Welcome to the Nahal Me’arot Nature Reserve
World Heritage Site

The Nahal Me’arot Nature Reserve extends for more than two kilometers on both sides of Wadi Me’arot on Mount Carmel. The wadi begins near the Druze village of Dalat el-Karmil and makes its way west to the Mediterranean Sea south of Kibbutz Neveh Yam. Well-developed Mediterranean woodlands are preserved on the slopes of the wadi, which is a habitat for many animals.

The reserve has a number of special characteristics:
1. It is home to a group of prehistoric caves in which humans lived for some 500,000 years. Such long-term habitation of the same caves is very rare anywhere in the world. It is thanks to this phenomenon that UNESCO inscribed the reserve a World Heritage Site in 2012.

The Nahal Me’arot Nature Reserve was inscribed by UNESCO in 2012 as a “World Heritage Site with outstanding universal value for the study of human evolution.” The inscription would not have transpired without the years of work on the necessary documentation undertaken by the Hof HaCarmel Regional Council, the Institute of Archaeology of the University of Haifa, the Israel Nature and Parks Authority and the Israel National Commission for UNESCO.

Ninety years of archaeological research in the site’s four caves (Tabun, Jamal, el-Wad and Skhul) have revealed rare cultural continuity representing some 500,000 years of human development and changes in climate and the environment, along with testimony to significant cultural transformations. Nahal Me’arot is the only site in the world where remains have been found both of Neanderthals and modern humans in the Middle Paleolithic period (250,000–50,000 years before the present). The remains of architecture, numerous burials and a variety of tools and artistic items, which are some 10,000–15,000 years old and were uncovered in the Natufian village of el-Wad Cave, constitute evidence of the transformation from a hunter-gatherer culture to permanent settlement and agriculture.

The caves are a key site worldwide for the study of human cultural and biological evolution in the context of ecological changes; for research in biodiversity, the history of settlement in the region and the use of caves in historical periods; and for interdisciplinary archaeological and anthropological research.

UNESCO inscribes a site on the World Heritage List if that site meets at least one of the criteria of the World Heritage Convention. Nahal Me’arot was inscribed after having met the following criteria:

Criterion 3: It bears unique or at least exceptional testimony to a cultural tradition or to a civilization that is living or has disappeared.

Criterion 5: It is an outstanding example of a traditional human settlement, land-use, or sea-use that 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.

List of World Heritage Sites in Israel
1981 – Jerusalem – the Old City and its Walls (submitted by Jordan)
2001 – Masada
2001 – Old City of Acre
2003 – White City of Tel Aviv – the Modern Movement
2005 – Biblical Tels – Megiddo, Hazor and Beer Sheba
2005 – Incense Route – Desert Cities in the Negev – Haluata, Mamshit, Shirota and Avdat
2008 – Baba’i’s Holy Places in Haifa
2012 – Sites of Human Evolution on Mount Carmel: the Nahal Me’arot and el-Mughara Caves

The prehistoric caves on Mount Carmel were wadi inhabited by prehistoric humans (homo sapiens) were found. It blooms from late February to April.

2. It encompasses a cliff, the remnant of an ancient reef that in the geological past rose above today’s sea level and consists of the remains of fossilized marine creatures.

3. The reserve is home to Mediterranean woodland vegetation typical of the Carmel, including Kermes oak (Quercus calliprinos), carob ( Ceratonia siliqua) and lentick (Pistacia lentiscus) trees alongside Jerusalem spurge (Euphorbia hierosolymitana) and Brassica cretica shrubs (this reserve is Israel’s only habitat for the latter).

4. The cliffs are a habitat for hyrax and nesting raptors, including common kestrel (Falco tinnunculus), barn owl (Tyto alba) and Eurasian eagle-owl (Bubo bubo).

2.4 million years ago (during the Albian-Lower Cenomanian period). The reef consists mainly of fossils known as rudists (shells from the era of the Thethys Sea).

After taking in the view, take a good look at the adjacent Tabun Cave behind the lookout plaza. This is the westernmost of the caves along the wadi inhabited by prehistoric humans.

The prehistoric caves on Mount Carmel were first excavated in the late 1920s by a British expedition headed by Dorothy Garrod. In the late 1960s, the Tabun Cave was excavated by an archaeological expedition from the United States and since then, by archaeologists from the University of Haifa.

Continuous archaeological strata some 25 m thick are preserved in this cave. These strata contain remains attesting to the existence of prehistoric humans there for about half a million years. Scholars have identified three different cultures – the Achcheulian, the Achcheul-Yabrudian and the Mousterian.

The Achcheulian culture (named after Saint-Acheul, in France, where this culture was first identified)

The Achcheulian culture belongs to the Lower Paleolithic period. It began on the Carmel some 500,000 years ago and continued until about 400,000 years ago. Scholars have identified the cave at that time were apparently Homo erectus, a name meaning “upright man.” They lived in small groups and subsisted on hunting and gathering. Their main tool was the hand stone – a stone worked on both sides and used for hunting, scraping skins, chopping and digging.

The Mousterian culture (named after Le Mouster, France, where this culture was first identified)

The Mousterian culture belongs to the Middle Paleolithic period, which began about 250,000 years ago and existed for some 200,000 years. At that time humans manufactured stone tools such as points and scrapers using the methodical Levallois technique, revealing progress in their ability to plan and execute. The cave served as a base for some 25–50 individuals, who hunted animals common in the area at that time, mainly fowling deer and gazelles. The bones of a hippopotamus and extinct species of camel and rhinoceros that once roamed the country were also found in the cave.

The most surprising discovery of the Mousterian culture on Mount Carmel was that two physically different hominid groups, existed here simultaneously. In the Kabara Caves (near Zikhron Ya’akov) and in the Tabun Cave, a few skeletons were found that belong to Neanderthals, while in the Skhul (Qeaf) Cave, the easternmost of these caves, skeletons of modern humans (homo sapiens) were found.

Dear Visitors

We wish you an enjoyable visit in the reserve. Please follow the rules below to ensure a pleasant visit for you and those who come after you.

- A picnic area is located at the entrance to the reserve for your convenience. Eating is allowed only there. Do not bring food into the reserve.
- The caves, remnants of prehistoric humans, animals and plants are part of the reserve – leave nothing behind and remove anything from them.
- Walking trails have been created for you. Do not deviate from them.
- Keep the area clean. Discard trash in designated receptacles.
- Do not bring pets into the reserve, including dogs.
- Do not light fires and do not smoke in the reserve.
- Be careful not to slips on or after rainy days.
- Visitors are allowed in the reserve only during opening hours.
- Groups must coordinate their visit in advance.
- Guided tours of the Carmel and its surroundings may be reserved by contacting the education center.
- Our rangers will be happy to assist you and answer your questions.

Visiting hours:
Sunday–Thursday, Saturday and holidays: 8:00–16:00
Fridays and holiday eves: 8:00–15:00
During Daylight Saving Time, the site closes one hour later.

Entry to the reserve is allowed until one hour before closing time.

Reserve and education center phone: 04-9841750/2
Fax: 04-9841344
E-mail: st.mearot@npa.org.il

The layers of fill in the cave contain quartz sand originating on the coast, which shows that the sea was higher than it is today and the shoreline was closer to the cave. The higher sea level came about when the polar ice caps melted due to global warming and the resulting water flowed into seas and oceans all over the globe.

The Achcheul-Yabrudian culture (named after Yabrud, Syria where this culture was first identified)

The Achcheul-Yabrudian culture existed for some 150,000 years after the Achcheulian culture. Its typical tool was the scraper, worked from a thick flake. The layers of fill in the cave from this period also contain quartz sand. Findings in the cave show that its inhabitants hunted and consumed deer.

The Mousterian culture (named after Le Mouster, France, where this culture was first identified)

The Mousterian culture belongs to the Middle Paleolithic period, which began about 250,000 years ago and existed for some 200,000 years. At that time humans manufactured stone tools such as points and scrapers using the methodical Levallois technique, revealing progress in their ability to plan and execute. The cave served as a base for some 25–50 individuals, who hunted animals common in the area at that time, mainly fowling deer and gazelles. The bones of a hippopotamus and extinct species of camel and rhinoceros that once roamed the country were also found in the cave.

The most surprising discovery of the Mousterian culture on Mount Carmel was that two physically different hominid groups, existed here simultaneously. In the Kabara Caves (near Zikhron Ya’akov) and in the Tabun Cave, a few skeletons were found that belong to Neanderthals, while in the Skhul (Qeaf) Cave, the easternmost of these caves, skeletons of modern humans (homo sapiens) were found.
At that time the Carmel caves were the northernmost site in the world reached by early homo sapiens (who evolved from homo erectus in Africa), and the southernmost place in the world reached by Neanderthals (who evolved from homo erectus in Euro-Asia). The nature of the interaction between these two types of hominids is one of the most intriguing questions in prehistoric research worldwide.

Jamal (Gamal, Camel) Cave
After a long journey through the “time tunnel” of the Tabun Cave, the trail continues to the foot of the tall cliff, to the Jamal Cave. Typical rock plants grow out of the stone wall here, such as Diarthrus pendulus, common punkwort (Umbilicus intermedia), golden drop (Podosmaea orientalis) and the rare Brassica cretica. These rock plants have adapted to life in small pockets of soil and fissures in the cliff. The bell-shaped Jamal Cave, like most of the caves in the Carmel, was created by rainwater seeping into the ground and dissolving the limestone until large spaces some- times form that are exposed as caves. These are known as kastic caves, named after the region in Yugoslavia where they are very common. The Jamal Cave contains a dis- play that illustrates the daily life of prehistoric humans of the Mousterian culture. Excavation here yielded mainly Achae- olo-Tabunian flint tools, similar to those found in the Tabun Cave.

El-Wad Cave
The trail continues to the El-Wad Cave, the longest of the Car- mel caves – 90 m. This cave contains a spacious entry hall at the end of which is a low, narrow corridor. A broad rock ter- race fronts the cave.

Settlement in this cave began in the period of the Mousterian culture, but the main finds belong to the Aurignacian culture (named after the site in France where it was first discovered), which came into existence about 40,000 years ago and con- tinued for some 20,000 years. No human bones were found from this period in the Carmel, however, the stone tools that were found are more sophisticated than before and, for the first time, bone tools were found. Another technological inno- vation was the use of a chisel made of horn to make tools.

After the period of the Aurignacian culture, continuity of set- tlement in the cave was interrupted for some 8,000 years. Signs of human activity appeared again in the period of the Natu- fian culture (named after Wadi Natuf in Judea, where it was first discovered), which began 15,000 years ago and continued for some 4,000 years. The center of life in the cave at that time moved from the entrance hall to the rock terrace outside the cave, where the Natufian village was established. This culture saw extensive changes in the way these prehistoric humans lived – the beginning of extensive hunting and gathering, which eventually led to the domestication of plants and ani- mals.

Sedentary settlements were built for the first time during this period, and scholars discern foundations of stone structures. Artistic objects also appear now for the first time in this coun- try, including the carved stone head of a male figure, an animal head carved from bone and a shell necklace.

This culture also produced real cemeteries. Near the entrance to the cave are remains of a retaining wall from this period and the Coastal Plain.

Touring Routes in the Reserve
The Geological Route
Touring time: about 1 hour
This sign-posted loop trail, marked in black, starts at the park- ing lot and ascends to the Etsha Cliff on the northern bank of Wadi Me’arot. There are many fossils and rock plants on the way. A spectacular view of the Carmel cliff and coast awaits at the top.

The Botanical Route
Touring time: about 2.5 hours
This trail, marked in blue, reveals different plant communities and soils of the Carmel. The trail begins in the bed of Wadi Me’arot. About 700 m along, after the pump house, the trail climbs via the southern bank of the wadi to the plateau overlooking the Carmel and the Coastal Plain.

Skhul (Gdi) Cave
Remains of modern humans (homo sapiens) about 100,000 years old (the time of the Mousterian culture) were found in this cave, as well as burials of Neanderthals from the Tabun Cave. The skeletons discovered in the Skhul Cave constitute some of the earliest evidence in the world of the presence of modern humans outside of Africa (where they lived some 200,000 years ago). The complete jaw of a wild boar, laid on the chest of one of the deceased, has been interpreted as a burial offering. Also associated with the burial were seashells collected and made into beads and pieces of a colorful min- eral (ochre), which may have been used to decorate the body. These findings, among the earliest of their kind in the world, indicate “modern” human behavior and an advanced world of symbols.

Ofer Lookout
Touring time on the loop trail: About 5 hours
This trail, marked in green, begins at the reserve parking lot and continues south to the top of the hill where a Jewish Nation- al Fund fire lookout tower stands – the Ofer Lookout. This part of the trail (touring time 1.5 hours) features natural Mediterra- nean woodlands – oaks, carobs and lentisks, as well as planted forests.

The lookout, where the JNF has built a rest area, reveals views of the Carmel and the Carmel coast. You can return on the green-marked trail but we recommend extending your visit and returning via the trail marked in black that leads eastward from the lookout. Along the way the trail markings change to red, and it circles around the foot of HaruvRuins. From there, the trail, now marked in blue, leads you back to Wadi Me’arot.

Wadi Alon Nature Reserve: This Mediterranean woodland reserve includes the rocky wadi Alon and Hek, which descend to the Alon Valley. Located southeast of Kibbutz Bet Oren, this reserve features many hiking trails.

Wadi Kelah-Galim Nature Reserve: This reserve features wadi bed landscapes with special plant species and many more caves with prehistoric remains. At the Hai-Bar, breeding nuclei of many of the animals featured in the reserve, including endangered species of flora and fauna. Entry to this reserve is via Moshav Habonim.

Kerem Maharal Natural Reserve: A geological reserve with concentrations of tuff (volcanic ash), this reserve is located north of Moshav Kerem Maharal.

Karta Ruins (Dosteri) Nature Reserve: This small reserve, on the Wadi Oren estuary, affords a view of the Atlit fortress and contain Crusader-era ruins, a hewn passageway and plants typical of kurkar rock. Abundant wildflowers bloom in the spring.

The reserve is located opposite the reconstructed Atlit illegal immigrant camp.

Wadi Kelah-Galim Nature Reserve: This reserve features wadi bed landscapes with special plant species and many more caves with prehistoric remains. At the Hai-Bar, breeding nuclei of many of the animals featured in the reserve, including endangered species of flora and fauna. Entry to this reserve is via Moshav Habonim.

Wadi Neshor Nature Reserve: A short, rocky wadi, noted for its most woodland species such as laurel tree (ilaunum tinus). The reserve includes Arba’im Woods, with its large Kermes oaks (Quercus calliprinos), south of the University of Haifa.