

Ancient wheat points to Stone Age trading links

26 February 2015, by Frank Jordans

(AP)—Britons may have discovered a taste for bread thousands of years earlier than previously thought, thanks to trade with more advanced neighbors on the European continent.

That's the conclusion scientists have drawn after discovering that samples from a now-submerged prehistoric camp in southern England contained traces of ancient wheat DNA.

The findings, published Thursday in the journal *Science*, suggest that Stone Age hunter-gatherers weren't always displaced suddenly by farmers, but that the two societies co-existed for lengthy periods of time.

Researchers say the study shows that other archaeological assumptions based on bones or fossil study could also be called into question by a thorough analysis of microscopic [genetic material](#) hitherto overlooked.

It's known that the practice of planting and harvesting cereals arose about 12,000 years ago in the region where Europe meets Asia, and slowly spread across Europe. Britons didn't adopt agriculture until 6,000 years ago, though—something many archaeologists have put down to the rising sea levels that filled what is now the English Channel.

This natural barrier was believed to have explained the delayed end of the Mesolithic—or Middle Stone Age—and the start of the Neolithic period when farmers replaced hunter-gatherers in Britain.

But researchers analyzing [sediment samples](#) from the Bouldnor Cliff underwater site off the Isle of Wight found the presence of wheat there 8,000 years ago—two millennia before any cereals were planted in Britain.

"These results suggest that sophisticated social networks linked the Neolithic front in southern

Europe to the Mesolithic peoples of northern Europe," the researchers concluded.

"There was a real cultural link between the ancient Britons and Europe," said Robin G. Allaby of the University of Warwick, England, who led the study. "So Mesolithic people were not simply and quickly replaced by Neolithic peoples. Instead there was a long period—thousands of years—of interaction between the two."

Greger Larson, an expert in ancient DNA at the University of Oxford who wasn't involved in the study, said the findings seemed to be "pretty robust" and provided the first strong evidence for trading between hunter-gatherers and farmers.

Similar studies using ancient DNA could be possible, he said, but noted that there are few places in the world where fragile genetic material would be as well preserved as in the sediment at Bouldnor Cliff.

Simone Riehl, an archaeologist at Tuebingen University in Germany who also wasn't involved in the study, said extracting DNA from sediment had the potential to revolutionize scientists' understanding of ancient flora and fauna, particularly in locations where plant, animal or human remains are scarce or not found.

"The interpretation of ancient DNA signatures from such sediments however will probably remain debatable for a long time," said Riehl.

Allaby said that since no grains were found in the sediment, it's likely that the wheat DNA came from flour.

"Probably the people would use such a product to make a dough. It is a simple matter to add water to flour, resulting in a flatbread which they could eat," he said.

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