

# Re: 40 kya Mexico Footprints Disputed

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- *From:* Roger Bagula <[rlbagulatftn@xxxxxxxxxx](mailto:rlbagulatftn@xxxxxxxxxx)>
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Study treads on footprint claim

Footprint, Silvia Gonzalez

Footprints of 'first Americans'

Impressions in volcanic ash hailed as footprints made by the earliest known human settlers in the Americas may not be what they seem, Nature journal says.

If confirmed, the 40,000-year-old marks would have debunked accepted theories of human migration into the Americas.

But the ash has now been dated to 1.3 million years ago - more than a million years before modern humans evolved.

Relatives of our species living at this time were not capable of making the journey to the Americas, experts say.

One of the Nature paper's authors even suggests the supposed footprints could have been made by picks used to quarry the site.

Controversial date

Earlier this year, a British-Mexican team led by Dr Silvia Gonzalez of Liverpool John Moores University announced that the site at Valsequillo Lake near Puebla in southern Mexico likely contained the oldest evidence of human occupation in the Americas.

Every time it rains, water collects in the depressions, sediments collect in them and they weather out into oddball shapes

Michael Waters, Texas A&M University

The researchers used several methods to date minerals and fossils from above, below and on the footprint layer itself.

Radiocarbon dating was carried out on shells and animal bones in the

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sequences, and mammoth teeth were dated using a technique called electron spin resonance.

It is not clear from where exactly they took their samples and which fraction was dated. We took our samples directly from the footprint horizons

Silvia Gonzalez, Liverpool John Moores University

They obtained dates for lake sediments incorporated into the ash by a technique called optically stimulated luminescence.

The results converged on the highly controversial date of 40,000 years. Under the traditional view, the first Americans trekked from Siberia to Alaska across a land bridge that linked these land masses at the end of the last ice age (between about 10,000 and 12,500 years ago).

'Wrong' method

But Paul Renne, a geochronologist at Stanford University, and colleagues have now used argon dating and palaeomagnetic analysis to show that the so-called Xalnene basaltic tuff on which the purported footprints were found was in fact far older even than Dr Gonzalez and her team suggested.

The results show