Pestilence and Plague: The Scientific Investigation of Greek Literary Epidemics

The extant corpus of Greco-Roman literature is sprinkled with references to virulent epidemics, with the most well-known appearing in the pages of the *Iliad*, *Oedipus Rex* and the historical accounts of Thucydides. Although some of these were clearly historical events, such as the plagues of Athens (ca. 430/29 BCE and 427/6 BCE) which killed at least one-third of the Athenian population, there are others that have been dismissed as merely mythical. The plague of Kamarina, a Greek polis in southeastern Sicily, is an example of an 'epidemic' that might have been crafted by a writer with an ulterior motive. According to Roman authors (Ovid Fasti 4.477; Servius ad Aeneidem 3.701; Vergil Aeneid 3.700), the people of Kamarina succumbed to a mysterious illness around 405 BCE, which seemingly originated in a marsh located north of the polis. To prevent the death toll from escalating, the Kamarineans consulted an oracle of Apollo as to whether they should drain the swamp. Apollo forbade them to drain the marsh, but the beleaguered people of Kamarina disobeyed in desperate hopes of eliminating the pestilence. What the Kamarineans did not know was that the swamp served as a natural defensive barrier against assault from the north. In removing their natural defense, the inhabitants of Kamarina unwittingly exposed their vulnerability to the invading Karthaginians, thus hastening their own demise. Four hundred years after the Karthaginians had razed the polis, the story of Kamarina had become a powerful parable for later authors; a warning against investing in any endeavor that was likely to end in disaster. Since the only existing sources describing the Kamarinean plague are from the Roman period, it is likely that the tale is mythical and that it was conflated and embellished over the centuries. However, it is also possible that the story is accurate, and the Roman accounts are based on earlier, non-extant Greek texts.

This paper turns to science to determine whether the plague of Kamarina is fact or fiction and provides a framework for the future investigation of ancient plagues. An examination of archaeological evidence, burial customs and a skeletal sample (n= 272) from Kamarina's Passo Marinaro necropolis (ca. 5th to 3rd c. BCE), reveals that a canal system was built to divert water from the marsh away from Kamarina, confirming the inhabitants' desire to redirect the pooling water of the nearby river. Furthermore, there is a destruction layer ca. 405 BCE, indicating that the city was sacked during the year of the plague. Although no mass burials have been located to date, it is possible that the plague described was malaria, especially since marshes typically harbor and breed mosquitoes and the marsh at Kamarina was identified as the source of the disease. A number of skeletons from the Passo Marinaro necropolis possess pathological lesions that could have been caused by malaria, which further increases the probability that an outbreak of malaria occurred during the 5th century.