Fragments of a bronze geared device were recovered in 1901 from the site of a c. 60 BC shipwreck site off the island of Antikythera, Greece. Successive campaigns of examination and research since 1958 have established that the device had six dials that displayed simulated cycles of time and the simultaneous geocentric apparent motions of the Sun, Moon, and the five planets known in antiquity. References to comparable planetaria exist in various classical texts, but few of these references reflect direct experience of them, and none provide details of their functions and working. The surviving mechanical elements and the texts inscribed on the dials and additional plates that accompanied the Antikythera Mechanism are valuable witnesses to the otherwise poorly documented mathematical astronomy of the Hellenistic period of Greek astronomy, including calendar regulation, planetary theory, and eclipse prediction.