



### The past and the curious

## If Mary Beard is right, what's happened to the DNA of Africans from Roman Britain?

There are many reasons why a genetic legacy might not be seen in contemporary populations - [Mary Beard was right to defend the BBC's cartoon](#)

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If you have been on social media at all for the last couple of weeks, you are likely aware of what may be one of the silliest controversies ever: whether a dark-skinned man should be present in a [BBC cartoon](#) for children about life in Roman Britain. Critics have raised multiple objections on the theme: whether dark skin was “typical” (even though no scholar has claimed that it was), what percentage of the population must be nonwhite before it can be called “diverse,” and statements [like this](#).

People upset by the cartoon have shifted goalposts, ignored or distorted cogent arguments, and mocked the knowledge of experts. It's been ugly, particularly the [attacks](#) on [Professor Mary Beard](#), a renowned classicist. The theme uniting all these efforts is rhetoric accusing scholars and the BBC of “rewriting history” while simultaneously projecting contemporary notions of race backwards in time onto a society [that didn't share them](#).

First, let's get this out of the way. Whether or not this cartoon family was exceptional (and as classicist Dr. Matthew Nicholls has [pointed out](#), the fact that the mother of the family was literate is perhaps just as exceptional as the father's skin tone) is beside the point. Roman Britain was indeed a [multi-ethnic society](#), which included [people from Africa](#), and mostly from Northern Africa. The exact percentages of African Romans within the larger population is unknown, and probably varied from place to place. Multiple lines of independent evidence, including [isotopic analyses](#) of teeth and bones, [osteology](#), [archaeology](#), and historical documents make this clear. While most of the isotopic evidence locates these individuals' birthplaces to North Africa, there are also written accounts of people from further south, as Dr. Nicholls [notes](#):

*“The internet discussion was particularly prompted by the appearance of a black Roman soldier in the detachment building Hadrian's Wall, but in fact there is an ancient account of precisely this - the emperor Septimius Severus (himself in fact an African, from Libya) was inspecting his troops on the Wall when one of the garrison's well-known jokers, an ‘Ethiopian’, offered him a garland. Severus was startled by the apparent omen, associating the soldier's black colour as a portent of his own imminent death, but no-one seems to have been particularly surprised at the presence of an ‘Ethiopian’ (that is, a black African) at the northern edge of the*

*Roman empire (Hist. Aug. Severus 22)."*

In fact, Beard [suggests](#) that the image in the BBC cartoon was loosely based on another historical figure, the Algerian Quintus Lollius Urbicus. Her point, made patiently again and again, is that we don't know the exact shade of his skin, or whether it was accurately reflected in the cartoon - that it was most likely an artistic choice designed to make the point to children that there were "[vast disparities in Roman Britain in ethnicity and culture](#)", and that seeing such a person "[would be unsurprising in an urban context](#)."

I am not interested in going through the whole story (you can read a summary [here](#)), nor am I interested in litigating whether or not it's "fair" to portray a children's cartoon character with dark skin, but one point that has been raised is well worth addressing here at The Past and the Curious. [Genetics studies](#) have been held up triumphantly as a refutation to the "fuzzy" humanities sort of approach. This argument goes: there's little or no evidence of [African](#) DNA lineages (even [northern](#) Africans, who would be predicted to more closely resemble Europeans due to a long [history of gene flow](#) through the Middle East) in contemporary British populations, so therefore historians are wrong.

If there were Africans in [Roman Britain](#), why isn't there a genetic legacy from these individuals among present-day inhabitants of Britain? It's a fair question, and one which has several potential answers:

### **1. Genetic drift may have erased their traces from the population**

Populations are not static: the genetic makeup of a region often changes over time due to evolutionary forces like migration and [genetic drift](#). Genetic drift changes the frequency of alleles (forms of a gene) randomly within a population over time. Uniparental markers, like mitochondrial (only maternally inherited) and Y chromosome (only paternally inherited) DNA are particularly affected by genetic drift. If a mitochondrial or Y chromosome lineage was rare in a population, it's likely that it would have disappeared from the population over time and not be seen in contemporary inhabitants of the region. We see [many examples](#) of the loss of ancient lineages in different regions throughout the world. Alleles can also increase in frequency - they can be rare in the past, and plentiful now, all without needing to invoke natural selection... just chance.

### **2. They may not have left numerous (or any) descendants in the population**

There are a host of other factors in addition to genetic drift that can also affect the genetic composition of a region over time, most particularly the varying ways in which people interact when they come into contact with each other. For example, ancestry from multiple populations of invaders can be seen in contemporary British genomes. But as geneticist Dr Adam Rutherford points out in his [book](#) "A Brief History of Everyone Who Ever Lived", not all of them:

*"Yet there is virtually no trace of the Danes in the British genome. Compared to the Angles and Saxons and even the Norwegians' genetic legacy in the north of Scotland, there's an absence of Danish DNA despite a long adventure here. (pp115-116)."*

There are similar cases all over the world, including from my own area of research, the Americas. There is extremely well documented evidence of a Norse occupation at [L'Anse aux Meadows](#), a site in Newfoundland around 1000 AD, yet no genetic traces of the Norse can be found in either contemporary or ancient Native American populations. This may mean that there was no admixture (mating) taking place between Norse and indigenous populations, or perhaps that it was on such a small scale that traces were erased over time. The genetic data doesn't show the Norse in the Americas, but we are pretty confident they were there. Does that mean that genetic data or archaeology are any more or less important as sources of information about the past?



📍 The skeleton of a young woman in her early 20's of late Roman London, dating from the first half of the 4th Century AD found in Spitalfields Market redevelopment site in the City of London

Photograph: Sean Dempsey/PA

### 3. They may simply not have been sampled yet

If ancient DNA has taught us anything, it's that you cannot universally reconstruct population histories on the basis of contemporary patterns of genetic diversity. To get at a comprehensive understanding of genetic diversity of individuals from a past population at a given time period, you really need to directly characterize their genomes. To understand the genetic diversity present in Roman Britain, this will need to be done on a much wider scale than present, across both time and space, and we will need to target specific individuals suspected of being non-local in order to observe lineages present in the past at rare frequencies. Furthermore, one has to be very careful about designing a study intended to accurately characterize genetic variation in an entire population; you can't just sequence DNA from elite burials, for example, or you may get an incredibly biased perspective of the whole population. These types of ancient DNA surveys are being done in Britain, but they aren't comprehensive and much more work remains to be done by future investigators.

Framing this issue as a debate between hard science and fuzzy humanities is simply nonsense. Reconstructing the past is a multidisciplinary effort, and I can't think of a single geneticist who wouldn't candidly admit to many limitations in our approaches. To get around these limitations, and to improve the collection and interpretation of our data, we work closely with collaborators in other disciplines: archaeologists, linguists, osteologists, specialists in stable isotope analysis, and yes, even historians. Perhaps instead of fussing about whether cartoon characters conform to our beliefs about how the ancient world **should have been**, our energies would be better spent in learning more about how it actually was.

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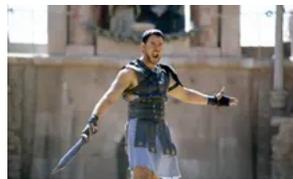
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