



BUCKLAND ENTERING THE KIRKDALE CAVERN. FROM A CARICATURE  
BY THE REV. W. CONYBEARE.

William Conybeare, *The Hyaena's Den at Kirkdale near Kirby Moorside in Yorkshire discovered A.D. 1821 (1823)*. Lithographed broadsheet with accompanying poem, reproduced from *The life and correspondence of William Buckland, D. D., F. R. S. : sometime dean of Westminster, twice president of the Geological Society, and first president of the British Association* / by his daughter, Mrs. Gordon (London: John Murray, 1894). Image courtesy of the Wellcome Collection. 

## UNFREEZING TIME

Patricia Fara\*

In this satirical time-travel scenario, the geologist William Buckland (1784–1856) is crawling into an underground cave through a small entrance acting as a keyhole to the past. Despite his journey back through the millennia, he is impeccably dressed and holding a candle – the light of rational science – to reveal a group of hyenas voraciously polishing off a gruesome feast.

An ordained priest and an Oxford lecturer, Buckland had an idiosyncratic sense of humour. He served refreshments from a distinctive coffee table, but only afterwards did he inform his guests that the objects inlaid

in its surface were coprolites – the word he had coined for fossilised faeces. Visitors were equally disconcerted by his menus. Although he never fulfilled his ambition to sample everything in existence, Buckland relished delicacies such as mice on toast or roast panther, although confessed himself disgusted by moles and bluebottle flies.

Buckland was determined to demonstrate that science would strengthen rather than weaken the authority of Christianity. As fossil evidence accumulated, it became increasingly clear that the earth must be far older than the 6000 years implied by the Book of Genesis. To explain this disparity, Buckland promoted the ingenious reinterpretation that there had been two distinct acts of creation separated by a long gap in time: the problematic six

days applied only to the second one, leaving geologists free to construct a far longer previous history.

According to the latest French ideas, in the far far distant past a massive tide of water had swept across Europe, killing all the animals and shifting debris from one side of the continent to the other. Latching on to this view, Buckland claimed that this ancient flood was actually the Deluge described in the Bible, when Noah preserved all the animals by floating to safety with two of everything in his ark.

Buckland set out to find the evidence he needed for confirming this idea. He struck lucky when some quarry workers stumbled across a small cave near Kirkdale in Yorkshire. Inside were scattered the gnawed bony remains of many different mammals – wolves and tigers, rhinos and hippos – encased within a protective layer of accumulated limestone stalagmite. They provided valuable evidence to confirm conjectures that the British climate had cooled down. But there was another puzzle: how could these large skeletons have found their way inside a cave with such a narrow entrance?

Spotting that there was a disproportionately high number of hyenas, Buckland suggested that the cavern had been their den. Much as depicted in this affectionate drawing by another geologist, William Conybeare, they would venture outside and drag back manageable chunks of torn-off carcass to devour in safety. Luckily, Buckland happened to keep a hyena in his garden, so he fed it some cow bones and was rewarded by seeing that its tooth marks matched those on the fossils. He also thought carefully about how his specimens had been preserved. The protective layers of stalagmite formed from slowly dripping water were so thin that this carnivorous meal must have been geologically recent, enabling him to conclude triumphantly that his cave – or as he put it, ‘this charnel house of the antediluvian forests of Yorkshire’ – revealed the realities of animal life before the onslaught of Noah’s inundation / the hypothetical French flood.

To accompany his print, Conybeare wrote a set of sarcastic verses. Although he was better at geology than poetry, he included a reference to the public clock at Shrewsbury,

which became proverbially renowned for its accuracy following a reference by Falstaff in *Henry IV, Part 1*:

Mystic Cavern, the gloom of the rock,  
Shedding light on each point that was dark,  
Tells the hour by Shrewsbury clock  
When old Noah went into the ark.

By the crust of thy Stalactite floor,  
The Post-Adamite ages I’ve reckoned,  
Summed their years, days & hours & more.  
And I find it comes right to a second.

When Buckland presented his research at London’s Royal Society, the Fellows were so impressed that they awarded him their prestigious Copley Medal. If only he had stopped there! Continuing his geological investigations, he became convinced that humans had originated outside Europe and only ventured westwards after all the wild beasts had been exterminated by the deluge. When he unearthed another skeleton in Wales at the same depth, Buckland announced that it was the remains of a Roman prostitute.

But he had gone too far in his attempts to make the facts fit his convictions. Because the skeleton was adorned with jewellery and had been stained red, Buckland simply assumed that it must be female. But according to the latest research, the bones belonged to a man who lived around 33,000 years ago – among the earliest human remains to be found in Britain.

### Main Sources and Further Reading

Martin Rudwick, *Scenes from Deep Time: Early Pictorial Representations of the Prehistoric World* (Chicago and London: University of Chicago Press, 1992).

Keith Thomson, *The Watch on the Heath: Science and Religion before Darwin* (London: HarperCollins, 2005)

\*Dr Patricia Fara is an historian of science and has been President of the AHS since 2016. This is number thirteen in a series of short articles in which she discusses a number of images, each illustrating a different way of incorporating time and its passing within a picture without showing a clock.