of the mosque took special care not to damage the adjoining Christian establishment. The floor of the mosque is laid with limestone slabs.

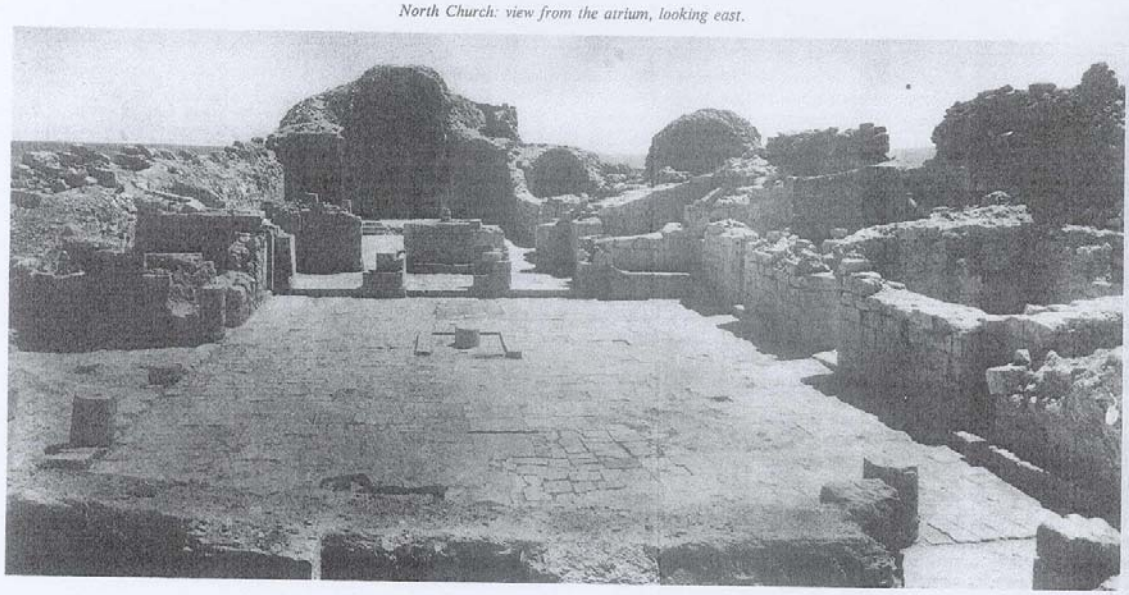
The Central Church. The Central Church was measured and surveyed by A. Segal. Because of its position in the town plan, this church, facing one of the main streets of the central quarter, has no proper atrium, only a narthex-like corridor. The Central Church has three apses, a type rare in the central Negev. Only the South Church at Nessana (601 CE) and, possibly, the North Church at Reḥovot-in-the-Negev (dated by its excavator to the second half of the fifth century) are triapsidal. The Central Church at Sobata probably dates to the late sixth or early seventh century CE.

The North Church. Because the North Church is on the boundary of the city, its excavators assumed that it was the latest church constructed at Sobata. In Negev's opinion this, however, was not the case. The walls of the church are supported by strong retaining walls, preserved to a considerable height. Although in the opinion of the excavators these walls were meant to strengthen



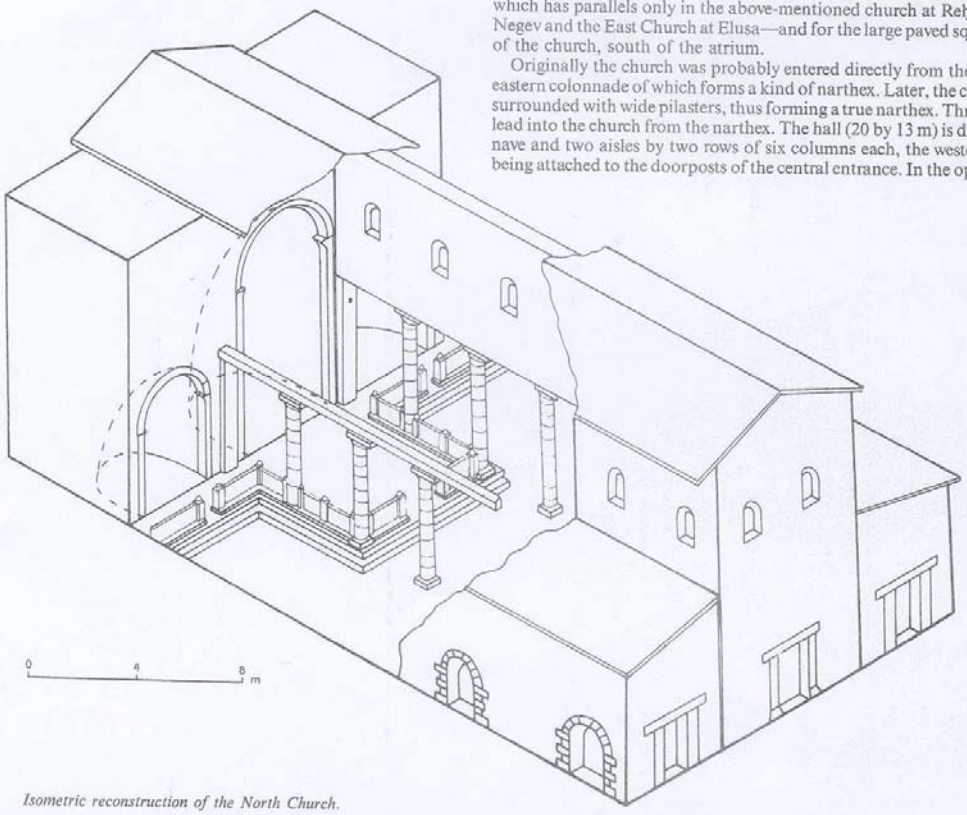
North Church: view from outside, looking southeast.

North Church: view from the atrium, looking east.



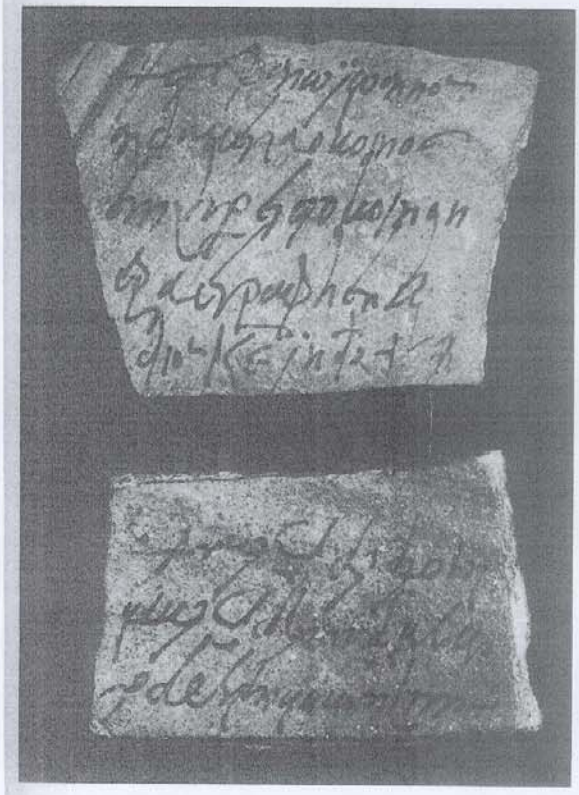
the structure and turn it into a stronghold, such walls also support other buildings in the town. The church complex comprises the church proper, a chapel, a baptistery, a mortuary chapel, and a monastery. The church was entered from a large open square to the south of the atrium, where there is a small exedra supported by three heavy piers. Above the exedra a passage led from the monastery to the church, the only link between them. The atrium (26 by 19 m) was larger than the church proper. It was entered through a single gate in the southern wall. Along three of its walls (west, north, and south) were rooms whose roofs were supported by arches. In the western part of the atrium is a large cistern. In the middle of the atrium the stump of a column is enclosed in a rectangular frame. This was probably a memorial to a stylite who lived there and was later sanctified and venerated in this church, which became a center of pilgrimage. This would account for the unusually large atrium—which has parallels only in the above-mentioned church at Rehovot-in-the-Negev and the East Church at Elusa—and for the large paved square in front of the church, south of the atrium.

Originally the church was probably entered directly from the atrium, the eastern colonnade of which forms a kind of narthex. Later, the columns were surrounded with wide pilasters, thus forming a true narthex. Three entrances lead into the church from the narthex. The hall (20 by 13 m) is divided into a nave and two aisles by two rows of six columns each, the western columns being attached to the doorposts of the central entrance. In the opinion of the



Isometric reconstruction of the North Church.

Sobata: Greek ostraca.



excavators and of subsequent researchers, the church was a triapsidal basilica.

In a study of the typology and chronology of the churches in the central Negev published in 1974, this writer proposed two phases in the history of the North Church: a monoapsidal phase in the second half of the fourth century and a triapsidal phase in the first half of the sixth century. This had been rejected by Rosenthal-Heginbottom, but in 1985, Margalit's excavations in the sanctuary proved the existence of the two phases. He excavated four sectors: the area behind the apses, the two lateral apses, and the area around the bema. These excavations revealed that in the early phase a passage behind the central apse connected the lateral rectangular rooms. Each of these rooms had been roofed by a pair of arches. The floor of the two rooms, made of limestone slabs, was found intact. In the second phase, the side rooms were blocked by small apses. The space between the eastern back wall and the three apses was filled with building stones, supporting the apses. A coin of Justinian (527–565) found in the fill attests to the time of this reconstruction. The excavations in the lateral apses produced two floors, a later floor made of slabs of gray marble and the original floor mentioned above. The same two phases were also observed in the bema. In the early phase, the bema extended one intercolumnium less than in the later phase. The early limestone floor was also discovered here. Found in the fill between the early and late floors were architectural fragments and broken cult implements from the early building. These seem to have been ritually deposited. In the plaster base of the early floor and in the fill between the two floors, coins from the middle of the fourth century were found. The excavators believe that these coins date the construction of the early church. Small niches in the middle of the walls of the small lateral apses apparently housed reliquaries. The church's first excavators distinguished two stages of ornamentation. Initially, the walls were plastered and covered with paintings. Later, they were faced with marble slabs up to half of their height, and the entire floor was paved with marble. A door in the southern aisle leads to a chapel paved with mosaics laid in geometric patterns. A lengthy dedicatory inscription was also laid in the mosaic. A door in the southern wall of the chapel leads into the baptistery. The baptismal font is cut out of a monolith. The western half of the baptismal chapel was a small hypaethral, or roofless, area occupied by a graveyard, in which members of the local clergy were interred from 612 to 679 CE. The only layman was the seven-year-old son of a vicarius. He was buried in 612 CE.

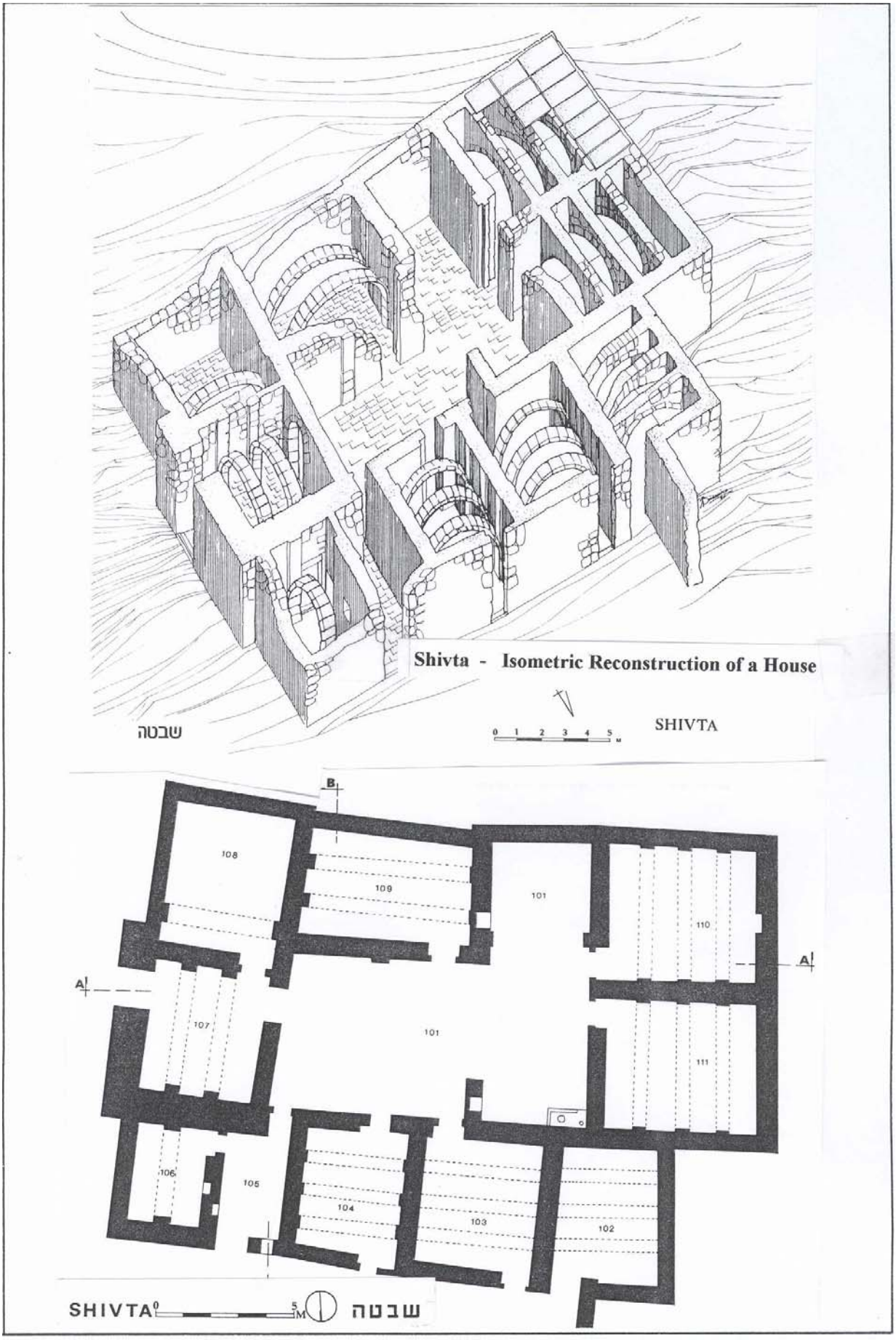
South of the church is a large complex of buildings, consisting of numerous courtyards and dozens of rooms. The excavators believed this complex was a monastery, but others considered it an area of workshops.

A large number of inscriptions was found in the church complex, most of them on gravestones. Laymen were buried in the atrium of the church from 582 to 646 CE. Of great interest is a stone containing a litany that mentions the names Abraham, Isaac, Jacob, Moses, David, Solomon, and Job, each praised for his most characteristic virtue.

Winepresses. In the buildings adjoining the North Church and at two other locations in the town the Colt expedition discovered installations they identified as bathhouses and Wiegand described as tombs. Each installation was in two parts. In the center of a square floor paved with limestone slabs and surrounded by a low wall was the mouth of a channel. The channel ran beneath the floor to the second part of the installation, situated at a lower level. This was a large, round, rock-cut tank, with a small depression in the bottom. The tank was completely coated with waterproof plaster. Comparison with similar installations at Oboda indicates that these doubtless were winepresses. The grapes were crushed in the upper part and the juice ran into the channel and then into the tank, where the skins settled in the tank's depression. There was a difference between the winepress in the northern monastery and the winepresses beyond the limits of the town. The latter have small cells around the treading platform, similar to those around winepresses at Oboda and Elusa. No such cells are found in the monastery's winepress. The other winepresses may have been used by private farmers, who stored baskets of grapes in the cells; the monks, who worked their land in common, would have had no need for such storage facilities.



Sobata: winepress.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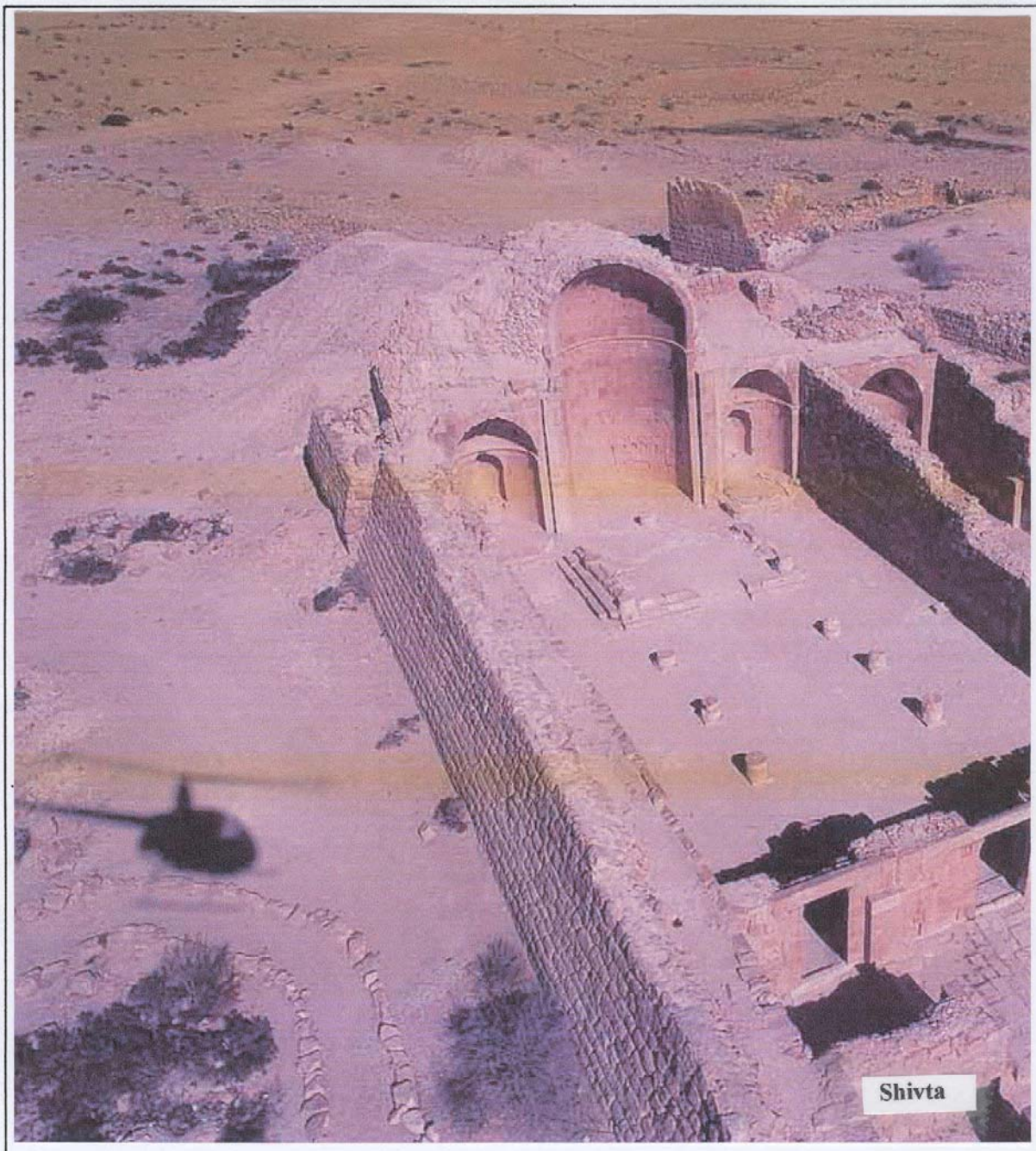

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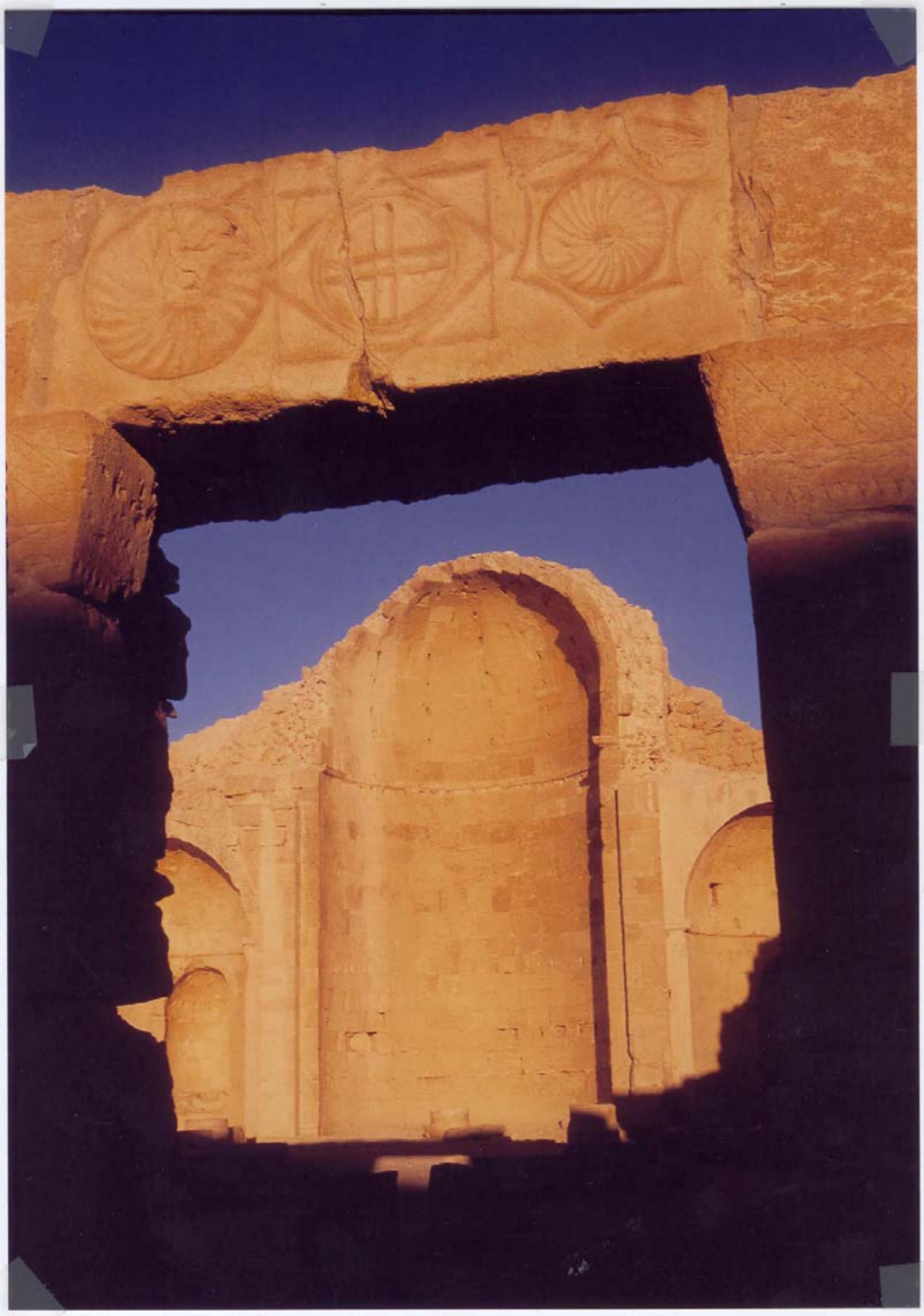

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Shivta

14. Agriculture

Geographically, the Negev is a region on its own, with special climatic conditions. The central part of the Negev belongs to the "deserts belt" (the Arabian-Sahara belt), where, due to its scarcity, rain is not measured according to annual quantities. Though the central Negev is typologically part of this belt, it differs from it, possessing some special characteristic.

While the main features of these big deserts are the huge sand dunes, they exist only in the northern part of the central Negev. The rest is a rocky plateau, cut by riverbeds and wide valleys. Unlike the other deserts, the Negev has an annual meager quantity of 100 mm of rain. This small amount, normally not sufficient for agriculture, made it possible for the early inhabitants of the Negev to create miracles in the desert. Lack of scientific research makes it difficult to precisely date the various agricultural elements, but it is clear that the large-scale agriculture was developed by the Nabataeans. They had to produce enough food not just for self-consumption but also for the huge incense caravans crossing the country several times a year.

The main challenge was not so much collecting rainwater as using it for the irrigation of the fields, without loosing a drop. Every farm had to collect rainwater from catchment areas 20 to 30 times larger than the cultivated fields. The results can still be seen all over the Negev.

Irrigation and cultivation were done using several methods:

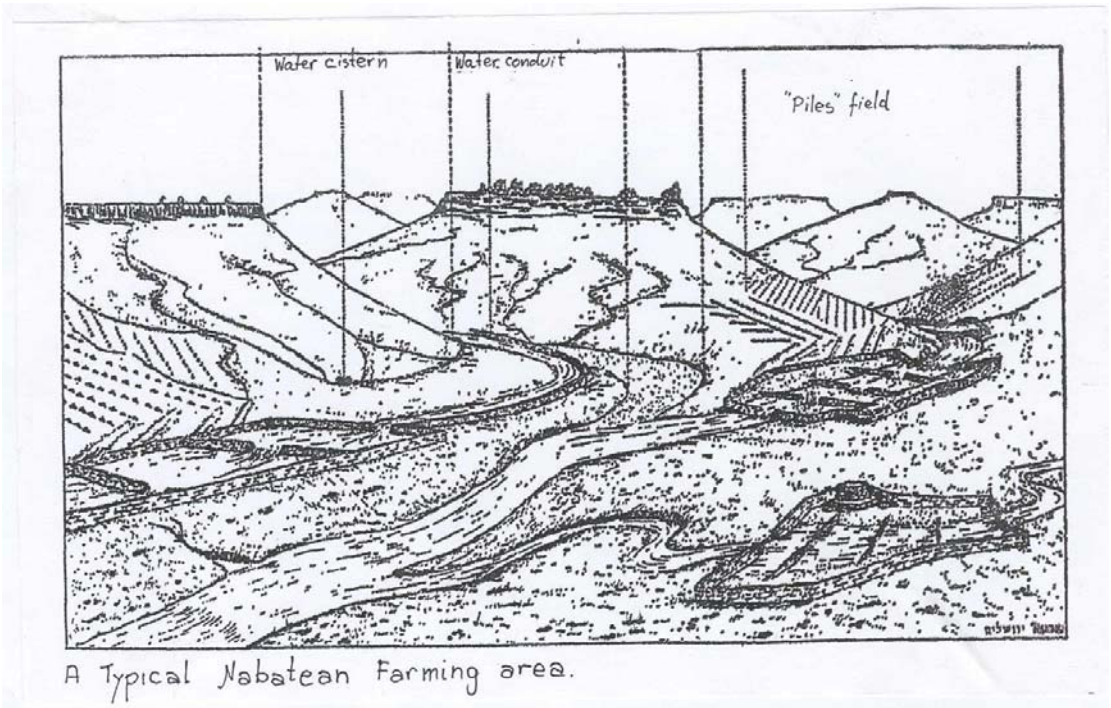
Channeling - different kinds of channels were dug or built in the Negev, all with the one objective of carrying the water to its destination in the field. Scientists recorded nine different kinds of channels, sorted by function or construction methods. Some were using dams to divert the stream; others collected water from hill slopes. All of them finally brought the water to the cultivated areas. Some channels were simple and shallow, dug in the ground. The most "elaborate" ones were built of cut stones and mortar.

Dams - the Negev farmers adopted the dam system and adapted it to their needs and conditions. The dams are small, and a 4.0 m. wide, 3.0 m. high, 120.0 m. long dam is considered a large one in the Negev. On the other hand, there are hundreds of thousands of them almost in every valley and creek. The dams serve different functions. The large ones are "diverting dams", and their function is to divert streams in the bigger valleys into conduits or channels. "Slowing dams" have to slow strong streams before they reach the fields, and to stop hard particles before the water gets into the reservoirs. They were also used to protect channels. These dams are small, resembling agricultural terracing. By building the dams in the valleys, the ancient farmers also managed to accumulate soil behind the built wall, thus creating fertile and well irrigated fields.

"Piling"- a unique and somehow enigmatic feature, which exists only in the Negev. The Beduins call them, "tuleilat el anab", meaning, "vine piles". Not all scientists agree that these small stone piles had anything to do with growing vines (though wine production was popular in the region). The size of the piles, made of simple fieldstones, is1.5 m. diameter at their base, and they are about 0.8 m. high. They have the shape of truncated cones. The piles come in large groups, sometimes several thousands in a field. They are set in lines and have very shallow channels in between them. All theories associate them with agriculture, but whether they served any role in collecting water, soil, or growing vines is still to be researched.

Collecting water - various methods were used to collect and store water in the Negev: cisterns dug in bedrock, reservoirs created by dams, and built cisterns. Such a built cistern can be found next to Nekarot fortress. It is made of ashlars with mortar and arches carrying stone slabs for roofing. It was built at the mouth of a small creek, collecting all the rainwater and letting the overflow irrigate the nearby fields.

Evidence to the ingenuity of the early farmers is scattered all over the central Negev. It is unique and cannot be compared with any finds anywhere else. The decline of the whole region after the 7th century brought an end to this wonderful human interaction with the environment. Only the modern resettlement of the Negev and the attempts of Israeli farmers restore the hope that humans can live and settle in the desert without destroying its special character and natural values. The ancient cultural values are appreciated and protected.



A Typical Nabatean Farming area.



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Agriculture



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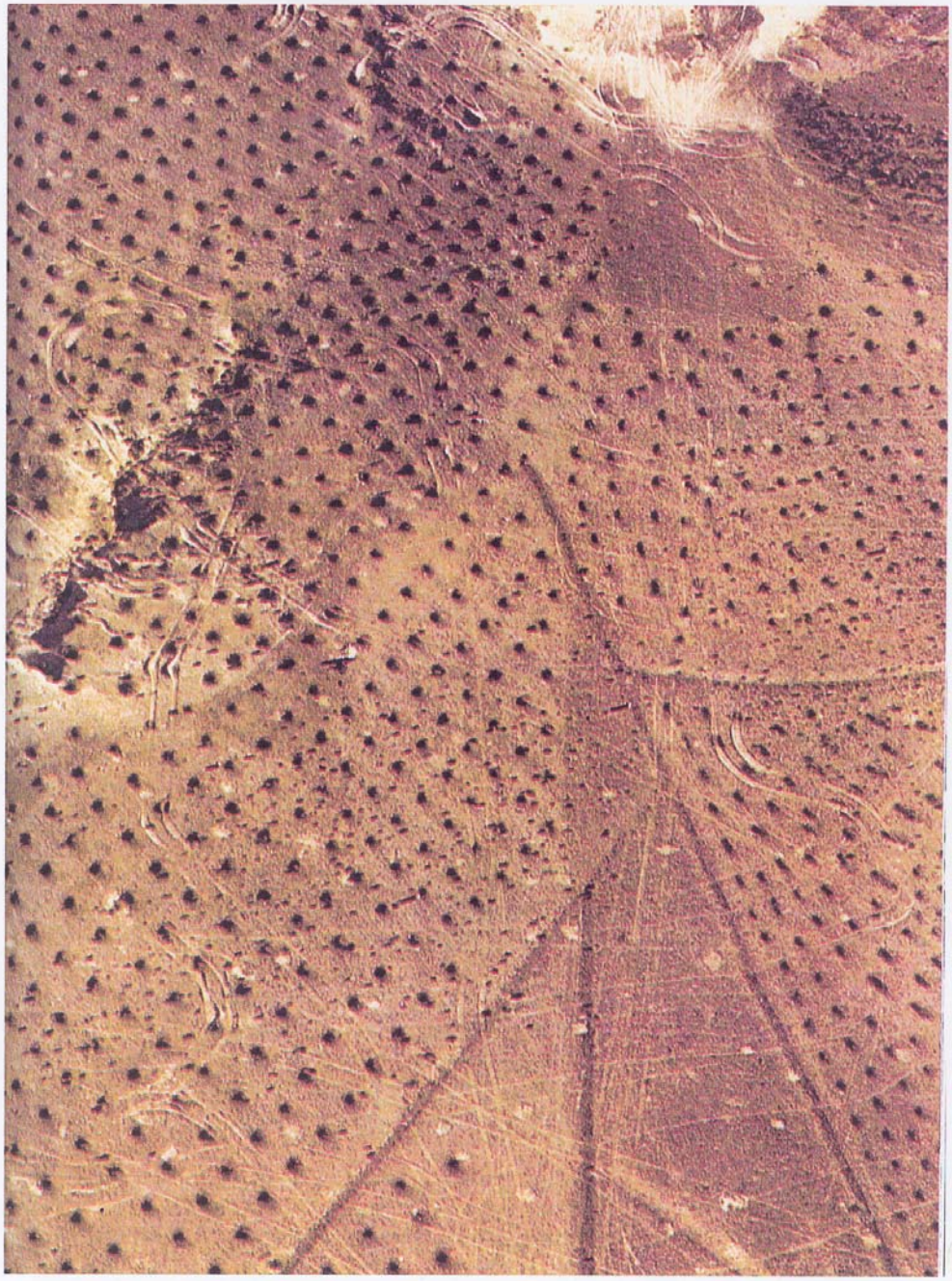
Agriculture



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Remains of Ancient Agriculture

.15. General Description of Geology and Landscape

The ancient trade caravans searched for optimal paths leading from the Rift Valley to the ports of the Mediterranean, an aerial distance of about 160 km. The Dead Sea Rift Valley, opposite Moa, has an altitude of about 0 meters above sea level, whereas the rugged rocky desert landscape of the Negev, which had to be crossed, rises to about 780 meters. The ancient caravan leaders were clearly familiar with this environment, and managed to find the optimal paths. The ancient road was in use since the Bronze Age. During the Nabataean, and especially the Roman and Byzantine periods, road services were established. When those ceased to operate, the road continued to be in service, the nature of the transported goods changing with time.

Tourists following the ancient Incense and Spice Road gain a unique insight into the colourful rocky desert as they travel along a spectacular cross section through the following geological units, features of nature, and parade of landscapes:

The Rift Valley:

The Rift Valley is a narrow strip of the continent that subsided between the crusty plateaus of Joradn-Arabia in the east and the Negev-Sinai in the west. The mountains that border the deep Rift Valley from the east and the west dominate the scenery. Opposite Moa the Rift Valley is 10 km wide and its floor has an altitude of about 0 meter, i.e. around sea level. Information gathered from exploration drill holes and geophysical measurements reveals that the geologically recent filling sediments are over 6 km deep, providing a vivid insight into the grand conglomerates of the Neogene Hazeva formation.

Moa-Kasra-Nahal Nekarot Junction:

The Moa trade route installations are located near a spring, which forms the centre of a small oasis. The road up to the canyon of Nahal Nekarot passes through a slightly bisected Senonian landscape of dark weathering-resistant flint beds, underlain by white chalk, creating a unique landscape of dark table mountains with white flanks.

Nahal Nekarot-Ein Saharonim Canyon:

The ancient trade route abruptly enters the dramatic landscape of the Nahal Nekarot steep canyon, cut into Cretaceous limestone strata and separated by thin marl beds. This geomorphologically ancient riverbed has been deepened as the base of erosion in the Rift Valley gradually subsided. The Nekarot gorge is far too large to have been formed under the present conditions of climate and landscape relief. It was the ancient channel through which the materials that eroded in the Makhtesh Ramon (to be seen in the following segment of the route) were transported into the Rift Valley. Rocks found in the Nekarot canyon include: limestone containing marine fossils, and marl.

Through Makhtesh Ramon to the Makhmal Ascent:

The ancient route left the Nekarot gorge, entered Makhtesh Ramon, and, via the short Palms Ascent, reached the small oasis of Ein Saharonim, and the nearby ancient station of Hannoth Saharonim. Facing the entrance to Makhtesh Ramon one can observe the deeply inclined rock strata, revealing the structure of a monocline. From the little hill of Hannoth Saharonim the magnificent view of the vast Makhtesh is visible.

The international geological dictionaries define a makhtesh (plural- makhteshim) as a valley enclosed within deep walls, drained by a single river, eroded at the crest of a monocline. Reference is made to the five makhteshim of the Israeli Negev.

Features that can be observed along the route crossing Makhtesh Ramon include: the hydrology of Ein Saharonim; rock formations exposed along the ancient trade route; sandstone; dykes filled by kaolin; the strata exposed at Har Ardon; the 120 million years old volcano of Giva't Ga'ash; as well as limestone and montmorillonite in the Makhmal Ascent.

Avdat Plateau: ancient agriculture, city of Avdat and Ein Avdat Oasis:

The route, passing through Senonian flint beds, goes into the Eocene limestone plateau that reaches the ruins of Avdat. Along the way one can observe lichens growing on flint and limestone, and the unique phenomenon of desert pavement.

The architecture of the city of Avdat is geologically controlled. The acropolis, with its massive buildings, is constructed on hard limestone prevailing at the hilltop, whereas beneath lies the spectacular caves city carved into soft chalk.

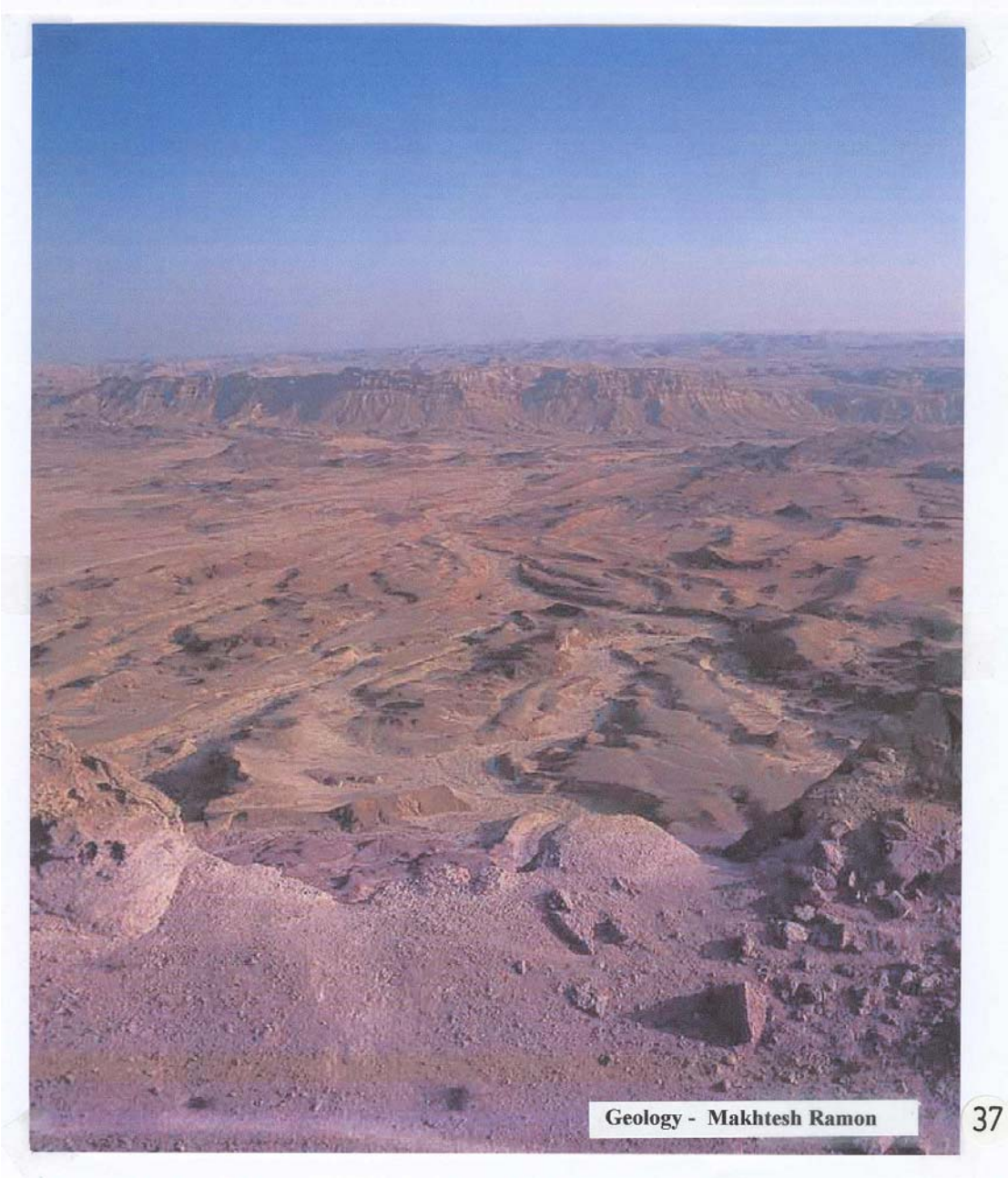
Recent research discovered exposures of seismic damage patterns, which can be seen in the Avdat ruins, revealing that devastating earthquakes occurred in the fourth and seventh centuries. Their epic centers are located within the Negev Highland, some tens of kilometers to the southwest.

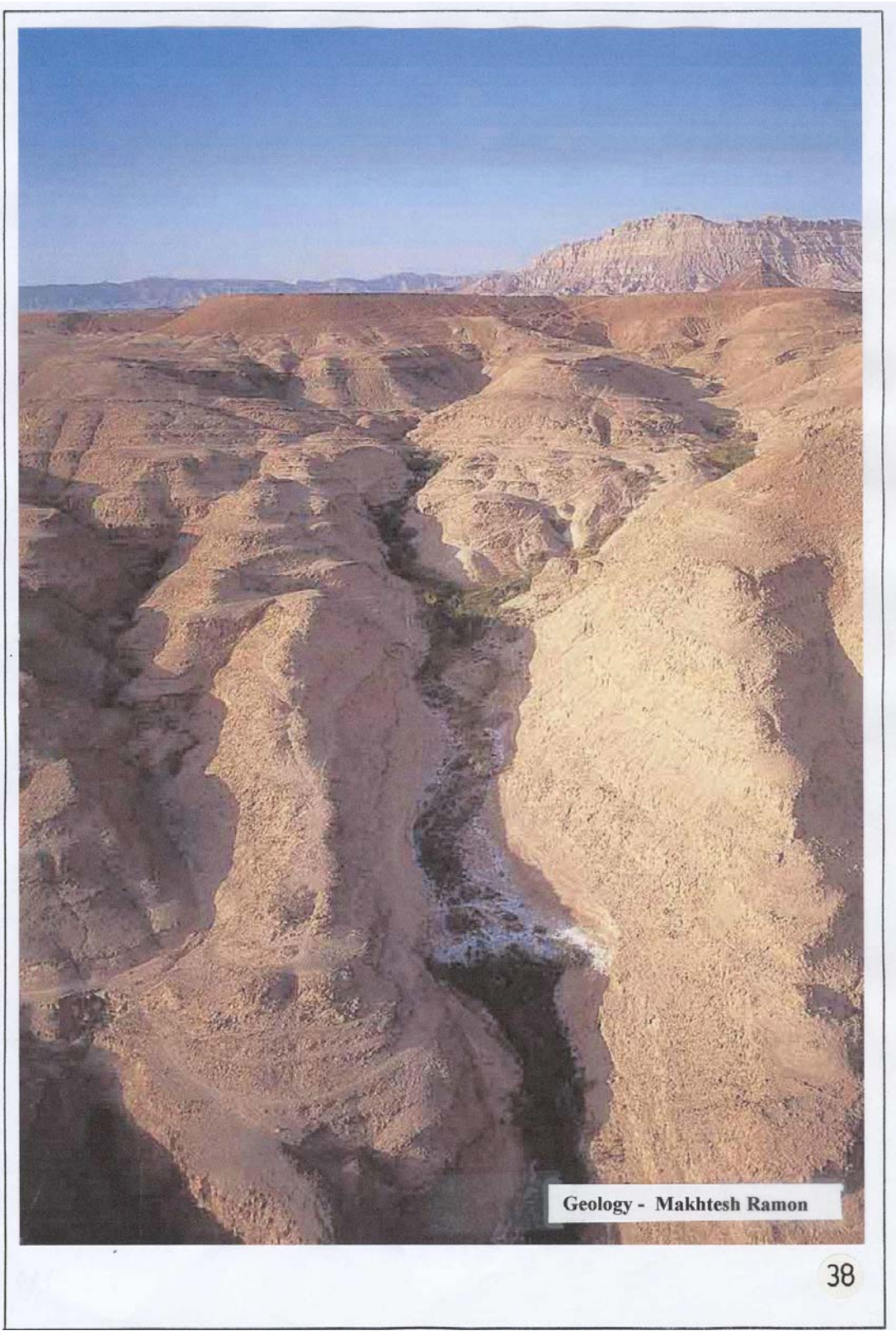
At the foot of Avdat there are remains of a Roman-Byzantine bathhouse, and nearby there is an ancient well, which discloses the ancient engineers' profound understanding of regional hydrology. The well, with a diameter of about 3 meters, is nearly 60 meters deep. This special construction was evidently planned following an accurate interpretation of the rock structure that forms the 3 km northward Ein Avdat spring.

On the top of the plateau, and at the foot of the city ruins, one can see a large number of closed polygonal enclosures, presumed to have served as camel enclosures.

Ruins of 3000 years desert agriculture, in the form of riverbeds filled with loess, can be seen around Avdat and the entire central Negev.

The route continues northward, passing a spectacular observation point looking into the steep gorge of Nahal Avdat, exposing a group of small springs that turn the narrow canyon into a hidden picturesque oasis. Bor Havarim, a group of ancient underground cisterns, mentioned by ancient historians when referring to hidden water resources, is located nearby.




Geology - Makhtesh Ramon
38

3b. History and Development

From the 3rd century B.C. until the second century B.C. the Nabataeans transported frankincense across the big desert, along 1800 km of rough, dry areas, to the Mediterranean coasts. The last and most critical part of their route crossed the Negev.

A combination of factors brought upon the flourishing of the frankincense trade and of the routes that served it:

- The Hellenistic world, and the Roman world which succeeded it, were great consumers of luxury goods.

- The source of the frankincense was beyond the big Arabian Desert, in the southern Arabian Peninsula, a region that was totally inaccessible to the people of the Roman and Hellenistic civilizations.

- The Nabataeans lived on the border of the "populated world", i.e. the Hellenistic-Roman world. They were desert people, familiar with the desert ways, its life and its secrets. Thus, they were the only ones who could serve as mediators and possess the monopoly over the import of frankincense from the southern Arabian Peninsula to the "populated world".

The geographic-strategic location of the Nabataeans at that time was relatively new. Following the destruction of the Land of Judaea by the Babylonians in 586 B.C., Judea was deserted. The Edomites, who lived east of the Dead Sea and the Arava, abandoned their country and invaded the Judean plain, which was richer and more fertile than their original land. When the Land of Edom became unpopulated the Nabataeans, pastoral nomads who inhabited the adjacent desert, moved in.

The Land of Edom was located on the edge of the "populated world" and thus the inhabitants of Eretz Israel discovered the ability of their neighbours, the Nabataeans, to bridge over the impassable desert and bring the desired incense to the Mediterranean.

The caravan route passed from southern Arabia, Yemen and Oman of today, through the western part of the Arabian Peninsula (near Mecca and Medina), crossed the southern part of Jordan, reached the Arava and passed across the Negev to the Mediterranean coasts. The main port used to import incense to the Mediterranean countries was the Gaza port.

The Nabataeans made a lot of money trading incense. The incense trade was a crucial factor in the global economy of the time. For the Romans it meant a heavy load on their general expenses. They consistently tried to take over this trade and the Nabataeans' fear of these attempts continued throughout their period of independence.

When moving along the caravan route, from southern Arabia to the Arava, the Nabataeans passed through territories which they occupied, or through settlements of friendly populations. According to the Roman historian Pelenius, the Nabataeans paid for passage, security and road services, along the route.

3c. Form and date of most recent records of property

All plans and nomination documents, boundaries, land use maps and survey maps are from the last two years (2000-2001), and are updated regularly, and as needed. These records are in GIS form.

Photographs, slides and detailed plans of archaeological remains can be found at the Antiquities Authority – in the photo-archives, scientific archive, survey department and conservations department. Some of them are recent (2000-2001); others are from the time when excavations and survey were done.

Development and presentation plans are from the mid 1990, the Shivta plans are from 2001. They are on discs and hard copies.

3d. See in the description

3e. Policies and programs related to the presentation and promotion of the property:

As a policy, once the sites have been developed they are opened to the public. There is a visitors' centre in Avdat, which provides information through display and short films. Explanatory brochures are available in several sites. Avdat and Mamshit have a site presentation program, metal models on site, and signage. In order to avoid any kind of new intrusion, the open area parts of the route have no modern facilities, not even benches or signs.
The promotion of the sites is done as part of the general promotion campaign of the National and Nature Reserves Authority.

4. MANAGEMENT

The management and management plan – general issues:

This nomination is long and diverse, possessing varied cultural heritage features. Its management system and plan are divided into two areas:

- The “Incense Route Park”

- Ancient towns along the route, or towns that had developed as part of the route’s historic role and context.

The park includes fortresses, road segments, water installations, and remains of worship sites and agricultural plants.

Though the four nominated towns are separate units, they have in common the fact that they are on the route itself or part of its historic, cultural and social context. They participated in the activities that took place on the route and shared the economic prosperity brought to the region by the incense trade.

4a. Ownership

The nominated area is state owned.

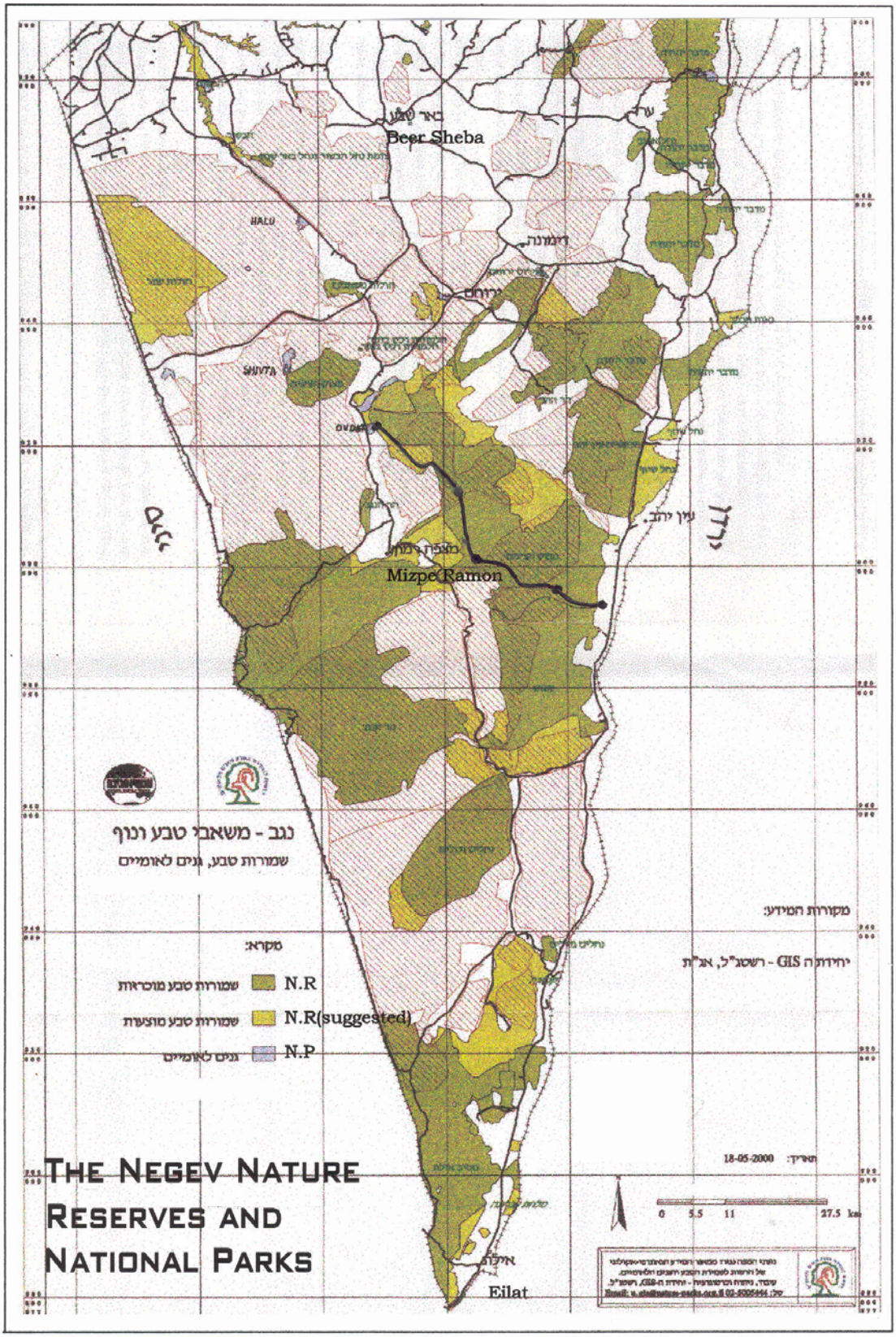
4b. Legal Status

All cultural heritage elements in the nominated area are strictly protected by national nominations and legislation.

The following relevant laws, or their abstracts, are attached:
“Israel Antiquities Law 1978”
“Antiquities Authority Law 1989”
Abstract from the “National Parks, Nature Reserves and National Sites Law”.

The first two laws legally protect man-made remains, which were made before the year 1700 A.C. They also define the roles and structure of “The Antiquities Authority”. All elements in this submitted nomination are earlier than 1700 A.C., and therefore protected by this legislation.

The third law defines National Parks and Nature Reserves and the process of their designation. It also defines the role and structure of “The National Parks and Nature Reserves Protection Authority”. This is the organization responsible for nominating sites and managing them. All parts of the submitted nomination are within designated National Parks or Nature Reserves.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Mizpe Ramon
Eilat
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National Parks, Nature Reserves, Memorial Sites

Sites Law, 1992 (Summary)

A National Parks, Nature Reserves and National Sites Council ("The Council"), nominated by the Minister of the Environment, is established by this Law to advise the Ministers of the Interior and Agriculture as to any matter relating to the implementation of this Law.

National Parks

* National parks are areas meant for "the public enjoyment of nature or for the preservation of areas of historic, archeological, or architectural importance."

* The Minister of the Interior, after consulting with the Minister of the Environment, may declare an area to be a national park after the following conditions have been met:

-- All local authorities in whose jurisdiction the park will be located must be granted an opportunity to provide input as to the nature and use of the park.

-- If the area of the park includes a holy place or an historical site, the Minister of the Interior must comply with the requirements of the Minister of Religious Affairs or the Minister of Education and Culture, to ensure the protection of the holy or historical site, respectively.

-- If the area of the park is a nature reserve, the Minister of the Interior must consult with the Minister of Agriculture.

-- If the area of the park includes a military area, or is nearby a military area, the Minister of the Interior must meet the requirements of the Minister of Defense. Prohibitions and regulations imposed under this law do not apply to the Israeli Army in a military area.

An area designated as a national park may not be changed, or its designation as such revoked, unless the Interior Minister cancels his declaration. No building work or other activity will be permitted unless it has been approved by the National Parks Authority. The Minister may not cancel the declaration of a national park without the approval of the Minister of the Environment, The Council, the local authority in which the park is located, and the Interior and Environmental Committees of the Knesset.

* A National Parks Authority, appointed by the Minister of the Environment, will manage the national parks and report to the Minister on matters relating to national parks. The Authority will be composed of "government officials, local officials, members of scientific organizations and members of the public concerned with improvement and preservation of the Israeli landscape, development of vacation and natural sites, and the preservation of areas of historical and national importance."

Nature Reserves

* Following consultation with the Minister of the Agriculture, the Minister of the Interior may declare an area of scientific or educational interest to be a nature reserve. A nature reserve is "an area in which animals, plants, inanimate objects, soil, caves, water and landscape are protected from changes in their appearance, biological makeup, and natural development."

* The Minister of the Agriculture shall appoint a Nature Reserves Authority to manage the affairs of nature reserves. The eleven member authority is to be made up of government officials, members of scientific and public bodies, and representatives of the public. Among the responsibilities of the Nature Reserves Authority are "to initiate and plan the establishment of nature reserves, to manage and develop the reserves and to protect natural assets..."

* Following consultation with the Israel Academy of Science, the Minister of Agriculture shall appoint a professional committee of zoologists, botanists, geographers, ecologists, and planners to advise the Nature Reserves Authority.

* The Nature Reserves Authority may set rules for the use of nature reserves, following consultation with the local authority in whose jurisdiction the reserve lies, and with the permission of the Minister of Agriculture.

Protected Natural Assets

* A "protected natural asset," as defined by this Law, means "any thing or class of things in nature, whether animal, vegetable or mineral, whose preservation, in the opinion of the Minister of Agriculture is of value." The Minister of Agriculture may declare, after consultation with The Council, any natural asset to be a protected natural asset throughout Israel or any specific part of it.

* A person may not damage, destroy, pick, uproot, poison or otherwise change a protected natural asset except with the permission of the Director of the Nature Reserves Authority.

* Selling protected natural assets is prohibited except with the permission of the Nature Reserves Authority. A person may not own a protected natural asset unless he receives permission from the Nature Reserves Authority.

* The Minister of Agriculture may promulgate regulations to protect natural assets from damage.

National Sites and Memorial Sites

* The Minister of the Interior, following consultation with The Council, may declare a place to be a "national site." As is the case with national parks, the Minister must also consult with those in whose jurisdiction the site lies. National sites are protected from damage or alteration. The Minister of the Environment may promulgate regulations delineating the means of preservation and protection of a national site. When a national site carries special local importance, the Minister of the Environment may give the local authority the authority to manage the site.

* A "Memorial Sites Council" will be appointed by the Government upon the recommendation of the Ministers of Defense, Labor, and the Interior. The Council is authorized to advise the Ministers of the Interior and Defense as to all issues concerning memorial sites. The Minister of the Interior, following consultation with the local authority and the Memorial Sites Council, may declare an area a memorial site. Upkeep and maintenance of memorial sites is the responsibility of the local authority in whose jurisdiction the site lies. The Minister of the Interior, after consulting with the Minister of Defense, is authorized to promulgate regulations concerning memorial sites.

Bylaws and Regulations. The Ministers of the Environment, the Interior, Agriculture and Defense may promulgate regulations as to the implementation of this law, each according to his area of authority.

A protected wild animal, as defined by this Law, is any wild animal not designated by the Minister of Agriculture as a "game animal" or a "pest". Hunting protected animals is prohibited. The Minister of Agriculture is charged with the implementation of the Law, and is authorized to make regulations as to "the protection and preservation of wild animals, the encouragement or prevention of their propagation, and their rescue from fires or other disasters of nature". He may also regulate inter alia, the procedure for the destruction of pests, taxidermy, and the use of zoos and farms for the keeping and raising of wild animals.

Hunting of Game.

* A hunting license is required to hunt game. The Minister of Agriculture may grant special hunting permits "for scientific purposes, for the prevention of damage to agriculture or for the prevention of infectious diseases in man or animals". He may further restrict hunting of a certain kind of animal or prohibit hunting within a particular area or during a particular period of time.

* A person may not hunt in the vicinity of houses, camps, public gardens, or cemeteries.

* Certain methods of hunting, including the use of poisons, drugs, traps, nets, glue and explosives, are prohibited. Pursuit in a motor vehicle is forbidden.

Trading in Wild Animals. A license is required to buy or sell wild animals.

Offenses.

* A person who does not have a license or a permit to hunt is presumed to be guilty of an offense according to this Law if he has game or protected wild animals in his possession.

* Penalties for hunting or stalking a wild animal in contravention of this Law or its regulations include fine or imprisonment, and the confiscation by the Treasury of hunting implements used in the offense.

(No. 27)

ANTIQUITIES LAW, 5738 — 1978 *

Chapter One : Interpretation

Definitions.

1. In this Law —

"antiquity" means —
(1) any object, whether detached or fixed, which was made by man before the year 1700 of the general era, and includes anything subsequently added thereto which forms an integral part thereof ;
(2) any object referred to in paragraph (1) which was made by man in or after the year 1700 of the general era, which is of historical value, and which the Minister has declared to be an antiquity ;
(3) zoological or botanical remains from before the year 1300 of the general era ;

"antiquity site" means an area which contains antiquities and in respect of which the Director has made a declaration under section 28 (a) ;

"land" includes any part of any sea, lake, river or other water and the bottom thereof ;

"excavation" or "digging" includes a search for antiquities and a trial digging ;

"collection" means an assemblage of antiquities, other than antiquities in the possession of a dealer in antiquities as trading stock ;

"collector" means a person who collects antiquities otherwise than for the purpose of trading therein ;

* **Passed by the Knesset on the 23rd Shevat, 5738 (31st. January, 1978) and published in *Sefer Ha-Chukkim* No. 885 of the 3rd Adar Alef, 5738 (10th February, 1978), p. 76 ; the Bill and an Explanatory Note were published in *Hatza'ot Chok* No. 1250 of 5736, p. 314.**

"museum" means any permanent exhibition of antiquities open to the public and any institution keeping a collection and exhibiting it for purposes of research, education or entertainment;

"the Department" means the Department of Antiquities and Museums of the Ministry of Education and Culture;

"the Council" means the Archaeological Council;

"the Director" means the Director of the Department;

"the Minister" means the Minister of Education and Culture.

Chapter Two: State Ownerhip of Antiquities

State ownership of antiquities.

2. (a) Where an antiquity is discovered or found in Israel after the coming into force of this Law, it and the area in which it is discovered or found and which is required for its preservation, shall within boundaries fixed by the Director become the property of the State.

(b) A person who alleges that any antiquity was discovered or found before the coming into force of this Law shall bear the onus of proof.

Notification of discovery of antiquity.

3. A person who discovers or finds an antiquity otherwise than in an excavation under a licence pursuant to this Law shall notify the Director within fifteen days of the discovery or find.

Request for delivery.

4. The Director may in writing request a person in possession of an antiquity referred to in section 2(a) to deliver it up to him, and he may reward the deliverer if he considers that the circumstances justify his doing so.

Request for loan of antiquity.

5. The Director may in writing request any person in possession of an antiquity to give it to him for the purpose of inspection or any other purpose for a period not exceeding ninety days.

Discontinuance of work after discovery of antiquity.

6. (a) Where a person carrying out any works on land, whether his own land or the land of another, discovers an antiquity thereon, he shall notify the Director as provided in section 3 and shall discontinue the works until the expiration of fifteen days from

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the date of delivery of the notification unless during that period he receives permission from the Director to continue the work.

(b) Within fifteen days from the date of delivery of notification as aforesaid, the Director may notify the owner and the occupier of the land, in writing, of the conditions for continuation of the work or may direct its permanent discontinuance.

Compensation.

7. (a) A person affected by a notification of the Director under section 6 (b) shall be entitled to compensation for the damage caused to him.

(b) A demand for compensation shall be submitted to the Director in the manner and at the time prescribed by regulations.

(c) Where the demand of the person affected is not accepted, wholly or in part, the Court shall decide.

Waiver of rights of State.

8. The Director may waive State ownership of an antiquity in writing, and upon his doing so the antiquity shall cease to be the property of the State.

Chapter Three: Excavations

Excavation licence.

9. (a) No person shall dig on any land, or otherwise search, for antiquities, including the use of a metal detector, or gather antiquities, unless he has obtained a licence to do so from the Director (hereinafter referred to as an "excavation licence") and in accordance with the conditions of the licence.

(b) When deciding upon an application for an excavation licence, the Director shall consult with the Council and shall make the scientific and financial ability of the applicant his prime consideration.

(c) An excavation licence shall define the area in which digging is permitted.

(d) The issue of an excavation licence shall not by itself confer on its holder the right of entry to land in another's domain.

Right of entry.

10. (a) No person shall enter any land for which an excavation licence has been issued unless he is the occupier thereof or has been authorised on behalf of the occupier and subject to the consent of the holder of the licence.

(d) During the excavation, no person, other than the Director or a person empowered by him, shall photograph, paint, draw or

otherwise depict the excavation or the antiquities discovered in it, save with the permission of the holder of the licence.

Safety measures.

11. (a) The holder of an excavation licence shall, both during the excavation and thereafter, until the expiration of the period stipulated in the licence, take all measures required —

(1) to ensure the well-being of workers and visitors at the place of the excavation and the fencing off of such place;

(2) to protect, and ensure the preservation of, the place of the excavation and the antiquities discovered thereat;

(3) to prevent all damage or nuisance to neighbouring property.

(b) Where the holder of a licence does not comply with the provisions of subsection (a), the Director may, without prejudice to the provisions of section 13, after warning the holder of the licence in writing, take the required measures in his stead and collect from him the expenses involved.

Particulars and publications relating to excavation.

12. (a) At the dates prescribed by the Director, but not less than once a year from the date of commencement of the excavation, the holder of an excavation licence shall deliver to the Director in writing —

(1) a report as detailed as possible of the excavation, including sketches, plans and photographs of the work carried out;

(2) particulars of the antiquities discovered in the excavation, including photographs and other pictures.

(b) The holder of a licence shall have an exclusive right of publication in respect of the excavation for ten years from the termination thereof. Publication in contravention of this subsection shall be a civil wrong under the Civil Wrongs Ordinance (New Version) [1]).

(c) Within five years from the date of termination of the excavation, the holder of the licence shall bring out an appropriate scientific publication concerning the findings and results of the excavation and shall deliver two copies of the same to the Director; he shall also deliver to the Director two copies of every other publication brought out by him concerning the findings and results of the excavation.

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[1]) *Dinei Medinat Yisrael (Nusach Chadash)* No. 10, p. 268; *NV* vol. II, p. 5.

13. Where the holder of an excavation licence infringes any of the provisions of this Law or the regulations made thereunder or any of the conditions of the licence, the Director may revoke or suspend the licence or attach further conditions thereto; and where he infringes the provision of section 12 (c), the Director may refrain from granting him another excavation licence until he complies with the said provision. Revocation and withholding of excavation licence.

14. The Director may, after consultation with the Council, enter into an agreement with the holder of an excavation licence concerning a waiver of the rights of the State in antiquities discovered in the excavation and concerning the apportionment of such antiquities between the State and the holder of the licence. Waiver by agreement.

Chapter Four: Dealing in and Export of Antiquities

15. A person may only deal in antiquities if he is in possession of a licence therefor from the Director and in accordance with the conditions of the licence, which shall be prescribed by regulations. Licence.

16. (a) A licence to deal in antiquities shall indicate the place of business. It shall only be valid for that place and shall be displayed there in a conspicuous position. Place of business of dealer.

(b) A person shall not exhibit a licence which has expired.

17. A dealer in antiquities shall keep an inventory in the manner prescribed by regulations. Duty to keep inventory.

18. (a) The Director may revoke a licence to deal in antiquities permanently or suspend it for a period prescribed by him if the holder is convicted of an offence under this Law or the regulations made thereunder. Revocation of licence.

(b) A dealer whose licence has been revoked or suspended shall be treated as a collector.

19. (a) The Director may in writing notify the owner or possessor of an antiquity that the antiquity is of national value. Antiquity of national value.

(b) Within three months of notification under subsection (a), the Director may request that the antiquity be sold to the State.

(c) (1) Where a person wishes to sell or otherwise transfer an antiquity of national value, he shall give advance notice to the Director.

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(2) Within three months of receipt of notice under paragraph (1), the Director may request that the antiquity be sold to the State. If the Director does not so request, the owner of the antiquity may sell or otherwise transfer it after he or the possessor thereof has, in writing, communicated to the Director the name and addreess of the purchaser or transferee.

(d) Where the antiquity is an integral part of a group of antiquities, the Director may only request as provided in subsection (b) or (c) in respect of the group as a whole.

(e) Where the Director and the owner or possessor of the antiquity do not reach agreement as to the consideration, the court shall decide the matter.

Presumption of knowledge.

20. Where a dealer in antiquities offers any article for sale as an antiquity, his plea that he did not know that the article was not an antiquity shall not be heard.

Restriction as to replica or composite.

21. (a) A person shall not sell or display for sale a replica or imitation of an antiquity without indicating thereon, in the manner prescribed by regulations, that it is not a genuine antiquity.

(b) A person shall not sell an antiquity consisting of parts of different antiquities — whether with or without supplements or additions — without indicating the composite character in the manner prescribed by regulations.

Restrictions on export of antiquities.

22. (a) A person shall not take out of Israel an antiquity of national value save with the written approval of the Minister.

(b) A person shall not take out of Israel any other antiquity save with the written approval of the Director.

Chapter Five: Collectors of Antiquities

Notice to Director.

23. A collector shall communicate to the Director, at his request, particulars prescribed by regulations in consultation with the Committee on Education and Culture of the Knesset concerning antiquities in his posseession and shall permit the Director or a person empowered by him in writing to make a photograph or sketch or a cast, print or other reproduction thereof.

Antiquity of particular scientific importance.

24. (a) The Director or a person empowered by him may notify a collector that an antiquity in his possession is of particular scientific importance (any such antiquity hereinafter referred to as a "special antiquity").

(b) The Director or a person empowered by him shall keep a record of special antiquities and of the particulars, photographs and sketches obtained or made under section 23 which shall be open to inspection by the public as he shall prescribe.

Transfer of special antiquity.

25. (a) Where a collector wishes to sell or otherwise transfer a special antiquity, he shall give advance notice to the Director.

(b) Within twenty-one days of receiving the notice, the Director may request that the antiquity be sold to the State. Where the antiquity is an integral part of a group of antiquities, the Director may only request as aforesaid in respect of the group as a whole.

(c) Where the Director and the collector do not reach agreement as to the consideration, the court shall decide the matter.

Chapter Six : Museums

Removal of antiquity from control of museum.

26. (a) Where the owner or director of a museum wishes to sell or otherwise transfer an antiquity which is in the museum or in the museum's collections or to dispose of one of the museum's collections, he shall give advance notice to the Director.

(b) Within twenty-one days of receiving the notice, the Director may request that the antiquity or collection be sold or transferred to the State, as the case may be.

(c) Where the Director and the owner or director of the museum do not reach agreement as to the consideration to be paid for the antiquity or collection, the court shall decide the matter.

Notice to director.

27. The provision of section 23 shall apply to the owner or director of a museum in respect of the antiquities in the museum and in its collection.

Chapter Seven : Antiquity Sites

Antiquity site.

28. (a) The Director may declare a particular place to be an antiquity site. The declaration shall be published in *Reshumot*.

(b) Where the Director declares as aforesaid, a note to such effect shall be entered in the Land Register and notice shall be given to the owner and the occupier of the place, if their identity

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or addresses are known, and to the District Planning and Building Commission.

Prohibition of operations on antiquity site.

29. (a) A person shall not carry out, or allow to be carried out, any of the following on an antiquity site, save with the written approval of the Director and in accordance with the conditions thereof:

(1) building, paving, the erection of installations, quarrying, mining, drilling, flooding, the clearing away of stones, ploughing, planting, or interment;

(2) the dumping of earth, manure, waste or refuse, including the dumping thereof on adjoining property;

(3) any alteration, repair or addition to an antiquity located on the site;

(4) the dismantling of an antiquity, the removal of part thereof or the shifting thereof;

(5) writing, carving or painting;

(6) the erection of buildings or walls on adjoining property;

(7) any other operation designated by the Director in respect of a particular site.

(b) Notice of the designation of an operation under paragraph (7) of subsection (a) shall be published in *Reshumot*.

(c) Where an antiquity site is used for religious requirements or devoted to a religious purpose, the Director shall not approve digging or any of the operations enumerated in subsection (a) save with the approval of a Committee of Ministers consisting of the Minister as chairman, the Minister of Religious Affairs and the Minister of Justice.

Saving of Law.

30. The provisions of this Law shall not derogate from the requirement of a permit under the Planning and Building Law, 5725 — 1965 [1]).

Restoration to previous condition.

31. A person who has carried out one of the operations specified in section 29 without approval or in contravention of the conditions of the approval, shall take action, in accordance with the directions of the Director, to restore the antiquity site or the antiquities situated thereon to its or their former condition; but the Director may, after giving the person written notice, himself take all the steps required for that purpose and recover from him the expenses incurred.

[1]) *Sefer Ha-Chukkim* of 5725, p. 307; *LSI* vol. XIX, p. 330.

Chapter Eight : Expropriation

Power to expropriate.

32 (a) The Minister may expropriate —

(1) an antiquity site the expropriation of which is, in his opinion, required for purposes of conservation and research ;

(2) any land the expropriation of which is, in his opinion, required in order to enable digging thereon.

(b) Subsection (a) shall not apply to an antiquity site used for religious requirements or devoted to a religious purpose and owned by a religious institution :

Provided that a Committee of Ministers consisting of the Minister, the Minister of Religious Affairs, the Minister of Justice and the Minister of Foreign Affairs may, with the approval of the Committee on Education and Culture of the Knesset, make it applicable thereto with or without restrictions.

Mode of expropriation.

33. Expropriation shall be in accordance with the Land (Acquisition for Public Purposes) Ordinance, 1943 [1]), and for this purpose the Minister shall, *mutatis mutandis*, have all the powers and functions of the Government under that Ordinance.

Chapter Nine : Archaeological Council and Objection Committee

Archaeological Council.

34. (a) The Minister shall appoint an Archaeological Council and shall by regulations prescribe its composition and period of tenure and procedure for its deliberations and work.

(b) The Council shall advise the Minister and the Director on matters of archaeology and antiquities they may bring before it and shall carry out the functions assigned to it by this Law.

(c) The Council may delegate powers to committees from among its members.

Objection Committee.

35. There shall be established by the side of the Council an Objection Committee of three members, two of them appointed by the Council otherwise than from among its members and one a Judge, or person qualified to be a Judge, appointed by the Minister of Justice to be chairman of the Committee.

[1]) *P.G.* of 1943, Suppl. I, p. 44 (English Edition).

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Powers of Objection Committee.

36. (a) A person who considers himself aggrieved by any of the following decisions of the Director may object thereto before the Objection Committee, but without the filing of objection voiding the decision:

(1) the fixing of the boundaries of an area referred to in section 2 (a);
(2) a second or subsequent request for delivery of an antiquity under section 5;
(3) a refusal to grant, the revocation or suspension of, or the attachment of conditions to, an excavation licence.
(4) a refusal to grant, or the revocation or suspension of, a licence to deal in antiquities;
(5) a refusal to grant a permit under section 22 (b);
(5) notification that a particular antiquity is of national value;
(7) notification to a collector that an antiquity in his possession is a special antiquity;
(8) notification that a particular antiquity is or is not an integral part of a group of antiquities;
(9) refusal to grant approval under section 29.

(b) In an objection proceeding, the Objection Committee may give any decision the Director is competent to give under this Law.

(c) An Objection Committee shall have all the powers vested in a committee of inquiry within the meaning of the Commissions of Inquiry Law, 5729 — 1968 [1]).

Chapter Ten: Offences and Penalties

Offences and penalties.

37. (a) A person who wilfully injures or, in any manner, wilfully defaces any antiquity or antiquity site or contravenes any of the provisions of section 9 (a) is liable to imprisonment for a term of three years or a fine of 150,000 pounds.

(b) A person who contravenes any of the provisions of section 6 is liable to imprisonment for a term of two years or a fine of 150,000 pounds.

(c) A person who contravenes any of the provisions of sections 3, 15, 19 (b), 21 or 29 is liable to imprisonment for a term of two years or a fine of 100,000 pounds.

1) *Sefer Ha-Chukkim* of 5729, p. 28; *LSI* vol. XXIII, p. 32.

(d) A person who contravenes any of the provisions of section 11(a) is liable to imprisonment for a term of one year or a fine of 30,000 pounds.

(e) A person who contravenes any other provision of this Law or the regulations thereunder is liable to imprisonment for a term of six months or a fine of 30,000 pounds.

Presumption.

38. If a person is found on an antiquity site with digging implements in his possession or nearby with which it must be supposed digging has recently been done on that site or is found with a metal detector in his possession or nearby, he shall, unless he proves otherwise, be presumed to have intended to discover antiquities.

Chapter Eleven : Miscellaneous

Certificate by Director to be *prima facie* evidence.

39. A certificate by the Director that some particular land contains antiquities or that some object is an antiquity shall be *prima facie* evidence thereof.

Powers of entry and examination.

40. The Director or a person empowered by him in that behalf in writing may at any reasonable time enter upon any land to examine whether the provisions of this Law or the regulations made or conditions of any certificate issued thereunder have been complied with thereon or to examine any antiquity discovered or found thereon and to make a sketch or photograph or a cast, print or other reproduction thereof.

Delegation of powers.

41. Subject to any regulation, the Director may, by notice in *Reshumot*, delegate any of his powers under this Law, other than his powers under sections 8, 13 and 14.

Controlled places.

42. (a) In this section, "controlled place" means —

(1) land in the possession of the Department ;

(2) an antiquity site.

(b) A police officer or a person authorised in that behalf by the Director in writing may remove from a controlled place any person who contravenes therein any of the provisions of this Law or the regulations thereunder.

(c) The Minister may by regulations enact provisions as to visits to controlled places and the behaviour of visitors therein, fees for admission thereto, the protection thereof and the protection of the antiquities, accessories and furniture situated therein.

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Application of Law in military area.

43. (a) The following provisions shall apply in a military area:
(1) no person shall enter it for purposes of this Law save with the prior approval of a person empowered in that behalf by the Minister of Defence;
(2) no act shall be done therein on behalf of the Director save with the consent of the Minister of Defence;
(3) no antiquity shall be dealt with therein on behalf of a military body save with the approval of the Director.

(b) For the purposes of this section, "military area" means any land occupied by the Defence Army of Israel or any other branch of the Defence Establishment approved by the Minister of Defence, and includes an area used for military exercises.

Inapplicability.

44. The Minister may, in consultation with the Council and with the approval of the Committee on Education and Culture of the Knesset, prescribe, by order, that any of the provisions of this Law or the regulations thereunder shall not apply to antiquities, museums, excavations and antiquity sites defined in the order.

Saving of validity.

45. This Law shall add to, and not derogate from, any obligation imposed or power conferred by another enactment.

Implementation and regulations.

46. (a) The Minister is charged with the implementation of this Law and may make regulations as to any matter relating to its implementation, including the collection of fees for licences issued under it.

(b) The Minister of Justice may make rules of procedure for proceedings under this Law by the Objection Committee established under section 35.

Applicability to State.

47. (a) For the purposes of this Law, the State shall be treated like any person.

(b) The provision of subsection (a) shall not derogate from the provision of section 8 of the Civil Wrongs (Liability of the State) Law, 5712 — 1952 [1].

Repeal.

48. There are hereby repealed —
(1) the Antiquities Ordinance [2];
(2) the Antiquities (Enclosures) Ordinance, 1935 [3].

[1] *Sefer Ha-Chukkim* of 5712, p. 339; *LSI* vol. VI, p. 147.
[2] *Laws of Palestine* vol. I, p. 28 (English Edition).
[3] *P.G.* of 1935, Suppl. I, p. 147 (English Edition).

49. (a) A licence issued under the Antiquities Ordinance which was in force immediately before the coming into force of this Law shall be deemed to have been issued under this Law. Transitional provisions.

(b) The schedules of historical monuments and sites published under the Antiquities Ordinance which were in force immediately before the coming into force of this Law shall be deemed to have been published under section 28 of this Law.

50. This Law shall be published in *Reshumot* within fifteen days of the date of its adoption by the Knesset. Publication.

MENAHEM BEGIN
Prime Minister

ZEVULUN HAMMER
Minister of Education and Culture

EFRAYIM KATZIR
President of the State

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Un-official Translation

ANTIQUITIES LAW, 5749-1989*

Chapter One: Interpretation

Definitions and Interpretations

1. (a) In this Law -

"Antiquities Law" refers to the Antiquities Law, 5738-1978[1];

"site" refers to an antiquities site as it is defined in the Antiquities Law;

"the Council" refers to the Council appointed in accordance with paragraph 6;

"the Director" refers to the Director of the Council;

"the Law" refers to the Law resulting from this legislation;

"the Minister" refers to the Minister of Education and Culture.

(b) All other terminology will have the connotation that they have in accordance with the Antiquities Law, unless they have been accorded a different meaning in this Law.

Chapter Two: The Law and Its Foundations

Paragraph One: Establishment of the Authority and Its Functions

Establishment of the Authority

2. The Antiquities Authority is established as a result of this Law.

The Authority - Corporation

3. The Authority is a corporation.

The Authority - a State-controlled Body

4. The Authority is a State-controlled body as defined in paragraph 9(2) of the State Comptroller Law, 5718-1958 [consolidated version][2].

Functions of the Authority

5. (a) The [primary] function of the Authority is to attend to all antiquities affairs in Israel, including underwater antiquities.

(b) The Authority may, with respect to the antiquities and sites, undertake any activity to discharge its functions, including -

(1) the uncovering and excavation of sites;

(2) the preservation, restoration and development of sites;

(3) the administration, maintenance and operation of sites and their supervision;

(4) the preservation and restoration of antiquities;

(5) establishing supervision over archaeological excavations;

(6) the administration of the State's treasures of antiquities, their supervision and control;

(7) setting in motion supervision with respect to offences under the Antiquities Law;

(8) preparing archaeological investigations and their advancement;

(9) the administration and maintenance of a scientific library of the archaeological history of Israel and her neighbours;

(10) the centralization, documentation and cataloguing of archaeological data;

(11) the establishment and advancement of educational activities and explanation in the field of archaeology;

(12) the establishment of international, scientific contacts in the field of archaeology.

(c) The administration, maintenance and operation of a site located within the boundaries of a supervised national park or national reserves shall, notwithstanding that which is stated in subsection (b)(3), form part of the National Parks Authority or the Natural Reserves Authority, this in cooperation with the Authority, unless otherwise mutually agreed to. For these purposes, "national park", "natural reserves", "National Parks Authority" and "Natural Reserves Authority" are to understood in their context under the National Parks, Natural Reserves and National Sites Act, 5723-1963[3].

Paragraph Two: The Authority Council

The Composition of the Council

6.-(a) The Authority shall have a Council comprised of sixteen members as follows:

(1) government representatives who are employees of the State -

(a) the Director General of the Ministry of Education and Culture;

(b) the Head of Cultural Administration in the Ministry of Education and Culture;

(c) the Director of Economic and Budgetary Administration in the Ministry of Education and Culture;

(d) the officer-in-charge of budgets in the Ministry of Finance;

(e) the Accountant General;

(f) the Director of Planning in the Ministry of the Interior;

(g) the Director of the Planning and Economics branch in the Ministry of Tourism;

(h) the representative of the Minister of Agriculture to be appointed by the Minister of Agriculture.

(2) two representatives with archaeological background from two of the institutions of higher learning detailed below, each from a different institution, to be appointed after having had consultations with the Minister:

(a) the Hebrew University in Jerusalem;

(b) Tel-Aviv University;
(c) Haifa University;
(d) Bar-Ilan University;

(e) the Ben Gurion University of the Negev.

(3) one member from among the members of the Israeli National Academy of Sciences, to be appointed by the Minister after consultations with the Academy, who will serve as the Council Chairman;

(4) the heads of two local municipalities to be appointed by the Minister after consultations with the chairman of the local central government, as well as the head of the regional council, to be appointed by the Minister;

(5) the director of the museum that will display the antiquities to be appointed by the Minister after consultations with the Chairman of the Museums Council, in accordance with the Museums Act, 5743-1983[4];

(6) representatives from the Ministry of Religious Affairs to be appointed by the Minister of Religious Affairs.

(b) The government representative, mentioned in subsection (a)(1) (a) to (g), may appoint an alternate who, like himself, is employed by the State to participate in Council meetings.

(c) Any Council member who is not an employee of the State may appoint a permanent alternate in the same manner as a Council member is appointed.

(d) The Minister may appoint one of the Council members to deputize as the Council Chairman.

Term of Office

7. (a) The term of office of a Council member who is not a government representative shall be for a period of four years; however, he may be reappointed for additional terms of office.

(b) A Council member whose term of office has ended shall continue his appointment until he is either re-elected or until the appointment of another member in his stead.

Guidelines for the Appointment of a Council Member

8. The following shall not be appointed as a Council member:

(1) anyone charged with a shameful offence or who has been incarcerated prior to the passing of the period of limitation according to its meaning in the Criminal Registration Act and the measure for the benefit of repentant offenders, 5741-1981[2];

(2) anyone who has a conflict of interest with respect to his business affairs and his membership in the Council; however, there will not be a conflict of interest where the actual appointment of an individual to the Council comes as a result of his responsibility.

Reimbursement of Expenses

9. The Council Chairman, his deputy and any Council member shall not accept any remuneration from the Authority for services rendered as part of their duties in the Council; however, they may claim coverage for reasonable expenses incurred as part of their duties in the Council, in an amount established by the Authority.

Expiration of a Term of Office

10. (a) A Council member who is not a government representative shall terminate his term of office to the appointed time if:

(1) a letter of resignation is tendered to the Council Chairman;

(2) any of the conditions cited in paragraph 8 are breached;

(3) he is unable, on a consistent basis, to discharge his duty and the Minister, after consultation with the Council Chairman, will remove him from his position through written notification;

(4) he retires from the position for which he was appointed.

(b) The Council Chairman shall provide to the Minister the letter of resignation, as mentioned in subsection (a)(1), within 96 hours of receiving [said letter]. The force of resignation ceases 48 hours after handing over the letter of resignation to the Minister, except where the Council member retracts his resignation in writing to the Minister.

(c) A Council member who is not a government representative, or a representative who is an employee of the State who was appointed to participate permanently in the sittings of the Council as mentioned in subsection 6(b), and who is absent for an unjustifiable reason from four consecutive Council meetings, may be removed from his position in the Council by the Minister after consultation with the Council Chairman, or his appointment may be nullified, according to the circumstance, through written notification.

The Duty Rosters of the Council

11. (a) The Council shall establish for itself its own work routines and the administration of its deliberations inasmuch as these have not been established by this Law or pursuant to it.

(b) The legal quorum for Council meetings is at least seven members. If there was no legal quorum at the commencement of the meeting, the Council Chairman may postpone the meeting by thirty minutes. After this time has passed, the meeting shall be considered to be in session if there are at least five participating members, the Council Chairman or his deputy being counted among them.

(c) Once the meeting has duly commenced in accordance with subsection (a), the meeting shall duly continue with as many members as there are present.

(d) The Director, or whomever has been deputized in his place, may be present at Council meetings.

Deliberation on a Given Subject

12. If the Minister or five Council members wish to table a certain topic, the topic should be made part of the order paper for the next Council meeting.

Appointing a Subcommittee

13. The Council may appoint members to form a subcommittee, to establish a Chairman as part of its authority, to lessen the authority to establish general Council policy and the authority to approve its budget.

Authority

14. A decision of the Council or one of its subcommittees shall not be disqualified except where the seat of the Council member or the subcommittee member was vacant, for whatever reason, at the time that the decision was made.

Council Duties and Authorities

15. The Council, without detracting from its other duties, shall -

(1) establish the general [operating] policies of the Authority in the area of duties;

(2) approve the budget of the Authority;

(3) follow up on the continuity of policy implementation, the programs and budgets of the Authority;

(4) deliberate over the financial reports provided to it by the Director.

General Council Rules

16. The Council, with the approval of the Minister, shall establish general rules for the operation of the sites, their administration and supervision.

Report

17. The Council shall provide to the Minister, at least once a year, a report on the activities of the Authority, and shall likewise provide to him, at his request, any knowledge of its activities.

Chapter Three: The Director of the Authority and Its Employees

The Director of the Authority

18. (a) The Council shall appoint, based on the advice of the Minister and with the approval of the government, a Director of the Authority. The Council may, based on the advice of the Minister, appoint a deputy Director.

(b) The elections subcommittee, as stated in subsection (a), shall be published in Reshumot.

The Authority of the Director

19. (a) The Director is responsible for the uninterrupted administration of the Authority's dealings in accordance with the decisions of the Council.

(b) Subject to the directives [outlined] in this Law, as well as the decisions of the Council, the Director shall have all of the authority necessary for the administration of the Authority, including the authority to represent the Authority in any of its duties, to sign agreements or other documents in the name of the Authority.

(c) The directives in this Law do not detract from the authority and duties granted to the Director by the Antiquities Law or any other enactment.

(d) The Director may, according to this Law, delegate some of his authority to an employee of the Authority and to authorize this employee to sign any document in the name of the Authority.

Appointing the Director

20. (a) The Director shall be appointed for a period of five years (hereafter: term of office). The Council, with the approval of the Minister and the government, may re-elect the Director for an additional term of office at the conclusion of the current term.

(b) The term of the Director shall terminate with one of the following:

(1) the Director resigns through a letter that he presents to the Minister through the agency of the Council;

(2) the Minister, after consultation with the Council and with the approval of the government, establishes that the Director cannot, in a permanent manner, discharge his duties;

(3) the Minister, after consultation with the Council and with the approval of the government, decides to remove him from his position for reasons that shall be detailed.

The Employment of Workers

21. (a) the Authority may engage workers to implement its duties;

(b) the conditions of employment of Authority workers, remuneration, service lists and methods of selection for work shall be the same as those of government employees, with those changes that have been set by the Authority with the approval of the Minister and the Minister of Finance.

Terms of the Director's Employment

22. The remuneration for the Director and the terms of his employment shall be set by the Minister with the approval of the Minister of Finance.

Chapter Three: Budget and Finance

Budget

23. (a) The Director shall prepare, at an interval set by the Council, a budgetary proposal for the activities of the authority and shall present it for approval to the Council.

(b) The budget for the Authority shall be presented to the Minister and requires the approval of both the Minister and the government.

(c) The Minister of Finance may direct the Authority with any matter that relates to the preparation of the Authority's budget.

Financing and Capital

24. (a) The budget of the Authority shall be financed from the treasury of the State, as well as from revenue from fees and other payments to be paid to the Authority in accordance with the Antiquities Law.

(b) So that the Authority can discharge its duties, the Authority may accept donations and may likewise establish research funds.

Chapter Four: Supervision Authority

The Appointment of Inspectors

25. (a) The Council shall appoint inspectors from among Authority employees, from among those who have been legally appointed as inspector or an individual who has been appointed as an inspector through the force of an enactment for the purpose of supervising the implementation of the Antiquities Law. The appointment shall be in writing.

(b) It is understood that the inspector shall have the authority to conduct investigations concerning offences against the Antiquities Law. It is understood that in using this authority -

(1) the inspector shall have the authority of a police officer in accordance with paragraph 2 of the Criminal Code (Arrest and Search) [New Version], 5729-1969[6].

(2) the inspector may utilize all of the authority allocated to a police officer at the rank of inspector in accordance with paragraph 2 of the Order of Criminal Procedures (Testimony)[7], and paragraph 3 of the aforementioned Order shall be effective [ ] registered as a result of this authority.

The Authority of the Inspector

26. (a) Should the inspector have a probable basis upon which to assume that the matter requires him to operate under the authority assigned to him, he has the authority to -

(1) stop any vehicle and conduct a search;

(2) enter any place and conduct a search; however, he may not enter a place that serves as a place in which people live provided there is a search warrant from an authorized court, and paragraphs 24 and 26-29 of the Order of the Criminal Code (Arrest and Search) [New Version], 5729-1969, will be in effect, with the necessary changes, with respect to a search conducted according to this clause;

(3) seize any object if the inspector has a probable basis to assume that an offence that violates the Antiquities Law was committed with it, and he may seize packing material or documents which, in his judgement, may be entered as evidence in a trial for an offence noted above.

(b) Insofar as this chapter is concerned, "object" includes any vehicle of conveyance.

Chapter Five: Transferring Employees, Assets, Privileges and Obligations

Transferring Employees

27. (a) Employees of the State who are employed on the eve of the commencement of this Law in the Antiquities and Museums Department in the Ministry of Education and Culture (hereafter: the Department) shall be transferred to serve as employees of the Authority under terms of service that are not worse than those in effect prior to the Law being in force.

(b) The benefits of Authority employees that have been transferred and those that stem from their work as employees of the State, as mentioned in subsection (a), shall be considered as benefits that stem from work in the service of the Authority.

(c) Settlements regarding the entitlement of the Authority to disbursement amounts that shall be transferred to its service shall be allowed and will be set within one year of the commencement of this Law in an agreement between the Authority and the government.

Transferring of Assets

28. Assets of the State that were, prior to the commencement of this Law, maintained by the Department, shall be transferred to the Authority. In this paragraph, "assets of the State" refer to real estate, moveables, entitlements and vested interests of every manner, with the exception of antiquities and sites. Conditions of transfer shall be set in an agreement between the Authority and the government.

Chapter Six: Various Directives

Taxes

29. The law of the Authority has the same force as the law of the State with respect to the remittance of taxes, the stamp tax, fees [for government or other public services], property taxes, levies and other mandatory payments.

Damage Liability

30. The law of the Authority has the same force as the law of the State with respect to the Law of Civil Damages (Liabilities of the State), 5712-1952[8].

Rules Governing Council Members and Employees of the Authority

31. (a) The law for employees of the Authority has the same force as the law for employees of the State with respect to the following enactments:

(1) Knesset Elections Act [New Version], 5729-1969[9];

(2) State Service Act (Classification of Party Activities and Fundraising), 5719-1959[10];

(3) Public Service Act (Gratuities), 5740-1979[11];

(4) Public Service Act (Restrictions at Retirement), 5729-1969[12];

(5) Penalties Act, 5737-1977[13] - directives pertaining to public employees;

(6) Testimonies Order [New Version], 5731-1971[14];

(7) Damages Order [New Version][15];

(b) The State Service Act (Discipline), 5723-1963[16], shall apply to employees of the Authority as though they were employees of the State. In this regard, the Minister of Education and Culture is synonymous with the Minister wherever Minister is mentioned in this Law, and the Director is synonymous with the Director General wherever Director is mentioned in this Law.

Implementation and Regulations

32. The Minister is appointed to implement this Law and he may, after consultation with the Director and the Council, enact regulations with respect to implementation.

Amendments to the Antiquities Law

33. In the Antiquities Law -

(1) In paragraph 1 -

(a) after the definition of "sites of antiquities" should come:

""The Authority" - the Antiquities Authority as understood in the Antiquities Authority Law, 5749-1989";

(b) in the definition of "collector" read "who has a collection" instead of "who collects";

(c) strike the definition of "the Department";

(d) in place of the definition of "the Director" read ""the Director" - Director of the Authority";

(2) in paragraph 8, after "the Director" read "with the approval of the Minister";

(3) in paragraph 14, instead of "after consultation" read "with the approval of the Minister and after consultation";

(4) in paragraph 15, instead of "the Director" read "the Minister" and at the conclusion read: "The Minister may authorize the Director or any other employee of the Authority regarding the issue raised in this paragraph";

(5) in paragraph 18(a), in place of "the Director" read "the Minister or an individual who has been authorized in accordance with paragraph 15";

(6) in paragraph 34(b), after "to the Minister" comes "to the Director and to the Council of the Authority";

(7) in paragraph 36 -

(a) in subsection (a), in place of "from the decisions of the Director" read "from the Director";

(b) in place of subsection (b) read: "(b) the appeal board may decide to accept an appeal, defer it or decide with respect to any other decisions";

(8) in paragraph 42, in subsection (a)(1) in place of "the Department" read "the Authority" and in subsection (c) after "the Minister", read "according to the suggestion of the Authority";

(9) in paragraph 44, in place of "in the Council" read "with the Director, with the Council of the Authority and with the Council";

(10) in paragraph 46(a), after "may" read "after consultation with the Director and the Council of the Authority" and after "licences" read "approvals, permits or services";

(11) after paragraph 46 read:

"Revenues Accruing to the Authority

46a. Fees and other revenues, with the exception of fines, collected as a result of this Law, shall be paid to the treasury of the Authority".

Amendment to the [ ] Order

34. In the [ ] Order[17] -

(1) in paragraph 2, in place of the definition for "an historical site" read:

""an historical site" - a site of antiquities as it is understood in the Antiquities Law, 5738-1978";

(2) in paragraph 8(1)(a)(2), in place of "the Director of the Antiquities Department" read "the Director as understood in the Antiquities Authority Law, 5749-1989".

Observance of the Law

35. Subject to paragraph 5(c), the directives in this Law cannot detract from the directives in the National Parks, National Reserves and National Sites Act, 5723-1963.

Transition Directives

36. (a) Anyone appointed as Director of the Department prior to the commencement of this Act shall be considered as if he were appointed as Director according to the Act for a term of office as at the day that the Act came into force.

(b) The government shall pass to the Authority all of the amounts budgeted for in the Budget Act for the current fiscal year for those activities of the Department whose implementation was passed to the Authority and for which there has not been an expenditure until this Act came into force. Until the end of the current fiscal year, the budget of the activities of the Authority will be in accordance with the budget passed to the Authority, as previously stated, with changes stemming from the establishment of the Authority. In this case, "the current fiscal year" refers to the fiscal year in which this Act comes into force.

Publication

37. This Act will be published in Reshumot within 30 days of its acceptance.

Chaim Herzog President of the State	Yitzhak Shamir Prime Minister	Yitzhak Navon Minister of Education and Culture

Footnotes

* passed by the Knesset on the 21st day of Tammuz (July 24, 1989); the Bill and an Explanatory Note were published in Hatza'ot Chok 1926 of 7 Nisan 5749 (April 12, 1989), p. 67.

1. Sefer Ha-Chukkim 5738, p. 76.
2. Sefer Ha-Chukkim 5718, p. 92.
3. Sefer Ha-Chukkim 5723, p. 149; 5742, p. 34.
4. Sefer Ha-Chukkim 5743, p. 113.
5. Sefer Ha-Chukkim 5741, p. 322.
6. Laws of the State of Israel, New Version 12, p. 284.
7. [ ], Vol. I, p. 439.
8. Sefer Ha-Chukkim 5712, p. 339.
9. Sefer Ha-Chukkim 5729, p. 103.
10. Sefer Ha-Chukkim 5719, p. 190.
11. Sefer Ha-Chukkim 5740, p. 2.
12. Sefer Ha-Chukkim 5729, p. 114.
13. Sefer Ha-Chukkim 5737, p. 226.
14. Laws of the State of Israel, New Version 10, p. 421.
15. Laws of the State of Israel, New Version 5, p. 266.
16. Sefer Ha-Chukkim 5723, p. 50.
17. [ ], Vol. II, p. 910.

4c. Protective measures and means of implementing them:

The first and foremost protective measure is legislation and its implementation. As stated above, the total area has been designated as National Parks or Nature Reserves, and is thus protected by the relevant law. The laws of antiquities also protect this area, which is, by legal definition, archaeology. The National Parks (the four towns) are fenced, entrance is controlled, and visitors are required to pay an entrance fee. They have site managers and staff, in charge of maintenance, monitoring and protection. The open sites are protected mainly through the work of inspectors and park rangers. The archaeology is protected by similar means of inspection and maintenance. No activities can take place in the area, unless permitted by the management authorities.

4d. Agency/agencies with management authority:

The National Parks and Nature Reserves Authority manages the sites on a daily basis. The Israel Antiquities Authority manages the conservation and excavation activities in the nominated area.

4e. Level at which management is exercised and names of responsible persons:

The Parks and Reserves Authority has its regional centre and offices in Beer-Sheva. The work plans, administration, contacts with other organizations in the region, etc., are prepared and managed in this centre. Policy issues at national level, such as large scale planning, are managed from the central offices of the Authority, in Jerusalem.

The Antiquities Authority also has a regional centre near Beer-Sheva, which controls all excavations and inspection works. Conservation activities and their inspection are the responsibility of the central unit, situated in Jerusalem, but are executed by a local, southern team.

The Regional Director of Parks and Reserves is Mr. Gilead Gabay. The offices are in 19 Ha'avot St., Beer-Sheva. The Regional Director of the Antiquities Authority, situated in Omer, is Dr. Dov Nahlieli.

4f. Agreed plans related to property:

All National Parks and Nature Reserves are designated according to "National Master Plan 8". Being on the National Master Plan is the first step, followed by a specific local nomination, approved by the Minister of the Interior.

The sites of Avdat, Shivta and Mamshit have conservation and tourism development plans. These plans are implemented in phases. The Shivta conservation plan is also implemented gradually, mainly following urgency.

The fortresses and some of the water installations have a conservation plan, much of which has already been implemented and is now mainly monitored.

4g. Sources and levels of finance:

All financing comes from the Parks and Reserves Authority's budget. The source of this budget is partly governmental, but mainly from income. Income is generated from entrance fees, concessions, and special activities. During years with low income the activities on the sites concentrate on maintenance and protection only. In "better" years there is more conservation and development implementation.

The four towns have specific budgets. The level of budgeting depends on the annual budget of the Authority and therefore varies considerably from one year to another.

4h. Sources of experience and training:

The Parks Authority's personnel carry out routine works. These works include maintenance and minor conservation works, considered as maintenance. The Authority has one trained conservation expert in the region and a core group, which receives basic training from the Antiquities Authority experts. The training is at a level that teaches the trainees to distinguish between the kind of works they can do themselves, and the work that requires calling in professional conservators. Expert conservators from the conservation unit of the Antiquities Authority carry out this kind of conservation activity.

The training of rangers and inspectors includes the understanding of the cultural and natural values of the sites and the areas they are in charge of, and the knowledge necessary for handling visitors as well as problems on the sites.

Managers are trained at different administrative levels, depending on their level of responsibility. The Parks Authority employs a Chief Archaeologist and a Chief Architect, trained in conservation (ICCROM course).

4i. Visitors' facilities and statistics:

Avdat and Mamshit are the most developed sites. The visitors' centre in Avdat provides information on the specific site, the archaeology and history of the region, and the Incense and Spice Road, as well as information on trails and visitors' services. Avdat also has a souvenir shop. All sites have bathrooms, parking areas and signage. Some sites offer refreshment and food facilities (kiosks, coffee houses or restaurants). Avdat and Mamshit have good site presentation. Shivta, being more remote, is less developed for visitors. Haluza, the least developed site, has no facilities at all.

The open areas, mainly the fortresses and road segments, have signage, but, as a policy, no other facilities. Their nature and authenticity are considered of such high value and so vulnerable to any modern intrusions, that while visitors are invited and most welcome, facilities are not provided. For this reason, it is almost impossible to provide statistics of the number of visitors to the open sites.

4j. Property management plan and statement of objectives:

The legal designation, the conservation and development plans, staffing, annual routine work plan, and budgeting are considered by the Parks Authority as their equivalent for a formal management plan. There is no official "Management Plan", but none of the components of a proper management plan are missing. The term used locally is "Site's File", and it contains all the components of a management plan. In addition to the above mentioned content, such a "file" also includes graphic and photographic documentation, condition assessments and lists of properties and remains on the site.

The basic statement of objectives for each Nature Reserve and National Park says: "The objective of this nomination is to protect the cultural and/or natural values of the site by means of legal and proper management tools. In addition to the protection of values, these sites will be developed for the enjoyment of the visitors and the public – whether in our generation or in generations to come".
Each site and designated area has tactics and plans specific to its characteristics.

4k. Staffing levels:

At a regional level the staff includes:

Director, deputy and a secretary. There are six rangers, four site managers, regional conservator, chief biologist, and 25 workers at different levels of training. Five of them have basic training in conservation and maintenance of sites. They are in charge of the other 20 workers who work mainly in Avdat and Mamshit and move to the other sites, as needed. The larger expert staff (archaeologists, planners, conservators) is at national level, and work in the region per projects and as required by work plans.

5. FACTORS AFFECTING THE PROPERTY

5a. Development Pressures:

Since the World Heritage nominated sites are part of much bigger nationally nominated National Parks and Nature Reserves, their buffer zone is so large that no existing development plans have any effect on them. Wider areas, reserved as “fire zones”, surround most of the nominated sites, which means that no activities, except for possible army training, can take place in them. This training is usually coordinated, and is of a kind that will not put any visitors or cultural and natural values at risk.

5b. Environmental Pressures:

The sites and areas for nomination are in a relatively remote region of the country. They are not highly populated or industrialized. Therefore, there are no environmental pressures caused by human activities. The main causes for deterioration are natural, mainly the big differences between the temperatures of night and day, characteristic to desert climates and the primary cause for decay of building materials.

5c. Natural Disasters and Preparedness:

Since this is a desert area, there is no risk of fires. The most eastern part of the nomination is in the Great Rift Valley, which is seismically sensitive. In recent years, most ancient structures have been consolidated, keeping earthquake risk in mind. The bigger risk may originate from sudden winter floods, characteristic to desert climate. The ancient builders of the sites and towns, who were familiar with this risk, prevented it by building on higher grounds and diverting rainwater. Before and after the rainy season the drainage systems are monitored, checked, and, if necessary, repaired.

5d. Visitor/tourism Pressure:

The possible effect of visitors can only be felt during short and well known in advance peak seasons. During these periods all the rangers are permanently on site, to prevent any damage caused by violation of regulations. Another pressure originates from “4 wheel drive visitors” who come mainly to experience the challenge of crossing difficult areas. The possible damage they might cause is minimized by strict rules and limited access.

5e. Number of Inhabitants:

There are no inhabitants in the nomination area or its buffer zone.

6. MONITORING

6a. Key indicators for measuring state of conservation:

Two key indicators were selected as permanent criteria for measuring the sites' state of conservation. The first is the amount of conservation work (measured in budget figures and human work days) required, following the annual reporting process. The other indicator, which measures potential threat only, is the number of visitors.

6b. Administrative arrangements for monitoring:

Among the roles of the site's staff and rangers is regular monitoring and reporting on the state of conservation of the sites. The most visited sites, like Avdat, are monitored on a monthly basis. Other areas are monitored and photographed before and after winter, as well as after peak days.

6c. Results of previous reporting exercises:

Most of the reporting and monitoring is followed up by minor repair and maintenance work. In very few cases more significant conservation works were required, and the Antiquities Authority staff carried those out. In recent years (last three), only Shivta required major works, mainly due to the fact that nothing of this kind has ever been done on the site. These works were carried out by the Park's conservator, with the help of a group of untrained workers. It was also seen as a training opportunity.

7. DOCUMENTATION

7a. List of photographs and slides:

Photographs:

Description	Photographer	Date
1. Cover- Avdat – aerial view	Albatross	1998
2. Frankincense bags	A. Goren	1999
3. Moa, general view from the east	Albatross	1998
4. Moa, general view from the west	Albatross	1998
5. Kasra, detail of the fortress	National Parks	1994
6. Kasra, general view	Albatross	1998
7. Nekarot, general view from the east	G. Kertesz	2000
8. Nekarot, general view from the west	Albatross	1994
9. Nekarot, water cistern and view from the north		
10. Ein saharonim, aerial view		
11. Ein Saharonim, entrance façade	G. Kertesz	2000
12. Ein Saharonim, aerial view from south	Albatross	1998
13. Ein Saharonim, detail showing rooms	Albatross	1998
14. Makhmal, view from east towards Makhtesh Ramon,	D. Horovits	1993
15. Makhmal, view from the fortress and ascent	I. Mazor	1996
16-17. Milestones on the road	G. Kertesz	2000
18. Tumuli, seen from Nekarot gorge	Albatross	1998
19. Small temple	A. Goren	1995
20. Jacob's Ladder (camping site)	Albatross	1998
21. Typical landscape (Makhtesh Ramon)	Albatross	1998
22. Road section	G. Kertesz	2000
23. Avdat, view of the temenos	Albatross	1998
24. Avdat, visitors' centre	G. Kertesz	2000
25. Avdat, private houses	Y. Ilan	1998
26. Avdat, general view	Albatross	1998
27. Avdat, presentation: "Frankincense Caravan"	G. Solar	1993
28. Avdat, presentation: "The Wine Maker"	G. Solar	1993
29. Haluza, the theatre	Albatross	1998
30. Mamshit, aerial view from the east	Albatross	1998
31. Mamshit, south-western corner with the western church	Albatross	1998
32. Shivta, a church	Albatross	1998
33. Shivta, details of a church	Albatross	1998
34. Cultivation in the valleys- ancient dams	Albatross	1998
35. Cultivated valleys – ancient dams	Albatross	1998
36. "Stone piling" – probably ancient vineyards		
37. Makhtesh Ramon I	Albatross	1998
38. Makhtesh Ramon II	Albatross	1998

Slides

Description	Photographer	Date
1. Cover- Avdat – aerial view	Albatross	1998
2. Moa, general view from the east	Albatross	1998
3. Moa, general view from the west	Albatross	1998
4. Frankincense bags	A. Goren	1999
5. Kasra, general view	Albatross	1998
6. Kasra, detail of the fortress	National Parks	1994
7. Nekarot, general view from the west	Albatross	1994
8. Ein Saharonim, aerial view from south	Albatross	1998
9. Ein Saharonim, detail showing rooms	Albatross	1998
10.Tumuli, seen from Nekarot gorge	Albatross	1998
11.Jacob's Ladder (camping site)	Albatross	1998
12. Typical landscape (Makhtesh Ramon)	Albatross	1998
13. Small temple	A. Goren	1995
14. Makhmal, view from the fortress and ascent	I. Mazor	1996
15. Avdat, view of the temeros	Albatross	1998
16. Avdat, general view	Albatross	1998
17. Avdat, private houses	Y. Ilan	1998
18. Avdat, general view	Albatross	1998
19. Avdat, presentation: "Frankincense Caravan"	G. Solar	1993
20. Avdat, presentation: "The Wine Maker"	G. Solar	1993
21. Haluza, the theatre	Albatross	1998
22. Mamshit, aerial view from the east	Albatross	1998
23. Mamshit, south-western corner with the western church	Albatross	1998
24. Mamshit, Byzantine church	I. Mazor	1996
25. Shivta, a church	Albatross	1998
26. Shivta, details of a church	Albatross	1998
27. Cultivation in the valleys- ancient dams	Albatross	1998
28. Cultivated valleys – ancient dams	Albatross	1998
29. "Stone piling" – probably ancient vineyards		
30. Makhtesh Ramon I	Albatross	1998
31. Makhtesh Ramon II	Albatross	1998

7b. Copies of property management plans and extracts of other plans relevant to the property

(all texts are extracts translated from the Hebrew regulations of each individual plan)

1. State Master Plan for National Parks, Nature and Landscape Reserves (No. TMA/8)

**(Ministry of the Interior – Planning and Building Law- 1965 –
No. 693, dated: 21.6.81 - signed by the Minister of the Interior and the Government Secretary, 13.7.81.)**

Definitions:

National Park -
An area designated for public recreation in the bosom of nature, or for the commemoration of values that have historical, archaeological, architectural, or landscape significance, and the like, whether they remain in their natural state or are adjusted to serve this purpose through the planting of trees or the building of facilities or constructs that are directly required for these uses.

Landscape Reserve:
An area that due to its landscape and nature values, or to its importance as a recreation area, or to quality of the environment reasons, will not be designated for building and for other uses such as residence, industry or any other business, except for building or uses permitted according to the first appendix to the Planning Law.

Nature Reserve:
a. Permitted purposes: areas for nature and landscape reserve, for travel and tourism.
b. The borders of the nature reserve and its permitted uses will be determined in a local plan.
c. Despite what is said in a previous clause, in the area designated in this plan as a nature reserve, the following development constructions will be permitted: walking paths, steps, observation posts, safety railings, lightly built shading sheds, signage and sitting benches. All the above in accordance with building and development plans authorized by the local committee, following a consultation with the National Park and Nature Reserve Authority. Building permits, according to this clause, will be issued by the local committee or by the relevant local authority.

The Purpose of the Plan:
The purpose of the plan is to locate areas, which are designated today, or will be designated in the future, to be used as national parks, nature reserves or landscape reserves.

Other uses of National Parks:
Despite what is said in the definition of a “national park”, it is permitted, according to the Planning Law, to designate areas in a national park for the construction of buildings or facilities for other uses, providing these are required for the achievement of the main purpose of the national park, even if the general public (or part of it) does not have free access to these areas, or does not have access at all.

2. Regional Master Plan – South District (No. TMM/4, Amendment No. 14) (Planning and Building Law – 1965)

Plan Instructions, November 1998:

National Park:
a. Permitted purposes: facilities for public recreation in the bosom of nature. Commemoration of values that have historical, archaeological, architectural, and landscape significance, and the like, whether they remain in their natural state or are adjusted to serve this purpose through the planting of trees or the building of facilities or constructs that are directly required for these uses.

b. Despite what is said in a previous clause, in an area designated in this plan as a national park, the following development constructions will be permitted: walking paths, steps, observation posts, safety railings, lightly built shading sheds, signage and sitting benches. All the above in accordance with building and development plans authorized by the local committee, following a consultation with the National Park and Nature Reserve Authority.

Antiquities Site:
Antiquities site, as defined by the Antiquities Law – 1978. The permitted uses will be determined in a local general plan, in accordance with the instructions of this plan.

3. National Parks Authority –Detailed Plan No. 315/3:

Mamshit-Kurnub National Park:

The Purpose of the Plan:
a. To designate the area of the plan for a national park, in accordance with the National Parks and Nature Reserves Law, 1988.
b. Expanding the northern area of the national park so that it will include the entire access road and its adjacent areas.
c. Determining areas for antiquities and for an open public space.
d. Outlining roads and determining their width.

4. Mamshit- Kurnub - detailed Town Planning Scheme no. 1/118/03/25

Aim of the Plan:
Designation of areas for a national park, according to the National Parks and Nature Reserves Law. Defining areas for an open public space, antiquities sites, etc.

5. Avdat – detailed Town Planning Scheme no. 470/3, 3/110/03/10

Aim of the Plan:
Defining areas for a designated national park, open public space, service and trade centre, antiquities site, etc.

6. Shivta – detailed Town Planning Scheme no. 469/3

Aim of the Plan:
Defining areas for a national park, open public space, antiquities sites, etc.

7. Haluza – detailed Town Planning Scheme no. 101/02/10

Aim of the Plan:
Designation of area for a national park, according to the National Parks and Nature Reserves Law. Defining areas for open public space, antiquities site, agricultural area, etc.

7c. Bibliography

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7d. Address where inventory, records and archives are held:

National Parks and Nature Reserves Archives:
3 Am Ve'Olamo St., Jerusalem 95463
19 Ha'avot St., Beer Sheva

Israel Antiquities Authority:
Rockefeller Museum, P.O.Box: 586, Jerusalem 91004

8. SIGNATURE
ON BEHALF OF THE STATE PARTY

Signature:……..

Mr. Daniel Bareli, Secretary General
Israel Commission for Unesco

Signature:……..

Mr. Roni Milo
The Minister for
RegionalCooperation

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The following team prepared the Nomination File:

Head of the Team:
Giora Solar – Architect, Conservator, Management Planing

Statutory Issues Coordinator:
Gavriel Kertesz – Shmuel Groag – Architects, Town Planners

Archaeology, Conservation:
Assi Shalom – Conservator

Geology:
Prof. Immanuel Mazor

Translation, Editing:
The late Anna Orgel

GIS:
Shahar Solar

This nomination was initiated by the Israel Ministry for Regional Cooperation And sponsored by both the Ministry and the Negev Development Authority.
October 2001

The Nomination was delivered to the Israel Nature and Parks Authority in April 2003 as the Ministry for Region Cooperation was no longer in existence after the 2001 elections.

GIS Maps
Michal Levi – Israel Nature and Parks Authority

CD preparation:
Dr. Tsvika Tsuk - Israel Nature and Parks Authority
Bella Dax - Israel Nature and Parks Authority

May 2004