All the Roads of the Sea: Charting Greek and Roman Waterways

At the end of *Aeneid* book 5, in a calm, and sailing under a gentle wind, the drowsy Palinurus falls victim to the god of sleep who sends the helmsman to his watery death. Italy is within sight, the Trojans have nearly reached their destination, and the services of the helmsman are no longer required. Palinurus had faithfully guided Aeneas' ships from Troy through unknown waters, navigating through the tight formations of islands, straits, and shoals, under calm skies and stormy.

Travel by water is fraught with danger. Successful mariners must anticipate weather and sea conditions, and they must know where it is safe to sail and when, in order to avoid running aground or worse. The ancients had detailed knowledge about the waterways that they traveled. They collected data that facilitated safe passage, and these details are preserved in a variety of technical and literary sources: from Homer, Apollonius of Rhodes, and Vergil, to Eratosthenes, Strabo, Pliny, Arrian, Avienus, and others. Knowing water depth, for example, is essential for successful maritime activity, and Herodotus provides the earliest positive evidence of taking soundings (2.5.2; Casson 1995, 245), which sailors have been doing for as long as there have been boats on water. And ancient leadlines of several types have been recovered. River pilots, furthermore, commonly guided merchant ships through unfamiliar waters. By Polybius's day, for example, Lake Maeotis (the Sea of Azov just north of the Black Sea) had silted up to the extent that it was unnavigable without a pilot who knew the waters well enough to steer larger boats through safe, deep channels, away from the shoals (4.40.8).

Evidence that the ancients made nautical charts in the modern sense is limited at best, but such charts may have been constructed and displayed, at least in monumental contexts, as Apollonius of Rhodes implies. On the pillars in Aeëtes' Cholkian palace, the Argonauts saw tablets "on which are marked all the roads and paths of both sea and land for those who circumnavigate" (οἶς ἔνι πᾶσαι ὁδοὶ καὶ πείρατ' ἔασιν ὑγρῆς τε τραφερῆς τε πέριξ ἐπινισσομένοισιν: *Argonautica* 4.279-81; cp. πλόος, "sea route:" *Argonautica*: 4.259; Theocritus, *Idyll* 7.52), reflecting, perhaps, monumental charts that might have been displayed in the Hellenistic courts of Apollonius's day (more likely unknown in Bronze Age Colchis, and certainly unattested for that period). The Mediterranean Sea from the Bronze Age onward was well-trafficked, and the best sailing channels, then as now, were commonly known (Arnaud 2005).

This talk will explore more deeply how Greek and Roman mariners collected and employed maritime data, how this data was transmitted and displayed, and to what extent nautical charts – either textual or pictorial – existed.

Bibliography

- Arnaud, Pascal. 2005. *Les routes de la navigation antique: itinéraires en Méditerranée*. Paris: Errance.
- Campbell, Brian. 2012. *Rivers and the Power of Ancient Rome. Studies in the History of Greece and Rome.* Chapel Hill: University of North Carolina Press.
- Carrer, Olivier. 2006. Océans de Papier: Histoire de Cartes Marines. Des Périples Antiques au GPS. Grenoble: Glénat.
- Casson, Lionel. 1995. *Ships and Seamanship in the Ancient World*. Baltimore, MD: Johns Hopkins University Press.