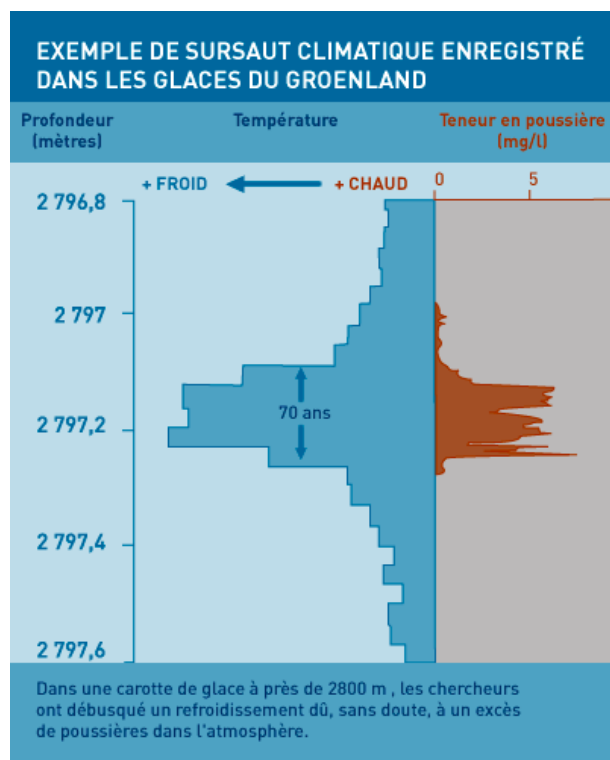


FOSSIL AIR IN THE ICE CAPS

The continental ice caps were formed by the accumulation and settlement of snow over the years. The ice thus formed contains air bubbles, but also all kinds of atmospheric dust (aerosols). Once trapped in the ice, this air retains the composition it had when it was trapped. Today, these bubbles, aerosols and "fossil" pollens are precious witnesses of past climates.



ICE CORES: VERITABLE TIME-TRAVEL MACHINES

Scientists frequently take core samples of the polar ice. The further the core goes down, the older the ice sample, so by analysing older and older ice the scientists travel back in time, gradually writing the history of the Earth's climate. A lot of data has been gathered by studying the Greenland ice cap, while the "climate archives" in the Antarctic have also yielded invaluable information.

THE GREENLAND ICE CAP

In the thickest part of the Greenland ice cap, glaciologists have extracted and studied core samples from as deep as 3,050 metres before they struck the underlying rock. The cores contain ice that fell as snow over the past 2,500 centuries! And of course evidence of various climate fluctuations: droughts, climatic catastrophes, periods of global warming, ice ages, etc.

OUR POLLUTION IS SEALED UP IN THE ICE TOO

The bubbles of air trapped in the polar ice show that the amount of methane and CO₂ in the atmosphere has increased markedly over the past two centuries, i.e. since the beginning of the industrial era. The more recent ice in Greenland also contains much more pollution than ice from the Antarctic, because of the proximity of human activity in the Northern Hemisphere.