

Explore/Explain: Evidence for Change across Time

Chapter 2

Copymaster: Fossil Finds

In 1908, scientists discovered *Homo neanderthalensis* in a cave near La Chapelle-aux-Saints, France. The bones were discovered in a burial site dug into the cave floor. The skull was the most complete Neanderthal skull found up until that time. It had missing teeth and other signs that the individual was relatively old at the time of death. It also showed signs of healing that happened after some teeth fell out, so this individual must have lived for some time without many teeth.

The Forbes skull was blasted out of a quarry in 1848. The quarry is located on the North Face of the Rock of Gibraltar. This location was well used by Neanderthal; many other bones have been found in the same area, including the bones of a 4-year-old child. In 1997, scientists collected enough mitochondrial DNA to analyze from a Neanderthal skeleton found on the North Face of the Rock of Gibraltar.

Analysis

Choose one of the Neanderthal fossil finds that you read about, and write a short story explaining the sequence of events and the scientists who would have been involved in discovering and analyzing the fossil. Explain how scientists would

- ◆ describe how such a fossil formed,
- ◆ find such a fossil,
- ◆ date the fossil,
- ◆ use information obtained from the DNA taken from the fossil,
- ◆ analyze and interpret the bones and anatomy, and
- ◆ look for relatedness to present-day humans.

Include in your story specific references to the kinds of scientists who would do the work involved in understanding the fossil. Use the rubric provided by your teacher to guide you in writing your story.



Neanderthal La Chapelle aux Saints skull

Photo courtesy of Skulls Unlimited, www.skullsunlimited.com



Forbes Quarry Neanderthal skull

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