

# Macedonia:

FROM FRAGMENTS TO pixels

[www.makedonopixels.org](http://www.makedonopixels.org)

## The Exhibition

"Macedonia: from fragments to pixels" is a special exhibition of prototypical interactive systems with subjects drawn from ancient Macedonia, the result of a collaboration between the Archaeological Museum of Thessaloniki (AMTh) and the Institute of Computer Science of the Foundation for Research and Technology – Hellas (ICS-FORTH), hosted by the AMTh.

The exhibition comprises a series of interactive systems which are based on the research outcomes of the ICS-FORTH's Ambient Intelligence Programme. Under this Programme, researchers develop intelligent environments, capable to adapt to the needs and demands of human users. These interactive systems are smaller or larger artifacts through which Museum visitors can explore digital reproductions of ancient Greek art masterpieces without the use of keyboard or mouse. Here, interactivity comes in a simple, almost natural manner.

The digital content of these systems includes objects from the Museum's permanent collection and from Macedonia in general. Several of the artefacts presented are not available to the public, either because of their fragile state or their location. Their presentation has been organized in seven units: (i) Gold Macedonian wreaths from the AMTh's collection, (ii) Hidden gods and heroes, (iii) The myth of Melager and the Calydonian Boar, (iv) Travel in space and time with a piece of paper, (v) Discover an ancient farmstead, (vi) A Symposium from the Macedonian tomb of Agios Athanasios and (vii) A room with view... on Aigai.

"Macedonia: from fragments to pixels" is very different from an archaeological exhibition, as through the use of new technologies the public can have a novel relationship with exceptional artefacts of the past, enjoying an interactive experience that combines information and learning with entertainment.

*This time, forget about the usual museum rule of "Do not touch." Here, older and younger visitors can -and must!- touch and play with Macedonian ...pixels.*

## Panoptes, the all-seeing

*Gold Macedonian wreaths from the AMTh's collection*

Panoptes is a digital exhibition-catalogue system which allows visitors to browse its content and dwell on details of images, read accompanying texts and follow threads of information.

Panoptes presents the AMTh gold Macedonian wreaths collection, the most extensive such collection in the world. These wreaths are among antiquity's most exquisite examples of ancient jewellery, and show a lot about the people who wore them.

A children's windmill is located between two touch screens (one larger, one smaller). Blowing on the windmill, the largest collection of gold wreaths in the world will unfold before your eyes. By pausing on any image, you can learn more about any wreath that interests you. You can zoom in on any detail of the images presented, or choose from the areas of interest marked on the image that will bring up multimedia windows.

## Cryptolexon, mystery word puzzle

*Hidden gods and heroes...*

Cryptolexon, the hidden crossword, is a game loved by all ages, which combines entertainment with knowledge. The names of ancient gods and heroes are hidden within a matrix of letters for the visitors to discover.

On the easiest level, players can find the twelve gods of Mt. Olympus; as the degree of difficulty increases, heroes and lesser known local gods are also included.

The system uses a touch screen, so visitors use their finger instead of a pencil. You can find the hidden words on the touch screen by dragging your finger from the start to the end of each word or, alternatively, by touching each word's first and last letter. Once you find a name, you will learn all about it.

### **Peridexion, the dexterous**

The myth of Melager and the Calydonian Boar

Peridexion is a system that offers museum visitors the possibility of exploring an object and/or a subject in depth.

Peridexion presents a masterpiece of 6th c. BC Athenian black-figured pottery, known as the Crater of Lydos, as well as three exceptional examples of Roman sculpture from the AMTh collection, all of which draw inspiration from the legend of the hunt of a monstrous boar in Calydonia, Aetolia. This myth is not widely known today, as most relevant ancient texts have not survived, but was at times very popular in antiquity, and a source of inspiration for artists for a very long time. The objects included in this presentation span eight centuries.

The system has a touch screen that presents a view of an object at a time. Visitors can select the object or the view they wish to see and then discover points of interest and relative multimedia information, or zoom in on any detail at will. The system is located at the exhibition "At the kingdom of Macedonia", unit: "Myth and worship".

### **Multimodal Diverse travel**

*Travel in space and time with a piece of paper*

This system enables more than one visitor at the same time to interactively explore information about various areas and points of a map of Macedonia.

The system comprises a table, whose surface is covered by a printed map on which the location of various cities and other notable sites is projected. White paper tablets with a coloured frame are at the visitors' disposal. On each tablet a magnifying glass is displayed. When the magnifying glass is placed over a city, related images, videos and texts appear on the tablet. For every city there are multiple information "pages", which can be viewed by touching virtual buttons at the bottom of the tablet. The colour of the frame of each tablet designates the language in which information is presented.

### **One day in a farmstead**

*Discover an ancient farmstead*

This system allows the public to visit an ancient farmstead that has been excavated at Asprovalta near Thessaloniki, by enriching with multimedia information a scale model realised by the AMTh.

By moving a white paper tablet over the areas of the farmstead, the visitor can view and learn more about the excavation finds and gain inside information on ancient rural life. On each tablet a magnifying glass is displayed. When the magnifying glass is placed over a part of the farmstead, related images, videos and texts appear on the tablet. There are multiple information "pages" for each space, which can be viewed by touching the virtual buttons at the bottom of the tablet. The application can accommodate several users at the same time. The colour of the frame of each tablet designates the language in which information is presented.

### **Polyapton, Multi-touch**

*A Symposium from the Macedonian tomb of Agios Athanasios*

Polyapton is a very large interactive screen that can be used by several visitors who wish to explore multifaceted information on a subject at the same time.

Polyapton presents one of the best-preserved ancient Greek paintings. It is a wall painting depicting a symposium, from the Macedonian tomb of Agios Athanasios near Thessaloniki. The tomb is not open to visitors, who have here a rare opportunity to enjoy the painting in its full glory.

The system's special multi-touch screen recognizes the touch of many fingers or hands, but also specific objects, at the same time. Visitors can 'scroll' across the painting and focus on points of interest with multimedia information by touching them, zoom in on details with the use of a paper magnifying lens, while an infrared torch displays a modern rendition of the painting.

### **Macrographia**

*A room with view... on Aigai*

Macrographia is a system that presents very large images, which visitors can explore by walking around in a room. The images are projected on a screen and are analyzed part-by-part depending on the location of each visitor in the room.

Macrographia presents the "Wall-painting of the Royal Hunt" from the tomb of Philip II at Vergina, ancient Aigai, a large work of art, presented almost in real size. This is the largest ancient Greek painting that has been found to date, its length exceeding 5.5 meters. It is dated in 336 BC, the year when Philip was murdered, and decorates the front of the tomb of the great king. Widely admired as a rare masterpiece of ancient Greek art, the painting shows ten hunters chasing five different animals in a complex landscape.

The system occupies a room, with one wall being the projection screen. Visitors enter the room and the system follows the movement of each one separately. The images projected in front of visitors change according to their location in the room. The painting is divided into five sections, which correspond to the prey of the hunters. When someone stands in front of a section, depending on the distance from the screen, the image she/he views and the caption underneath change. There are four levels of information: the present state of the painting, an artist's sketch, an artist's modern rendition, and notable details. Visitors can select the language of the accompanying text by entering the room from the left (for Greek) or right side (for English).