The Caves of Maresha and Bet Guvrin (Israel) No 1370

Official name as proposed by the State Party

The Caves of Maresha and Bet Guvrin in the Judean Lowlands as a Microcosm of the Land of the Caves

Location

South District of the Ministry of the Interior Regions of Yoav and Lachish Israel

Brief description

The presence in Lower Judea of a thick and homogenous layer of soft chalk has enabled the excavation of numerous man-made caves. The property contains a very comprehensive selection of chambers and subterranean networks, with varied forms and functions. They are situated below the ancient twin towns of Maresha and Bet Guvrin, and surrounding areas, constituting a "city under a city". They bear witness to a succession of historical periods of excavation and usage, stretching over 2,000 years. The original excavations were quarries, but these were converted for various agricultural and local craft industry purposes, including oil presses, columbaria (dovecotes), stables, underground cisterns and channels, baths, tomb complexes and places of worship, and hiding places during troubled times, etc.

Category of property

In terms of categories of cultural property set out in Article I of the World Heritage Convention of 1972, the nominated property is a *site*.

1 Basic data

Included in the tentative list 30 June 2000

International Assistance from the World Heritage Fund for preparing the Nomination None

Date received by the World Heritage Centre

28 January 2010 23 January 2013

Background

The property was presented for examination at the 35th session of the World Heritage Committee (Paris, 2011) under the name: The Land of caves and hiding places of the Judean Lowlands, Maresha, Bet Guvrin and Adulam.

ICOMOS recommended that the examination of the nomination be deferred, and it was withdrawn at the request of the State Party (35COM 8B.32).

Consultations

ICOMOS has consulted its Scientific Committee on Archaeological Heritage Management, and several independent experts.

Technical Evaluation Mission

An ICOMOS technical evaluation mission visited the property from 1 to 3 October 2013.

Additional information requested and received from the State Party

ICOMOS requested additional information from the State party by letter on 25 September 2013, concerning:

- The correspondence between the inventory of the artificial caves and the mapping of the property;
- The question of whether or not the property is included in its entirety in the archaeological park;
- The involvement of the two regional councils in the management of the property;
- The boundaries of the north-western section of the buffer zone.

The State Party sent additional documentation on 21 October 2013, which is taken into consideration in this evaluation.

Date of ICOMOS approval of this report

6 March 2014

2 The property

Description

The nominated property is situated in Lower Judea, in a region of hills and plateaus including the ancient neighbouring cities of Maresha and Bet Guvrin. It is limited to the subterranean remains of these two archaeological sites and their surrounding areas. It is representative of a type of human settlement which managed and used over a long period a particularly favourable subsurface formation. The above-ground remains, which are not an intrinsic part of the nomination, provide the historical context and enable a functional understanding of the whole site.

The subsurface rock of the region consists of limestone or chalk marl of the Eocene period. It is a compacted and homogenous rock, but which is soft and relatively easy to excavate and work. The subterranean layer below the site reaches a thickness of between 30 and 100 metres. Close to the surface, the original chalk rock has been transformed by climatic and hydrological conditions into a more resistant limestone, called *nari*, between 1 and 3 metres thick. This crust was suitable for forming the cave roofs, and was also conducive to the formation and retention of arable soils rich in humus.

Lower Judea is a land of very early human agricultural and urban settlements. The chalky subsurface allowed the quarrying of materials for constructions above ground. The quarries were converted to caves and subterranean complexes that considerably extended the area of the farms and villages. Developed and used over almost two millennia, these man-made subterranean complexes came to form extremely dense networks, in particular below the ancient twin cities of Maresha and Bet Guvrin. The property lists 973 entrances to the man-made caves, for a total of 475 subterranean complexes. These may contain from one or two caves, up to 70-80. This density, associated with the diversity of uses, the variety of construction types, and their architectural qualities, form the basis of the property boundaries. Some fifteen key caves have been opened to the public. The entire nominated property is included in the National Archaeological Park of Bet Guvrin - Maresha.

The nominated property includes the following elements:

1. The Maresha archaeological site is situated 1.5 km south of the present-day urban centre of Bet Guvrin. It includes the remains of an upper city, and of a later lower city. A dense complex of man-made caves and underground networks was developed beneath the latter, in close synergy with the above-ground constructions. 169 complexes, comprising an average of 17 rooms each, have been identified below the lower city. They were directly accessible from the dwellings above via stairways, providing various economic functions.

The remains and the archaeological finds have enabled fairly precise dating, and the reconstruction of past ways of life. Complex n° 75 clearly shows a first level of occupation during the 8th and 7th centuries BCE. It was used and completed during the following Persian and Hellenistic periods, until the 3rd century BCE. Complex n° 53 is very typical of the Hellenistic period, bearing witness to the close relationship between an underground complex and a villa, which were used up until the end of Maresha (2nd century BCE). Complex n° 61 corresponds to a residential area above ground which is closely related to a subterranean complex of remarkable dimensions (2,000 sq. m.) and complexity (26 main rooms).

The man-made caves of Maresha were used in particular as workshops for the pressing and storage of olive oil (28 sites recorded). Maresha was one of the major olive oil centres of Hellenistic times, exporting oil to Egypt. Tanks and presses hewn directly into the chalk rock still remain. The caves were also used for raising pigeons (85 sites), which was a flourishing business. Niches were hollowed out of the cave walls, and their subterranean location provided good protection against predators. subterranean quarries were often transformed into cisterns, sometimes with settling tanks, rainwater drainage systems and systems for drawing water, forming complexes that are very extensive in some cases. Other excavated chambers were used as stables for animals or for the storage of food and goods (particularly cereals). Some vestiges show the role played by the caves in the

textile industry, supplementing the activities carried out above ground. The excavated chambers also played a role in daily social life, as baths, cellars, places of worship or hiding places during troubled times.

Some forty burial sites were dug into the ground at the foot of the hills close to Maresha, including three main necropolises. The majority of the burial chambers date from the 4th and 3rd centuries BCE, bearing witness to a Hellenistic cult of the dead inspired by Alexandria. To the East, the necropolis of the Sidonian tombs is in two parts, richly decorated with wall paintings and inscriptions. The frieze portraying animals is particularly important as a rare example in Hellenistic art. To the South-East there is a second underground necropolis, characteristic of the same period. The third, to the North, dates from slightly later, comprising four main groups of funerary niches in the rock-face, which were re-used by the Jewish population. The epigraphy and wall paintings of the burial sites demonstrate the multi-cultural and cosmopolitan dimensions of the city during the Hellenistic period.

2. Bet Guvrin (Eleutheropolis) is an urban site which developed from the 2nd century BCE onwards, near to, and following on from, Maresha. It was one of the most important cities of Roman Palestine and a crossroads for trade. It had large-scale facilities, including two aqueducts, public baths, and a theatre. Its population was replenished in the 3rd and 4th centuries by the arrival of a large Jewish community, for whom it became one of its cultural centres. Its prosperity continued during the Byzantine period.

West of Bet Guvrin lie subterranean complexes dating from the Roman period, such as the Cave of the Horses. Its decorative elements reflect a pagan cult that seems to have persisted into the Christian period. It was subsequently converted into an oil press and then re-used as a quarry during the Islamic period.

The underground hydraulic system of Bet Guvrin, which can be entered from the Nigbot cave, re-used a natural karstic network which was managed and developed by man in order to supply the city with underground water, in addition to the supply from the aqueducts. The man-made channels and cisterns were added during the Islamic period.

Necropolises were dug into the hillsides near the city, as at Maresha. Five main burial sites have been identified as well as some minor sites and isolated tombs. They provide important insights into the way of life of the inhabitants. Initially, the burial customs mainly reflect pagan cults, onto which were grafted Jewish and later Christian customs. Eight types of tomb have been identified. The most notable sites are those of the south cemetery, including tombs n° 28 and n° 12, and the east cemetery with mausoleum n° 37. The use of hypogea declined during the 7th and 8th centuries and then stopped.

The subterranean complexes were also used as hiding places for inhabitants during times of trouble. This use was one of the specific features of the underground

complexes of Lower Judea. Hiding places are found frequently in the villages, but are also found at Maresha and Bet Guvrin. They consist generally of concealed living spaces, linking several existing complexes. The largest such hiding places are linked to the Jewish revolt of Bar Kokhba against the Romans in the 2nd century.

Bell-shaped excavated chambers are the most prevalent in the Bet Guvrin region. This shape is linked to their initial use as quarries, and this activity intensified at the end of the Byzantine period, and reached a peak during the Islamic period. At this time efforts were made to optimise the volumes that could be exploited by digging vertically rather than horizontally, resulting in this bell-shape, which was better suited to resisting the pressure from the earth above and hence the collapse of the roofs. 800 chambers of this type have been identified throughout the region, with depths varying between 12 to 15 metres, sometimes more. They were typically re-used as cisterns and grain silos.

The buffer zone corresponds to either a forest or scrubland environment, or to zones of traditional agriculture, on the lowlands or terraces.

In the additional documents provided in October 2013, the State Party supplied a set of maps identifying the subterranean complexes along with the borders of the Park and the buffer zone.

History and development

Lower Judea is close to the ancient route linking Mesopotamia to Egypt; this is a region of very ancient agricultural settlement which gave birth notably to the Jewish people, but which also saw the flourishing of other cultures. The property and its region have had a complex history, as a crossroads of influences and interchanges between the interests of the major empires of the East (Mesopotamia, Persia), the Mediterranean (Hellenistic, Roman, Byzantine) and Egypt, and finally as one of the first areas of expansion of the Islamic world.

The nearby cities of Maresha and Bet Guvrin, which succeeded each other, reflect, with their subterranean complexes, these successive eras and their main characteristics in terms of troglodyte architecture and the diversity of their economic and cultural uses.

Israelite period, Iron Age II (8th-6th centuries BCE): Like most of the settlements in Judea, the region in which the property is situated was occupied by the tribe of Judah, at the end of the 2nd millennium, and then by the kingdom of Israel. The upper city of Maresha is sited on a defensive position, with the surrounding lower city devoted to economic and cultural activities. The practice of subterranean excavating as quarries and annexes for dwellings and villages began in the 8th century BCE. (complex 75).

Persian period (6th-4th century BCE): In the early 6th century, Judea was controlled by the Babylonian empire, and then by the Persians (539 BCE). The Edomite

populations were then in a majority, and Maresha became a flourishing town, systematically making use of its subsurface, first for quarrying and then as a space for economic development. Several subterranean complexes in Maresha bear testimony to this period.

Hellenistic period (4th-1st century BCE): In the 4th century BCE, a Phoenician, and then a Greek presence established itself, and finally a predominantly Hellenistic culture. In the 2nd century BCE, Judea regained its independence. This marked a first zenith in terms of its territorial development through the use of subterranean complexes. These networks were numerous and systematically utilised, with many specialised uses. Socalled "Maresha" architectural and utilitarian typologies were established. They reflected the accumulation of knowhow over a long period: the excavations spread out horizontally beneath the hard layer, with rectangular spaces for olive oil plants, cruciform spaces for the columbaria, and cylindrical spaces for the cisterns, etc. The underground economic activities were diversified and underground installations with religious purposes and tombs began to appear outside the town. Bet Guvrin (Eleutheropolis) was an urban site that developed from the 2nd century BCE, close to Maresha, which was later abandoned.

Roman period (1st century BCE-4th century CE): Judea was conquered by the Roman general Pompey in 63 BCE. During periods of trouble the underground complexes served as refuges. With the beginnings of Christianity, a complex cultural and religious situation marked the end of the Roman period, as witnessed by the hypogea and underground places of worship. Bet Guvrin was the seat of a Roman governorate during the 2nd and 3rd centuries CE. It was at this time one of the most important cities in Roman Palestine and a major crossroads.

Byzantine period (5th-7th centuries): During the Byzantine period, Bet Guvrin became an important Christian centre. The period was marked by the digging of a necropolis into the hillside, and large-scale use of the caves for agricultural purposes. At the end of the Byzantine period, the quarrying resumed, but using a different method. The caves were quarried downwards, beginning from a hole in the hard layer, in the shape of a bell. It was thus possible to enlarge the volume at the base whilst maintaining the stability of the vault.

First Arabic-Islamic period up to the Crusades (7th-12th centuries): After a troubled period of clashes between the Byzantines and the Persians, the region was occupied by Islamic armies arriving from the south (634-640). There was a gradual process of Arabisation and Islamisation of Palestine, while Bet Guvrin and the surrounding region fell into decline. Underground quarrying in the form of bell caves resumed, but for the benefit of coastal towns which were rapidly expanding at the time. Quarrying continued until the beginning of the 11th century, when the first Crusades profoundly changed the regional socioeconomic situation. It seems probable that the caves were

used at later periods, but the configuration of the subterranean complexes underwent no further changes after this.

3 Justification for inscription, integrity and authenticity

Comparative analysis

The excavation and management of man-made caves, in appropriate subsurface strata, is a very widespread phenomenon throughout the world, and throughout history. Several comparative parameters should therefore be taken into account for the excavated chambers themselves, as well as for the cave networks or complexes.

A first characteristic is considered: the development of subterranean complexes was generally carried out with a single specific purpose: a quarry, a troglodyte dwelling, cisterns, hiding place, tombs, places of worship, domestic and agricultural stores, etc. From this point of view, the situation of Maresha-Bet Guvrin is presented by the State Party as being particularly remarkable, because of the large diversity in uses and cave types. The close links with the above-ground dwellings are also presented as being relatively rare.

The layer of chalk limestone and the protective layer on the surface is also a factor conducive to these relatively rare man-made excavations, resulting in an especially high density of artificial caves, notably inside the lower city of Maresha, and for the bell-shaped cave quarries.

The regional comparisons include the Biblical Tels -Megiddo, Hazor, Beer Sheba, which are already inscribed on the World Heritage List (2005, Israel), and the Old City of Jerusalem (1981, proposed by Jordan), or the Beth She'arim necropolis (Israel, Tentative List). Other sites in Lower Judea are also referred to, such as the cities of Beth She'arim and Zippori, as well as the excavations in Lower Galilee, although this region is less favourable. The Maresha site constitutes, it is claimed, the richest and most complete complex for the Iron Age, and the Persian and Hellenistic periods; more specifically, in terms of the diffusion of the Ptolemaic-Alexandrian style. the Sidonian tombs are unique. Bet Guvrin is a place where both the density and the quality of caves hewn during the Roman and Byzantine periods are remarkable. The hypogea are comparable with the catacombs of Rome, and with the Petra caves (1985, Jordan), and with the regional site of Beth She'arim already referred to.

A thematic comparative study draws on a number of international comparisons, essentially in the Mediterranean basin and in the Middle-East. The most similar property seems to be Göreme National Park and the Rock Sites of Cappadocia (1985, Turkey). On a thematic basis comparisons can be made with the underground quarries in Tunisia (which are however on a far more modest scale) and in Syracuse (a vast

example, but with lateral openings). For the hiding place networks, few direct comparisons can be made, except for Cappadocia, but the characteristics differ. The very elaborate system of military hiding places at Agongointo-Zoungoudo in Benin dates from a later period (16th century); etc. Finally, the diversity of uses and types forms one of the most important characteristics of the nominated property, although it should be noted that certain uses of subterranean complexes found elsewhere are not present, in particular troglodyte dwelling activity.

In conclusion, the general antiquity of the man-made caves, the breadth of the historical periods represented (from the Iron Age to the Crusades), the diversity of uses and forms, the very great density of the underground complexes, and finally the quality of numerous technical, functional or decorative elements, form the unique character of the property, even if none of the constituent elements on their own attain a really exceptional character. It is a good example of this type of subterranean architecture, and of the diversification of possible uses, over a very long period of human settlement encompassing a succession of different cultures.

Whilst acknowledging the more thorough approach in the comparative study carried out by the State Party, compared to the nomination file presented in 2011, ICOMOS regrets however that more global comparisons were not made with cities built entirely on chalk soils.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.

Justification of Outstanding Universal Value

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- The caves and tunnels of Maresha Bet Guvrin are an emblematic example of a region richly-endowed in this respect, because of the density and exceptional diversity of man-made subterranean elements dating from the Iron Age through to the Crusades.
- The property expresses the very great variety of uses - economic, domestic, technical, social, spiritual and funerary - of the man-made caves, over a period of nearly 2,000 years.
- The property bears witness to a dense and wellorganised relationship between the above-ground dwellings and the associated underground networks.
- The site bears testimony to the long duration and the diversity of the know-how involved in the development of this vast subterranean complex, from the Iron Age through a succession of different periods of antiquity; Persian, Judaic, Hellenistic, Roman and Byzantine.

- Towards the end of the Byzantine period and during the first Arabic-Islamic period a new bell-shaped type of underground quarry was developed, of which this ensemble is the most remarkable example.
- The ensemble is very complete and well-preserved, because it was abandoned and forgotten for many centuries, after long periods of use and maintenance.
- The ensemble bears particularly credible witness to the human aptitude for using the subsurface when it is favourable, as at Maresha-Bet Guvrin.

ICOMOS considers this justification to be appropriate, since the whole range of underground excavations at Maresha–Bet Guvrin covers a very great variety of subterranean construction types, and highly diversified socio-economic uses. Whilst none of the elements considered on their own are unique or even exceptional, the concentration of the excavations, the typological diversity, and the long succession of historical periods of occupation, justify the assertion that the site attains the value of an eminent and very remarkable example of the relationship between Man and the subsurface of his territory.

Integrity and authenticity

Integrity

The integrity of the composition of the property is embodied in a rich, diversified and well-preserved ensemble of man-made caves and subterranean networks. They correspond to the archaeological sites of the twin cities of Maresha and Bet Guvrin and the immediately-surrounding areas. All the different types of construction and the socio-economic and symbolic uses are well-represented within the boundaries of the property, and by the eminent and representative examples of subterranean heritage which extends throughout the chalk zones of the Judean Lowlands.

Structural integrity is provided on the one hand by the functional relationships between the caves and by the organisation of well-ordered and functional subterranean complexes. It is also demonstrated by the relationships and synergy between this underground network and the above-ground dwellings. These are referred to on several occasions in the nomination file, but the care taken to distinguish the above-ground elements from the underground attributes of the property has led to a minimal analysis and illustration of the relationships between them. It is important to demonstrate the between above-ground elements continuity underground complexes.

The integrity of the landscape has not been dealt with for the same reasons; it does however play an important role for the visitor, as does the perceived integrity between the exterior archaeological elements, even if they are not part of the property's attributes, and the excavated elements that carry its value. The functional knowledge of the subterranean complexes is appropriate, but suffers from a lack of analysis of their relationships with the above-ground elements.

The integrity of the individual caves open to the public has often been reinforced by restoration, consolidation and maintenance work, for safety reasons and for greater comprehensibility. Elsewhere the roofs of a certain number of caves have collapsed under the action of natural processes, notably rain water run-off.

ICOMOS considers that the integrity of the subterranean property is satisfactory, even though the links with the surface have been neglected in the nomination file.

Authenticity

Following their abandonment at the time of the Crusades, the subterranean complexes of Maresha and Bet Guvrin have been well-preserved. Many of them are today still filled with sediments and are inaccessible, and only a limited number of cleared caves and networks can express an authenticity that can be experienced by the visitor, particularly from a tourism viewpoint.

The various classical aspects of authenticity are thus present: the form and design of the caves and the underground networks, and of course the chalk material of the subsurface. Testimony to use and functions is intrinsically present, but a great deal of work is necessary to present it to visitors. The State Party is relying heavily on those sites that have been reconstructed for visitors, in the course of its documentation of the values of the property, while at the same time stressing the small number of sites concerned. It also underlines the care taken in the restoration and repair work in order to conserve the perceived authenticity, and to distinguish properly between what has been added and the original state of the site as discovered during the archaeological excavations. For example, the wall paintings of the large Sidonian tomb have been reconstructed on movable panels, based on records made prior to their destruction, without any intervention on the present state of the walls and vaults.

ICOMOS considers that the conditions of authenticity of the subterranean complexes are generally satisfactory. Nevertheless, sometimes substantial restoration and consolidation work has been necessary in certain caves open to the public, and facsimiles have in some cases been made of the walls or the decorative panels.

ICOMOS considers that the conditions of integrity and of authenticity have been met.

Criteria under which inscription is proposed

The property is nominated on the basis of cultural criterion (v).

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

This criterion is justified by the State Party on the grounds that the large number of subterranean complexes of Maresha — Bet Guvrin constitute an exceptional example of land-use and the adaptation of Man to his material environment, in this case the underlying soft chalk rock. The variety of construction types and uses bears testimony to the wealth of forms taken by the development and use of the caves and the underground networks. Numerous civilisations and cultural groups have succeeded each other in the Judean Lowlands in the use of the man-made caves over a period of some 2,000 years.

ICOMOS considers that the underground archaeological site of Maresha – Bet Guvrin bears testimony to an eminent example of a traditional use of chalk sub-soil, through the establishment of man-made caves and networks conducive to multiple economic, social and symbolic uses, from the Iron Age to the Crusades.

ICOMOS considers that this criterion has been justified.

ICOMOS considers that the nominated property meets the conditions of integrity and authenticity and criterion (v).

Description of the attributes

The property appears to be a representative selection of subterranean caves and networks hewn by Man in the chalk rocks of the Judean Lowlands, over a succession of historical periods from the Iron Age to the Crusades. Its main components are as follows:

- The initial activity was quarrying, with two main historical quarry types: horizontal excavation during the most ancient periods, and vertically hewn chambers in bell-shape form, mainly during the Arabic-Islamic period.
- These excavations were subsequently re-used and re-developed, representing types of subterranean construction and a large diversity of technical, economic, social, cultural and funerary uses. The property includes principally: columbaria, olive oil presses, stables, grain stores, cisterns and hydraulic systems, underground baths in Maresha, hypogea and tombs and places of worship.
- The synergy of the subterranean complexes and the urban structures above are demonstrated in particular by the entrances and stairways, some of which are spiral. The Sidonian tombs with their wall decorations constitute a remarkable example of the diffusion of the Hellenistic culture of Alexandria.

4 Factors affecting the property

The property itself is not affected by pressure from economic, urban or agricultural development. The northern edge of the buffer zone could be affected by agricultural development linked to the Bet Guvrin kibbutz.

Tourism is satisfactorily organized and does not constitute a threat. The dispersal of the caves and the sites contributes to a good distribution of visitors within the park. The number of visitors to the park has remained stable since the mid-2000s. It amounts to around 150,000 visitors per year. The property in its present state could support a reasonable increase in the number of visitors, without significant consequences for the conservation of the site.

The region is wooded and dry in summer, presenting risks of forest fire, but these are limited by authorised grazing practices.

The main factor affecting the property is natural erosion and water infiltration into the roofs and walls of the caves. While the hard and resistant surface crust (nari) has played an important role in the preservation of the caves since their excavation, the chalk rock is very susceptible to the effects of water and the slow phenomenon of physicochemical erosion that results. Depending on their position within the site, not all the caves are susceptible to this phenomenon to the same degree. In the worst cases, a vault may partially or totally collapse, suddenly and without any particular advance warning signs.

The State Party considers that there is no particular risk of natural disaster threatening the site, or extreme natural conditions. The increase in violent storms, linked to global warming, could accentuate the phenomenon of erosion locally and accelerate the weakening of some cave vaults.

ICOMOS considers that the main threat to the property is the phenomenon of erosion caused by water run-off and infiltration affecting the rock.

5 Protection, conservation and management

Boundaries of the nominated property and buffer zone

The nominated property has a surface area of 259 ha. There are no inhabitants.

The buffer zone has a surface area of 305 ha. There are no inhabitants.

ICOMOS considers that the boundaries of the nominated property and those of the buffer zone are satisfactory.

Ownership

The property belongs to the State of Israel. The exercise of ownership rights is entrusted to a specific legal

authority, in cooperation with the public institutions Israel Nature & Parks Authority (INPA) and Israel Antiquities Authority (IAA), and with the regional councils of Lachish and Yoav.

Protection

With the exception of a small strip of land in the Northwest, the property is placed under the protection of the National Archaeological Park of Maresha and Bet Guvrin. General rules concerning national parks are applied, within the framework of the INPA, which issue directly from the laws of the State Party. The property is also protected as an ancient site, in accordance with the law. The laws and regulations that apply to the protection of the property are:

- The Israel Lands Administration Law (1960);
- the Planning and Building Law (1965), and its amendment 31 (1991);
- the Antiquities Law (1978, revised in 1989);
- the National Parks, Nature Reserves, National Sites and Memorial Sites Law (1998).

It is also subject to National Master Plans 8 (nature reserves and national parks), and 35 (construction, development and conservation). Different regional and local plans complete and contextualise the national master plans.

The Agreement of 23 January 2005 between the INPA and the IAA establishes the role of the IAA as the professional authority in the field of archaeology and conservation of antiquities.

The buffer zone is largely protected as part of the Park, as is the property itself, but is also protected by the National Forestry Plan (n° 22). For the northern section close to the Bet Guvrin kibbutz, possible future constructions will be restricted in terms of surface area and height. The land consists of agricultural zones.

ICOMOS considers that the legal protection in place is adequate and that it is effectively applied.

Conservation

Following on from the numerous research campaigns carried out on the archaeological sites of Maresha and Bet Guvrin, the National Park is developing a continuous programme of archaeological excavation in partnership with specialists, for better understanding of the property. This research is under the responsibility of the Israel Antiquities Authority (IAA), and its conservation department, and benefits from the support of a research centre specialising in man-made caves (ICRC).

All the conservation measures are laid out in the conservation and improvement Plan for Maresha – Bet Guvrin. A plan of this type is a legal obligation for national parks. The general conservation objectives concern the cultural heritage, natural spaces and landscapes. The central theme of the plan in this case is the archaeological

dimension; the natural spaces and their landscapes constitute a condition of environmental conservation for the property and the buffer zone. They are backed up by existing documents: *INPA regulations* and the *Regional management and conservation portfolio*.

Two recent major archaeological campaigns of excavation took place from 1992 to 1996, and 1997-1998, and several chambers filled with rubble were cleared. The move today is towards more inter-disciplinary research on the understanding of elements that have already been uncovered: epigraphy, research into pagan cultures, studies of tomb graffiti, etc.

The programmes to prepare caves to receive tourists have led to various works of restoration, consolidation, and reconstruction, justified by conservation, safety and teaching requirements. The State Party declares that these works have been carried out with scrupulous respect for what already exists, and under specialist control. Reconstructed elements are distinguished from original elements. The wall paintings, the epigraphy, the bas-reliefs and all remarkable architectural elements are the object of specific measures. The stairways used by the visitors are covered with a resistant material which recreates the shape of the steps and protects them in a reversible manner. A list of these works and their justification has been supplied.

The painted decorations of the Sidonian tombs have been restored, along with the supporting walls, following contemporary vandalism. The work was carried out according to observations and records drawn up in 1905.

The main interventions concerning the risks of water infiltration and the possible destabilisation of the vaults consist of carrying out appropriate drainage work above ground, detecting and filling gaps in the roofs with reinforced concrete, filling in the cracks with adhesive filler, propping up the threatened vaults, and reinforcing the vaults of the bell-shaped caves with invisible reinforcement arches.

Above ground, the dwelling elements have been restored and sometimes rebuilt, to illustrate their link with the subterranean elements. These works have followed the same rules for respecting existing elements as in the caves

The State Party considers that the general state of conservation of the property is satisfactory, since it has benefited from a consistent policy in place for more than 15 years, and is subject to rigorous and systematic monitoring by the Park services, with the support of numerous external specialists. The most recent conservation report dates from December 2011.

ICOMOS considers that the state of conservation of the property is satisfactory, and that the conservation measures are also satisfactory. Particular attention should however be paid to the preservation of authenticity in the ongoing and projected restoration and

development work; the reconstruction work should be minimised and carried out in a reversible way.

Management

Management structures and processes, including traditional management processes

The management structure of the property is the National Archaeological Park of Maresha – Bet Guvrin, under the auspices of the Israel Nature and Parks Authority (INPA). This national institution is supervised by the Ministry for Environmental Protection. In terms of cultural heritage, the INPA and the Maresha – Bet Guvrin Park benefit from the permanent scientific support and the control of the Israel Antiquities Authority (IAA).

The National Archaeological Park of Maresha – Bet Guvrin was created in 1987, and opened to the public in 1989. The Park benefits from funding from the Jewish National Fund (KKL-JNF) and the Israel Government Tourist Corporation (IGTC) to develop its interpretation programmes and its tourism potential.

In management terms, the Park applies the general directives of the INPA, which are valid for all national parks, and which include guideline documents for both the conservation and the management of the property. Rules of good conduct are outlined for visitors, notably by the distribution of an information leaflet for guidance in visiting the park.

The Park has a fire surveillance system, and a motorised intervention infrastructure to deal with any incidents. The Army, which has a training camp nearby with fire-fighting equipment, can also supply rapid manpower and logistical help to fight any possible forest fires which might threaten the site.

The Park has a staff of 11 permanent employees, in charge of the daily management of the site, its maintenance and conservation monitoring. There are also up to fifteen temporary personnel to welcome visitors. When required, several conservation specialists can be called upon with the support of the INPA and the IAA, in addition to specialist organisations and companies. The daily maintenance of the property is carried out by the Park services.

For the functioning of the Park, it receives an annual grant from the INPA for its conservation activities, the development of the site, the maintenance of the property, and to cover the employees' salaries (US\$ 500,000 in 2011). The revenue generated by the Park is allocated directly to the INPA budget (US\$ 575,000). The structure therefore makes a profit (2011), but heavy costs are to be expected for future projects such as lighting. Cooperation projects can be set up by the INPA, for example to fund the organisation of campaigns of archaeological excavation.

Policy framework: management plans and arrangements, including visitor management and presentation

The actions being implemented currently are outlined in the Conservation and promotion plan, drawn up in accordance with the *Regional management and conservation portfolio*. This was validated for the Park in 2008. The Park has chosen to highlight 14 archaeological sites, including 10 cave sites, indicated on the plans by the numbers 1 to 14. This ensemble is linked together by various interpretation and discovery circuits for tourists.

The programme for the restoration and making safe of the caves open to the public, which was referred to earlier, has been completed by three phases of development for the complementary elements such as access roads, sign-posting, lighting and facilities for the tourists (reception building, toilets, parking areas, benches, etc.), along with elements of landscape rehabilitation. The programme consists of the following phases:

- Phase 1. The bell-shaped caves area (14) and the necropolis (1).
- Phase 2. The columbarium cave (3), the 'Polish' cave (2), the bath cave (4), the olive-press cave (5), up to the underground cistern system (6)
- Phase 3. The cistern system (6) up to the subterranean dwelling complex (7) and the Sidonian tombs (8 and 9).

Two observation points need to be installed on the heights overlooking the property, to provide an overall view of the archaeological site.

Visitor reception, sign-posting and the preparation of the paths for the discovery circuits in the Park have been a major concern since the creation of the Park. Since then, they have been continuously maintained and developed while respecting the integrity and authenticity of the site. The circuits encompass the subterranean sites and the archaeological sites above ground.

The other regional or local plans concerning the Park are: camping regulations, the tourism development of the 'Villas Hill' site, and the diversion project for Route n° 35 which currently goes through the Park.

Involvement of the local communities

Local communities are involved through the regional councils (Lachish and Yoav), the Kibbutz councils (Bet Guvrin and Bet Nir) and the municipal councils (Lachish and Nehusha). Various professionals from the tourism sector are also involved. The two regional entities have no role in the management of the Park.

ICOMOS considers that the management system of the property is well established and is appropriate. However, the 'Villas Hill' project, if confirmed, should be submitted for examination by the World Heritage Committee in

accordance with Paragraph 172 of the Operational Guidelines.

6 Monitoring

The subterranean property of caves and excavated complexes of Maresha-Bet Guvrin is fragile and subject to slow deterioration by natural factors. In particular the deterioration of vaults may result in collapse. Very regular monitoring of the sites is therefore necessary, backed up by strict safety measures for underground areas open to the public.

Since the opening of the caves to the public, the Park and INPA staff have acquired a considerable level of knowledge. Systematic monitoring is carried out on a quarterly basis, but regular maintenance tasks enable anomalies to be rapidly detected and dealt with. The monitoring of technical aspects is entrusted to experts from the INPA; they implement rigorous procedures based on indicators specific to each site, which are detailed in the *Portfolio*. Specific monitoring with sensors and digital data recording has been in place since 1990 to monitor the stability of the rocks, in particular in the bell-shaped caves. This monitoring is carried out by a Soil Mechanics Laboratory (Ben Gurion University).

ICOMOS considers that the monitoring of the property is satisfactory, but it would be appropriate to reinforce the system for monitoring the physical parameters (temperature and humidity) within the man-made caves, and the monitoring of the rocks and land there which have a tendency to deteriorate.

7 Conclusions

ICOMOS considers that the group of excavations and subterranean complexes present at Maresha-Bet Guvrin is in a good general state of conservation, that it brings together a very great variety of subterranean construction methods, and that it bears testimony to diversified socio-economic uses. Since the submission of the first nomination, the definition of the property has been focused more specifically on the subterranean elements which have been better understood in comparative analysis terms, and whose boundaries have been scaled down to a zone of greater density and greater interest in terms of underground remains. Whilst none of the elements on their own are really unique or exceptional, the concentration of excavations, the typological diversity, and the long occupation over successive historical periods allow the assertion that the ensemble attains the status of an eminent and exceptional example of the relationship between Man and the territory in which he has settled. The property as a whole constitutes a particularly credible and universal testimony to human aptitudes in using the subsurface when it is favourable, like it is at Maresha-Bet Guvrin.

8 Recommendations

Recommendations with respect to inscription

ICOMOS recommends that the Caves of Maresha and Bet Guvrin in the Judean Lowlands as a Microcosm of the Land of the Caves, Israel, be inscribed on the World Heritage List, on the basis of **criterion (v)**.

Recommended Statement of Outstanding Universal Value

Brief synthesis

The presence in the Judean Lowlands of thick and homogeneous chalk sub-strata enabled numerous caves to be excavated and managed by Man. The property includes a very complete selection of chambers and man-made subterranean networks, of different forms and for different activities. They are situated underneath the ancient twin cities of Maresha and Bet Guvrin, and in the surrounding areas, constituting a "city under a city". They bear witness to a succession of historic periods of excavation and use, over a period of 2,000 years. Initially the excavations were quarries, but they were later converted for various agricultural and local craft industry purposes, including oil presses, columbaria, stables, underground cisterns and channels, baths, tombs and places of worship, and hiding places during troubled times, etc. With their density, diversified activities, use over two millennia and the quality of their state of preservation, the complexes attain an outstanding universal value.

Criterion (v): The underground archaeological site of Maresha–Bet Guvrin is an eminent example of traditional use of chalk subsurface strata, with the development of man-made caves and networks conducive to multiple economic, social and symbolic purposes, from the Iron Age to the Crusades.

Integrity

The integrity of the property is expressed in the first place by the diversity of the excavations and their arrangements, intended for a variety of economic, social, funerary and symbolic purposes. It is also expressed by the exceptional density of the subterranean structures which are found beneath the ancient twin cities of Maresha and Bet Guvrin. The integrity of the property also concerns its relations with the outside and the preservation of a landscape of ancient ruins in a well-preserved environment of Mediterranean vegetation.

Authenticity

The underground structures of Maresha–Bet Guvrin are authentic. They have been well-preserved, firstly because of the quality of their architectural design at the time of their excavation, then by their maintenance over a long period of use, and finally by a prolonged period of abandonment, filling up naturally over time, which has contributed to their preservation. This authenticity is however relatively fragile, with the risk of infiltrations of

water leading to possible collapse of the vaults. It will furthermore be necessary to pursue a policy of low-key restoration, avoiding possible over-interpretation with reconstruction, and ensuring that the necessary technical consolidations are carried out in a way which respects the authenticity perceived by the visitor.

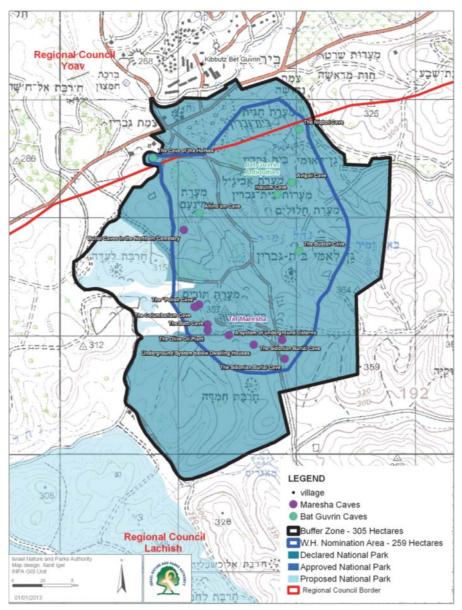
Management and protection requirements

The management system of the Maresha-Bet Guvrin National Archaeological Park has been in place now for many years and functions efficiently. It is supervised by the Israel Nature and Parks Authority (INPA) and benefits from the Authority's system of protection, which also covers most of the buffer zone. The regulations concerning this zone are completed by a National Forestry Plan and directives on the limitation of size and height of possible surrounding constructions. The conservation of cultural elements is guaranteed by the Israel Antiquities Authority (IAA), and benefits from specialist assistance for highly technical issues such as the monitoring of the rocks forming the walls and vaults of the threatened caves. The tourism development project is based on a long-standing tradition and is well managed.

Additional recommendations

ICOMOS further recommends that the State Party give consideration to the following:

- Paying particular attention to the conservation of the authenticity with regard to the ongoing and projected restoration and development work; the exterior reconstructions must be minimal;
- Submitting the 'Villas Hill' development project, if confirmed, to the World Heritage Committee for examination, in accordance with paragraph 172 of the Operational Guidelines for the Implementation of the World Heritage Convention;
- Reinforcing the monitoring system for the physical parameters (temperature and humidity) within the man-made caves and the monitoring of the rocks and land in places where they are tending to deteriorate.



Map showing the boundaries of the nominated property



Maresha, the columbarium cave



Maresha, olive oil plant



Cave in the necropolis of Bet Guvrin



Bell-shaped caves in Bet Guvrin