

Livestock plagues in late antiquity, with a disassembling of the bovine panzootic of A.D. 376-386

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The history of late-antique animal plagues requires a fresh start. Over the last 30 years, scholars have amassed copious quantities of written and material evidence for major shifts in the natural world experienced, or reported, as disasters in late antiquity. They have read textual passages more critically and interwoven written with physical data more meticulously than researchers before them. As a result, much more is known now about human plagues, climatic downturns and tectonic perturbations in the Late Roman period. Yet knowledge of late-antique livestock disease remains pretty much where animal health specialists left it in the 18th and 19th c. There are, to be sure, histories of late-antique animal plagues, but they are long out of date, unreliable and altogether of poor quality.¹

Although virtually unknown to scholars of antiquity,² the late-antique disaster addressed in this paper, the bovine panzootic of A.D. 376-386, has captured the interest of animal health specialists for a long time, long before late antiquity was Late Antiquity.³ Yet, this great cattle plague has changed little over the last 200 years, remaining more or less the same since J.-J. Paulet, the *petite vérole* authority and *mycologue*, published his account of it in his *Recherches historiques et physiques sur les maladies épizootiques* of 1775.⁴ Historians have neither scrutinized the evidence for the disaster nor surveyed late-antique sources in attempts to accumulate more support for it, as they have for human pandemics, earthquakes, volcanic eruptions, bouts of violent weather, and tsunamis. Similarly, archeologists have yet to associate the die-off with animal burials from the period⁵ as mass graves of people are being tied to Late Roman human plagues.⁶ There is no aDNA or paleo-

1 I refer here to the die-offs sketched in the catalogues of animal plagues discussed below (nn. 4 and 25).

2 There are hints of the alleged disaster: G. Fort (*Medical economy during the Middle Ages* [New York 1883] 108) quotes from Sanctus Severus Endeleichus' *De mortibus boum*, a source for the panzootic to be discussed below, but dates the poem to the 5th c. and makes no mention of a Late Roman cow mortality. J. B. Bury (*A history of the Later Roman Empire from Arcadius to Irene [395 AD to 800 AD]* [London 1889] 330) alludes to Endeleichus but seems not to have thought much of his plague; E. Jones ("Disaster management and resource saving in Europe, 1400-1800," in A. Maczak and W. Parker [edd.], *Natural resources in European history* [Washington, D.C. 1978] 116) vaguely refers to a 4th-c. cattle plague; R. Sallares (*The ecology of the ancient Greek world* [Ithaca, NY 1991] 471 n.404) mentions in his copious footnotes Endeleichus' poem and notes it evidences a "late imperial" cattle plague that disseminated from Illyria and Pannonia to Italy.

3 This is true whether one looks to P. Brown's *The world of late antiquity, AD 150-750* (London 1971) or A. Riegl's *Die spät-römische Kunst-Industrie nach den Funden in Österreich-Ungarn* (Vienna 1901).

4 J.-J. Paulet, *Recherches historiques et physiques sur maladies epizootiques, première partie* (Paris 1775) 61-65.

5 The author is unaware of any mass bovine graves inside or close to the area the panzootic is held to have affected that date to within half a century of 376-386. O. Putelat ("Archéologie des dépôts animaux et mortalité extraordinaire du cheptel bovin au premier Moyen Âge: plaidoyer pour une redynamisation et une mise en perspective de la recherche," in G. Auxiette and P. Meniel [edd.], *Les dépôts d'ossements d'animaux en France, de la fouille à l'interprétation* [Montagnac 2013] 271-73) surveys mass bovine graves in France and Switzerland from 200 to 1200.

6 Notably M. McCormick, "Tracking mass death during the fall of Rome's Empire (I)," *JRA* 28