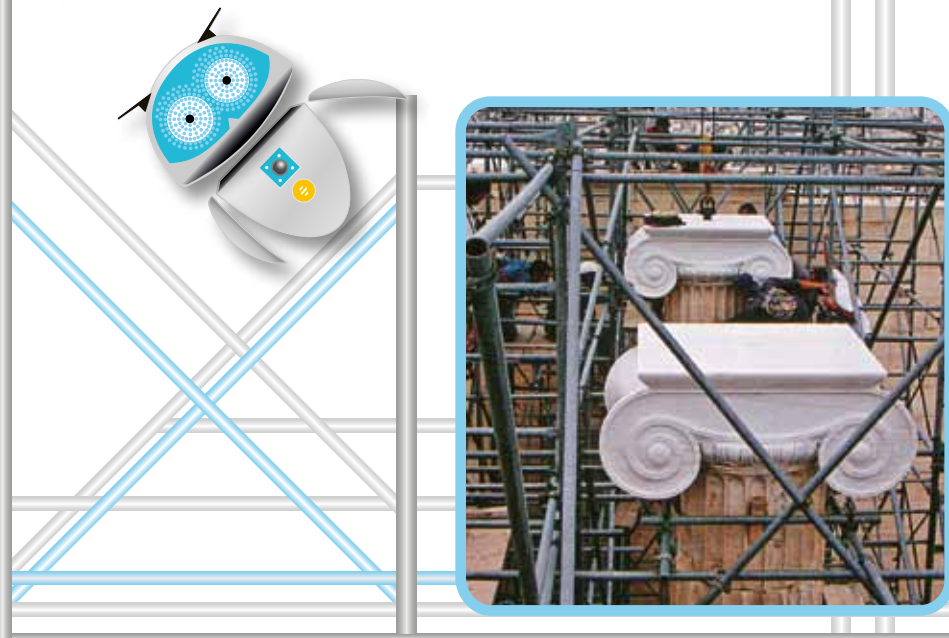


01

WHY ARE THERE SO MANY CRANES AND SO MUCH SCAFFOLDING ON THE ACROPOLIS?



Make a rough calculation!

The monuments on the Acropolis have been travelling through time for 2500 years.

Throughout the centuries, the monuments have suffered significant damage due to **natural causes** such as earthquakes, frost and parasitic vegetation, and also due to **human actions**, such as wars, explosions, bombings, fires, theft of sculptures, and so on.

Major problems were also created by the many errors made in the restoration interventions undertaken last century, as well as by **environmental pollution** – the well-known smog which in recent years has affected not only the residents but also the monuments of Athens.

All the scaffolding and cranes that you see on the Acropolis today, are there as part of the efforts to address these problems. A special service of the Hellenic Ministry of Culture, the Acropolis Restoration Service, is carrying out the **restoration interventions**.

02

WHY ARE SOME ARCHITECTURAL MEMBERS TEMPORARILY REMOVED FROM THE MONUMENTS?

After the completion of a detailed study, architectural members presenting problems are temporarily removed. The procedure followed is called **structural restoration** and includes the following 6 steps:

1



The sections of the monuments that present problems are **dismantled**.

2



Rusted metal elements from previous restorations as well as **unsuitable materials** (e.g. cement and bricks) that had been used to fill certain gaps, are removed.

3



Missing parts of members are **completed with new Pentelic marble**, wherever it is necessary.



To make a supplement, a plaster copy of the missing part is first created, using a mould. This is then reproduced in new marble, with the help of a special pointing device.

4



The fragments of the ancient architectural members and the new supplements are joined together using **titanium rods**, which are inserted into surfaces hidden from view.



Titanium is a durable metal which does not rust!

5



After the fragments are joined together, the **exterior surfaces** of the supplements are **finished** in order to give the architectural member its final form.

6



Scattered ancient members which have been identified are often restored and integrated into the ancient monument. These are placed in their original, or a corresponding, position. Finally, the restored architectural members are then **repositioned** on the monuments, in the positions they held in antiquity.

During the intervention all the work is documented and also recorded using drawing and photography!

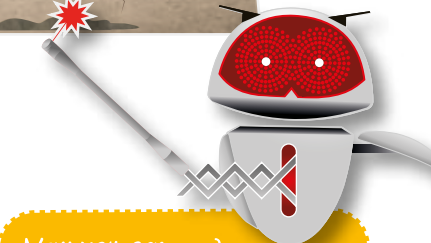


03

HOW IS THE SURFACE OF THE STONE CLEANED?



Stone surface conservation is also undertaken as the **structural restoration progresses**. Among others, conservators clean and fill microcracks and gaps, remove and reattach flakes and small fragments, and remove deposits and the black crust covering the surface of the marble, using laser technology.



Now you can understand why restoration is such a time-consuming process!

04

WILL THE ACROPOLIS BECOME AGAIN AS IT WAS IN ANTIQUITY?

No! The works undertaken are restricted to what is absolutely necessary, to sections of the monuments that present stability problems. The aim of the works is the protection and reconstitution of a monument, or a part thereof, using its **original members**, which at some stage had fallen or had been removed from their original position.

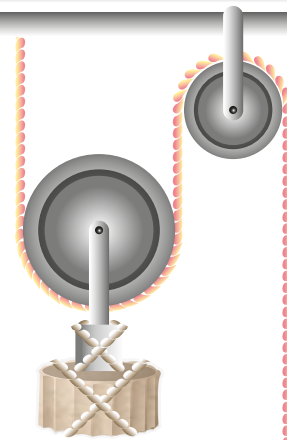
Restoration does not mean reconstruction!



And in case something needs to be changed, the experts have taken care to ensure reversibility, in other words, the possibility of restoring the monument to the state it was in before the intervention!

05

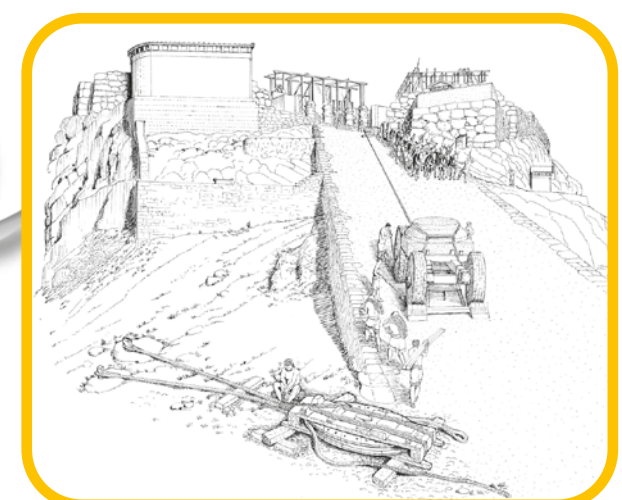
WHERE WAS THE MARBLE FOR THE MONUMENTS QUARRIED & HOW WAS IT TRANSPORTED TO THE ACROPOLIS?



Mount Pentelicon is 16km away from the Acropolis.

The Acropolis monuments were constructed from marble cut from the **quarry of Mount Pentelicon**. The transportation of the blocks was a very difficult, time-consuming and costly task. The processing of the marble, therefore, was started at the quarry, where each piece was cut to approximately the dimensions required for shaping into the chosen architectural member. Thus, only as much marble as was absolutely necessary was transported.

The transportation of the marble blocks from the quarry to the construction site was undertaken with **four-wheeled carts** that were pulled by many pairs of mules or oxen. The loads were raised onto hills such as the Acropolis using ramps, with the assistance of **special pulley systems** that utilized animal power.



06

HOW WERE SUCH LARGE & HEAVY MARBLE BLOCKS LIFTED AND SET INTO THEIR FINAL POSITION?



The **lifting** and **positioning of the marble blocks** was undertaken using various means: cranes, rope pulleys, rollers, and wooden or steel levers. The stability of the building was not secured using wet binding materials (mortars), as is done today. It was ensured through the perfect contact of the blocks, their proper positioning and the use of special connecting elements. Not even air could pass between the blocks.

In other words, the building resembled a giant puzzle!



07

WHERE THE TEMPLES ALL WHITE IN ANTIQUITY OR WHERE THEY PAINTED?



Reconstruction drawing, A. Paccard

The beige colour of the marble today, is due to the passage of time. During their construction, the buildings of the Acropolis would have presented a very different appearance, as the newly cut marble would have shone dazzlingly in the sun. Immediately following, certain of the white surfaces would have been covered in various **rich colours**.

08

WHERE DO WE LEARN ABOUT THE ANCIENT MASONS AND THE TOOLS THEY USED?



We learn about the methods of construction and the people who were employed, from the **building inscriptions**. These were in the form of stone stelai inscribed with financial reports, located in a public place so that every Athenian could be informed of the cost of each project. Wages, for most of the workers, were usually one drachma a day.



From the traces of tools on the surface of the marble blocks, we can see that the tools used by the ancient stonemasons were the same as those we use today.

09

WHO IS WORKING ON THE ACROPOLIS RESTORATION PROJECTS TODAY?

Today there are architects, civil engineers, topographers, archaeologists, conservators, designers and stonemasons, as well as technical and administrative support staff, employed on the Acropolis projects. This **personnel** is very **skilled** and experienced in the implementation of restoration projects.



10

WHY CAN'T SOMEONE VISIT THE INTERIORS OF THE MONUMENTS TODAY?

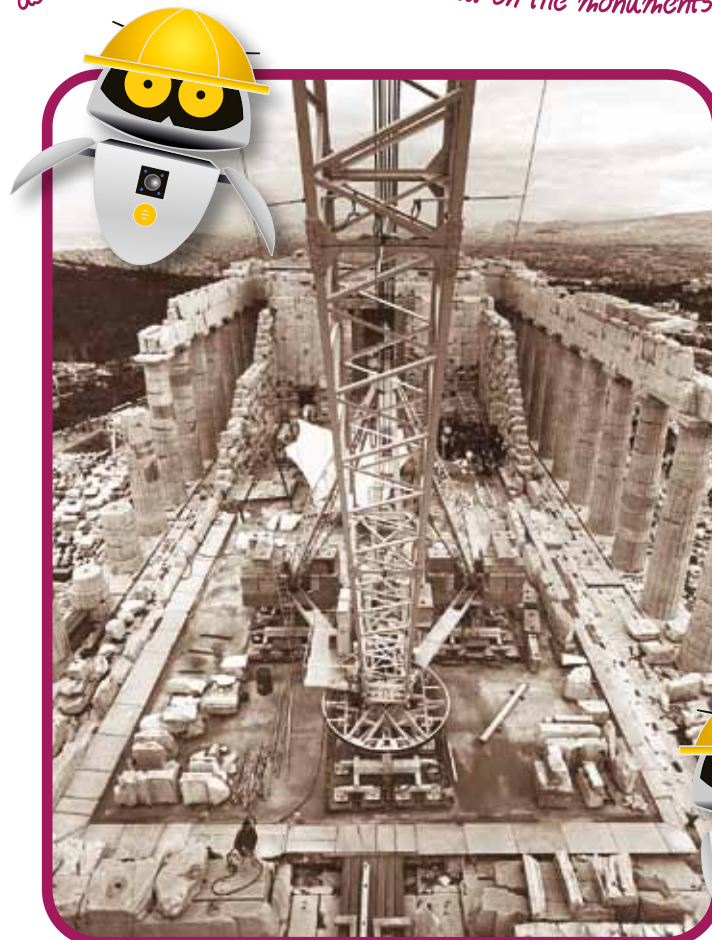
There are two reasons that access to the interiors of the monuments is not allowed:

A

To protect the monuments from the wear occasioned by the presence and circulation of visitors.

B

For safety reasons, as interventions are being carried out on the monuments.



More information on the Acropolis monuments and on the restoration projects can be found on the YSMA website,

www.ysma.gr

Don't forget to also navigate to the Glafka Project!

<http://www.ysma.gr/theglafkaproject>

10 QUESTIONS ABOUT THE RESTORATION OF THE ACROPOLIS MONUMENTS

MINISTRY OF CULTURE EDUCATION AND RELIGIOUS AFFAIRS
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ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ
ΥΠΟΥΡΓΕΙΟ ΠΟΛΙΤΙΣΜΟΥ
ΠΑΙΔΕΙΑΣ & ΘΡΗΣΚΕΥΜΑΤΩΝ



Με τη συγχρηματοδότηση της Ελλάδας και της Ευρωπαϊκής Ένωσης

10

questions

about the restoration of the Acropolis monuments!



*Hi!
I am the wise owl,
Glafka,
a flying robot
who can answer
all your questions!*

For children aged 12+

MINISTRY OF CULTURE EDUCATION & RELIGIOUS AFFAIRS
ACROPOLIS RESTORATION SERVICE
DEPARTMENT OF INFORMATION AND EDUCATION