

Did the second plague pandemic reach Sub-Saharan Africa?

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Gérard Chouin (center), William & Mary associate professor of history and director of medieval and renaissance studies, is shown talking with local tribal leader the Ooni of Ife (second from left) while doing field work in Nigeria last year. Credit: Ife-Sungbo Archaeological Project

He has not found irrefutable evidence yet but is confident that it exists. For now, Gérard Chouin continues to amass what circumstantial evidence he can for his hypothesis.

After three years of work, Chouin is adamant that the medieval-era bubonic plague epidemic, the Black Death, spread to Sub-Saharan

Africa and killed scores of people there as it did in Europe and the Mediterranean basin in the 14th century.

Chouin, William & Mary associate professor of history and director of the Medieval and Renaissance Studies Program, is heading an effort to present the latest information supporting his theory. Following up on a conference held on the topic last year at W&M, scholars will publish a set of four papers later this year with Chouin contributing one of them.

In his work with the GlobAfrica project, Chouin has collected ancient human remains from cemeteries and a mass burial location in West Africa. Some of these samples have already been analyzed for ancient DNA of the pathogen, but to date none has been found. That would be what he calls the "silver bullet," irrefutable proof that the disease ravaged the African continent as it did the others.

Relevance of how far the plague traveled and how many civilizations it affected doesn't pertain just to the disease itself, Chouin said, but to the impact those mass deaths had on society and the world at that time and since. He is teaching a new course this semester titled Pandemics, History and Science that explores those broader ripple effects.

Four corners of a theory

The papers cover most of the four dimensions of the project, which looks at archaeology, genetics, iconography, and linguistics and textual sources, evidence that Chouin said is "at the cutting edge of research in history and archaeology."

One scholar working on manuscripts produced in Ethiopia during the 15th and 16th centuries discovered that Christian Ethiopians adopted two main saints associated with the plague in Europe—St. Sebastian and St. Roch. An archaeology colleague working in West Africa set out to

review all the material accumulated by archaeologists since the 1960s and found tantalizing evidence of a demographic crisis in the 14th century, characterized by significant shifts in settlement patterns.

"This was another piece of indirect evidence of something going on in the 14th century that would be quite a classic effect of a pandemic-like plague, which killed a startling 30 to 50 percent of the population, as far as we know, for the areas where we know it was active—especially the first wave of 1347 and then the second wave between 1360 and 1363," Chouin said.

Genetic evidence from East Africa shows particular strains of plague pathogens directly descended from a common ancestor that mutated soon after the Black Death occurrence. According to a third paper, this is highly suggestive of the disease spreading to Sub-Saharan Africa in the aftermath of the outbreak in the Mediterranean world.

"And so it seems that these strains of plague which exist today are actually the closest to the ones that were recovered from 14th-century plague cemeteries in London," Chouin said. "And this is an indication that the plague probably moved to Sub-Saharan Africa, where it found adequate rodent infrastructure for its survival in the eastern part of the continent.

"In other places, like in West Africa where I work, there seem to be no modern pathogen descendants of past plagues, meaning that the pathogen was probably not able to find a suitable environment to reproduce itself. But in East Africa, it did."

Abandoned settlements found

Chouin's own paper introduces the plague hypothesis and centers on his archaeological excavation work on sites from the 12th to 15th centuries

in West Africa. There, he also found evidence of the abandonment of settlements during the 14th century.

"So that's another set of evidence, coming this time from the tropical forest belt, very far away from the Sahel, which strengthens once again this hypothesis that yes, indeed, something major happened in the 14th century."

Looking at global history, the only documented event that changed the whole of the Old World in the 14th century is the plague. This resulted from the spreading of the pathogen beyond its usual rodent hosts. A perfect storm had made it possible—a combination of changes in rain patterns and climate, as well as the expansion of trade routes across continents, demographic growth and large-scale conflicts in Central Asia (the Mongol invasions) spawning vast movements of population.

The catastrophic plague in that time period led to major societal changes in the world and started shifts that would shape the future of the Old World.

"And that's what I'm looking at," Chouin said. "The plague itself is interesting. But what is really interesting for me are the changes that the [plague](#) brought in societies it struck—the acute demographic crisis, the violence it generated and also the new opportunities that became available for those who could seize them. Those are the main ingredients of change.

"While old elites, values, institutions, orders and certainties crumbled, new ones emerged. New claims were made over empty lands, spiritual vacuums and surviving populations arose and new elites struggled to consolidate their advantages. A world had come to an end, and a new one emerged."

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