Caves, Castles, Celtic Sites and Cathedrals

Andy Spate

As those members who attended the AGM recently know – the first AGM I have missed since Elery Hamilton-Smith and I founded ACKMA in 1987 – I have just spent a fortnight in Wales and southern England visiting my daughter, Jess, and my lovely five-year-old granddaughter, Hafren, with my son Christopher. I had not seen Jess and Hafren for about three and a half years – so that was clearly the highlight of my visit – but we explored many wonderful features of the spectacularly beautiful Wales and the Jurassic coast and its hinterland. The pubs were a wonderful experience also – so un-Australian!

Whilst there I tried to look at limestone and caves – but there was much else. Including flying pterodactyl kites with Hafren! I won't bore you with anything but caves and limestone. Although Welsh scenery and the other three – cliffs, Celtic sites and castles - were amazing.

In my wanderings around Wales and south-western England I visited many outcrops of Devonian and Carboniferous hard grey limestones similar to those we see in eastern Australia and elsewhere in our purview. I was very surprised not to see any rillenkarren (solution flutes) or similar small scale solution features. Nor where there was soil erosion, did I see much evidence of subsoil karst solution features.

This puzzled me and I canvassed several karst colleagues with knowledge of British limestones – unfortunately this did not lead anywhere particularly useful. In regard to the coastal exposures perhaps coastal erosion is too rapid under the influence of storms from the Atlantic and which overcomes karst development?

Anyway, let's start my tour. Before we go, I should point out that Wales is a bilingual country. Almost all of the signage and pamphlets etc is in both Welsh and English. On the narrow and winding roads (lanes) Chris and I started to learn Welsh – ARAY = SLOW!

Dan-yr-Ogof

Obviously being in Wales I wanted to see *Dan-yr-Ogof* and its associated <u>National Showcaves Centre for Wales</u>. Daughter Jess advised me against it as she thought I would be not impressed as she had visited it with Hafren and found it mainly about dinosaurs - with much concrete. In any event the site was said to be closed and emails to the manager went unanswered - maybe next year?

<u>Kents Cavern</u>

Those who attended the last ACKMA Conference in Margaret River will recall meeting Nick Powe – the owner of Kents Cavern in Devon. A must to meet Nick again so we went via Cheddar Gorge briefly – and missed <u>Wookey Hole</u>. I hadn't done my homework adequately.

Elliot, Abby, Simon and others made us welcome at Kents Cavern, and we took a guided tour under Abby's enthusiastic care ending up in the Great Chamber – where we encountered Nick and his great grandfather, Francis Powe. The cave has been under the ownership, and loving care, of the Powe family for 135 years!

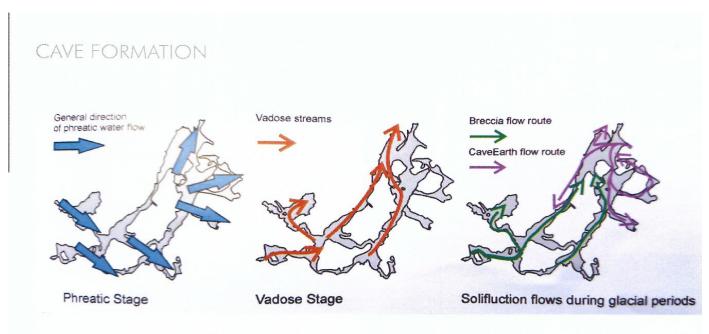
In the introduction to Kents Cavern Conservation Plan, Nick has this to say:

Kents Cavern is one of Britain's rare palaeolithic cave sites, considered by Historic England to hold what are by far the most important known extant cave deposits in Britain. It has for the last 135 years been under the custodianship of one family, my family, the Powe family.

Since the 19th June 1880, the day William Pengelly completed his 15-year systematic archaeological recording of the cavern, the cave has been open to the public and during that time the conservation and on-going protection of the cavern has been a significant part of our management responsibility. We operate within the onerous constraints of the statutory duties imposed on us by the UK Government through Historic England and Natural England.

Kents Cavern has a unique place at the beginning of the ancient human occupation of Europe with evidence found here from three different species of humans; the oldest early modern human fossil found in northwest Europe, a 41,000-year-old Homo sapiens jawbone, Neanderthal hand axes from 90,000 years ago and some of the earliest tools ever discovered in Britain, 500,000-year-old Homo heidelbergensis stone tools. The human story continues with Bronze Age and Iron Age artefacts found here, 2,000-year-old Roman coins at the Face, and Tudor adventurers leaving their mark in 1571.

The outstanding geological heritage combined with the Palaeolithic archaeological record found here gave Kents Cavern a pivotal role in securing UNESCO Global Geopark status for Torbay. How can you better portray Kents Cavern, which is part of the Jurassic Coast Global Geopark, than with Nick's remarks above? Our tour with the delightful guide, Abby, was a public visit and we were obviously constrained by the tour time limits. I was most struck by the early phreatic development of the cave. The vadose influence was not so obvious to me but must have been there. The influx of sediments again was not terribly evident – but much has obviously been removed in the excavations that have been going on since the mid-1800s. The diagram, from the Conservation Plan, below shows the three phases in the life of Kents Cavern.



Figures 5. Water and sediment flows in Kents Cavern, in Lundberg, J., & McFarlane, D. (2008). *Kents Cavern, A Field Guide to the Natural History*. Buckfastleigh: William Pengelly Cave Studies Trust.

The Great Chamber, where we met Nick, had many interesting exhibits portraying the immense history of the cave. Again impressive.



Francis and Nick Powe meet with Andy in the Great Chamber of Kents Cavern. Photo Jess Spate.

There were many features of interest at Kents Caverns not the least is the garden walk featuring models of mammoths and other extinct megafauna as well as replica stone age hearths and similar items.

I particularly enjoyed the rubbish bins spectacularly decorated with mammoths and other prehistoric features of the site!

I mentioned the Kents Cavern Conservation Plan above. A remarkable, 70+ page, document that examines the cave chamber by chamber outlining such things as 'vulnerability', 'geological hazards', 'access' and a description of the features. A sample page is shown below.

LECTURE HALL & GREAT CHAMBER

Lecture Hall and Associated Passages	LECTURE HALL & GREAT CHAMBER
Showcave	Yes
Vulnerability	Low – Medium
Geological Hazards	Yes – upon exiting the Great Chamber through the South Entrance. A visible crack through the bedding plane can be seen. A tell-tale has been placed on one of the fault lines and is assessed weekly. Please report any movement or loasening of sediment in this area to management immediately.
Access	Public, cave guides, FA employees, trained cave lighting employee's contractors, specialists and special events staff.
Summary	The Lecture Hall and Great Chamber have been marked as low vulnerability and are well protected. Important areas off path have still been marked as medium vulnerability as there are still a small amount of speleothems. Some of the blue mark areas also lead into even more vulnerable sections.

I have not seen a comparable document elsewhere in my junketing's around the world – Kents Cavern – especially Nick and his team and the compiler of the plan, Tara Beacroft – are to be congratulated on this remarkably comprehensive review of the cave and how it will be managed in the future.

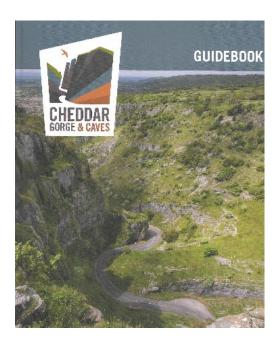
DESCRIPTION

Exiting the Southwest Chamber connections into the Lecture Hall and Great Chamber can be gained, completing the showcave circuit. At present both parts of this grand chamber are used as an exhibition area showcasing Kents Cavern's history within the Palaeolithic and the Great Execution of 1865. As such, several models and displays are strategically placed to demonstrate this and most are on the showcave path. Conservationally many block entries to areas such as the Gallery and Sally Ports.

Cheddar Gorge

Our visit to Cheddar was brief as we needed to get to our accommodation in Torquay – which proved to be somewhat problematic. Cheddar Gorge is spectacular – but doesn't match up to Bungonia Gorge in NSW for example. Amazing array of souvenir shops, cafes and bars lined the street. I didn't visit either Goughs or Cox's Caves – next time, I hope. Like Kents, Cheddar has both a long-term showcave history – and a much longer prehistoric and historic past again ranging from the Palaeolithic to the Romans and more modern times. Late Palaeolithic material dates from around 40,000 years. I bought the fine guidebook ...

SOUVENTR BROCHURE KENTSCARVORRA CARVORRA BISS MILLION YEARS IN THE MAKING



Both Kents Cavern and Cheddar Gorge have produced excellent guidebooks to their sites. Whilst I stand to be corrected, I don't think we have anything similar in Australia and New Zealand although there was a good one at Yarrangobilly many years ago. Maybe something we could aspire to?



This was a remarkable site the name means 'gateway to the cave. Dozens of people wandering in and out of the site – 'organised' groups in overalls, helmets and head torches run by clearly inexperienced guides mixed with others wandering around on cobbled floors using the torches on their phones! Interpretation panels warned of the potential hazards in the cave such as flash flooding! However, there was a nicely engraved wooden panel with the words 'Dyfroedd chwilgar ya cerfio Lywyllwch cêt'. In English, 'searching waters carve dark secrets'. I liked this comment.

Chris, Jess and Hafren entering Porth yr Ogof.



Nearby was the *Bwa o gerrig* (*A bow of stone*) with nicely displayed folds in the limestone. Hafren in a shallow cave in the folded limestone.

Taiter in a shallow cave in the lot

Carreg Cennen Castle



Hafren explores the cave beneath the 13th Century limestone castle. Many tens of thousands of visitors have touched the speleothems in there! I looked in vain for rillenkarren and similar small-scale karst features on the castle's limestone. There were some small stalactites (~ 10 cm) and some

small rimstone pools on one step. But these might well have been derived from the mortar rather than the limestone as Gary Smith pointed out in the Journal a while ago.

Left photo Jess Spate.



South Pembrokeshire Coast

We visited this on several occasions – the coastal limestone landforms – cliffs, stacks, arches, caves and geos in the Carboniferous limestones are simply remarkable!!!! The coastal cliff walk is fantastic, but I couldn't do much of it.



Pont Werdd Cymru (The Green Bridge of Wales) and a spectacular nearby geo (A geo is an inward portion of a cliff face in the form of a narrow inlet or gully).



Kirsty is fascinated by the Celtic and other prehistoric sites of Europe. At her behest we visited a number of sites in Wales such as *Carreg sy'n hofran* (The Floating Stone, > 5,00 years old) photo Chris Spate, and *Craig Rhos-y-felin*, the bluestone quarry that supplied slabs to the interior of Stonehenge, photo Jess Spate.

As a matter of interest there are two types of 'bluestone' at Stonehenge – the rhyolite from the quarry above, and the other is spotted dolerite, which comes from the site at *Carn Goedog*, which is just over 3 km (or 2 miles) away. There is an excellent documentary called "Stonehenge: The Lost Circle Revealed" which documents all of this. I think it can be accessed at the following link:



https://www.documentarymania.com/player.php?title=Stonehenge:%20The%20Lost%20Circle%20Revealed