

HISTORY OF OPHTHALMOLOGY

MICHAEL MARMOR, EDITOR

The Ophthalmic Wound of Philip II of Macedonia (360–336 BCE)

John Lascaratos, MD, PhD, Gerassimos Lascaratos, MD, and George Kalantzis, MD

Department of History of Medicine, Medical School, National Athens University, Athens, Greece

Abstract. The aim of this report is to present the ophthalmic wound of King Philip II of Macedonia, father of Alexander the Great. From a series of ancient literary and historical sources, a number of archaeological finds, and the paleopathological remains in the supposed tomb of Philip in Vergina, it can be deduced that the king was seriously wounded in his right eye during the siege of Methoni. The renowned physician Critobulos undertook the removal of the arrow that had injured the eye and the postoperative follow-up. He was already experienced and belonged to the official medical family of Asclepiades of Cos Island. It seems that an ugly scar remained in the area of Philip's right eye, possibly causing him psychological problems. (*Surv Ophthalmol* 49:256–261, 2004. © 2004 Elsevier Inc. All rights reserved.)

Key words. history of medicine • ophthalmic injuries • Philip II of Macedonia

In 360 BCE Philip II, the father of Alexander the Great, succeeded to the throne of Macedonia after his elder brother, Perdiccas III, who had reigned for a brief period. During his long reign of 24 years, Philip managed to achieve ambitious plans, overseeing the expansion of Macedonia and its sovereignty over all the Hellenic territory. Prior to his assassination by court intriguers, the greater part of the northern peninsula of Aemos had been absorbed into Macedonian control after 20 years of warfare and intervals of diplomatic negotiations. Most Hellenic states which had not been subdued in these wars allied themselves to Macedonia with peace treaties, and by the death of Philip (336 BCE), the Macedonian army was battle-trained and ready to undertake the struggle against the Persians. It is no exaggeration to say that Alexander would not have been a world

ruler and “Great” if it had not been for Philip's pre-scient military preparations.^{2,18}

Philip had much in common with his son in character and behavior, as well as merits and defects. The father was an ambitious conqueror, a clear-sighted politician, a general of military genius, quick-tempered, and irritable. He was also accused, like his son, of overindulgence and drunkenness. The orator Demosthenes compared him to a sponge because of this latter tendency. His bravery on the battlefield and disregard of danger were similar to Alexander's, with the result that the great frequency of his being wounded was comparable to his son's experiences.^{2,18,21} Demosthenes^{5,7} and other historians^{21,26} maintained that Philip's body was a mass of wounds, the most significant of which were a fracture of the collar-bone in the battle against the Illyrians, a leg

wound in the battle with the Triballians, new wounds in his leg and arm in the battle against the Scythians which rendered him lame, and the loss of his right eye in the siege of Methoni.

Philip's Eye Injury

Many later historians refer to the wound to Philip's right eye during the siege of Methoni (355–354 BCE) based on the lost works of contemporary historians. Didymus the Chalcederian²⁶ from Alexandria (1st century BCE), commenting on the work of Demosthenes, gives details of the wound. He writes that the Emperor, while inspecting military devices and mechanisms, was wounded by an arrow fired from a bow. This information was quoted from the lost works of the contemporary historians Theopompus from Chios and Marsyas the Macedon. Another version is provided by the contemporary historian Douris from Mytilene who writes that a warrior called Astir (*Star* in Greek) hurled a javelin at Philip; Didymus does not agree with this version because numerous eye-witnesses insisted that he was wounded by an arrow. A plethora of historical sources follow the version of Didymus, some providing more, others fewer, details about the injury.^{13,15,31,34,36} The ancient geographer Strabo^{8,11} (1st century BCE) stresses the seriousness of the injury. Diodorus of Sicily¹⁴ (1st century BCE) notes that the injury from the arrow was so serious as to destroy vision. Plutarch¹² (1st–2nd century CE), based on the history of the contemporary Callisthenes, writes that Philip was injured during the crossing of the river Sandanus, while going to besiege Methoni and Olynthos, by an arrow that was shot by the Olynthian, Astir. Despite the "fatal nature" of the wound, he was saved, losing only his sight in the injured eye. The same version is supported by the sophist Lucian¹⁰ (2nd century CE), who maintains that the episode took place during the siege of Olynthos.

Plutarch writes that some contemporaries attributed the wound to divine providence because Philip had secretly spied, through a gap in the door, the relations of his wife Olympias with a god who had appeared in the form of a dragon.³¹ History refers to the well-known myth that Alexander was son of the god Zeus Ammon and to his illegitimate birth, which later was the main topic of the famous "Romance of Alexander the Great."^{16,21}

Philip's Psychological Reaction to the Wound

The historians also give information about Philip's psychological perception of his eye wound. Some say he must have been proud of his wound because he allowed the court artists to depict him with the ugly

scar to the eye, believing it gave him the image of a brave, undefeated warrior.⁶ This was in complete contrast with the reaction of an eminent successor of Alexander the Great, King Antigonos I Monophthalmus (the One-eyed), who forbade his court artists (even the celebrated Lysippus, personal court artist of Alexander the Great) to depict his scar after he had lost an eye in battle. For this reason no portrait of Antigonos survives, except one on the so-called sarcophagus of Alexander the Great, and that in profile from the uninjured side of the face.²²

Another historical source maintains that once, when Philip was asked who damaged his eye, he replied proudly "The love of Hellas."³⁵ The Roman historian Justin¹⁷ (2nd century CE) confirms that Philip accepted his injury without any negative influence on his bravery and ability in war; neither was he vengeful, showing clemency to the besieged when they surrendered. It seems that this leniency did not include the perpetrator himself; Philip knew him because the arrow had engraved on it the epigraph "Astir sends a fatal arrow to Philip." After his injury, the king shot an arrow at the besieged town with the inscription "Philip will hang Astir when he conquers the town," and he made good his threat.^{1,34}

Other sources³² maintain the opposite, namely that he was sensitive and extremely annoyed when reference was made to his disfigurement, and especially when his entourage uttered the word "eye" or when they called him "Cyclops," which had become his nickname.

The reaction of his retinue was also characteristic. To console Philip and show his sympathy, a flatterer of his court, Cleisophus, even reached the point of wearing a bandage like an eye-patch on his healthy right eye every time he met the king. The historian Satyrus, who conveys this event, writes that when Philip was injured in the leg and limped, the flatterer proceeded in front of the emperor, also limping!⁹

The Treatment of the Wound

The treatment of Philip's injury was undertaken by the celebrated physician Critobulos, who later became more famous when he successfully removed an arrow which had pierced the chest of Alexander the Great in the battle against the Mallians in India.²¹

Pliny¹³ stresses that the reputation of Critobulos, who belonged to the prominent medical family of Asclepiades of Cos Island and to the Hippocratic School, was so great that when he "removed an arrow from Philip's eye he could leave no disfigurement." Although Pliny's words appear exaggerated so as to emphasize the particular skill of Critobulos, it seems that the latter was indeed skillful in handling a special instrument for removal of arrows, called the "spoon

of Diokles” (Fig. 1), invented by the ancient physician of that name. This instrument assisted in the removal of the arrow without damaging the surrounding tissues.^{24,25,33} After careful cleaning of the trauma, Critoboulos must have applied various herbal drugs, fortunately having some anti-inflammatory properties, known from Homeric times and described in the Hippocratic book “On Wounds.”³⁰ Obviously, with this treatment, Philip survived.

Archaeological Finds

The best known and most reliable depiction of Philip is that found in the Royal Tomb II at Vergina and identified by Professor M. Andronicos.³ This is an ivory statuette of the head of Philip (Fig. 2), found together with many others of royal family members, such as one of Alexander the Great, and constituted one of Andronicos’s strongest arguments that this is Philip’s tomb.²⁹



Fig. 1. A sketch of the spoon of Diokles and its use. This was possibly used by Critobulus for the extraction of the arrow. The physician endeavored to insert the point of the arrow into the hole of this instrument and then pull it out without causing further damage to the tissues.

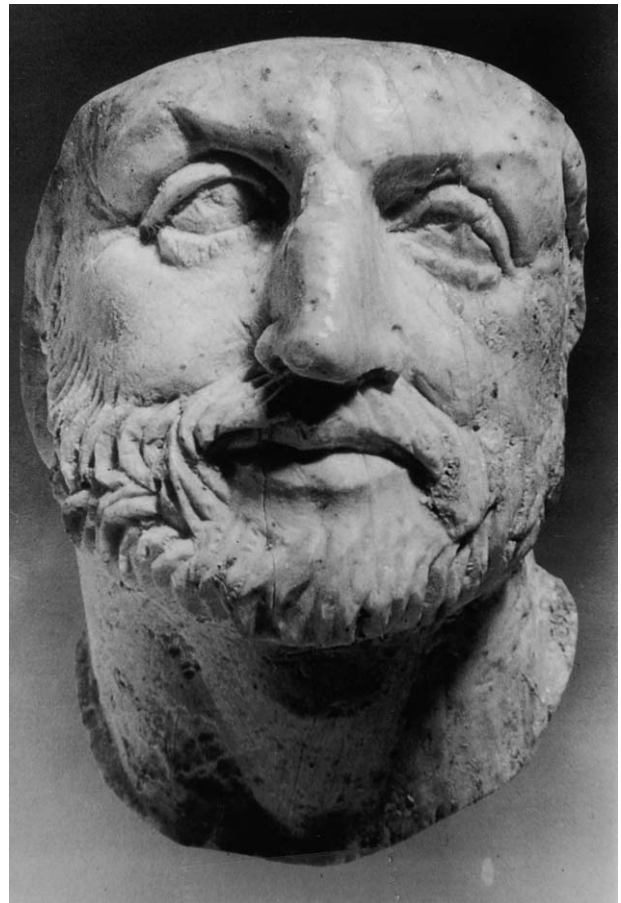


Fig. 2. The ivory statuette of Philip found in his supposed Tomb II at Vergina by Prof. Andronicos. The nick in his right eyebrow and the vacant look are apparent. (The seeming defects of the left eye are due to erosion of the ivory.)

The statuette strikingly and realistically presents Philip’s eye wound. A vertical scar transverses the right eyebrow and at the same time the right eye is atrophic, apparently with no light perception.³ This head leaves no doubt that it belongs to Philip because there is a lift of the outer corners of the eyebrows, a personal characteristic of Philip. In addition, a slight inclination of the head, together with a slight asymmetry of the cheeks and the eyes deep-seated in their sockets, is similar to the characteristics of his son, Alexander.^{3,20,27–29}

The wound of Philip is also depicted in other representations. The Head of Copenhagen (Fig. 3), a realistic marble copy of a prototype from the 4th century CE, made in the age of Trajan, also clearly shows a distinct nick in the upper corner of the right eyebrow and the characteristic raising of the eyebrow corners.

A coin (c. 354–350 BCE) found in the Greek town of Capsa, depicting Philip in right profile, presents a scar like a crescent moon between the lower and upper eyelids, near the external canthus, supposed to be a deliberate indication of the injury by the engraver.

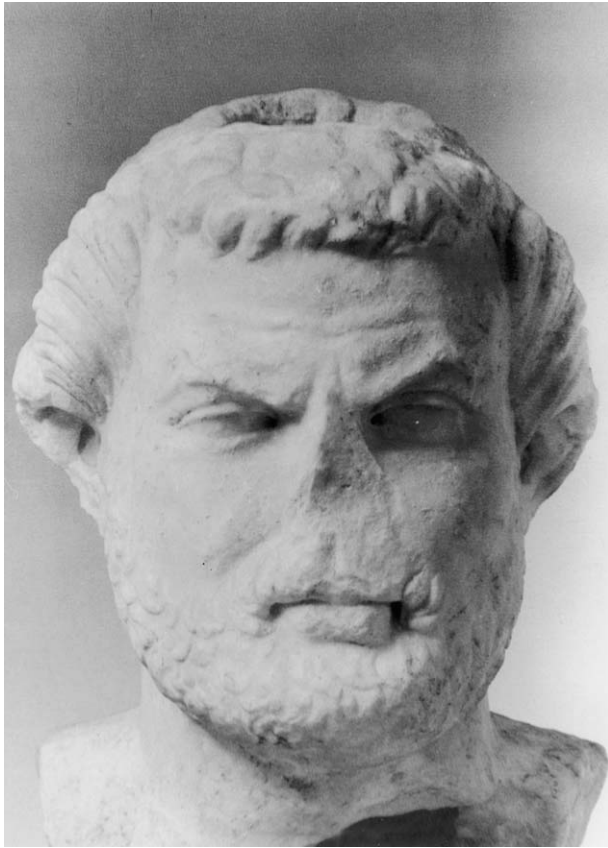


Fig. 3. A realistic marble head of King Philip (Ny Carlsberg Glyptothek, Copenhagen).

Some archaeologists have maintained that the Head of Philip of the Hellenistic period, preserved in the Field Museum of Chicago, depicts artistically the phthisis of the bulb as a complete vacuum of the right orbit and the wound with traces of injuries to the external canthus. More recent research, however, indicates that the probability is that damaged material in this area gives a false impression.^{20,27-29}

Paleopathological Findings

In the supposed tomb of Philip in Vergina were found remnants of a cremation which Prof. Andronikos and his collaborators identified as the bones of Philip because the burial resembled that of Homeric heroes of the *Iliad*, Achilles and Hector: the bones after cremation being wrapped in a purple piece of material, later placed in a gold larnax (a kind of urn). Alexander, as an admirer of those heroes, would have arranged such a burial for his father.³ However, Prof. Andronikos' identification of Philip's tomb was mainly based on the historically known eye injury to the king's right eye.

According to the thorough studies carried out by the anatomist Jonathan Musgrave of Bristol University, the Manchester archaeologist John Prag, and

medical artist Richard Neave,²⁷⁻²⁹ there is a marked nick in the middle of the supraorbital margin of the right orbit which was due to an injury during the lifetime of Philip, as can be deduced from a small but distinct poroma—like a pimple of the frontal bone—which can be palpated (Fig. 4). The gap on the right supraorbital margin in all likelihood was due to the injury and, on cremation, possibly extended. There are also indications of a more significant fracture with traces of healing. Musgrave and Neave suppose that a small piece of bone from both the right zygomatic bone and the maxilla, where they meet at zygomaxillare, was removed after an injury during his life. This indicates that perhaps Critobulus removed it. The porosis of the bones at two injured points, namely in the supraorbital margin and in the zygomatico-maxillary suture, in all probability at the same time, suggest that the injury occurred a number of years before the death of the king and accords with the information about his injury, eighteen years before death, at Methoni.²⁷⁻²⁹

According to the British researchers, the wound was caused by a "heavy Cretan missile" striking from above, and the historical sources describing it as very heavy thus appear reliable if Philip was wearing a helmet similar to the one discovered in the Tomb II of Vergina (Fig. 5). The arrow could have passed through the side of the helmet, but perhaps it glanced off it, being deflected so as to wound less violently. As a result, Philip's death was avoided but not the loss of his right eye and the ugly scar to the

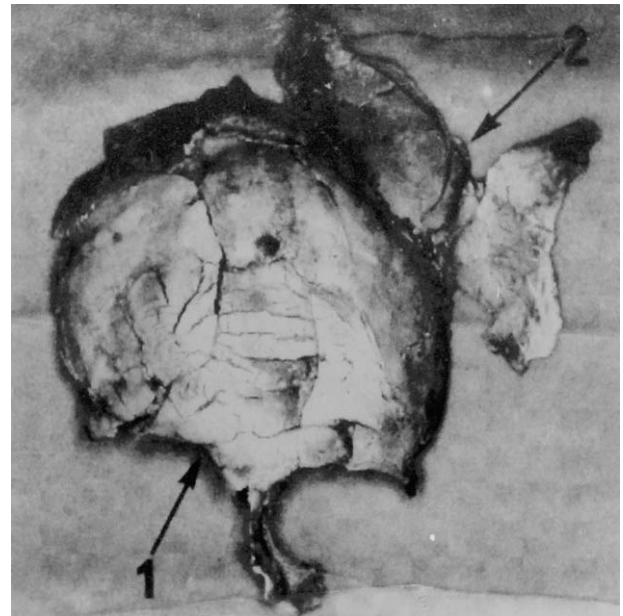


Fig. 4. Frontal bone from Vergina, Tomb II. Arrow 1 = trace of missile wound; 2 = portions of left parietal and temporal bones twisted through 90° around axis of coronal suture, due to the cremation.



Fig. 5. Iron Macedonian helmet found in the Tomb at Vergina.

area. The blow caused the rupture to the eyeball, blindness, and the scarring of the area of the right eye due to delayed healing, despite all the efforts of his physician.^{27–29}

The identification of the bones in Tomb II at Vergina as those of King Philip is held to be the most likely because no other Macedonian king fits the combination of circumstances of the burial of a male between 35 and 55 years old in the third quarter of the 4th century BCE, as defined by archaeologists.²⁹

However, more recent paleopathologic reexamination of the bones³ using macrophotography with proper magnification did not provide evidence of wound injuries, leading to the conclusion that the bone lesions are simply normal anatomical features or were due to cremation. This report suggests that the bones belong to Alexander's half-brother Philip III Arrhidaeus, who had ruled for six years after Alexander's death and was murdered in 317 BCE, a hypothesis which puzzled some archaeologists immediately after the pronouncement of Andronicos's theory.^{23,37}

This opinion conflicts with the dating, and the astonishing richness, of the unique artifacts found in the tomb (gold larnax and crown, gold-ivory shield, iron thorax and helmet, etc.) which are not compatible with the unwarlike and mentally retarded Arrhidaeus. Bartsiokas⁴ has maintained that these paraphernalia belong personally to Alexander the Great, being at some time transferred to Macedonia from his tomb in Alexandria. This hypothesis—although fascinating—is considered extreme and unproved by many archaeologists, and by Musgrave, who insists that his examination showed signs of healed wounds. He supports the view that in the period between his and Bartsiokas' examination the condition of the bones may have degraded.¹⁹

This controversial clash between anthropologists and archaeologists leaves its solution to be found in the future. Until then, Andronicos' theory seems to have value and predominance in the arguments.

In conclusion, the fact is that Philip II of Macedonia, a generous king and military leader, was seriously wounded in his right eye during the siege of Methoni. Literary sources confirm this wound and his psychological reactions, and archaeological, and perhaps paleopathological, evidence provides a clear picture of this.

References

1. Adler A (ed): *Suidae Lexicon*, Vol. 3, Lipsiae, B.G. Teubner, 1933, p 30
2. Andronicos M: *Philip King of Macedon*. Athens, Ekdotike Athenon, 1992, pp 36–47
3. Andronicos M: *Vergina. The Royal Tombs*. Athens, Ekdotike Athenon, 1993, pp 117–75
4. Bartsiokas A: The eye injury of King Philip II and the skeletal evidence from the Royal Tomb II at Vergina. *Science* 288:511–4, 2000
5. Dils MR (ed): *Scholia Demosthenica*, Vol 1. Leipzig, B.G. Teubner, 1983, pp 88, 215
6. Hartle Wyman R: The search for Alexander's portrait, in Lindsay Adams W, Borza EN (eds): *Philip II, Alexander the Great and the Macedonian Heritage*. New York, University Press of America, 1982, pp 153–76
7. Heinemann W (ed): *Demosthenes*, Vol 2. Cambridge, The Loeb Classical Library, 1953, pp 58–61
8. Heinemann W (ed): *The geography of Strabo*, Vol 3. Cambridge, The Loeb Classical Library, 1954, pp 344–5
9. Heinemann W (ed): *Athenaeus. The Deipnosophists*, Vol 3. Cambridge, The Loeb Classical Library, 1957, pp 120–8
10. Heinemann W (ed): *Lucian*, Vol 6. Cambridge, The Loeb Classical Library, 1959, pp 52–3
11. Heinemann W (ed): *The geography of Strabo*, Vol 4. Cambridge, The Loeb Classical Library, 1961, pp 176–7
12. Heinemann W (ed): *Plutarch's moralia*, Vol 4. Cambridge, The Loeb Classical Library, 1962, pp 268–71, 384–409
13. Heinemann W (ed): *Pliny Natural History*, Vol 2. Cambridge, The Loeb Classical Library, 1969, pp 588–9
14. Heinemann W (ed): *Diodorus of Sicily*, Vol 7. Cambridge, The Loeb Classical Library, 1971, pp 332–3
15. Henry R (ed): *Photius Bibliothèque*, Tom 3. Paris, Les Belles Lettres, 1962, p 58
16. Holton D: *The Tale of Alexander. The Rhymed Version*. Salonica, Byzantine and Neohellenic Library, 1974, pp 37–40

17. Ieep I (ed): *Iustinus Trogi Pompei Historiarum Philippicarum*. Lipsiae, B.G. Teubner, 1862, pp 54–5
18. Kanellopoulos P: The personality of Alexander the Great, in Christopoulos J (ed): *History of Hellenic Nation*, Vol 4. Athens, Ekdotike Athenon, 1973, pp 10–25
19. Koenig R: Is Alexander the Great's father missing, too? *Science* 288:411, 2000
20. Lascaratos J: Alexander the Great. Two more recent historical and medical views on the King of Macedonia. Athens, J and J Hellas, 1995, pp 95–104
21. Lascaratos J: Alexander the Great in the fields of medicine. Athens, J and J Hellas, 1997, pp 54–106
22. Lascaratos J: "Eyes" on the thrones: imperial ophthalmologic nicknames. *Surv Ophthalmol* 44:73–8, 1999
23. Lehmann Williams P: The so-called tomb of Philip II; a different interpretation. *Am J Archaeol* 84:527–31, 1980
24. Meyer-Steineg T: *Chirurgische Instrumente des Altertums*. Jena, G. Fischer, 1912, pp 26–7
25. Milne JS: *Surgical instruments in Greek and Roman times*. Chicago, Ares Publishers, 1976, p 142
26. Pearson L, Stephens S: *Didymi in Demosthenem commenta*. Stuttgartiae, B.G. Teubner, 1983, pp 45–7
27. Prag AJNW, Musgrave JH, Neave RAH: The skull from Tomb II at Vergina: King Philip II of Macedon. *J Hellenic Studies* 104:60–78, 1984
28. Prag AJNW: Reconstructing King Philip II: The "nice" version. *Am J Archaeol* 94:237–47, 1990
29. Prag AJNW: Reconstructing the skull of Philip of Macedon, in Daniën EC (ed): *The World of Philip and Alexander*. Philadelphia, PA, The University Museum of Archaeology and Anthropology, 1990, pp 17–37
30. Purnaropoulos G, Emmanuel K: *Hippocrates, All his Works*. Athens, Martinos, 1973, pp 496–519
31. Riginos Swift A: The wounding of Philip II of Macedon: fact and fabrication. *J Hellenic Studies* 114:103–19, 1994
32. Roberts Rhys W: *Demetrius on style*. Cambridge, Cambridge University Press, 1902, pp 200–3
33. Salazar CF: *The treatment of war wounds in Graeco-Roman antiquity*. Leiden, Brill, 2000, pp 49, 206
34. Schenkl H (ed): *Themistii orationes quae supersunt*. Berlin, B.G. Teubner, 1971, pp 77–8
35. Sternbach L: *Gnomologium Vaticanum e Codice Vaticano Graeco 743*. Berlin, W. de Gruyter, 1963, p 195
36. Valk van der M (ed): *Eustathii Archiepiscopi Thessalonicensis commentarii ad Homeri Iliadem*, Vol 1. Lugduni Bavorum, Brill, 1971, p 512
37. Xirotiris NI, Langenscheidt F: The cremations from the Royal Macedonian tombs of Vergina. *Achaological Newspaper* 1981:142–60, 1983

The authors wish to thank Dr. Jonathan Musgrave and Mr. John Prag for their kind permission to republish their photo of the frontal bone of Tomb II, Vergina.

Reprint address: Dr John Lascaratos, MD, PhD, 164b Hippocratous Str., 11471 Athens, Greece.