Introducing EAMENA

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In 2015, the Endangered Archaeology in the Middle East and North Africa (EAMENA) project was set up. The EAMENA team comprises archaeologists, researchers, heritage experts and volunteers. The project works with national heritage organisations and officials. Together, we document and protect archaeology under threat throughout the region.

The team uses satellite imagery, aerial photography and on-the-ground visits to record archaeological sites and assess their condition. There are now over 200,000 records in a specially-created database. It is an online, open-access resource that anyone can search: eamenadatabase.arch.ox.ac.uk.

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في عام 2015، تم تنظيم مشروع "الآثار المهددة في الشرق الأوسط وشمال أفريقيا" (EAMENA) في مبادرة كبيرة. يتألف فريق EAMENA من أطباء الأثر، وchercheurs، وخبراء التراث والمتطوعين. يعمل المشروع مع المنظمات الحكومية للتراث والأجهزة الرسمية. معاً، نقوم ب регистрации وحماية الآثار المهددة في جميع أنحاء المنطقة.

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Training in Endangered Archaeology

Training is a key part of the EAMENA project. We have trained heritage professionals from nine different countries in the Middle East and North Africa. Participants have learned how to use new technologies and practised new skills. This includes interpreting satellite imagery to create records of archaeological sites. They will use this training to help manage and protect the heritage under their care.

The project also works with local educational organisations. Our goal is to raise awareness of the value of archaeology and cultural heritage with policy-makers and the general public.

Twenty Lebanese heritage professionals are taking part in training events, organised in collaboration with the Direction Générale des Antiquités (DGA). After creating records in the EAMENA database, they will continue to visit the sites in their area to track their condition. The EAMENA project is funded by the Arcadia Fund and the British Council’s Cultural Protection Fund, in partnership with the Department for Digital, Culture, Media and Sport.

 Participants carry out an on-site assessment of an archaeological site.

Top image: A training participant works on identifying heritage sites from satellite imagery.

Above: A discussion about the types of damage that may affect heritage sites.

Left: Participants and other heritage professionals discuss the identification of heritage sites on satellite imagery.

Right: Participants discuss the sites they have located and recorded.

Above: Participants receive certificates upon completion of the training programme (Photograph: S. Germanos).

Bottom image: Assessing damage and potential threats to a church.

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Archaeologists aim to understand the ways in which people in the past behaved, lived and used the land. To do this, they use a range of techniques to record and study archaeological sites. These include survey and excavation, the study of finds, and evidence relating to ancient diet and environment.

There are hundreds of thousands of archaeological sites across the Middle East and North Africa. We discover more every day. These include the remains of the earliest humans to the ruins of ancient cities. They have an important role to play in helping us understand the past and its relationship to how we live today.

A key goal of the EAMENA project is to work in collaboration with the Direction Générale des Antiquités (DGA). Together, we raise awareness of the value of archaeology and culture heritage for everyone.

Above: Washing excavated pottery from Tell Koubba I (Photograph: G. Philip).
Remote sensing for archaeology uses high-altitude images of the Earth, such as satellite images and aerial photographs. It is one of EAMENA’s key tools as it is fast and effective. It allows archaeologists to identify and watch archaeological sites across a large area. It is particularly useful for regions that are difficult or dangerous to visit.

We need to gather lots of images to document archaeological sites and assess the threats to them. To do this, we use many different types of imagery. Archaeologists have used aerial photography since the early twentieth century.

In recent decades, satellite imagery has become more available. Google Earth and Bing Maps allow the EAMENA team to record and keep a watch over sites. By studying images taken in different months or years, we can see how sites and landscapes change through time.

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Lebanon has a rich archaeological heritage. This reflects its diverse communities and importance as a hub for coastal and overland trade throughout history.

Evidence of early humans has been found in caves in the Lebanese mountains. Caves provided homes and protected these remains from erosion by wind and water. Caves such as Ksar Akil contain evidence of people more than 20m below the surface - a record of tens of thousands of years of human activity. Human burials from around 19,000 to 9,000 years ago have recently been found in two caves at Moghr el-Ahwal in the Qadisha Valley.

Sites such as Byblos on the coast and Tell Labwe South in the Bekaa, have given up evidence of early farming from around 9,000 to 7,000 years ago. Stone tools and pottery fragments show that there were social and economic links between sites in Lebanon and further afield. 

**Left:** Ksar Akil, near Beirut, a cave site threatened by construction activity and quarrying (Photograph: A. Garrard).

**Below:** Nacharini Cave in the Anti-Lebanon mountains, where evidence of prehistoric cave occupation has been found (Photograph: A. Garrard).

**Above:** A plaster floor at the Aceramic Neolithic site of Koubba I (Photograph: G. Philip).

**Right:** Neolithic site of Labwe in the Bekaa. The modern town is encroaching on the site (Photograph: J. J. Ibáñez).

**Bottom image:** The cave site of Moghr el-Ahwal where prehistoric occupation has been found (Photograph: A. Garrard).

**Above:** Excavations at the cave site of Moghr el-Ahwal in the Qadisha Valley (A. Garrard).

**Above:** The Qadisha Valley in northern Lebanon, where several caves have been identified with occupation going back tens of thousands of years (Photograph: A. Garrard).
The expansion of maritime trade routes during the third millennium BCE created major changes in Lebanon. Demand for Lebanese products established a long-standing relationship between Egypt and Lebanon. Timber, especially scented cedar-wood, resins, wine and oil were sought after. The site of Byblos became a major coastal town and trade hub. The Early Bronze Age saw the construction of town walls, high status houses and temples. Byblos became Egypt’s main partner in the East Mediterranean. The presence of high-value Egyptian imports in the rock-cut Royal Tombs is evidence for this. The Phoenician alphabet, the root of Greek and later western scripts, was first used at Byblos.

During the Iron Age, the Phoenicians established city-states at Sidon and Tyre. From here they traded goods across the Mediterranean. Tyre was famous for purple dye, a prestigious commodity as the colour signified royalty.

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During the Hellenistic Period, Greek language and culture spread across the Near East. This process of ‘Hellenisation’ took place under the rule of Alexander the Great’s generals and their descendants.

Large temples were constructed. One example was the massive Temple of Jupiter Heliopolitanus at Baalbek. This building work continued into the Roman period. Lebanon became home to many Roman temples. Nearly 40 Roman temple sites still exist today. There are also smaller religious sites in the mountains, such as Machnaqa and Sfire. Spectacular burial sites include the tower tomb at Hermel in the Northern Bekaa, which may date from the first century BCE.

Public buildings, including hippodromes, baths and temples, have been excavated in Lebanon. Shops, houses and roads were also uncovered during archaeological excavations in the souks area of Beirut.

Above: Ain Aakrine Roman Temple (Photograph: K. Badreshany).

Left: Tower tomb at Hermel (Photograph: K. Badreshany).

Right: Ruins of the Temple of Jupiter at Baalbek (Photograph: K. Hopper).

Below: Ruins of the UNESCO World Heritage Site of Baalbek (Photograph: K. Hopper).

Bottom image: Roman aqueduct near Beirut (Photograph: K. Badreshany).
After the classical period, Lebanon continued to sit at the heart of political and economic developments in the region. In the early eighth century CE, Umayyid Caliph Walid I founded the walled city of Anjar in the Bekaa Valley. Within a few decades, the power shifted from Damascus to Baghdad, and Anjar was abandoned.

In the twelfth century CE, the Crusaders built the Cathedral at Tyre and the fortress at Tripoli. Tripoli also has much architecture dating to the Mamluk occupation that followed, while Ottoman buildings dating to the last 200 years have been conserved in Beirut.

Some of the best-preserved medieval monasteries in Lebanon are in the Ouadi Qadisha. Here there are also caves used by the earliest Christian monastic communities in the Middle East. In the late twentieth century, mummified bodies, dating to around the thirteenth century CE, were discovered in the caves. Traces of finely-worked textiles were found with the remains.

Top image: Crusader Castle at Byblos (Photograph: G. Philip).

Right: Monastery in Ouadi Qadisha (Photograph: K. Badreshany).


Above left: Khan el Franj, a caravanserai built in the seventeenth century, sits within the modern city of Sidon (Photograph: S. Weber).

Above right: The surviving stonework of Mseilha Castle dates mainly to the Ottoman period (Photograph: K. Badreshany).

Bottom image: A typical Medieval Monastery in the Lebanon range (Photograph: G. Philip).
Threats

The major threats to archaeological resources in Lebanon all relate to economic development. Satellite images show the expansion of housing and infrastructure in the coastal plain since the 1960s. The scale and pace of development has put archaeological remains at risk. Industrial projects have damaged the late Bronze Age site of Tell Mirhan near Chekka. Today only a small section of the original site remains.

Fencing protects the famous inscriptions at Nahr el Kelb from physical damage. But they are close to the main highway travelling north from Beirut. This puts them at risk from vehicle exhaust pollution, as well as the weather.

Sites in the agricultural landscape of the Bekaa face a different threat – intensive agriculture. Small prehistoric sites are at particular risk. They can disappear almost without anyone noticing. There is a tension between the need to maximise agricultural production and the need to protect cultural heritage.

Above left: A satellite image showing a tell in the Bekaa that has been damaged by modern earth-moving equipment and construction, and which is also threatened by intensive agriculture

Above right: A satellite image showing urban expansion around the site of Tell el Heri (June 2017) (Image: © 2018 DigitalGlobe).

Bottom image: Modern concrete buildings are encroaching on caves where evidence of prehistoric occupation has been found, southern edge of Ras Chekka (Photograph: G. Philip).
The historic centre of Beirut suffered significant damage during the civil war (1975 – 1990). Conservation of several sites was undertaken after 1990. While the old souks were largely demolished, this meant the site could be excavated and recorded by archaeologists. Recently, damage dating from the civil war has been identified. In the 1980s, the area around Kamid el Loz was bulldozed by military forces and further damaged by looters. In 1941, the prehistoric site at Tell Koubba was cut through by the construction of a railway by the British Army. The nearby early Bronze Age settlement has been damaged by recent road widening, as well as agricultural polytunnels.

While past damage is regrettable, we need to focus on two questions: what information can we still extract from damaged sites, and how do we restrict further damage in the future?

Top image: Kamid el Loz has been damaged by bulldozing in the past (Photograph: G. Philip).

Right: A mosque and a church overlook the ruins of the Roman Forum in central Beirut (Photograph: K. Hopper).

Below: The remains of the excavated Roman Baths in central Beirut (Photograph: K. Hopper).

Left: Graffiti on the side of the tower tomb at Hermel (Photograph: K. Badreshany).

Bottom image: Tell Koubba II was discovered recently when road widening revealed archaeological layers (Photograph: G. Philip).

Bottom image: A 1940s railway cuts through the centre of Neolithic Tell Koubba I (Photograph: G. Philip).
A new national digital database of sites, their location and significance, will support the planning process. It will also help to control new developments. More archaeological projects will help to build up the database. Archaeologists can identify new sites and assess any immediate or potential threats. Such an example was the identification of Tell el Heri in 2016. The site is just inside the Beirut-Tripoli highway. Archaeological surveys can determine undamaged areas. A recent such site is the Roman-Byzantine village and temple of Hosn Niha above the Bekaa. Up-to-date recording strategies can provide extra information from sites damaged by conflict or looting. Other mitigation strategies include rescue excavation. This means that essential developments can proceed while ensuring the archaeology is recorded. Sites may also be purchased by the Direction Générale des Antiquités. A recent example is the site of Tell Fadous-Kfarabida. This can protect sites from future developments.

Above: The recently identified site of Tell el Heri, which had previously been concealed by extensive agricultural terracing (Photograph: H. Genz).

Above: These two photographs highlight the damage to the Roman-Byzantine village and temple of Hosn Niha above the Bekaa that has occurred in recent years (Photograph: P. Newson).

Right: Excavations at Sidon in the centre of the modern town (Photograph: G. Phillip).

Bottom image: Rescue archaeology at Tell Koubba II produced evidence of a substantial Early Bronze Age building, which contained a number of large vats probably used for processing olive oil (Photograph: G. Philip).
Heritage sites have value for local, national and international communities. Ancient villages, churches, mosques and castles reflect the history and identity of Lebanon’s diverse communities. Many people also visit these sites to enjoy their beauty and architecture.

Racoc like Byblos and the Phoenician cities are uniquely Lebanese. They played a central role in the history of the Mediterranean. Roman and Crusader sites highlight Lebanon’s connections to the wider world.

Major sites have attracted overseas tourists for decades. Heritage tourism has immense economic value. But this needs to be sustainable, with sites protected for future generations as well as providing an ongoing source of income. One approach is to develop and promote more sites, of different kinds, in different parts of Lebanon. This would provide visitors with more variety. It would also spread both the pressure of visitor numbers – and income – more widely.

Above image: The peaks of the Lebanon range, with cloud on the coastal side and clear skies toward the Bekaa Valley, epitomise the natural diversity of Lebanon (Photograph: G. Philip).

Top image: The spring lay at the heart of the settlement at Byblos, with the major cult buildings positioned around it (Photograph: G. Philip).

Left: Ancient and modern juxtaposed at Kamid el Loz (Photograph: G. Philip).

Right: The springs and streams of upland Lebanon are attractive locations, but more work needs to be done in order to understand their archaeological significance (Photograph: G. Philip).

Bottom image: Bronze Age, Crusader and Ottoman buildings at the Mediterranean harbour city of Byblos (Photograph: K. Hopper).

Above: Greek Orthodox church in Amioun. Historic buildings play a large role in community identity and continuity (Photograph: G. Philip).

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