South Wales Caving Club

Clwb Ogofeydd Deheudir Cymru

Newsletter 133

April 2018

Front Cover Photograph

Adam Walmsley towards the bottom of the 650m deep Bunda Jama on a York University Cave And Pothole Cub expedition to Montenegro in 2016 which was generously supported by SWCC.

Photographer *Martin Hoff*

Back Cover Photograph

A fine curtain with helictites in Temple of Baal cave, Jenolan, New South Wales.

Photographer *Duncan Hornby*

SWCC Newsletter 133
April 2018

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Editorial

We are delighted to present to you the long-awaited Newsletter 133. On the pages that follow you will discover a selection of articles ranging from cutting-edge cave science through whimsical humour to an account of original exploratory work and much else besides. It is a wonderful testament to the talent and enthusiasm of our members that they can deliver such a broad spectrum of material. Our thanks to all those who have contributed both the written word and photographs. Our thanks also to the many members who have provided all manner of assistance to us, be it technical advice or valuable snippets of information.

Two years have elapsed since the last Newsletter was published which is an unprecedented and regrettably long period of time. Many factors have contributed to this delay. The previous editor moved to New Zeeland in 2016 and the club was unable to elect anybody to the post at the 2017 AGM, itself a regrettable state of affairs. We volunteered to fill the gap last July and must accept some degree of responsibility for delays since then. One consequence of the delay is that some articles may seem a little dated but we were quite certain that they should be published.

Neither of us has undertaken a project of this kind before and there has been a steep learning curve for us both. We soon realised that consistency in style would be important, both visually and in terms of the English language. We have largely relied on Oxford and Collins dictionaries, the Guardian style guide and on-line resources such as Grammarly.com to guide us. Careful as we have been, errors will doubtless have sneaked though and these are entirely our responsibility. We trust that you enjoy what is before you and hope that it makes up for the wait!

Bob and Elaine Hall

Is there evidence of past cryogenic processes in Ogof Ffynnon Ddu?

(Cryogenic – created by ice)

Andy Freem

Introduction

The landscaping processes of a region next to a glacial area are often termed periglacial. The climatic characteristics are that mean annual temperatures are below freezing, but seasonal cycles may allow surface melting during the summer and generally low precipitation totals (and then largely as snow). Cycles of freeze-thaw can occur on south-facing slopes (northern hemisphere), and during periods of transitions between glacial and inter/post-glacial climatic phases. Beneath the seasonally melting surface 'active layer', ground temperatures are below freezing, sometimes to considerable depth (the permafrost layer).

Water is an important component of periglacial processes. It can exist as interstitial ice (between particles) within sediments; as meltwater from snow patches; in a summer mobile slurry within the 'active' surface layer and as exogenic fluvio-glacial discharges flowing in from nearby glaciers. It can also be in the form of liquid groundwater within the pores or joints of 'aquifers' below the permafrost layer, where temperatures rise with geological depth.

The characteristic surface landforms in periglacial environments are largely a consequence of expansion and contraction forces associated with phase changes of water to and from solid and liquid states. They include: scree slopes; blockfields; solifluction (head) deposits; patterned sorting of sediment fractions; frost wedging; heaving or cryoturbation (churning) of sediments. On slopes, static snow may create nivation hollows. Some dry valleys in karst areas may also be the consequence of seasonal surface run-off over limestone made impermeable by permafrost.

The surface landscape of South Wales, including the Tawe valley, has abundant examples of all the above landforms, frequently modifying superficially the glacially modified landforms beneath.

The whole of the UK's land surface experienced multiple periglacial periods during 2 million years as parts of the Pleistocene glacial/interglacial cycles. The most recent period ended about 10,000 years ago with the start of the current Holocene epoch.

Ice-moulded hillocks of limestone above the Prokofiev Series, OFD 2. The ice moved south (towards the camera).

Glacially striated (scratched) Marros Grit fragmented by frost-shattering to become blockfields. Carreg-Lwyd, directly above Marble Showers, OFD2.

Scree slopes and protalus ramparts at the base (formed when 'long term' ice patches redirected rock fall away from the base of the slope). Fan Hir, Tawe valley.

Cryogenetic (periglacial) processes in caves

The investigation of the extent to which caves in the South Wales area, and indeed nationally, were subject to periglacial processes has been recently energized by the cryogenic cave calcite survey initiated by Dr. Gina Moseley (Ref 1). Cryogenic calcite deposits are fragmented, granular, powdery or globular layers that are relatively unattractive to cavers and may have been ignored and destroyed underfoot. Where they are identified they indicate that there has been static ice on the cave floor. Searches in OFD and DYO have yet to discover any surviving definitive examples of cryogenic calcite.

Possible cryogenic calcite deposit (the white powder). Water Icicle Close Mine Cavern, (WICMC) Derbyshire.

White granular powder-coating on an old fallen stalagmite in the Mini Columns area of OFD2. Could this be cryogenic?

It would be simplistic to assume that these deposits are the only evidence of cryogenic modification in caves, nor need we assume that ice content in the caves had to be either none or total. Some passages could have been air filled, with percolation water feeding ice lobes or columns, as currently is seen in some Austrian caves. Some sections could have remained fluvial or dry during the periglacial phase, and indeed even when glaciers were moving south over the area (as at Castleguard in Canada at present). 'Warm'-based glaciers have very large volumes of mobile water channelled along their bases, and pressure-related melting or seasonal moulin-fed meltwater flows could potentially enter the caves. They may also be subject to freezing and thawing with glacial advance and retreat. In such circumstances some passages in OFD and DYO might have contained fluvioglacial conduits and this might suggest a source of the laminated, varve-like (seasonal cycle) sediments that can be seen in several of the inactive passages of OFD 2 (e.g. near Arête Chamber, Timo's Table, Midnight Passage and Fault Aven) and in DYO2 and 3 (Gerard Platten Hall, Hanger 2 extension and Far North's Starting Gate area).

Fluvioglacial varve-like deposits in Gerard Platten Hall, DYO2.

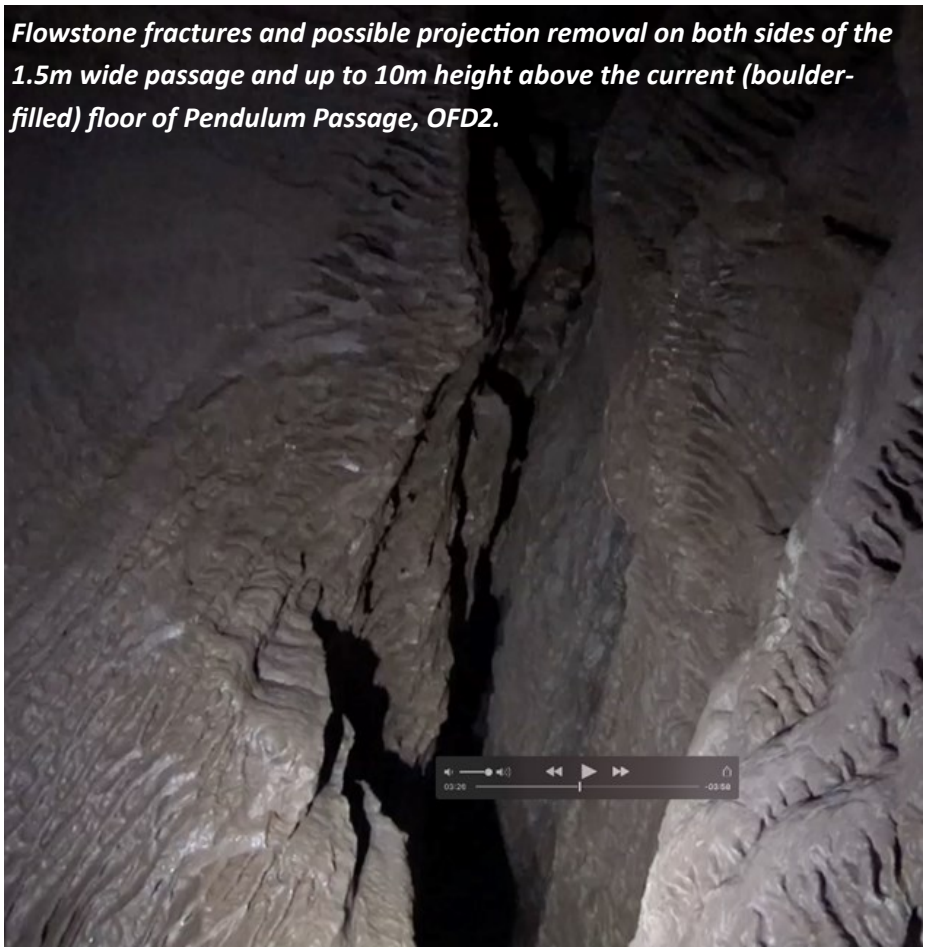
The existence of such widespread and occasionally deep deposits does not in itself indicate the existence of periglacial conditions in the cave, but it does suggest that glacial ice and therefore suitably cold conditions were nearby.

As part of a wider consideration of the impact of cryogenesis in UK caves, what follows are some observations from OFD 2 and comparisons with Water Ice Close Mine Cave, Derbyshire. In particular, three landforms have been identified that are worthy of wider discussion.

Landform 1:
Flowstone fracture due to a major 'destructive event'.

These features are far better seen than described, as they have something of an awe-inspiring drama to them.

Multiple flowstone fractures/removal in Pendulum Passage, OFD2. This image shows only a small part of the landform. Fractures have in some cases been concentrated in 'sheltered' alcoves and show no signs of subsequent rounding.



Flowstone fractures and possible projection removal on both sides of the 1.5m wide passage and up to 10m height above the current (boulder-filled) floor of Pendulum Passage, OFD2.

In summary, at specific locations projecting flowstone has been energetically fractured, as if by targeted vandalism, over the full height of the passage (some 10-15m) and on both sides. Flowstone on projecting walls, but particularly in sheltered alcoves, has been removed to leave angular scars or large flattened areas of remarkably consistent symmetry. Large stalagmite columns of at least 15cm in diameter have also been removed to leave stumps.

Fractured curtains masked by modern calcite regrowth, with 3 broken stalagmite stumps again being covered with active calcite deposition, at the Labyrinth, OFD2.

So far, examples of this phenomenon have been identified on a large scale along Pendulum Passage and at two separate locations in the Labyrinth. Other similar observations made beyond the Crevasse on the way to OFD 3 have yet to be confirmed.

There is no clear identification of the present location of the debris from these events. On some of the fractured surfaces, there is active calcite re-growth (where the same water source seems to have been maintained). This illustrates the relative antiquity of the destructive event.

Fractured remnant curtains (right and at top) actively being masked by recent deposition (left.)
The Labyrinth, OFD2

Discussion on formation

Below are considerations of several possible origins for these fractures.

a/ destruction by a liquid water 'flood', with a high-density suspended or base load

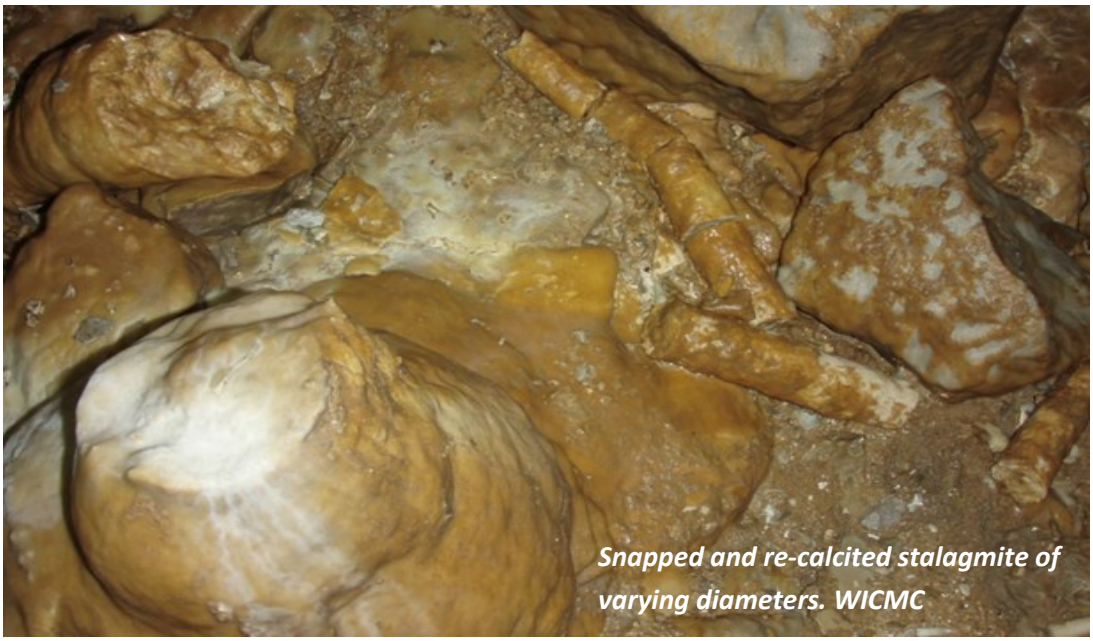
Could these passages have been a reservoir of water during a glacial period and then a sudden unblocking of the resurgence, perhaps during glacial retreat, have created an instant flood surge of high-density, sediment-filled water which smashed any fragile obstruction in its way?
This type of event would be very short-term, lasting minutes rather than days.

There are several characteristics of the features that tend to discount this – namely the lack of rounding, the symmetry of the fractures, the lack of evidence of deposition from fluvial sources, and, in one case, a location so close to a complete close-down of the passage that it would have precluded the supply of a sufficient volume of water. Fluid erosion would have been more concentrated near the floor of passages, but the fractures seen are consistent with height.

b/ earthquake damage

Did an earthquake of significant violence shake the area and cause fracturing of the calcite?

The evidence is entirely inconsistent with destruction from shaking, since many of the formations were structurally supported at the top, side and base.
Earthquakes are not localised and other potentially vulnerable features in some nearby passages are not affected (e.g. the Trident and Judge, which are only a few hundreds of metres away from Pendulum Passage).
Earthquake damage has been cited as a possible cause for widespread stalagmite toppling in Water Icicle Close Cavern, though this could be questioned. Observations of proposed cryogenic calcite damage in Kents Cavern, Devon and earthquake-damaged caves abroad tend to show quite different characteristics (see Reference 2).



Snapped and re-calcited stalagmite of varying diameters. WICMC

c/ cryogenic fracture

Did a body of static water, which then froze in situ, build up in the passage to at least the height of the top of the formations, with subsequent slow melting allowing subsidence and ice-slip to break, and in some cases carry away, the more fragile formations?

All the fractures seen are consistent with this type of damage, where sideward force would have snapped the calcite at the weakest locations. It would have been strong enough to break even large stalagmites.
No rounding of the scars would have taken place. The process could be localized, so allowing other passages with formations, but without ice, to survive unscathed.

Landform 2:
'Patterned' globular mud deposits

When first discovered, many passages in the 'Clay Series' of OFD 2 had floors with a wrinkled, globular, muddy veneer. The relief of mud patterns was typically 5 -6 cm. Much has been trampled, so only remnants are left.
The deposit is found across entire floors, but not on actively forming stalagmite.

A mixture of globular mud deposit surrounding angular boulders in the recently-discovered Loft Extension above the Great Oxbow Series, OFD2.

The protected floor under the Mini Columns, OFD2, showing that the pillars post-date the mud deposit.

There is frequently a continuous cleft up to 10cm deep separating the deposit from the walls. In some cases, the mud is distinctly raised in the centre of the passage, softly mimicking the roof shape and also the rising and falling of a passage's long axis. There is little or no evidence of smoothing or sorting by water flow, i.e. no watercourse remnant along the floor that might be expected if water has been flowing along or draining away. It is curious that passage walls and ceilings are usually completely clean of any mud.

A separation-cleft along a rock wall to the left, and detail of the texture of the deposit, in upper passages near Top Entrance, OFD2.

Even perched ledges have this deposit.

Small (50cm diameter) eyehole 1.5m above the floor, containing an original deposit that illustrates the key features of: globular form, passage-shape mimicry, and edge-separation (on the right), in upper passages near Top Entrance, OFD2

This form of deposit is not unique to OFD. Similar deposits are found in another cave suspected of cryogenic features; Water Icicle Close Mine Cavern.

Similar deposits on the floor of WICMC

Discussion on Formation

a/ patterned by moving liquid water

It seems very likely that the original sediment was carried into the passages suspended in water. This could have been sub-glacial meltwater. The sediment layers below occasionally show laminated sediments, which may be fluvial varves (seasonal layers). Since the sediment is highly-sorted silt and clay with no large fractions, it would only have required suspension in slow moving water, and deposition might well have required periods of no flow (when washing caving kit it takes several days for the resulting muddy water to settle its solid suspension on the bottom of a bucket.); however, water draining away would mostly have left a smooth surface layer, not the globular wrinkles. Nor is there any evidence of the local gradation and evening-out or channelling that would normally be associated with moving water. There is no infill of low points and removal of high points along the passages.

b/ worm casts

Worms certainly create irregular structures similar to some of the observed patterns, and there are good local illustrations of this in Thixotropic Passage and Worm Way in DYO2, where there are live worm colonies. However, the globular scale is far too large and too extensive to be considered the consequence of burrowing by these organic micro-landformers. Nor is there any significant organic content in the sediment to have sustained them. There are no known remnant pockets of living worms in OFD.

c/ cryoturbation (ice heave and mixing) structures

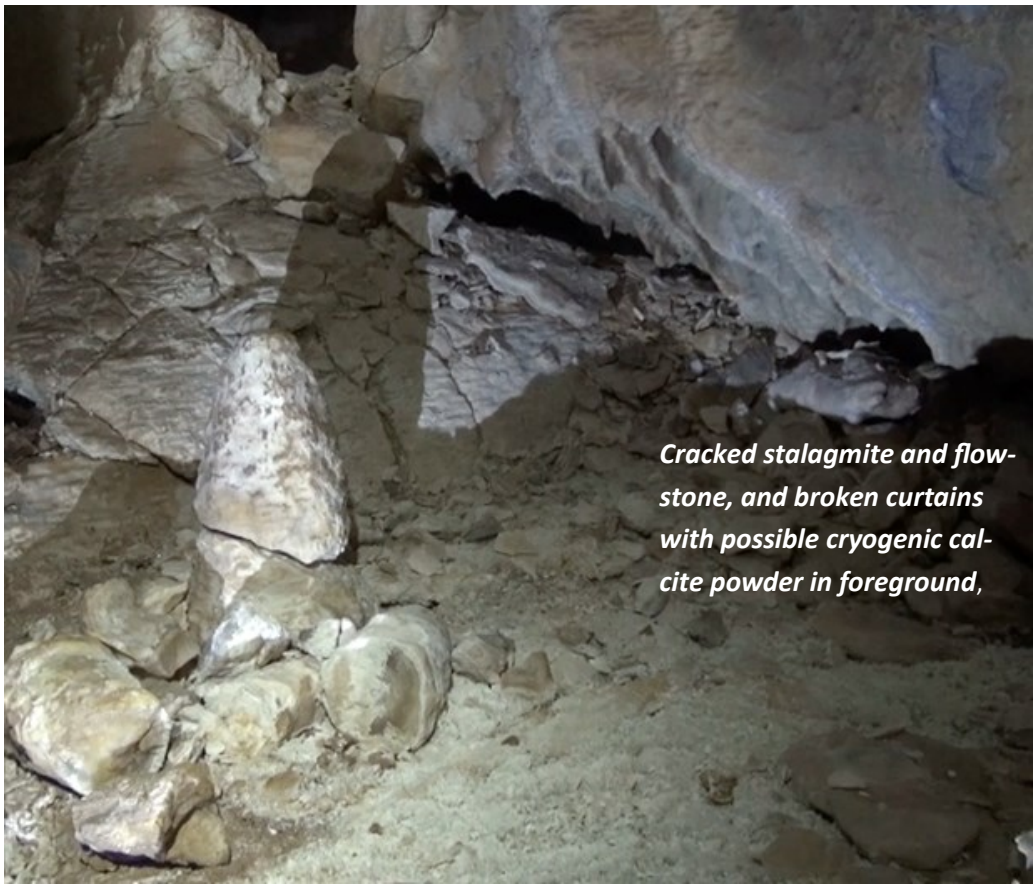
Inter-granular ice crystals tend to coalesce and selectively and cyclically heave frozen material; sometimes referred to as cryoturbation, an example of this process is pipkrake using needle ice. It can destabilise exposed sediments on path sides in British hills during winter frosts.

Surfaces subject to small-scale frost-heave become more crenulated over time, with fissures and sediments sorted out relative to their varying percentages of water content. This would seem to be the most likely cause of this surface, though further detailed analysis of the structure and process is required to support this suggestion.

Landform 3:
Fractured and re-cemented speleothems

The iconic speloethem of OFD 1 is the 'Bees Knees' column in Roundabout Chamber, and rarely does a group visit it without some discussion of its mode of formation.
Most structurally fragmented speleothems are less spectacular and do not attract interest due to their imperfection. It is often possible to sequence the destructive events when these fall onto, and/or have been encased into, later sediments.

Flakes of wall calcite apparently 'levered off' then re-cemented on



Cracked stalagmite and flow-stone, and broken curtains with possible cryogenic cal-cite powder in foreground,

Discussion on formation

a/ human related damage
It is relatively easy to differentiate between human and older, natural, destructive causes and discount the former, due to the occasional long-term re-calcification of these features onto surrounding sediments.

b/ mechanical damage from liquid water
Flowing water would not create angular fragments and they would not end up in a position directly below their source .

c/ structural failure
When compared with the multitude of larger speleothems that have not broken under their own weight, it seems unlikely that these, often small, fragments have failed due to structural incompetence.

d/ frost shattering
It is relatively common for water to exist behind and within the laminates of wall flowstone, and should this freeze, plates would be prised off. The examples seen tend to conform to the characteristics of frost-shattered flakes.

Conclusions and future study

We should seriously consider the role that cryogenic forces may have played in the fine-tuning of the underground landscape of OFD.
The frost-shattered and re-cemented debris-cone to the left inside the Top Entrance passage is, for example, a pretty obvious clue that hints at the cave's past periglacial state. Maybe we should reconsider the floors of Big Chamber by the Entrance and The Brickyard as the underground equivalents of Snowdonia's mountain-top blockfields, with freeze-thaw forces being just as important in their creation as the generally assumed processes of joint pressure-release and structural failure.

In the light of periglacial evidence, investigations and modelling of the requirements for, and impact of, frost-heave have taken place in Kent's Cavern, Devon. These include studies of speleothem fractures previously considered the product of earthquake and local subsidence (Reference 2).

There is clearly an opportunity for more detailed research in OFD and DYO into the phenomena outlined in this discussion. It would be really helpful if cavers could note and report any possible sightings of the phenomena, so that a distribution pattern might emerge. More precise measurements of the structures and their relationships to the passages they inhabit, sectional studies of sediments, comparative and actual dating of speleothems involved and, possibly, modelling of the suggested cryogenic processes are all potential avenues for further research.

What is most important is that the recreational caver should be encouraged to view the cave in a new and exciting way. I ask the sceptical reader to take the time to visit the Labyrinth, or Pendulum Passage, and view the natural vandalism there. Look carefully at the remnants of crinkled mud on the edges of the passages near Top Entrance, with a critical mind and with an intent to preserve the unexplained.

The author will be delighted to further discuss any of the above phenomena, and also any other hypotheses that might be suggested concerning their creation.

Acknowledgements

Photos and video stills - Andy and Antonia Freem, Jo White and Duncan Hornby.

Reference 1
Cryogenic Cave Calcite Competition
Details can be found on the BCA website, http://british-caving.org.uk/.

Reference 2
Joyce Lundberg and Donald A. McFarlane **Cryogenic fracturing of calcite flowstone in caves: theoretical considerations and field observations in Kents Cavern, Devon, UK.** International Journal of Speleology Official Journal of Union Internationale de Spéléologie, available online at scholarcommons.usf.edu/ijs/ & www.ijs.speleo.it

Author's footnote:

During a recent (February 2018) trip into Tunnel Cave all three landforms discussed were identified in a phreatic down-loop near the junction to Christmas Grotto. This loop could have been a 'cold-sink' as, even at the time of the trip, it was noticeably cooler than nearby passages.

Block displacement in Tunnel Cave near the junction to Christmas grotto.
Although this superficially appears to be the product of joint fracture and subsidence there have been significant lateral forces applied to move the block which is still jammed tight against the solid bedrock above. The block has not actually moved downwards, just sideways. This process would most easily be explained through the action of ice expansion on repeated cycles of melt and refreezing.

First, Catch Your Ladder

Notes on the retirement of the Great Oxbow rope ladder

Martin Hoff

I had first used it on a rescue, as half of one of the three pairs of cavers following the standard pattern search routes for a party presumed lost in Ogof Ffynnon Ddu, all six of us entering via Cwm Dwr and the two of us designated to exit over the Marble Showers traverses. It wasn't much more than a couple of tatty bits of rope hanging off another of those big vintage ring bolts then, the wooden rungs suspended underneath it all varying from somewhat worn via partly abraded to wholly un-reassuring. In the context of the trip, I had already passed the more challenging sections of the traverses and was nearly back onto more or less continuous solid floor, had I only known.

Over the next twenty-something years, the ropes had been fiddled with, additional bolts had been added either side of the ring bolt, the worst-protruding rock at the top of the ladder had been knocked to make it a little less prominent and the ongoing abrasion of the ropes had been hidden under sections of garden hose which meant it at least looked a little less dodgy. The time to deal with it once and for all had arrived, a wholesale change in format to something more durable, to last a generation.

Split beech rung of the 'Bob Hall' ladder

The history of the site appeared to be that the initial explorers used only a rope handline and that PIWH later replaced this with a rope ladder using wooden rungs, which had come to the club via Brigadier Aubrey Glennie, which is how the site gained its common name. Much like the proverbial broom that has had three handles and four brush-heads and yet somehow remains "the broom", the name of the ladder as a piece of equipment has become the name of the site, sealed as such for the ages by its incorporation on the latest survey. The most recent incarnation of rope ladder, which has been removed to be replaced by the fixed metal ladder, was one constructed by Bob Hall.

If accepting the challenge of the job was easy, manoeuvring my way through a few options and identifying a plan that was practical, within the materials and personnel available, proved a little more troublesome. Like the King of Rome, I would return time and again to the site, driven by some homing instinct based on ensuring familiarity and reducing the risk of precipitous action by inviting the opinions of all-comers on how the job might best be achieved in a way that would fit the obstacle in question while causing minimal damage to the cave itself.

Replacing a rope ladder, which becomes damaged by abrasion where it hangs against the wall, with another rope ladder to become similarly cumulatively damaged by the passage of every caver using it did not seem a progressive measure. A couple of then recent trips into Pálvölgyi Cave in Budapest, strictly speaking in the hills of Buda to the western side of the Danube, had demonstrated how judicious use of fixed metal ladders could turn otherwise inaccessible spots into places reached with modest effort and in slightly greater security. Hearing of the availability of a ladder, which had been intended for installation in a kiln but ended up never being fitted, brought together the initial concept and at last there was a plan to work with.

Sometimes the vaguest idea for a plan, to provide a skeleton around which to figure out the details of what may turn out to be something quite different by the time it gets to actually taking action, is all it takes. And so it proved, as trip after trip followed, with cavers of different backgrounds each supplying their specialist knowledge, of building materials and rigging schemes, of measuring methods and options for transporting bulky items underground. These multiple trips, and the group emails that followed explaining how far we had refined the next step or two required for progress to continue, allowed plenty of scope for someone to identify flaws or gaps in the plan as it slowly took on the appearance of a pragmatic, achievable solution to the problem, but nobody spoke up.

Further evidence of the sorry state of the 'Bob Hall' Ladder

With the vertical range that the ladder needed to cover measured at a modest six metres, the kiln ladder still seemed suitable, even if the length of wooden batten used to measure the fall of the ladder was then also, if less intentionally, used to plumb the depths between the site of the ladder and the oxbow in the main Ogof Ffynnon Ddu 2 streamway far below. In the absence of any obvious reason to give up on the still developing plan and with no better alternative being suggested, the day came to carry the first section of the ladder into the cave.

The two separate sections, each of three metres in length and twenty-odd kilos in weight, made it easy to do half a job and establish how well that worked without committing us to carrying the whole lot in one go. The first challenge was just to reach the cave itself. The weight was manageable enough for a single person to lift, so a party of six took a few minutes to establish that three people were plenty to carry the ladder, and that finding a consistent level to suspend it at while individuals of different heights walked over uneven terrain was another factor which offered room for trouble.

By the time we had reached Top Entrance, a sort of routine had been established of using tape slings to support the ladder while still carrying it in such a way that it could immediately be lowered to the floor should that be necessary. Varied helpful advice had been offered, including the suggestion of taking the unwieldy bulk of the ladder the longer way round via Salubrious Passage, the contributor of this idea somehow being unavailable to take part in the ladder transport exercise itself. The portage of the four-metre length of wooden batten had already shown that the direct route via Edward's Shortcut lacked any short distances between tight corners to stop the ladder's progress, and so it proved as we made the sensible decision to be selective about which advice we followed.

It turned out that the inconsistent surface terrain of the passage just inside Top Entrance, through the Brickyard and down Gnome Passage, was actually harder than the stretch that followed. Dropping the ladder down the polished chimney at the start of Edward's Shortcut made a refreshing change as we descended it. Although the next passages offered a little more challenge in terms of narrow passage width, having three or four people lined out ahead of the ladder made passing the weight forward a fairly trivial exercise. Stood up against higher obstacles, the ladder made it easy to climb to the top, then lower the ladder down the other side as the six of us rotated our positions behind, beside and ahead of it.

One thing that had stood out beforehand as the most likely complication in the Edward's Shortcut passages was the familiar traverse over the open trench in the floor, but a rope on either end, in conjunction with a brief outburst of raised voices (and, just for a moment, threatened shorter tempers), made short work on the traverse and so we regrouped once again. The ropes moved forward, as far as one of the practice SRT pitches at the start of Frozen River, which then enabled us to lower the ladder down to the next level and press on towards Shatter Pillar. Again, the ladder was passed

from person to person, occasionally turned on its end in the higher sections and lowered down the shorter climbs as far as Midnight Passage, where the suggestion that the complete lack of urgency or deadline allowed us to take a breather brought out a little impatience on the part of a visiting caver who was helping out.

Beyond this point, the high rift passage made for easy carrying in a straight line as far as the right angle corner, where feeding the rigid ladder down the curving slot beneath the wedged rocks was not an option, but the alternative higher-level route meant that once the ladder had been lifted up onto the rocks, suspending it in the top of the rift and moving it along while hanging vertically on a short rope made for perfectly practicable progression. We had made good time without ever rushing ourselves and, in a mere two and half hours from the entrance, the first section of ladder was stored out of the way in the start of Doodle Dig.

It would be another couple of months before a second team could be assembled of sufficient number to undertake the carry of the other half of the ladder, an entirely different group of people, bar one of the first group who caught us up once we were some way underground. Armed with what I had learned on the first go, this carry went a fraction more smoothly but that was always likely to be the difference between doing something for a first and then a second time. With two ladder sections now stored on site, the properly tricky bit was all that was left.

Breaking the plan into bite-size stages which could be handled in isolation had proven a successful approach so far. There had been nothing to gain by over-committing ourselves at any point, and it had worked well enough to distinguish between the steps of getting the ladders conveniently close to the site and then of moving them into position, starting from a slightly fresher condition having carried only ropes and other kit to the site, not the ladder itself.

The thorny question of how to deal with moving the ladder to its destined position over two short stretches of ledge, which unencumbered cavers usually cross with relative ease, but which present a somewhat different proposition when carrying the bulk and weight of a single ladder section, took a bit of chewing over. On the one hand, any bolts placed would be to the detriment of the sporting nature of this part of the cave, and any bolts subsequently left behind would risk being the thin end of the wedge in encouraging proliferation of fixed aids at sites which have always been passable without them. On the other hand, a single slip of a boot while shifting the weight of a heavy ladder could have catastrophic consequences for any caver or cavers not secured to the ledge.

A practical compromise was clearly necessary.

Three further visits had followed between the second ladder transport and the first installation trip. The first of these allowed two of us to make a start on drilling holes to protect the first of the two remaining traverse sections, the second had invited an impartial observer to comment on the proposed rigging plan and offer some alternative suggestions, while the third had seen all the traverse bolts bar two fitted and the travelling ropes rigged as far as was possible. The layout of the bolts meant that the minimum number were inserted where necessary, while drilled threads were created where possible. Each of these latter requires a couple of metres of Dyneema to provide a secure anchor point but without leaving any more metalwork in the wall than necessary. Even if all the metalwork were subsequently to be removed from the traverse ledges, the threads would inevitably leave the traverses more easily protected than before we started this exercise.

One well-known SWCC member of long standing commented that we had obviously made a proper day of it and must have done a lot of work when we returned from six and half hours of bolting, rigging, knot-finessing and tensioning on the third of these trips. Rather more was to come on the following day, a second chance for at least one person to carry two full tackle sacks of gear on a day where nobody risked ending up under-laden.

With a little more drilling and bolting to be done first, there was no need for the whole party to race into the cave together. Ropes, drill batteries, brackets and other supplies were distributed between six of us, and then the first pair headed off, this time via Salubrious, to carry the still awkward-to-pack and unwieldy weight, using a route slightly more conducive to walking upright than the awkward lift-drop-shove-lift-drag bag-transport sequences of the alternative.

Two more bolts placed, two more knots tied, and the traverse was ready just as the bulk of the party arrived to take a quick rest before finding out whether the ladder moving plan would actually work. All the same, it had to be better than one proposed alternative of lowering the ladder off the start of the traverse to the main streamway oxbow far beneath, carrying it forwards on the floor at that level and then hauling it back up at its intended position beyond the two traverse sections. Funnily enough, the genius responsible for that suggestion was not available to take part in making this particular scheme happen either.

Ropes connected at either end, a late change of plan and with a few heaves on the one rope as the other was paid out, the first ladder section was hauled and manhandled across to the short piece of walking passage between the two traversing sections. The amount of gear being shifted back and forth meant that the option to use cowstails was a well-considered provision, even on the first traverse, which most cavers cross without gear and largely without thinking in the course of an average through-trip. The sixth contributor to the trip had by now turned up, the final pair of hands making all the difference between something just about possible and something readily manageable.

Moving on to the first part of the second traverse, the first half of the ladder was suspended from a Tyrolean which reached the pile of rocks stacked, without significant consolidation, over the rift dropping to the oxbow far below. Its companion ladder piece swiftly followed, and the front anchor point of the Tyrolean then formed the rear station from which the ladder sections could continue as far as the ledge at the head of the soon-to-be removed rope and rungs arrangement. The Tyrolean was dismantled, one single ladder was assembled from the two pieces and in due course lowered to stand close to its predecessor, its base sitting on the handily prominent ledge.

A little more drilling, just enough to secure top and bottom of the ladder in the position where we would leave it, and the clock was already ticking towards the call-out times on our tickets back down the hill. The sixth member of the team had left earlier, taking one rope out, having already made a valiant contribution just when he was needed. A minimum of gear was distributed in tackle sacks heading out: another rope; drill batteries in need of being charged and some of the other debris we had accumulated. Some of my companions were well versed in using the hour of grace before call-out time, a habit I have never adopted, and have no plan to continue but for exceptional circumstances such as these.

Call-outs having been set for nine in the evening, it was at two minutes after nine that we left Sand Cafe. The day had been a bit of a slog and there was no reason for any great rush; every member of the party had more than earned the luxury of travelling at their own speed. All the same, and even with a clear understanding of the job we had embarked upon being shared on the surface, the least we could do was for someone to make good time to ensure nobody jumped the gun on the call-out. At the end of a long day, with a rope in the tackle sack for good measure, it was with a certain weary satisfaction that the first of the party emerged from Top Entrance a shade over half an hour later, the direct exit via Edward's Shortcut having proved straightforward enough. A succession of lights followed down the hillside as the group reassembled at Penwyllt and went in search of well-deserved cups of tea before moving on to something more celebratory, anaesthetising, or both.

The verdict of a proper effort on the previous day had truly been put in the shade by this one. To spend nine and a half hours underground on a trip to somewhere that, as it turned out, was barely thirty minutes from the surface made time for an awful lot of work on site. My own records show that even when I have done 1-3-1 trips, my surface to surface time has been lower than this. It will be no surprise that an early start for consecutive installation day three was never on the cards.

All the same, two of us took our time-underground tally for the three days easily over the twenty-hour mark as we returned to the site once again, this time to drill the holes to fix the ladder in place, to fill the holes with resin, and to insert the threaded rod that would subsequently form the anchor points. The slowest abseil ever, in incremental stages and with a good volume of impedimenta to try not to drop, still meant we ended up with most of the work nearing completion by the time we were joined by another two pairs of hands to help with carrying kit out.

By the time we left, taking the drills and batteries and then whatever else was practical to carry in a single load, there remained two full tackle sacks of gear on site for collection at a later date, as well as the ropes to be de-rigged from the traverses once the final steps in securing the ladder were complete.

Some weeks later one bag and almost all of the resin bolting materials had been removed, and it looked as if we might get away with just one more trip to finish off the remaining work of tidying up the ladder fixing-brackets and then de-rigging the ropes. The modern technological miracle of the portable angle grinder made fairly short work of trimming the fixing brackets to leave only an appropriate couple of inches standing proud of the ladder sides, and the excess lumps of metal were spread between the party for transport out of the cave. The two ropes that had been used for a side-by-side abseil while injecting the resin into the holes and then forcing the threaded bar into position could now also be removed, and we reconvened between the two traverses to repack bags and for the first pair of hardy workers to leave the cave, their jobs as complete as their tackle sacks were now full of gear.

Dave Dobson trimming the ladder brackets

One final contribution before moving out was to be part of a conversation about the preferred final status of bolts for the longer term. Among the four of us, three had held the position of Fixed Aids Officer, and consensus was easily reached – that there was no value in the wholesale destruction of every single bolt, while equally most of those on the traverse ledges could be done without, because they had been sited at points where they were very useful in the protection of cavers and ladder while the ladder itself was being transported, but offered little practical benefit to those passing through on the conventional route used by generations of cavers.

Closer inspection as the ropes were de-rigged from the traverse revealed the obvious value of leaving a select few intact, hangers and all. These provide places from which a caver will be able to lifeline a tired or nervous member of their party with ease, providing the party is suitably equipped. Obviously, all of the additional bolts and threads are merely a fortunate byproduct of the ladder install job, so it would be a simple formality to justify the removal of every single one of these since the cave would then merely revert to being exactly as navigable as it was before the ladder was replaced. Nevertheless, it was felt that leaving those few bolts which do directly offer the opportunity for one caver to provide further protection for another was a progressive step to take.

Of the four bolts which are not in positions of meaningful assistance and the other two left spinning in their holes, some consideration would later be required of how to minimise the conservation impact of any removal or retention. In due course the spinning bolts would need dealing with properly, but in the meantime anyone with strong feelings as to exactly how bolts which are of little use to passing cavers should be dealt with had ample opportunity to make their case

In the months that followed the completed installation of the ladder, a test-run trip with Jem Rowland saw a rope rigged across the remaining bolts to produce a traverse line, which enabled the President to inspect the work done and then to visit the section of passage from the head of the ladder to the next traversing obstacle, somewhere he thought he had not been for a good thirty years. Proof enough that the many hours of assessment and installation trips, along with the involvement of nineteen contributors over the course of a dozen visits to the project site underground and a few more on the surface, had done a satisfactory job.

All photographs by the author.

The fitted ladder modelled by Tony Baker

SWCC SRT Course 4-5 November 2017

Jill Brunsdon SWCC Training Officer

Twice a year, SWCC organises a "Try Caving"/Provisionals weekend (run by Clare Vivien) for potential new members. These weekends have become very successful, resulting in many new members joining the club over the last few years.

Having recently accepted the position of SWCC Training Officer, and with these new members particularly in mind, I am very keen to develop a progressive training programme for members wishing to move on to more technical aspects of caving by offering them the chance of being taught SRT through the Cave Instructor Certificate Scheme.

The British Caving Association is also very keen to promote training, including SRT Training, so an application form for a grant was obtained and duly submitted, requesting funding for such training. The BCA supported the application, a discussion was had with Richard Hill (CIC), a weekend was chosen, and with the help of SWCC and the BCA grant, members were able to reap the benefits of enrolling on a subsidised two-day training course.

Four of our members (Barbara, Lucy, Chris and David) participated in the first course, three having had no previous training, and one having had two trips using SRT in 2014.

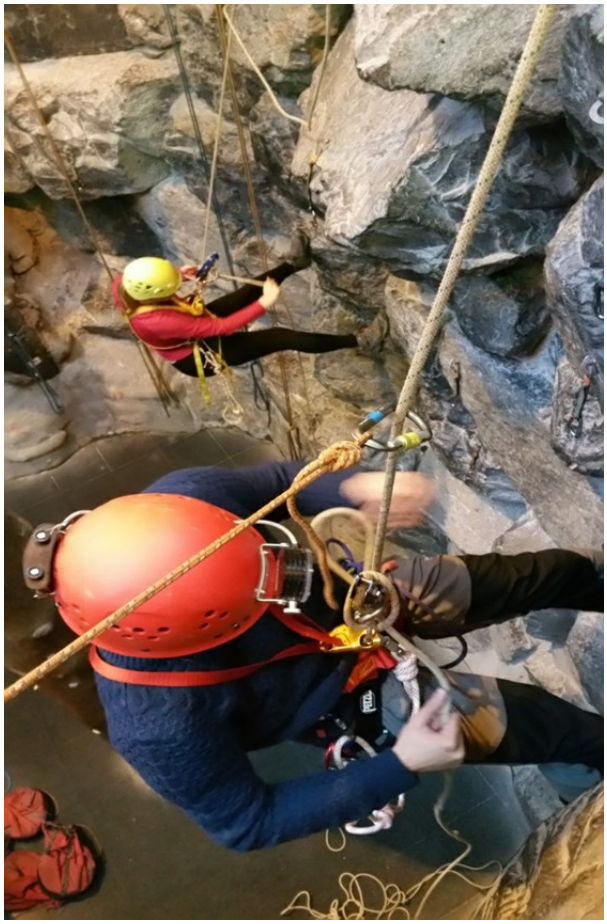
Saturday started in Llangorse Activity Centre with the obligatory cup of tea while discussing individual aspirations, caving experiences and going through the course content. Brewed up, and ready to go,

Richard began by explaining the equipment and the set-up of a standard SRT kit. After much practice of assembling the kit, all were ready to be introduced to the rope!!

With a few concerns starting to appear, Richard put everyone at ease by initially setting up the rope on level ground. Members were able to practise loading, unloading and locking-off the Stop whilst standing and leaning back onto the rope. Once fully confident in these procedures they were allowed to advance to the next stage: Pitch Head Approach.

Llangorse features unique limestone climbing walls, so setting up a traverse line leading to a short pitch was so much more realistic for everyone. At first, fear of heights and/or not having trust in the equipment saw a couple of members question whether they could proceed further, but with patience, practice and repetitions, fears were overcome and all were soon achieving descents with and without the deviations Richard had installed.

Further along the traverse line, a new challenge was added: this time it included a hanging rebelay half way down the pitch. David took on the challenge first, closely followed by Lucy. Gaining confidence as her fear of heights diminished, these descents were practised and soon the look of fear vanished from Lucy's face to be replaced by big beaming smiles.



After lunch everyone moved on to ascending the rope. After grasping the technique by hanging off a beam in the Centre, the Petzl Pantin foot jammer was introduced to the group. This saw Barbara ascending the rope along with everyone else, all very keen to try it. After a few tries, everyone became aware of the advantage that this piece of equipment has when ascending big pitches.

The day's training went far too quickly for all, with lots covered during the course of the day, and after another discussion it was decided that a visit to Wills Hole, by Dinas Rock, would be an ideal location for Sunday's training session.

We met Richard on Sunday. After a small climb up to the cave entrance, and avoiding a well-placed moth, Lucy and Barbara descended with ease down a short pitch.

The second pitch was a little more challenging for them, having some exposure and having to clip into a traverse line while moving along a ledge to the pitch head, so encouragement was required. But, after several times descending, passing deviations and putting everything learned previously into practice, the day came to the end.

I received these few words after the course:

"This was an excellent and valuable training session for me. Having learned the basics several years ago but applied it since, this was a good refresher personally, but the pace was good for all abilities. Richard had loads of patience with the group and provided good tips for discouraging bad habits."

I wish to thank the BCA and SWCC for supporting the course.

The 'Definitive Opinion' on CRoW and Cave Access

Gary Vaughan

There has been much by way of speculation in recent years as to what rights (if any) the Countryside and Rights of Way Act 2000 (CRoW) bestows upon the humble British Caver to pursue pastimes related to caves in areas of England and Wales that are located in or under land that has been designated as 'Access Land' under that Act. Some would say that CRoW does not grant any rights in relation to the pastime of caving, whilst others would argue that, when correctly interpreted at law, actually CRoW does bestow rights of access to enter and explore cave passage. There is also a third perspective, one which asserts that if CRoW does not currently grant rights in relation to the pastime of caving, then a campaign should be made by British Cavers to the effect that access to caves is made available under a future modified version of CRoW.

This article seeks to suggest to the reader a common-sense interpretation of where we currently are and what in all probability would be the likely outcome of legal proceedings that considered the issue. Just to be clear here from the outset, I have absolutely no training in Law. I practice as an expert witness in the field of surveying and the interpretation of maps. What I hope to show here is that there are striking similarities between the system for recording public rights of way on a map, known as the 'Definitive Map', and the system for recording rights of access to Access Land on a map known as the 'Map in Conclusive Form'. This is my un-biased expert opinion on certain co-incidences with the 'Definitive' Map based system and ***tongue in cheek*** I have titled the article as a 'Definitive Opinion'.

The concept of definitive maps

Prior to 1949 there did not exist in England and Wales a definitive resource for establishing the existence of a public right of way. Basically, if you were walking along what you believed to be a public footpath and the landowner or his agent challenged your right to walk along that footpath, you were faced with a choice; option one, back away from the issue and take another route; option two, mount a challenge through the High Court to prove that in fact the way was a public way.

If litigation in the UK was the same in the 1940's as it is today, such a challenge carried great risk. The costs of losing a claim against a landowner would have been potentially bankrupting for a private individual. Wealthy landowners were almost certainly in the driving seat when it came to the issue of who could walk on the footways, ride on the byways or drive on the crossroads of England and Wales.

Enter the National Parks and Access to the Countryside Act 1949 (The 1949 Act). This act made it obligatory for the 'surveying authorities', (in effect the County Councils and Unitary Authorities) to draw up and maintain a "definitive map and statement" of all of the public rights of way within the area covered by each authority.

The preparation and production of these 'Definitive Maps' was a substantial piece of work and a substantial work force was brought together to see the work through. Of particular interest here in this article is the similarity of process between the two Acts, The 1949 Act and CRoW.

Part IV of the 1949 Act deals with 'Public Rights of Way'. This part commences at section 27 of the 1949 Act. What I hope to show here is a brief process of how the 1949 Act set about casting the Definitive Map into what amounted to be 'conclusive' evidence of a public right.

1)…….Section 27 sets out an obligation for the councils of every county in England and Wales to carry out *a survey of 'all lands in their area over which a right of way to which this part of this Act applies is alleged to subsist*,…….' The maps to be produced were also to show 'any way' which in the opinion of 'the authority' was at the relevant date reasonably alleged to be a road used as a public path.

2)…….Section 29 of the 1949 Act sets out a process for publication of '*draft maps*' and draft statements and sets out procedures for the process of representation and objections.

3…….Section 30 of the 1949 Act sets out the process of publication of '*Provisional Maps and Statements'*.

4…….Section 31 of the 1949 Act sets out the process for '*determination of disputes*' as to the Provisional Maps and Statements.

5)…….Section 32 of the 1949 Act is titled 'Preparation, publication and effect of definitive maps and statements'. Critically, 'A definitive map and statement prepared under subsection (i) of this section shall be conclusive as to the particulars contained therein.....'

a) where *the map* shows a footpath, *the map shall be conclusive evidence* that there was..... a footpath.....

b) where *the map* shows a bridleway or a road used as a public path, *the map shall be conclusive evidence* that there was..... a highway as shown on the map, and that the public had..... a right of way on foot and a right of way on horseback.....

It is very clear therefore that the Definitive Map is a powerful legal document. It represents conclusive evidence that public rights exist over the ways depicted upon it. It is a tried and tested system of recording the extent of public rights. In my role as an expert surveyor I am often called to give evidence to a court with respect to Definitive Maps and Statements. Whilst the interpretation of the legal status of a particular way is very much a matter of law and for those with legal training to discuss or argue over, the interpretation of a Definitive Map is a role which is usually carried out by an expert surveyor. Judges are simply not qualified to examine and make findings from maps (although many do) and therefore ultimately when it comes down to the precise interpretation of these definitive maps the Courts are very much in the hands of those trained in surveying and cartography.

The concept of a Map in Conclusive Form

Fast forward fifty years. The 1949 Act significantly changed a lot of things when it came to access to the countryside, but fifty years on it was clear that a further Act of Parliament was required to extend, tweak and in some cases curtail public rights. It may not have escaped your attention but the word 'conclusive' is used extensively to describe the Definitive Map in the 1949 Act. It strikes me that calling a new map 'Definitive Map 2' or 'Definitive Map Rides Again' was deemed to be likely to lead to confusion. Instead a new name was arrived at, a name that simply rolls from the tongue!

The following seeks to draw similarities between the points numbered 1 to 5 above.

1…….In a similar fashion to the 1949 Act which placed a burden on the 'Surveying Authorities' to draw up and maintain a definitive map, CRoW places a burden on 'the appropriate Countryside body (The Countryside Agency (CA) and the Countryside Council for Wales) (CCW) to issue a map in conclusive form. Section 4 of CRoW sets out an obligation for the CA and CCW to prepare maps to show all registered common land and all 'open country'.

2…….In similar fashion to Section 29 of the 1949 Act, Section 5 of CRoW places an obligation on the CA and CCW to issue in draft form any maps prepared in accordance with Section 4 and to consider any representations received within a prescribed period.

3…….In similar fashion to Section 30 of the 1949 Act, Section 5 of CRoW also places an obligation on the CA and CCW to issue the map in '*provisional form'*.

4…….In similar fashion to Section 31 of the 1949 Act, sections 6, 7 and 8 of CRoW sets out the process for '*determination of disputes*' and appeals made to The Secretary of State or the National Assembly for Wales.

5…….In similar fashion to Section 32 of the 1949 Act, Section 9 provides that 'the appropriate countryside body shall issue the map..... as a map in conclusive form'. Section 1 of CRoW defines 'Access Land' as any land which is shown as open country on a map in conclusive form.

It is clear, in my opinion at least, that there are numerous similarities between the processes set out in the 1949 Act to create the definitive map and the processes set out in CRoW to create a map in conclusive form. In my experience of such matters the similarities in the process are not by chance. They are similar because both Acts intend for the maps created to be conclusive evidence of the features which they depict. My point to you the reader is thus; if a path or track or road is not shown on the definitive map as a public right of way then it is not a public right of way. If a piece of land, or a crag or river or cave, is not depicted on the map in conclusive form as registered common land or open country, then in accordance with the express wording of CRoW, unless it is either

i) registered common land for which no such map has been issued.

ii) situated 600 m above sea level or

iii) dedicated under Section 16 of CRoW

it cannot and should not be considered to be 'access land'.

Specifically, if we ask ourselves what rights are factually granted under CRoW we should look to Section 2(i) of CRoW which states "Any person is entitled by virtue of this subsection to enter and remain on any access land for the purpose of open air recreation....."

Significantly in my view Section 2(i) does not say enter and remain on any mountain or heath or moorland. It specifically limits the rights prescribed to 'Access Land'.

If we ask ourselves 'what is the definition of 'Access Land?', we must concede that the very first subsection of the very first section of the very first chapter of the very first part of CRoW sets out the definition of 'Access Land'. This is not a term buried deep in the text of CRoW. It is clearly a term that the authors of CRoW deemed to be so critically important to CRoW they give it pride of place within CRoW.

I would suggest here that the definition of Access Land is not vague or ambiguous. There are five definitions and each definition is set out in clear English a) to e). The definition that we are most particularly concerned with here is the first definition at a) which in effect reads....

"access land means any land which is shown as open country on a map in conclusive form issued by the appropriate countryside body for the purposes of this part."

What I would say about that as an expert surveyor is that access land is not something that a person can form a view on by standing on the land and looking at it; the legal mechanism which makes it 'access land' demands that :

i) It is shown on a map in conclusive form
ii) It is shown as open country.

Those who would argue that CRoW includes a right to go caving need to consider whether the cave or caves in question can rightfully be considered to be 'access land'. From my expert perspective, the issue boils down to one question, 'is the cave or are the caves shown on the map in conclusive form as open country?'

I cannot speak for all surveying experts but the blindingly obvious truth in this matter is that....

i) Firstly, caves or cave passages are not depicted at all on the map in conclusive form and

ii) Caves are not shown as land and they are not shown as open country on the map in conclusive form.

From my simple expert perspective therefore, caves can never be considered to form access land unless they are:

i) over 600 m above sea level.

ii) registered as common land for which no such map has been issued

iii) dedicated as access land under Section 16 of CRoW.

To conclude this part of my opinion therefore I must report that there is no credible possibility that a Court will find that caves constitute Access Land and therefore they remain private property just like any other private property in England and Wales that is not designated as Access Land.

The opinion of Queen's Council on the Definition of 'Access Land'

I have seen Queen's Council Opinion which states that cave systems that are situated in an area which has been identified as "open country" are properly to be regarded as forming part of that open country. The justification for such a conclusion is not made abundantly clear within the main text of the opinion. The wording of the opinion discusses the term 'open country' at some length, yet fails to make the distinction between Open Country and Access Land i.e. that Access Land is land depicted on a map in conclusive form as Open Country.

Three suggestions are made within the opinion.

i) That two specific known caves, Eldon Pot and Marble Steps have had their respective cave entrances excluded from the area identified as open country on the map in conclusive form. Council suggests that in those two instances the requirements of section 1(i) of CRoW would not be met.

ii) That where a cave entrance and cave system fall within an area identified as Open Country on the map in conclusive form that there is no reason under the legislation to regard the cave as not being situated on access land.

iii) That the position taken by Natural England that cave systems might not properly be regarded as mountain, moor, heath, down or registered Common (MMHDC) is a weak argument on the basis that CRoW is driven by whether a particular piece of land is shown as open country on the map in conclusive form. Council suggests that features depicted within an area on the map in conclusive form as open country and which features are not themselves consisting of MMHDC should nonetheless be considered to be "open country".

Taking each of these suggestions in turn.

i) The exclusion of Eldon Pot and Marble Steps is conceded by Council as an indication that these two caves should not be considered to be included in land falling under the definition of Access Land. Both cave systems fall within areas which are predominantly Access Land. The logical conclusion therefore would be to assume that they have consciously been excluded by the authority who prepared the map in conclusive form. This would seem to suggest a conscious intent on behalf of the authority charged with the production of the map in conclusive form to exclude caves from the areas depicted as 'Open Country'. Logically most cave entrances would not show on a map of the scale used to depict Access Land.

Arguably Eldon Hole and Marble Steps are two of only a very small number of entrances large enough to show as being excluded. The logical inference to draw would be that if in some way the mapping could be presented to a large enough scale, all such cave entrances would be excluded from the areas marked as Open Country.

ii) Council suggests that there is no reason under the legislation not to regard a cave as constituting access land. This suggestion however does not sit well with the definition of 'Access Land' and the need for it to be shown as open country on the map in conclusive form. Clearly the two examples of caves cited above were large enough to be shown on the map but were excluded. The simple fact remains that caves are not shown as open country on the map in conclusive form. That fact alone is a clear and concise legal reason for specifically regarding caves as not being access land.

iii) The suggestion that certain features situated within open country which do not consist of 'Open Country' nevertheless should be considered as open country does not sit well with the concept of 'Excepted Land'. Under CRoW, such areas as land that has been ploughed or drilled for agriculture, land forming part of a curtilage of a building, land used for mineral workings or land which is regulated by byelaws relating to military land all fall under the definition of Excepted Land which under CRoW is land that is situated within open country but is specifically not to be considered as Access Land.

To conclude my critique of the Queens Council opinion I consider that Council is correct to point out that CRoW is driven by whether a particular piece of land is shown as open country on the map in conclusive form. That proposition fits well with my own reasoning as I have set out above involving rights of way, the 1949 Act and the Definitive Map. To suggest, however, that the definition of access land extends to subterranean passages not depicted upon the map in conclusive form does not fit with the legal definition of Access Land and neither does it sit well with the concept of Excepted Land. The schedule of excepted land with CRoW makes it clear that even though the map in conclusive form may show a feature as open country, certain criteria exist to exclude certain features from the definition. Those criteria were in my view driven by the simple need to cover features that may be marked as Open Country but are not. In truth, caves are not marked on the map in conclusive form as Open Country and to suggest that CRoW should be considered as globally encompassing cave passage is, in my view, simply over optimistic.

A Counter Opinion on the Definition of 'Access Land'

I have seen an alternative opinion on the definition of Access Land. That opinion was primarily put forward with a view to countering the QC's opinion considered above. Three suggestions are made within the rebuttal opinion with regards Access Land.

i) That whilst a cave or part of a cave might lie beneath an area identified as Open Country, a cave does not consist of either mountain, moor, heath or down and in fact is a wholly separate entity to which separate considerations apply.

ii) That whilst some cave entrances are shown on the map in conclusive form, the caves themselves are not and thus caves themselves cannot be said to meet the definition of access land.

iii) That some large cave entrances were marked on the map in conclusive form as excluded from open country because that was the intention of the legislation.

I find the suggestions made above to be more in keeping with a logical interpretation of CRoW. Caves are certainly not mountain, moor, heath or down, they are unique indeed and accordingly if CRoW had been intended to make provision for caves as access land surely some form of clarification would have been appropriate. Most cave entrances are too small to show on any conceivable map scale that could be used to publish a map in conclusive form. It would be impossible to remove the entrances from the areas marked as Open Country. It follows, in my view, that simply because the map in conclusive form lacks the technical ability to show all cave entrances as excluded, this does not lead to a legitimate presumption that all cave passages should be considered Open Country.

The examples of Eldon Hole and Marble Steps are referenced again in the rebuttal opinion, the suggestion being that the exclusion of these entrances reflects the true intention of the legislation. Whether it does or does not reflect the true intention is perhaps a matter for debate. More to the point, however, the appropriate countryside body which drew the draft map in conclusive form regarded these particular caves as not constituting open country and thus took a conscious decision to remove them from the draft map. It strikes me that anybody with the view that caves rightly should be considered access land could have lodged a representation to the appropriate body in accordance with Section 4 of CRoW. Assuming that the appropriate body did not accept any such representations made under Section 4, anybody could have appealed the Provisional Map in accordance with Section 6, 7 and 8 of CRoW. I am unaware of any such appeals made with respect to Eldon Hole or Marble Steps. My first presumption would be that there were none and that the Preliminary Map passed into a Map in Conclusive Form in the instances of both caves and in accordance with Section 9 of CRoW.

In my view a precedent has been set by these two caves and the precedent that has been set is that the process set out in Sections 4 through to 9 of CRoW has run its course and the caves concerned are concluded to be specifically excluded from being considered as Access Land.

Summation of Opinion

So, what realistically can be achieved with respect to CRoW and caving?

Is there a right of access to cave passage under CRoW in its current configuration? Most definitely not. Cave passage cannot credibly be described or thought of as 'Open Country'. Cave passage is not depicted on the Map in Conclusive Form and there is no provision made in CRoW to suggest or even hint at the concept of Access Land extending to subterranean passages.

Is there a right of access to a cave entrance situated within an area marked as Open Country on the Map in Conclusive Form? This is a harder question to answer. CRoW specifically sets out that it is an Act to make provision for public access to 'the Countryside'. The definition of the Countryside is land not in towns, cities or industrial areas, that is used either for farming or left in its natural condition. Caves do not fall within the technical definition of Countryside, neither do they fall within the common understanding of the term that a 'reasonable person' would take. It follows therefore that the prime purpose of CRoW had nothing to do with providing public access to caves. However, CRoW has everything to do with providing public access to the Open Country upon which a cave entrance may be found. The possible snag is in the wording of Section 2 of CRoW: "Any person is entitled by virtue of this subsection to enter and remain on any access land for the purpose of open air recreation". Whether caving is an 'open air recreation' is an argument that has been rehearsed exhaustively. The rationale for rehearsing the argument runs along the lines that if caving is an 'open air recreation' than CRoW provides access to cavers to go caving. If caving is not an 'open air recreation' then obviously CRoW does not provide access to cavers to go caving. My current view is that it matters not one jot whether caving is an 'open air recreation' or not! My view is based on the following reasoning:

Taking the example of a hypothetical cave on hypothetical access land, currently if your 'purpose' was photography, for example, CRoW entitles you to enter and remain on Access Land and to walk to and photograph the entrance of the cave in question as of right and protected by the statute law set out within CRoW. If your 'purpose' however was to enter the cave itself and take photographs, there then arises a question as to whether your 'purpose' is 'open air recreation' or recreation in a 'closed in' or 'confined space' that cannot reasonably be considered to be 'open air'. Opinions are currently split on the issue as to whether caving is an 'open air recreation'. Having considered the arguments either way and giving due regard to the QC's opinion that a narrow interpretation of 'open air recreation' would exclude caving, I consider that it is most probable that a court would find caving not to be an 'open air recreation' and accordingly there would be no right for a person to enter and remain upon access land if that person's intention was to go caving.

However, the person intending to go caving cannot by definition be partaking of that activity on access land because by definition caves do not form a part of access land. They do not appear in the map in conclusive form and therefore they cannot be considered to be access land and thus what you do in a cave is nothing to do with the rights prescribed under CRoW.

It follows therefore that when you break it down piece by piece, what the hypothetical caver is actually doing is crossing access land in order to go caving on 'other land'. To use a simple analogy, it would be like walking across a mountain to visit a gymnasium or a pub. Whilst 'entering and remaining' on access land the person is engaged in open air recreation, namely walking over a mountain. Once he reaches the curtilage of the gymnasium or the pub he steps off 'access land' and onto private property which, under CRoW, he is not entitled to be upon. If we assume for a moment that the owner of the gymnasium or the landlord of the pub is happy to receive him then our hypothetical person continues to do non- 'open air activities' on the 'other land'. The fact that he is engaging in non-'open air activities' on the other land is not an issue under CRoW. CRoW remains silent in my view as to what you can and can't do once you depart the access land.

It is clearly the case that our hypothetical person was engaged in open air recreation as he walked across the access land, and in my view, irrespective of what he intended to do once he left access land, he entered and remained on the access land fully in accordance with CRoW.

Another way of looking at this is to ask the question, does CRoW set out to place limitations on the public once they have left access land? My reading of CRoW is that it does not. I can see nothing within CRoW which prevents access land from being used as a route of access to other land. Indeed, one could quite reasonably make the point that the term 'access land' is a term which strongly suggests use as a route of access. Setting aside a strict interpretation of the wording of CRoW, could it reasonably be inferred that access land was not to be used for a walk to the pub on the other side of the mountain? Such an interpretation is unlikely in my view and would affect vast numbers of the public. It follows therefore in my view that it matters not one bit whether caving is an 'open air recreation' or not when it comes to the issue of public access to access land for the purpose of reaching either a cave entrance or 'other land'. A caver walking to a cave entrance is engaging in 'open air recreation' and thus his purpose whilst on access land is entirely in keeping with CRoW. It follows therefore that CRoW in its existing form provides access to cave entrances that are situated on access land, and whilst CRoW may not give a person the right to enter the cave, it is clear that it was not intended or specified under CRoW that access land could not be used to access 'other land'.

Could CRoW realistically be modified or amended at some future date to provide a public right of access to cave passage? In my view this is unlikely. The first hurdle would be a willingness of government to amend CRoW to pander for what is in effect a very minority agenda. Cavers do not have a track record of being politically astute and motivated, and, without wishing to seem disingenuous, most caving politics takes place late in the evening and typically after the consumption of large quantities of alcohol. Could cavers ever present a united and coherent argument to support their position at a national level? I remain sceptical. Presenting the argument however is simply the first hurdle. Does any such argument have sufficient merit to warrant the editing of what currently is held out as a successful piece of legislation? Again, I would say not. What would be the purpose of amending CRoW to include a public right of access to cave passage? Generally speaking the mass populous is decidedly undesirous of the need. This really would be a modification to accommodate an extremely small number of people in an even smaller number of circumstances. If one considers the instances where a demonstrable benefit of such a right could be shown then it becomes obvious, in my opinion, that in the context of national policy we are talking about insignificant number of people who would benefit from a right to enter a very small number of caves. In making this assertion I am consciously excluding caves where access is currently freely available to all cavers upon request, such as Pant Mawr Pot.

To conclude therefore, the Map in Conclusive Form as defined and set out under CRoW is analogous to the Definitive Map as set out under the 1949 Act. Both maps show different things, but they share one thing in common: once all the appeals and representations are finished, they provide the Courts with definitive or conclusive evidence of public rights. The similarities between the process set out under the 1949 Act and the process set out under CRoW are similar by design in my view.

I have set out above that in my view CRoW does not provide access for cavers to go caving but that it does provide a right for a caver dressed in furry suit and oversuit and laden down with technical equipment to cross access land for the purpose of visiting a cave. In my view it is open to the landowner to choose what happens at the entrance of the cave. The landowner may take the view that he has no objection to cavers entering the cave and exploring the subterranean passages and there are numerous examples of such landowners. Conversely the landowner may lock the cave and keep it secure against the general public. In my view the landowner would be fully entitled to take such a stance as he would not be preventing access to any access land which appears on the map in conclusive from. My concerns in these current times is that speculation and over optimistic points of view have suggested to certain groups of cavers that landowners do not have a right to refuse access to caves located on access land. I am concerned that such views potentially place in jeopardy the hard work of others to secure well-grounded working agreements with landowners.

A magical picture of 'The Mere' - one of the entrances to Meregill Hole, Chapel-le-Dale, Yorks. This fine sunlit image was captured by Duncan Hornby one a summer's day in June 2017. It may be in sunlight but is it 'open air'?

(Although relevant, the photograph does not form part of the article above. Eds.)

Return to Igloo and Aven de Bagpath

Andrew Ward

The summer season 2016 was used to find a bit more cave within the "Central Cotswold Massif". Aven de Bagpath yielded 20m or so of big passage (12m x 1 to 2m) beyond a squeeze pushed by Pete. As the cave is closed from July, this will be surveyed and ways on looked for in spring 2017 when the cave reopens. We did have a bit more time to work on Igloo cave and nearby Railing rift as they do not close until September.

Kitting up for Aven de Bagpath

On balance we decided to put resources into Igloo which is an interesting cave with a slightly modified entrance found in the side wall of an area of gruffy ground. This leads to a large chamber (Cotswold large: 12mx4mx6m) not far below the surface which has lots of holes in the floor dropping down a fair way. So, selecting a likely hole, we started digging "down". One thing to be said for the Gull caves of this area is that they are a bit loose, so dry stone walling is required to support the roof, floors, walls and anything else that looks like a big rock. Some large rocks needed some pulling out, with Mick and Phil pulling and Pete pushing, while Joe and I offered encouragement. After a few digging sessions we saw a way into a rift via a squeeze which we entered, to find 5m of passage with a few formations, although closing down in both directions. In a selfless act to preserve the formations, Phil, on squeezing out, collapsed a large slab to close off access, nearly leaving one foot behind - as said, it is very loose in areas!

Squeeze into New Stuff

New Stuff

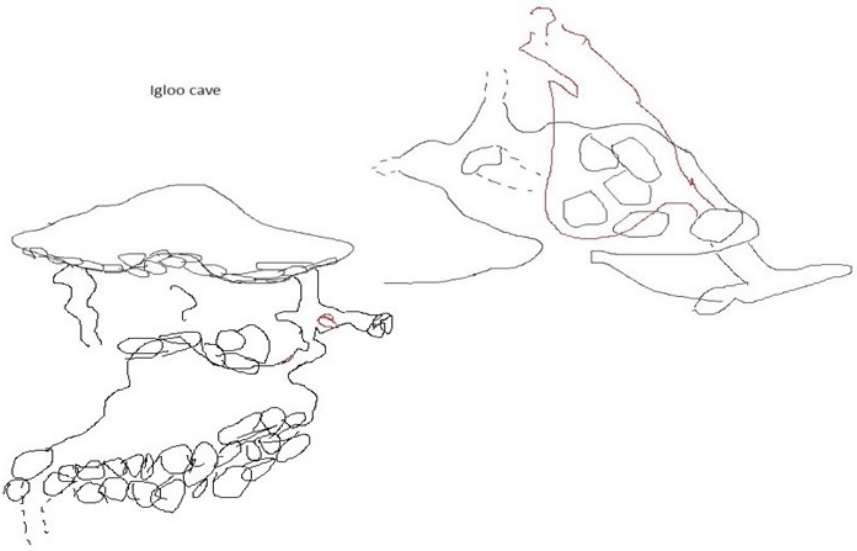
Entrance to Igloo Cave

On further trips we decided to carry on down beyond the passage to the rift that had the rock fall (now blocked). We dug down a further 3m in boulders to a point giving access to a small body-sized horizontal rift, unfortunately blocked, but through this void a chamber could be seen heading back under the main chamber. After more rock-moving, this void was reached via 1m of sloping, tight (ish) rift, arriving at a 2m drop into a large (6mx3mx2m) chamber; a case of arriving feet first and finding foot holds, to stop a too-rapid descent into the chamber. This chamber proved to be the loosest area found so far, and we decided to keep one of us entrance-side at all times; after a good scuttle around the new stuff, Andrew decided that would be him, as he is too young to go yet!

Main Chamber Igloo Cave

Pete and Phil started to dig down to a large rift that could be seen through jammed boulders. All went well until a large boulder was moved that seemed to have been keeping the floor of the chamber in situ! (key stone). The floor dropped a quarter of a metre before jamming again, with the diggers beating a hasty retreat.

From observation it was concluded that Igloo is a large rift (10m wide in places) that has multiple layers made of jammed rocks dropping down a fair way. We will return in 2017 and hope the winter weather has stabilised things (a bit). Although we know a lot of walling and securing will be needed to stabilise the area heading to the present end, we will then be able to dig again.



Rough Survey of Igloo Cave

Thanks to Sue Ward for providing post digging trips BBQs and as always thanks to Pete Neil for continuing access to the sites on the estate.

Reference:

http://www.ubss.org.uk/resources/proceedings/vol23/UBSS_Proc_23_2_97-117.pdf

Caving in the Central Cotswold Massif SWCC Newsletter 129 (2013)

Note:

Any unapproved access will put continuing permission to visits the sites in jeopardy. Talk to one of the digging team about visiting the sites.

Editors' Note: Andrew informs us that further work was indeed carried out in 2017 and we look forward to an update soon.

Making Caving Videos and Sharing Experiences

Andy and Antonia Freem

"Photography is truth. The cinema is truth twenty four times a second."
(Capra)
"Film making is all about appreciating the talents of the people that you surround yourself with and knowing you could not make any of these films by yourself."
(Spielberg)

Filming at OFD2 Top Entrance with the talented creators and actors of 'Cave Zombie', 2015

https://youtu.be/1lPYSKlJgi0

Introduction

Stills photographs used to be the preferred way to record underground adventure. Before the arrival of Hi8 in the 1980's, movie filming was beyond the aspirations, costs and logistics of all but a very tiny number of recreational cavers. In the 1960's members of the SWCC Balinka expedition recorded the surface action shots but there are no underground scenes in the final film. In Yorkshire, Len Cook experimented underground with a battery driven cine-camera, the results of which can be seen in the Mendip Cave Registry and Film Archive (www.mcra.org.uk).

Sid Perou December 2017 at the RGS London

The professional pioneer, Sid Perou, showed what was possible with unwieldy equipment. His films, including the early ones, are freely available on Youtube and are really worth watching. A good one to start with is 'Completely in the dark' https://youtu.be/93LBcv-O2uA as this describes the history of filming underground in the 20th Century.

Sid now lives in Thailand but was able to come across to present some special edits of his filming career at the Royal Geographical Society "Celebration of 50 years of UK Caving" event in December 2017.

Now the situation is very different. Digital and LED technologies provide small and robust camera designs with low-light capabilities and cheap lights of manageable size and weight. Even the latest generations of mobile phones offer tolerable video facilities and allow quick access to sharing online. In the non-caving world these developments in video kit have contributed to it being the preferred medium for saving and sharing experiences. Action–cams are everywhere: in cars; mounted on participants; on sports equipment; on referees and on aerial drones. Cyclists, kayakers, parachutists, skiers, climbers, golfers, surfers have enthusiastically adopted video and their activities are made vividly accessible to the more sedentary population.

The wide range of mounts and accessories available for action cams has enhanced their adaptability. We have also seen how the professional film industry has grasped the opportunities they bring with open arms, using multiple cameras and getting incredible shots by locating cams remotely in places where the cameraman could never go.

The caving world has lagged behind. Cave video participation is slowly increasing but not with the popularity evident in other activities.

At each of the last four annual 'Hidden Earth' conferences, hundreds of stills images have been exhibited, critically viewed and judged by the many hundreds of delegates. At the same events, just a few video salon entries appeared with very few people, other than the entrants, taking time to see them. Admittedly, the winning videos were watched by the audience during the closing ceremony and the bespoke opening AVs for these conferences have been supplied by amateur film-makers who received very positive audience appreciation. Interestingly, for the last 4 years, SWCC members have created them!

Filming can be rewarding in ways unavailable to stills photography – bringing to an audience sound, movement, real time events and, most of all, effective capturing of the multi-sensory experience of caves and caving.

Video recording can now be as simple as stills photography and, perhaps surprisingly, can be less time consuming. It is possible to film without interrupting the progress of the trip and without the rest of the group even being aware that it is happening. Modern kit is smaller and lighter, reducing the load-carrying of old, though this does depend on good preparation. Critics often argue that it takes excessive time, but this observation is more applicable to stills; teams standing around and getting cold is the consequence of mismanagement, not an inevitable outcome of the action filming process.

Perhaps it's the burden of editing and post-production that puts potential filmmakers off. Editing can be very time consuming and does need computer resources, but so does still photography and - hey! it's so great when it turns out well!

The serious point here is that to get a watchable product that maximizes audience retention, editing is crucial. Under-edited work turns off audiences, reducing their willingness to invest time in watching any future video presentations.

So here are some top tips for producing a good caving video.

TIP 1 :
Have a concept or story BEFORE you go underground

Ideas may or may not be subtle……

James Hallihan looking the part

https://youtu.be/1lPYSKlJgi0

Everyone's first video concept seems to be a simple trip report. It can be fun and simple for the cameraman to grab shots when and where possible and sometimes fun for the group if the filming doesn't get in the way of spontaneity. Unless something unplanned or dramatic happens, you have to assume the audience is dictated by the first rule of filming: -

"Film for yourself (and possibly for the participants) and if anyone else shows interest it's a bonus" (based on quote by Keith Edwards).

To convince an audience to invest their time watching your film, it helps to have a more sophisticated plan, story, concept or character to follow. This can be difficult and is a creative hurdle shared more with novelists. Finding the theme can be easier when there is some degree of 'commissioning' by someone else -

A key person to follow (A nice bit of impromptu grimacing)
https://youtu.be/8u1Wvqr5lB8

- you may need to prompt with an offer first though! For example: Would you like a film of – your favourite cave? dig? trip with a novice? archive interview? club event? etc. These can make the film's focus more defined and transform it from a simple record to a watchable product.

Paddy O'Reilly – an eloquent raconteur telling his tales of first discovery of OFD2
https://youtu.be/zkEhoVtN7jg

A rescue practice in Cwm Dwr, recorded to be used in training
https://youtu.be/aigoVsWtcso

TIP 2:

Get together a team to help you ……

A 'team' may only be one or two people (for a small tightly focused theme) and it's good to have a small multi-skilled team. Sid Perou sometimes had to scout around cavers' pubs in the Dales the night before filming to make up his teams of sometimes up to 40 people. Some turned up the next morning, some not fully sober!

Handing out the filming lights during the making of 'Ogof Draenen-The Journey to Circus Maximus' https://youtu.be/EY6z_ni6AlE

Sid filming (on the right) during pre-dive festivities at The Hill Inn before making a documentary about the linking of Gaping Gill to Ingleborough Cave.

Cavers have film-making skills, but they may need convincing. They may move well, dress with panache, speak clearly, improvise spontaneously, act naturally, give inspired technical lighting support, have strength to carry heavy or awkward gear, have specialist knowledge of the cave or just be generally enthusiastic. There are wonderful helpers who can do most of these! Bigger cave passages and projects need more people, but the logistics can get very complex with more than 6 or 7.

Communications and instructions during filming are best when kept clear, simple and positive. This develops trust within the team and results in a better product. It's about keeping it enjoyable, with everyone involved and contributing ideas, giving and getting feedback and feeling appreciated.

Getting it right on the first take, and using retakes only when essential, allows the caving journey to continue quickly. It's crucial to recognise when everyone has had enough and to stop filming, put the kit away and allow everyone to get back to caving. Everyone deserves thanks for their support and patience, and an apology for being bossed around!

Finally, everyone should have a copy of the film when it's been edited.

An immediate review of clips in the Meanders in DYO 3, allowing an improved filming sequence to be agreed by the team.

TIP 3:
Work in a way that suits your kit

It's the content, not the kit, that makes a watchable film. There are plenty of examples of web videos where viral popularity has little to do with either the cost of the filming electronics or the technical quality of the images. However, filming cute babies or a fluffy pet animal might be an issue underground. Projects with small and/or localized themes can be undertaken with nothing more than your phone and normal caving light. The highest retention rates for YouTube are for videos of less than 60 seconds, but trying to record the character of Gnome Passage with a phone and a headtorch is likely to result in a disappointing outcome.

A Gopro is the right tool for the duck into Cascade Series DYO
https://youtu.be/KcbKmTbOW7E

One approach to filming the second largest passage in the UK, MSAD in Ogof Draenen, using multiple filming lights and a low light sensor camera -not what it looks like to most visitors. Good editing might mix clips to build a more subtle impression of scale, darkness and remote wilderness.
https://youtu.be/EY6z_ni6AlE

The key kit is a camera and one or more lights. The technologies are being updated almost monthly. For the Beautiful Adventure in DyO, 7 different cameras and 15 different light units were used, but there are dozens of other alternatives available.

The following principles apply to all filming kit:

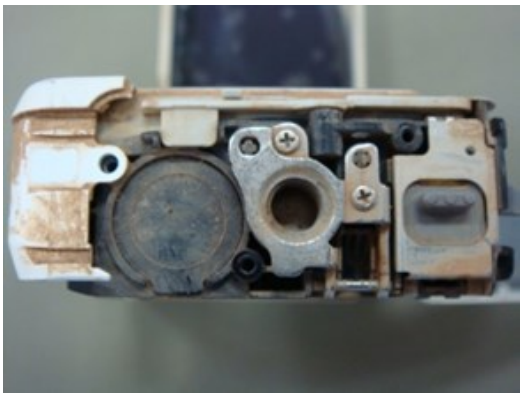
- **Never take underground any kit that you cannot afford to lose or destroy.**

- Go for robustness with water and mud resilience. Full waterproofing may limit other functions significant to filming like switch access and manual settings. It might not be needed if the camera is positioned away from spray, shielded, or not underwater. Clever camera location can often get round this. Cloths to dry your hands and lens cloths are pretty much essential.

- Reasonable low-light rendition is useful. It's the size and quality of the sensor that counts more than any 'megapixel' rating.

- Auto-exposure and focus are now normal functions and it's the expensive ones that have manual overrides. They are reasonably reliable but have issues. Lights with narrow bright beams are a real problem for auto-exposure. However much light is available at the image centre, the camera will adjust to make the edges underexposed, so the evenness of lighting is the key to success, and also assists focusing as autofocus may pulse in and out with uneven lighting.

It is important to check kit compatibility and camera pre-settings before the trip. Colour temperature inconsistencies between light sources can be adjusted by cutting some low-cost plastic filters from document wallets. Identifying and avoiding the use of some 'fluttery' light settings on cheaper LED lights (and Scurrion – setting 1) is well worth doing before the trip, as these are invisible to the eye but disrupt the HD recorded images.



When this Sony sports-cam was sent for the replacement of a scratched front glass the technicians returned it unrepaired due to 'a brown substance' under the outer covers. This was the Ogof Marros digging camera. It still works.

TIP 4:
Spend time organising the filming trip before the day

For any serious filming, getting the kit all clean, charged, protected and fettled, and then packed up so that it can be transported into the right bit of the cave ready for filming, can seem a bit like a military exercise. Even Sid Perou – the professional - once, in Mulu, arrived deep underground at the filming location without any film stock. The modern equivalent is a missing, full or corrupted memory card - and yes it happens.

The work starts at home in checking all settings and power supplies, making up cleaning and maintenance field kits and fine-tuning dust and impact protection.

Pre-packing kit into boxes and then boxes into bags helps a lot in avoiding fraught final moments of allocating loads at the cave entrance. However much protection kit gets, one final inside light-weight layer acts as the insurance policy. Here cheapest is best – use Lakeland large zipper-style freezer bags.

Tony Baker 'training for PSM' in DYO3 with two big heavy bags containing expensive camera kit (The Beautiful Adventure 2017.)

TIP 5:
Think 'quality' when filming

Getting it right on the first take is so much better for the team and is best achieved by good practice rather than by relying on luck.

Here are some suggestions for reducing shot failure and increasing image quality.

- Film an unimportant shot as first thing of the day, as a warm-up for kit and team.
- Check for a clean lens every time. Acclimatise the camera in the cave, or better still go in with the camera hotter than the cave, to avoid fogging.
- Move the light source at an angle from the camera view to reduce back light scatter from mist and also to create good shadows.

Great back-lighting in DYO but still a hint of mist on the lens (The Beautiful Adventure 2017)

- Tell the team what you are aiming for. Give clear calls when you start and stop filming.
- Practice and use steady-shot techniques, including breath control, in a range of standing, sitting and flat-out positions. A tripod is great for static steady-shots and smooth pans, but inhibits 3-D camera movement. So, head and body mounts and steady-cam frames may be better and more portable. Experiment with filming while walking. A wrist-mount can, with practice, reduce shake as can calming your heart/breath rate or bracing against a rock.

A shot taken in DYO2 with a tripod. This fixed the viewpoint, and lighting allowed a smooth zoom from a wide-angle picture to a telepho-to picking out Candlewax column. (Beautiful Adventure 2017)

- Linking clips (known in the trade as 'dirties') provide short continuity connections. Examples include foot-fall, faces, water movement, cave textures and relaxed banter. They are absolutely invaluable when editing.

Close up of Chloe Francis concentrating at the head of a pitch
'The Pitch' https://youtu.be/Ba9ZH8NG-Sc

- Filming lead-ins and tail-ends to shots will assist you later when you are editing clips, but this can be difficult to do in the rushed circumstances of catching impromptu action.
- Good sound from voices and cave noise is much better than a bland music track but is very prone to distortion from background noise. This has to be addressed if the soundtrack is going to be pivotal to the message.
- Vary the style of shots when possible: moving versus still, high versus low angle, smooth pan or slow zoom, front and/or back lighting.
- Think about the final edit when on location. If the perfect linking clip only becomes evident at home during editing, then that's too late. Have 'continuity' in mind in the cave.

Claire Vivian acting particularly well when struggling with loose boots and slippery rock in the Prokofiev Series in OFD2

https://youtu.be/NvhjoW1q0PM

TIP 6 :
Save, Save, Save…..

Basically, there is not guaranteed data storage unless it is on three independent storage devices. Unfortunately, most people find out the importance of this tip the hard way. We certainly have. Micro SD drives are so tiny and the data on them is so disproportionately precious!

Good practice is to download the clips carefully to a known and structured archive and never clean or re-format the card immediately. If possible copy them onto two separate drives and in important cases (e.g. on expeditions) physically archive the master microSD drive as well. Treat them as the equivalent of negatives in the older film technology.

Our experiences have shown us that future projects benefit from use of selected, unedited, full quality clips from an archive. If we'd started with a clear filing system, it would have been a massive help now, but having failed to do so means we sometimes have to do time-consuming searches.

Videos have large file sizes that can challenge computers' powers, particularly the commonly used FAT32 format. This will not accept files of more than 2GB, and long clips and final edits can easily exceed this data limit. We have used exfat instead, but although this has the advantage of unlimited file size and is read/writeable by PCs and Macs, it has proved unstable when, for instance, the drive is detached incorrectly; it can become corrupted and unreadable. Other formats like ntfs can be selective between Windows and Apple on read/write permissions.

TIP 7:
It's the editor that makes the film

"There are no rules in filmmaking - only sins, and the cardinal sin is dullness."
(Capra)

"If the audience is aware of editing, the editor has failed"
(Dancyger)

A lack of crisp editing skills in many amateur videos and indeed some commercial films makes them painful to watch, or even unwatchable. Technologically, there is now really no excuse for this as basic video editing facilities are standard for PCs and Apple, and really brilliant software costs less than the price of a mid-level action-cam.

Editing (including post production processing) is an art. It creates the structure of a fascinating story from less interesting separate components. Editors use techniques that, at their best, are subliminal to the audience. Given that degrees are awarded in editing, it is hardly possible to even start to do it justice here, but when you get into it, it is just the greatest creative fun - if you have the time!

At this point it may be appropriate to make the only big criticism in this article. Videos comprised only of wobbly, over-long head-cam clips, lit from a beamy head-torch spotlight mounted right next to the camera are 'the pits' and do the promotion of cave video no favours. They drag creativity even lower when any real ambient sound is drowned out by some random music track. It's not just amateurs who are guilty here. They even appear in commercial shows, like the recently broadcast 'Underground Britain' series.

So here are several editing suggestions:

- Watch films like any of the 'Bourne' trilogy and count the edits and edit length variation in different scenes. Note how linked short edits can build the picture better than a long boring one. Listen to how the sound is used to set mood. The same tests can apply at the other end of edit length where a high quality long clip may have its place too, as used frequently in David Lean's 'Lawrence of Arabia'.

- Empathise with the audience. The first moments of a presentation often indicate if it's worth the time-investment to watch!
- Check, and if necessary adjust, each edited clip for:
  - colour consistency with its neighbours, including 'purple fringing'.
  - a clean, sharp, first and last frame in each clip.
  - avoidance of content repetition - if the editor has several good similar clips of the same place, choose one and discard the rest.
  - smoothed, or at least not obvious, camera shake.
  - good overall frame composition - begin to assess each composition as if it is a still photo (watch the frame precision in Kubrick's 'The Shining' to see this in action).
  - progression and clear context within a sequence of clips.
  - good sound, equalized and at appropriate volume.
  - simple clear titling, only when essential, and with consistent colours and fonts that don't detract from the visual quality.
  - the need for subliminal post-production additions like wipes, fades and transitions - if they get in the way of the message, leave them out.
- Proofing one's own editing is subject to all the pitfalls common when text-proofing written documents. The author can be oblivious to errors and omissions which are blatant to another observer. So, try to have a critical friend offer feedback on the edit.
- After each major editing session, save a copy of the film with progressive file names, so that they are a backup if things go wrong later.
- Leave the editing for a day or so and then watch it again. If the editor feels bored with the replay, there can be no doubt that the audience will be bored too!
- In the final stages, even tiny cuts of single frames can enliven the pace: 'if in doubt, leave it out'!

TIP 8:
Know Your Audience

SWCC 70th Celebration Film

Audiences can be polite but are not particularly forgiving if being subjected to boring presentations. This can taint viewing of all future videos from whatever source with an acquired negativity.

Some caving clubs encourage evening presentations and in-club competitions. YouTube or similar online apps. provide a low-risk platform for sharing films, but retention levels (how much of the total length of video is viewed) are amazingly short.

The 'Hidden Earth' annual caving conference holds a video salon to display contributors work, with an associated competition and prizes. A further technical or innovation prize is being considered. It has been seriously undersubscribed in the last few years so there is an open target for new filmmakers to aim at (with an entry date in early September).

There are several international film competitions to look out for too.

In conclusion, videoing underground is a fantastic way of recording the character of our caves and mines and the experience of exploring them.

There is a positive culture of sharing ideas and support within the amateur cave video making community and it is reassuring to note that members of SWCC are the national leaders in this. Video workshop weekends have been, and will continue to be arranged for anyone interested.

Have fun!

Andy and Antonia Freem

(All images are image grabs sourced from films or stills by the authors.)

What Cavers Do

Pete Hobson

Preface

It appears that maintenance of buildings and the perennial attempt to soak up ever-greater volumes of ethanol, not to mention other sad activities like mountain biking, kayaking and skiing, have replaced caving. The author will explore some of the issues involved and hopefully poke fun at everyone.

Why go caving?

The cave exploration fascists usually paraphrase it something like this:
"Cavers boldly go where no one has gone before".

The cavers who say this conveniently forget that most cavers (on the few occasions that they leave the bar) only do 'tourist' trips. They also forget that in the countries where you find most of the cavers, there is a lack of unexplored cave that is easy to find.

Another reason for caving is the sad fact that your average caver is a rather sad looking individual who needs to be hidden away underground for the sake of public decency. Now, the author must at this point apologise to the membership for this slur; our membership these days is becoming a more attractive bunch, but the rest of the caving world leaves a lot to be desired. Anyone who has been in British-cavers' accommodation and seen the number of sock-and-sandal wearing beardy-weirdies with the real ale dribbling out of their facial hair, would, if they had the power, send this sorry lot down a hole and back-fill it with reinforced concrete.

Another reason for venturing underground comes from the requirement for cold, wet, and mud. The author here is saying that cavers are all inherently insane! Admit it, the closest any other group in society gets to this bizarre pastime is mud wrestling, and society thinks that mud wrestling is for perverts or misogynists.

Why not to go caving?

Because:

- It is cold, wet, muddy and tight, i.e. suitable for nutters.
- The sun is shining; it is too hot, or you need a sun tan (a common occurrence among cavers who can usually be held up to a bright light rather than taking X-rays).
- It is raining (cavers often make excuses about flooding, conveniently not mentioning that they would have been visiting a cave that has been bone dry for 10000 years).
- It is too cold. Everyone forgets about furry suits, thermal underwear, wetsuits and the fact that cave temperatures vary little throughout the year.
- That rather attractive someone-you-have-got-your-eye-on cannot be convinced to go underground.
- You have spent £6000 on a mountain bike.
- There is a 5m-groomed snow base with 1.5m if fresh powder sitting on it and it's in the sun, unlike that dingy hole that has snow-melt flowing into it. Furthermore, that rather attractive someone needs to be impressed.
- Someone has lost a bet and is supplying free beer.
- You don't want to be associated with beardy-weirdies.
- There is a Foot and Mouth disease epidemic, and with it a £5000 fine for stepping off the side of the road, even though the ♫╫cking sheep that walk around the cave entrance, five minutes' walk down the road, are the same ♫╫cking sheep that get into your garden and eat your roses.
- Insert your excuse here

…… And So…..

Traditionally cavers became hut builders. As caving huts evolved from a dag pile in a squire's wool shed to plush dormitories with comfy mattresses (with the minimum of bedbugs, fleas and other parasites), hut management policies began to dominate discussion.

By the late eighties, this led to the abolition of caving discussion at caving meetings throughout the world. Some speleo-eco-fascists will tell you that the reason for maintaining a large membership is to give your group a larger voice when lobbying government departments or QANGOs. Actually, it is done so that someone else will take over the running of the club and give the incumbent committee more drinking time. Numbers also maintain the quorum, which is required to maintain some clubs' legal status, which in turn is required when taking out loans and building permits for hut building work or executive indemnity. In other words, you need more members if you want your club to do less caving. It follows that hut and patio building is a kind of cave conservation, but don't tell the conversationalists.

Over the decades, it was realised that huts could be a valuable investment in the inter outdoor-sports battle for membership recruitment, resulting in club accommodation becoming ever more comfortable. Toward the end of the nineties, as more cavers declared themselves to be friends of Dorothy, it became necessary to provide a nice place to sit in the sun and so to satisfy these new members; the concept of the cavers' hut patio was born. Now when the sun shines, the teapots move outside, cake appears, and pale creatures venture outside. This has become such an important ritual that T-shirts and mugs have been produced in celebration.

Sadly, the author has noted that any reduction in annual caving hours per caver has a direct correlation to the switch from drinking beer from kegs or firkins, flagons and large brown bottles, to lager or fermented grape juice. As a club that still consumes from the firkin, please take this as a warning; have you not noticed that the wine drinkers rarely venture underground?

Remembering John Lister: 1953 – 2017

Fred Levett

John was a SWCC member for over 40 years. He worked as a miner and was a devoted family man. In all he did he was highly respected, trusted, dedicated and resilient. He had a fine sense of humour and a natural way with people, always happy to talk.

John was born in West Hartlepool, the 4th of 5 children. Growing up in the 50's in a North East town he enjoyed the freedoms bestowed on children of that era. As youngsters, he and his two older sisters and brother, Anne, Barbara and David, played together on the street and in the local parks, enjoyed holidays in the country, walking, playing in rivers and streams and exploring old lead mines. John was always a happy little boy. He could easily be reduced to fits of giggles by the silliest of remarks, or failing that, just tickling.

Family remained important to John throughout his life and during many a family get together he was always the life and soul of the party, with his refined dress sense of shorts and sandals, his stories and impish sense of humour!

He graduated from Cardiff University and started out in the toughest of industries - mining. He went for a job in the Wheal Jane tin mine in Cornwall and was interviewed by the Mine Manager and Mine Captain. When asked his qualifications he said proudly "I've got an Honours Degree in mining from Cardiff University". The Manager turned to the Captain and said, "what do you think of that Bill?" He replied "Ah- educationally perfect, practically f-----g useless." Nevertheless, John was hired and given the menial but vital task of cleaning out the underground mine gutters. He persevered and was trained and promoted through the ranks as a drilling-crew member and eventually a shift boss at Wheal Jane mine.

In 1977 John met Tess in a pub. Both worked shifts, Tess as a trainee midwife, John as shift boss in Wheal Jane. By Oct 1978 Tess had completed her course and the mine had closed. They set out on a world tour in a camper van. Plans ebbed and flowed with the middle-eastern political situation. In April 1980 they returned to the UK, John back to the re-opened Wheal Jane and Tess to the Lizard Peninsula as district nurse, midwife and health visitor. They married in West Dorset in May 1981. John moved to be mine captain at Mt. Wellington.

From 1974 the caving community had found in John a new enthusiast and this now continued from Cornwall! He was usually decked out in sandals, shorts, tee shirt, beard and, in the early days, with a pipe (or cigar for high-days and holidays!). The South Wales Caving Club knew when John was about. He had a sense of humour that sort of leaked out of him, a kind of mischievous inner man. He loved a good story, a practical joke, or a prank. Many a caver has carried a rock all day in his or her tackle sack unbeknown to them. John could take a joke too, but had a long memory; perpetrators would live on high alert for months waiting for retribution.

John knew his subject; on caves and mines he was a true expert. To visit a disused mine with John was a magical experience. He could explain how the mine had been worked and why, what the workers would have faced and how they dealt with it. This knowledge was of vital importance to the rescue team. He also knew how to impart knowledge but did not have to be top-dog. People listened to him because he made sense and, as the years went by, increasingly went to him for advice on a whole range of matters. Cavers can be a pretty noisy lot, each with a point of view, and determined to express it. If John had something to say others would fall silent, such was the respect for him.

Immensely practical, he could turn his hand to any on-going Club project, and loved the camaraderie as roofs were fixed, doors installed, damage repaired and explorations requiring his special expertise pursued and perhaps the odd beer and whisky drunk. He had time for all, regardless of circumstance.

John Lister

Photograph Fred Levett

Although he did not need to be seen as top dog he would take high rank if he thought it was needed. He was Chairman of the Club for 3 years from 1987, and Chairman of the then West Brecon rescue team in 2000, moving over to be Secretary of the South Wales Cave Rescue Organisation in 2001. These were not jobs for the faint-hearted, demanding a sureness of purpose, diplomacy and sometimes plain speaking. His long and dedicated service was recognised by the British Cave Rescue Council and he was awarded the Queen's Golden and Diamond Jubilee medals. This was not the only official recognition he received. Fighting to control a heavily loaded rescue Landover *en route* to a rescue at Otter Hole (the entrance to which is guarded by a tidal sump) he attracted a speeding ticket, subsequently revoked!

There were two roles he really valued. Selected by his peers, he served from 1991 as a Warden for the rescue team. For those not familiar with rescue terminology, this is not some kind of gaoler, but a person who is the gateway to cave rescue services. A call for help, often relayed via the police will start with a phone call. Sounds pretty easy – you wait weeks or maybe months for a call and then take a few details. What a warden does next is a major determinant of the outcome for that casualty. The right expertise must be called out in the right numbers with the right kit to get the job started; it's vital you know what you are doing. He only stood down when he became ill. From 1996 he was elected a trustee of the South Wales Caving Club and, along with that, a vice president; his attention to detail, his memory, fairness and balanced judgement made him a go-to person.

His family began to grow; Hannah arrived in 1986 and Angharad in 1990. The mines had closed again, and they were now living in Beulah with Tess working in Llandrindod Wells. John took on the role of looking after the girls full time while he renovated their house. He helped with the playgroup, became a school governor, took on the household duties and plaited hair. Whatever he took on he became skilled at. That was John's way.

Once the girls left home in 2005 he and Tess once again travelled the world on holidays, exploring and trekking.

As tin mining in Cornwall finally came to an end, John rang his friend John Harvey, also a miner, to say that there was a lot of mining kit going for scrap. He thought it would be useful for their proposed projects. They met at the Bridgewater Service Station on the M5. John L arrived in his estate car full of pumps, fans, drills and picks. They piled it into JH's minivan and he drove back to the Forest of Dean, slowly and in 3rd gear! Thus began a long standing partnership that affectionately became known as the 'Kamikaze Mining Company'.

Together they worked on many projects: at Dan yr Ogof improving ventilation, stabilising the old mine workings under the Smith Kline Beecham factory in the Forest of Dean, and major stabilisation projects at the Dudley Stone mines and the Combe Down Mines in Bath. John managed many other mining jobs. He helped with the certification of a barytes mine in Scotland for ISO 9000 status, and in the Forest of Dean with re-lining a mineshaft leading to a bat habitat. As a consultant, he advised mines in Greece and in Costa Rica. When asked what conditions were like in the last two mines, he said with a smile "just like Cornwall in the 70's".

When John knew he was ill, with characteristic openness and honesty, he told his friends. A member of the Club in difficulties need never stand alone; if a caver in trouble reaches out to the rescue team they will not turn away. John found this support immensely valuable throughout his illness. He did not become isolated; indeed, he continued serving both the Club and team as trustee and executive member respectively. He was both brave and determined. Cavers were not surprised.

John was a quick thinker when action was needed and could keep thinking in a crisis. With Fred Levett he once set off in an inflatable rubber dinghy to cross a lake in a flooded mine. Halfway across it was clear that the heavily loaded dinghy was leaking. A quick mental calculation – yes there was enough time to reach the side. Then they became entangled in a mass of thin cord and stopped, slowly sinking. In a flash John took out his Swiss Army knife and started slashing at the tangled mess. Alarmed, Fred shouted "John – be careful – mind the dinghy". "Don't worry Fred," he said in that soft West Hartlepool accent, "we are going to drown anyway". His humour always shone through.

"Non-expedition" to l'Herault Summer 2016

Personal diary of Andy Dobson.
Aka "what I did on my holiday."

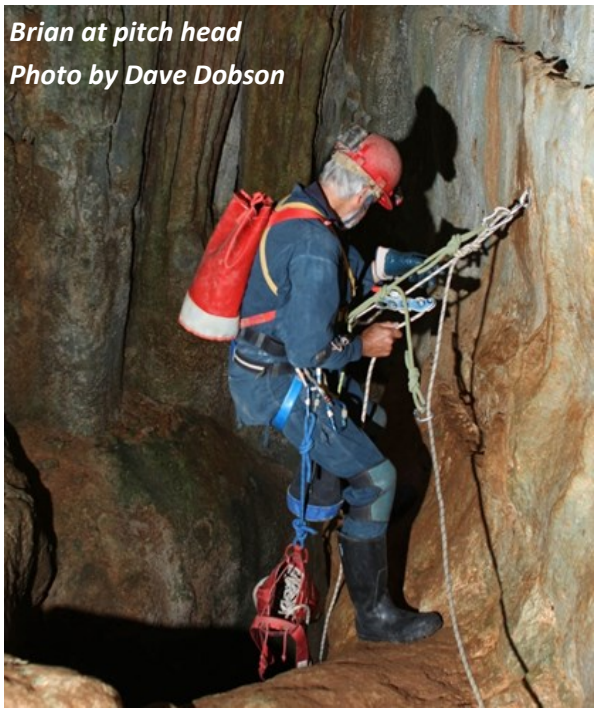
After the three well attended "Un – expeditions", Iain decided to term the 2016 trip a "Non – expedition" due to the severely depleted number of participants: Lel D. & Iain M., Harvey L., Allan R., Brian C., Dave & Andy D.

For most caves we found surveys, but very few written descriptions, which made the following cave hunting/exploration fun!!

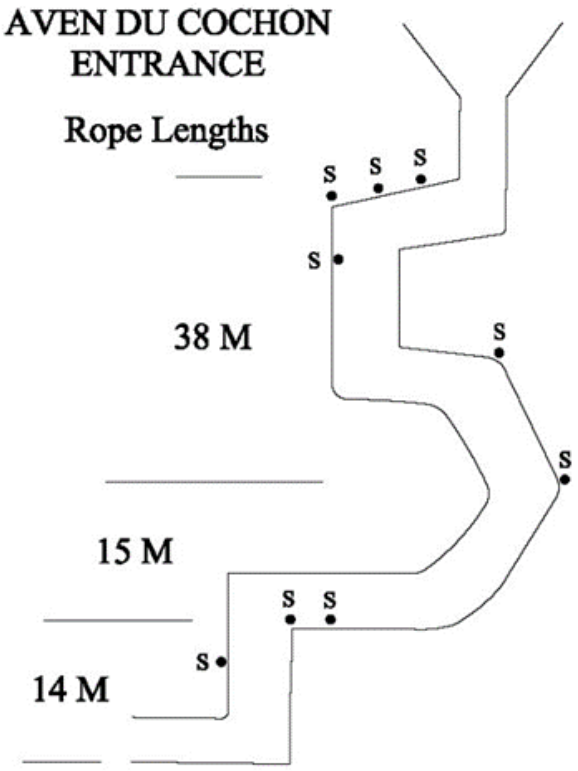
Saturday 23rd July: -
Walk to find entrances on a hot but windy day on the plateau (parked up near the farm gate with a "no vehicles" sign). A 2.5 km walk, partly in forest dodging the herd of cattle, saw us to Rouquet after a bit of a scramble through undergrowth. A large open hole with two separate P-hangered descents looked inviting – marked as a definite return. We found the footpath at the hole, which made for an easy return to the forest ride – the marker for the turn off was a large red blob on a block that had disintegrated, hence we had missed it.

A prolonged search for Aven Des Perles resulted in trying to fight through thorn bushes, with every minor path becoming completely overgrown, so eventually we gave up and returned to the car. A short drive took us along an odd dual carriageway - a new two-lane road up the hill, but an old single-track one downhill - with a rough track off the downhill side next to a road sign. A flat walk through prairie grass quickly took us to Cochon, a bushed-over hole with a short climb down to a comfortable balcony at the pitch head. Out of interest we searched for, and found, another nearby 14m blind pot, which was overgrown and had only a tree to rig off, so not worth a return. Walking back to the car we commented that the track was actually better than the approach to Penwyllt, and easily driveable, though sadly there was no sign of an ice cream van anywhere. A successful day as we had found the two main caves (apparently two out of three ain't bad). Team: BC, DD & AD.

Sunday 24th July: Aven Du Cochon.



Brian at pitch head
Photo by Dave Dobson



Aven Du Cochon - continued ...

With the benefit of our recce we drove over the prairie nearly to the entrance and, with more heat and less wind, kitted up in the shaded shakehole. Both walls at the top of the first pitch were festooned with spits, very few of which looked trustworthy. We rigged a traverse line on the righthand wall to a good take off, with an aerial (no footholds) rebelay just over the lip giving a 19m freehang to the chamber floor; rigging the climb down and a continuing traverse line to the next pitch head drop used up all but 2m of our 40m rope.

Although marked as a climb on the survey, this looked like a definite pitch to us, and had spits for SRT which we duly rigged. A two-stage drop (9m + 2m) to a landing used our 14m rope without any spare to rig a traverse line. However, our final rope (30m) easily covered the short pitch to a rebelay and then a sloping descent, the lower part of which was free climbable; at a push a 15m rope would do.

The small chamber at the bottom was strewn with bits of old ironwork, bones and washed-in debris, as was the short hands-and-knees crawl going on. This quickly opened to a walk / climb along a rift passage. I investigated a hole down on the left to a sideways crawl, but this closed down. Carrying on along the rift we came to another hole down, with several carbide arrows pointing down it; however, on attempting to climb down, it appeared very difficult without a hand line (at least); it was undercut, out of balance and with no real holds, and re-ascending would be very challenging. As we were out of rope we checked ahead, but the rift almost immediately terminated in an awkward climb up; I jammed up as far as I could, but it did not appear to go on. Returning to the hole down, we all rechecked it for climbability, but came to the same conclusion. Given the generally uninspiring nature of the cave we decided to derig and hope for better prospects in other caves. Resurfacing into the heat we were disappointed but unsurprised that there was no ice cream van anywhere to be seen. Team: BC, DD & AD

Monday 25th Grotte du Sergent.

Parked in a big lay-by next to the river and waved as Allan & Harvey drove straight past us and on along the valley, waited in the heat till they eventually returned, then all walked up together. After an initial, flattish walk on a driveable track, the path turned off at a gate & became rather steep further on, with various turns off not shown on the map. Eventually arrived at an imposing looking climb, which actually proved very straightforward, up to the visible entrance. It was a relief to cool off in the cave draught, and we continued into the cave in shorts and T shirts (except for Brian who had left his T-shirt behind so just wore shorts) and this proved perfectly warm enough.

Andy and Brian in Grotte du Sargent
Photo by Dave Dobson

Grotte du Sergent cont….

The cave was very well decorated. After the initial stooping-height route between stal columns and bosses, a sloping climb down brought us to a series of nice high walk-along passages. Taking the left-hand series we eventually reached a large chamber with a huge stal column and some very old, partially recalcified, large fallen stals. The short continuation shown on the survey was down a long steep drop, vertical to start with, and without kit we left this, instead going up a climb opposite which turned out to be steeply up for some way, leading to a balcony overlooking the main passage at roof level.

While Harvey and Allan headed out, we returned to the junction to investigate the righthand series. The first lake was almost dry, leading to a network of crawls in various directions, some parallel. Eventually these opened up to a passage leading to the second lake, which covered the whole passage just where the roof lowered again. As continuing would require a totally soaking wet crawl, we decided shorts and T-shirt with walking boots was not really practical for this and headed out, stopping for a snack in the cool of the entrance. The hot walk back was (as often) much quicker than going in had been; however, despite the river being a popular tourist spot, we could not see an ice-cream van.
Team: AR, HL, BC, DD & AD.

Tuesday 26th Grotte de Gardies.
A grade 5 drive took us most of the way to the end of the rough track and a mainly shaded walk followed, but locating the cave proved more challenging. Our search found a long-abandoned, now dry, swimming pool with a sign stating 'no swimming', a small impenetrable resurgence, and lots of thorny, prickly undergrowth. Eventually I followed an overgrown right turn, with the occasional fight through a thorn bush, to a stone doorway entrance. The initial chamber was actually a built cellar with a further doorway into the cave proper, with the almost rectangular chamber clearly having been a cold store in times past. A left turn over muddy pools led to a hand-and-knees crawl that broke into a dug surface choke. Returning to the chamber, the only way on was a crawl from a waist-height step up. Putting on my fleece and wishing I had bought more gear as protection, I crawled into a painful, rocky and muddy squeeze going forward, then a tight S-bend up, with sharp projections. Wriggling up, I could see a continuing small rocky crawl which looked probably doable, but being a wimp decided I had inflicted enough pain on my body - especially as I would have difficulty reversing the nasty S-bend if the crawl after proved too tight - and backed gingerly out over the sharp bits. We took a circuitous route back to the car and drove to find our alternative option:

Andy trying to fit in Grotte de Gardies
Photo - Brian Clipstone

Grotte du Furoe.

Having established that it was a sheer drop into dense forest from the road above, we went the long way around, driving between farm buildings to park where the track turned the opposite way in the valley. An initial easy path led us to following the streambed up, thrashing though scrub to bypass the dry waterfalls, and eventually gaining a cliff face with two small holes at the base; one side was a blind alcove with stal, the other a low downward crawl. Excavating a few rocks, it was possible to go most of a body length to see along a tight, flat-out crawl through water, which required digging-out to access and full caving kit to attempt. Clearly no one had been here for a long time. Trying not to avalanche the scree of mobile green boulders on the way down, Dave pointed out that here a rolling stone does gather moss. Unsurprisingly, neither of the remote sites we had visited were frequented by an ice cream van….. Team: BC, DD & AD.

Wednesday 27th Aven du Fonctionnaire

Easily located the entrance in the middle of a scrappy field next to the end of the driveable section of track. A built, short, shaft and steps down led to a tight near-vertical slot which we rigged a handline for. Entrance climbs continued to spiral down with everything loose, and one particularly dodgy bit had a warning sign and taped route to avoid hanging death. At –28m the spiral climbs dropped into a sizeable chamber, while a climb up ahead at the end of the chamber led to flowstone, curtains and stal blockage. From the base of the chamber further awkward corkscrew climbs led to gravelly crawls, which broke out into a large passage. Clambering over boulders and through chambers reached a gour passage with a stal blockage at the end; a dug-through, tight, awkward and muddy crawl went up, down, then left to loop back to a climb down into the last main chamber. A well-worn hole in the chamber floor turned out to be blind, well-worn from many cavers climbing down and back up!

Brian and Andy in Aven du Fonctionnaire
Photo - Dave Dobson

The way on proved to be either a window in the wall or a climb in the corner of the chamber (right hand wall on the way in), which met in a mini chamber with either a traverse or climb into an ongoing rift. This led to an in-situ traverse line around a blind pot, then a short tunnel to the head of a pitch. As we had no SRT gear with us we turned around here. Almost the entire cave is brown with reddish shading - and crumbly. After yesterday's disappointments this was a worthwhile trip, though sadly, on regaining the surface, we found that a scrubby field in the middle of the plateau was not on any ice cream van's itinerary. Team: BC, DD & AD.

Thursday 28th Aven Grotte de Vitalis (Part 1)

Long drive up rough track to park by Alternative Technology Arts Centre. Walk along GR path, then turn left, then right, and after initially blundering around in the forest trying to follow the GPS, we decided to take the well-worn path that went straight to the entrance. This was a climb through a window into a huge chamber, with the remains of a very extensive works, originally with tiled floor and slated roof, water channels, walkways and steps.

After examining the industrial archaeology at the end of the remains, a slope down led to a decorated alcove with a stal climb on the right, which proved too skiddy for walking boots. Back at the bottom of the slope going left into the continuation of the large passage, we climbed up and down large blocks coated in slippery flow. We examined a dead-end side turn and a couple of routes into the enormous choke but found walking boots would not grip on either wet rocks or calcite and decided to return another day with full caving kit.

We wandered around the Alternative Centre, which was fascinating but had no retail outlet, so once again ice creams were not an option.

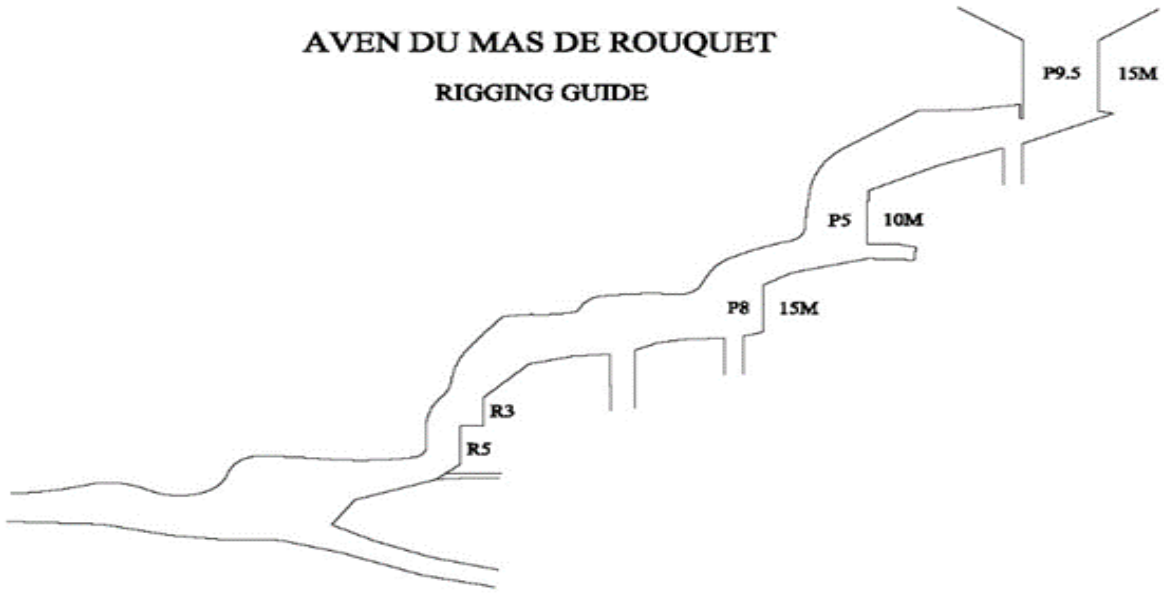
Team: AR, HL, DD & AD.

Friday 29th Aven du mas de Rouquet.

A burning walk-in, with a diversion around the cattle as they had their calves with them. A nice P-hangered 15m entrance pitch with ledges at the rebelay, into a large, partially open-roofed chamber area, where once again we found a built doorway into an old cold-storage area.

Andy on the pitch of Aven du mas de Rouquet. Photo - Dave Dobson

Climbing down the slope, we went directly to the top of the supposedly '5m' pitch (again P-hangered); however, even with minimal traverse line our 10m rope did not quite touch the floor. Down the pitch, a short walk along the passage arrived at the '8m' pitch, with a confusing offering of Eco-anchors not in the obvious places. Using slings to back up to an old spit, and minimal rigging, our 14m rope was only just long enough. From here the cave widened out and, avoiding a hole in the floor, we climbed round to the 'R5' which appeared to be a pitch with shiny hangers in-situ, so we rigged it. (On the way out, we found you can bypass this with a free climb between the large blocks). Immediately after this was the 'R9', again a pitch but with only iffy spits to rig off; however, this was easily bypassed by a climb down between boulders behind where the 'R5' lands. A large, sloping passage came to a further drop, but it was simple to climb into a crack on the lefthand wall and climb down. Here a decorated chamber had two exits – to the right, a side passage with very white flow over old stal dead-ended, while ahead a crawl opened into a large chamber with stal everywhere. At the far end a jam/climb up gave a view into a high-level mini-chamber between stal and calcite flow. This final part of the cave was superbly well decorated. (See photograph on page 58.)



The walk back was partly shaded as the sun was now low, but once again, on a dead-end road in the middle of nowhere, there was no ice cream van. Team: BC, DD & AD.

Sunday 31st. Return to Aven Grotte de Vitalis.

With full caving kit on we quickly passed our previous limit, and found two alternative ways in the choke to a climb up an in-situ knotted rope. From the top of this further crawls followed, with climbs up and down to a second knotted rope up through a window. The convoluted route continued to a wider section ascending a scree slope, then down a series of awkward climbs with a few tight spots, to emerge in a chamber with "Reseau de CLPA 1968" painted on the rock.

From here further climbs up, then down, then over and around large blocks, brought us to a flat area and a junction. Taking the lefthand turn, as it was finally somewhere to walk along, we found a nice passage with small gours. Another climb up and down brought us to Galerie du Lac, which was pretty and well decorated. Across the pool, which was just below welly depth on the edge (with a bit of care), was a very calcited chamber, with again a high-level continuation visible, but which would only be accessible by climbing up the formations. Returning to the junction, the other route (effectively straight on) led to the gallery "Reseau Sud", with a stunning large gour pool with crystal banks and a stal island.

Brian and Andy in Aven Grotte de Vitalis.
Photo - Dave Dobson

A climb to the left of this, past massive curtains and drapes, led to a further junction, while to the right a twisting path between ancient stal eventually closed down, with a dead-end climb above. Ahead from the junction a slippery climb up, and an even more slippery climb down, came to a chamber with a sticky mud floor. From here a stoop, then a short crawl, reached a small, muddy chamber with a flat-out crawl in squidgy mud going off; as the survey showed this ending very soon, I politely declined. As ever, the return to the exit seemed much simpler than the route in. As the temperature outside was 10 degrees cooler than yesterday, ice creams were not on the agenda. Team: BC, DD & AD.

Tuesday 2nd August.

Kayaking on the Lac du Salagou, with an ice cream!

Wednesday 3rd Traversee Ours, (Through trip!)

After a long, tortuous drive, found the Grotte des Ours only a few metres off the road up an easy path -a large old trunk passage, now isolated by erosion. I examined a hole in the floor, but the crawl-off at the bottom was very tight. Continuing along the big walking passage, we passed old (1869, etc.) graffiti and recent copies of ancient cave paintings, with a climb into a higher level proving to be only a couple of metres long. The connection through was a squeeze and flat out crawl; borrowing Allan's knee pads, I crawled through, feeling I definitely needed more than shorts and T-shirt on. After what seemed 5 or 6 metres of flat out crawl there was a slot into a very mini chamber, then a climb up through a tight hole in the roof into Grotte du Poteau No.4, with a short walk out to the entrance.

Andy in Grotte des Ours.
Photo - Dave Dobson

I returned through the crawl, and we made our way out and walked around to the other entrance, which had a steep climb up from the road. This was a much shorter section of cave, with only a dead-end chamber past the connection hole, and a low-level crawl which closed down. Back near the entrance, a crawl and climb down on the right going in, which again necessitated borrowing knee pads and feeling inadequately dressed, led to a squeeze and crawl to a small terminal chamber with some stal. We drove back the long way, which was not only easier and quicker but enabled us to stop in the town and buy ice creams!

Andy in Aven du mas de Rouquet
Photo - Dave Dobson

A Diary of Cantabria 2016

Paul Tarrant

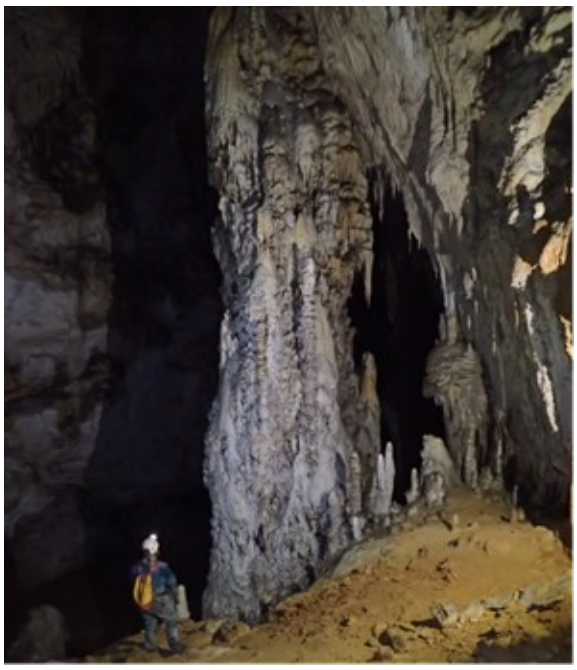
Several of us arrived at Stansted early on Saturday, taking breakfast with ale before being whisked away by Easyjet to a slightly damp Cantabria. Once we were ensconced at Carlos's Hotel Anjana, just outside Ramales, we used the remainder of the afternoon to drive around the area, with Gary Vaughan acting as chauffeur. We drove up to the Concrete Cow (shades of Milton Keynes!) situated on a lonely mountain pass and our drive took us up a valley which was quite spectacular, and clearly limestone country! Gary excitedly pointed out some potential dig sites as he drove. We got to a point where snow blocked the road (late high snow limited some of our potential trips), forcing a retreat via the Ason valley, where we decided to locate Cueva Coventosa's lower entrance and that of nearby Cueva del Escalon. We also located the bar at Ason and admired some excellent cave photos on the wall.

Sunday broke sunny and fine and some of us did a short trip in Sistema de La Gandara as far as the pitch, which John Cliffe rigged whilst Dom Hyland and I looked on admiringly at his acrobatic antics. This proved a problematic rig, as there was once a lot of 'choss' at the pitch head which the Spanish had wisely 'gardened'. Unfortunately, this meant that in throwing rocks off the pitch head, they had considerably lowered the floor level, so much so that the P-hangers were a good metre beyond John's reach! After a successful rig, we retreated from there taking pictures en route. The zig zag crawls provided a nice pic. or two, and so did the white sections in the crawl area. The passage near the traverse not far from the entrance was truly immense dimensionally. A visit to the bar at Ason rounded off a good, easy introduction to caving in Cantabria.

John's acrobatic rigging

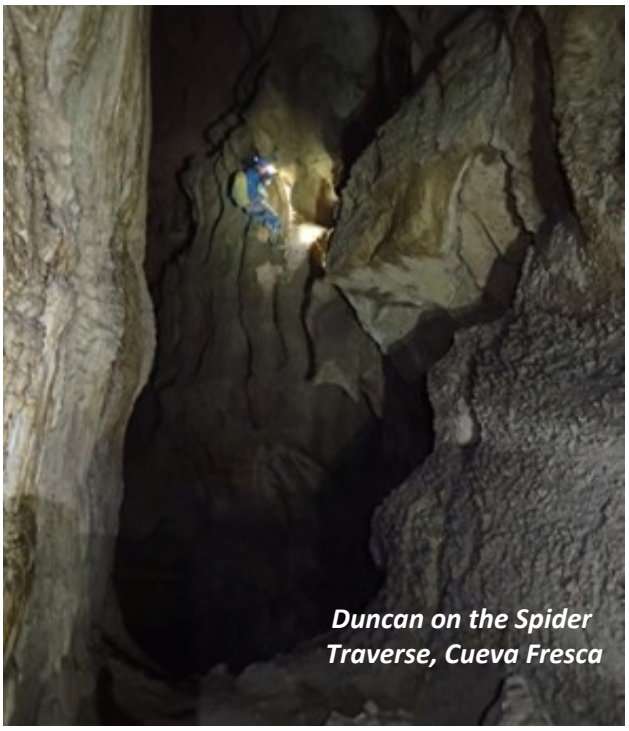
In the zig-zag crawls

Monday saw Miri Pihlaja, Duncan Simey and me visit the Sala de Los Fantasmas in Cueva Coventosa. The passages and chambers were stunningly big and filled with massive stal columns, with just one 10m pitch to descend to get there. We spent our entire time of about five hours there just wandering around taking photographs of this spectacular place.

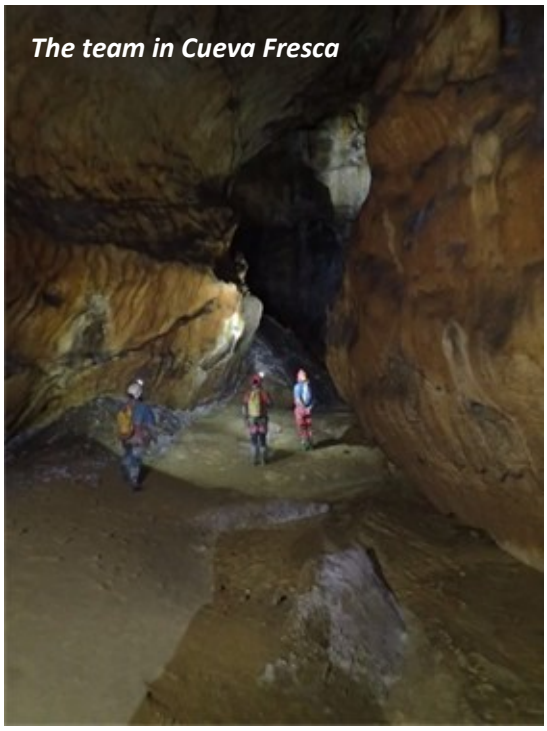


Three Views of La Sala de Los Fantasmas

Cueva Fresca was visited on Tuesday by Dom, John, Miri and Duncan. Just in from the entrance, the passage opened up massively, with three lots of traverse lines over a yawning gulf. The whole place was quite slippery with moon milk. Further in, the much talked about Spider Traverse was found to be relatively straight forward.



Duncan on the Spider Traverse, Cueva Fresca



The team in Cueva Fresca

Just beyond the Spider Traverse was a huge junction where we took lunch and which we thought to be the Sala Rabelais. This was an incorrect assumption on our part, as we went off left along El Gran Atajo passage, which ended after about a kilometre with a boulder pile where a Mendip-type rift went off on the right. Duncan & Miri started exploring this, whilst the rest of us headed back towards the entrance. It turned out that there was a way on from Duncan's rift, back to the immense Sala Rabelais and the 5th Avenue, which eventually re-joined the junction that we had stopped at. Things are definitely on a much bigger scale out here!

We went looking for the Cueva del Coveron near Matienzo on Wednesday. Gary, Dominic, Allan R. and I started a vegetation-bashing exercise, with lots of horrible barbed creepers hanging down from trees to snag us. We found the cave after about an hour, an impressive doline with a big entrance dropping away which we could walk into. There was evidence of wild boar in the area. We drove on to Cueva del Mur near Ramales and this was a very spectacular large cave entrance situated in a cliff. Getting there was via a delicate path with a substantial drop under it. The cave entrance was huge, but climbers use it for doing aid climbs in bad weather; there were hundreds of spits, bolts and Hilti nails placed pointlessly and randomly all over the place.

Thursday, and Dom, John and I went for a short trip down Cueva Canuela. The walk -in was a bit scratchy, due to the vegetation. We had a traverse right by the entrance of about 35m over blackness below, but it was easy. The passage continued extremely large until we came to an ascending 10m easy pitch that was rigged. There were large galleries going off up here with one leading to a 10m drop down on boulders. We went right at the bottom of the climb and this led to a further, more committing 20m deep climb down, which I was not prepared to do without a rope, so we returned to the climb up, but on the way found another large chamber, where it was possible to descend by following a small stream. The return up the climb and the descent of the roped pitch was easy enough and from there we retraced our steps to the entrance.

On Friday, there was a final trip to Cueva del Coveron, involving, I think, John, Dom, Brian, Andy and Dave. I joined Gary, who sadly could not cave due to his recent hip op., for a walk to Ramales, where my idea of visiting the show cave there was scuppered by it being closed to individuals, in spite of it being boldly advertised in the town.

This trip was excellent, and everyone enjoyed what they did. Carlos's all-inclusive deal at Hotel Anjana came to about £280. Carlos did a great job in providing us with plentiful supplies of decent basic food which kept everyone happy. His steady supply of tapas snacks to go with the beer was to be admired, as was his way of celebrating his football team's goal when he started letting off the fire crackers! This was my first trip to Cantabria and I was very impressed by the immense size and beauty of the caves. Will I go back there? Bet your life I will!

All photographs: Paul Tarrant

Participants: Gary Vaughan, Brian Clipstone, Andy and Dave Dobson, Miri Pihlaja, Duncan Simey, Dom Hyland, John Cliffe, Allan Richardson, and article scribe Paul Tarrant

Ruina Montium (Wrecking of the Mountains)

Allan Richardson

No, this is not a comment on the digging which has been undertaken on the Black Mountain, but is a Roman mining technique, as described by Pliny the Elder in 77AD

At the end of the club's 2016 Easter trip, I still had a few days left to look at things.
One thing I had discovered on the internet was that the Romans had been mining for gold near Ponferrada, a town in the far west of Spain near the border with Portugal. It turned out that it had been declared a World Heritage Site in 1997. The internet had some information and some impressive photos, so I decided to visit.

The drive was a long one, taking all day; the motorway up through the mountains was in poor condition and it was pouring down. I eventually got past the mountains and into the northern part of the central area of Spain. Here the landscape was much lower, with rolling farmland, and the motorway was much better, as was the weather, allowing one to drive at the speed limit. Nearing the Portuguese border, the landscape was wooded hills, but not so high as along the coast.

Medulas is a small village, which without the nearby gold mines would be as run down and deserted as many other small rural hill communities in Spain. As well as a large car park and various restaurants, it had an information centre in the museum where one of the people on reception spoke English; I was able to get some information, though the site map they gave out was little better than useless. After a quick look at the museum to get an overview, it was outside to look at the site.

By now it was early evening and threatening rain. I decided to walk around the perimeter of the site to get an impression of the size; it was certainly very big. The Romans, or to be more correct their workers/slaves, had removed whole hillsides using manual labour and water pressure. The hillsides were covered in a dense vegetation, so you only got brief glimpses of high red alluvial cliffs with holes in them. There was a short section of aqueduct cut through rock, one of at least seven, which had originally brought water from the mountains many miles away to flood the galleries.

Eventually I got to where there was a path down into the central area, and here one could see just how much material had been removed; it was probably equivalent to many times the volume of the whole of Penwyllt Quarries at least.

Information boards now appeared, so I was able to get a better idea of how the workings had operated. The richest gold was deposited in a thin bed at the base of the sequence, while above it was over 100 metres of overburden in places; not a problem these days, but 2000 years ago it was. Removal of the overburden was achieved by a combination of undermining the cliffs, digging galleries and shafts down into them from above, and then allowing these to flood quickly so that the sudden hydraulic pressure caused the cliffs to collapse. Once they had collapsed, the overburden was carted away and dumped until the gold-bearing layers were exposed. These were then processed on the outskirts of the complex, thus increasing the size of the industrial area. Some of the lower galleries, similar in size to Gnome passage, were still accessible and you could see where they had been flooded by smaller shafts and galleries visible in the roof and sides.

Huge amounts of gold were produced. Reports speak of 20,000 Roman pounds, approx. 6578Kg, of gold a year. After two centuries of serious industry mining stopped, the industry left and the area reverted to scrub and agriculture, hence the Roman workings and processing areas are mostly intact.

By now it was raining hard and getting dark, and furthermore due to a lack of signage I had little idea of where I was. The only option other than retracing my steps was to follow one of the main tracks in the hope it would get me out of the central complex, which was a bit like a maze with rather tall sides. Eventually, in the darkness, I got to the edge of the village, where I came across a Casa Rurale, a type of rural hotel. I got some strange looks as I went in, as by now I probably resembled a drowned rat! They didn't speak English, my Spanish is mostly limited to ordering beer, which is all you really need when staying at Carlos's near Ramales, but with the help of one of the other guests I managed to book a room and a meal. The meal and the wine were excellent; by chance I had stumbled on an establishment which prided itself on producing all its own ingredients or buying them locally, as I was informed by one of the other guests.

Next day it was back up to the gold workings to visit one of the Roman galleries which is open as a show mine. It was all self-guided, with hard hats and torches provided, but the staff were happy to allow me to use my own. The galleries varied greatly in size from very large passages to small crawl-ways, many of them dug in a hard conglomerate. The tourist route led to a viewing platform in the side of one of the cliffs, but as there were no controls other than signs saying no entry, I was able to explore some of the unlit galleries. One of these went a long way and I hadn't reached the end when I decided to turn back before a search party was sent.

If anyone is in the area, I can recommend it as a most interesting place to visit, but you would need to allow at least half a day to have a good look around.

Even A Well Forked Haystack…

Martin Hoff

I first visited the Vega de Ario in 2012 (see 'Xitu With Rosie', SWCC Newsletter 129) long after I had first read Rose and Gregson's 'Beneath The Mountains', which documents the efforts of Oxford University Cave Club and their pioneering exploration in particular to the bottom of Pozu del Xitu, at -1139m, as well as some of their long history in the area before that. By the time of my visit in 2016, it was a full fifty-five years since they had first pitched up at Los Lagos de Covadonga, where the road ends and the three hour walk to Ario begins. It is fair to say that the place has seen some serious attention from British cavers over the decades, but that does not mean there is nothing left to find.

Towards the end of what had been a relatively idle day for me, Dave still had energy to burn and fancied using it up on whaling the hell out of a rock that had looked at him funny in a dig site the day before, when three surface sites of potential interest had been identified. On a return to the lower end of the valley below and north of Pico Gustuteru, a trio of cavers had found cold air issuing from some likely looking spots. Always keen to add to my list of Premier Digs (Continental Section), I volunteered to join him and gathering hammer, bar and GPS, we headed off into the clag. Regardless of visibility, the GPS did a far better job of taking us straight back to the right place than some spurious clear mental picture.

Dave and I pulled some rocks out of the main hole, the one he was most interested in due to the chilly draught, which had been very evident on the previous day of high surface temperatures but was now less so in cooler conditions. Removing some of the looser lumps of rock, we uncovered the bigger boulder which needed the attention of the hammer; Dave hammered the sides off the rock, then I lifted it out. Swapping places, I pulled out a few more handy chunks of limestone from deeper within the rift we had uncovered, moved some other stuff and then felt a slight tickle on my back as a big slab behind started slumping towards me. Having proved that my reactions were still in pretty good working order, we stabilised that one and turned our attention to a safer spot, attacking the other side of the opening which made for further progress downwards into continuing downward space with a nice cool draught blowing out.

Taking a break from the hard work, I climbed up on the western wall of the valley to photograph Dave from above as he wielded the hammer, only to realise this was the base of a sixty foot height of washed run-off limestone wall, where a more appealing site than Dave's immediately revealed itself; a loosely perched triangular rock floor between the one solid wall, a pile of larger boulders and the flattening out of the valley flank. The black space below the solid wall revealed a slight void beneath the moss-covered rocks of the floor, through a thin enough gap that it could never have been previously visited by a human, and which dropped to a snow pile some metres beneath.

Dave was due to leave for home the following day, so it fell to me to return with a different companion. Moving rocks around produced reassuring sensations of movement in the greater floor beneath me and eventually we had shifted enough of the loose stuff to get a good look down the hole. One rock remained sat in just the right position to obstruct access to the slot that I needed to get down, and with the volume of a couple of microwave ovens before I started on it, that was big enough that lifting it out was not going to be feasible. What was feasible was a lengthy process of hammering it from all sides, knocking off bits here and there so I could attempt to squeeze past it.

My own SRT kit was elsewhere so I was using one that I had borrowed, inevitably set up differently and using different components to my own and further complicating the squeeze manoeuvre, as the lumps and bumps of knots and loops wedged in places where they wouldn't have been on my own kit. After three or four goes at determining how tight the squeeze remained, its resistance seemed to be fading and I popped a single bolt in the flat wall not quite above the slot and backed it up to some huge boulders across the way, threading enough rope down the hole for me to follow.

This time it worked, my legs and then my hips dropped through the slot and my weight came on to the imperfect rigging, as I descended far enough below the squeeze to look up and see the rub point of the rope on the underside of the four foot cubed rock which capped the broader section of the shaft. A further descent of around 8m, while looking up at the rope rubbing above, enabled me to land on the snow patch which occupied most of the floor as I kept up a running commentary for Sarah waiting on the surface.

The marbled walls of the western side of the shaft were particularly fine but the obvious drainage exit was to the eastern side, closest to the original site we had been working on the day before. Scope for further progress was minimal and some serious attention to modify the four foot cube rock and improve the rigging would be highly advisable, but with the 80% coverage of the floor with snow even in late summer and with the rocks plugging the apparent direction of drainage, this would at best be a long-term dig and further work on the other site next door would be a better use of time.

You couldn't fit a bus through there – welly at top left for scale

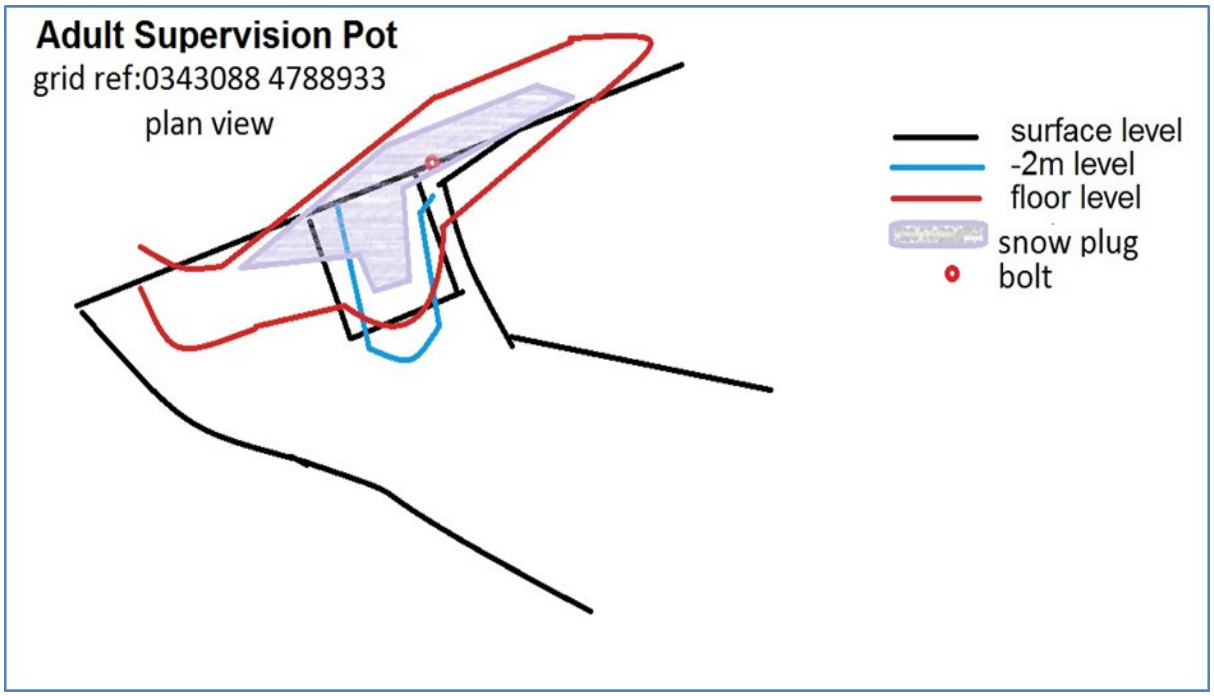
Snow patch on the floor and marbled walls

If being beneath a rub point in a floor that I had earlier felt significant parts of move was less than reassuring, forcing my way back up to and then through the squeeze would be a different challenge again. The height of the lower half of the pitch was regained more by climbing between the rift walls than prussiking, remaining almost directly beneath the bolt before transferring to a position under the boulder and high enough to touch it. Seeing the benefit of presenting a lesser profile to the squeeze, I passed out my camera, descender and chest harness in turn, then made calm but urgent progress to a point with my hips above the tight bit where I paused to pose for a couple of snaps. Dehydrated from the lengthy hammering and rock rolling, and relieved to find the squeeze as passable when working against gravity as when going with it, I took a short breather before we packed up ready to walk back.

If the site was hardly an obvious must-return-immediately prospect, this and another fresh site I found a couple of days later demonstrated the relative ease of finding previously unexplored sites, even after all the traffic that the area has had over the decades, a fact that should be recognised as being of far greater significance than the outcome of this particular example. With the evening hours rapidly approaching, the rope was quickly de-rigged and the digging tools soon stuffed in rucksacks, then Sarah and I headed back. Conversation turned to what to call where we had been. The mountain is littered with numbered or lettered and numbered sites and this place had provided enough amusement to be worthy of noting properly. Given my initial responsibility to ensure Dave didn't get too sucked into a project to keep him out half the night, and the subsequent role reversal for Sarah to keep an eye on me as I tried not to get myself wedged or worse, I settled on the name of this relatively insignificant find - Adult Supervision Pot.

The way out

Relieved and delighted – can't you tell?



And an update following a further visit in 2017…..

It may have been a source of no little relief to emerge through the restriction between the solid wall and the larger rock, but time has a funny way of allowing the memories to fade, a factor that has a lot to do with how I found myself back at the same spot ten months later. Having in the meantime revisited the surrounding area and spent some time climbing up and down the valley wall investigating every black space we could spot, Dave and I returned to consideration of the options. At a different time of year now, the cool draughts of air issuing from the various dig sites on the valley floor remained as good an indication as any of where we ought to look next. And having found no possibility more obviously appealing than the digs, limited choices remained. The original dig was situated so conveniently as to swallow the path and it was clear that it would need, at a minimum, a decent cover for the protection of livestock and passing walkers, and then capping gear and the possibilities of scaffolding to make much progress.

And now that we had got back onto the subject of digging, it occurred to me that my excitement at reaching the bottom of Adult Supervision Pot had meant that I might not have been fully focused on giving the floor of the place a thorough going over from a digging perspective. And on the off-chance I had missed something, especially now that I had proven I could get back out of the sodding place, giving it more than a cursory inspection was something that could be achieved in a couple of hours.

Obviously Dave had missed out on the follow up to my initial discovery of the place, so it was good for him to find out how the story went; having assembled a couple of tape slings, a 14m rope and my SRT kit, the two of us headed off across the mountainside. Peering down into the black space revealed that the snow patch was now smaller than on my previous visit; an interesting development. The single through-bolt from the previous summer remained usable and the alternative rigging option of the slings and a shorter rope turned out to be perfect.

Immediately next to the access slot, the moveable rock succumbed to a couple of pushes, but this only revealed that it was holding back a certain amount of loose debris and we determined that it would be better left alone; all the better for repeating the entertainment of allowing gravity to pull me down through the thin slanting cleft between the bigger boulder and the solid walls beneath.

This time I was fractionally more relaxed while hanging beneath the bolt for my camera equipment to be passed down to me before I could carry on to find the knot and the rope end with barely half a metre of slack on the floor. This time the floor was somewhat more visible, the snow patch proving to have shrunk to a third of its size from when I was there before. At the western end of the shaft floor, an inlet choked with rocks came in from the south while a crack in the western end wall had a nice cool breeze blowing out. Neither of these would be practicable options for digging with any hopes of progress in the short term. Passing underneath the pitch, I moved into the alcove at the end closer to the other dig and was able to see more of the floor.

Two vertical walls pinched closer together, heading in the direction of the path and the other dig, but with no sign of a draught blowing through the limited space. The rocks comprising the floor were movable enough that in a more accessible location, a long-term digging project would probably develop.

Given the proximity of alternative sites and having proven that the depth reached in the bottom of Adult Supervision Pot did not really drop substantially further than the visible depth in the dig on the path, this was a final end to my messing about there, or at least it would be once I had made a better job of photographing the place second time around and successfully put myself back onto the surface.

Although presenting a smoother profile to the slot beneath the boulder by wearing my own SRT kit, I was this time wearing an oversuit to add a little extra bulk in case the exit turned out unnecessarily straightforward. This need not have concerned me as it remained almost as much of pig as the first time, though at least I knew the boulder would need to be kicked a bit harder than I had done previously to make it move.

With the assistance of a practised eye directing me as to exactly the angle at which my shoulders needed to approach to best fit between the solid walls, my upper body dragged my hips up behind it and I enjoyed the pleasant relief of having thoroughly ticked the place off. Once, twice and for all time.

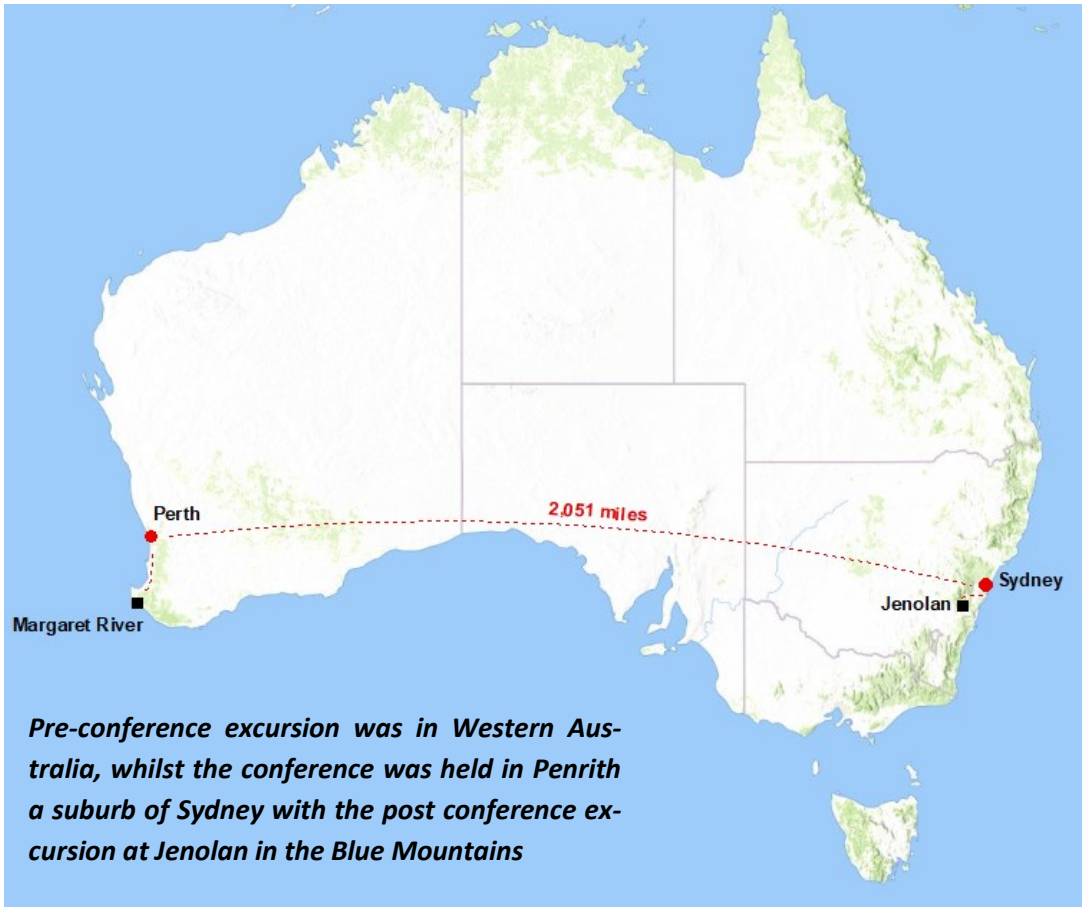
All photographs, 2016 and 2017 by the author, including self portrait below.

Caves in an Ancient Land - 17th ICS Conference, Australia

Claire Vivian and Duncan Hornby

Claire and I had gone to the 16th ICS (International Congress of Speleology) in Brno in 2013 and had such a great time meeting new people from around the world, caving with the locals, and attending some interesting talks, that we decided to go to the next one in 2017.

It was never going to be cheap, but it sure was a lot of fun! We headed to Australia in July for the 17th ICS conference, attending the pre- and post- conference excursions (i.e. 2 weeks of caving with local cavers!). Our first stop was Margaret River, south of Perth.



Pre-conference excursion was in Western Australia, whilst the conference was held in Penrith a suburb of Sydney with the post conference excursion at Jenolan in the Blue Mountains

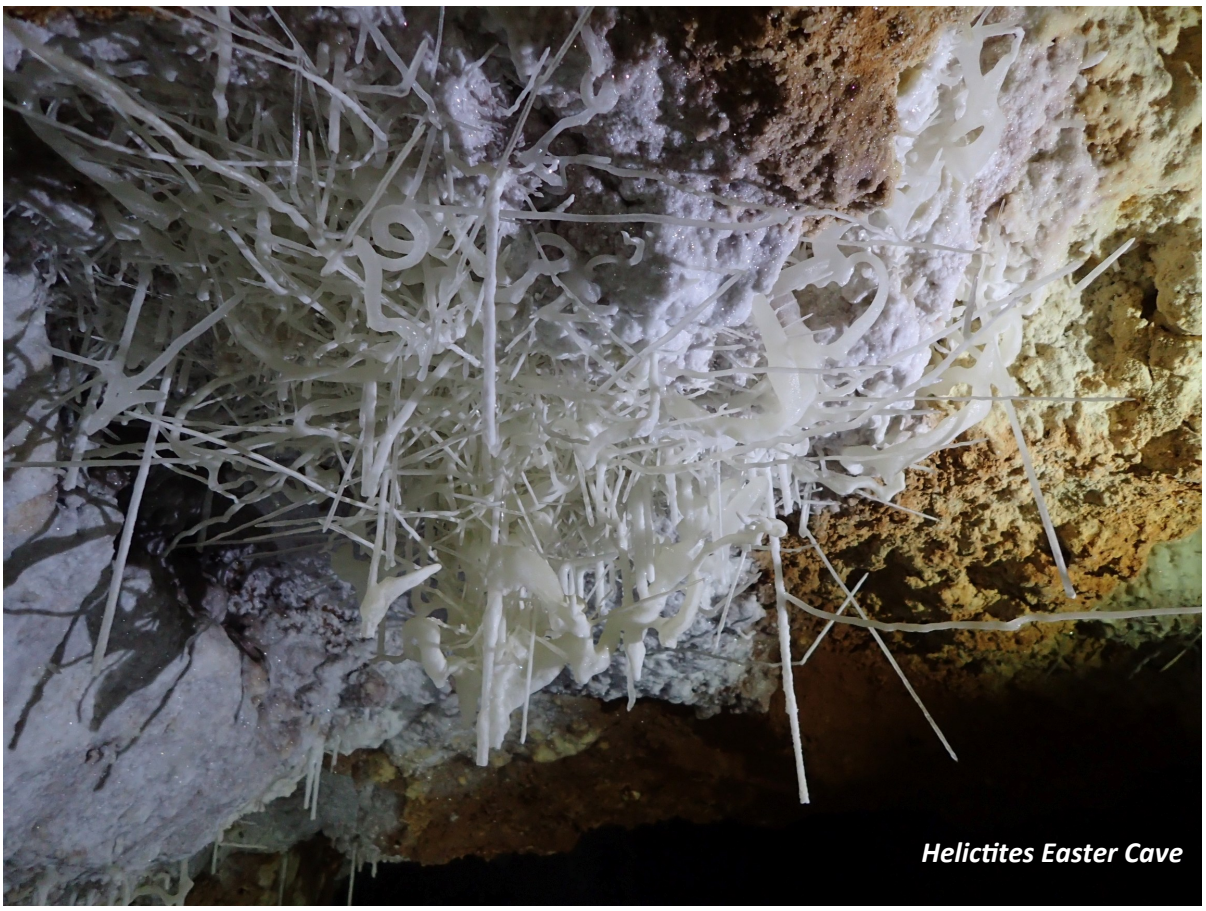
Margaret River pre-conference excursion

The caves are hot in Western Australia and get hotter as you go further in! Lightweight overalls a must, often stripping down to just a t-shirt. Fortunately, caving is relatively easy, with few technical aspects.

We visited 7 caves during the Margaret River excursion, with the jewel in the crown being Easter Cave; incredible formations from start to end, and we were only allowed to see half of the cave!

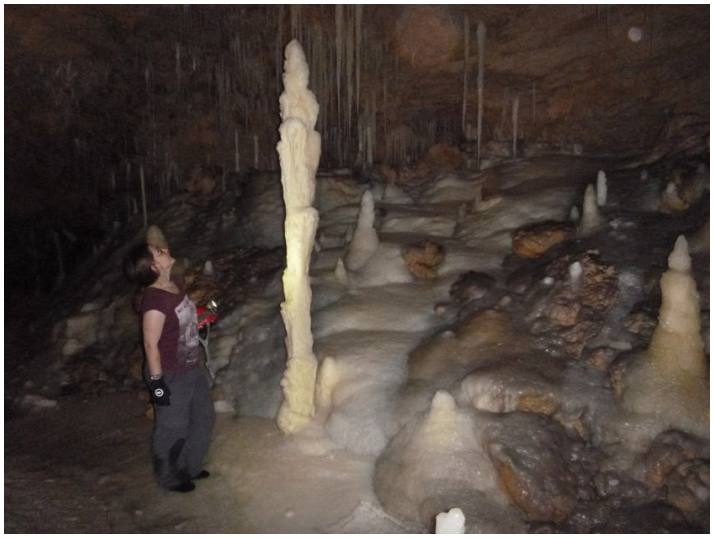
The best way to describe Easter cave is 'get all of the UK's finest formations and line them up'; that is just the entrance series to Easter cave… seriously, it's that well decorated! Yet not to be totally overshadowed were Strong's and Crystal Caves. Whilst not as profusely decorated as Easter, they also contained some magnificent formations.

This pre-conference excursion was run by the Western Australian Speleological Group and we thank them - especially Tim, Greg and Luana - for their time, and for organizing an amazing excursion



Helictites Easter Cave

Claire at the Helictite Table, Easter cave



Left - Christmas Star extensions of Crystal cave

Right - Duncan wearing the Judge's Wig, Strong's Cave

Conference week (23 – 29 July)

It was much cooler in Penrith, near Sydney, and our accommodation was a caravan park 30minutes walk away from the conference venue. It was sunny and t-shirt weather in the day, yet thick coat time at night. A dedicated marquee held the poster displays, club stands and the speleo-olympics. Presentations were held in the main Panthers building, a hybrid space of lecturer theatres, restaurants, bars and slot machines.

There was a wide range of talks covering all aspects of caving, from modern surveying techniques to cave biology, archaeology and speleogenesis. One particular talk that stuck in my mind was an excellent opening plenary session talking about cave-diving in Australia, ending with a computer model generated by "structure from motion", captured on a gopro. The video also captured the moments when several buoys and lights imploded under the pressure of the deep dive! Thankfully this was the point the diver decided to turn back!

It was not all work and no play; we attended a mid-week dry-canyoning trip in the Blue Mountains.

Claire at the top of the second pitch, dry-canyoning in the Blue Mountains.

The conference week passed in a flash, ending with a banquet which started with a traditional Aboriginal welcome, followed by food and much drinking. A slightly sad event as we were saying our goodbyes to new friends.

Jenolan Caves post-conference excursion

But it was not over! On the Sunday we met up at the Panthers event site, crammed ourselves into the back of a "trooper" and headed to Jenolan in the Blue Mountains for a week of caving!

Cave pearls in Barralong

This excursion was larger, with about 20 people attending, with 10 different nationalities! The organisers had arranged a week of sporting caving and access into the show caves. We were very privileged as one cave (the highly decorated Barralong) issues only 2 permits a year and the ICS excursion took them both!
Decontamination was taken very seriously, with people's kit sprayed to kill off any fungus that could potentially cause white nose syndrome .

Editors' note: White Nose Syndrome affects cave-dwelling bats and is present in Europe and the USA. At present Australia is free from the disease, hence the importance of decontamination.

Tuglow was to be the week's "main event", with the entire contingent visiting the system in one hit, splitting up into several groups: the photographers doing the "gentle trip", and another group the full-on "mega trip", with the guaranteed misery promised by an icy cold swim! Of course, the mega trip was a red rag to a bull to us, and Claire and I eagerly signed up! Getting there involved a river crossing and in fact the original date for Tuglow was brought forward for fear of overnight rains swelling the river.

Tuglow entrance involved abseiling (100m in 2 pitches), a high traverse above the stream with a sh*t scary bold step, big chambers, more abseiling, a "refreshing" dip (for the first time ever, being short actually meant that Claire did not have to swim!), then ladders up and out through fantastic flowstone chimneys. We were the last out and did a quick stomp, up and over the ridge, back to the cars to find a nice cup of tea on the brew. To top off an awesome day our excellent Australian hosts provided a BBQ back at their cavers hut!

The River Crossing to Tuglow

Claire in the main streamway of Tuglow, probably the best sporting trip in our visit to Australia

Our last trip was Spider Cave, a trip made serious due to 3 very tight squeezes; rescue beyond these would be impossible. A fourth squeeze, a very unpleasant tight flat out crawl, gives access to a chamber with the unusual Palantear formation.

This post-conference excursion was run by the Newcastle & Hunter Valley Speleological Society http://nhvss.org.au/ and we thank them - particularly Andrew, Peter, Mel, Dan, Mark, Steve and Chris - for their time and for organizing an amazing excursion.

Like the previous two weeks, our Jenolan week passed in a blink of an eye and it was all too soon time to head home. We were dropped off in Sydney and did some last-minute sightseeing: the Opera House, and Sydney Eye tower. It was then back on the planes for a soul crushing 24 hours of travel.

All Photographs by the authors.

Editors' Note: The authors very kindly prepared this article from their original piece on the SWCC blog pages. However we were unable to reproduce all their photographs here. Anyone interested will find more photographs and other details in the blog:
http://swcc-blog.blogspot.com.es/search?q=australia

There are no caves in this part of Africa

Allan Richardson

In November 2016 I was on a wildlife tour in South Africa, accompanied by Chris Grimmet and his wife Sheelagh, amongst others. Now, South Africa is well known for its caves, eg. Cango, so whilst I hadn't packed a helmet this time, I did make sure that after the Costa Rica experience (see NL 132), I always carried a light.

The flight into Kimberley was impressive for the number of mines and large holes which could be seen from the air, but this was not a caving area. Heading north to the various Game Reserves, I was assured by the guide that there were no caves in the areas we would visit. On the face of it he appeared to be correct, as the rock was of igneous/metamorphic origin, with a lot of granite-like tors to be seen.

On a late afternoon drive, through an area of low hills covered in Acacia scrub, I perceived a cave entrance in what appeared to be tufa, near the head of the valley. The guide explained that we would be stopping near another one further on, but since he had said there were no caves around I was somewhat confused.

We eventually stopped near the face of a cliff which had a thick layer of tufa on it. There were a number of speleothems in the overhangs, and some reasonably large cave entrances near the base, although the surrounding rock was still of an igneous/metamorphic origin.

The guide said I was welcome to go into the cave, as long as I accepted that it was at my own risk; I agreed and headed underground.
The caves were a series of interconnected chambers, floored in a soft white sand with small passages going off at the back of the chambers. I didn't enter the small passages, as in Africa things which bite and have large teeth tend to lurk in caves during the day.

The only wildlife I saw was a small number of bats; the air smelt of bat guano and there were bones on the floor.

On my return to daylight, I found that most of the group were watching the cave entrance with interest, cameras and binoculars at the ready, to see what might chase me out of the cave so that they could add it to their tick list, never mind about me!

You know who your friends are.

Editors'Note: 'Tufa' is a widely used term used to describe calcareous deposits formed from aqueous solution. We were aware that the term 'tufa' is also, confusingly, used to describe what is more correctly known as 'tuff', a type of rock formed from volcanic ash. Allan assures us that he is using 'tufa' to describe calcareous deposits.

Both photographs on this page by Martin Hoff. They were taken in the 650m deep Bunda Jama on a York University Cave And Pothole Cub expedition to Montenegro in 2016 which was generously supported by SWCC.

Above:
Alistair Rollison emerging from Popcorn Rift and

Right:
On the last pitch of The Expressway