

# The Incense Route (Israel)

No 1107 rev

## 1. BASIC DATA

*State Party:* Israel  
*Name of property:* The Incense Route and the Desert Cities in the Negev  
*Location:* Negev Region  
*Date received:* 31 January 2003

### *Category of property:*

In terms of the categories of cultural property set out in Article 1 of the 1972 World Heritage Convention, this is a *site*. In terms of the *Operational Guidelines for the Implementation of the World Heritage Convention*, paragraph 39, this is a *cultural landscape*.

### *Brief description:*

Four Nabatean towns, associated fortresses and agricultural landscapes in the Negev Desert, spread along routes linking them into the Mediterranean end of the Incense and Spice route, together reflect the hugely profitable trade in Frankincense from south Arabia to the Mediterranean, which flourished from the third century BC until the second century AD, and the way the harsh desert was colonised for agriculture through the use of highly sophisticated irrigation systems.

## 2. THE PROPERTY

### *Description*

The nominated site lies in the Negev Desert – which as a whole accounts for two thirds of Israel’s land area. Its name means dry land.

The nominated towns, fortresses, caravanserai and fossilised agricultural landscapes that reflect the prosperity of the Nabatean Spice trade over five hundred years from the third century BC, stretch out across a hundred-kilometre section of the desert from Haluza in the northwest to Moa in the east on the Jordanian border. These sites were part of a network of trade routes which transported frankincense and myrrh, extracted from thorn trees in what are now Oman, Yemen and Somalia, to the Mediterranean and North Africa – a total distance of some two thousand kilometres.

Frankincense was used in enormous quantities in the Hellenistic and Roman world, as incense for temples, and for medicinal and cosmetic purposes. Such was the demand that its price was at times higher than gold. The demand prompted elaborate measures for its supply. In the Negev, its trade fostered the development of substantial towns and for five hundred years their livelihood largely depended on continuous supply.

Ten of the sites (four towns, Haluza, Mamshit, Avdat and Shivta, four fortresses, Kazra, Nekarot, Saharonim and

Makhmal, and two caravanserai) lie along or near the main trade route from Petra, now in Jordan and the capital of Nabatean power, to Gaza, while the town of Mamshit straddles the route leading north from Petra to Damascus.

The central Nabatean desert is divided physically into two by the Makhtesh Ramón cliff and crater, some 40 kilometres long and 300 metres deep. South of the cliff the desert topography is harsh, with many ‘wadis’, bare mountain ridges, lofty plateaux and deep canyons, and has very low rainfall and slight vegetation. In spite of these hazards and disadvantages, the trade routes navigated this inhospitable terrain in order to avoid the Romans who occupied Israel north of the Negev. Four of the key sites are in this area – cities with fortresses and towers developed to service and protect the trade routes and with sufficient infrastructure to sustain through agriculture a population in this arid area. This meant the development of terraced fields serviced by hugely sophisticated irrigation systems that were based on elaborated mechanisms for trapping every drop of the slight rainfall the area receives.

North of the Makhtesh Ramón cliff, the area is by contrast more hospitable. It is dry but not barren and mostly flat with wide-open spaces. The rainfall is slightly higher and the vegetation more varied and widespread. This allowed for a large pastoralist population, which seemed to have deterred the Romans.

The nomination consists of sites that represent the rise of Nabatean control of this Incense route in the Negev, following the domestication of the camel in the third century BC, and then its subsequent decline in the second century AD with the Roman occupation of Petra. The sites have been preserved due to their almost total abandonment in the 7<sup>th</sup> century AD.

All the proposed sites are surrounded by a buffer zone.

The nominated property is in four sections: the landscape and a 50 km section of the route from Petra to Gaza between Avdat and Moa; the town of Haluza further north along the same route; the town of Shivta, just west of this route and the town of Mamshit on the route from Petra to Damascus.

The main sites are:

- *Towns*
  - Avdat – Oboda
  - Haluza
  - Mamshit Kurnub
  - Shivta – Sobata
- *Fortresses and Caravanserai*
  - Moa Fortress and Caravanserai
  - Kasra Fort
  - Nekarot Fortress
  - Ein Saharonim – Ramon Gate Caravanserai
  - Makhmal Ascent and Fortress
  - Graffon Fortress
  - Milestones along the route

- Miscellaneous remains
- Road Sections
- Agricultural evidence.

They are considered separately:

➤ *Towns*

- Avdat – Oboda:

On the western edge of the Ramon-Nafkha highlands on the edge of a promontory 80 metres above the surrounding plains, the town covers an area 300 x 400 metres and lies within a squared limestone wall. Remains in the town include domestic dwellings, a bathhouse, a Nabatean temple, a fort, a main street, two churches and a caravanserai.

The town walls have survived to a considerable height. In places arch-supported roofs also survive.

- Haluza:

This, the northernmost town, is surrounded by shifting sand dunes, which have obscured some of the building evidence. Recent excavations have uncovered remains of streets, a winepress, a theatre, two churches and a tower.

- Mamshit Kurnub:

This easternmost town near modern Dimona has been extensively excavated and in places partially reconstructed. It consists of a town wall, caravanserai, large private houses, market street bathhouses, etc. Surviving material includes frescoes and mosaics.

- Shivta – Sobata:

Slightly off the main trade route, this town in the central Negev has, apart from its main monuments, not been excavated but nevertheless exhibits a remarkable degree of conservation. There are remains of houses with two and three floors, churches with apses intact, streets, a governor's house, a town square, a farm, winepresses etc. Built of hard limestone, it is unwallled.

➤ *Fortresses and Caravanserais*

- Moa Fortress and Caravanserai:

Moa is at the eastern end of the section of the route nominated and sits near the Jordanian border. Both the fortress and caravanserai are of stone built from dressed limestone. The fortress sits on the top of a knoll overlooking the caravanserai on the plain below. Walls survive to 3 m height in the fortress and around 1.25 m in the caravanserai. There are remains of an elaborate water system, which channelled water from an underground spring, via a pool and a canal, to the bathhouse in the caravanserai. Agricultural implements were found in the fortress.

- Kasra Fort:

To the west of Moa, the small square Kasra Fortress sits on a flat mountaintop above the Kasra Wadi. The walls of cut fossil limestone survive to 3 m in height.

Nekarot Fortress:

The next site to the west, Nekarot Fortress, consists of a square tower and adjoining yard, a ruined complex whose

use is uncertain, as well as a small watchtower and a hidden pool complex built to retain floodwater. All buildings are constructed of squared limestone blocks. The tower walls remain to 3 m high. Remarkably, the water pool building has its arched roof supports, stone roof slabs, walls, windows and canal intact, and also displays evidence of fine three-layered lime/gypsum plaster.

- Ein Saharonim – Ramon Gate Caravanserai:

Further west again, is this large Caravanserai built of soft clay stone and fired clay brick and containing rooms for workshops, kitchens, living quarters and washrooms. Walls survive up to approximately 2 m high in parts of the site. In the surrounding area are extensive remain of agricultural terraces.

- Makhmal Ascent and Fortress:

On the northern edge of Ramon Makhtesh is this square fort and an associated pool to catch floodwater. Both are built of squared limestone blocks and survive to around 1.5-2 m high.

- Graffon Fortress:

Similar in construction to the Makhmal fortress, the walls survive to just less than a metre high.

- Milestones along the route:

Twenty-two milestones, in two groups of five and six, have been discovered in the Nafha Highlands and the Ramon Makhtesh areas between the Makhmal Fort and the Saharonim Fort. They are constructed of cylindrical stones, either two or three in each milestone, supported on a square stone base.

- Miscellaneous remains:

Along the route are numerous remains of field-stones arranged in a variety of different ways near rest sites, roads intersections, dangerous ascents etc. Some are markers, while others seem to have been offering or worship sites. A few of the installations are large – as much as 100 m in length.

- Road Sections:

Evidence of the road between sites, wide enough to carry camel or mule traffic, can be found in place along the length of the nominated section. The road is visible in the way that fieldstones have been cleared from the surface and arranged along the edges. In places the road has been 'revetted' on steep slopes. Milestones mark the way.

- Agricultural evidence:

The Nabateans had to produce food for their inhabitants but also for the huge incense caravans crossing the country several times a year. In spite of the arid desert conditions, with rainfall of only 100 mm a year, large-scale agriculture was developed using extremely sophisticated systems of water collection.

Water collection and irrigation used several methods:

- Channelling;
- Dams – these are mostly small but there are hundreds of thousands of them scattered across every valley and creek;

- Cisterns and reservoirs – these were cut in bedrock, created by dams or consisted of built structures within a building and all collected flood water.

Evidence for all these is widespread around Avdat and the central Negev, as are remains of ancient field systems strung along riverbeds and on the slopes of hills, where they are characterised by myriads of stone collection cairns.

The Nabateans were also pastoralists breeding sheep, cattle, goats and camels in considerable numbers.

The combination of towns and their associated agricultural and pastoral landscape makes a complete fossilised cultural landscape.

### **History**

From the 3<sup>rd</sup> century BC until 2<sup>nd</sup> century AD, the Nabateans transported frankincense and myrrh across the desert from Arabia to the Mediterranean coast, a distance of some 1,800 km.

This trade was fostered by demands for luxury goods in the Hellenistic and Roman world. It was made possible by the knowledge of the desert dwelling Nabateans, who could bridge the ‘impassable’ desert and travel into the southern Arabian Peninsula the source of the frankincense, a world unknown to the Romans and those living along the coast of the Mediterranean.

The Nabateans moved into the Negev area in the 6<sup>th</sup> century BC after the Edomites had abandoned their country and invaded the Judaeian plains.

The Nabateans grew rich on the profits of the trade. The Romans consistently tried to take over the trade, and their hostile influence meant that the Nabateans had to take routes to the south of Roman territory and thus traverse and secure some of the most difficult terrain in the Negev. They developed towns and forts to defend the route and caravanserais to provide for travellers. To support their own population and those of the merchant caravans, necessitated colonising the harshest of dry, rocky deserts.

By the 2<sup>nd</sup> century AD all the Nabatean towns had become annexed to the Roman Province of Arabia after the Roman conquest of Petra. The heyday of Nabatean control of the routes was at an end. Although Roman control heralded two centuries of prosperity for the towns as they became incorporated into the defence system of the Roman Empire under Diocletian, it meant a decline of the trade routes as the Romans diverted trade through Egypt.

Most of the towns were finally abandoned after the Arab conquest of 636 AD and have lain largely undisturbed since.

### **Management regime**

#### *Legal provision:*

All the nominated area is State owned.

All cultural heritage elements within the nominated area are protected by national legislation under the following laws:

- Israel Antiquities Law 1978;
- Antiquities Authority Law 1989;
- National Parks, Nature Reserves and National Sites Laws, 1992.

The first two laws protect man-made remains made before 1700 AD and thus cover all aspects of this nomination.

The third law defines the role and structure of national parks and nature reserves. All parts of the nomination are within designated national parks or nature reserves.

#### *Management structure:*

The National Parks and Nature Reserves Authority manages the site on a daily basis. The Israel Antiquities Authority manages the conservation and excavation activities of designated structures.

Management is carried out at national regional and local levels as follows:

- National:

Parks and Reserves Authority - Policy issues.

Antiquities Authority – formulating conservation and inspection.

- Regional:

Parks and Reserves Authority – work plans.

Antiquities Authority – excavations and inspection.

- Local:

Antiquities Authority – carries out conservation and inspection work.

#### *Resources:*

All finance comes from the Parks and Reserves Authority budget, which comes in turn from the government and from income. The four towns have specific budgets. Elsewhere in low-income years, funds are spent on maintenance and protection only, with conservation taking place when exterior funds are available.

### **Justification by the State Party (summary)**

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 is indisputable.

## **3. ICOMOS EVALUATION**

### **Actions by ICOMOS**

An ICOMOS Mission visited the site in August 2003.

ICOMOS also consulted its International Scientific Committee on Cultural Itineraries.

In June 2004, the World Heritage Committee referred back this nomination in order to allow the State Party to undertake a more comprehensive Comparative Evaluation (Decision 28 COM 14B.42). This was submitted to the World Heritage Centre in September 2004.

The Comparative Analysis in this report has been based on this revised material.

### **Conservation**

#### *Conservation history:*

This is not detailed in the nomination in one section. However descriptions of individual sites reveal the following:

1956-1990: Mamshit – extensive excavations and reconstruction;

1960s, 1970s and 1980s: Avdat – excavations and reconstruction;

1990: Ein Saharonim – Ramon Gate Caravanserai: restoration;

1995: Moa Fortress – restoration;

Nekarot Fortress – restoration;

1996: Kasra Fortress – restoration;

1997: Ein Saharonim – Ramon Gate Caravanserai: restoration;

2002: (planned) Makhmal Fortress – restoration;

(planned) Mamshit – restoration.

#### *State of conservation:*

The state of conservation of the majority of monuments is good. The exception is the site of Haluza, which lacks post-excavation consolidation (see below).

#### *Management:*

The Parks Authority employs a Chief Archaeologist and a Chief Architect at national level and a large expert staff of archaeologists, planners and conservators.

At a regional level it has one trained conservation expert and a core group, which receives basic training from Antiquity Authority experts to enable them to know what they are able to undertake without the intervention of experts from the Antiquities Authority. Regional staff also includes rangers and site managers.

There is no Management Plan for the whole nominated areas. The dossier however states that the component parts of a Management Plan do exist. Each National Park and Nature Reserve has a Master Plan for the whole accompanied by local plans for smaller areas. Sites also have development plans, staffing plans and annual work plans.

The towns of Avdat, Shivta and Mamshit have conservation and tourism development plans. The fortresses and some of the water installations have conservation plans, much of which has been implemented.

All sites have a Site's File which covers list of properties, photographic documentation, and condition assessments.

Although annual work plans are in place for each site, these do not seem to be detailed enough to provide guidance for short-term small conservation projects in response to deterioration due to harsh desert conditions.

Such plans it is suggested should be put in place for each site as soon as possible.

There is no evidence of an archaeological strategy for the whole site. Given the problems perceived at two of the sites – see below – it is suggested that such a strategy be developed as soon as possible which would cover archaeological research, non-destructive recording and approaches to stabilisation and repair. Such a strategy should inform against reconstruction where evidence is not totally available. It should apply across the whole site and give advice for each of the major sites.

#### *Risk analysis:*

The nomination dossier sets out four areas of risk as follows:

**Development pressures:** The buffer zones for the nominated area are large and are within nominated national parks and nature reserves. This means development plans should have no effect on them. The only possible antipathetic activities mentioned are army training. Care would need to be taken that this training did not disturb evidence for ancient agriculture.

**Environmental pressures:** Lack of regular human activity in the area (apart from staff working on the sites) means that there are no direct environmental threats as a result of human intervention. The main environmental threats come from 'natural' causes – the extreme temperatures of the desert which impact on the building material.

**Natural disasters:** The main threats are earthquakes and flash floods. In recent years most of the main structures have been consolidated to help them resist earthquakes. Before and after the rainy season, drainage systems are checked to ensure water is diverted away from the sites.

**Visitor tourism pressure:** No information is given on visitor numbers but mention is made of pressure at peak seasons. During this period all rangers are permanently on site.

Four wheel drive vehicles driven by visitors are a threat. These are countered by strict rules on access.

To these can be added:

**Reconstruction:** The site of Mamshit seems to have suffered from 'creative' reconstruction of certain elements – see below. At Haluza and at one of the forts excavation work does not appear to have been followed by systematic consolidation. In order to avoid further inappropriate work, an archaeological strategy should be put in place generally and for each of the major sites.

**Lack of management:** Most of the sites appear well conserved and managed. The exception appears to be the city of Haluza, which did not seem to be the subject of regular maintenance or management.

### **Authenticity and integrity**

The abandonment of the sites in the 7<sup>th</sup> century and the lack of population in the region have given the sites considerable protection from deliberate change.

Apart from two notable exceptions, the site overall seems to have authenticity, and if the towns and forts are

combined with their trade routes and their agricultural hinterland, in all they provide a very complete picture of a desert civilisation strung along a trade route and thus have high integrity.

The two exceptions are Mamshit and Haluza.

Mamshit was partially reconstructed in the 19<sup>th</sup> century. Of more concern are recent interventions. The Gate to the city is currently being reconstructed on the basis of a mosaic design from another city; the commercial quarter has been recently reconstructed with a grant from the Ministry of Tourism and pathways within the city have been reconstructed away from their original routes. The overall effect is scenographic rather than a scientific approach to interpretation and documentation.

At Haluza, part of the site has been excavated and this seems to have left the site with stones not in situ as any post excavation consolidation work has been carried out to consolidate and reposition stones. The site is thus confusing and has lost some of its integrity.

For both of these sites the authenticity seems to have been partially compromised.

### **Comparative evaluation**

In 2000 the Frankincense Trail in Oman was inscribed on the World Heritage list. This covered the frankincense trees of Wadi Dawkah, the remains of the caravan oasis of Shisr/Wubar and the affiliated ports of Khor Rori and Al-Balid, which were said to '*vividly illustrate the trade in frankincense that flourished in this region for many centuries, as one of the most important trading activities of the ancient and medieval world*'. This nomination established the outstanding universal value of the trade route, as exemplified in the remains in Oman.

The revised comparative evaluation has set the Israel section of the route into the wider picture.

The route covered two thousand kilometres. Incense grown in Oman and the Hadramat was gathered in the city of Timan, now a modern city in Yemen. This is the supply end of the route. From there the route ran first south-west and then turned north along the western edge of the Arabian Desert about 120 km inland from the Red Sea Coast. An alternative sea route used ports along the sea coast to transport goods to Aila, modern Aqaba, and from there to Petra where it joined the land route across the Negev.

Pliny recorded that the land route had sixty-five stages divided by halts for camels. Remains of the route are now found in Oman, Yemen, Saudi Arabia, Jordan and Israel. Although some survey work has been carried out over the long route, the picture is not yet complete. Nevertheless, what is known demonstrates that the Negev section was dramatically different from the rest of the route and what survives reflects a long and coherent section of the route.

In Yemen the site of Timna was excavated in the 1950s. In Yemen and Oman there are forts along the route – the ones in Yemen being very similar to the one at Ubar in Oman. Between the forts were triliths, or standing stones marking the route. It seems that the Ubarites controlled the trade in Oman and east Yemen.

In Saudi Arabia, Najran, a key staging post was established long before the trade route flourished. It is now a modern town as is Medina, also on the route. In Dedan, there are substantial remains of settlements established by the Mineans to protect the trade. Further north, the ancient city of Medain Salih was used as the Nabatean capital city in Arabia. This has not been fully excavated.

In Jordan, the Nabatean capital Petra is already inscribed on the World Heritage list, although not for its association with the Incense Route. Other Nabatean sites include Humeima, (ancient Auara), sited on the Aila-Petra route, where recent excavations have uncovered substantial urban buildings; Naqab fort, Gryn fort and extensive ruins of Ayl, a stopping point in the Edomite highlands.

Geographically the Negev is different from the rest of the route. The Negev is rocky plateau with some rainfall around 100mm per year. This is in contrast to the sand desert of most of the rest of the route.

The section of the route crossing the Negev is also distinctive for one key socio-political reason. Because of threats from the Romans to the north, the route ran directly across the central Negev and had to negotiate some of the more inhospitable terrain in the desert with tracks climbing high ridges and crossing wadis, rather than following their lines. It also necessitated the establishment of settlements in an area previously inhabited only by nomadic pastoralists.

The trade in frankincense thus led directly to the colonisation of the desert and the development of a series of towns, which flourished as a result of the lucrative trade; perhaps equally significantly the towns prompted the development of 'desert agriculture' a unique response to feeding large numbers of peoples in areas of low rainfall. Around the towns the desert was transformed into fields and pasture through a sophisticated water collection system of dams, canals, and cisterns, which were a sustainable response to the particular terrain.

The route modified the desert – what remains is a very complete picture of that modification in the area of the Negev where one finds unique environmental conditions.

The nominated site thus is distinctive in relation to other parts of the Frankincense trade route but is nevertheless part of the bigger picture.

The previous nomination in Oman of part of the route established the significance of the overall Incense Route. Different segments of the route have different geographical characteristics, were under the control of different peoples, and are in various states of preservation. In Saudi Arabia several of the towns are now covered by modern settlements.

The Negev section reflects the way the Nabateans controlled the northern end of the route. The areas have a high degree of urbanisation and agriculture that was prompted by the Incense Trade. Much has survived and the concentration of four cities, five forts, two caravanserais and many water systems are all extraordinarily well preserved because of their abandonment in the 7<sup>th</sup> century AD. They have been thoroughly studied and many excavated.

In summary the Negev section has no comparators along the rest of the Incense Route. As it is part of the Incense

Route that is already inscribed, comparison with other World Heritage sites would not be relevant.

### ***Outstanding universal value***

#### *General statement:*

The nominated site is of outstanding universal value for the following reasons. It:

- Presents a testimony to the economic power of frankincense in fostering a long desert supply route from Arabia to the Mediterranean in Hellenistic-Roman times, which promoted the development of towns, forts and caravanserais to control and manage that route;
- Displays an extensive picture of Nabatean technology over five centuries in town planning and building;
- Bears witness to the innovation and labour necessary to create an extensive and sustainable agricultural system in harsh desert conditions, reflected particularly in the sophisticated water conservation constructions.

#### *Evaluation of criteria:*

The site is nominated on the basis of *criteria iii and v*.

*Criterion iii:* The site bears an eloquent testimony to the economic, social and cultural importance of frankincense to the Hellenistic-Roman world. Such was the demand for frankincense, and its significance in religious and social traditions, that substantial Nabatean towns grew up in hostile desert conditions to service the supply routes from Arabia to the Mediterranean along the nominated part of the route in the Negev desert. The route provided a means of passage not only for frankincense and other trade goods but also for people and ideas.

*Criterion v:* The almost fossilised remains of towns, forts, caravanserais and agricultural systems strung out along the Incense route in the Negev desert, display an outstanding response to geological and economic conditions. Together, the remains show how trade in a high value commodity, frankincense, could generate a dramatic response in terms of sustainable settlement in a hostile desert environment. The remains display sophisticated agricultural systems, involving conserving every drop of water and optimising the use of cultivatable land, which produced a unique and extensive desert land management system that flourished for five centuries.

## **4. ICOMOS RECOMMENDATIONS**

### ***Recommendation for the future***

In order to address concerns over interventions at two of the sites, it is suggested that the State Party put in place an archaeological strategy for the whole site and also for each of the major towns which covers archaeological research, non-destructive recording and approaches to stabilisation and repair.

It is further recommended that there should be active management of Haluza and that steps should be taken to

consolidate those parts of the site which have been excavated.

It is also suggested that the State Party amplify existing management plans with more detailed work plans to provide guidance for short-term responsive, conservation projects.

As this nominated property is part of a much larger Incense Route, of which one other section has already been inscribed, it would be desirable if consideration could be given by State Parties, through which the Route passes, to coordinating approaches and nominating further appropriate sections.

### ***Recommendation with respect to inscription***

ICOMOS recommends that the World Heritage Committee adopt the following draft decision:

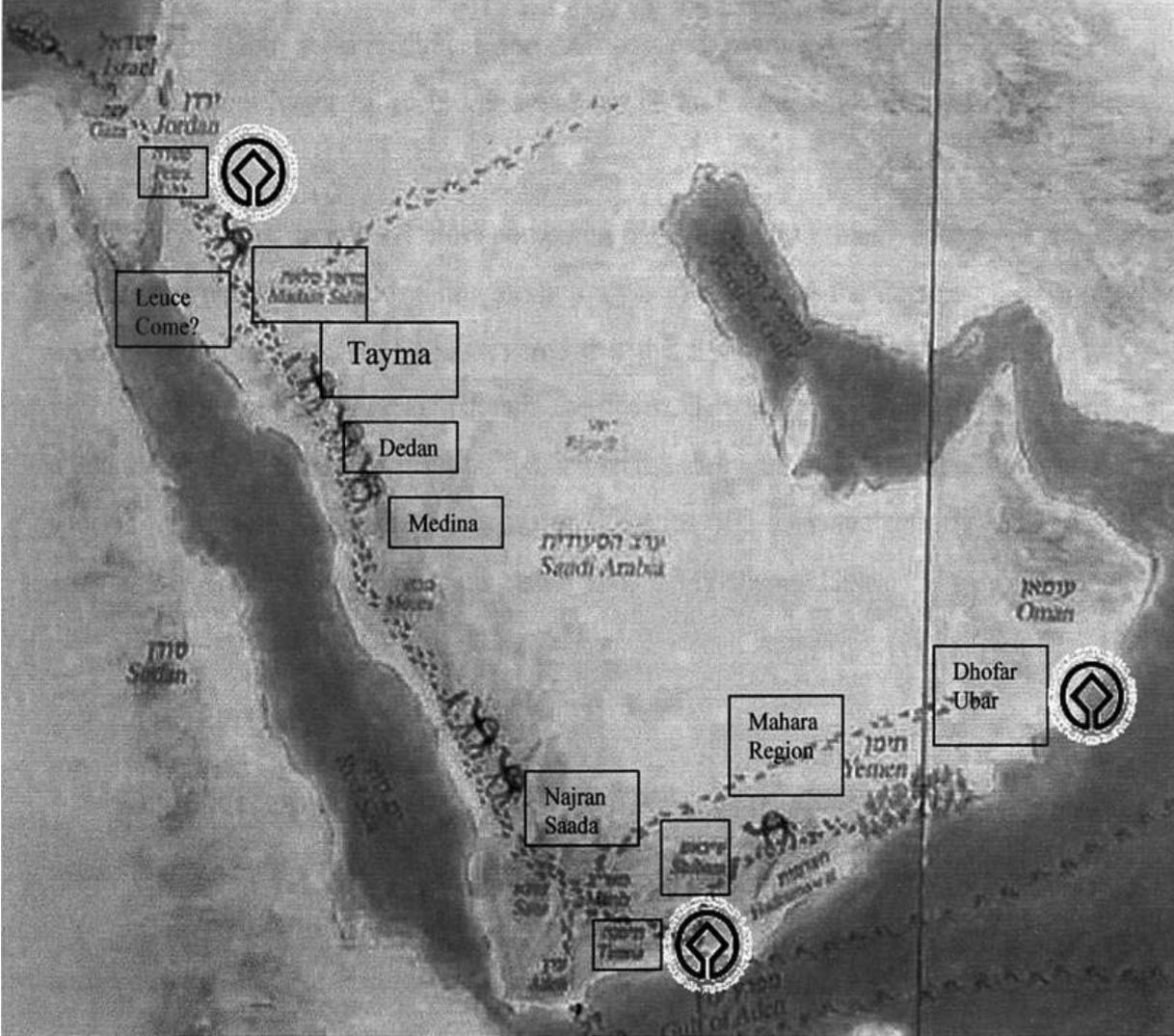
The World Heritage Committee,

1. Having examined Document WHC-05/29.COM/8B,
  2. Recalling its Decision 28 COM 14B.42 adopted at its 28<sup>th</sup> session (Suzhou, 2004),
1. Inscribes the property on the World Heritage List on the basis of *criteria iii and v*:

***Criterion iii:*** The Nabatean towns and their trade routes bear eloquent testimony to the economic, social and cultural importance of frankincense to the Hellenistic-Roman world. The routes also provided a means of passage not only for frankincense and other trade goods but also for people and ideas.

***Criterion v:*** The almost fossilised remains of towns, forts, caravanserais and sophisticated agricultural systems strung out along the Incense route in the Negev desert, display an outstanding response to a hostile desert environment and one that flourished for five centuries.

ICOMOS, April 2005



Map showing the main sites along the Incense Route



**Agricultural landscape**



**View of Avdat-Oboda**