Alexander and the Medicine*

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ABSTRACT During the expedition and campaign across Asia, Alexander and his army had been involved in a lot of circumstances that deserved the attention of some professionals of the medicine. The relationship between Alexander's army and the Physicians is complex, and it is also a question to observe if there were in the army something like a medical unit. Nevertheless, the links between the Argeads and the practice of healing and medical arts and the professionals of medicine seems to have been usual in the Macedonian court. So, Alexander's episodes concerning his illness, and especially his abilities to heal or to help someone to be healed can be considered as a clue of the king's connections with Asclepius, and even more, of Alexander's use of this links to portrait himself as a healer, and in some way even as an incarnation of Asclepios, in his own way to divinization.

KEYWORDS Medicine; Asclepius; physicians; Medical unit; Asian campaign; Alexander the Great; King as healer; Argeads.

In Antiquity, nothing was left to chance in a military campaign, where soldiers shared space with a long list of members of the entourage of the generals, such as philosophers, artists, seers, physicians… But along with these, there were other figures like assistants, bartenders, prostitutes, wheelwrights, squires, sons/daughters and women of soldiers, and so on, *ad infinitum*. We can guess that the non-combatant collective in a military expedition would be equal or superior in number to that of the soldiers[1]. The organization of these groups of people, nevertheless, was not included among the usual information offered by the Ancient sources[2], which were more interested in explaining

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[1] The question is difficult to quantify: ENGELS 1978, 11ff.

[2] Despite SALAZAR 2013, 297 who defends that, concerning Alexander's wounds and the military Medical treatment in Greece,"the historians writing about Alexander the Great (in particular Plutarch, Arrian and Quintus Curtius), who often present his life in Homeric terms, form another group of important authors. Alexander was wounded several times, and some of the descriptions go into great detail about his wounds and their treatment". In our opinion, this is a judgemnt lacked of rigour, that does not agree with the difficulties of analyzing this subject in detail, as is our aim in this paper. Likewise, the

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aspects like tactics before battle, ethnic composition of the armies, the generals' skills, etc. In fact, our sources tend to focus their attention on everything related with the combat, and just silence from what we can consider the normal details of the daily life[3].

Alexander's campaign cannot be compared with any other driven by the Greeks in Asia. In a business of such a magnitude like that, with so many troops, the non-combatant group gains major importance, although the sources left them in the shadow in their accounts[4]. So, the list of non-combatants involved in the campaign also allows us to identify, in the account by our sources, a long list of groups: sappers[5], fortune-tellers[6], philosophers, sophists and poets[7], historians (like Callisthenes himself)[8], and many other intellectuals and flatterers, who made Alexander's banquets and evenings more pleasant, and also worked on tasks of research and documentation in the lands of Asia[9].

Of the less attractive duties, we can also detect the presence of a group of assistants as bartenders (in the army of Alexander: Curt. 8.4; in the army of Darius III: Curt. 5.8.5), merchants, ensuring the supplies of the army (i.e. Arr. *An.* 6.22.4)[10], athletes[11], spies, or explorers (i.e. Arr. *An.* 4.1), interpreters (i.e. Arr. *An.* 4.6; Curt. 5.13.7), cooks and pastry chefs (Plu. *Alex.* 22), massage therapists, room helpers and maids (Plu. *Alex.* 40), courtesans[12], foragers (Arr. *An.* 4.5.5), mercenaries and their families (Diod. 17.84.3), or even the families the Macedonian soldiers produced with their concubines during the expedition[13]. This huge collective of non-combatants was also increasing its number while the expedition crossed Asia, probably undermining the army's mobility.

short bibliography of SALAZAR 2013, 310-311 shows the complexity and the lack of information about this topic.

[3] Xen. *HG*. 4.8.1. cf. PRITCHETT 1999, 153.

[4] About the military approaches to Alexander's campaign, FULLER 1958 is still helpful. Nevertheless, there are good recent works like MILES 1976; MARKLE 1982; STRAUSS 2003 and the great work of SEKUNDA 2010. On the other hand, MORENO 2012, despite focused in Philip II, is also useful due to the bibliography and the full treatment of the study cases and the problematic of the Macedonian army. Also, see LONSDALE 2007.

[5] For exemple, during the siege of Tyre: Diod. 17.41.4; Curt. 4.2.12; Arr. *An.* 2.19.6. On Alexander's sieges, see ANTELA-BERNÁRDEZ 2012, 77-134, with bibliography. Likewise, BOSWORTH 2003a, 241.

[6] The best known was Aristander of Telmissos. On his relationship with Alexander, see HAMILTON 1969, 4; HECKEL 2006, 45-46 and FLOWER 2008, 179-181.

[7] A great number of artists, philosophers and scientists followed Alexander: Faure 1982, 65-66. On the other hand, this kind of company, intellectuals who accompanied the king during the banquets and dinners, where an usual feature in the Argead court: TOMLISON 1970; FAURE 1982, 207-208; BORZA 1983; MURRAY 1996; KOTARIDI 2004; CARNEY 2007; ZARAGOZÀ – ANTELA-BERNÁRDEZ 2018. The presence of intellectuals also became a key element in the Hellenistic courts: SMITH 1993, 202-212.

[8] BOSWORTH 1970; PRANDI 1985; BOSWORTH 2003b, 72-74.

[9] There is an academic tradition considering the expedition as a scientific exploration of Asia: ROMM 1989; BODSON 1991; ALVAR 2000, with bibliography.

[10] To these we must add those in charge of the management and purchase of the salves and captives (PRITCHETT 1971, 89-92), and so the Royal agents who dealt with markets suplies for the troop: Arist. *Oec.* 2,34a.38, and the comments by LE RIDER 2003, 305-309.

[11] There is a lot of examples (i.e. Curt. 9.7.16), being Dioxippus the most famous: Curt. 9.7.1.6-26; Diod. 17.100.1-101.6, Ael. *VH* 10.22. Cf. FAURE 1982, 67-68.

[12] For example, Diod. 17.72; Curt. 5. 7.2-3. We know well the great number of courtisans and prostitutes in Alexander's campaign, like the Atheian Thais (Plu. *Alex.* 38; Diod. 17.72; Curt. 5.7.3–7), the Theassalian Campaspe or Pancaste (Plin. *NH* 35.86-87; Ael. *VH* 12.34), Pythionice and Glycera (Ath. 13.594d-595d),or the Thessalian Callixena (Ath 10.435a), to quote the main examples. On the matter of sexuality and the Macedonian campaign, FAURE 1982, 211. On the presence of prostitutes in Alexander's army, see ZARAGOZA 2018.

[13] This kind of practices would probably be widely accepted: Diod. 17.110.3; ANTELA-BERNÁRDEZ 2008, 319; ANTELA-BERNÁRDEZ 2015.

In consequence, the role of the medicine in this context would surely have been of major importance. Within Alexander's expedition, a physician had to attend not only the usual wounds resulting from battles and fights, but also the effects of insalubrity due to the mass of people; epidemics, maladies resulting from physical efforts and temporary shortages, etc. In some way, the health care needs in an expedition like that of Alexander may have been as urgent as in any *polis*. Of course, we must also add to this a relevant factor for the health of the people involved in the campaign, as was the arrival in unknown landscapes, which meant new diseases and the ignorance by the physicians of the plants and medicines that could help in their treatment[14].

The first aim of this paper is to analyse how the expedition of Alexander across Asia until the heart of India expanded the limits of the Greek medical knowledge, becoming a real challenge for the military physicians[15].

PHYSICIANS WITH ALEXANDER

As a starting point, we must place the mass of non-combatants in the Macedonian army. The military logistics and impedimenta meant that the usual places of the non-combatants were usually located in the rear-guard[16]. Does this means that the Medical staff were also within the impedimenta? This is, actually, what Aeneas Tacticus says (16.15), who recommended putting the wounded and sick, as an inoperative section of the army, at a cautious distance from their comrades or even in a camp. A confirmation of this practice can be found in the preface of the battle of Issus, when the sources indicate that the army of Darius, after developing a wrapping manoeuvre, surprised a group of Macedonian soldiers left behind due to suffering some sickness (Curt. 3.8.14; Arr. *An.* 2.7). Thus, the continuity of battles, skirmishes, sieges or the hard rigour of the marches provoked a rise in the number of soldiers who needed medical attention, which also meant a problem in the logistics of Alexander's army[17]. We also know about a soldier named Eurylochus who decided to enrol himself among the sick (Arr. *An.* 7.8.12; Plu. *Alex.* 41.5).

For our research, the case of Eurylochus provides us with information about the logistics of the wounded and sick in the army of Alexander. First, those sick or seriously wounded soldiers were moved away definitively from the military activity, with lists that regulate who had to be moved in any case. This meant at least some officers or administrators were in charge of these lists and these wounded/sick soldiers. Secondly, it seems that these lists were reviewed afterwards in order to avoid fakes or attempts of desertion. So, the military administration of the Macedonian army of Alexander marked differences between the soldiers with chances of recovery to combat, who were moved to the rear-guard, or were treated and healed in the camp, or even within some concrete spaces in the conquered cities[18], and the soldiers who became unable for service in the

[14] For India before Alexander, see BOSWORTH 1995, 27-44, with bibliography.
[15] Our aim is to offer a diferent approach that SALAZAR 2000, 184-208.
[16] Curt. 3.22; 4.12.3-4; *An.* 3.23.7; Plu. *Alex.* 43.
[17] The wounded were in the hundreds. A good example is provided by the siege of Halicarnasus, where the Macedonians suffered 300 casualties during a night exit of the besieged: Arr. *An.* 1.20.10.
[18] For exemple, as in the case of Issus, in Zariaspa (Sogdiana) or in Taxila: Arr. *An.* 4.16.6; 5.8.3. Bosworth 2003b, pp. 115-116 assures that "Alexander seems to have made it a practice to leave his sick troops in the satrapal capitals, to join the main army after their convalescence (cf. 3.19.8 (Cleitus)). Only officers of standing are mentioned by name, but troops of all ranks were included in the convalescence arrangements (5.8.3)". Another exemple is the case of Alexandria of Media, where the king founded a

army, who were repatriated or, in some cases, used in garrisons or as cleruchs for the conquered lands (as in the case of Sogdiana: Arr. *An.* 4.22.5). In some extreme cases, the wounded would even be abandoned to their own fate if they disturbed the movement of the army, such as in the Gedrosia desert[19].

If we now look at the basic health care of the wounded, we are again faced with the problems of the nature of our sources. We cannot find specific information about who attend the sick or wounded, or even about the possible existence of a 'physician's tent'[20]. Despite this lack of sources, we maintain that some kind of medical organisation would had existed, dealing with the serious cases and matters of the troops, leaving the superficial questions to the experience and care of each soldier to himself[21]. There may also have been some soldiers with knowledge of medical practice, close to the surgeons, capable of offering some kind of first aid, although our sources cannot confirm it.

However, in the expedition, there were physicians, whose work is recorded and valuated when they treated some personality within the army, as in the case of Alexander himself and his generals. Among these physicians, we know some of them by their name, as there are references in our sources. This is the case, for example, of Alexippus (Plu. *Alex.* 41.6), Andocides (Thphr. *HP* 4.16.6; Plin. *NH* 14.58; 17.240; Ath. 6.258b), Critobulus[22] (Curt. 9.5.25; Arr. *Ind.* 18.7), Dracon, the physician of Roxana, and his son Hippocrates (Suda *s.v.* 'Hippocrates'), the famous Philip of Acarnania (vid. *infra*), Glaucias/Glaukon (Plu. *Alex.* 72.2; Arr. *An.* 7.14.4), Pausanias (Plu. *Alex.* 41.7), or Polydorus of Theos (Ath. 12.548e). The problem, nevertheless, begins when we try to distinguish which of these names make reference to physicians and which of them were simple surgeons, as in the case of Critodemus (Plin. *NH.* 7.37), about whom our unique source describes him removing an arrow from the eye of Philip II during the siege of Metone.

Likewise, the Macedonian court seems to have given more attention to the physicians. This is, actually, what we can observe in cases like the patronage by Perdiccas II to the most famous physician of Antiquity, Hippocrates of Cos (Suda *s.v.* 'Hippocrates'). On the other hand, it seems probable that the Argeads had some kind of court physician (or physicians), as for example shown by the case of Nicomachus, the father of Aristotle[23], who had enjoyed a close friendship with the King Amintas III, father of Perdiccas II and Philip II (Diod. 5.1), although it is difficult to assess the existence of a unique physician in the court, as far as we hear about other names, like Menecrates (Ael. *VH.* 12.51), who may have shared the task of taking care of the health of the Macedonian royal family with Nicomachus.

city with 3000 barbarians and the mercenaries who wished to lived there : Diod. 17.83.2. See BOSWORTH 2003b, 142-143.

[19] Curt. 9.10.13. At the light of the account of Xen. *Ages.* 1.21, this practice was normal. See PRITCHETT 1971, 81-82.

[20] A military ἰατρεῖον/*iatreîon*. On this *iatreîon* see NISSEN 2010. The physician's tent in a military context of Antiquity is studied for the Roman period by SCARBOROUGH 1969, 71 and BAKER 2009, 31ff.

[21] We just know a case in Curtius (7.1.22-23) about the self Medical assistance by soldiers. Nevertheless, we do not agree with GABRIEL 2007, 141 and LEE 2008, 244, who defended the inexistence of sanitary assistance in the Greek armies.

[22] HECKEL 1981, 396-398, who defends a probable mistake in the transmission of the name of Critobulus for Critodemus.

[23] Many authors has linked Aristotle with Alexander's Medical interests: Plu. *Alex.* 41.7 and HAMILTON 1969, 108; Curt. 9.8.27.

Audacity and boldness in combat were Alexander's well-known abilities, causing, as a result, multiple injuries and other diseases[24]. It in these cases of Alexander's wounds that our sources mention the medical staff. We can consider here one of the most famous episodes of Alexander's life, the illness suffered in Cilicia[25]. Our sources explain how, on his way to Tyre, Alexander decided to take a bath in the icy waters of the Cidnus River[26]. Soon afterwards, the bath provoked a fever, insomnia and convulsions[27]. The physicians came to treat the King, fearing the possible consequences of a mistake in their treatment[28]. Among them, Philip of Acarnania, a person with close ties to the King, took the initiative, and resolved to prepare a medicine (φάρμᾰκον/*pharmakón*) which restored Alexander's health. However, the most interesting of this episode are the accusations of treason against Philip. The sources explain that, while Philip managed to prepare the medicine, Parmenio gave a letter to Alexander accusing Philip of being part of a plot against the Macedonian King. The letter assures that Philip was bribed by Darius III[29]. The supposed conspiracy was finally shown to be a fake, and Philip gained great fame among the troop due to his intervention, receiving numerous signs of gratitude[30], and to Alexander's fast recovery (Curt. 3.6.17).

Nevertheless, the sources do not explain the kind of malady suffered by Alexander[31], nor even the medicine used by Philip. According to Arrian, who follows Aristobulus here, the causes of this sickness are hard to say (with the fatigue[32], or the bath in cold waters, prevailing). On Philip's medicine, Arrian and Plutarch consider it as a purgative (Arr. *An.* 2.4.9; Plu. *Alex.* 19.4), and Curtius just says that Philip made a kind of healing beverage for the King (Curt. 3.6.3), an answer so close to that of Diodorus (Diod. 17.31.4-6). So, with this kind of poor information, we are not able to tell what kind of sickness Alexander suffered from, or what solution was offered to him by Philip[33], although what we can observe is that Philip seems a physician of Hippocratic profile, as none of our sources describes him trying to observe a divine origin for the illness, or dealing with any kind of religious treatment of purification[34]. Likewise, the relationship between Philip and the King after the Cidnus episode is confusing, since some sources describe him as a prestigious (Arr. *An.* 2.4.9; Plu. *Alex.* 19.4), or daring physician (Diod. 17.31.5), and others seem to date the close ties between them to a common past in Macedon (Curt. 3.6). So, despite the difficulties from our sources, we can guess that

[24] The wounds of Alexander were just a part of the buiding of an heroic image by Alexander: SALAZAR 2000, 184ff..

[25] VERGES 1951, 73 corrects that it was not actually in Cilicia, but in the Troad, in a region which had been inhabited by the Cilicians: Str. 13.7.

[26] Xen. *An.* 1.2.23; Str. 14.5.12 C673; Val. Max. 3.8 ext 6. Cf. HECKEL – YARDLEY 1997, 128.

[27] This bath is maybe linked with an information in Polyaenus about the Macedonian prohibition of using hot water for bathing. *Strat.* 4.2.1. BOSWORTH 2003a, 190-191 does not mention Polyaenus. The bath appears also in Diod. 17.31.4; Curt. 3.4.8-10; Arr. *An.* 2.4.7; Plu. *Alex.* 19. About the therapeutic uses of baths in Hippocatic Medicine, see Str. 14.5.12, Plin. *NH* 31.11, Vitr. 8.3.6 (cf. BOSWORTH 2003a, 191), JOUANNA 1999, 168-169.

[28] A good exemple of this could be the case of Glaukon: see *infra*.

[29] *An.* 2.4.9; Curt. 3.6.4; Plu. *Alex.* 19.5. Diodorus (17.31.4) does not mention the letter. Iustin. 11.8.5 is the unique who puts Parmenio outside the scene: HECKEL – YARDLEY 1997, 129.

[30] VERGES 1951, 84.

[31] ENGELS 1978 assures it was malaria, while SCHACHERMEYR 1973, 202 and GREEN 1974, 220 argued it was a pneumonia. The sources does not allow us, in our opinion, to argue what illness exactly was.

[32] Aristobulus seems to be the unique source about this: BOSWORTH 2003a, 190.

[33] We agree here with SALAZAR 2000, 190-191.

[34] A usual feature of the *iatrómanteis*: GIL 2004, 119.

Philip was one of Alexander's court physicians, or at least one who was close to the royal house[35].

The truth is, actually, that we do not know very much about Philip, and after the Cidnus episode, the sources set him aside. We just hear about him clearly on another occasion, as in the siege of Gaza[36]. The account of this siege is marked in the sources by Aristander's prediction that the King would be wounded if he took part in the assault (Curt. 4.6.12; *An.* 2.26.4; Plu. *Alex.* 25.5). Alexander finally decided to attack himself, and then he was wounded by an arrow, and only Curtius (4.6.12) says that Alexander was treated by Philip, who removed the arrow and made an incision to allow the blood to flow. This kind of tasks by a physician is really close to the traditional uses of the military physicians in the Ancient world, that is to say, extraction of arrows, bandage of wounds, treatment of fractures and dislocations, etc. However, the rest of the accounts about the wound of Alexander in Gaza does not specify the treatment or any other kind of medical care. In any case, Philip vanishes from our sources definitively and the medical assistance is mentioned by our sources just in isolated cases where a main character needed the help of a physician. A good example of it is recorded by Plutarch, on Alexander's worries about the health of some of his generals and friends:

> "After Peucestas had safely recovered from an illness, Alexander wrote to the physician, Alexippus, expressing his thanks. While Craterus was sick, Alexander had a vision in his sleep, whereupon he himself offered certain sacrifices for the recovery of his friend, and bade him also a sacrifice. He also wrote to Pausanias, the physician, who wished to administer hellebore to Craterus, partly expressing distress, and partly advising him how to use the medicine".
> (Plu. *Alex.* 41.3-4. Translation by PERRIN 1919).

This passage shows the existence of an active health care within the highest officers of the Macedonian army. As we can see, the physician appears to palliate the effects of some accident or sickness difficult to cure, and disappears in the cases when their patients are a lot and of low rank[37]. Indeed, this does not mean that the health service was just limited to the members of the Macedonian high command, but the task of the physician is noted by our sources when the health of the personalities is in danger. Again, a singular situation happened to Alexander in India, in the battles against the Malians, where the King suffered a serious wound by an arrow[38]. The sources show a series of multiple information about the episode, but almost in every one of them the account noted the task of a physician. In Arrian, we read different versions: in one

[35] Also BOSWORTH 2003a, 191 and HECKEL 2006, 213-214. Some discussion exists about the duties of these physicians and their role within the army, or if they were expected to fought in batles and so. HECKEL – YARDLEY 1997, 129 are not quite convinced of these physicians' military duties. *Contra*, BOSWORTH 2003a, 191. In our opinion, these physicians were not probably in the battlefront, as the case of Perdiccas in the siege of Thebes and received treatmen in the rearguard: Arr. *An.* 1.8.1-3. But it seems actually possible that the physicians should also develop their duties within the ranks of the phalanx, if we consider the case of Critodemus and the eye of Philip II or the wounds of Alexander against the Malians: Arr. *An.* 6.11.

[36] Although somebody named Philip was present in Babylon during the party organized by Medias, (Ps.Call. 3.31), it is doubtful to identify him with Philip the physician: HECKEL – YARDLEY 1997, 129. On the other hand, Hamilton 1969, loc. cit quotes the suggestion by Berve, who argued that maybe we know nothing more about Philip because he decided to stay and lived in the Middle East, as a part of a contingent leaved in a city or in the rearguard of Alexander's advance. HECKEL – YARDLEY says Berve's suggestion is unlikely.

[37] On this, but for the Roman period, see SCARBOROUGH 1969, 68.

[38] BOSWORTH 2003c.

version, we find Critodemus of Cos extracting the weapon, and in another one it was Perdiccas who treated Alexander, due to the difficulty to find a surgeon near where the incidents occurred (Arr. *An.* 6.11)[39]. Other accounts of the episode do not mention any physician (Diod. 17.99.5), while Plutarch says that someone, indefinite, extracted the arrow (a physician? Maybe even Perdiccas, as in Arrian?), and the King during some days had to follow a special diet for recovering from his wounds (Plu. *Alex.* 63.6), a fact that suggests some kind of prescriptions from a professional, i.e., a physician. In light of these details, we can understand that we are dealing here with Alexander and his health, and this is what attracts the attention of our sources to the medical staff in charge of the king's treatment. Likewise, the death of Hephaestion provides us with the story of his personal physician, Glaukon[40], who was at the theatre when Hephaestion was recovering from an illness. This recovery began to become complicated and finally Hephaestion died, provoking the wrath of Alexander, who ordered the physician to be crucified[41].

Despite this kind of eventualities, medical assistance was also of major importance during the many epidemics suffered during Alexander's expedition. The mass, the shortage, and the overcrowding of the huge amount of human beings produced the elements to enable epidemics to extend among the army and the non-combatant population enrolled in Alexander's campaign[42].

For example, after Gaugamela, Alexander decided to speed up the march of his army due to the worsening of the general healthiness caused by the decomposition of the corpses in the battlefield (Curt. 5.1.10)[43]. On another occasion, during the prosecution of a group of Scythians, the army contracted an outbreak of diarrhoea caused by drinking polluted waters, and even Alexander himself was affected[44] (*An.* 4.4.8-9).

Also grievous, was the outbreak of mange suffered by the expedition in the lower course of the Indus River. Some soldiers had a bath in a salt lagoon, and the epidemic spread around, as such that the epidemic had to be treated with oil washes (Curt. 9.10). Likewise, in Gedrosia the ravages of shortage and famine, the fatigue of the march, and the insalubrity, promote the spreading of illness (Curt. 9.10.13; Arr. *An.* 6.25.4). Surely, the skills and expertise of the physicians of the expedition had been of major importance, although our sources say nothing about them, or their intervention.

However, the arrival of the expedition in India meant contact with a region known only indirectly by the Greeks and Macedonians[45]. The members of the expedition had to face natural phenomenon, named as supernatural: tides (Curt. 9.9.9), and the monsoon (Plu. *Alex.* 60.3); the sighting of unknown fauna, like elephants (Arr. *An.* 8.13), whales (Curt. 9.1.11), beasts of every kind (Diod. 17.92; Curt. 9.8). These elements fostered the discouragement of the army, driving them to decide not to continue with the march beyond the Indus (Arr. *An.* 5.27). In a similar situation, the arrival to these unknown landscapes meant, for the physicians, an exponential rise in the health problems, and a chance to document new phenomena and medicinal plants.

[39] Surgery's knowledge was probably common among the soldiers. Curt. 9.5.25 says Critodemus and not Critobulus: HECKEL 2006, 100. On this, see also HECKEL 1981.
[40] Glaucias, according to Arr. *An.* 7.14.4.
[41] Plu. *Alex.* 72 against Diod. 17.110.8.
[42] In Greek culture, the term that designed the shortage (λιμός/limós) is closely linked with the one used for epidemy (λοιμός/loimós). See DEMONT 1983, 343 and JOUANNA 2006, 197.
[43] Hp. *Flat.* 6; Hp. *Nat.Hom.* 9. See JOUANNA 1999, 151-152; DEMONT 1983; JOUANNA 2006; SIERRA 2012a, with bibliography.
[44] The epidemy, according to Arrian, also affected Alexander: BOSWORTH 2003b, 31.
[45] DUECK 2012, 38-39.

Again, our sources are not really interested about the medical questions, with the just one exception: the high menace of the snakes. The sources are unanimous about the fact that the main mortality factor in India was the snakes. Diodorus is probably the most explicit, when he writes about the troop's worries concerning the lethal danger of the snakes (Diod. 17.90.6). The frightened soldiers were driven to the need of sleeping in hammocks to save themselves from this danger, and how the snakes lay in wait to bite them even in the more usual daily tasks, like looking for firewood, when they saw horrible great-sized snakes[46] (Diod. 17.90; Curt. 9.1.4). The fear of this menace shocked the whole army, and the perplexity and ignorance of the physicians faced with this fact was, actually, very significant, as we can observe in Arrian:

> "No Greek physicians have discovered a remedy against Indian snake-bite; but the Indians themselves used to cure those who were struck. And Nearchus adds that Alexander had gathered about him Indians very skilled in physic, and orders were sent round the camp that anyone bitten by a snake was to report to the royal pavilion. But there are not many illnesses in India, since the seasons are more temperate than ours. If anyone is seriously ill, they would inform their wise men, and they were thought to use the divine help to cure what could be cured".
> (Arr. *An.* 8.15.11. Translation by ROBSON 1933).

This passage has two questions that deserve more comment. Firstly, the medical research concerning the poison of the snakes, and secondly the response from the leader facing a health problem like this. The assessment by Arrina is surprising as regards the unsuccessful research to find a medicine against the poison, especially if we have in mind what Arrian wrote five centuries later[47]. Secondly, we are probably facing an example of an *iatreîon* created *ad hoc* to solve a specific health problem. So, this question reinforces our impression about the existence of an administrative way to solve primary health care in the army of Alexander. Thus, the health problems of the expedition in India were grievous, if we consider the huge amount of medicines coming from Greece (Diod. 17.95.4-5).

But the native population not only know well the way to avoid the venom, but also they used it in the battlefield, coating their arms (arrows and swords) with it and provoking several casualties among the Macedonians[48]. In one of these skirmishes, Ptolemy was wounded, and this fact is used by Curtius to explain his legend of the Alexander's dream (Curt. 9.8.22). Curtius says that Alexander obtained the medicine for Ptolemy due to the apparition, while Alexander was dreaming of a dragon (snake) that has a herb in its mouth (Curt. 9.8.27)[49]. However, Arrian indicates that the Indian physicians knew the medicine, and Diodorus confirms it, adding that it was in fact a root (Diod. 17.90.6). Legends apart, it seems obvious that in an ecosystem completely unknown to the Greek physicians, pragmatism drove Alexander to count on Indian physicians to help the troops with primary assistance and health care.

To sum up, it seems that the introduction of the physicians within the ancient armies was a main turning point in the campaign of Alexander. Nevertheless, we are unable to describe here any kind of integrated health care, due in part to what our sources want to explain, but we can document the presence of physicians and medical knowledge. In consequence, we can assure the existence of a minimum, double-sided, health care: one

[46] Diod. 17.90.1; Arr. *An.* 8.15.10.
[47] Roman medicine was familiar to Snake poisons: NUTTON 2004, 159; LASKARIS 2005, 176.
[48] MAYOR 2009, 89.
[49] GIL 2004, 352ff.; NUTTON 2004, 42.

group of physicians, surgeons or soldiers with knowledge and experience in the care of wounds, and another different group of professionals who were in charge of the health care of the King and his generals and relatives. If the latter also dealt with the most grievous diseases of the soldiers, we cannot tell, but it is possible that it actually happened if the operational skills of the army were at risk[50]. This is what we can actually deduce from the episode of the Indian snakes and the incorporation of Indian physicians into the army.

Finally, Alexander's campaigns were a real challenge for the strong Greek medical tradition. During the 'Anabasis', Greek physicians were forced to deal with a lot of situations they probably knew well, but they also had to face, in India and other places, circumstances that meant a hard test to their knowledge. We can be sure that the Macedonian expedition had a deep impact on Greek medicine, and especially, in military medicine. Actually, the newest works from the Hippocratic Corpus we can find recommendations for the physicians to take part in military expeditions to far lands to gain experience in military medicine and surgery (*Med.* 14)[51].

THE PHYSICIAN ALEXANDER

There is no need to read much in Plutarch's *Life of Alexander* to find the first information about Alexander's relationship with the medicine:

> "In my opinion Alexander's love of the art of healing was inculcated in him by Aristotle pre-eminently. For he was not only fond of the theory of medicine, but actually came to the aid of his friends when they were sick, and prescribed for them certain treatments and regimens, as one can gather from his letters".
> (Plu. *Alex.* 8. 1. Translation by PERRIN 1919).

Aristotle's influence in Alexander's intellectual interests are, actually, very plausible. Also, Aristotle's interest in medicine is well-known, mainly due to his father Nicomachus, the court physician of Amintas III of Macedon (D. L. 5. 1)[52]. Plutarch's aim here is to emphasize the fact that Alexander was above the standards for an educated man of his age in his love and interest for the medical knowledge (τὸ φιλιατρεῖν Ἀλεξάνδρῳ)[53]. Furthermore, Plutarch stress the fact that Alexander did not only learn theoretical rudiments, but he also practised the art of medicine and, in our opinion, this distinction is made to show the difference between the King and the rest of Greek cultivated men whose general education (*paideía*) included medical knowledge[54].

> "Physician' means both the ordinary practitioner, and the master of the craft, and thirdly, the man who has studied medicine as part of his general education （for in almost all the arts there are some such students, and we assign the right of judgement just as much to cultivated amateurs as to experts)".
> (Arist. *Pol.* 1282a. Translation by RACKHAM 1944).

[50] SALAZAR 2004, 72.
[51] JOUANNA 1988, 10-17; LOPEZ FÉREZ 1988, 27.
[52] LONGRIGG 1993: 149ff..; LLOYD 2003: 176-201; NUTTON 2004: 118ff.; BOUDON-MILLOT 2005; VAN DER EIJK 2005, 234ff.
[53] LUCHNER 2004: 190.
[54] JAEGER 1933, 783-829; HORSTMASHOFF 2010.

So, the man with medical knowledge (ὁ πεπαιδευμένος ρεπὶ τὴν τέχνην) was not really a physician[55]. We also know that some works within the Hippocratic Corpus were addressed to a wider public, not actually with a great level of medical expertise, and even some researchers argued that there are works in the Corpus which were probably not written by the physicians themselves, but by sophists[56]. All these lead us to the well-known relationship between Rhetoric and Medicine[57].

In consequence, and having in mind that Alexander had, according to Plutarch, real medical knowledge, we cannot be surprised by the fact that our sources placed Alexander in the leading role of some therapeutic actions or suggesting medical/hygienic measures. For example, in Diodorus we find an interesting detail concerning the foundation of Alexandria in Egypt. According to Diodorus, Alexander took an active part in the foundation of the city. Among the measures, Alexander is worried about the orientation of the streets (Diod. 17, 64). The planimetry was conceived to allow the Etesian winds, refreshing the city in order to achieve a healthy environment for the citizens. This fact must be linked with the information we can find in *On Airs, Waters and Places*, from the Hippocratic Corpus, which shows the interest of Hippocratic medicine on the influence of the environment and the orientation in the space that cities can have on the human beings (*Aër.* 1). According to this work, the physician should have knowledge of the influence over the health of humans (*Aër.* 2)[58]. This kind of knowledge of the living conditions developed by the Hippocratic medicine was incorporated into the Greek military culture with notable interest, as we can observe in a passage from the *Cyropedia*:

> If you are going to stay for some time in the same neighbourhood, you must not neglect to find a healthy location for your camp; and with proper attention you cannot fail in this. For people are continually talking about unhealthy localities and localities that are healthy; and you may find clear witnesses to either in the physique and complexion of the inhabitants;
> (X. *Cvr.* I. 6. 16. Translation by MILLER 1914).

This passage and its links with *Aër.* 2, shed some light on Alexander's works for Alexandria's orientation. Actually, this is not an isolated case, since as far as we can see after Gaugamela, when Alexander ordered to leave the place in order to avoid the decomposition of the corpses in the battlefield, which resulted in a pollution in the environment and helped in propagating an epidemic outbreak (D.S. XVII. 64. 3; Curt. V. 1. 10). The decision is a clear evidence of the application in the field of hygienic measures fundamental in the Hippocratic Corpus. Indeed, pollution (*miasma*), a well-known topic in the studies of the Greek religious medicine, was adopted by the Hippocratic thought to mean 'air contamination', as an agent that helps in the transmission of disease. We can find the basis of this in *Flat.* 5, where the author assures that air is the source of every sickness, especially when it is circulated full of pollution, and was harmful for the health (*Flat.* 6)[59]. So, questions like the orientation of the cities

[55] Even Galenus, who was not from a family of physicians, began as amateur (πεπαιδευμένος): IERACI BIO 1991, 134.
[56] JOUANNA 1984, 28-32; JOUANNA 1988, 10-17; LOPEZ FÉREZ 1988; NUTTON 2004, 50; more cases in SIERRA 2012b, 13-16.
[57] *VM* 20. See LONGRIGG 1993, 93; RODRÍGUEZ-ALFAGEME 1997, 155; JOUANNA 1999, 82-83; BARTON 2005, 41 ff.; AGARWALLA 2010, 74 ff.; JAEGER 1933, 792-793 and SIERRA 2012c: 94-96.
[58] A similar assesment can be found in Arist. *Pol.* 1327b 23-33. See JOUANNA 1999, 14 ff.; SIERRA 2012d, 52ff.
[59] A similar idea in Th. II. 48. See JOUANNA 2012; DEMONT 2013.

and military encampments, and concerns about the health standards of air and the prevention of epidemic outbreaks are clues of Alexander's medical knowledge, and how he made practical use of them.

On other occasions, the medical knowledge of the Macedonians were shown as a result of particular cases. In general, the sources of Alexander stress, the worries of the King when he noticed some sickness in his close friends, generals and relatives. In these cases, Alexander used to write to the physician with practical recommendations and comments, even detailing drugs and other medicines. Plutarch, for example, says that in the course of a hunt, Peucestas suffered an attack by a bear, and was convalescent for some days (Plu. *Alex.* 41.4). After his recovery, Alexander himself wrote a letter to Peucestas' physician, Alexippus, congratulating him for his work. During another hunting incident, Craterus was injured in his thigh, and his physician Pausanias wanted to provide him with hellebores, when he received a letter from Alexander recommending how to do so. On other occasion, Arrian says that Alexander himself showed his criticism with the physicians who had to treat him. This was what actually happened during the episode of Alexander's sickness after his bath in the icy waters of the Cidnus River, in Cilicia. What Arrian suggests here, is that Alexander accepted to drink the medicine Philip from Acarnania offered to him not just because he trusted the physician, but also because he agreed with the treatment and the suitability of the medicine in this case (Arr. *An.* II. 4. 8), once again stressing the high level of Alexander's medical knowledge[60].

All these episodes showed us the expertise of Alexander about Hippocratic medicine, as we saw in Plutarch (*Alex.* 8). Sometimes, this knowledge was general, allowing Alexander to decide about healthy places for windows and cities or the warnings due to an epidemic danger after the battle, and sometimes it was a more technical and precise knowledge, like when he recommended a treatment or a drug, like the Hellebores. Nevertheless, gradually the sources seem to confer Alexander with new medical skills, as we can see as far as the expedition gets close to unknown landscapes to the Greeks, like Bactria or India. This process is parallel to the transformation of Alexander himself, who progressively gains divine issues due to the magnification of his deeds and achievements[61]. In this process of assimilation with the divine, and even divinisation, of Alexander we are interested here in how it affected his medical knowledge. Indeed, a little detail into Craterus' recovery, under the eye of Pausanias the physician, claims our attention. Beyond the recommendations to the physician, it seems that Alexander took part in the recovery of Craterus by other means:

> "While Craterus was sick, Alexander had a vision in his sleep, whereupon he offered certain sacrifices himself for the recovery of his friend, and bade him also sacrifice".
> (Plu. *Alex*. 41. 3. Translation by PERRIN 1919).

This passage drives us to the religious aspect of the Greek medicine. The case reminds us of the other oneiric examples we have already discussed, like in the case of the treatment of Ptolemy's poisoning by Indian snakes, although the episode is not clearly an example of the archaic nosology. Thus, we have no details here linking Craterus' sickness with the divine, but we can observe other typical issues of the archaic nosology: the cathartic actions and a sort of *incubatio* by Alexander worked as nexus

[60] Other perspectives in Diod. 17.31.6; Plu. *Alex.* 19; Curt 3. 6.
[61] ANTELA-BERNÁRDEZ 2007, *passim*; ANTELA-BERNÁRDEZ 2016, with bibliography.

between the human and the divine. In this passage, when Alexander says to his friend what kind of sacrifices he has to make in order to get a better recovery, we can consider that our sources are talking about the existence of a pollution (*míasma*), contracted by Craterus, that needs to be expiated (*kátharsis*). The plain description does not allow us to know what kind of fault Craterus was responsible for, or the name of the divinity he offended. We just know that Alexander had a vision (ὄψις/*ópsis*) telling him what sacrifices were needed to restore his friend's health. This role of the King as nexus between the human sphere and the divine can be understood as a symptom of Alexander's progressive divinization.

We can also observe how this tendency is emphasised during a medical emergency in India. The Indian snakes' poison was, as we already saw, a serious danger. Our sources stress the high mortality resulted from this, as well as the Greek physician's inability to find a solution (Arr. *An.* VIII. 15. 11; Curt. IX. 1. 12; Diod. XVII. 90. 6)[62]. There were also the problem of the poisoned weapons by the Indians[63]. Although Arrian talks about the inclusion of Indian physicians as an answer (Arr. *An.* VIII. 15. 11), Diodorus and Curtius points out that it was Alexander himself who took the responsibility of solving the situation, identifying the medicine to neutralise the poison. The version provided by Curtius is, actually, more extensive. He explicitly says that Ptolemy was wounded by a poisoned arrow, so Alexander, worried about his friend, assisted him beside Ptolemy's bed when he became sleepy:

> "For when Alexander, wearied by fighting and by anxiety, had taken his place beside Ptolemy, he ordered a bed for himself to sleep on to be brought in. As soon as he lay down upon it, he immediately fell into a profound sleep. When he awoke, he said that in a dream a serpent had appeared to him, carrying an herb in its mouth, which it had indicated to be a cure for the poison; and the king declared too that he would recognize the colour of the herb if anyone could find it. Then, when it was found -for it was sought by many at the same time- he placed it upon the wound; and immediately the pain ceased and within a short time the wound was scabbed over".
> (Curt. IX. 8. 27. Translation by ROLFE 1946).

This is a clear description of an *incubatio*, and suggests a mythical animal, a dragon (snake?), who revealed a plant to Alexander as the cure[64]. Alexander remembered so vividly that he could even recognize the medicine without the help of an adviser, so he supplanted the character of the archaic *iatrómantis*. So, this case shows an obvious connection between the human sphere and the divine in Alexander, who adopts a sacred position in front of his army. Actually, it is interesting to note that Alexander decided this way to show his troops the cure for the snakes' poison, maybe with a propagandistic aim, and avoid other ways of explaining how he knew the medicine, like his medical knowledge or such.

On the other hand, Diodorus also records this episode, with a snake instead of a dragon, and a more detailed description of the pathology of those affected by the poison (Diod. 17.103.5), but again, like in Curtius, the answer to this situation came from Alexander's dream, although he is also more explicit in explaining the use of the medicine:

[62] ANTELA-BERNÁRDEZ – SIERRA 2016.
[63] MAYOR 2009: 89.
[64] Recently, BARBARA 2014: 63 also defends this therapeutic action as an *incubatio*.

> "The king saw a vision in his sleep. It seemed to him that a snake appeared carrying a plant in its mouth, and showed him its nature and efficacy and the place where it grew. When Alexander awoke, he sought out the plant, and grinding it up, plastered it on Ptolemy's body. He also prepared an infusion of the plant and gave Ptolemy a drink of it. This restored him to health".
> (Diod. XVII. 103. 8. Translation by OLDFATHER 1963).

Thus, the account by Curtius and Diodorus are not the same, but very similar, stressing, in both cases, that Alexander gathered in his own person the features of the *iatrómantis* and the *iatrós*, a rare fact in Greek literature[65].

To sum up, we can perceive an evolution in the medical skills and knowledge of Alexander as long as the expedition went on. Indeed, it seems like the medical thinking during the expedition suffered a kind of archaizing process, mixing up pragmatic situations with elements that belonged to the religious medicine, like the *incubatio*.

The climax of this can be found in the well-known episode of the death of Hephaestion[66]. Again, the sources offer an unequal treatment of the details. Diodorus says that Hephaestion died near Ecbatana due to heavy drinking (Diod. XVII. 110. 8), while Plutarch (*Alex.* 72) writes that the real cause of death was that Hephaestion ignored his physician's advice, and after a copious meal, he died. Glaukon the physician was crucified as a result of Alexander's wrath[67]. Arrian is more critical with the different versions about it (*An.* 7.14.3), but he also writes about Glaukon's death and Alexander's argued outrage:

> "Others tell us that he bade the temple of Asclepius at Ecbatana be razed to the ground -a barbaric order, and not in Alexander's way at all; but more suitable to Xerxes' insolence towards things divine and harmonizing with those fetters which they say Xerxes let down into the Hellespont, with the notion of punishing the Hellespont".
> (Arr. *An.* VII. 14. 5. Translation by ROBSON 1933).

Although Arrian had doubts about some versions, he also approved another one where Alexander met a group of Greek ambassadors from Epidaurus and he asked them to bring his offerings to the god, and a note where he condemned Asclepius' behaviour concerning Hephaestion's death (*An.* 7.14.6). Likewise, in both cases we find a furious Alexander who does not hesitate in denouncing or even in considering making some reprisals against Asclepius for not helping his friend or saving his life. Thus, Alexander shows here that he feels an equal to the god, at the same level of him, and allowed to demand explanations from him. This is not a behaviour a Greek would accept, and he probably wants to criticise Alexander as the new Great King, also probably assimilating him with other impious Persian monarchs like Xerxes, to quote the best example. But we are probably also witnessing a process of evolution by Alexander, from a military leader with a high level of medical knowledge to a visionary in close connection with the gods, receiving advice and dreams with miraculous medicines and even received reprisal from the gods.

[65] Empedocles is probably the best example for mixing a *iatrómantis* and a physician: D. L. VIII. 60-66. More examples can be found in JOUANNA 1999: 262-265.
[66] HAMMOND 1993, 295.
[67] On this fact, see the views of LUCHNER 2004, 192.

ASCLEPIUS AND ALEXANDER'S DIVINISATION

In the light of the information we have collected, our aim is to suggest the existence of a process of assimilation between Alexander and the god Asclepius. This assimilation, framed within the usual method of Alexander in relation to many other mythical characters of the Greek culture, seems to follow the same system used in the case of the main characters of the heroic-divine assimilation by Alexander[68], which usually began with a specific episode where the aim of Alexander to be linked with a god or a hero is revealed, although this process always keeps a close link with the tradition and the mythical origins of the Argead's genealogy. This is also the case in the assimilation with Asclepius, where the starting point can be located in the famous bath of Alexander in the Cidnus River. The episode can also be viewed as a type of imitation and heroic assimilation. Thus, the place where these occurred cannot be accidental, as the Cidnus River is strongly linked to the cult of Asclepius, and an important medical school existed in the city[69]. It is surprising, in some way, that the cure of Alexander came from a physician from Acarnania, Philip, and not a physician from Cidnus, and we can have an interesting conclusion about it. In fact, we cannot forget the main role that the sons of Amphiaraus had in Acarnania in the diffusion of the cult of Asclepius, at least in Athens. On the other hand, the presence of Philip, the Acarnanian, brings us directly to Philip II of Macedon's authority over Acarnania during the period before Alexander, and also, to Olympias of Epirus, whose probable links with Asclepius deserve more attention, as we shall see later. The bath of Alexander also does not seem an accidental fact, and although the episode occurred in the icy waters of the Cidnus (Plu. *Alex.* 19. 1; Arr. *An.* II. 4. 7.)[70]. We must consider it as very similar to the bath of Zeus in the Lusius River, traditionally remembered as the coldest river of the world, which provoked an illness in Zeus, and the need of Zeus to be treated by Asclepius himself (Paus. VIII. 28. 2).

The healing of Alexander was, therefore, linked with a probable, calculated purpose. To the scientific resemblance of the whole episode of Philip of Acarnania's treatment, in the episode we can also contrast it with the transition between the human and the divine, usual in Alexander's procedures for self-representation and heroisation. Thus, by means of the sickness, but especially by the healing, Alexander becomes ostensibly closer to Asclepius. In fact, in Greek religious medicine, during the treatment, there was the belief that the sick received the god himself in their body, even developing some physical likeness to the god[71]. As a recovered patient, Alexander himself had been also transformed in some way into Asclepius.

However, the links between the kings of Macedonia and the cult of Asclepius were probably older. In fact, we know about the treatment and healing of Perdiccas II by Hippocrates, in a clear and intense figuration of Asclepius[72]. Also, Philip II had showed a strong interest in the Macedonian cult of Asclepius when he conceded eponimity to the priests of Asclepius in some cities of the realm[73]. Likewise, epigraphy also shows

[68] ANTELA-BERNÁRDEZ 2007, 90-102.
[69] THIVEL 1981.
[70] Alexander was not unique in history to suffer the cold waters of the Cidnus. In 833, Califa Al-Ma'mun died due to a bath like that of Alexander.
[71] FRICHER 1982, 270.
[72] Text avaliable in *Vita Hippocratis secundum*, in *Soranum Sorani Gynaeciorum Libri* IV, *CMG* IV, 175-178. It is also recorded in PINAULT 1992: 127-128. Also, PINAULT 1992, 74-75; JOUANNA 2000, 512.
[73] HATZOPOULOS 1996, I, 193-194, 384.

how popular the cult of Asclepius was in Macedonia, if we consider the dedications from many Macedonian cities in Epidaurus around 360/59 BC[74], or the evidence of parties and dedications to Asclepius in Macedonia itself[75]. Nevertheless, the cult of Asclepius was probably mixed at some time, probably due to the always dangerous *interpretatio graeca* of our sources, with that of Darron, a god of Macedonian origin with presence in Pella[76].

Back to Alexander, the truth is that his relationship with Asclepius would probably have a lot of facets. First, we cannot dismiss that the snake usually related with Olympias from Epirus was, in fact, not just related with Dionysus, as Plutarch says, but also with Asclepius and his snake relative, Glykon (Plu. *Alex.* 2.6)[77]. Actually, Dionysus and Asclepius were strongly linked[78]. One of the genealogies of Asclepius, which consider him a son of Arsinoe, connects Asclepius with the Heraclids, and as a result, he can also be viewed as an ancestor of the Argeads, i.e. of Alexander himself. Not in vain, this reasoning had been used by Alexander in the assimilation of Achilles, Heracles or Dionysus. Worthy of mention is also the fact that, like Heracles and Achilles, Asclepius was a human in the beginning. Thus, his presence in the *Iliad* (*Il.* II. 729; IV. 194) as a military physician of the Achaeans, would probably have granted him a wide fame among the members of the Macedonian court, due to the strong traces of the Mycenaean culture in the Macedonian society[79].

We have also noted that Heracles, to whom Alexander planned a well-known assimilation, had some, traditionally omitted curative facets in the Greek world[80]. Due to this curative aspect of his cult, Heracles also received a cult in Epidaurus, the main sanctuary of Asclepius. As a matter of fact, it was in the Peloponnese where we can document better a kind of representation of Asclepius as beardless (Paus II. 10. 3; II. 13. 5; II. 32. 4; VIII. 28. 1), an issue that again brings us back to Alexander and his iconography[81], strongly linked also with Dionysus. In this context, we must mention here the dedication by Alexander of his spear and his cuirass to the sanctuary of Asclepius in Gortin (Arcadia)[82], recorded by Pausanias (8.28.1)[83]. Pausanias also clearly stresses the specific beardless aspect of the statue of the god in this sanctuary[84].

Born man like Alexander, Asclepius gained his divine status due to his deeds and excellence (Arist. *Pol.* 1284a13). No doubt, this feature of the god was present in the aim of Alexander's assimilation with him, as happened in the case of Heracles. Like in the other cases, Alexander's transition to becoming Asclepius himself drove him from a medical praxis of treatment to even the mystical skills for healing.

[74] *IG* IV 1^2, 94b. Also, MARI 2011, 462. We know too some tribes in diferent Macedonian cities with the name of Asclepius: *IG* X^2 1, 183; 1, 265; 2, 112.
[75] LEMERLE 1935, 140, #41; *SEG* 39: 619.
[76] *SEG* 44: 546.
[77] HAMILTON 1999, 4-5. Olympias was not the unique Queen of Epirus linked with the cult of Asclepius in the sphere of fertility: Andromaca, aunt of Olympias and wife of Arybbas of Epirus, visited Epidaurus in an attempt to become pregnant. Cf. CARNEY 2006, 14. About the relationship between Philip and Arybbas, see HAMILTON 1999, 2-3.
[78] Por ejemplo, NOVILLO-CORBALAN 2014, esp. 134.
[79] On the influence of the Homeric and Mycenean world in Macedonia, see COHEN 1995; CARLIER 2000; ETIENNE 2002: 258-260; WARDLE – WARDLE – WARDLE 2003, *passim*.
[80] Philostr. *VA* 8.7.9; Paus. 2.32.4; *IG* V, 1119.
[81] ALONSO TRONCOSO 2010; ANTELA-BERNÁRDEZ 2005, 168-215.
[82] Vid. ANTELA-BERNÁRDEZ 2018.
[83] Cf. GABALDON 2004, 65-66, with bibliography about the sanctuary.
[84] On the dedication of Alexander in Gortina, see ANTELA-BERNÁRDEZ 2018.

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