

The Adams Event

By

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The Adams Event

- It happened 42,000 years ago; hence the name.
- The Earth's magnetic field waned, reversed, then reversed back.
- For a short time the Earth was subjected to intense solar radiation

The Adams Event

- A recent discovery in New Zealand enables us to date and understand this event in great detail
- It relates to a tree

The Adams Event

- The time of the Adams Event coincides to time when:
- Australia's megafauna died out
- The Neandertals died out
- The earliest cave painting were produced

The Adams Event

- Is this a coincidence or
- Might there be a causal relation?
- Might the intense solar bombardment have caused these events to happen?

The Adams Event

- A recent discovery in New Zealand enables us to understand the event in great detail
- It relates to a tree

The Adams Event

- Takes its name from Douglas Adams book "A Hitch Hiker's Guide to the Galaxy"
- The answer to the question of
- Life, the Universe and Everything is

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Magnetic Reversals

- Until fairly recently it was thought that a magnetic reversal had never happened during the time that humans have been on earth!
- However, there was a brief but large magnetic excursion some 42,000 years ago and it was recorded in a stone fireplace near Lake Mungo

The Laschamp Excursion

- The **Laschamp Excursion** occurred 41,400 ($\pm 2,000$) years ago during the end of the Last Glacial Period it was first recognised from a geomagnetic excursion discovered c. 1969 in the Laschamps lava flows in the Clermont-Ferrand district of France

The Laschamp Excursion

- From this, and other locations (eg. Sediments in the Black Sea, a NZ tree) we now know...
- The magnetic field was reversed for approximately 440 years, with the transitions lasting approximately 250 years

The Adams Event / Laschamp Excursion

- How do we know those times with such precision?
- Let me introduce you to a tree

Kauri

(*Agathis australis*)



The Kauri

- Native of the North Island of New Zealand
- One of the longest living trees on the planet >2,000 years
- Grow to a height of 60 metres
- With a diameter of 5 metres

The Kauri

- A huge specimen has been found buried in a swamp
- Carbon dating has established that it lived during the period of the last magnetic excursion
- It has been described as
- The Rosetta Stone of Dendrochronology

Kauri (*Agathis australis*)



Prof Alan Hogg

University of Waikato

- This huge, lonely tree grew for some 1700 years across a remarkable period in our planet's history when the Earth's magnetic field flipped some 42,000 years ago; the Laschamp Excursion
- This period of low magnetic field has been termed the **Adams Event**. During this period, Earth's magnetic field dropped to below 6% of the current level, Carbon-14 production increased, ozone levels decreased, and atmospheric circulation changed. This loss of the geomagnetic shield possibly caused the extinction of the Australian Megafauna, the extinction of the Neandertals, and the appearance of cave art.

A short film

The on the www [Here](#)

Important to end on an intellectual note

- I found something to send to Prof Alan Hogg, the tree ring man at University of Waikato
- His comment:
- “It made my day.”



I KNEW SHE WAS LYING ABOUT HER AGE.

The End

