



Date: 22 April 2014

Location: The Bell Inn, Godstone, 18:00 for 18:30 start

Catastrophic Megaflooding in the English Channel

A talk by Professor Sanjeev Gupta (Imperial College)

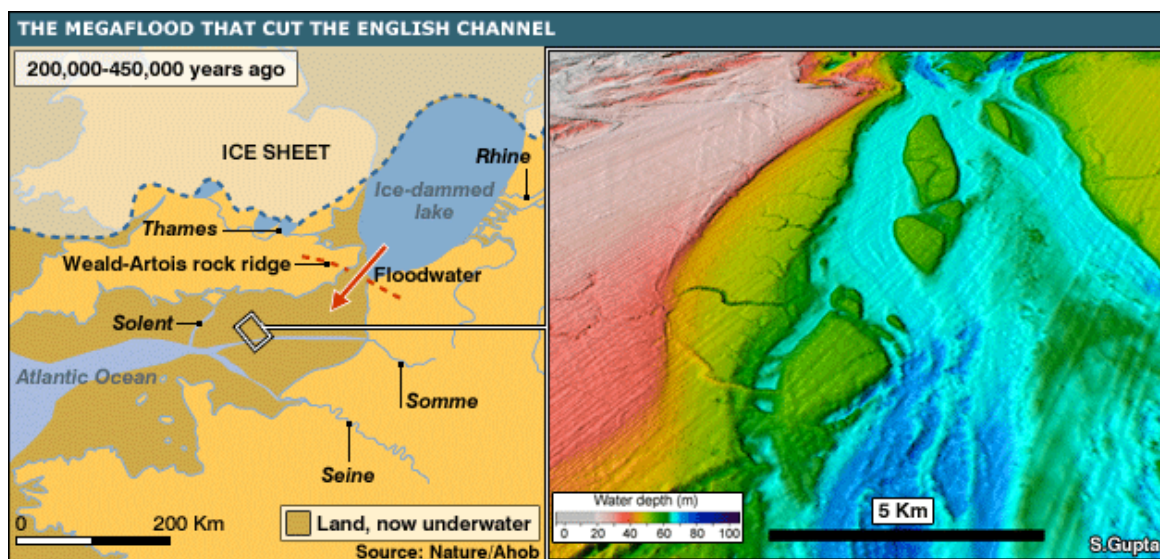
In this lecture, Professor Sanjeev Gupta discusses how a catastrophic megaflood, which occurred between 450,000 and 200,000 years ago, carved out a large channel and caused the separation of Britain and France. These events isolated Britain and dramatically affected early human habitation in the area.

The study was led by Professor Gupta and Dr Jenny Collier, both of Imperial College London, and was published in the journal *Nature* in 2007. The study identified the presence of the large channel, tens of kilometres wide and up to 50 metres deep, carved into Chalk bedrock on the floor of the English Channel. High resolution imagery was used to produce spectacular images of the channel and show deep scour marks and landforms which were created by torrents of flowing water.

It is believed that a large body of water, fed by the rivers Rhine and Thames, accumulated in the southern North Sea. The water body was impounded to the south by the Chalk ridge (Weald-Artois rock ridge) which spanned the English Channel between Dover and northern France, and a series of glaciers to the north. Over time a rise in the lake level may have caused a breach of the Chalk ridge, allowing the water to be released rapidly, and causing the scour of the large channel identified in the study and seen in the imagery. The megaflood may have lasted for several months and discharged up to one million cubic metres of water per second.

The study indicates that the flood and subsequent scour of the channel changed the course of the Rhine and the Thames and led to the permanent separation of Britain and France. It is suggested that this also had a major impact on the pattern of early human occupation of Britain, and led to the absence of humans in the area for around 120,000 years.

Professor Gupta said, "This prehistoric event rewrites the history of how the UK became an island and may explain why early human occupation of Britain came to an abrupt halt for almost 120 thousand years."



LOCATION: The Bell Inn, Godstone, Surrey, RH9 8DX.

Details of this and other events are provided on the SERG section of the Geology Society website: <http://www.geolsoc.org.uk/serg>

Please let us know if you plan to attend so that we have an idea for numbers for catering southeastrg@googlemail.com