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Navigation and Transportation

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Navigation and Transportation

Water was the most efficient means of transportation and travel in the ancient Greek world. Evidence of the movement of commodities and people comes from a combination of literary, iconographical, and archaeological sources.

Date: 3000-31 B.C.E.

Category: Daily life; science and technology; trade and commerce

HARDSHIPS OF TRAVEL The poet Hesiod, singing in the eighth century B.C.E., cautioned his brother against the perils of making a living by sailing the seas. A man who ventured on the waves faced not only the dangers of natural elements—storms, contrary winds and currents, hidden shoals, harborless shorelines—but also the uncertainties of human encounters. Pirates infested the seas, and travelers who made it safely to foreign shores had to negotiate strange languages, currencies, and customs. Having arrived and eventually transacted business, travelers might be stranded on the foreign shore, waiting for the “safe” sailing season to resume. Merchant fleets and navies alike left the seas virtually empty between late October and early May.

Travel on land was also dangerous and difficult. Roads were not built until Roman times, and the routes between city-states were at best paths with a single pair of ruts to guide wheeled vehicles. Most travelers walked or used pack animals. The occasional encounter between two wheeled vehicles would require one to back up or be laboriously moved off-track, in order to allow the other to pass. Oedipus’s violent encounter with his father on a major route from the important sanctuary of Delphi is perhaps the earliest attestation of “road rage,” when each refused to budge for the other. The myths of the civilizing hero Theseus in his encounters with various monsters on his way to Athens reflect the constant danger of brigandage, even along well-traveled routes. As late as the nineteenth century, the intrepid archaeologist Heinrich Schliemann, excavator of Troy, was initially forced to call off his exploration of Homer’s Mycenae because of attacks by highway robbers.

The difficulties of travel remained constant throughout the course of the Classical period, and most people rarely, if ever, left home. The one voluntary journey that many might undertake would be a pilgrimage to one of the religious festivals, such as the Olympic Games or the mysteries of Demeter at Eleusis, or a healing sanctuary, such as the famed center of Asclepius on Cos.

COSTS AND EFFICIENCY OF TRANSPORT These pilgrims—whose daily experience with architecture would have been small, dark buildings—surely stopped in their tracks in awe at the sight of the monumental stone temples that served as the sanctuaries' focal points. The building accounts for some temples, inscribed in stone for public display, are still preserved. They are the primary sources for the logistics and costs of materials and labor involved in the building of civic monuments. Here one learns, for example, the number of oxen and weight limits per cartload of stone or timber, as well as the time and cost per unit of distance traveled.

It is much more efficient to haul bulk commodities in a ship than on the backs of pack animals or the beds of wheeled vehicles, and the ancient accounts reflect that fact. Prices varied over time, place, and situation, but the general rule of thumb was that land transport cost ten times more than shipment by sea. Much of the Classical Greek world was resource-poor, and therefore most of her great cities were coastal, developed and supplied on the strength of their merchant fleets and the navies that patrolled the seanelanes.

SHIPS Until World War II, reconstructions of Classical Greek ships were based primarily on scattered references in literature and inscriptions and representations on vases and coins, which are often schematized and thus difficult to interpret. Today, shipwrecks provide a unique window into the ancient world because they are the single example of an archaeological feature that was deliberately assembled, was for contemporary use, and can be completely excavated. Ancient shipwrecks consist primarily of their cargoes—the imperishable, heavy items that settle to the seabed.

Amphoras, the standard shipping container for all cultures of the ancient Mediterranean, mark most classical wrecks. These terracotta jars were designed specifically for stacking in the rounded cargo space of a ship's hull. Because amphoras vary in the details of their features, archaeologists are

able to use these jars to identify the origins and dates of shipwrecks. Amphoras might carry a variety of commodities, though they were particularly useful in the transportation of wine and olive oil. Analysis of the numbers and varieties of amphoras on a shipwreck and their contents, labels, and stacking patterns provides much information about ancient trade: the routes, stops along the way, and quantities and kinds of cargo taken on at each stop. Other types of finds characteristic to ancient Greek shipwrecks are ceramic tablewares and stone sculpture and architectural elements. The occasional discovery of cargoes of ancient statuary are extremely significant, since most metal objects were melted down and recycled in antiquity. Almost every ancient Greek bronze sculpture on exhibit in any museum has been recovered from the sea. Occasionally, amphoras or sandy seabeds preserve perishable items of cargo or some of a ship's hull. The bits of recovered hull have proven to be tremendously important to understanding ancient technological expertise.

Archaeologists do not expect to find warships. Classical warships were designed for speed and carried little weight other than the men who powered them. Contrary to the Hollywood image, rowers were not chained to their benches; they jumped off sinking ships. The empty wooden hulls floated just below the surface until they were salvaged by the victors, or until they eventually became waterlogged and sank. Without cargo, there was nothing to keep the hull from disintegrating. Only the bronze ram might be found on the seabed.

NAVIGATION Stars are important for navigating longitude—not a factor in the narrow confines of the Mediterranean. Ancient navigation manuals which have survived indicate that ships steered their course by landmarks, sailing close to the shores. Recent discoveries of deepwater wrecks have proven that more direct shipping lanes were regularly used by the Romans, but whether this applies also to the Greek period is as yet unknown.

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See also: Trade, Commerce, and Colonization; Trireme; Warfare Before Alexander; Warfare Following Alexander.