



New Acropolis Museum and (below) the Parthenon's East Metope 1, depicting a scene from myth



The Parthenon on Athens' Acropolis



almighty marble

WORDS **ASHLEY HAY**

After more than two millennia of chaos, destruction and theft, restoration of the Parthenon, the temple centrepiece of Athens' Acropolis, is almost complete.

PARTHENON PHOTOGRAPHY: GETTY IMAGES; METOPE/MUSEUM: NIKOS DANILIDIS, COURTESY NEW ACROPOLIS MUSEUM

ON A SUMMER'S day, the Athenian sunlight slices space so sharply that passers-by, turning slightly one way or another, are pinned by the glare and seem to disappear altogether against the brightness. The limestone of the Acropolis shimmers with brightness, too, all the colour bleached out of its familiar angles. Looking across from the Hill of the Nymphs, its swarms of visitors give it a strange vitality.

During the height of the season, some 10,000 tourists climb its stairs daily. Among their numbers, busy with a different kind of vitality, are the 200 people involved in the Acropolis restoration project, a team including architects, engineers, conservators and marble cutters who have been working – some for more than 30 years – on this famous site.

The hive of building activity that created the Acropolis began in the mid-fifth century BC, under the Athenian ruler

Pericles. But while these monuments survived the subsequent 2500 years, they sustained considerable damage along the way – from the fires and explosions of battles; from earthquakes and the ravages of climate; from more modern threats such as pollution and acid rain; and even from the unforeseen effects of earlier restoration projects.

"We have had to undo almost everything that was done in the past," says Maria Ioannidou, director of the Acropolis Restoration Service, of interventions made on the site in the early 20th century. "But 2008 is a very good year for the Acropolis." By the end of the coming European summer, she predicts, the current restoration of the Propylaea (its great entrance) and the Temple of Athena Nike, which was entirely dismantled to replace the slab of reinforced concrete on which it sits, will be complete, as will restoration of the Acropolis' centrepiece, the Parthenon. New restoration projects to ➤



GREECE ACROPOLIS

address the Parthenon's structural problems will begin next year – if funding permits. The Parthenon alone currently employs 22 marble workers.

"It's the biggest factory for marble works in Greece, up here," says Nikos Toganidis, the architect responsible for the building. Remaking, recasting, repairing, they are using marble not from the original quarry, but from one nearby. "The marble has the same chemical composition," he says. "But it's a bit harder than the ancient stone."

Down below, close to the hill's base, the New Acropolis Museum, designed by Bernard Tschumi, is preparing its exhibitions to open in late 2008 or early 2009. The famous Caryatids (sculpted female figures), which supported the porch roof on the Acropolis' Erechtheion building, were eased into their new home late last year, and the transfer of the Parthenon Marbles – those still housed in Athens – began a few months later. It's hoped this new building will triple the number of visitors to the Acropolis – to 3.5 million a year.

The Acropolis pushes you towards cliché: it *does* take your breath away – and your words. No matter how familiar it is from books or postcards, it's remarkable to find yourself climbing its stairs, touching its stones, breathing its air. Rising 70m from the city floor like a plynth, this place makes an impression. It drives some visitors to outraged commentary – Lord Byron chipped his fury over the removal of Parthenon Marbles by the British ambassador Lord Elgin directly into one of its other rocks; others to something more celebratory

– Sigmund Freud, 100 years later, stood before it thinking, "So all this really does exist, just as we learnt at school".

Ioannidou feels "privileged to work here. It's a job that needs a lot of responsibility and care. We have to look at every small part of the monument, every small fragment of marble, as a piece of art." To an outsider, this is a seemingly insurmountable task – finding the original place for each one of the different shards and fragments of stone on the Acropolis' surface.

"We had 750 stones for the long walls of the Parthenon's cella," Toganidis says. "Now we know the original position of 450 of these. We have spent about 10 years on that – it is a special difficulty that we have on this site. But if you take the general dimensions of the members we're working with, there are fewer options for each piece than you might think. If you visit the monument for the first time, it looks ... well, we would say it looks all Chinese, but I think you would perhaps say it's all Greek to you."

The project rests as much on old knowledge – working with the same materials and tools as the ancient Greeks would have – as on new – devising innovative methodologies and technologies that can be used by restoration teams on other very different sites in different countries. Inorganic matter, such as cement low in sulphates, quartz sand, lime and lime-water with calcite additive, is injected into cracks to strengthen the stone and ensure the stability of the entire structure. Pieces of iron used in earlier restorations – which damaged the marble – are eased out and replaced with titanium. ➤

PHOTOGRAPHY: GETTY IMAGES; MARBLE: ISTOCKPHOTO.COM

// THE ACROPOLIS PUSHES YOU TOWARDS CLICHÉ: IT *DOES* TAKE YOUR BREATH AWAY



The Parthenon's Elgin Marbles on display at the British Museum, London



ACROPOLIS GREECE

ACROPOLIS THEN

3000-2800 BC First evidence of human use of the caves around the Acropolis.

1400 BC Mycenaean kings fortify the rock with 8m walls and build palaces within it.

7TH CENTURY BC Construction of monumental buildings begins throughout Greece, including on the Athenian Acropolis.

480 BC Persia defeats Athens, razing the city and destroying the temples on the Acropolis.

450 BC Athenian ruler Pericles institutes a massive building plan, including the Parthenon, built between 447 and 438 BC.

404 BC Athens falls to the Spartans and all construction on the Acropolis stops.

267 AD Invasion of Athens by Germanic horde; much of the city is razed, fire destroying the Parthenon interior and causing splits in its marble.

529 The Parthenon and Erechtheion become Christian churches.

1205 The Franks occupy Athens, ruling from the Acropolis and converting the Propylaia into a palace and the Parthenon into a Catholic church.

1456 The Parthenon is converted into a mosque after occupation by the Ottoman Empire. Parts of the Propylaia are damaged around this time by "fire or the explosion of a shell".

1683 An alliance between Austria, Poland, the Pope and Venice opposes the Turks; one of their sieges bombards the Acropolis for eight days. On September 26, 1687, an allied mortar hits the Parthenon – where the Turks stored gunpowder. The explosion destroys the building's sides and the ensuing two-day fire reduces the building to its modern skeletal appearance. Turks expel the alliance in 1688, reopening a small mosque inside the Parthenon.

1801-1821 Lord Elgin, British ambassador to Greece under the

New
Acropolis
Museum



The work is slow, gentle, precious. "We can't do anything in a hurry," Toganidis says. "We don't have readymade solutions and each problem needs something new." Some of the cleaning is done with sponges, some with tiny points of laser.

In 2007, Ioannidou and Toganidis travelled to Sydney, not only to discuss their work and open an exhibition on the project, but also to meet with heritage workers and compare techniques with them. "I could not imagine that such a service existed in Sydney – doing such similar work to ours," Toganidis says. "But we all have the same questions, and they understood best what we were doing."

Public interest was extraordinary. Michael Turner, director of Sydney University's Nicholson Museum, said attendances increased by 40 per cent during the exhibition and the restoration team's visit. "Fifth century BC Athens was a defining moment in world history. The buildings on the Acropolis are iconic. The history of their use and abuse, especially in their restoration and in the continued debate about the Elgin/Parthenon Marbles, raises loud and healthy debate. Interest has been tremendous."

Turner recovered a 19th-century model of the Acropolis from the Nicholson's basement for the visiting Athenians. "It showed details of the Acropolis of which they were unaware, both in the buildings and in the surrounding defensive walls. A series of photographs has since been taken for them to study these details back in Athens." The only discrepancy was that the model was entirely devoid of people – impossible to imagine now.

On the other side of the world, the project goes on, but the conclusions Ioannidou anticipates this year will not mean the end of the work. "There are some projects, >



Pericles

ACROPOLIS GREECE

Ottoman occupation, removes a collection of marbles from the Acropolis, including the majority of intact Parthenon friezes and most of its extant pedimental figures. Intending to keep the marbles in his own home, Elgin later sells them to the British government, which installs them in the British Museum in 1816, where they remain.

1821-1827 The Greeks revolt against the Ottoman Empire; the Parthenon changes hands several times, its monuments suffering extensive damage. Liberation is realised in 1827.

1880 Construction of the Acropolis Museum on the rock itself reveals several Archaic statues (c.500 BC) and the foundations of the temple destroyed in 480 BC.

1885-1890 First systematic excavation of the Acropolis site.

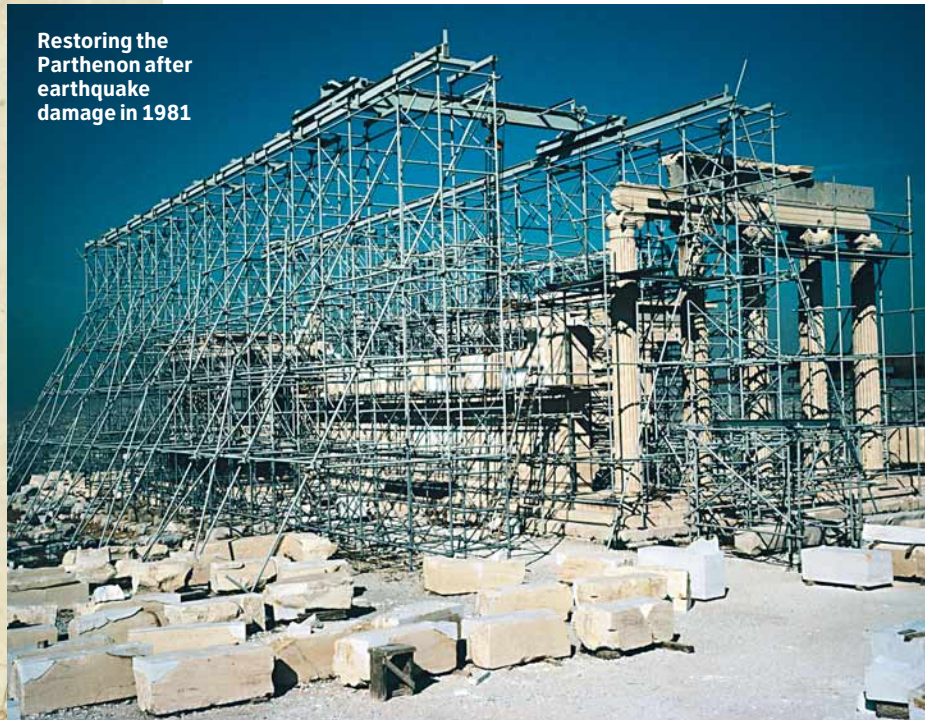
1922-1923 Greek engineer Nicolas Balanos reconstructs a number of Parthenon columns.

1975 Creation of the Committee for the Conservation of the Monuments on the Acropolis – to plan and undertake large-scale conservation and restoration work. This project continues today.

2005 Formation of the International Association for the Reunification of the Parthenon Sculptures to lobby for the return of the “Elgin” marbles. This committee has member organisations from 14 countries, including Australia.

2008-2009 Proposed opening of New Acropolis Museum. Situated 400m from the Acropolis, it includes a glass gallery designed to display the Parthenon Marbles according to their precise geometrical positioning on the original building – should they return to Athens.

Restoring the Parthenon after earthquake damage in 1981



especially in the Parthenon, that we still have to start – areas with structural problems and problems from pollution.”

Toganidis adds, “If the state wants to fund us to finalise all this, we need about 15 years more. But I don’t know if it will ever be possible for people to re-enter the Parthenon. Maybe we can have a specific circulation inside the building, but not just random walking around. Then, you know, they might want to take a souvenir ...”

On the top of the rock, the tap of chisel on marble rings unchanged, sounding much as it would have hundreds of years ago. Bright new capitals rise into place alongside their older, faded neighbours; careful replicas of this frieze, that metope are put into place; and representations to the British government continue to ask that the Parthenon Marbles, removed two centuries ago by Lord Elgin, be returned. There’s a purpose-built glass gallery waiting for them down below in Tschumi’s new museum, but there’s no whisper of if, or when, they might come home.

In the meantime, people continue to climb to the Acropolis summit, craning their necks at elegantly tapering columns, peering at the expressions on the recast Caryatids, pausing every now and then to watch Ioannidou’s teams at work. “They like to see what we do, to understand a little bit about the project,” she says. “When we reset a marble of 10, 11 or 12 tonnes in its original position on the monument, they stand and they wait, sort of silently. Then, when the work is completed, they applaud.”



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Three goddesses from the Parthenon, currently in the British Museum

