To The Ends of the Earth: Greco-Roman Exploration of the World

Although Greco-Roman culture was centered on the Mediterranean and its environs, by the second century AD Greeks and Romans knew about the entire eastern hemisphere, and had begun to suspect that there might be other continents beyond those known. From the Arctic to sub-Saharan Africa, and from the middle of the Atlantic to Java, Greek travellers, merchants, and military expeditions steadily explored the hemisphere.

Greek geographical knowledge began to expand in the Bronze Age, as the Argonauts penetrated the limits of the Black Sea and refugees from the Trojan War flooded into Italy and Sicily. The threat of the Persians in the sixth century BC pushed eastern Greeks beyond Italy into the western Mediterranean. Alexander the Great brought India and its environs into the Greek horizon.

Many of these expeditions are well known, but relatively unfamiliar are the Greeks and Romans who were literally to the ends of the earth. Pytheas of Massalia penetrated the Arctic in the latter fourth century BC, going perhaps as far as Iceland and finding a world so unfamiliar--both boiling and frozen--that his data were dismissed as fantasy for the rest of antiquity (Roseman 1994). Others went beyond the limits of Alexander's expedition and learned about Sri Lanka, the lower Ganges, and beyond.

But it was merchants and traders, rather than scientific explorers, who truly expanded the Mediterranean horizon. Following the amber route from the northern Adriatic, a path was established north to the land called Skandia in the Baltic, where knowledge was gained about the Finns with their reindeer and skis (Roller 2015: 200-2). To the south, Romans went beyond the Sahara on animal hunts, particularly looking for the rhinoceros and hippopotamos. Because overland travel was so difficult, a sea route was established along the eastern African coast to the great trading emporium of Zanzibar, and then inland, discovering the mysterious Mountains of the Moon (Ptolemy, *Geographical Guide* 1.9-14) and incidentially the source of the Nile.

To the east, traders crossed the Bay of Bengal into the Malay peninsula, allegedly rich sources of precious metals and exotic animals, and went as far as Java and Viet Nam; a Roman trading post was established at the mouth of the Mekong (Wheeler 1955: 203-6). By the beginning of the second century AD the rudiments of the Silk Road to the Chinese capital of Luoyang were developed, and traders went from Antioch-on-the-Orontes on a journey of months to obtain Chinese silk and other luxury goods. Thus, except for the extreme northeast, characterized as endless forest (*Periplous of the Erythraian Sea* 66), all the eastern hemisphere had been explored.

Yet even since the calculations of Eratosthenes of Kyrene the true size of the earth had been known, and however vast the explorations of Greeks and Romans had seemed to be, it was realized that only a relatively small portion of the earth lay in the eastern hemisphere. A serious question was what covered the rest of the world: was it nothing but the all-encircling Ocean, or was there another continent? Since the earth was a sphere, as early as Aristotle it was realized that one could sail west from Europe and reach the eastern limits of the known world; but it was equally likely that another continent lay somewhere in the Atlantic. Carthaginians had reached roughly the center of the Atlantic at the Azores, but nothing was known of what lay beyond. Much was written, by Plutarch and others, postulating an unknown western continent, but there was no physical evidence.

It was believed that crossing the Atlantic was a relatively short distance--only a few days' travel--largely because of errors in calculating the east-west extent of the known world, which itself was over-extended because of an inability to determine longitude. Many thought about crossing the Atlantic, and a possible Roman expedition to the west ended up in Guanabara Bay in Brazil, but the ships sank and no report came back to the Mediterranean (Scheckley 1983: 43). It was not until the Renaissance until the Atlantic was actually crossed, with early explorers such as Columbus misled by the erroneous data of ancient geographers such as Ptolemy. Yet many of the places reached in antiquity, such as the Mountains of the Moon, were not seen again by Europeans until the nineteenth century.

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