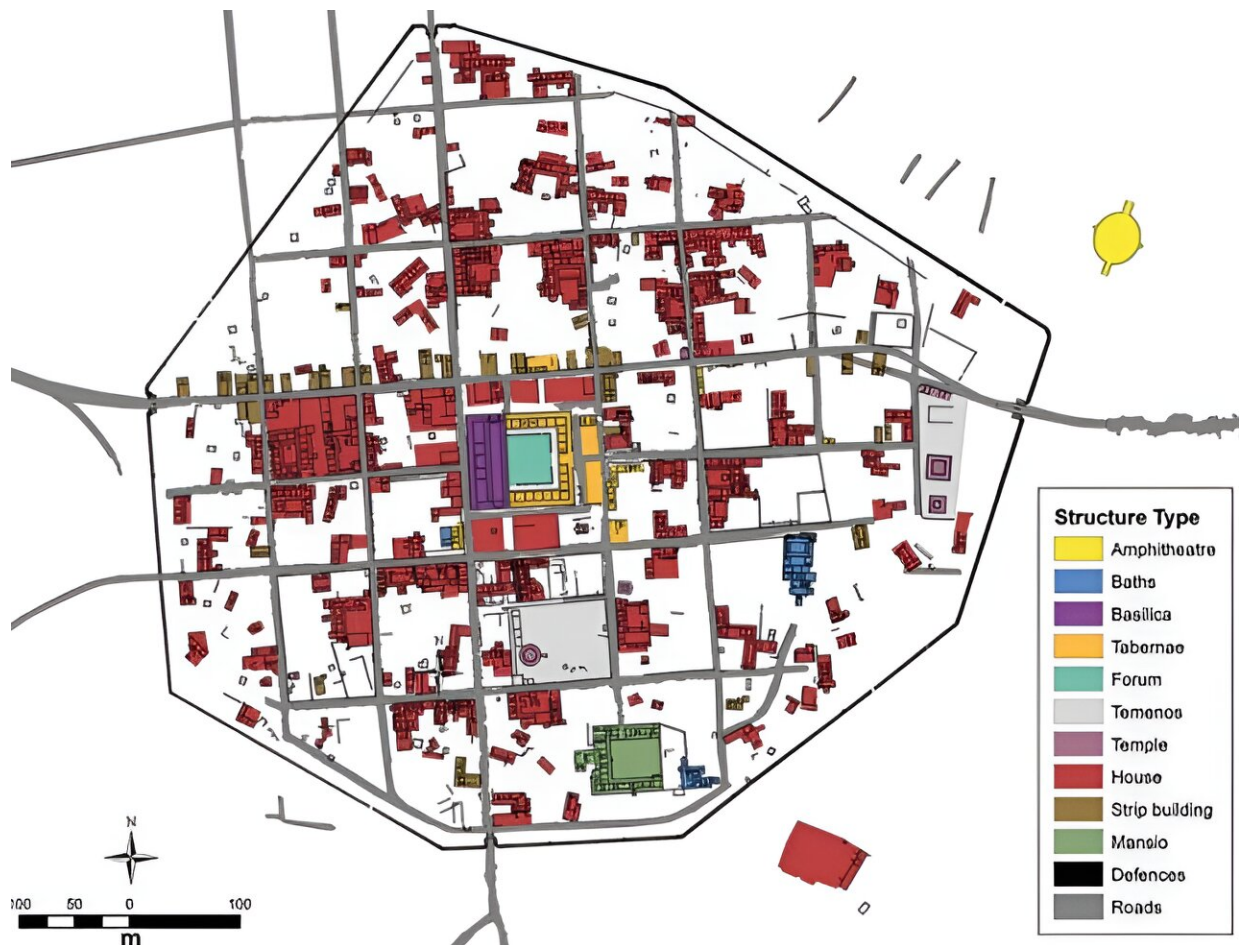


'Missing' houses offer a new perspective on Britain's Roman period

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A plan map of Silchester created with data from the Silchester Mapping Project of the Archaeology Data Service. Credit: Credit: *Britannia* (2023). DOI:

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A rough site plan for the Roman-era village of Silchester in south-central England, now a ruin, has existed since antiquarians excavated it in the late 19th and early 20th centuries. Though extensive, these efforts used techniques that are now outdated and, modern researchers note, represent only the most well-preserved structures.

Accordingly, the popular estimates of Silchester's residential population, which suggest around 4,000 people at its peak in the Late Roman period, may be inaccurate, new research suggests.

This seems particularly likely considering more recent excavations of the site and other sites nearby, which have shown a large proportion of timber houses relative to stone ones. Newer studies have provided evidence along the same lines through a combination of geophysical survey and aerial photography.

In research [recently published](#) in *Britannia*, Scott Ortman, a University of Colorado Boulder associate professor of anthropology, and John Hanson, formerly a CU Boulder postdoctoral researcher and now a University of Oxford associate professor of Roman archaeology and art, were inspired by these developments to make a new estimate of Silchester's peak population. Their final figure of about 5,500 people has implications for not only the history of Silchester, but also Roman Britain and, potentially, the entire Roman Empire.

Silchester and greenfield sites

Many Roman towns in Britain fell apart around 400 A.D., when the Roman period ended, leaving behind a layer of "dark earth" in the [archaeological record](#) from decomposing organic materials in the abandoned buildings.

The town that is the focus of Ortman and Hanson's research is technically called Calleva Atrebatum, but is referred to as Silchester for simplicity, although the site is about a mile from the modern village of Silchester. The distinction between modern Silchester and Roman Silchester is important because many of the towns and cities established across the Roman Empire continued to be built over until the present. So-called greenfield sites like Silchester, however, were abandoned at the end of the Roman period and never reoccupied.

"There are a lot of towns that didn't survive, but then new towns grew up on top of them later," Ortman explains. "So today, it's very difficult to get access to the remains from the Roman period, and you only see it in little, tiny windows that happen to be cleared when there's some kind of modern redevelopment project."

When a site isn't built over, though, "the Roman remains are the uppermost level of the remains that are there, so it's much easier to observe what the Roman town looked like overall."

Changing viewpoints

Like the evidence and archaeological techniques available, scholars' views on towns like Silchester have changed. Ortman notes that "perceptions of the Roman period of Britain have evolved over time as the more recent history of Britain has proceeded. In the early 20th century when archaeology was first developing, my impression is that scholars of the time thought about the Romans as a sort of civilizing force."

While the idea of Rome "civilizing" Britain parallels the history of Greece contributing to Roman culture ("Captive Greece took captive her savage conqueror and brought the arts to rustic Latium," as Roman poet Horace described), this attitude may have flourished because Britain had an empire of its own at the time, Ortman says. "Scholars today are more mindful of the negative aspects of colonialism and empire-building."

This viewpoint may be a reason that the apparently low residential density of Silchester was interpreted as evidence that the town was atypical, functioning as a sort of outpost from which Roman officials could manage the Britons.

"The studies that have suggested that the Roman towns were primarily places where a transplanted administrative elite lived and consumed the product of the local Britons are based on real patterns that people have found," Ortman says. "There is more fancy pottery found in the bigger towns, there is more evidence of imported stuff from other places, and the coins are more dense in the deposits of those sites."

However, he is not entirely convinced. "One of the things our paper comments on with regard to that is that one would expect consumption rates to be higher in larger, more urbanized settlements just as a byproduct of there being more people there. So, the fact that you see those patterns in the early urban settlements, as compared to the rural ones, is something you would see with any urban system with towns in the countryside, even if it wasn't in a colonial context."

Leveraging scaling relationships

In a [2017 paper](#), Hanson and Ortman proposed a population of around 6,800 people for Silchester, based on excavations in an area of the site called Insula IX ("insula" means a building area surrounded by four streets in this context). These excavations found that there were about

twice as many buildings as previously thought. Hanson and Ortman's 6,800 number came from extrapolating the residential density of Insula IX to the rest of the town. However, they recognized that this methodology was not optimal, as it relied on a single line of evidence.

Unsatisfied with drawing conclusions from the Insula IX data alone, Ortman and Hanson remained interested in the idea of "missing" houses in Silchester. They say it was justified by evidence from throughout the region; for example, of the buildings discovered by excavations at Neatham, a nearby town, only 8.3% were stone.

To make a better estimate of Silchester's population, Ortman and Hanson began by attempting to determine the number of residences. They ultimately decided to use the scaling relationships that have been observed in different Roman cities between the areas of public works and the number of residential buildings.

"What we did in the paper was think about the different civic features of Silchester and say, in the context of other Roman towns, how many people would be implied by the size of those civic features," Ortman explains.

They examined the forum, the amphitheater, the streets, the gates and the total site area. They used linear regression—"the kind of analysis that produces lines of best fit"—to describe the statistical relationship between the qualities of the different features and the number of residences.

Ortman and Hanson estimated the number of households five times using the five different civic features, then averaged the results to a total of 1,115 residential buildings, which is more typical of a Roman town its size. They then multiplied the average number of people per household to determine the population. Given that recent scholars tend to agree on

a number between three and seven people per household, the researchers chose the middle value of five and reached their result of about 5,500 people overall.

Future studies and implications

Ortman and Hanson made another interesting discovery in their research beyond a refined estimate of Silchester's population: The newer civic features were larger.

"In a sense, the different features of Silchester are scaled to different implied population sizes," Ortman says. "That led us to wonder whether the population of the town had not grown over time rather than stayed very small. I would say the paper just raises that as a possibility to be investigated in other studies."

So, other archaeologists could use this method of connecting the dates of construction of different features to population to reconstruct at least a bit of the demographic histories of Roman cities. This method could prove helpful because, while it is hard to determine the ages of houses in ancient towns and cities, the construction dates of buildings like the forum are often known.

This research has implications for the study of the Roman Empire more broadly, Ortman says. The data on British settlements are especially abundant because laws there require the excavation of archaeological sites impacted by new development. So, "if the results of those investigations are about the specifics of how Britannia worked and it doesn't really apply to the rest of the Empire, well, that's fine, but that's what it means," Ortman says.

"On the other hand, if the Roman world of Britannia was typical of other areas of the Empire, then the things that we learn about it are potentially

applicable to the broader Roman world, which of course would increase the scope of their significance."

More information: Scott Ortman et al, Estimating the 'Missing' Houses of Silchester, *Britannia* (2023). [DOI: 10.1017/S0068113X23000375](https://doi.org/10.1017/S0068113X23000375)

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