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Sailing Through Greek with Hanno of Carthage

Michael L. Koneiczny Harvard University



Instructors of ancient Greek will be all too familiar with the difficulty of identifying original texts suitable for use with students who have mastered the rudiments of the language but who are not yet fully prepared for the challenges posed by the more prominent authors of the Greek canon. In this article I shall discuss a short geographical text, the *Periplous of Hanno*,¹ and draw on my own experiences in the classroom to argue for its value as a pedagogical resource that can help facilitate the transition from sample sentences and "easy stories" to genuine, unadapted Greek.²

INTRODUCTION

Hanno of Carthage, sometimes called the "Navigator" to distinguish him from other individuals of the same name, is a figure seldom encountered outside discussions of

¹ The standard edition of the *Periplous* is still that of Müller in the *Geographi Graeci minores* (1882). The text is available as part of the *Thesaurus Linguae Graecae*, and is printed in full in Appendix 2.

² I am certainly not the first person to experiment with using the *Periplous* as an instructional text. Conference abstracts available online indicate that a paper on this topic, titled "Let's Go Periplousing! Reading Hanno in the Elementary Greek Classroom," was delivered by Georgia Irby at the 2014 meeting of CAMWS in Waco, Texas. I hope that my discussion here may encourage still more teachers to explore this exciting and very approachable work with their students.

early Classical geography and exploration. Sometime around 500 BCE, when Carthage controlled the Mediterranean, this Hanno led a naval expedition outside the Pillars of Heracles (the modern Straits of Gibraltar) and down the western coast of Africa, founding numerous cities and exploring the various islands, inlets, and rivers that he encountered along the way. An account of his exploits is contained in the document now known as the *Periplous of Hanno*, a Greek translation of a Punic original that was purportedly set up in the temple of Baal at Carthage; the text is preserved in a single manuscript dating to the 10th century, now at the University of Heidelberg.³

Although suspicion naturally attaches to the record, preserved only in translation, of an otherwise uncorroborated voyage, the *Periplous* contains enough plausible geographical references to suggest that Hanno's expedition actually took place, even if its details remain necessarily obscure. At the very least, his fleet seems to have attained the vicinity of the modern Senegal River, which Hanno refers to as the river Chretes.⁴ Most commentators agree that he probably reached as far as Guinea or Sierra Leone; more adventurous (but generally discredited) interpretations have him sailing all the way across the Gulf of Guinea to Cameroon.⁵ However far the expedition actually got before eventually returning to Carthage, it was undoubtedly among the milestones of early Atlantic exploration, and the *Periplous* is thus of particular interest as evidence for the expanding scope of pan-Mediterranean geographical awareness around the turn of the 6th and 5th centuries BCE.

In addition to its value as a historical document, the *Periplous* is also especially well-suited for use with students at a relatively early stage of their instruction in ancient Greek. Whoever produced the translation employed a clean, straightforward Attic idiom, eschewing rhetorical embellishment and presumably following the original Punic text in organizing the account as a chronological succession of facts tracking the various stages of the journey down the African coast. Although

³ Many detailed studies of the *Periplous* exist, offering various possible reconstructions of Hanno's route. For a representative sample in English, see Cary and Warmington (1929, pp. 47-52), Kaeppel (1936, pp. 26-61), and Carpenter (1966, pp. 81-100), the latter of which I have found to be the clearest and most persuasive. In general the literary features of the text remain understudied, although some interesting remarks can be found in chapter 1 of Romm (1992).

⁴ On the identification, cf. Carpenter (1966, p. 93). See Appendix 1 for a map of the locations referred to in this article.

⁵ Vicinity of Sierra Leone: Cary and Warmington (1929), Kaeppel (1936), Carpenter (1966); Cameroon: Burton (1883), Carcopino (1943), Ramin (1976, p. 72-74). Other scholars have argued that Hanno could only have sailed as far as the northern fringe of the Sahara desert, e.g. Mederos Martín (2015).

the account is generally rather sparse, there is sufficient detail and variety to hold the attention of the reader, and the text does have a certain narrative momentum, as the phenomena encountered by Hanno and his fleet grow increasingly uncanny in proportion to their distance from Carthage. At approximately 650 words, or the equivalent of about 3 pages of printed text, the *Periplous* is also short enough to be read in its entirety with novice students in one to two weeks, depending on the pace of a given course, the frequency of meetings, and the portion of each class set aside for working through the text. Even the shortest of the Platonic dialogues are generally still too long, as well as too difficult, to read from beginning to end with students in their first or second semester of Greek, so that the sense of closure and accomplishment derived from reading a text in its entirety must be ranked among the special advantages of the *Periplous* as a pedagogical resource.

In what follows, I shall discuss the text in more detail from the point of view of its content, vocabulary, and syntax, and conclude by offering a few suggestions for effectively incorporating the *Periplous* into the beginning Greek curriculum.

CONTENT AND VOCABULARY

As stated above, the *Periplous* is an account of a naval voyage "beyond the Pillars of Heracles" and down the western coast of Africa. The stated purpose of the voyage is colonization, and roughly the first quarter of the text takes the form of a fairly cut-and-dried summary of various cities founded along the Moroccan coastline. Things become more interesting once the expedition reaches the Lixus river (identified as the modern Draa, the largest river in Morocco), where Hanno and his crew befriend the native tribe of the Lixites, and, after taking on board interpreters, continue south into uncharted territory. Most of the remainder of the text is devoted to a description of natural phenomena and human encounters, and the narrative concludes with an account of a violent confrontation with a people known as the "Gorillas." The text ends abruptly at this point, when the expedition runs out of supplies and is forced to turn back to Carthage.

There are several advantages to employing this kind of document as an instructional text. First, the overall lack of political and cultural detail means that the narrative is readily comprehensible with a minimum of historical contextualization,

⁶ Carpenter (1966, p. 90).

⁷ On the problems posed by this detail, see n. 15 below.

which can hardly be said of most of the well-known authors of the Classical canon. In practical terms, this means that only a small amount of research and preparation is required of the instructor before presenting the *Periplous* in class, an especially useful feature if the text is being used concurrently with other instructional activities. Second, the step-by-step coasting narrative is divided naturally into a number of more or less self-contained vignettes clearly demarcated by references to direction and travel time. In addition to providing a sense of forward motion and satisfaction at completing each stage of the journey, the vignette structure is also useful for dividing the text into brief daily modules with natural stopping and starting points. Finally, the sorts of details selected for inclusion in the text, including fiery mountains, eerie nocturnal soundscapes, and a number of so-called "charismatic megafauna" (elephants, hippopotami, crocodiles), are perfectly suited to holding the attention of the modern student, just as they were likely intended to capture the imagination of the document's original readership.

As one might expect, this latter point has an especially strong bearing on the sort of vocabulary encountered in the *Periplous*. Before enlarging further on this issue, I shall cite a few statistics calculated with reference to the Dickinson Greek Core Vocabulary, a list of the roughly 500 most common words in the corpus of Classical Greek literature. According to the Dickinson College website,⁸ the words on this list represent "the lemmas or dictionary headwords that generate approximately 65% of the word forms in a typical Greek text." A lexical survey of the *Periplous of Hanno* yields the following results:

- » Total number of word forms (excluding most proper nouns and adjectives):
 618
- » Total words generated by lemmas in the Dickinson Core List: 425 (69%)
- » Total number of distinct lemmas: 252
- » Total number of distinct lemmas found in the Dickinson Core List: 119 (47%)

These statistics suggest the following conclusions. On the one hand, the *Periplous* may be considered just slightly more basic than the average Greek text from a lexical point of view, since nearly 70% of the text is derived from common words likely to have been mastered by students at an early level. This is an important consideration at this stage of instruction, where a relatively high proportion of familiar vocabulary is needed to promote fluency in reading and to help students gain confidence in

⁸ http://dcc.dickinson.edu/vocab/core-vocabulary.

the language. On the other hand, the lexical variety encountered in the remaining 30% of the text is quite high (133 distinct lemmas across just 193 total word forms), corresponding in part to the variety of phenomena encountered by Hanno over the course of his voyage. Consequently, while much of the *Periplous* should present little difficulty in terms of vocabulary, students are nonetheless likely to encounter a fair number of unfamiliar words as they work their way through the text.

Of the 133 lemmas not found in the Dickinson Core List,9 the majority (about 80 by my count) refer to various items of geographical and anthropological interest, including animals (e.g., ἐλέφαντες, §4), "streams of fire" (πυρώδεις ῥύακες, §\$15 and 17), and an orgiastic cacophony of noises that the crew hear at night while encamped on an island near the shoreline: "the sound of flutes and the din of cymbals and kettle-drums and a ceaseless shouting" (φωνήν αὐλῶν ἡκούομεν κυμβάλων τε καὶ τυμπάνων πάταγον καὶ κραυγὴν μυρίαν, \$14). In my experience, the dramatic and sensory appeal of such concrete details largely offsets the frustration students may otherwise feel at encountering unfamiliar vocabulary, especially when the semantic range of the words in question is comparatively narrow and thus easily comprehended. Moreover, many of the uncommon words encountered in the Periplous either have obvious English derivatives (e.g., ἐλέφας, κύμβαλος) or else are cognate with other Greek words that students are likely to be familiar with already (e.g., πυρώδης < πῦρ). Aside from words denoting natural phenomena, much of the remaining unfamiliar vocabulary can be classed under the heading of nautical terminology, including various compounds of "sailing" (ἀποπλέω, περιπλέω, etc.) and several recurring expressions of time and direction that can be supplied by the instructor (see more below).

In terms of vocabulary, then, the *Periplous* achieves a fine balance between familiarity and novelty, and the dramatic appeal of the narrative is likely to hold students' attention even while they reckon with words and expressions that they have not previously encountered.

SYNTAX

Even more so than its vocabulary, the syntax of the *Periplous* makes it a convenient text to use with students early in their transition to reading original Greek.¹⁰ For the

⁹ See Appendix 3.

¹⁰ There are a total of 35 sentences, 73 clauses, and 652 words in the Periplous, yielding an average of

most part, the grammatical structures encountered in the text are relatively straightforward and repetitive, characteristics that can be attributed to the nature of the
document as a traveler's log whose purpose is to relate a succession of facts and
occurrences without generally commenting on the relationships between them or
on their broader significance. The lack of syntactic variety and sophistication, while
potentially tedious for more advanced students, is quite desirable at the earlier level,
since it facilitates the application of previously learned material while minimizing
the need for the instructor to gloss and explicate unfamiliar content. Similarly, the
repetitiveness of certain linguistic features and narrative patterns is particularly useful in encouraging a predictive approach to reading and thus promoting the transition from mechanical translation to actual comprehension of the language.¹¹

Especially noteworthy is the complete absence in the text of any verbs in the subjunctive or optative moods, a convenient feature given that many Classical Greek textbooks delay the presentation of these forms until relatively late in the curriculum. Again, this lack may be attributed to the nature of the text itself, which deals with concrete facts rather than with goals, potentialities, counterfactuals, or the like. This is not to say, however, that the *Periplous* is entirely trivial from a linguistic point of view: the syntactic expansion one finds is achieved mainly by means of participial phrases and relative clauses, so students must already be acquainted with these structures before embarking on the narrative. Students must likewise be familiar with infinitives, the aorist and imperfect tenses, the middle and passive voices, the comparative and superlative degrees of adjectives, and various uses of the accusative and oblique cases. Noteworthy linguistic features of the text include:

» The impersonal construction with ἔδοξε (§1)

^{18.9} words per sentence (range: 5-45), 8.9 words per clause (range: 2-24), and 2 clauses per sentence (range: 1-6). For sentences I rely on the punctuation in the edition of Müller; I generally treat as a clause any syntactic unit where a finite verb is either present or implied, except where the coordinating conjunction $\kappa\alpha$ (links two verbs that share the same subject. Although the adoption of other criteria may result in slightly different numbers, the statistics above give a good idea of the simplicity of the text, which in general does not require students to keep track of a great deal of syntactic information before the conclusion of a sentence or clause.

¹¹ One additional feature to be mentioned here is the almost complete absence in the text of syntactic nesting, where one clause is contained entirely within another; the single exception is the simple parenthetical expression $\dot{\omega}_5$ è $\delta\dot{\delta}$ kei in §16. The preponderance of cumulative rather than nested syntax further reduces the cognitive burden on students and promotes a far more fluent reading experience at this level than what is typically encountered in the more rhetorically elaborate texts of the Greek canon.

- » Indirect discourse with the accusative and infinitive (\$\\$7, 14)
- » Adverbial τό (τὸ μὲν πλέον, τὸ δ' ἔλαττον, \$13)
- » Genitive of time within which (§14)
- » Various uses of the dative (e.g., possessive, §2; instrumental, §9; respect, §18)
- » Genitive absolute (§18)
- » Crasis throughout (e.g., κἄπειτα, κἀκεῖθεν, etc.)

As can be seen, then, a fair amount of grammatical instruction must necessarily be completed before students are ready for even a comparatively straightforward text such as the *Periplous*, and certain features, such as the adverbial use of the definite article in §13, will probably still need to be glossed by the instructor. At the same time, once the rudiments of the language have been mastered and a basic range of syntactic structures have been learned, the *Periplous* can provide students with a convenient opportunity for putting their early linguistic knowledge into practice.

One recurring feature that may cause some difficulty and deserves further comment is the use of adverbial and internal accusatives to indicate the length of each leg of the journey. These range from the simple accusative of duration of time (ἐπλεύσαμεν δώδεκα ἡμέρας, "we sailed for twelve days," §11) to more complex expressions such as that found in §5: τήν τε λίμνην παραλλάξαντες ὅσον ἡμέρας πλοῦν, "sailing around the gulf by as much as a day's sail." To forestall any unnecessary confusion, these and similar expressions can be glossed by the instructor and perhaps addressed beforehand; students should also be apprised of the morphological ambiguity inherent in the form ἡμέρας, which can be either genitive singular or accusative plural, both of which occur in the text. Since this temporal phraseology recurs throughout the work, however, students will soon become accustomed to the various permutations of "sailing for x days," and by the time they reach the end of the text this particular feature of Greek idiom should present no further difficulty.

SUGGESTIONS FOR CLASSROOM USE

In the foregoing sections I have sought to demonstrate that both its lexical and syntactic characteristics make the *Periplous of Hanno* a convenient work to use with students in the early-intermediate stages of their instruction in ancient Greek. I shall conclude by offering a few suggestions for how to incorporate this text into the classroom.

In my opinion, the *Periplous* is best suited as a text for in-class sight-reading, rather than as a homework assignment, an exam passage, or a text for independent study. Beyond the obvious appeal of working through a Greek text first-hand rather than merely rehearsing the efforts of the night before, there is also a considerable advantage to addressing the linguistic difficulties of the text as they arise during reading. Because the language of the *Periplous* is generally quite straightforward, most of the difficulties that students encounter will concern issues of word order, idiom, and other natural patterns of language use that are typically avoided by authors of model sentences and textbook narratives. An example occurs early in the text, just as Hanno's fleet rounds the Pillars of Heracles (§2):

΄ως δ΄ ἀναχθέντες τὰς Στήλας παρημείψαμεν καὶ ἔξω πλοῦν δυοῖν ἡμερῶν ἐπλεύσαμεν, ἐκτίσαμεν πρώτην πόλιν, ἥντινα ἀνομάσαμεν Θυμιατήριον.

When, after setting sail, we rounded the Pillars and sailed beyond them for two days, we founded our first city, which we called Thymiaterion.

Many students, reading the first few words of this sentence, will immediately confuse themselves by taking $\tau \alpha \zeta \Sigma \tau \eta \lambda \alpha \zeta$ as the direct object of $\dot{\alpha} \nu \alpha \chi \theta \dot{\epsilon} \nu \tau \epsilon \zeta$ and then erroneously treating the participle as the main verb of the temporal $\dot{\omega} \zeta$ clause, only eventually correcting the mistake upon realizing that there is no plausible function for the finite verb $\pi \alpha \rho \eta \mu \epsilon i \psi \alpha \mu \epsilon \nu$ after handling the beginning of the sentence in this way. If this passage were assigned for homework and reviewed the next day in class, a student would doubtless produce a correct translation and the difficulty posed by this sentence would in all likelihood be ignored and forgotten. On the other hand, by confronting the difficulty as it arises in the course of sight-reading, the instructor will be able to draw attention to the erroneous thought process, reason through the syntactic cues that produced the error, and thus train students in the process of active reading instead of merely checking the accuracy of a translation produced in advance.

No student commentary currently exists for the *Periplous*, either in print or online, so it will fall to the instructor to produce any supplementary materials desired for classroom use and enrichment. Since the text is short and generally quite straightforward, however, such materials can be prepared independently without an unreasonable expenditure of time on the part of the instructor. In order to promote fluent sight-reading in class, for example, it may be useful to distribute a glossary of

unfamiliar words and phrases to be learned beforehand, perhaps organized by general subject headings such as "Nautical terminology," "Geography and landscape," etc. Such a list, even if it were to include all 133 lemmas not found in the Dickinson Core vocabulary, 2 could still be made to fit on one double-sided sheet of paper, and would take perhaps two hours to compile.

As I suggested above, many issues of grammar and syntax are best addressed as they arise during the process of reading, and the problems encountered by students cannot necessarily be predicted. Other points of interest or difficulty, however, such as various case usages or constructions like the genitive absolute, should be anticipated by the instructor, and can be approached in a number of ways depending on individual preference or classroom temperament. With the *Periplous*, as with other texts, I have found Microsoft PowerPoint to be an especially useful resource, since it makes it possible to highlight and color-code individual words and phrases and produce what amounts to a slide-by-slide commentary on the text tailored to the needs of a particular class. The amount of detail included in such a slideshow can of course vary, but the presentation I have created for my own class consists of 80 slides containing the entire text with numerous glosses of varying degrees of complexity. Depending on one's previous experience with PowerPoint (or comparable software), such a presentation should take about 5-10 hours to put together.

Finally, we turn to the question of the historicity of the voyage, and in particular to the possibility of reconstructing the route of Hanno's fleet through the Pillars and down the African coast, a subject bound to excite the curiosity of students engaged in a reading of the text. Thanks to a number of meticulous studies of the *Periplous*, it is possible to identify with a high degree of confidence several of the landmarks mentioned in the document, such as the Draa and Senegal rivers, the Sahara desert, and even the island that Hanno refers to as "Cerne," convincingly identified by Rhys Carpenter as the modern port town of St. Louis at the mouth of the Senegal.¹³ (In this latter instance, the satellite imagery available on Google Maps nicely illustrates the correspondence between the geography of the area and the character of "Cerne" as described in the text.) In addition, several initially puzzling details mentioned in the text, such as landscapes burning with fire (§§12 ff.) or references to "islands within islands" (§§14, 18), can plausibly be explained by reference to native agricultural practices and to peculiarities of some portions of the African coastline, respectively.¹⁴

¹² Cf. Appendix 3.

¹³ Carpenter (1966, pp. 92-93).

¹⁴ Carpenter (1966, p. 98 (fiery landscapes), p. 99 (islands within islands)); in this latter instance, too,

On the other hand, the exact locations of the various settlements mentioned in the early chapters of the document are irrecoverable, and there seems to be no clear consensus on the farthermost point attained by Hanno's fleet, nor on the identity of the great volcano referred to in the text as the "Chariot of the Gods" ($\Theta \epsilon \tilde{\omega} \nu \, \tilde{o} \chi \eta \mu \alpha$, §16). Certain other details, such as the "streams of fire" mentioned in §\$15 and 17 or the identity of the "Gorillas" encountered by the crew at the end of the journey, must also remain mysterious, and it is best not to devote too much effort to unpacking the spatial reasoning by which Hanno concludes, in §8, that Cerne lies "directly across from" Carthage. Thus, while occasional references to geographic locales and other *realia* can usefully supplement a reading of the text and pique student interest, it should be borne in mind that the *Periplous* is only a rough sketch of a long and complicated voyage, and that the exact details of Hanno's route down the coast are most likely irrecoverable.

CONCLUSION

I hope that in this article I have been able to lay out a persuasive case for the value of the *Periplous of Hanno* as a pedagogical resource for instructors of ancient Greek. Its clear Attic idiom, preponderance of core vocabulary, and generally straightforward syntax all combine to make it an ideal text for use at the late-beginning and early-intermediate levels, while its arresting content is guaranteed to motivate students as they begin to confront the challenges of unadapted Greek. With an adventurous teacher at the helm, students can follow Hanno outside the Pillars as they embark on their voyage beyond world of the textbook and into the wide and exciting realms of ancient Greek literature.¹⁶

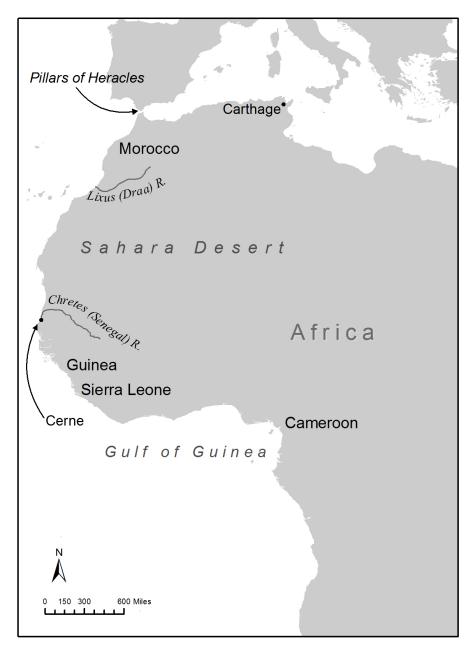
it is possible to identify satellite views on Google Maps that would seem to corroborate the details found in the text.

¹⁵ The identity of Hanno's "gorillas" is, in the words of Carpenter, the "crowning uncertainty" of the whole text (1966, p. 99). Although Hanno apparently writes of them as human beings, most modern commentators seem to think they were a species of ape, though not gorillas proper; see Kaeppel (1936, p. 51-2 (chimpanzees)), Carpenter (1966, pp. 99-100 (baboons)), and Ramin (1976, p. 68 (orangutans)). The question will probably never be resolved, and students should feel free to draw their own conclusions.

¹⁶ Many thanks to Kathleen Coleman for encouraging me to write about my experiences with Hanno and for reading and responding to earlier versions of this article. Thanks also to Ivy Livingston and to the anonymous reviewer for the NECJ for their many helpful comments and suggestions.

APPENDIX 1

Map of western Africa illustrating the extent of Hanno's voyage and some of the potential landmarks identifiable in the *Periplous*. Most scholars dispute the claim that Hanno's fleet made it as far down the coast as Cameroon.



ΑΝΝώνος Καρχηδονίων Βασίλεως περίπλους των ύπερ τας Ηρακλεούς στηλας λίβυκων της γης Μερών, ὃν καὶ ἀνέθηκεν ἐν τῷ τοῦ Κρόνου τεμένει, δηλοῦντα τάδε.

- 1. Ἔδοξε Καρχηδονίοις ἄννωνα πλεῖν ἔξω Στηλῶν Ἡρακλείων καὶ πόλεις κτίζειν Λιβυφοινίκων. Καὶ ἔπλευσε πεντηκοντόρους ἑξήκοντα ἄγων, καὶ πλῆθος ἀνδρῶν καὶ γυναικῶν εἰς ἀριθμὸν μυριάδων τριῶν καὶ σῖτα καὶ τὴν ἄλλην παρασκευήν.
- 2. 'ώς δ' ἀναχθέντες τὰς Στήλας παρημείψαμεν καὶ ἔξω πλοῦν δυοῖν ἡμερῶν ἐπλεύσαμεν, ἐκτίσαμεν πρώτην πόλιν, ἥντινα ἀνομάσαμεν Θυμιατήριον πεδίον δ' αὐτῆ μέγα ὑπῆν.
- 3. Κάπειτα πρὸς ἑσπέραν ἀναχθέντες ἐπὶ Σολόεντα, Λιβυκὸν ἀκρωτήριον λάσιον δένδρεσι, συνήλθομεν.
- 4. "Ενθα Ποσειδῶνος ἱερὸν ἱδρυσάμενοι πάλιν ἐπέβημεν πρὸς ἥλιον ἀνίσχοντα ἡμέρας ἥμισυ, ἄχρι ἐκομίσθημεν εἰς λίμνην οὐ πόρρω τῆς θαλάττης κειμένην, καλάμου μεστὴν πολλοῦ καὶ μεγάλου ἐνῆσαν δὲ καὶ ἐλέφαντες καὶ τᾶλλα θηρία νεμόμενα πάμπολλα.
- 5. Τήν τε λίμνην παραλλάξαντες ὅσον ἡμέρας πλοῦν, κατωκίσαμεν πόλεις πρὸς τῆ θαλάττη καλουμένας Καρικόν τε τεῖχος καὶ Γύττην καὶ Ἄκραν καὶ Μέλιτταν καὶ Ἄραμβυν.
- 6. Κάκεῖθεν δ' ἀναχθέντες ἤλθομεν ἐπὶ μέγαν ποταμὸν Λίξον, ἀπὸ τῆς Λιβύης ῥέοντα. Παρὰ δ' αὐτὸν νομάδες ἄνθρωποι Λιξῖται βοσκήματ' ἔνεμον, παρ' οἷς ἐμείναμεν ἄχρι τινὸς, φίλοι γενόμενοι.
- 7. Τούτων δὲ καθύπερθεν Αἰθίοπες ὤκουν ἄξενοι, γῆν νεμόμενοι θηριώδη, διειλημμένην ὅρεσι μεγάλοις, ἐξ ὧν ῥεῖν φασι τὸν Λίξον, περὶ δὲ τὰ ὄρη κατοικεῖν ἀνθρώπους ἀλλοιομόρφους, Τρωγλοδύτας· οὓς ταχυτέρους ἵππων ἐν δρόμοις ἔφραζον οἱ Λιξῖται.
- 8. Λαβόντες δὲ παρ' αὐτῶν ἑρμηνέας, παρεπλέομεν τὴν ἐρήμην πρὸς

μεσημβρίαν δύο ἡμέρας· ἐκεῖθεν δὲ πάλιν πρὸς ἥλιον ἀνίσχοντα ἡμέρας δρόμον. ενθα εὔρομεν ἐν μυχῷ τινος κόλπου νῆσον μικρὰν, κύκλον ἔχουσαν σταδίων πέντε· ἣν κατωκίσαμεν, Κέρνην ὀνομάσαντες. Ἐτεκμαιρόμεθα δ' αὐτὴν ἐκ τοῦ περίπλου κατ' εὐθὺ κεῖσθαι Καρχηδόνος· ἐώκει γὰρ ὁ πλοῦς ἔκ τε Καρχηδόνος ἐπὶ Στήλας κἀκεῖθεν ἐπὶ Κέρνην.

- 9. Τοὐντεῦθεν εἰς λίμνην ἀφικόμεθα, διά τινος ποταμοῦ μεγάλου διαπλεύσαντες, ῷ ὄνομα Χρετης· εἶχε δὲ νήσους ἡ λίμνη τρεῖς μείζους τῆς Κέρνης. Ἀφ' ὧν ἡμερήσιον πλοῦν κατανύσαντες, εἰς τὸν μυχὸν τῆς λίμνης ἤλθομεν, ὑπὲρ ἣν ὄρη μέγιστα ὑπερέτεινε, μεστὰ ἀνθρώπων ἀγρίων, δέρματα θήρεια ἐνημμένων, οῦ πέτροις βάλλοντες ἀπήραξαν ἡμᾶς, κωλύοντες ἐκβῆναι.
- 10. Ἐκεῖθεν πλέοντες εἰς ἕτερον ἤλθομεν ποταμὸν μέγαν καὶ πλατὺν, γέμοντα κροκοδείλων καὶ ἵππων ποταμίων. Θθεν δὴ πάλιν ἀποστρέψαντες εἰς Κέρνην ἐπανήλθομεν.
- 11. Ἐκεῖθεν δὲ ἐπὶ μεσημβρίαν ἐπλεύσαμεν δώδεκα ἡμέρας, τὴν γῆν παραλεγόμενοι, ἣν πᾶσαν κατώκουν Αἰθίοπες φεύγοντες ἡμᾶς καὶ οὐχ ὑπομένοντες ἀσύνετα δ' ἐφθέγγοντο καὶ τοῖς μεθ' ἡμῶν Λιξίταις.
- 12. Τῆ δ' οὖν τελευταίᾳ ἡμέρᾳ προσωρμίσθημεν ὄρεσι μεγάλοις δασέσιν. Ἡν δὲ τὰ τῶν δένδρων ξύλα εὐώδη τε καὶ ποικίλα.
- 13. Περιπλεύσαντες δὲ ταῦτα ἡμέρας δύο ἐγινόμεθα ἐν θαλάττης χάσματι ἀμετρήτω, ἦς ἐπὶ θάτερα πρὸς τῷ γῷ πεδίον ἦν ὅθεν νυκτὸς ἀφεωρῶμεν πῦρ ἀναφερόμενον πανταχόθεν κατ' ἀποστάσεις, τὸ μὲν πλέον, τὸ δ' ἔλαττον.
- 14. Ύδρευσάμενοι δ' ἐκεῖθεν ἐπλέομεν εἰς τοὔμπροσθεν ἡμέρας πέντε παρὰ γῆν, ἄχρι ἤλθομεν εἰς μέγαν κόλπον, ὂν ἔφασαν οἱ ἑρμηνέες καλεῖσθαι Ἑσπέρου Κέρας. Ἐν δὲ τούτῳ νῆσος ἦν μεγάλη καὶ ἐν τῆ νήσῳ λίμνη θαλασσώδης, ἐν δὲ ταύτῃ νῆσος ἑτέρα, εἰς ἣν ἀποβάντες ἡμέρας μὲν οὐδὲν ἀφεωρῶμεν ὅτι μὴ ὕλην, νυκτὸς δὲ πυρά τε πολλὰ καιόμενα, καὶ φωνὴν αὐλῶν ἡκούομεν κυμβάλων τε καὶ τυμπάνων πάταγον καὶ κραυγὴν μυρίαν. Φόβος οὖν ἔλαβεν ἡμᾶς, καὶ οἱ μάντεις ἐκέλευον ἐκλείπειν τὴν νῆσον.
- 15. Ταχὰ δ' ἐκπλεύσαντες παρημειβόμεθα χώραν διάπυρον θυμιαμάτων

μεστήν· μέγιστοι δ' ἀπ' αὐτῆς πυρώδεις ῥύακες ἐνέβαλλον εἰς τὴν θάλατταν. Ἡ γῆ δ' ὑπὸ θέρμης ἄβατος ἦν.

- 16. Ταχὺ οὖν κἀκεῖθεν φοβηθέντες ἀπεπλεύσαμεν, τέτταρας δ' ἡμέρας φερόμενοι, νυκτὸς τὴν γῆν ἀφεωρῶμεν φλογὸς μεστήν· ἐν μέσῳ δ' ἦν ἠλίβατόν τι πῦρ, τῶν ἄλλων μεῖζον, ἁπτόμενον, ὡς ἐδόκει, τῶν ἄστρων. Τοῦτο δ' ἡμέρας ὄρος ἐφαίνετο μέγιστον, Θεῶν ὄχημα καλούμενον.
- 17. Τριταῖοι δ' ἐκεῖθεν πυρώδεις ῥύακας παραπλεύσαντες ἀφικόμεθα εἰς κόλπον Νότου Κέρας λεγόμενον.
- 18. Ἐν δὲ τῷ μυχῷ νῆσος ἦν, ἐοικυῖα τῆ πρώτη, λίμνην ἔχουσα· καὶ ἐν ταύτη νῆσος ἦν ἑτέρα, μεστὴ ἀνθρώπων ἀγρίων. Πολὺ δὲ πλείους ἦσαν γυναῖκες, δασεῖαι τοῖς σώμασιν· ἃς οἱ ἑρμηνέες ἐκάλουν Γορίλλας. Διώκοντες δὲ ἄνδρας μὲν συλλαβεῖν οὐκ ἠδυνήθημεν, ἀλλὰ πάντες μὲν ἐξέφυγον, κρημνοβάται ὄντες καὶ τοῖς πέτροις ἀμυνόμενοι, γυναῖκας δὲ τρεῖς, αἳ δάκνουσαί τε καὶ σπαράττουσαι τοὺς ἄγοντας οὐκ ἤθελον ἕπεσθαι. Ἀποκτείναντες μέντοι αὐτὰς ἐξεδείραμεν καὶ τὰς δορὰς ἐκομίσαμεν εἰς Καρχηδόνα. Οὐ γὰρ ἔτι ἐπλεύσαμεν προσωτέρω, τῶν σίτων ἡμᾶς ἐπιλιπόντων.

APPENDIX 3: SELECT VOCABULARY FOR THE PERIPLOUS OF HANNO

Words not included in the Dickinson Greek Core Vocabulary:

ἄβατος, -ον	unapproachable
ἄγριος, -α, -ον	wild, savage
ἀκρωτήριον, -ου, τό	promontory
ἀλλοιόμορφος, -η, -ον	strange-looking
ἀμέτρητος, -η, -ον	boundless
ἀμύνομαι	defend oneself (mid.)
ἀνάγομαι	put to sea (pass.)
ἀνατίθημι	set up
ἀναφέρω	cast up
ἀνίσχω	rise
ἄξενος, -ον	unfriendly
ἀπαράττω	repulse
ἀποβαίνω	disembark
ἀποπλέω	sail away
ἀπόστασις, ἀποστάσεως, ἡ	interval
ἀποστρέφω	turn around
ἄπτομαι	touch (mid.)
ἄστρον, -ου, τό	star
ἀσύνετος, -ον	unintelligible
αὐλός, -ου, ὁ	flute
ἀφοράω	see

ἄχρι (adv.)	until
βόσκημα, βοσκήματος, τό	flock
γέμω	brim with
δάκνω	bite
δασύς, δασεῖα, δασύ	thickly wooded
δένδρος, δένδρους, τό	tree
δέρμα, δέρματος, τό	skin
διαλαμβάνω	divide
διαπλέω	sail through
διάπυρος, -ον	fiery
δόρα, δόρας, ή	skin
δρόμος, -ου, ὁ	running
δώδεκα (num.)	twelve
ἐκβαίνω	disembark
ἐκδέρω	skin
ἐκεῖθεν (adv.)	thence
ἐκλείπω	leave behind
ἐκπλέω	sail out
ἐκφεύγω	escape
ἐλέφας, ἐλέφαντος, ὁ	elephant
ἐμβάλλω	flow into
ἔμπροσθευ (adv.)	ahead
ἐνάπτομαι	be clothed in (mid.)
ἔνειμι	be in

ἐντεῦθεν (adv.)	hence
ἑξήκοντα (num.)	six hundred
ἐπανέρχομαι	return (mid.)
ἐπιβαίνω	set out
ἐπιλείπω	run out
ἐρήμη, -ης, ἡ	desert
έρμηνεύς, έρμηνέως, ό	interpreter, translator
έσπέρα, -ας, ή	the west
εὐώδης, -ες	fragrant
ἠλίβατος, -ον	towering
ήμερήσιος, -α, -ον	a day's
ἥμισυς, ἡμίσεια, ἥμισυ	half
θαλασσώδης, -ες	like the sea
θερμή, -ης, ή	heat
θήρειος, -α, -ον	of wild animals
θηρίον, -ου, τό	wild animal
θηριώδης, -ες	wild
θυμίαμα, θυμιάματος, τό	incense
ίδρύομαι	establish (mid.)
ίερόν, -ου, τό	shrine
ἵππος ποτάμιος, -ου, ὁ	hippopotamus
καθύπερθεν (adv.)	above
καίομαι	burn (pass.)
κάλαμος, -ου, ό	reed

κατανύω	complete
κατοικέω	inhabit
κατοικίζω	settle
κέρας, κέρατος, τό	horn
κόλπος, -ου, ὁ	gulf
κραυγή, -ης, ή	shouting
κρημνοβάτης, -ου, ό	climber of cliffs
κροκόδειλος, -ου, ὁ	crocodile
κτίζω	found
κύμβαλον, -ου, τό	cymbal
λάσιος, -α, -ον	thick, shaggy
λίμνη, -ης, ή	lake, gulf
μάντις, μάντεως, ὁ	soothsayer
μέγιστος, -η, -ον	greatest (supl. of μέγας)
μείζων, μεῖζον	greater (comp. of μέγας)
μεσημβρία, -ας, ή	south
μεστός, -η, -ον	full of
μυριάς, μυριάδων, ή	ten thousand
μυχός, -ου, ὁ	inner recess
νέμω	pasture (act.); graze (mid.)
νομάς, νομάδος, ό	nomad
νότος, -ου, ὁ	the south
ξύλον, -ου, τό	wood
ὄχημα, ὀχήματος, τό	chariot

πάμπολυς, -πόλλη, -πολυ	of all kinds
πανταχόθεν (adv.)	on all sides
παραλέγομαι	skirt, hug (mid.)
παραλλάττω	sail past
παραμείβω	go past
παραπλέω	sail past
παρασκευή, -ης, ή	preparation
πάταγος, -ου, ὁ	din
πεδίου, πεδίου, τό	plain
πεντηκόντορος, -ου, ὁ	penteconter
περιπλέω	sail around
περίπλους, -ου, ὁ	voyage
πέτρος, -ου, ὁ	rock
πλατύς, πλατεῖα, πλατύ	broad
πλοῦς, πλοῦ, ὁ	sailing
ποικίλος, -η, -ου	multi-colored
πόρρω (adv.)	far
προσορμίζομαι	make anchor (pass.)
προσωτέρω (adv.)	farther
πυρώδης, -ες	fiery
ρέω	flow
ρύαξ, ρύακος, ό	stream
σῖτος, -ου, ὁ	food
σπαράττω	scratch

στήλη, -ης, ἡ	pillar
συλλαμβάνω	capture
συνέρχομαι	reach, arrive (mid.)
τεκμαίρομαι	deduce (mid.)
τελευταῖος, -α, -ον	last
τέμενος, τεμένους, τό	sacred precinct
τριταῖος, -α, -ον	three days'
τύμπανον, -ου, τό	drum
ύδρεύομαι	take up water (mid.)
űλη, -ης, ή	forest
ὕπειμ ι	lie beneath
ύπερτείνω	strech over
ύπομένω	resist
φθέγγομαι	speak (mid.)
φλόξ, φλογός, ή	flame
χάσμα, χάσματος, τό	gulf

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