FOOD SUPPLY ISSUES DURING THE CIRCUMNAVIGATION OF AFRICA BY PHOENICIANS UNDER NECHOS II

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Abstract: Herodotus tells us that the three-year Phoenician expedition around Africa sent by the pharaoh Nechos II towards 600 BCE halted at each autumn so as to till the soil and sailed again after the harvest. Modern scholars usually argue the Phoenicians halted twice, once in austral Africa and once in boreal Africa, but they do not take into account the extreme backwardness of austral Africa at that time, when it was still inhabited by Stone Age peoples. These peoples were not farmers, but hunters and gatherers, and therefore they were not able to provide food supply to the Phoenicians during their circumnavigation. The reliability of Herodotus' tale is really supported by the Phoenicians' stops aimed to till the soil because only at the south of equator they could have been forced to get food supply by themselves, whereas along the coasts of boreal Africa they could trade with natives without halting for months.

Keywords: Herodotus; Africa; Phoenicians; Nechos II; Stone Age Peoples.

Herodotus' report of the Phoenician expedition sent out by Nechos II to circumnavigate Africa around 600 BCE is quite succinct, entirely made of two notes that show us how much the extraordinary feat seem to have struck the historian from Halicarnassus.

> «For Libya shows clearly that it is bounded by the sea, except where it borders on Asia. Nechos king of Egypt first discovered this and made it known. When he had halted the excavation of the canal which leads from the Nile to the Arabian Gulf, he sent Phoenicians in ships, charging them to sail on their return voyage past the Pillars of Heracles till they should come into the northern sea and so to Egypt. So the Phoenicians set out from the Red Sea and sailed the southern sea; whenever autumn came they would put in and sow the land, to whatever part of Libya they might come, and there await the harvest; then, having gathered in the crop, they sailed on, so that after two years had passed, it was in the third that they rounded the Pillars of Heracles and came to Egypt. There they said (what some may believe but I do not) that in sailing round Libya they had the sun on the right hand».[1]

This entry by Herodotus was met with great interest in the 19th and at the opening of the 20th century,[2] but the following decades saw fewer studies and the concurrent solidification of theses formulated during

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1 Hdt. IV 42: Λιβύη μὲν γὰρ δηλοῖ αὐτὴ ἐοῦσα περίρρυτος, πλὴν ὅσον αὐτῆς πρὸς τὴν Ἀσίην οὐρίζει, Νεκῶ τοῦ Αἰγυπτίων βασιλέος πρώτου τῶν ἡμεῖς ἴδμεν καταδέξαντος, ὃς ἐπείτε τὴν διώρυχα ἐπαύσατο ὀρύσσων τὴν ἐκ τοῦ Νείλου διέχουσαν ἐς τὸν Ἀράβιον κόλπον, ἀπέπεμψε Φοίνικας ἄνδρας πλοίοισι, ἐντειλάμενος ἐς τὸ ὀπίσω δι' Ἡρακλέων στηλέων διεκπλέειν [ἕως] ἐς τὴν βορηίην θάλασσαν καὶ οὕτω ἐς Αἴγυπτον ἀπικνέεσθαι. Ὁρμηθέντες ὦν οἱ Φοίνικες ἐκ τῆς Ἐρυθρῆς θαλάσσης ἔπλεον τὴν νοτίην θάλασσαν· ὅκως δὲ γίνοιτο φθινόπωρον, προσσχόντες ἂν σπείρεσκον τὴν γῆν, ἵνα ἑκάστοτε τῆς Λιβύης πλέοντες γινοίατο, καὶ μένεσκον τὸν ἄμητον· θερίσαντες δ' ἂν τὸν σῖτον ἔπλεον, ὥστε δύο ἐτέων διεξελθόντων τρίτῳ ἔτεϊ κάμψαντες Ἡρακλέας στήλας ἀπίκοντο ἐς Αἴγυπτον. Καὶ ἔλεγον, ἐμοὶ μὲν οὐ πιστά, ἄλλῳ δέ [δή] τεῳ, ὡς περιπλέοντες τὴν Λιβύην τὸν ἥλιον ἔσχον ἐς τὰ δεξιά;.

2 Not only the abundant bibliography but also two famous forgeries crafted between the 19th and the beginning of the 20th century document the interest in this extraordinary undertaking. The first is the (supposedly) Phoenician inscription of Parahyba, found in 1872 in Brazil and now generally considered a forgery. Apparently based on Hdt. IV 42, it tells of the journey made by a Phoenician crew that set sails from the Red Sea to circumnavigate Africa and got separated from the rest of the fleet by a storm

the previous century and a half. Present day scholars have been particularly interested in the position of the sun mentioned in the text; many consider it proof that the circumnavigation actually happened, considering that the only way to have the sun on your right when looking west-south-west[3] is to be in the southern hemisphere. Herodotus looked at this information with the skepticism of a man familiar only with the Mediterranean Sea and, at most, with a few neighbouring seas. His knowledge was limited to the skies of the northern hemisphere and his understanding of the austral hemisphere was tiny at best; he described the upper regions of Africa, all south of Egypt, as lands of an endless summer,[4] thus revealing his ignorance of the cycle of seasons in the lands southern of the equator, where the cycle mirrors the one in the boreal hemisphere, just the other way around.[5] Herodotus acknowledges the historical authenticity of the Phoenician expedition that demonstrated that the African continent was, in fact, surrounded by water – something that Carthaginians[6] already knew – but doubted the detail of the sun being "on the right", meaning that he criticized not the event but the details that he considered the tall tales of sailors. Contrarily, four centuries later Strabo would deny the entire expedition,[7] judging it unbelievable.

If it is understandable that the unexpected location of the sun gained the attention of modern scholars, a second piece of information reported by Herodotus in the text deserves an in-depth analysis because, despite being considered proof of the contrary, it demonstrates the historicity of the circumnavigation of Africa. Herodotus learned of the feat accomplished by the Phoenicians during his stay in Egypt around 450 BCE, listening to Egyptian stories probably based on the report written by the Phoenicians themselves a century and a half before, after the successful conclusion of the expedition. That report surely contained more details about the feat, but Herodotus reports only the two that had to hit him the most because of their extraordinary characteristics. If the location of the sun is relevant, the stops made by the Phoenicians during their journey to sow and reap the harvest are unusual elements for an observer like Herodotus and therefore indicative of a peculiarity proper of the southern hemisphere. Herodotus shows no skepticism about this information, but the fact that he mentions it in his very concise summary of the expedition shows that he must have considered it at least a very peculiar detail.[8]

In considering this aspect we must keep in mind that, even when doubtful of their historicity,[9] sources concur in affirming the failure of the expeditions that tried to circumnavigate Africa starting from Gibraltar and the success of those that chose to set sails from the Red Sea. Euthymenes of Massalia in the 6th century BCE,[10] the Carthaginian Hanno around 500 BCE,[11] and the Persian Sataspes between 478 and 465

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that pushed them on the coasts of Brazil (for the translation see Gordon 1968, p. 78, which, however, considered the inscription authentic). For the research behind its authenticity see Amadasi Guzzo 1968, pp. 252-253. The second forgery is made of two Egyptian scarabs that appeared on the antiquarian market in 1906 bearing hieroglyphic characters narrating the same expedition (for the translation of the text see Petrie 1908, p. 484). Egyptologists of the caliber of Flinders Petrie and Adolf Erman initially deemed it authentic, but they later acknowledge they were dealing with a forgery specifically created by the late French egyptologist Urbain Bouriant (on this see Gertzen 2010).

3 See Ritter 1861, p. 32; Harden 1948, p. 146; Desanges 1978, pp. 11-12; Janni 1978, pp. 87-88; Mederos – Escribano 2004, pp. 141-142. *Contra* Webb 1907, pp. 10-13; Sieglin 1910, col. 698.

4 Hdt. II 26,1.

5 Herodotus (III 25,1; 114) believed Ethiopia to reach the farthest end of the Earth, going south.

6 Hdt. IV 43.

7 Strab. II 3,5, mistakes Nechos II with Darius I, confusing the expedition of Scylax of Caryanda, promoted by the Persian ruler (see Hdt. IV 44) with the one set up by Nechos a century earlier.

8 Against the veracity of this information provided by Herodotus, see Masson 1986, pp. 2-3.

9 Strab. II 3,4-5.

10 Sen. *Nat. Quaest.* IV 2,22; *FGrHist* 2207 F 2; 3b.

11 *FGrHist* 2208 F 1; Arr. *Ind.* XLIII 11-12; see Harden 1948; Jacob 1991, pp. 74-84; Branigan 1994, pp. 42-44; Giorgetti 2004, pp. 158-165; Roller 2006, pp. 26-27.

BCE[12] crossed the Pillars of Heracles, but failed to go beyond the Gulf of Guinea; towards 600 BCE,[13] the Phoenicians of pharaoh Nechos II succeeded in the undertaking by sailing from the Red Sea and returning through the Pillars of Heracles. The expedition of Eudoxus of Cyzicus, who at the end of the 2nd century BCE[14] would explore the coasts of Africa, deserves a separate analysis because sources do not agree about the veracity of this journey. Strabo reports that Eudoxus made three attempts, all failed, to circumnavigate Africa: the first time he was pushed by the winds as he returned from India towards Egypt, the other two he sailed from Cadiz in search of a route around the African continent towards India.[15] Pomponius Mela reports instead that Eudoxus succeeded in completing the circumnavigation sailing from the Arabian Gulf to Cadiz.[16] Between these two stories it is not easy to identify the historical facts. Mela is clear in affirming the success of Eudoxus' expedition, but his record is too concise to be accepted without reservations; Strabo's story is more extensive and apparently better documented, but wrestles with exegetical issues, mentioning three interrupted journeys following two different routes starting from the opposite ends of North Africa – the last two trips undertaken on the free initiative of Eudoxus, without a city or a sovereign to back it up. Moreover, Strabo himself expresses skepticism about the historicity of such expeditions.[17] Setting the matter aside for a moment, it is noteworthy that Pomponius Mela affirms the success of Eudoxus' circumnavigation of Africa along the east-west route, close to the one followed by the Phoenicians of Nechos II, while Strabo reports the failure of Eudoxus' journeys in both directions.

These statements matter because we now know that winds and currents of the Indian Ocean and of the Atlantic Ocean are generally favorable when navigating around Africa from east to west – therefore in a "clockwise" direction – presenting difficulties only in the last stretch between the Gulf of Guinea and the Strait of Gibraltar. From west to east – "anti-clockwise" direction – these circumstances are reversed, with winds favorable to navigation only up to the Gulf of Guinea and then unfavorable for the rest of the journey.[18] This observation confers a certain degree of credibility to the ancient reports, explaining why the expedition of the Phoenicians of Nechos II – and possibly that of Eudoxus of Cyzicus – have completed the circumnavigation of the continent (to the disbelief of Eratosthenes and Strabo) while those of Euthymenes, Hanno and Sataspes did not go beyond the coast of northwestern Africa, stopped by contrary winds that would have represented an almost insurmountable obstacle until the introduction of the caravel, with which in the 15th century the Portuguese would successfully descent the African west coast and reach the Cape of Good Hope.

The entry that says that the Phoenicians sent by Nechos II stopped at the beginning of autumn to sow and wait for the harvest before continuing the journey fed a certain skepticism among scholars. In fact, it was wondered how the Phoenicians were able to know the season suitable for sowing in the southern hemisphere and which grain they would use since they could not know the local varieties.[19] These objections, though, are not insurmountable, because although they ignored the specifics for agriculture south of the equator, the

12 Hdt. IV 43; see Klotz 1937, pp. 343-346. For the date of Sataspes's expedition, see Gsell 1915, pp. 239-240.

13 The expedition took place during the reign of Nechos II (610-595 BCE), more likely in its second half; see Gsell 1915, pp. 225-226; Mederos – Escribano 2004, p. 137.

14 The expedition by Eudoxus of Cyzicus took place under the reigns of Ptolemy VIII and Ptolemy IX, see Thiel 1939, p. 16; Laffranque 1963, pp. 206-208; Desanges 1978, pp. 152-153; El Houcine 2002, p. 106; Mederos – Escribano 2004, pp. 221-222.

15 Strab. II 3,4.

16 Pompon. III 79.

17 Strabo believed that Eudoxus' journey west-east had happened but was skeptical of the journey east-west reported by both Pomponius Mela and Pliny, which he considered an error due to the common original source, Cornelius Nepos. About Eudoxus' expeditions, see Amiotti 2004; Habicht 2013.

18 See Cary – Warmington 1929, p. 95; Nicolai 2005, pp. 156-157.

19 See Gosselin 1802, pp. 349-350; Gsell 1915, pp. 235-236; Proto – Beltrami 2004, p. 960.

Phoenicians could have adapt by direct observation, empirically establishing when it was time to sow during the austral autumn, the φθινόπωρον of which Herodotus speaks of and that cannot be considered the boreal autumn.[20] They also could have brought the seeds with them from Egypt.

Since Herodotus uses the iterative imperfect (σπείρεσκον), thus emphasizing the repetitive nature of sowing, scholars generally concur to two stops – the journey lasted overall three years. In the last two centuries many hypotheses have been advanced on the locations of these stops, identifying them in Mozambique and Guinea[21] or in Angola and Senegal,[22] or in South Africa and Morocco.[23] The common element in all these hypotheses[24] is the location of the first stop in the southern hemisphere and of the second in the northern one; many identify the first in South Africa and the second in Morocco, since it has been argued that the Phoenicians would stop where wheat would grow, therefore at latitudes not too close to the equator and with a climate closer to the Mediterranean.[25] Only Oscar Peschel hypothesized two stops south of the equator but did not support his thesis with facts, so it remained isolated.[26] Although we do not know on what premises he hypothesized it, the German geographer's thesis seems the most plausible and we will attempt to sustain it with corroborative elements that may support the historicity of the circumnavigation of Africa by the Phoenicians.

As already mentioned, Herodotus must have seen the stops as remarkable anomalies, if he thought it appropriate to mention them. Phoenician and Greek sailors used to stop in ports for replenishing water and food during their journeys,[27] whether it was the Mediterranean, neighboring seas, the Atlantic Ocean, the Red Sea or the Indian Ocean. A person whose experience was limited to the northern hemisphere – like the historian of Halicarnassus and his contemporaries – would wonder why the Phoenicians had to stop and cultivate the land personally, instead of trading for supplies in the ports encountered along the African coasts. To explain this detail we must take into account an aspect mostly overlooked in modern studies, namely the extreme backwardness of the populations of southern Africa compared to those of northern Africa and of the ancient Mediterranean. Crossing the equator, the Phoenicians sent by Nechos II entered a world completely unknown to them, inhabited by populations still immersed in the Stone Age: hunter-gatherer societies that did not master agriculture nor the domestication of animals. It was a completely new anthropological context, unknown in the Mediterranean area.

These indigenous people were the Khoisan, an ethnic group with specific physical, linguistic and cultural characteristics. Known to Europeans as Bushmen and Hottentots, the Khoisan had lived in southern Africa for thousands of years and were once widespread everywhere south of the equator. Later on the Bantu expansion would confine them to an area encompassing Angola, Namibia and South Africa. The Bantu, culturally and technologically more advanced agricultural society relying on domesticated species and iron technology, passed the equator and spread in southern Africa during the first millennium AD. In the 4th century they reached today's South Africa, where they settled in the eastern region of the country, overlook-

20 See Müller 1889, pp. 89-91; Gsell 1915, pp. 226-227; Cary – Warmington 1929, p. 92.

21 See Junker 1841, p. 367.

22 See Rennell 1802, pp. 695 and 701.

23 See Müller 1889, pp. 87-89; Cary – Warmington 1929, pp. 93-94.

24 For an overall perspective on the stops made by the Phoenician expedition, see Mederos – Escribano 2004, pp. 138-141.

25 See Mederos – Escribano 2004, p. 143.

26 See Peschel 1865, p. 18.

27 See Hom. *Od.* XIX 196-198. Disguised as Aethon, Odysseus says to have supplied food for the ships of the king of Ithaca during their stop in Crete. For the replenishing of food and water supplies on the journey see also Hom. *Od.* XV 415-416; 459-460. Plus, the treaties between Rome and Carthage in the 4th and 3rd century BCE included clauses that allowed both parties to restock water and food in areas controlled by the other. See Pol. III 24,7-11.

ing the Indian Ocean, leaving to the Khoisan the Cape, the region straddling the Indian Ocean and the Atlantic Ocean.[28] Since hunting and gathering mean a mere subsistence economy, surplus is minimal and only used to trade for basic goods, the Khoisan had little or nothing to offer to the Phoenicians. Therefore, it is not difficult to understand why, facing the impossibility to gather the necessary food supplies from the locals, the Phoenicians were forced to stop long enough to farm the land.

Important ancient testimonies match the picture outlined by modern anthropological studies on ancient Africa. The first is that of the so-called *Periplus of Hanno*, considered a Greek transcription of the report drawn up by Hanno himself and originally preserved in Carthage on a lost stele. The *Periplus* concludes by stating that Hanno's expedition sailed from the Pillars of Heracles towards the northwestern coast of Africa but could not continue due to the depletion of food supplies (οὐ γὰρ ἔτι ἐπλεύσαμεν προσωτέρω, τῶν σίτων ἡμᾶς ἐπιλιπόντων).[29] Though Hanno is likely to have encountered other obstacles such as headwinds and unfavorable currents,[30] this entry – also mentioned by the Roman geographer Pomponius Mela[31] – tells us that the Punic explorer met the same supply problems experienced by the Phoenicians. For reasons unknown to us, Hanno did not resort to farm his own sustenance during the journey but instead abandoned the enterprise. The second testimony – handed down by Pomponius Mela[32] – is that of Cornelius Nepos, for whom the expedition of Eudoxus of Cyzicus met during his journey extremely primitive populations defined *muti populi*, some of which expressed themselves only with nods of the head (*quibus pro eloquio nutus est*), while others were not able to utter a word (*alii sine sono linguae*), or did not have a tongue (*alii sine linguis*) or, finally, did not even have a mouth (*alii labris etiam cohaerentibus*). It is clear that the author indulges in exaggeration, even declaring that these indigenous people were unaware of fire (*sunt quibus ante adventum Eudoxi adeo ignotus ignis fuit*); his intent is to convey the portrait of societies so primitive to show them more as fantasies than reality. In keeping with the story of Nepos, past his *mirabilia*, there is Strabo's record of the first expedition of Eudoxus around Africa, the one that followed the east-west route – like the Phoenicians – and went beyond Ethiopia (ὑπὲρ τὴν Αἰθιοπίαν), here meant as black Africa in the broad sense and not limited to today's Ethiopia. In his journey, the Greek explorer came across local populations so primitive that they did not know bread and therefore able to offer, in exchange for such product, only water and local guides to continue the journey.[33]

In spite of Strabo's skepticism, the tale of the Eudoxus expedition "beyond Ethiopia", though not proven beyond all doubt, matches today's knowledge of the primitive condition of the populations not agriculture-based living in southern Africa in the first millennium BC. This anthropological divide between southern and northern Africa allows us to understand that the record of the Phoenicians stopping to farm the land for food supplies, considered unlikely by some modern studies,[34] should be seen as reliable exactly because of its singularity: it is actually more unlikely that is a complete invention. To support this thesis we should mention the testimony of the Portuguese crew of Vasco da Gama, who came across Khoisan people on his journey towards India and who, in the autumn of 1497, dubbed the Cape of Good Hope. An anony-

28 See Clark 1982, pp. 810-829; Reader 2001, pp. 157-158; Diamond 2006, p. 309. Bantu migrations brought to an end the Stone Age in austral Africa, skipping the Copper Age and the Bronze Age altogether and bringing those societies directly and drastically to the Iron Age. This was the result of an exogenous factor, the arrival of more advanced populations, not of the endogenous development constituted by the gradual development of the native populations; see Oliver 1978, pp. 374-376, 386-397.

29 *FGrHist* 2208 F 1; see Giorgetti 2004, pp. 160-161.

30 See Medas 2006, pp. 29-41.

31 III 79.

32 III 80. See Roller 2006, pp. 108-109.

33 Strab. II 3,4.

34 See Lloyd 1977, pp. 151-152.

mous reporter of the expedition reports in their travel diary (*roteiro da viagem*) that, on November 8th 1497, the fleet dropped anchor in Saint Helena Bay, in present-day South Africa, and remained there eight days to caulk the ships, establishing contacts with a neighbor indigenous village:

> «in this land there are dark men, who eat nothing but sea-wolves and whales and gazelles and roots; they cover themselves with skins and cover their private parts with girdles. [...] The next day fourteen or fifteen of them came here to our ships. The captain went ashore and showed them many goods to find out if any of those things exist in that land; it was cinnamon and cloves and beads of gold and other things. They understood nothing of those wares, like men who had never seen them, so the captain gave them rattles and tin rings. This happened on Friday, and the same happened again the following Saturday. On Sunday about forty or fifty of them came and we, after lunch, went down to meet them and exchanged *ceitils* [small copper coins] that we had for some shells that they wore on their ears and that seemed silvery, and fox tails that they carried tied to sticks and used to fan their face».[35]

The contacts between the Phoenicians and the southern natives were probably not very different from those reported by the Portuguese, and the difficulties experienced in obtaining supplies from them were probably the same as the ones encountered by Vasco da Gama when, on November 16th, 1497, they anchored in Mossel Bay and exchanged bracelets with a black ox that they proceeded to eat.[36] It was all that hunters could offer them, an occasional supply of meat on which, however, they could not rely on for the continuation of the journey. Leaving South Africa behind and climbing up the East African coast, on January 11th 1498 Vasco da Gama stopped at the mouth of the Delagoa River, in present-day Mozambique, whose inhabitants knew iron and offered millet soup[37] to da Gama's crew. On March 2nd, the Portuguese reached the city of Mozambique, where they finally found a market where they could stock up on fresh food.[38] As he approached the equator, the Portuguese explorer encountered populations more and more advanced with which he could trade to ensure the necessary supplies. Two thousand years earlier, the entire southern Africa was instead populated by Khoisan hunters and gatherers who did not know agriculture, stockbreeding and metallurgy. Once crossed the equator navigating south, the Phoenicians met only primitive populations like those described by the Portuguese in South Africa. Anthropologists explain that, for millennia, the equator represented an invisible barrier that prevented the spread of agriculture and stockbreeding in southern Africa, hampered by an equatorial climate unsuitable for boreal crops and by tropical diseases that decimated livestock;[39] this barrier was crossed only during the first millennium AD by the Bantu coming from the region on the border between today's states of Nigeria and Cameroon. This means that, when the Portuguese undertook the circumnavigation of the African continent, they faced the same issues that had hampered the Phoenician's expedition, but limited to the region of the Cape of Good Hope.

If the Phoenicians indeed stopped twice south of the equator one may wonder where exactly that was. The objection often raised that wheat is impossible to cultivate close to the equator, where the climate is too hot for cereals known to ancient Mediterranean populations,[40] does not take into consideration that, although the area more favorable is between the 25° and 40° parallels in the southern hemisphere, this cereal can grow almost at all latitudes in both hemispheres.[41] Given the ambiguity of the term *sitos* used by Hero-

35 *Roteiro* 1861, pp. 5-6.

36 *Roteiro* 1861, p. 11.

37 *Roteiro* 1861, pp. 21-22.

38 *Roteiro* 1861, pp. 23-26.

39 See Diamond 2006, p. 311.

40 See Webb 1907, pp. 8-9.

41 See Leonard – Martin 1963, p. 284.

dotus, meaning both wheat or barley as well as food in general,[42] we do not know exactly which cereal the Phoenicians sowed and harvested during their expedition, but what works for wheat also applies to barley,[43] the other cereal widely cultivated in ancient Mediterranean. Furthermore, it must be taken into account that the Phoenicians were not setting up colonies, for which they would have needed abundant and reliable local agricultural resources; that would have made the climate an almost insurmountable obstacle. They only had to feed themselves enough to endure their journey, so a small harvest of poor quality was enough. In other words, if the settlement of numerous communities required favorable agricultural conditions that no southern African population could offer nor benefit from before the Bantu migrations of the first millennium AD, the upkeep of the Phoenician crews sent by Nechos II could be satisfied by the modest harvests possible in those lands and climate conditions.

On these premises we can try to hypothesize where, in broad terms, these stops took place – without any pretense of really guessing the exact spots. The Phoenicians last gathered food supplies north of the equator in Somalia, the ancient Punt with which the Egyptians had kept commercial relations at least since the middle of the 2nd millennium BCE.[44] There, the Phoenician crews could buy food from local populations. Once past the equator, the descent along the East African coast was likely quick and free of nautical obstacles thanks to the favorable currents and to the north-east monsoon from India that blows up to the Cape of Good Hope[45] between October and April. It is probable that food supplies did not last all the way through the southern extremity of the African continent, making it impossible for the Phoenicians to reach the Cape in a single leg. Given the impossibility to procure food from the Khoisan natives, who at most could offer them some meat from their hunting activity, the Phoenicians then decided to stop, farm and wait for the harvest before the next leg of the journey. The first stop may have taken place between Tanzania and Mozambique, in the Sofala Bay, between the 15° and 25° parallel, or even in South Africa, in today's province of KwaZulu-Natal, between the 25° and 30° parallel. After the months necessary for the harvest, the Phoenicians took sails again during the austral summer, at the beginning of their second year of travel. They crossed the Cape of Good Hope and finally began the northbound leg of the journey along the Atlantic coast. There the Phoenicians found that even coastal Atlantic populations, like those encountered on the coasts of the Indian Ocean, did not practice agriculture and were, therefore, unable to assist them with food supplies. They then decided for a second stop, probably in today's Angola, between the 18° and 10° parallel, before passing the huge estuary of the Congo river. After the second austral winter and a new harvest, in the spring the Phoenicians sailed northwards and crossed the equator, thus returning in the northern hemisphere and meeting again with agriculture societies with whom they could trade for food supplies.[46] During the third year the expedition coasted north-western Africa, returned to the Mediterranean through the Pillars of Heracles and finally reached the Nile Delta, carrying out the mission entrusted to them by the pharaoh Nechos II. The sites indicated here for their stops are obviously entirely conjectural, but this reconstruction essentially aims to corroborate the times and the ways in which both stops could take place in the southern hemisphere, thus giving a more solid foundation to Oscar Peschel's claim.

42 See Chantraine 1968, *s.v.* σίτος; Frisk 1970, *s.v.* σίτος.

43 See Leonard – Martin 1963, pp. 483-484.

44 See Clark 1982, pp. 917-918.

45 See Müller 1889, pp. 66-67; Gsell 1915, pp. 226-227; 230-231; Proto – Beltrami 2004, pp. 970-971.

46 In the same book in which he describes the Phoenician expedition, Herodotus (4, 96) mentions the silent trade system in use on the coasts of Africa and used between Carthage and local populations. It was known in ancient boreal Africa and used by Egypt and Ethiopia in the 3rd century AD. See Philostr. *Vita Apoll.* VI 2. On silent trade see Parise 2000. Even the *Periplus* of Pseudo-Scylax mentions trade between Phoenicians and local populations of West Africa see *FGrHist* 2046, 112, 7.

It could be objected that placing both stops in the southern hemisphere would create an asymmetry among the three stages of the Phoenician expedition – the legs of the journey straddling the equator would be longer, the one in the southern hemisphere shorter – but one must account for the difficulty of crossing the Cape of Good Hope, which the Portuguese originally named Cape of Storms and only later received a more auspicious name. We cannot know how long it took the Phoenicians to double the Cape, but certainly it was not an easy feat, as it would not be later on for the Europeans despite their more advanced nautical technology. If we consider that to wait for harvest means waiting for months, limiting the time available for navigation between one stop and another, it does not seem at all unlikely that the Phoenicians stopped both times in the southern hemisphere. Once back in the boreal hemisphere the possibility to buy food from the natives shortened the trip. In other words, the Phoenician expedition was probably slower in the southern hemisphere, where on two occasions they had to stop, rather than in the northern hemisphere, where they could instead make much shorter stops, just the time to procure the necessary food and water from the natives.[47] The only obstacles at that point would be strong headwinds in the last stretch along the north-western African coast, the same winds that later would strike the more unlucky expeditions led by Euthymenes, Hanno and Sataspes, pushing them until the mouth of the Gulf of Guinea, but not making it impossible for them to return to the Mediterranean, probably with the help of oars.[48]

At the end of this short analysis one can finally ask why the Phoenician expedition around Africa remained an isolated feat in the ancient world to the point of creating doubts about its historicity. Herodotus does not explicitly defines the purpose of the mission set by Nechos II but he does establish a clear link between this expedition and the abandonment of the excavation of a canal between the Red Sea and the Nile (and therefore the Mediterranean).[49] The connection is certainly chronological, since the pharaoh ordered the expedition only after the excavation was suspended, but it is also logical, meaning that it was the failure of this project – the opening of the aforementioned canal – that directly led to the expedition. Herodotus' tale suggests that Nechos II set out to create a maritime link between the Red Sea and the Mediterranean by opening a channel that connected the two seas via the Nile, but had to abandon the project; that did not make him renounce the idea of navigating from the Red Sea to the Mediterranean, however, hence his order to explore the coasts of Africa in search of what we could call the "Southwest passage", a route that would allow ships to go from a sea to the other bypassing the obstacle represented by the Sinai peninsula.[50]

At the time the African continent was believed to be much shorter in the north-south direction than it actually is, fueling the hope that circumnavigating it would not be as long and difficult as to stop ships from sailing from an Egyptian port in the Red Sea and arrive in the Mediterranean through the Pillars of Heracles in a reasonable time. The Phoenician expedition revealed that the African continent was actually much more extended than previously thought, making the route too long and dangerous to be practicable. Plus, a large portion of the route touched such desolate lands and populations so primitive to offer no safe

47 Müller 1889, p. 89, hypothesized that the second stop took place in the Phoenician colonies on the northern coast of Africa that Strabo declares founded right after the fall of Troy (Strab. I 3). If so, they must have been quick stops, only long enough to trade for food supplies, with no necessity to farm the land directly. On the Phoenician colonies in northwestern Africa, archaeologically attested since the 7th century BC, see Aubet 1993, pp. 247-249.

48 For the presence of oars on the Phoenicians ships attempting the circumnavigation see Proto-Beltrami 2004, pp. 968-970.

49 A description of this canal is in Hdt. II 158-159. Herodotus writes – erroneously – that the excavation started under Nechos II but it was either Seth I or Ramesses II that begun it in the 13th century BCE (see Müller 1889, p. 25). It was later continued and then stopped by Persian king Darius the Great and in the end completed in the Ptolemaic period in the 3rd century BC: see Strab. XVII 1,25.

50 This answers the doubts raised by Bunbury (1879, pp. 295-296), whose skepticism was based in the lack of a proper goal for the Phoenician expedition, contrarily to the Portuguese who were looking for a route that would take them to India.

ports for provisions and food supplies, thus forcing both Nechos II and his successors to renounce the idea.[51] Trade reasons, sometimes evoked to explain the purpose of the Phoenician expedition,[52] may have played an important role, but limited to the western part of the Mediterranean shores, while the search for new markets along the African coasts may have played a marginal role against the more strictly exploratory purpose.[53]

The difficulties in providing food supplies encountered by the Phoenicians had to strike Herodotus because of the exotic element they lent to the expedition, setting it apart from the ordinary navigation in the Mediterranean and from other expeditions carried out in the northern hemisphere, which had not met populations so primitive to be unable to procure the necessary food supplies for the crews travelling along their coasts.

References

Amadasi Guzzo 1968 = M.G. Amadasi Guzzo, *Sull'autenticità del testo fenicio di Parahyba*, in «OrAnt» 7, 1968, pp. 245-261.

Amiotti 2004 = G. Amiotti, *La via dell'India: Eudosso di Cizico, precursore di Cristoforo Colombo?*, in «GeogrAnt» 13, 2004, pp. 112-116.

Aubet 1993 = M.E. Aubet, *The Phoenicians and the West. Politics, Colonies and Trade*, Cambridge 1993.

Branigan 1994 = C. Branigan, *The Circumnavigation of Africa*, in «Classics Ireland» 1, 1994, pp. 42-46.

Bunbury 1879 = E. Bunbury, *A History of the Ancient Geography*, I, New York 1879.

Cary – Warmington 1929 = M. Cary – E.H. Warmington, *The Ancient Explorers*, London 1929.

Chantraine 1968 = P. Chantraine, *Dictionnaire étymologique de la langue grecque. Histoire des mots*, Paris 1968.

Clark 1982 = D. Clark, *The Cambridge History of Africa*, I: *From the Earliest Times to c. 500 B.C.*, Cambridge 1982.

Desanges 1978 = J. Desanges, *Recherches sur les activités des Méditerranéens aux confins de l'Afrique (VI siècle avant J.-C.-IV^e siècle après J.-C.)*, Rome 1978.

Diamond 2006 = J. Diamond, *Armi, acciaio e malattie. Breve storia del mondo negli ultimi tredicimila anni*, Torino 2006 (or. ed. London 1998).

El Houcine 2002 = R. El Houcine, *Les périples de Poseidonius et d'Eudoxe de Cyzique et les contraintes de la navigation en Occident*, in M. Khanoussi – P. Ruggeri – C. Vismara (edd.), *L'Africa romana. Lo spazio marittimo del Mediterraneo occidentale: geografia storica ed economia. Atti del XIV convegno di studio* (Sassari, 7-10 dicembre 2000), Roma 2002, pp. 105-121.

FGrHist V = F. Jacoby, *Die Fragmente der griechischen Historiker*, V, *Die Geographen*, Leiden 2017.

Frisk 1970 = H. Frisk, *Griechisches Etymologisches Wörterbuch*, II, Heidelberg 1970.

Gertzen 2010 = T.L. Gertzen, *Der angebliche Bericht über die Umschiffung Afrikas*, in «ZÄS» 137, 2010, pp. 104-112.

Giorgetti 2004 = D. Giorgetti, *Il sole a destra. Scienza e tecnica nella geografia storica del mondo antico*, Sarzana 2004.

Gordon 1968 = C.H. Gordon, *The Authenticity of the Phoenician Text from Parahyba*, in «Orientalia» 37, 1968, pp. 75-80.

Gossellin 1802 = P.F.J. Gossellin, *Über die Kenntniss der Alten von der West- und Ostküste Afrikas und über die Umschiffung dieses Erdtheils*, in G.G. Bredow (ed.), *Untersuchungen über einzelne Gegenstände der alten Geschichte, Geographie und Chronologie*, Altona 1802, pp. 4-377.

51 Müller's thesis (Müller 1889, pp. 60-61) that the Phoenician expedition never happened because of the lack of contemporary written documentation – that exist for Hanno's periplus – feels too simplistic for two reasons: first, nothing says that a written narration of the event did not exist in ancient times, and second, the simple fact that Herodotus knew about it a century and a half after it happened hints at some form of written testimony of the expedition available in Egypt at the time.

52 See Müller 1889, p. 92.

53 Müller's hypothesis (Müller 1889, pp. 63-64) that the Phoenicians kept the route around Africa a secret fearing trade competition from other people seems thin, considering that we have no record of later expeditions to capitalize on the supposed economical monopoly.

Gsell 1915 = S. Gsell, *Textes rélatifs à l'histoire de l'Afrique du Nord. Hérodote*, Alger 1915.
Habicht 2013 = C. Habicht, *Eudoxus of Cyzicus and Ptolemaic Exploration of the Sea Route to India*, in K. Buraselis – M. Stefanou – D. Thompson (edd.), *The Ptolemies, the Sea and the Nile. Studies in Waterborne Power*, Cambridge 2013, pp. 197-206.
Harden 1948 = D.B. Harden, *The Phoenicians on the West Coast of Africa*, in «Antiquity» 22, 1948, pp. 141-150.
Jacob 1991 = C. Jacob, *Géographie et ethnographie en Grèce ancienne*, Paris 1991.
Janni 1978 = P. Janni, *Il sole a destra. Estrapolazione nella letteratura geografica antica e nei resoconti di viaggio*, in «SCO» 28, 1978, pp. 87-115.
Junker 1841 = P.J. Junker, *Die Umschiffung Libyens durch die Phöniker*, in «Neue Jahrbücher für Philologie und Paedagogik» suppl. 7, 1841, pp. 357-384.
Klotz 1937 = A. Klotz, *Die Fahrt des Persers Sataspes an der Westküste Afrikas*, in «Klio» 30, 1937, pp. 343-346.
Laffranque 1963 = M. Laffranque, *Poseidonius, Eudoxe de Cyzique et la circumnavigation de l'Afrique*, in «Revue Philosophique de la France et de l'Étranger» 153, 1963, pp. 199-223.
Leonard – Martin 1963 = W.H. Leonard – J.H. Martin, *Cereal Crops*, New York-London 1963.
Lloyd 1977 = A.B. Lloyd, *Necho and the Red Sea: Some Considerations*, in «JEA» 63, 1977, pp. 142-155.
Masson 1986 = J.R. Masson, *Geographical Knowledge and Maps of Southern Africa Before 1500 AD*, in «Terrae Incognitae» 18, 1986, pp. 1-20.
Medas 2006 = S. Medas, *"… Essendo finiti i viveri non navigammo oltre". Introduzione allo studio del Periplo di Annone*, Lugano 2006.
Mederos – Escribano 2004 = A. Mederos – G. Escribano, *El periplo africano del faraón Neco II*, in V. Peña – C.G. Wagner – A. Mederos (edd.), *La navegación fenicia. Tecnología naval y derroteros*, Madrid 2004, pp. 135-154.
Müller 1889 = W. Müller, *Die Umsegelung Afrikas durch phönizische Schiffer ums Jahr 600 v. Chr. Geb.*, Rathenau 1889.
Nicolai 2005 = R. Nicolai, *Neco, Sataspe e Annone: peripli fenici e persiani raccontati da Greci*, in S.F. Bondì – M. Vallozza (edd.), *Greci, Fenici, Romani: interazioni culturali nel Mediterraneo antico. Atti delle Giornate di Studio* (Viterbo, 28-29 maggio 2004), Viterbo 2005, pp. 155-172.
Oliver 1978 = R. Oliver, *The Emergence of Bantu Africa*, in J.D. Fage (ed.), *The Cambridge History of Africa*, II: *From c. 500 BC to 1050 AD*, Cambridge 1978, pp. 342-409.
Parise 2000 = N. Parise, *"Baratto silenzioso" fra Punici e Libi "al di là delle colonne di Eracle"*, in N. Parise, *La nascita della moneta. Segni premonetari e forme arcaiche dello scambio*, Roma 2000, pp. 71-78.
Peschel 1865 = O. Peschel, *Geschichte der Erdkunde bis A. v. Humboldt und Carl Ritter*, München 1865.
Petrie 1908 = F. Petrie, *The First Circuit round Africa and the Supposed Record of It*, in «The Geographical Journal» 32, 1908, pp. 480-485.
Proto – Beltrami 2004 = H. Proto – G.M. Beltrami, *Sul periplo d'Africa voluto dal faraone Nekao II*, in M. Khanoussi – P. Ruggeri – C. Vismara (edd.), *L'Africa romana. Ai confini dell'impero: contatti, scambi, conflitti. Atti del XV convegno di studio* (Tozeur, 11-15 dicembre 2002), Roma 2004, pp. 959-971.
Reader 2001 = J. Reader, *Africa. Biografia di un continente*, Milano 2001 (or. ed. New York 1997).
Rennell 1802 = J. Rennell, *Über die Umschiffung Afrikas durch Necho*, in G.G. Bredow (ed.), *Untersuchungen über einzelne Gegenstände der alten Geschichte, Geographie und Chronologie*, Altona 1802, pp. 380-714.
Ritter 1861 = C. Ritter, *Geschichte der Erdkunde und der Entdeckungen*, Berlin 1861.
Roller 2006 = D.W. Roller, *Through the Pillars of Herakles. Greco-Roman Exploration of the Atlantic*, New York-London 2006.
Roteiro 1861 = *Roteiro da viagem de Vasco da Gama em MCCCCXCVII*, Lisboa 1861.
Sieglin 1910 = W. Sieglin, *Über die angebliche Umschiffung Afrikas unter König Necho*, in «WKP» 25, 1910, coll. 697-700.
Thiel 1939 = J. Thiel, *Eudoxus van Cyzicus. Een hoofdstuk uit de geschiedenis van de vaart op Indië en de vaart om de Zuid in de Oudheid*, Amsterdam 1939.
Webb 1907 = E.J. Webb, *The Alleged Phoenician Circumnavigation of Africa. Considered in Relation to the Theory of a South African Ophir*, in «EHR» 22, 1907, pp. 1-14.