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Field Course: *The Ancient Civilization & the Unique Wildlife of Greece*



The field course on «**Ancient Civilization and Unique Wildlife of Greece**», is an exciting opportunity for student groups to acquire hands-on experience and knowledge on history, archaeology and environmental sciences. The course can have a duration of 5-20 days and can be tailored according to the interests of each school group, as well as according their desired course duration. This field course will take place in the historical city of Athens, the cradle of modern civilization, and/or on the stunning island of Samos in eastern Aegean Sea, just off the Turkish coastline.



Map of Greece

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Athens, is the capital and largest city of Greece. Athens dominates the Attica region and is one of the world's oldest cities, with its recorded history spanning over 3,400 years, and its earliest human presence starting somewhere between the 11th and 7th millennia BC. Classical Athens was a powerful city-state that emerged in conjunction with the seagoing development of the port of Piraeus, which had been a distinct city prior to its 5th century BC incorporation with Athens. A centre for the arts, learning and philosophy, home of Plato's Academy and Aristotle's Lyceum, it is widely referred to as the cradle of Western civilization and the birthplace of democracy. In modern times, Athens is a large cosmopolitan metropolis and central to economic, financial, industrial, maritime, political and cultural life in Greece.



The heritage of the classical era is still evident in the city, represented by ancient monuments and works of art, the most famous of all being the Parthenon, considered a key landmark of early Western civilization. Most important of all is the Acropolis of Athens, an UNESCO World Heritage Sites.

Samos island, apart from being biologically unique, boasts important archeological sites and fascinating ancient history. In antiquity it was home to prominent figures such as the mathematician Pythagoras, the storyteller Aesop, the philosopher Epicurus and the astronomer Aristarchus.



Due to the geographical position of Samos and its proximity to the protected Turkish peninsula, it supports a wealth of rare wildlife in both on land and in the sea, found in no other island of the Mediterranean. The area represents a unique biogeographical crossroad between three continents: Europe, Asia and Africa. Samos is the only island in the Mediterranean with populations of golden jackals and chameleons, while also it an important migratory crossroad for hundreds of protected bird species. The waters around Samos support a rare and unique biodiversity that includes some of the most important remaining populations of marine mammals and turtles in the Mediterranean, while also support extensive areas of protected marine habitats – the forests of the seas - such as Posidonia seagrass beds and coralligenous reefs in deeper waters.

Field Course Activity Options

Each of the following activities has a duration of one day. The activities have been designed by experts in Archaeology, History and Environmental Conservation. In cooperation with the lead teacher of each group the selected activities can be tailored or changed further with the aim to reach the educational targets of each student group.

A: Cultural Activities – Visiting Historical Sites in Athens area

A1. Parthenon, Acropolis, Acropolis Museum & the Historical Centre of Athens

During this day, guided tours will take place to the following sites:

- **The Acropolis and the Parthenon:** The Acropolis is one of the most important monuments of antiquity. Today it contains the remains of several ancient buildings of great architectural and historic significance, the most famous being the Parthenon.
- **The new Acropolis Museum**, which exhibits all the fascinating finds from the Sacred Rock and its foothills.

- **The Historical Center of Athens: Plaka and Monastiraki.** This historical neighborhood of Athens was known as the “Neighborhood of the Gods” due to its proximity to the Acropolis and its many archaeological sites. Within the labyrinthine streets and the neoclassical you can find the famous *Flea Market of Monastiraki!*
- Dinner in Plaka



A2. Sanctuary of Artemis at Brauron/ Brauron Archaeological Museum / Archaeological Sites of Marathon

During this day, guided tours will take place to the following sites:

- **The ancient sanctuary of Artemis at Brauron,** an early sacred site on the eastern coast of Attica near the Aegean Sea in a small inlet. Brauron was inhabited during the Neolithic era, c. 2000 BCE, and flourished particularly from Middle Helladic to early Mycenaean times (2000–1600 BC) as a fortified site (acropolis).
- **The Brauron Archaeological Museum,** where you can admire the collections derived from excavations in the Sanctuary of Artemis at Brauron.
- **Archaeological Museum and sites in Marathon:** the site of the battle of Marathon in 490 BC, in which the heavily outnumbered Athenian army defeated the Persians.
- After the archaeological tours, the students can visit the lovely **beach of Shinias** for swimming, beach games and dinner.



A3. Archeological Museum of Athens/ Ancient Stadium of Athens

During this day, guided tours will take place to the following sites:

- The **National Archaeological Museum of Athens** - the largest archaeological museum in Greece and one of the most important museums in the world devoted to ancient Greek art. The museum's collections are organised in sections: Prehistoric (Neolithic, Cycladic, Mycenaean), Sculptures, Vase and Minor Objects, Santorini, Metallurgy, Egyptian and Near Eastern Antiquities, Epigraphical Museum.
- The **Ancient Stadium of Athens** where the first Olympic Games took place in 1896. It was first built in 330 BC and is the only stadium in the world built entirely of marble.



A4. Temple of Poseidon in Cape Sounio – Archaeological Museum of Lavrion

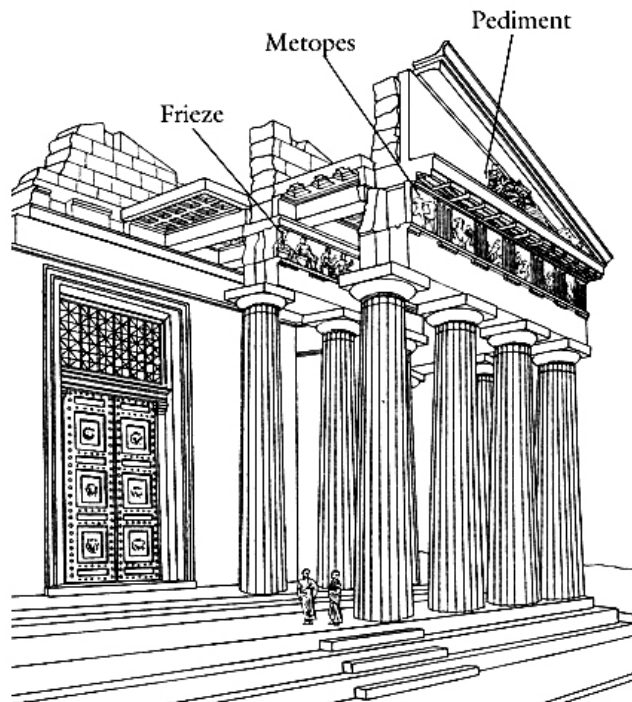
During this day, guided tours will take place to the following sites:

- **The Temple of Poseidon in Cape Sounio** was devoted to the god of the sea in classical mythology. The remains are perched on the headland, surrounded on three sides by the sea. The Temple of Poseidon is built in an impressive location standing on a craggy spur that plunges 65m down to the sea.
- **The Archaeological Museum of Lavrion** shows the story of the ancient mines of Lavrion. They were famous in Classical antiquity for their silver mines, which was one of the chief sources of revenue of the Athenian state. The metallic silver was mainly used for coinage.
- **Museum of Minerals and Fossils of Lavrion** where apart from learning about the special exhibits presented in the museum, students can learn about the mineralogical and paleontological researches carried out by scientists from different parts of the world.



A5. Visit and Joint Activities with a Greek School

- Visit to a Greek secondary school. Common activities with the students of the school, e.g. presentation by both student groups on the culture and the environment of their area – participation in various interactive educational activities
- Common dinner



B: Field Course in Samos Island

B.1 Introduction to Aegean Sea Ecology and Survey Techniques

- **Lecture Aegean island ecology & conservation:** Formation of Aegean islands, how we know which islands were connected from DNA studies of island fauna, island specialists such as Eleonora's Falcons, Audouin's Gulls, importance of the islands as migration routes for birds and whales, unique populations of Golden Jackal and chameleons on Samos Island, conservation measures to allow flamingos to breed and open sea aquarium concept.
- **Introduction to Survey Techniques for island species:** Quadrat surveys for flora, invertebrate sampling techniques such as light trapping, sweep netting and fogging. Bird survey techniques such as transect and point counting. Reptile survey techniques including standardised search times, pitlines, cover boards and spotlighting. Camera trapping and call back surveys for Golden Jackal.
- **Lecture** Important island species and their conservation; Special birds, amphibians, reptiles and mammals of the eastern Aegean. Land management conservation issues such as fire, erosion, pet trade collection, road kill etc.
- **Field Research - Golden Jackal Surveys:** Samos is the only island in the Mediterranean which has a population of the Golden Jackal. There is thought to be a population in the low hundreds on the island and this research project is designed give to the students an insight to research techniques while being part of a real survey aiming to produce reliable data on the population size. The island has been divided into a series of habitat types and over the course of the research season survey teams will visit a series of randomly selected sites in each habitat type shortly after dark and will use recorded jackal calls to elicit responses from any other jackals in the area. In addition camera traps and baited sand trays will be set up at the site and left to run overnight. The survey teams the following day will pick up the camera traps and baited sand traps for additional evidence of jackals.



B. 2 Standardized Seagrass Watch surveys- Kayak – Seagrass mapping

– Standardised Seagrass Watch surveys

The eastern Aegean has some of the most extensive sea grass beds in the Mediterranean and because of exceptional water clarity these sea grass beds extend in some areas down to a depth of 40m. These sea grass beds are important nursery areas for many juvenile fish and crucial for security of the fishery. A series of permanent 50m x 50m quadrats have been positioned on representative sea grass beds around various islands in the eastern Aegean and these are being monitored annually using the standard Seagrass Watch survey protocol developed by Australian Institute of Marine Sciences. Students snorkelling on this survey will be helping with photographing quadrats to assess sea grass cover and free diving to measure the height of the seagrass blades as well as to determine the main species in each quadrat.

Snorkelling surveys of these seagrass quadrats can only be completed up to a depth of 5m. Students who are already dive trained by the time they arrive on the project will after completing a check dive then be diving with a Dive Master to complete surveys of the deeper lying quadrats.

– Kayak – Seagrass mapping

In addition of the seagrass surveys, Archipelagos has developed a monitoring technique of the Seagrass using kayaks. Per group of 10, students will kayak above the studied seagrass. One kayak has a depth gauge and sonar, which will allow the students can see in real time the data, which are collected through 2 tablets connected.

Moreover, kayaks have low-environmental impacts and do not produce any noise. At the same time as the seagrass mapping, bird observations can be done and with some luck marine mammals observations as well.



B. 3 Chameleon surveys & Bird surveys

- **Chameleon surveys** Samos has a population of chameleons which until recently was under considerable hunting pressure for sale in the pet trade. The Archipelagos Institute has been working to reduce the hunting pressure through assistance with enforcement activities and an educational awareness programme. What is needed now though is an estimate of the remaining population size and recruitment rates as well as habitat selection. The same habitat

divisions that are being used for the jackal work will be used and after the jackal call back surveys have been completed at each site, spotlight surveys of transects will be completed to determine the distribution of chameleons. All chameleons sighted will be captured, their gender and age determined and if adult marked with a combination of coloured marks before being released. The GPS position of each animal captured will be recorded as well as a series of habitat variables. These habitat variables are being used to produce species distribution models for the species.

- **Bird surveys of saline lagoon** On the southern part of Samos Island is a saline lagoon which exists for much of the year and which attracts Greater Flamingos. In addition this site is used for breeding by Ruddy Shelduck and Black-winged Stilts. The flamingos however to date have not bred probably because the lagoon tends to dry out by the summer. The Archipelagos Institute is proposing that the saline lagoon is retained year round by pumping sea water during the summer months when it is normally dry. This maintenance of water levels coupled with installing raised platforms which could be used by breeding flamingos may encourage this species to breed on the island. This is how flamingo breeding was encouraged in the Camargue in southern France. All other lagoon areas have been drained on the island and there is pressure to also drain this area. The attraction of breeding flamingos and other bird species should encourage tourist visits and potentially provide sufficient reason to maintain the lagoon. Students working on this project will be joining an expert ornithologist and helping with transect surveys of the lagoon and surrounding areas. All birds seen or heard will be identified and any evidence of breeding activity noted.



B.4 Dolphin Boat Based surveys

The waters around the Samos island are important for populations of the 4 dolphin species. These populations are classified either as at risk or data deficient. Data on cetaceans are gathered from transects, boat-based surveys. At regular points along the transect hydrophones are used to listen for whale calls. In addition the GPS position of all cetacean sightings are noted. At the sites where the cetaceans are sighted various oceanographic data are taken (eg depth, temperature and salinity profile).

The aim of Archipelagos is to better understand and monitor the habitat structure and population dynamics of cetaceans around the eastern Aegean islands. This habitat is in desperate need of

protection, as it is subjected to a wide range of anthropogenic threats. The aim of Archipelagos is to better understand and monitor the habitat structure and population dynamics of cetaceans around the eastern Aegean islands. The ultimate goal is the implementation of “Marine Protected Areas” and supporting effective conservation actions and management policies in order to protect the cetacean and other species biodiversity.

The Aegean, just like the whole Mediterranean Sea, is influenced by human activities such as shipping, tourism, unregulated fisheries practices and pollution, which threaten the survival of marine mammal populations.

A vital sector of the eastern Aegean economy are the fisheries, which cause an unavoidable interaction between the marine mammals and the fishermen who are after the same prey.

The main goals of the research are:

- . Monitoring the habitat use, abundance and distribution of cetaceans,
- . Mediterranean monk seals and sea turtles.
- . Studying the population structure and its dynamics.
- . Studying the behaviour through visual and acoustic data.
- . Investigating the impact of major threats, such as fishing and tourism, on the cetacean behaviour.



B.5 Cultural & Archaeological Visit Visit to traditional villages in different parts of Samos

During this day, guided tours will take place to the following sites:

- Archeological sites of historical significance, such as the ancient Temple of Goddess Hera and the Tunnel of Eupalinos, both of which are mentioned as wonders of the ancient world by the famous Historian Herodotus, who is often referred to as the Father of History.
- Visit to the **Archaeological Museum of Pythagorio**, situated at the centre of the contemporary city of Pythagorion (the location of the ancient city of Samos and hometown of the mathematician Pythagoras). The exhibition illuminates aspects of the historical and cultural evolution of ancient Samos from the Neolithic period (4th millennium BC) to late antiquity (7th cent. AD).

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- Half day trip around Samos, including visits to the **traditional village of Manolates** and to the **waterfalls of Potami**.

B.6 Visit and Joint Activities with a Greek School

- Visit to a local secondary school.
- Common environmental activities with the students of the school, e.g monitoring of birds in a protected wetland site.
- Common classroom activities presentation by both student groups on the culture and the environment of their area – participation in various interactive educational activities
- Common dinner



C. Cultural Activities – Visiting Historical Sites out of Athens area

C1. Ancient Corinth/ Channel of Isthmos/ Historical Island of Salamis

During this day, a number of guided tours will take place to the following sites:

- **Ancient Corinth and the Archaeological Museum.** Ancient Corinth was one of the largest and most important cities of Greece, with a population of 90,000 in 400 BC. The Romans totally destroyed Corinth in 146 BC, built a new city in its place in 44 BC, and later made it the provincial capital of Greece.
- **Cross by boat of the Channel of Isthmos.** The Isthmus of Corinth is the narrow land bridge which connects the Peloponnese peninsula with the rest of the mainland of Greece, near the city of Corinth. The word “isthmus” comes from the Ancient Greek word for “neck” and refers to the narrowness of the land. The Isthmus was known in the ancient world as the landmark separating the Peloponnese from mainland Greece.
- Visit and dinner to the historical **island of Salamis**, where the famous sea battle took place



C2. Ancient Mycines, Epidavros & the Ancient Theatre of Epidavros

During this day, guided tours will take place to the following sites:

- **Ancient Mycines.** In the second millennium BC, Mycenae was one of the major centres of Greek civilization, a military stronghold which dominated much of southern Greece. At its peak in 1350 BC, the citadel and lower town had a population of 30,000 and an area of 32 hectares.
- **Ancient Theatre of Epidavros.** Reputed to be founded by or named for the Argolid Epidaurus, and to be the birthplace of Apollo’s son Asclepius the healer, Epidaurus was known for its sanctuary situated about five miles (8 km) from the town, as well as its theater, which is once again in use today. The theatre is admired for its exceptional acoustics, which permit almost perfect intelligibility of unamplified spoken words to all 14,000 spectators, regardless of their seating.

- Visit and dinner at the picturesque seaport town of Nafplion, the first Capital of Greece.



C3. Ancient Sanctuary of Delphi & Archaeological Museum of Delphi

During this day, guided tours will take place to the following sites:

- **Ancient Sanctuary of Delphi** Delphi is famous as the ancient sanctuary that grew rich as the seat of the oracle that was consulted on important decisions throughout the ancient classical world. Moreover, it was considered as the centre of the world by the Greeks as represented by the Omphalos.
- **Archaeological Museum of Delphi**



The Archaeological Museum of Delphi, one of the most important in Greece, exhibits the history of the Delphic sanctuary, site of the most famous ancient Greek oracle. Its rich collections are comprised primarily of architectural sculpture, statues and minor objects donated to the sanctuary. These reflect its religious, political and artistic activities from its early years in the eight century BC to its decline in Late Antiquity.

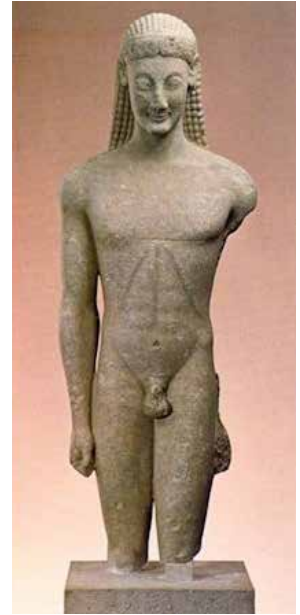


- Visit and dinner to the city Livadia

C4. Boeotia & Archaeological Museum of Thebes

During this day, a number of guided tours will take place to the following sites:

- **Archaeological Museum of Thebes** In ancient times the city of Thebes played an important role in Greek myths, as the site of the stories of Cadmus, Oedipus, Dionysus and others. Archaeological excavations in and around Thebes have revealed a Mycenaean settlement and clay tablets written in the Linear B script, indicating the importance of the site in the Bronze Age.
- **Chalkis** the biggest city of Evia island and observation of the unique phenomenon of the local tide. Chalcis or Chalkida is the chief town of the island of Evia in Greece, situated on the Euripus Strait at its narrowest point. The name is preserved from antiquity and is derived from the Greek χαλκός (copper, bronze), though there is no trace of any mines in the area.
- Dinner in a local fish Taverna



D. Acquaintance with Athens – Places and activities of special interest

D1. Ancient Agora, Central Fish, Meat and Fruit Market & Acquaintance Greek Dances, Music and the Mediterranean Diet

During this day the following guided visits and activities will take place:

- **Ancient Agora** - the heart of ancient Athens, the focus of political, commercial, administrative and social activity, the religious and cultural centre, and the seat of justice.
- **Central Fish, Meat and Fruit Market**
- Acquaintance with **Traditional Greek Music**
- **Traditional Greek Dances** Lessons
- Acquaintance with **Mediterranean Diet and cooking** of traditional dishes
- Dinner in a Tavern with Mediterranean Diet dishes

D2. Lake of Vouliagmeni & Traditional Greek Music and Dances

During this day the following visits and activities will take place:

- Visit and swim in **Lake Vouliagmeni the “Sunken Lake”**. It is a small brackish-water lake fed by underground currents seeping through the mass of Mount Hymettus. It was once a large cavern that collapsed following an earthquake, probably during the early Middle Ages. The outline of the collapsed cavern roof can be clearly discerned from a distance. The lake stands at a 40 cm elevation, and its water maintains a constant 24 degrees Celsius temperature year round.
- Acquaintance with **Traditional Greek Music**
- Lessons of **Traditional Greek Dances**
- Acquaintance with **Mediterranean Diet and cooking** of traditional dishes



D3. Mount Parnitha & Traditional Greek Music and Dances

- **Visit to Mount Parnitha** is a densely forested mountain range north of Athens, the highest on the peninsula of Attica, with an elevation of 1,413 m. Forests of Aleppo Pine cover all slopes beneath 1,000 m altitude, and are often threatened by forest fires, such as occurred in 2005 and 2007. A haven of biodiversity at the edge of the city supports over 1,000 species of plants can be found on the mountain, including crocus and tulips, while the mountain provides a native habitat to its red deer which were known since ancient times.
- Acquaintance with **Traditional Greek Music**
- Lessons of **Traditional Greek Dances**
- Acquaintance with **Mediterranean Diet and cooking** of traditional dishes

