

How Elma the mammoth left a diary in her tusk

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Fully woolly: The largest mammoths were over 11ft tall and weighed up to nine tons.

Could this reshape history? Scientists have managed to tell a woolly mammoth's life story by looking into its 14,000-year-old tusk.

What's happening?

Matthew Wooller was ready to go. In front of him was a huge **tusk** which had been found in **Alaska**. They knew it came from a **woolly mammoth** they called Elma. Now, by sawing into the tusk, they hoped to find out much more.

Find out more

Woolly mammoths' tusks grew a little bit every day. They contained something called strontium, which was found in the plants that the mammoths ate.

Scientists realised that they could look at how much strontium was in the tusk and work out if the mammoth had lived in an area with lots of strontium in its plants, or only a little bit.

In other words, they could work backwards to find where a mammoth had come from.

They worked out that Elma was born in **Canada**. She later walked hundreds of miles west into Alaska.

Woolly mammoths lived in North America for around 100,000 years. They lived through the **Ice Age** thanks to their thick coats. They overlapped with the first humans in Alaska for about 1,000 years before dying out.

Scientists do not know if humans hunted them to **extinction**, or if they could not survive when the **climate** changed at the end of the Ice Age.

Could this reshape history?

Some say

Yes! If Dr Wooller's method was used on lots of different mammoth tusks, we could find out a lot more about how animals of the past lived.

Others think

No! Not that many mammoth tusks have been found. Our new knowledge about Elma is amazing, but it will not change how we think about history.

Some people say

"If we go to the zoo in the future, we'll have zoos for extinct animals."

Michi Kaku (1947 –), American futurologist

Empty heading

What do you think?

Six steps to discovery

1. Connect

How do you feel about this story? -

Would you like to meet a woolly mammoth?

2. Wonder

What questions do you have? - For

example: What is the difference between a woolly mammoth and an elephant?

3. Investigate

What are the facts? - Pick out one thing we know for certain and one thing we cannot say for sure from this story.

Glossary

Tusk - A really long tooth that extends far out of the mouth.

Alaska - A US state in the extreme northwest of the continent of North America. It is separated from the rest of the USA by Canada.

Woolly mammoth - Its closest living relative is the Asian elephant. The last population lived on Wrangel Island in the Arctic Ocean.

Canada - A country in North America. It is the second-largest country in the world by land area.

Ice age - A long period of time in which global temperatures are extremely cold.

Extinction - Completely dying out.

Climate - The weather over a long period of time.