

# Hippocrates of Chios and the invention of deductive mathematics

Ken SAITO

Hippocrates of Chios (fl. ca. 440 BCE) is known for some important results in geometry, including the quadrature of the lunule. Scholars have been embarrassed by some sources which tell us that he made erroneous arguments concerning the quadrature of the circle using lunules. I examine these sources with other scarce documents concerning his biography, and propose the following interpretation. Hippocrates visited Athens for a lawsuit, and looked for sophists to win the case; then he was interested in geometry through his contacts with sophists. If this interpretation is accepted, it would be no wonder if he had behaved like a sophist, and had developed a fallacious arguments on purpose in which he made his audience believe that the quadrature of the circle would be possible just as that of the lunule, being aware of the difference of the quadrature of circle and the lunule.

That a great geometer must not have told a lie, may well be modern scholars' unfounded belief, influenced by Platonic exaltation of mathematics.