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Τριάκονθ᾽ ἡμέρας διατρίψας ἐν Γαδείροις
GADES AS DESTINATION FOR SCIENTIFIC TRAVELERS IN THE HELLENISTIC AND IMPERIAL ERAS

Résumé. — L'histoire des sciences et le développement des connaissances nous ont montré l'importance du voyage comme moyen d'observation scientifique et comme moyen de rassembler des connaissances et d'échanger des idées. Dans l'Antiquité gréco-romaine, la plupart des pionniers dans les domaines de la science, de la géographie et de l'histoire fondaient leurs travaux sur des comptes rendus de voyageurs célèbres ou bien étaient eux-mêmes des voyageurs. Les destinations les plus prisées étaient des endroits considérés comme les limites du monde connu (Éthiopie, Inde, Thulé, etc.), des lieux célèbres pour leurs phénomènes étranges (détroits, sources, grottes, etc.) et des lieux servant de point de rassemblement pour les érudits en quête de collections écrites ou orales de connaissances et de sagesse, généralement de grands temples ou des bibliothèques. Cet article analyse les sources et conclut que la colonie phénicienne de Gadès, située sur une île au large des côtes du sud-ouest de l'Espagne, est devenue une destination en vogue pour les voyageurs scientifiques pendant les époques hellénistique et impériale. Son emplacement unique, en tant que limite consacrée du monde habité, mais en même temps moins difficile et dangereux à atteindre que d'autres « bouts du monde », son temple de style oriental du dieu Héraclès-Melqart, la réputation d'explorateurs des marins phéniciens, les divers phénomènes étranges qui s'y produisent et dont parlent les sources, les noms d'érudits célèbres attachés à des récits sur la ville et les diverses questions intellectuelles qui sont débattues à son propos conduisent à considérer cette colonie comme une plateforme importante pour l'observation, les discussions et les échanges à ce moment de l'Antiquité.

Abstract. — The history of science and the development of knowledge has shown us the importance of travel as a medium for scientific observation on the one hand, and as a way to gather knowledge and exchange ideas on the other. In Graeco-Roman antiquity, most pioneers in the fields of science, geography and history either based their work on the factual accounts of famous travelers, or were travelers themselves. The most popular destinations were places at the perceived limits of the known world (Ethiopia, India, Thule, etc.), places famous for the occurrence of strange phenomena (straits, sources, caves, etc.), and places serving as gathering grounds for scholars looking for accumulated written or oral knowledge and wisdom, usually great temples or libraries. This paper analyzes the sources and reaches the conclusion that the Phoenician colony of Gades, located on an island off the coast of

Southwestern Spain, became a popular destination for scientific travelers during the Hellenistic and Imperial eras. Its unique location, as a consecrated limit of the inhabited world, but at the same time less difficult and dangerous to reach than other "ends of the world", its Oriental-style temple of the god Hercules-Melqart, the Phoenician seafarers' reputation as explorers, the various strange phenomena located there and discussed in the sources, the names of famous scholars attached to accounts of the city, and the various intellectual issues debated in connection to it all lead towards considering this city an important platform for observation, discussion and exchange at this point in Antiquity.

Gades, travel and travelers.

The founding myth of a colony is always the tale of a journey. A hardy group of brave settlers leave their native land, and build a new life for themselves in unfamiliar territory. In the case of Phoenicians, their journeys were especially adventurous: according to Herodotus, they came to the Mediterranean "from the sea which is called Red (ἀπὸ τῆς Ἐρυθρῆς καλεομένης θαλάσσης)" [1]. This is a reference to a persistent legend which located the legendary birthplace of their civilization in the Red Sea; Androsthenes of Thasos, who accompanied Nearchus on his naval expedition to the Indian Ocean, would later claim to have discovered the original Phoenician metropoles in the Persian Gulf [2]. Such a grand journey was attributed to them, or so we think, as a mirror reflection of their real, historical exploits, which were well known by the Greeks: the founding of colonies in the shores of the Western Ocean.

Best known among those colonies was Γάδειρα, later *Gades* for the Romans, who took the name directly from the Phoenician *Gadir* as it changed from Hannibal's favored religious sanctuary to Roman ally in the space of little more than a decade. Local tales, written down by Posidonius and then by Strabo, imagine its origin as the result of a long and difficult journey in search of the Ἡρακλέους στῆλαι or Pillars of Hercules – a blend, as we will see, of religious and geographic notions – ordered by the divinity [3]. It is therefore not surprising that religion, geography and travel became the main reasons for the city's recurrence in Greek and Roman texts. From Herodotus and Pindar to Stephanus, its famous temple of Hercules-Melqart, its location as the limit of the Western οἰκουμένη and line of separation between continents, and its population of seafarers who knew everything there was to be known about the Ocean remained its three most distinctive features.

1. Herodotus, I, 1.
2. Strabo, XVI, 3, 4.
3. Posidonius, Fr. 247 EDELSTEIN-KIDD (= Strabo, III, 5, 6).

The elements of this trinity are usually interwoven in many ways, to the point that it becomes difficult to study one of them without the others. The Pillars, which some considered to be a geographic landmark, were said by others to be inside the temple, which was the real "end of land and sea (γῆς καὶ θαλάττης τὸ πέρας)" [4]. The god who was worshipped within its sacred precinct was a god of travel, seafaring and knowledge [5]. He had "tracked to the very end the streams of the shallows" and "made the land known" [6]. So did his worshippers, the Phoenician merchants and fishermen who frequently appear in Greek tradition as informers on various subjects of geography and interesting phenomena located in the Atlantic Ocean [7]. Even Homer, the father of Greek literature and science, was said to have been informed by the Phoenicians of the existence of the Elysian Plain in the Far West [8].

This information was as precious as it was hard to come by. The "age of explorers", Hellenistic era, saw the progress of an army of historians, geographers and scientists in the wake of the real, conquering army of Alexander the Great. They recorded many findings in the East, but the West remained inscrutable except for the tales of Phoenicians and Carthaginians, and the deeds of a few lone explorers from the Greek colony of Marseilles such as Pytheas and Euthymenes, who were fiercely discredited by later authors [9].

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4. Strabo, III, 5, 5.

5. Cf. Mª. C. MARÍN CEBALLOS, A. Mª. JIMÉNEZ FLORES, "Los santuarios feniciopúnicos como centros de sabiduria: el templo de Melqart en Gadir", in Mª. C. MARIN CEBALLOS (ed.), *Cultos y ritos de la Gadir fenicia,* Universidad de Cadiz, 2011, p. 77-104; S. RIBICHINI, *Poenus advena. Gli dei fenici e l'interpretazione classica*, Rome, 1985, p. 44-50; C. BONNET, *Studia Phoenicia VIII: Melqart. Cultes et mythes de l'Héraklès tyrien en Méditerranée,* Namur - Leuven, 1988 and A. J. BRODY, *Each Man Cried Out To His God. The Specialized Religion of Phoenician and Canaanite Seafarers*, Harvard, 1998, p. 34s, 98s.

6. Δάμασε δὲ θῆρας ἐν πελάγεσιν / ὑπέροχος, διά τ᾽ ἐξερεύνασε τεναγέων / ῥοάς, ὅπα πόμπιμον κατέβαινε νόστου τέλος, / καὶ γᾶν φράδασσε (Pindar, *Nemean Odes*, III, 24-26). On the third Nemean echoing the exploits of a Hercules who is not the Greek Hercules, cf. J. MANGAS, D. PLÁCIDO (ed.), *Testimonia Hispaniae Antiqua IIA. La Península Ibérica en los autores griegos: de Homero a Platón*, Madrid, 1998, p. 178-181.

7. P. FERNÁNDEZ CAMACHO, *La imagen de Cádiz en los textos griegos y latinos: un análisis filológico-literario*, Repositorio de Objetos de Docencia e Investigación de la Universidad de Cádiz, http://rodin.uca.es/xmlui/handle/10498/17238 (13/10/2016), 2012, p. 230-256.

8. Strabo, III, 2, 13-14.

9. On Euthymenes being a contemporary of Pytheas, see S. BIANCHETTI, "Eutimene e Pitea di Massalia: geografia e storiografia", in R. VATTUONE (ed.), *Storici greci d'occidente*, Bologna, Il Mulino, 2002, p. 439-485.

This situation lasted until the Roman conquest of the Iberian Peninsula. Only then did Greek curiosity finally reach the West, causing a significant alteration in the flux of knowledge. Greek intellectuals did no longer have to wait for second-hand information to come to them. The most adventurous among their number began to travel to the now peaceful region of Turdetania and to Gades itself, to see certain phenomena with their own eyes, and ask the locals about others. Those who were less so also benefited from the observations of their peers, who were now an authorized voice by virtue of their αὐτοψία, having become informers on equal standing with the Phoenicians. Through travel, the Greek intellectuals of the Roman world gained agency in their search for knowledge about the West.

Between literature and reality: legendary and real travellers in the sources.

Before starting with the age of scientific travel, however, we will briefly mention several mythical or semi-mythical characters who were said to have reached Gades, either as a noteworthy stop in their journey or as their destination. In the case of mythical characters, there is a necessary *caveat*: their myths are part of Greek pre-literary lore, while Gades is not mentioned in Greek literature until Pindar's fourth *Nemean Ode*, written in 473 B.C. [10]. So Gades as a location was a later addition, a connection established between a well-known enclave at the end of the world and mythical place-names which already existed in lore, such as Erytheia, the Red Island. This place, "encircled by currents (περιῤῥύτῳ)" [11], was the home of the three-headed king Geryon, son of Chrysaor and grandson of Poseidon. This monster was slain and his cattle stolen by Hercules, in what became known as the Tenth Labor of the hero in later canon, an exploit whose location was identified with either Gades itself or its immediate surroundings in the fifth century B.C. [12]. Many sources echo this identification, strengthened by the fact that a god identified with Hercules, and arguably the subject of his own legendary exploits in the area [13], was worshipped in the temple of Gades.

10. Pindar, *N*., IV, 69.

11. Hesiod, *Theogony*, 287-294.

12. P. FERNÁNDEZ CAMACHO, "Gádeira, el décimo trabajo de Heracles y la política de Atenas", *Euphrosyne* 41 (2013), p. 9-30.

13. J. PAIRMAN BROWN, "Cosmological Myth and the Tuna of Gibraltar", *Transactions of the APA* 99 (1968), p. 37-62; M. ALMAGRO-GORBEA, "Pozo Moro. El monumento orientalizante, su contexto socio-cultural y sus paralelos en la arquitectura funeraria ibérica", *Madrider Mitteilungen* 24 (1983), p. 177-392 ; M. TORRES ORTIZ, "El guerrero de Cádiz", in M. ALMAGRO GORBEA (ed.), *La escultura fenicia en Hispania,* Madrid, Real Academia de la Historia, 2011, p. 57-62. P. FERNÁNDEZ CAMACHO, "Tuna Fish Across the Strait of Gibraltar. Traces of a Lost Fishing Myth", *Euphrosyne*

This syncretism favored the development of a legend which went beyond a mere cattle raid: the greatest achievement of the hero-god became the journey itself, the exploration of a land unknown until then, and the setting of boundaries famously known as the Pillars of Hercules. The notion of scientific exploration is thus already present in Classical Age elaborations of the myth.

But Hercules was not the only hero to reach Gades. The Hellenistic polymath Crates of Mallus, in his now lost exegesis of *The Odyssey*, ascribed the same feat to Menelaus in his long journey home, as did Diodorus Siculus (and probably his source Timaeus) to the Argonauts after their escape from Colchis [14]. Teucer, the banished brother of Ajax, was also brought all the way to Iberia, and his girdle was said to be one of the most valuable relics of the Gaditanian temple [15]. The need to connect imaginary places with real ones had become pressing, in an age where Homer and the poets were being challenged for the discrepancies between their geography and that of the known world. Gades was, both for its remoteness and its reality, a good pretext to connect old myths to the landscape of the Ocean.

The first real traveler who is explicitly connected to the city of Gades by the sources is Pytheas of Massalia, roughly a contemporary of Alexander. According to Strabo, who is quoting this author through Polybius, Pytheas "sailed the whole coast of Europe from Gades to the Tanais", or Don [16]. Gades is cast here in its classical role as a boundary, in this case of the European continent. However, it also might have had another role in the Massalian's journey. Pytheas was the author of a treatise *On the Ocean*, now lost, and, as the Gades digression in Book III of Strabo's *Geography* proves, the city was considered a privileged observation spot for this kind of phenomena, and its inhabitants, privileged informers. There was a famous connection between the tides as observed in Gades and a mysterious source located at the temple of Melqart, whose flow increased with the ebb of the tide and decreased in high tide, posing a challenging riddle to the scientists of the time. This phenomenon, observed and investigated by many, might have been first reported by Pytheas in his trea-

45 (2017), p. 41-58.

14. Crates Gr., Fr. 45a BROGGIATO (= Strabo, I, 2, 31); Timaeus, *FGH* 566 Fr. 85 (= Diodorus Siculus, IV, 56, 3).

15. Strabo, III, 4, 3; Philostratus, *Life of Apollonius*, V, 5.

16. Polybius, XXXIV, 5 (= Strabo, II, 4, 1). Apparently, Erathostenes believed his description of the neighborhood of Gades.

tise [17]. The era of purely scientific travel is thus inaugurated by the Massalian explorer.

The second traveler mentioned by the sources is a certain Silenus, from Kale Akte. He was one of the Greek intellectuals who followed Hannibal Barca in his campaigns [18], and one of the few extant fragments of his writings is about the source in the temple of Gades, also quoted by Strabo through a long chain of intermediaries which included Posidonius, Polybius and Artemidorus [19]. Like the intellectuals who followed Alexander through Asia, recording all the unusual things they encountered, Silenus accompanied Hannibal to the temple where the Carthaginian general took the auspices for his war against Rome [20], and took note of the intriguing source, whose riddle he tried to explain scientifically. Strabo and his sources, however, didn't find his theory convincing enough, pronouncing him ἰδιότης on those matters [21].

The third traveler was very important, because he was the first to establish a debate with his predecessors, later continued by those who came after him. Polybius of Megalopolis (*ca*. 200-118 a.C) aspired to write a kind of historical work which relied heavily, among other things, on the observation (θέα) of the lay of the land and distances [22]. He was proud of having observed the Far West and the Ocean with his own eyes, due to the conquering advance of his protectors, the Romans, across the Iberian Peninsula [23], and went as far as to dedicate an entire book of his *History* to geographical matters. This pride – and maybe also political considerations, as proposed by Bianchetti in several of her works – caused him to attack those who had come before, accusing them of lying about their travels (in the case of Pytheas), or of using only secondary sources (Timaeus) [24].

17. Cf. I. PAJÓN LEYRA, *Paradoxografía griega: un género literario*, available in *Repositorio de la producción académica en abierto de la UCM* [url: http://eprints.ucm.es/9415/ (26/06/2018)], Madrid, 2009, p. 510, n. 1417, P. FERNÁNDEZ CAMACHO, "La fuente del Geracleo de Gades en la ciencia antigua", *CFC* 23 (2013), p. 277-293.

18. Cf. Cicero, *De diuinatione*, I, 49; Cornelius Nepos, *Hannibal*, 13, 3.

19. Silenus, *FGH* 175 Fr. 9 (= Strabo, III, 5, 7).

20. Livy, XXI, 21.

21. Strabo, III, 5, 7.

22. Pol., I, 7, 2; III, 48, 4; IV, 21, 1-6; IV, 38, 12; VII, 1, 1.

23. Pol., III, 59, 7.

24. On Polybius and his predecessors, cf. F. W. WALBANK, *Polybius,* Berkeley, 1972, p. 52; R. VATTUONE, "Timeo di Tauromenio", in R. VATTUONE (ed.), *Storici greci …, op. cit.* (n. 9), p. 177-232. On Bianchetti's theory about an opposition between scientific and political geographers, cf. S. BIANCHETTI, "Eutimene e Pitea …", *op. cit.* (n. 9) and "Conoscenze geografiche e rappresentazioni dell'ecumene nell' antichita greco-romana", in C. TUGNOLI (ed.), *I contorni della terra e del mare. La geografia tra rappresentazione e invenzione della realtà,* Bologna, 1997, p. 80. The historian's criti-

In his book on geography, partly reconstructed through the quotes of other authors, we discover that Polybius visited Gades, described the city and the islands which composed it, and wrote down his own theories about the phenomenon of the temple source [25]. He also seems to have participated in another important geographical debate of Antiquity, locating the Pillars of Hercules near the Strait, and not in the city of Gades [26].

Artemidorus of Ephesus, next in the line of illustrious visitors, made a journey of exploration to the Iberian Peninsula around 100 B.C. [27] A theory has been proposed that this journey could be directly related to a certain legal dispute with the *publicani* in his native city, involving the ownership and exploitation of salt lakes of recent formation [28]. According to this theory, Artemidorus would have travelled to Gades in search for expertise in the behavior of the waters and tides, a truly fascinating idea. Even if this is not true, however, there is evidence that he did conduct research on a number of topics. One of them is the phenomenon of the source in the temple; according to Strabo, he contradicted Polybius and offered an alternate theory of his own. Unfortunately for him, this theory, like the one espoused by Silenus, is not deemed worthy of mention [29].

A second subject of research, which also interested him, was the strange properties of the sun when it set on the Ocean. To observe this phenomenon, he decided to go beyond Gades, to the Sacred Cape (present-day Cabo Saô Vicente), the real, geographical end of the world. Like Polybius before him, his presence *in situ* entitled him to criticize the information on the place provided by the historian Ephorus, who had never been to Iberia [30], and also its distance from Gades as calculated by Eratosthenes the geographer [31]. The distances provided by him were used by ancient geographers many centuries after his death [32]. However, the bulk of his observations on the sunset

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cism of Pytheas can be found in Pol., XXXIV, 5 (= Strabo II, 4, 1), and of Timaeus in Pol., XII, 3-16, 23-28a. Criticism of Silenus could also be implied by attributing to him the opinion, parroted by Strabo, of the former being an ἰδιώτης on the matter of the source, cf. Strabo, III, 5, 7.

25. Pol., XXXIV, 15 (= Pliny, IV, 119); XXXIV, 9 (= Strabo, III, 5, 7).

26. Pol., XXXIV, 9 (= Strabo, III, 5, 5).

27. Marcian, *Epitome of Menippus*, III, 31-35 (*Geographi Graeci Minores* I, 566).

28. Cf. G. PURPURA, "Il geografo Artemidoro e la dogana dell'Asia", in L. DESANTI *et. al*. (ed.), *Per il LXX compleanno di Pierpaolo Zamorani,* Milan, 2009, p. 355-362 ; L. CANFORA, *El viaje de Artemidoro. Vida y aventuras de un gran explorador de la Antigüedad,* Madrid, 2011 [Milano 2010], p. 47-50.

29. Strabo, III, 5, 7.

30. Strabo, III, 1, 4.

31. Strabo, III, 2, 11.

32. Cf. for example Pliny, II, 242; Martianus Capella, VI, 611.

came under heavy criticism by Posidonius [33]. Artemidorus had claimed that the sun, when it set in the Ocean, appeared a hundred times larger than its ordinary size, and that night followed immediately after sunset, without twilight – an admittedly mythical picture, inherited from the old notion that the Earth was flat and the Sun was swallowed as it reached the end of its course in the West, only to reappear in the East the following morning. The size of the sun would point towards this same notion: East and West being the cardinal points where the Sun came closest to the world of humans. But according to Posidonius, this could not be true, since he had observed the sunsets himself in Gades, and found no evidence of this. Furthermore, a logical hole is found in Artemidorus's claim of having seen the sun set from the Sacred Cape, since he himself had remarked that it was forbidden to remain there at nightfall, a religious interdict which made scientific observation impossible. Gades is thus re-established as the privileged observatory for the Ocean and its phenomena.

The main contributions Artemidorus made to the science of his time belonged to the field of descriptive geography. Aside from establishing the distances from Gades to the Sacred Cape, he is known to have defended, against the opinion of Polybius, that the Pillars of Hercules were not in the Strait of Gibraltar, but in Gades itself [34]. Last, but not least, he claimed to have been informed by the Gaditanian merchants that the true location of the Homeric people known as the Lotus-Eaters was the Western coast of the African continent, an argument in defense of the theory known as Exoceanism, which claimed that the travels of Odysseus had happened in the Ocean and not in the Mediterranean [35].

The last major scientist to come to Gades was Posidonius, the famous Stoic philosopher born in Apameia in 64/63 B.C. His journey to the Western part of the Empire, which brought him as far as Gades, culminated in a treatise known as *On the Ocean*, which, again, has only survived through fragments quoted by other authors. His observations in Gades, where he stayed for a month, as well as his criticism of his predecessors, were the main source for Strabo's chapters on the area. He contributed to the debate about the temple source with a theory of his own [36], and made meticulous observations on the daily, monthly and yearly movements of the tides,

33. Posidonius, Fr. 119 EDELSTEIN-KIDD (= Strabo, III, 1, 5).

34. Marcian, *Periplus of the Outer Sea,* II, 4 (*GGM*, I, 543).

35. C. JACOB, *Géographie et Ethnologie en Grèce ancienne,* Paris, 1991, p. 23-24.

36. A problematic theory, which reduced the whole issue to a confusion initiated by the Gaditanians themselves, attributing to them an imperfect observation of the daily phenomenon of the tides which could not fail to irritate Strabo, as Posidonius's treatise was at least partly based on the knowledge of his hosts, cf. Strabo, III, 5, 8, 9 (Pos., Fr. 217-218 EDELSTEIN-KIDD).

weighed against the input of the locals, and widely employed by later authors [37].

He also made his own observations on the matter of sunsets in order to refute Artemidorus, as mentioned above, and located the Pillars in the temple of Gades, identifying them with the twin betyls on the god's altar [38]. For the Greeks, the Pillars were a purely geographic concept, but Posidonius, as Artemidorus before him, was influenced by the worldview of his informers.

Finally, Posidonius also remarked on the existence of a strange tree in the island-city, which

> has branches that bend to the ground, and oftentimes has leaves (they are sword-like) a cubit in length but only four fingers in breadth. […] If a branch is broken, milk flows from it, while if a root is cut, a red liquid oozes forth (ὄζους ἔχον καμπτομένους εἰς ἔδαφος, πολλάκις δὲ φύλλα ξιφοειδῆ πηχυαῖα τὸ μῆκος, πλάτος δὲ τετραδάκτυλα […] ὅτι κλάδου μὲν ἀποκλωμένου γάλα ῥεῖ, ῥίζης δὲ τεμνομένης μιλτῶδες ὑγρὸν ἀναφέρεται) [39].

The presence of strange trees, related to the cult of Hercules, was also remarked by later authors, such as Philostratus and Pausanias [40].

These are the main authors of Antiquity who visited Gades for scientific purposes. This overview can be completed with a list of explorers, real or fictional, who, imitating Hercules or the Homeric heroes, undertook ambitious expeditions to the Western Ocean. There is no mention of the city when Herodotus described the travels to the legendary Tartessus by Colaeus of Samos and by the Phocaeans before the Persian War, though it was most certainly there [41]. It was different with the Hellenistic tradition according to which Alexander the Great had died without being able to accomplish a circumnavigation of the African continent, which would have ended in Gades. Mentioned by many authors, the original source of this tradition was probably a projected expedition against Carthage, which was subsequently magnified and turned into an *imitatio Herculis* by the addition of elements like the circumnavigation, the arrival to Gades and the Pillars, and even a later inland expedition that would have passed through the Alps [42]. Though not a

37. Strabo, III, 5, 7-9; Seneca*, Natural Questions* III, 28, 6; Pliny, II, 215; Priscian of Lydia, *Solutions* VI (p. 71 BYWATER).

38. Pos., Fr. 246 EDELSTEIN-KIDD (= Strabo, III, 5, 5).

39. Pos., Fr. 241 EDELSTEIN-KIDD (= Strabo, III, 5, 10), translated by H. L. Jones.

40. Phil., V, 5; Pausanias, I, 35, 8.

41. Hdt., I, 163; IV, 152.

42. Diod. Sic., XVIII, 4, 4-6; Curtius, X, 1, 17; Plutarch, *Life of Alexander,* 68, 1; Arrian, *Anabasis*, V, 26, 2; VII, 1, 2. Cf. G. NENCI, "Realta e leggenda dei disegni occidentali di Alessandro", in G. NENCI, *Introduzione alle guerre persiane e altri saggi di storia antica,* Pisa, 1958, p. 215-257. Also Dionysius of Halicarnassus, I, 39-44; Diod. Sic., IV, 17-25 on Heracles.

scientific expedition by any means, it must be remarked that the possibility of circumnavigating Africa was one of the obsessions of Greek geographers and historians. It was not only a way to discover unknown lands and determine the shape of the continent, but also provided proof that the Earth was surrounded by the Ocean [43]. The first, and only, successful attempt of this feat was, in fact, attributed by Herodotus to an old Phoenician expedition under the Egyptian king Necho (IV, 42), an ancient tradition made credible by the proverbial fame of their sailing exploits.

Speaking of *imitatio Herculis,* it was significant how the Carthaginian leader Hannibal chose Gades as the point of departure for his war against the Romans, a war which started after he broke the treaty by attacking Saguntum, a city not far removed from his own headquarters, Qarthadashat or Carthago Nova, in the Eastern coast of the Iberian Peninsula. Going to Gades meant a great detour when speed and surprise was most necessary. It has been said that Hannibal, like Alexander, also wanted to imitate Hercules, both the Greek and the Phoenician one, and that this required his own symbolical stop at the Gaditanian temple [44]. This was not a scientific expedition either, but it included Silenus, who investigated the temple source, and Hannibal himself, in the fictionalized interpretation of his character of Silius Italicus's Punic War epic, was shown observing the tides during his short stay [45].

In the Hellenistic era, an account supposedly written by a Carthaginian king, Hanno, narrated a naval expedition down the Western coast of Africa. The quantity of ink spent trying to settle the matter of its authenticity as a Punic chronicle would be enough to fill a second Ocean [46]. The main tradition, surprisingly, does not mention Gades, and the explorers turn back before they reach the Cape of Good Hope. However, a second tradition, recorded by Pliny, includes both Gades as the point of departure and the idea of circumnavigation [47]. Pliny's text goes on to mention a second account of which we do not have but indirect testimonies, the exploit of the Carthaginian Himilco, who travelled North instead of South [48]. These ac-

43. Cf. for example Pliny, II, 166-169 or Strabo, II, 3, 5.

44. A. Mª. G. CAPOMACCHIA, "Hannibal e il prodigio", in M. E. AUBET, M. BARTHELEMY (ed.), *Actas del IV Congreso Internacional de Estudios Fenicios y Púnicos,* Servicio de Publicaciones Universidad de Cádiz, 2000, p. 569-571.

45. Silius Italicus, III, 45s.

46. Cf. F. J. GONZÁLEZ PONCE, *Periplógrafos griegos 1. Épocas arcaica y clásica I: Periplo de Hanón y autores de los siglos VI y V a.C,* Prensas Universidad de Zaragoza, 2008, p. 73-154.

47. *Et Hanno Carthaginis potentia florente circumuectus a Gadibus ad finem Arabiae nauigationem eam prodidit scripto* (Pliny, II, 169).

48. See also Avienus, *The Sea Coast,* 118s; 412s.

counts are so full of monsters, strange lands and impossible phenomena, that it has been speculated that the Carthaginians wished to actively discourage their Greek competitors from attempting their own expeditions [49]. In any case, a quantity of anecdotes from similar expeditions attempted by Carthaginians and Phoenicians in the Ocean were included in catalogues of παράδοξα, or scientific oddities which interested the Hellenistic public [50].

Another explorer who must be mentioned is Eudoxus of Cyzicus, the adventurer who found the prow of a Gaditanian fishing ship in the coast of Ethiopia and was led to believe that circumnavigating Africa was, after all, possible [51]. There are two different versions about his expedition: the first, originating with Posidonius, had the journey start at Gades, while the other, known to Pliny, Mela and Martianus Capella, whose source was Cornelius Nepos, had Gades as the destination. To Posidonius, this was clear proof that the Earth was surrounded by the Ocean.

A traveler of whom we don't know much was Cleon of Magnesia, quoted by Pausanias in his *Periegesis* as having stayed in Gades, where he had an adventure involving an obscure ritual and a giant "man from the sea" [52]. The fact that Pausanias quotes him seems to imply that he had written some kind of account of his stay in the city; whether its main subject was science, exploration, or merely anecdotes with an exotic feel, we are unable to say.

There is also a heavily fictionalized character, to whom popular tradition attributed a scientific stay in Gades. It is none other than Apollonius of Tyana, a Neo-Pitagoric philosopher who lived in the first century A.D., and who was often compared with Jesus for his ability to gather followers and work miracles. In the early third century, the empress Julia Domna requested Philostratus, an important intellectual in her inner circle, to write a biography of him. And though, like Jesus, Apollonius seems to have lived, preached and died in the East, the fictional journey to Gades was a wonderful opportunity to show the hero reaching the end of the world and solving all the enigmas endlessly debated by his predecessors: how tides worked, how sunsets happened, the unusual look of the trees, and the real nature and location of the Pillars [53].

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49. For example, A. SCHULTEN, *Fontes Hispaniae Antiquae I: Avieno. Ora Maritima.* Madrid, 1955, p. 118.

50. Pseudo-Aristotle*, On Marvellous Things Heard*, 84, 114 (124), 135 (147), 136 (148).

51. The extant sources for the story are Strabo, II, 3, 4,5; Mela, III, 90-92; Pliny, II, 169; Mar. Cap., VI, 621.

52. Paus., X, 4, 6.

53. Phil., V, 1-5.

Fictional travels, however, took also a different, more down to earth form. Geographers and naturalists often described the world as if they were travelling around it, often following the directions set by peripli, or sea journey itineraries which became a genre in the VI century B.C. With this, they created an illusion of travel, which they effectively strengthened by using the accounts of people who had been to distant regions, so readers could see things through their eyes.

The oldest extant periplus where Gades is described is the one falsely attributed to the sixth-century traveler Scylax of Caryanda, which was actually written in the middle of the fourth [54]. Its mentions to the city are dominated by the obsession with locating the Pillars, alternately set in the Strait or in both Strait and city, since they were two [55]. There is also another anonymous work known as the *Periodos to Nicomedes*, written in the first decade of the first century B.C., as can be deduced from its dedication to King Nicomedes of Bithynia. Its author has remained anonymous, and he is conventionally referred to as "Pseudo-Scymnus". In the poem, Gades is said to be a place where there are "great sea-monsters (κήτη)" [56].

Menippus of Pergamus and his *Periplus of the Inner Sea* have been dated during the Augustan Principate by González Ponce [57]. We know this work mainly through an *Epitome* written by Marcian of Heraclea four centuries later. Marcian himself mentioned Gades in his sole extant original work, giving some brief information on the debate about the Pillars [58]. As a rule, sea itineraries do not contain long digressions, which do feature in his contemporary Pomponius Mela's *Chorography* (though Mela was not actually a traveler, fictional or otherwise, since he was born in Tingentera near Gades) [59], and above all in Strabo's *Geography.* Strabo dedicated a very long section to the city, where he employed all significant firsthand sources,

54. Cf. S. BIANCHETTI, Πλωτὰ καὶ πορευτά*: sulla tracce di una periegesi anonima,* Roma, 1990, p. 63-65.

55. Pseudo Scylax, 1- 2, 111 (*GGM* I, 15,16; 90,91). Cf. A. PERETTI, *Il periplo di Scilace: studio sul primo portolano del Mediterraneo*, Pisa, 1979, p. 167.

56. Pseudo Scymnus, 159-162 (*GGM* I, 200,201). There are many ways to explain this quote: it could refer to the prosperity of tuna-fishing in the area (cf. Avien., *Sea*, 118s; 380s., Pseud.-Arist., 136 (148); Pol., XXXIV, 8 [= Strabo III, 2, 7]), to whales (Pliny, IX, 10-13), or it could even be a general way to establish a connection with the epic traditions concerning the Ocean such as the birth of cosmic monsters on its shores described by Hesiod (Hes., *Th.*, 215-216, 274-276, 290, 308-309, 325-327, 333-335, 517-518; Fr. 360), and Homer (*Od.*, XVI, 150-151), or those mentioned by Pindar in his third Nemean as quoted above.

57. F. J. GONZÁLEZ PONCE, "El periplo griego antiguo ¿verdadera guía de viajes o mero género literario? El ejemplo de Menipo de Pérgamo", *Habis* 29 (1993), p. 71.

58. Marcian, *Periplus,* II, 4 (*GGM*, I, 543).

59. Mela, III, 46.

which we have already quoted above, and dealt with every relevant theme involving the Phoenician colony [60]. Pliny the Elder, during the reign of Vespasian, proceeded more laconically in his own geographical description, though he also collected information on sources which have been lost to us [61]. Both described Gades not in the chapters dedicated to the towns of Baetica, but among the islands, a reminder of the strong ties between the former colony and the Ocean.

Two last important fictional travels are the *Description of the Earth* by the second-century author Dionysius Periegetes, and the distinctly old-fashioned periplus *The Sea Coast (Ora Maritima)* by fourth-century Avienus. The first was conceived from a flying perspective [62]; the second from a sailing one. Both dedicated a comparatively high number of verses to Gades, which bear testimony to its importance in geographic literature [63]. The latter poet, however, provides a striking testimony of this importance having become anachronistic and dissociated from the reality of his own time, when he turns momentarily aside from his relentless quoting of out-dated sources and claims to have visited – the last of the travelers – Gades in person, only to find the famous city

> now poor, now small, now destitute, now a field of ruins. Besides the festival of Hercules, we could see nothing worthy of admiration (*nunc egena, nunc brevis / nunc destituta, nunc ruinarum agger est. / Nos hoc locorum, praeter Herculaneam / solemnitatem, vidimus miri nihil*) [64].

The great issues

The evidence of the sources detailed above points toward the existence of a tradition of scientific travel to Gades in the Hellenistic and Imperial periods. The Phoenician colony served a double purpose, as a privileged observation spot for phenomena connected to the ocean (easily accessible after the Roman conquest of Baetica, or at least more accessible than the Northern or Southeastern oceans), and as a place where a visitor could gather information from experienced travelers, and maybe even experienced

60. Strabo, III, 5, 3-11.

61. Pliny, IV, 119-120. He also includes a paragraph on the temple source, though he does it in a chapter of his work dedicated to aquatic phenomena, cf. II, 219.

62. Cf. C. JACOB, "L'œil et la mémoire: sur la Périégèse de la Terre habitée de Denys", in C. JACOB, F. LESTRINGANT (ed.), *Arts et légendes d'espaces,* Paris, 1981, p. 21-97, as well as "La carte écarte : sur les pouvoirs imaginaires du texte géographique en Grèce ancienne", in A. M. CHRISTIN (ed.), *Espaces de la lecture*, Paris, 1988, and *La description de la Terre habitée de Denys d'Alexandrie ou la leçon de géographie,* Paris, 1989.

63. Dionysius Periegetes, 451-460; Avienus, 267-290, and probably also 305-316.

64. Avienus, 270-274.

scientists. Strabo thought highly of the Gaditanians and their observation skills, and they were the basis for some of the theories of Posidonius. Recently, Marín Ceballos and Jiménez Flores have proposed that the temple of Hercules-Melqart should be understood as a center of learning, the same role held by similarly large religious complexes in the Eastern part of the Empire [65]. This would explain why the temple often seems to be at the center of investigations, and why the single most discussed phenomenon, the source and its reverse flow, was located there and was probably related to a Phoenician cult [66].

This source, a puzzling deviation from the general movement of the tides, was used as a pretext to discuss them. The most thorough research was accomplished by Posidonius, whose interest in the phenomenon stemmed from his adhesion to the Stoic school. The tides, and their unique relationship to the moon, were a striking illustration of the Stoic theory of sympathy [67], and they were stronger and more visible in the Atlantic than in the Mediterranean, to the point of attracting observers from all over the Inner Sea.

A second important issue was geographic. None of the writers who visited Gades, and none of the writers who quote them, forgot to establish the location of the famous Pillars set by Hercules, according to tradition, at the return point of his expedition. Since there was nothing resembling a proper pillar in the area, it is not surprising that there would be different theories on the matter. Conflating the Pillars with a geographic landmark, whether the end of the world or – later – the separation of two continents, brought the scientific geographers of the Hellenistic era, like Eratosthenes or Dicaearchus, to identify them with the Strait of Gibraltar. However, there were local traditions that stated otherwise. According to Strabo and Marcian, the Iberians, the Lybians, and the Gaditanians themselves claimed that the Pillars were either Gades itself or the betyls in the temple altar. Artemidorus, Posidonius and the Apollonius of Philostratus were seduced by the logic of this second option [68]; still, mainstream geographical knowl-

65. Mª. C. MARÍN CEBALLOS, A. Mª. JIMÉNEZ FLORES, "Los santuarios fenicio-púnicos … ", *op. cit.* (n. 5). On this temple and its symbolical significance for sea travel, cf. also J. GAGÉ, "Hercule-Melqart, Alexandre et les Romains a Gadès", *REA* 42 (1940), p. 425-438. A detailed overview of its connections with Eastern cult is provided by C. BONNET's book, *op. cit.* (n. 5), p. 66.

66. C. BONNET, *op. cit.* (n. 5), p. 68-69 ; S. RIBICHINI, *op. cit.* (n. 5), p. 58 ; R. LÓPEZ MELERO, "El mito de las Columnas de Hercules y el estrecho de Gibraltar", in E. RIPOLL PERELLÓ (ed.), *Actas del I Congreso Internacional 'El Estrecho de Gibraltar', Ceuta 1987,* Madrid, 1988, p. 615-642.

67. Cf. S. SAMBURSKY, *Physics of the Stoics,* New York, 1959.

68. Marcian, *Periplus*, II, 4 (*GGM,* I, 543); Strabo, III, 5, 5, 6; Phil., V, 5.

edge maintained that Pillars and Strait were interchangeable. This debate probably shows a clash between Greek and Phoenician worldviews, between modern geography and ancient religious notions hailing back to the moment of colonization [69].

There were some other recurring issues, such as the particular behavior of the sun as it set on the Western Ocean. The idea of the sun being "a hundred times larger", not to mention the sizzling noise it made as it disappeared, was a survival of archaic world conceptions, and it had a counterpoint in the East, where others claimed to have observed similar phenomena connected to the rising sun [70]. Posidonius, however, did not find evidence for this after spending "thirty days in Gades".

A last thing which could also be observed *in situ* was the existence of a strange tree species. Posidonius described it meticulously, from the point of view of an amateur botanist; however, later descriptions leave us wondering if those trees did not belong in the temple as well, where they would have had a religious purpose [71].

There were also questions posed to the Gaditanian sailors and merchants by the Greek intellectuals who wished to learn more about peoples, islands and continents beyond the known world, and whether they could be identified with those met by their own heroes in their wanderings. Artemidorus recorded their opinion on the Lotus-eaters, Ephorus on the Ethiopians [72]. Strabo indicated that the Gaditanians were the only ones who could tell the truth about the circumnavigation of Africa by Eudoxus [73]. Later, Aelius Aristides called upon the Gaditanian fishermen as proof of the falsity of Euthymenes's claim that the Ocean was composed of fresh water [74]. Other sources made them the discoverers of fabulous islands in the Ocean [75], of which Plato's Atlantis was a literary derivation. Possibly this is what brought the Athenian philosopher to call the twin brother of King Atlas Γάδειρος [76].

69. R. LÓPEZ MELERO, cf. n. 66.

70. For example, Agatharchides 105 (*GGM*, I, 192 = Diod. Sic., III, 48, 12), Ctesias, *FGH* 688 Fr. 45, 12 (= Photius, *Library,* 72, 45b, 16-9), and Hdt., III, 104.

71. Cf. Paus., I, 35, 8 and Phil., V, 5. Cf. P. FERNÁNDEZ CAMACHO "A Space without Ethnology: Study of the Ideological Treatment of the West in Greek and Roman Literature through Sources concerning the Island of Gades", *AC* 84 (2015), p. 111-118.

72. Strabo, I, 1, 26.

73. Strabo, I, 2, 3-5.

74. Aelius Aristides, XXXVI, 85-96.

75. Plutarch, *Life of Sertorius*, 8, 1-3; Pseudo- Arist., 84; Diod. Sic. V, 19,20.

76. Plato, *Critias*, 114b.

On a general basis, in sources where there is mention, description, or explanation of any of those issues, the name of the place where they were originally observed, and the fact that the natives volunteered their own knowledge, are both mentioned and even emphasized. This shows that Gades was a prestigious place to be if one aspired to write about the Ocean, and the plethora of questions connected with it and the Far West which interested the Greek and Roman intellectuals of the time. There was an illustrious tradition of travelers which began with the mythical Hercules, including names like Pytheas, Silenus, Polybius, Artemidorus and Posidonius, and culminating with Apollonius, the miracle man from the colourful pages of Philostratus. Most of those belonged to the second and first centuries B.C., when the Phoenician colony was made accessible by the Romans, and began to attract intellectuals worldwide. There were also many others who quoted the things that those people had discovered, and used them for their Geographies, treatises, itineraries and compilations. It is mostly through those secondary sources that we can now appreciate the importance held by this observation center from the Hellenistic to the late Imperial era.

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