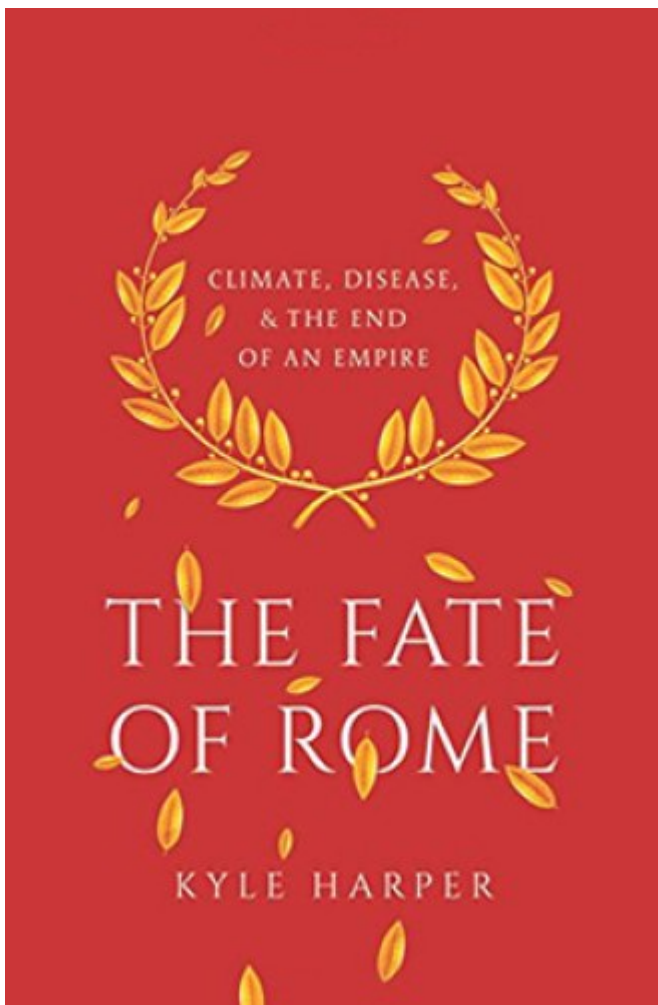


When Rome succumbed to the elements

What brought down the Roman Empire? Kyle Harper says it was plague and cold climate.

by [Tony Jones](#) in the [June 20, 2018](#) issue

In Review



The Fate of Rome

Climate, Disease, and the End of an Empire

By Kyle Harper
Princeton University Press

In his misguided masterpiece *The Decline and Fall of the Roman Empire*, Edward Gibbon (in)famously blames the demise of the greatest empire in human history in part on Christianity. Infected by the new and not-violent-enough religion, the emperors and their soldiers forfeited their masculinity and ultimately lost their power to the hairy, smelly, and very masculine barbarian hordes.

Gibbon's is just one of myriad theories as to why Rome fell after a millennium of unprecedented (and never repeated) strength. Kyle Harper, a classicist at the University of Oklahoma, adds a fascinating theory to the corpus—one that could only be ventured at this particular point in history. That's because his thesis rests entirely on modern science.

Harper, an able and often eloquent writer, does not deny the political ebbs and flows of the empire, the literal backstabbing that led one emperor to succeed the last. But good and bad emperors came and went in no pattern. Instead, Harper argues, Rome was brought down by two environmental components: pestilence and climate. And when these two worked in concert, things really got bad.

Harper begins by reminding us just how huge the Roman Empire was. At its largest extent, it reached from Denmark to Egypt, and from Spain to Iraq. Within those borders, the human population flourished and multiplied. And it did so in large part because of Roman Climate Optimum, a three-and-a-half-century period from 200 BCE to 150 CE in which the Mediterranean basin was particularly warm, wet, and stable. RCO was "an inviting moment to make an agrarian empire out of a pyramid of political bargains."

Gibbon stated that the "human race was most happy and prosperous" between 96 and 180 CE, and Harper shows how this was as much a result of the climate as it was of political stability. The abundant warmth and precipitation were ideal for feeding an empire teeming with hungry mouths. For example, archaeologists have uncovered proof that crops were planted in altitudes that today can produce very little. Ensuring that people have food and water is the first step in growing an empire.

But an unintended consequence of the Roman success hit just as the climate started to cool. The Antonine Plague emerged in 165 CE and lasted for 15 years. Two

factors, trade and urbanization, caused the plague to spread rapidly.

On the basis of the writings of a brilliant Roman physician named Galen, we have accurate and horrifying descriptions of what Harper calls the first pandemic in human history. Most likely it was smallpox, and it killed over 5 million citizens of the empire. Galen reports that at its height, 2,000 people were dying each day in the city of Rome. The pox hit the army particularly hard, nearly decimating its ranks and causing Marcus Aurelius to conscript slaves and brigands into military service.

The empire survived the Antonine Plague, but it was set back on its heels, and it never recovered the geographical or military dominance that it had during RCO. The next century witnessed political instability that we now call the Crisis of the Third Century, coinciding with cooling in the Mediterranean basin, leading parts of the empire to experience droughts and consequent food shortages.

At the same time, a new religion was spreading across the empire like wildfire. Christianity provides some valuable data for classicists like Harper. For instance, Christians' belief in resurrection led them to forgo the Roman custom of cremation and instead bury their dead. That led to the use of sarcophagi, and on those sarcophagi were carved names and dates. Relying on carvings, Harper shows that mortality rates spiked in August and September, leading him to surmise that malaria was a seasonal killer.

Indeed, both of the subsequent pandemics were named for Christians. The Cyprian Plague (249–262 CE) was named for the bishop of Carthage who preached about the disease in such detail that Harper can conclude it was likely Ebola. And the Justinian Plague (541–542 CE), which takes its name from the Christian emperor at the time, was *Yersinia pestis*—the bubonic plague. By that time, the Western empire had already fallen: “The alliance of war, plague, and climate change conspired to reverse a millennium of material advance and turn Italy into an early medieval backwater, more important for the bones of its saints, than its economic or political prowess.”

We hear it a lot these days: we're going the way of the Roman Empire. Both liberal and conservative doomsayers bemoan American decadence. We are eating and drinking our way to extinction! Donald Trump is the new Nero! We're being overrun by infidels! But as Harper reminds us, “germs are far deadlier than Germans.”