Mendip Caving Group NEWS

No. 384

Summer in the Vercors

Digging Round-up

Charnel Shaft Found

MCG News is the Newsletter of the Mendip Caving Group.

It is emailed free to all members of the group who have provided a working email address on their membership form. If you are not receiving the Newsletter then please contact the editor.

It is also sent to all those other caving clubs, groups and societies who the MCG have an active Newsletter exchange with. If you wish to join our exchange, then please get in touch.

The Newsletter is also made available online, approximately 1 year after publication.See www.mendipcavinggroup.org.uk

The newsletter is usually produced 3 or 4 times a year, but this is dependant on the amount of content the editor gets. All contributions are gratefully received.

The MCG Update is a seperate publi cation to keep members up-to-date with news and events in between newsletters.

The MCG is a registered charity in the U.K. charity no. 270088.

Front Desk

Welcome to the *NEWS* 384.

Spring is almost upon-us, as I write this looking out of the cottage windows at the driving April sleet.

The club is definitely getting busier- more members and quite a bit more caving going-on. Just as well then, that the drying room is up and running- and very welcome it is too.

The digging groups seem to have had a quieter period over the winter months- certainly for the Pearlers, the icy blasts of winter seem to upset their usually civilized sausage and tea sessions- punctuated by brief forays underground. Others have made progress and a report round-up of activities is included in this issue.

A late item was the unexpected re-discovery of Charnel Shaft- and Tom Harrison has produced a thorough history of this - the details and location of which had passed into folklore- if not *legend*- chiefly it appears through gross navigational error...so can be add-ed to that well-populated list.

The club welcomes Alan Allchorn, Charlotte Dawes, Lee Newton, Richard Peters Jamie Russel, Leigh Slomer Tanya Sparey and Colin Woodley who have all joined since the last *NEWS* went to press.

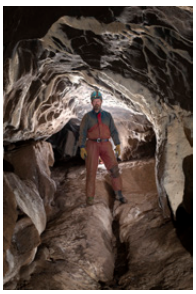
Andrew.

PHOTO: *Jason Cardwell*

Anniversary Year

December 31st 1979- New Year's Eve - a significant landmark event in MCG history was the destruction of the newly-built cottage by gas-explosion. Variously reported on Mendip as like the sound of distant gunfire...or blasting in a quarry.

The club might want to commemorate the event in an appropriate manner- a 21-gun salute might be in order?



Front cover
Mike Moxon - Browne's Hole, a cave that can either be a short, fun half-hour for adventurous clamberers... or a tight, squalid and watery doom for those that just dont know when to turn-around and head for the kettle.
Photo: Andrew Horeckyj

Cottage News

Photos: The editor

After a great combined effort by the MCG technical team- Brian Snell, Russ Porter, Keith Knight and DougHarris, with assistance from others, the new drying room is complete and in operation in the left-hand side of the new out-building.

The room has deeply-insulated walls and ceiling, built-in fan heater, a *wet-room* draining floor-pan and ample hanging -rail space for kit. It operates on a one-push timer circuit, that will have your kit dry overnight.

Great job all-round.

The tackle-store will be moving to the right-side of the new out-building in due course and this project is for the warmer months ahead.

To help ensure a long water-retaining working life for the floor, it would be a great help if users would sweep-out the room after a drying session after they remove their kit. It only takes a minute of your time - a handful of sharp grit dragged from the cave and trodden-in with footwear, will break the surface over time.

Also, do remove your kit after drying it. The drying room is not a kit store - if you are departing after cleaning kit and expecting to be away for a day or more, then take your wet kit home with you, do not just leave it in the drying room thinking *it will be there waiting for me when I come again*, because it simply gets in the way.

James looking down at valley at Font d'urle. Photo: Keri Smallwood.

A summer in the Vercors

An adventure in Southern France 3-9 June 2018 - Keri Smallwood, James Hazell, Aaron Phillips and Dan Matthews.

Words and pictures by Keri Smallwood

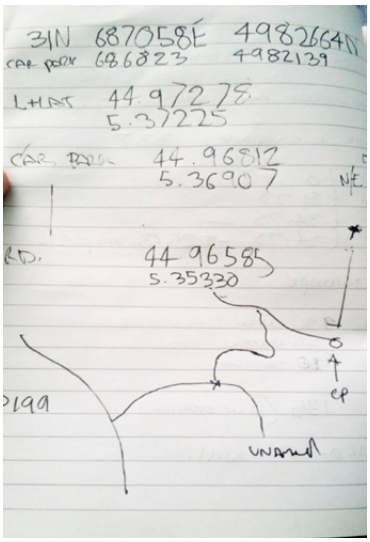
Sunday 3 June – The Adventure begins

It's a warm summer day in June 2018. James, Aaron and I are sitting outside my garage waiting for Dan to pick us up, who has already been in the car for 5 hours! He eventually turns up around 10am and we pack up the car almost breaking the suspension under the weight of all our kit! We set off and feel the roll bar knocking against the undercarriage and wonder if we will make it to France in one piece.

We reach our hotel in Dijon for our first stop that evening. Over dinner James brings down his huge map of Vercors, where he has marked off various caves. James mentions he wants to find the Scialet de Graille which I later dub The Holy Grail. We have GPS and OS coordinates but having seen an aerial view of the area I am sceptical that we will find it.

Monday 4 June - Grotte de Bournillion

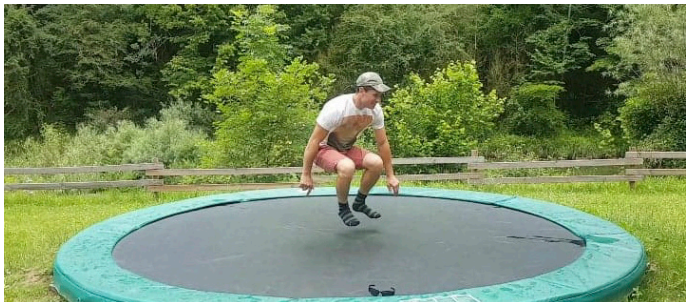
The following morning we set off for the second leg of our journey. It's a long and uninspiring drive through flat land and toll roads for miles (The tolls costed 140 euros in total for the whole trip with a toll tag). As we approach the Vercors we see the Alps in the distance and start to get excited



If the sketch-map looks a little "sketchy" - hopefully the coordinates will yeild results...the search for the (Holy) Scialet de Graille.

Cartography: Keri Smallwood.

-shouting "Rocks!" every time we see anything resembling rock or hills! We reach the campsite around midday and I'm blown away by the beauty. It's set in a valley by a river near the Choranche cave with a mountain view above the river. We explore the campsite and find a huge trampoline. James has great fun bouncing around and doing somersaults! Aaron and I find a wooden see-saw and jump on feeling like kids again!



The view from the campsite. Photo: Keri Smallwood.

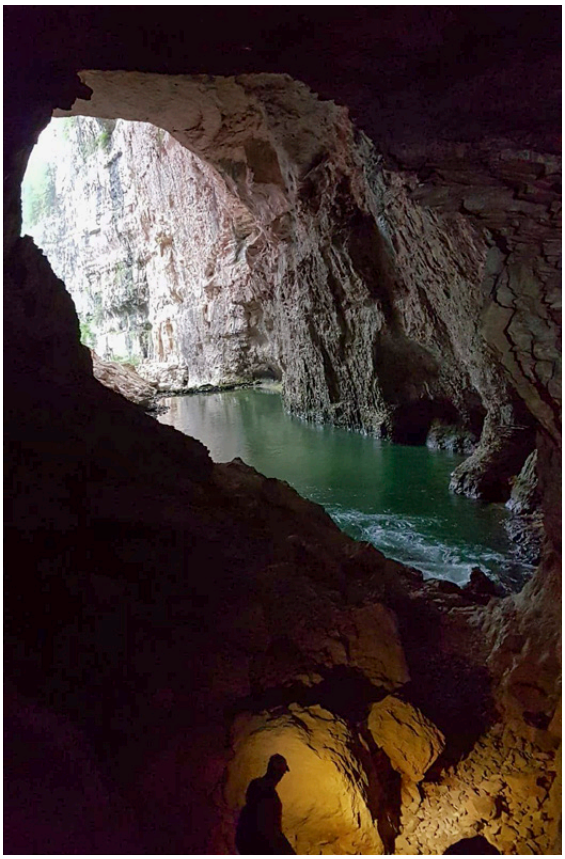
Tuesday 5 June - Scialet de Graille and Grotte Favot

Tuesday morning we set off to find Scialet de Graille. It's no easy feat. We walk for miles, hiking up the side of a steep mountain thick with alpine woodland. Miles from civilisation the silence is deafening. We reach the summit of the mountain and the cave is nowhere to be found. We descend back down the mountain because we have come up too far. We find a cave entrance but that's not it. I wait here while James and Aaron go off in search for "The Holy Grail". I'm tired and giving up hope of ever finding it.
After some time we hear them shouting in the distance that they have found it.

Later that day we set off to our first cave. We park near a pumping station next to a steep cliff with an impressive waterfall flowing down the cliffside. We walk up the path to the Grotte de Bournillion (*right*). There is a metal platform by entrance over a fast flowing river, with water gushing out of the cave and decide it's not safe to enter. However, James finds a dry route around the water so we traverse around the water into the cave.

James and Keri on the impressive approach to the Grotte de Bournillion. Photo: Keri Smallwood.

It's a huge cave with big open chambers and we see some large formations and calcite curtains. We can't go too far because we can't get past the water so it's a short trip. On the walk back we pass a river with mist rolling over it. It has an ethereal mystical feel about it. I feel like I'm in a fairytale world.



I can't believe it! I follow their voices and there it is! It only took about 2.5 to 3 hours to find! A challenge in itself.

The entrance is a steep pitch down on to a slope. We descend down in our SRT gear. We can tell this cave hasn't been explored for years as there's untrodden mud, scree and leaves at the bottom of the pitch (*images overleaf*). Someone has placed some animal bones on a rock at the bottom of the slope. I guess it must be a deer. Wow this cave was worth the endurance. It's stunning. It opens into a huge chamber filled with formations. There is one massive stalagmite growing up from the floor in a narrow column, which must be 15ft high.

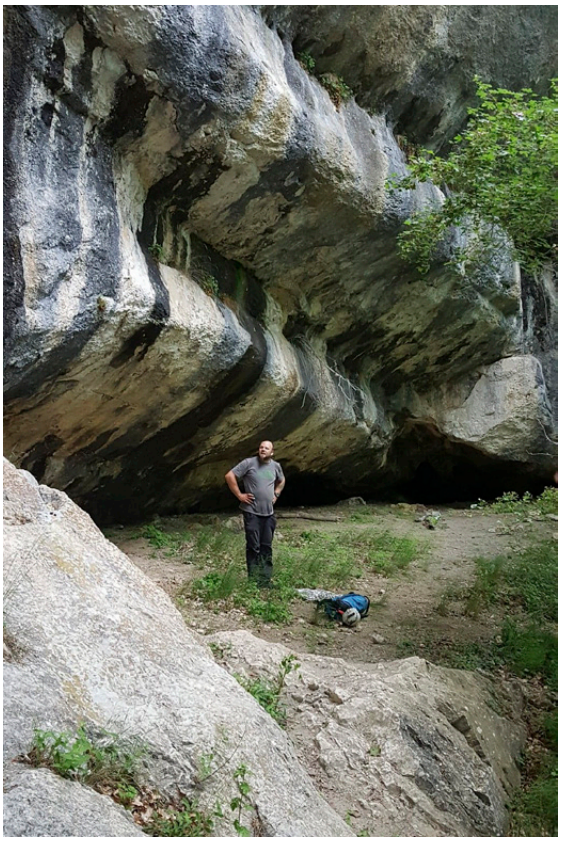
There are many other smaller stals growing from the floor and a huge wall of flowstone to my right. I can't believe our luck in this discovery. By the entrance outside is a broken stal which looks like it has been sawn off and someone left it there. Perhaps to show cavers this is where the cave is or they thought better than to take it. I feel saddened that someone cut it off and ruined a formation that took millions of years to form.

The view looking out of the Grotte de Bournillion.
Photo: Keri Smallwood.

James and Aaron inside the entrance of Scialet de Graille. Photo: Keri Smallwood.

Later that day we visited Grotte Favot situated in the Bourne gorges not too far from our campsite. It's another hike up a steep mountain. I swear and curse James all the way as it was his idea and we're all exhausted from the morning's activities. We reach the cave entrance and the view down into the gorge is spectacular (*below)*.

We crawl through a small tunnel to a long steep slope down a shaft (*opposite*). Dan rigged up a rope and we use our srt kit to semi-abseil/walk down. This opens up again into a huge chamber with large formations and flowstone gour pools line the passageways. The caves in France are huge and spectacular. Not what we are used to in Mendip with tight crawls and squeezes. It is refreshing to be able to walk in!



Dan at the top of the gorge looking tired after hiking up to Grotte Favot. Photo: Keri Smallwood.

Formations (right and below) in Scialet de Graille. Photos: Keri Smallwood.

Fossil passage in Grotte de Gournier. Photo: Keri Smallwood.

The entrance and (right) Dan admiring formations in Grotte Favot. Photos: Keri Smallwood

Wednesday 6 June - Grotte de Gournier

Wednesday morning we head to Grotte de Gournier early before visitors start arriving. We have to walk through the visitor centre of the Choranche show cave so we find a member of staff and ask if we can explore the Gournier. The lady was very helpful and more than happy to let us in. We kit-up into our wetsuits and srt gear and inflate Dan's kayak. The entrance is beyond a lake. James acts as ferry man taking us one at a time to the other side. We ascend up out of the boat while Dan rigs a traverse line around the waterfall. Getting around the waterfall is a bit hairy and Dan struggles a bit with the rigging whilst keeping his balance. The passageway on the other side is filled with deep crystal clear gour pools blue as sapphire. We carefully step around them making our way deeper in to the cave. The ceiling is lined with stalactites. We clamber over boulders the size of houses and reach the main fossil gallery, a long corridor about ¼ mile long of formations from floor to ceiling. I want to stop for more photos but there isn't enough time as we have so much more to explore. We eventually reach the streamway and wade our way through it as far as we can. We have reached about half way in the cave system. When we get to a point where the pools are deep and the water is flowing fast. We decide to turn back because we don't fancy swimming and the possibility of getting swept away in the current. We make our way back out towards the waterfall where tragedy almost hits. I reach towards the hand line at the top and almost slip to my death down the waterfall where there are boulders under the water! Luckily I managed to catch myself and traverse safely back. Somehow the traverse seems more difficult than it was on the way in. Dan de-rigs the ropes and James is once again in his element acting as ferry man. We have a small audience of visitors watching us come back over the lake and they ask where we have been. We recite our exciting trip to them. By the time we exit the visitor centre is filled with tourists. We get some strange looks traipsing through the visitor centre soaking wet in wetsuits and SRT gear, carrying a still inflated kayak!

Time to pay the boatman and (below) gour pools- Grotte de Gournier. Photos: Keri Smallwood.

Wednesday afternoon we talk a walk around Pont en Royans, a quaint village nestled in the Bourne gorge. We park on a layby next to a drop down the gorge where an old mining or mill house is built in to the side.
I'd love to get down there to explore but there was no way to get to it. Many of the cliffsides are rigged with ropes and bolts. Most of the buildings in the village are derelict and in a bad state of repair.

Old works in the gorge at Pont en Royanes. Photo: Keri Smallwood.

I wonder what happened here and why people were so desperate to flee leaving shops fully stocked many years ago. We find an open shop and stock upon beer and supplies for the evening.

Thursday 7 June - Chironne

The weather has been pretty good so far but Thursday turns out to be a bit wet. We go to Chironne for a day of via ferrata anyway.

We kit up and reach the first set of staples. Dan and Aaron have started climbing and I go next feeling very nervous. James hasn't got the right footwear to climb wet staples and I chicken out. We leave Dan and Aaron to make their way up the route while James and I walk up the path to meet the guys at the top. We meet them half way up and they say it's quite hairy in places and I'm glad I didn't do it. They proceed to the rest of the route and we climb the rest of the footpath to the summit. The air is very thin at the top and I feel quite light headed. We stop for some pictures and rest. Dan gets his drone out to get some aerial pictures but the cloud rolls in too fast to get a good picture. Much to my surprise I have mobile reception so send my family a picture saying hello from 3,500 metres above sea level!

We got back to camp to torrential rain. We pitched up a tarpaulin over our 3 tents likening it to a gypsy camp! We sat drinking beer and getting very merry for the rest of the evening as there wasn't much else to do!

Dan and Aaron on the Chironne via ferrata. Photo: Kerry Smallwood.

Friday 8 June - Scialet II des Chauts

The next morning James and I felt a bit worse for wear. Especially James having drank too much wine and beer and ate pasta which I dropped on the floor! (Did I mention the tent got flooded with muddy rain water the night before?!) We went in search of Scialet II des Chauts located in the hills of Font d'urle. Amongst the fields we came across and family of Marmots and shouted "Alan!" Anyone who has seen BBC's Walk on the Wild Side will get the joke! Dan had been there previously but couldn't remember the exact location. Once again it was another exploration trip for an hour or two. At last we found a depression in the landscape with a small hole with nesting Alpine Choughs. James was feeling like death so we sat this one out while Aaron and Dan descended down. While we were waiting we took a walk around the hills. I felt I was somewhere like the Scottish highlands with rolling hills, rocky landscape and small meadow flowers. James spotted a fence running along a distant ridge so we went to take a look. Reaching the top of the ridge the landscape opened up to a cliff and a spectacular view over a valley. We sat for some time in awe of the beauty. We headed back to the car after a couple of hours after it clouded over and torrential rain came. We waited for the guys for hours and started to worry if something had happened and if we should contact the French cave rescue. Around 6pm the boys emerged covered head to toe in mud looking exhausted. They fed back their story of a very muddy long cave full of tight relentless squeezes which eventually came to a huge chamber with an 80-metre pitch. They couldn't go any further because they didn't have enough rope.

The tiny spaces were not mentioned in any of the surveys or descriptions that Dan had read which apparently resembled the squeezes in Nutty Putty cave in Utah.

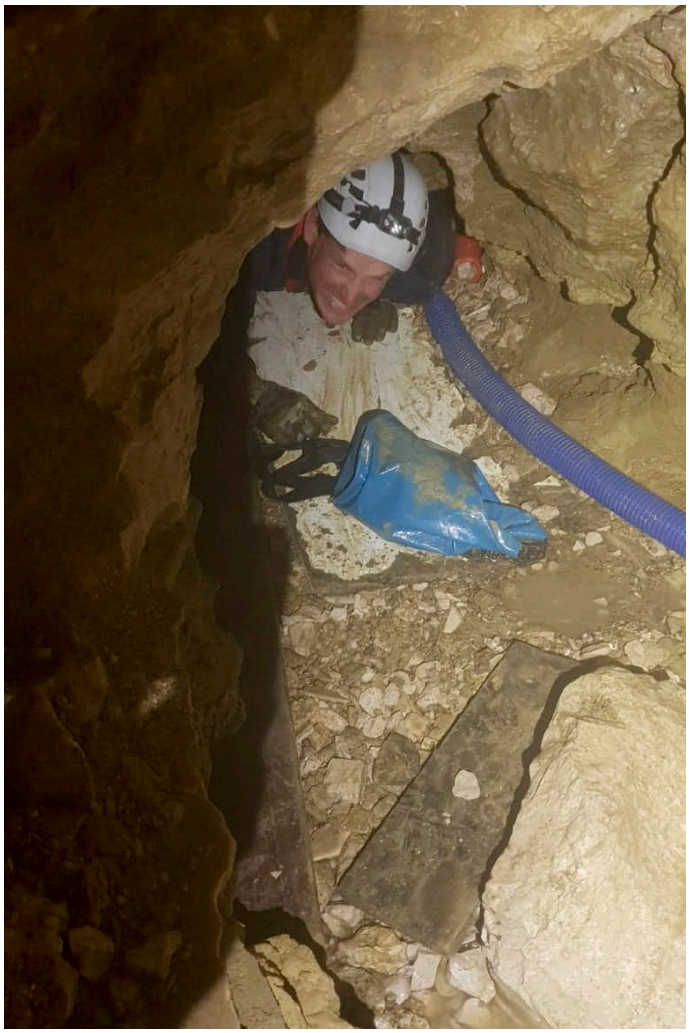
Saturday 9 June – Grotte Roche

Our last trip of the holiday is Grotte Roche in the Bourne Gorge. We started at the top of the cave above the road climbing down reaching a large open drop down with an awkward abseil. Dan rigged up then I followed getting stuck at the head of the pitch because I couldn't reach the Y hang. There was a free hanging traverse line and a small ledge to put your feet on.

I hadn't done much SRT at this point and didn't have the confidence to hang from my cowstails to reach the abseil, so Dan had to come back up and awkwardly wedge himself in between me and the Y-hang so I could thread in my Stop. I was terrified of falling off the pitch. After about 10 minutes of faffing I finally got down. We descended down a few more pitches and some crawls to emerge at river level. There was nothing special about the cave but it was a good small one to finish off the trip.

We headed home later feeling very sad to be leaving the beautiful Vercors, wishing we had more time and said that we must go back again and take 2 weeks next time.

Keri Smallwood.



James crawling through Grotte Roche. Photo:Keri Smallwood.

Ten Things Every Good Caver Should Do

Chris Binding - a member of the Association of Caving Instructors, shares this useful document compiled by members of the ACI in January 2016.

Falling off the end of a rope is serious, but even basic slip-ups such as getting hopelessly lost can have major consequences while caving and it's quite possible to make several simple mistakes on the same trip, but with appropriate preparation, skills and equipment they are all avoidable. Here are some good habits for cavers to have that can minimise the perils while also making for a great day's caving for you and your teamies...

1) Avoid overestimating the abilities of people in your team.

Or to put it another way, underestimating the challenge. Whether you're abseiling down a succession of rebelays and deviations, working your way through an unstable boulder ruckle or navigating a complex series of interconnecting passages, the rigours of caving can seriously mess with your energy levels and will not reward a rusty or inefficient technique. During winter months there's not much warmth either (see adequate insulation/clothing/equipment for the intended trip, below), so can your team really manage to complete your mission, or should you play it safe and head for the surface now? Start small and progressively build up to the biggies as everyone gets stronger, fitter and more experienced and raises their game. And always temper your ambitions with a hint of caution, including options in your route planning in case of flooding, fatigue or discovering a weak link after you've embarked on your trip which make the original objective unrealistic.

ACI

Association of Caving Instructors

www.caveinstructor.org.uk

2)Remember to take at least one spare light (and batteries).

Having spare batteries, which you've checked are fully charged beforehand, should be a no-brainer but if you get separated from your teamies and you need to effect a battery change, how are you going to do this in the dark? You'd feel pretty daft if you dropped or broke your only light, too. There's an obvious solution – always bring a backup lamp. Securing it to your helmet might not be the best plan as your chin strap could be undone and the whole caboodle might wash away or get dropped down a pitch, mid-ascent. Keep a good quality, totally reliable and fully charged and checked light around your neck if possible because if your main lamp flickers into oblivion mid-way through traversing a necky exposed ledge the last thing you'll be able to do is fumble around in the bottom of your tackle bag trying to locate a cheap spare which may barely provide a glimmer!

3) Leave a call out (and instructions how to act on it).

No-one is going to come and look for you if no-one knows you're missing in the first place; leaving a call out is fundamental for any caving trip, no matter how short or simple; a momentary slip resulting in an injury will have significant knock on effects – knowing a reliable third party is keeping tabs on your whereabouts is an essential backup for when things go wrong, and sooner or later they will. You'll also need to know how close you are to your call out time so always take a watch with you underground. Be sure someone is overseeing your call out, someone who knows how to initiate a rescue, and not just a vaguely jotted scrap of paper pinned to a noticeboard in an empty club hut, or an unacknowledged text message fired off from the surface where there might not even be good mobile phone coverage. When you really need it, can you rely on it? Sat shivering on a hostile cold ledge is not a place you'll want to contemplate this.

4) Have adequate insulation / clothing / equipment for the intended trip.

Everyone on the mission will need to be suitably equipped for the duration of the trip; cave photography can be notorious for assistants or models becoming cold so additional insulating garments should be brought; similarly deep water will require buoyancy aids and neoprene. Dress for the occasion and ensure all participants are sufficiently informed so they can prepare accordingly.

5)...And have some survival kit in the unlikely event of mishap.

Survival bag, first aid kit, dry clothing (balaclava/gloves), energy bars, drink, whistle, spare batteries perhaps even a small group shelter – just some of the things that ought to find their way into your back-up bag – OK, so you may never need them, but if you do.....

6) Cave sober (having a hangover is akin to still being drunk).

Does this really need mentioning? Anyone who considers, or encourages, engaging in a hazardous pursuit while under the influence or after-effects of alcohol is someone you're definitely better off avoiding.

7) Look after your gear.

Clean and stow your kit properly – no, it's not a badge of honour to have the skankiest kit in the group – keeping your equipment in prime condition does not rank you along with novices, it shows you have high standards and maintain them.

8) Eat a meal a couple of hours before the trip.

Caving needs calories and the demands of a trip, even a short one, should not be underestimated; your body needs to be adequately fueled for the journey ahead so a slow burn, high carbohydrate energy reserve is a good preparatory meal. While caving you can top up your calories with glucose or dextrose but this only provides a short term benefit and should not be a substitute for proper food.

9) Check the weather forecast/ground saturation and make wise decisions based on it.

Information Technology has made getting accurate weather forecasting right up to the moment of entering a cave easy – rainfall radar, wind direction, ground saturation, knowing of an incoming warm front which may melt surface ice/snow – all this means cavers are potentially better informed than ever. This information is available on most new generation mobile phones so there can be little excuse for getting caught in high water conditions - and if the terrain includes a streamway, be aware that moving water is already dangerously powerful if it's half way up your legs.

10) Be flexible and always have a Plan B for poor weather or a weaker-than-anticipated group.

Be prepared and ready to move on from Plan A when the alarm bells are ringing for anyone capable of recognising the risks to Plan B (or even C!). Having a fixed objective mindset can be a breeding ground for mini epics, and even full blown ones; if things aren't going well, alter your plan – the cave will always be there so if things start to unravel quit while you're winning and come back another day.

And finally,.... *always always always* have knots on the ends of your rigging ropes *before* they go in the tackle bag! (*]:-)

Thanks to Chris for sharing that article- which can be thought-of as a simple, 10-point *pre-flight* checklist for a trip. For a given trip on a given day you may not answer "yes" to every one of the checklist challenges, in which case ask yourself the follow-up question: am I happy to proceed with the compromise from *not complying with this item...*? If in all honesty you cannot answer *yes*...should you even open the lid on the cave? And if you <u>do</u> change your plan, inform your emergency contact if at all possible.

Kev stoops carefully to avoid the pretties on the entry to Funnel Chamber- hacksaw at the ready. Photo: Andrew Horeckyj

Upper Flood - Maintenance

A working trip to Funnel Chamber.

Kevin Speight and Andrew Horeckyj

A conservation assessment trip to the more rarely-travelled parts of Neverland last year, identified one item requiring attention - the ladder at *Curtain Climb* was deteriorating badly and needed replacing if it was going to be retained as an aid to the further reaches. The same trip noted that Biff's stainless ladder with its stainless fitments on the more challenging ascent into *Far Chamber,* was essentially as immaculate and shiny as the day it was installed - notes were made to acquire some of the same stuff.

Fast-forward a year - and as a fitting legacy to the man- Bill Chadwick recovered from Biff's extensive workshop supplies a length of similar ladder, which when fitted with a short section of stainless chain spreader and maillon, was going to do the job just nicely.

Kev Speight messaged me (*the editor*), to see if I was free in the week after the October members' weekend, for a trip to *South Passage*- to poke-around at the sump following this extremely dry summer. Of course, I replied, but thought we might as well use the time to do something useful like replace the ladder, rather than just spend a day crawling to peer into an impenetrable pool of sludge: two achievable targets for the sortie.

Kev takes up the narrative -

Whilst cycling continues to dominate my life, I am and always will be a caver. A fact recently reinforced on a family holiday in Majorca, when I managed to squeeze in a day of riding over the Serra de Tramuntana mountains.

Here, spectacular karst scenery abounds and I almost came a cropper a few times whilst daydreaming about the cave systems beneath my tyres.

Back in Blighty, I evicted the spiders from my caving kit and created a window of opportunity to have a stomp around Longwood Swallet. Despite the very dry summer we've enjoyed, I was still astonished at how little water there was in the cave; barely a drip until reaching the main Streamway. Despite the odd atmosphere arising from such conditions, I thoroughly enjoyed using muscles that had lain partially dormant for some time.

A couple of weeks later, a sterner test was in order as our venerable Editor and I arranged to meet to install the new Stainless Steel ladder (good old Biff, his legacy shines on!) on curtain climb in Neverland. If time permitted, we thought we might also have a mooch around in South Passage to see if the sump had dried up and possibly have a poke around elsewhere too.

Equipped with a junior hacksaw, in case the old maillon proved to be too stubborn to undo, plus Andy's quickfire GoPro setup to record the occasion, we set out. There is an intangible point on the walk to the cave where, if you realise you've forgotten a piece of kit, it would be a proper pain in the arse to have to return to get it. It was at this whimsical location that I realised that I'd forgotten my elbow pads. Elbows, who needs 'em anyway?

Kev sets to work on the rusty maillon at the top of the climb. Photo: Andrew Horeckyj

Despite vulnerable elbows, good progress was enjoyed, with me getting re-acquainted with the cave and catching up on the caving 'goss' from Andy. Having once spent a summer doing shuttle runs to South Passage with bags of cement, the burden wasn't too bad, although it is clear that cycling does very little to enhance upper body strength. Once at our primary objective, we carefully blocked off the funnel at the bottom of the curtain with a tackle sack, to avoid any 'pingf*ckit' type incidents. I carefully ascended the crumbly old electron ladder, followed by Andy and we set ourselves up for a short piece to camera before attacking the maillon with the hacksaw.

With hindsight, we probably ought to have attempted to undo it conventionally *before* getting ¾ of the way through with the hacksaw, because despite appearances, it unscrewed with relative ease. You live and learn I suppose. (will I learn though? Ever?) Another piece to camera for posterity after affixing the shiny new ladder in place and we withdrew to retrieve our oversuits.

As befits tradition, a modest repast was enjoyed at Royal Icing before plunging into the execrable bowels of South Passage. We used Tom Harrison's squalid bypass to the high level thrutch tube. This still held a good amount of water despite the lack of recent rain so we were properly baptised on the way in. South Passage has a strange draw to me. I can't help but look at the fossil streamway and wonder where all that water went. So far, attempts to pass the sump have only resulted in one person, Mike Waterworth, actually getting through. Mike reported that his progress didn't totally kill the prospect, but that there is still plenty of slop to shift on the other side. Given that getting one person through involved countless man hours and the construction of a concrete dam, plus pumping gear, it does rather seem that we may be close to officially calling time on it soon. From a personal perspective, that will be a tough call to make, given the massive effort to get this far! (Christmas members' weekend for a last hurrah, anyone?)

As expected, the sump was indeed low, which enabled us to extract a few useful digging tools. We debated on whether to use the first pump to empty it into the dam, but decided against it as time was not with us and even a modest volume of water takes a big effort to shift. Appropriately filthy, we turned for home.

Our exit was steady and I was now beginning to feel the exertion take a toll, despite the considerably lighter load of the old electron ladder. Andy's excellent company helped keep the spirits up and, as ever, the obstacles trickled away to eventually deposit us on the surface after a thoroughly satisfying 6 hour trip.

Kev Speight.

Kev looks- longingly- through the low sludge and water-filled passageway...towards who knows what treasures. Photo: Andrew Horeckyj

The editor attempts some sort of justification for all this - straight to camera...but no-one's buying it.
Photo: Kev Speight.

We've Found It! Charnel Shaft Rediscovered!

I can't believe it actually is Charnel Shaft. A brief history of the search and the story of the rediscovery.

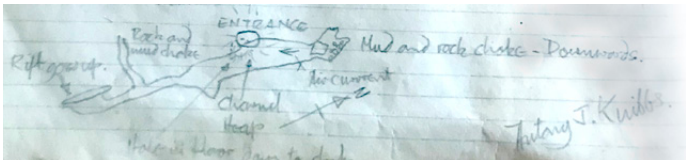
Tom Harrison

The Mendip caving group have long held an interest in the Charterhouse and Ubley Rakes areas. From caving, camping and walking in the locale in the fifties and sixties; to the great flood of 1968 and the opening of Upper, Middle and Lower Flood swallet entrances; to the biggest MCG break-through in 2006 at Upper Flood. The club's various homes have always been located nearby so it is an obvious place for exploration.

Many an MCG member has scoured the Rakes looking for a new hole to explore. In the cold, snowy winter (*image opposite*) of 1962-3, on the 24th of February 1963 Tony Knibbs, Pauline Knibbs, Ann Gibb and Geoff Davies, set out over the Gruffy ground to look for blow holes in the snow. The comparatively warm air in cavities underground often leads to areas where snow doesn't settle as deeply or is melted by that air escaping. On this trip the explorers found such a hole and opened it up to find a shaft. The somewhat sparse logbook entry records the descent of 40 feet, into a high rift N-S aligned passage. There were animal carcasses littering the bottom of the shaft hence the name "Charnel." A sketch-plan of the shaft appears with the logbook entry (*image right*).

Tom Harrison, Tim Francis and Peat Bennett prepare to ascend the ladder after a visit to the newly rediscovered Charnel Shaft. Photo: Andrew Horeckyj.

Deep snow on the Rakes in the early part of 1963- prompted the search for blow-holes of warm air rising from below. Photo: MCG archive.



The shaft was subsequently lost, as the explorers were unable to find it again in the densely pitted surrounds and with little visual reference with the deep snow on the finding trip. Many have gone looking for Charnel over the years, the description including an air current felt emanating from the floor and the possibility of finding new cave.

One of the subsequent search efforts to relocate Charnel Shaft. Photo: MCG archive.

The 1963 winter was especially unusual for the length of time that deep snow was on the ground, and that possibly helped to define Charnel and other blowholes more clearly.

In the 1982 MCG Journal, Tony Knibbs added to the story with a more comprehensive recorded description, a Grade 1 survey (*following pages*) and a grid reference. He described digging through rock and ironwork, before returning with ladder and crowbars to belay from. After exploration, the hole was covered again with the fence posts, a section of oil drum, iron, wire and rocks.

In 2005 while on one of his walks over the area, Tony recognised a depression as being Charnel Shaft and recorded it in the logbook leaving a pile of stones to mark its location. A group of MCG members including Martin and Yvonne Rowe, Tim Francis and Mick Norton opened this hole and it was proclaimed to be Charnel in MCG News issue 332 (*photo top right*). Unfortunately, further exploration revealed it to be of much smaller dimensions than Charnel and it was named, 'I Can't Believe it's Not Charnel' or 'ICBINC' for short, in homage to a well-known butter substitute product heavily advertised at the time!

Having held a keen interest in the Rakes and with my research into Stainsby's Shaft and the Mendip Hills Mining Company, I have regularly chatted-to and corresponded with Robin Taviner, co-author of 'Mendip Underground 5', about them. Tav has spent the last ten years writing and researching 'Somerset Underground', a four-volume publication covering practically every conceivable subterranean site in Somerset. (Volumes 1 and 2 should be available later this year/early 2020). He was kind enough to share with me the section covering the rakes and mentioned that he could find no record that 2 of the known shafts had ever been descended. One of these shafts is listed simply as MCG-20. This was first noted in Andrew Goddard's unpublished dissertation, "The impact of historic lead-zinc mining on the environment around Charterhouse-on-Mendip, Somerset." Written in 1995, this contained a detailed survey of the rakes noting all the gated and ungated shafts that he found

Tim Francis, Mick Norton and Yvonne Rowe can't believe it's not Charnel. Photo: Martin Rowe.

during a 3-day survey, conducted in September 1993.

I have been discussing the possibility of exploring this shaft with Mike Moxon for a couple of years and had visited the site on a few occasions to try to ascertain how best to undertake this. I thought that surely such an obvious gated shaft must have been explored and would have nothing of consequence to offer. Nevertheless, we felt it important to at least check it out and record the dimensions.

On Friday 5th April 2019, Mike and I went to see if we could remove the rusted lock and assess the length of ladder we would need using a Disto laser measurer, which indicated a 10m drop below. Later in the evening, a small team consisting of Mike, Miranda Litchfield and Kay Matthews headed out of the cottage and across the Rakes to take a look and find out if there was anything of note under the metal grill.

Tom Harrison and Mike Moxon rig the ladder and line for the first re-visit for 56 years. Photo: Miranda Litchfield

The ladder was lowered, and Mike set up a belay point, (*photo above*). I descended first past a beautifully ginged rectangular shaft collar. The ginging has a lovely green hue to it from the moss and lichen. As I descended deeper, I could see that this collar was built on large boulders wedged in the rift about halfway down. Below these boulders the shaft enters a widening rift which was belling out beneath me with a 1.5m tall debris cone about 1m below the end of the ladder, giving a total descent of 12.5m approximately. The distance between the footwall I'd descended against and the

The beautifully-lined entrance to the shaft, viewed through the hatch. Photo: Andrew Horeckyj.

hanging wall was some 3 m across at floor level, but most impressively the rift was over 10m from end to end with obvious ways on at each! I shouted up excitedly to report this and waited for Miranda to descend so we could properly explore. While waiting I spotted a number of large bones, clearly modern and probably bovine, and inspected the barrels and drums dumped down here.

With Miranda now joining me and after a couple of measurements and photos,(*below*) we headed off to the North of the rift through an obvious hole. The hole is wet and muddy with a few bones in the floor. A few metres along passage there is a cross rift, with a cobble/gravel washed floor, this goes off to the East for 6m. The passage is clearly widened by the miners and reaches a mineralised calcite vein 10-15cm in width. In the floor beneath this vein the rift is open but only 20cm wide. I crouched to measure down it and could feel a draught coming out. The Disto read 3m but may have been inaccurate due to the position from which I was taking the measurement. Further on in the main passage and a small climb up leads into a more open rift with a ceiling 4/5 m above the entry point. There is a slope in front and one behind you above the point of entry. Climbing up behind us, Miranda spotted large finger-sized crinoid fossils *(image overleaf)* in the roof, along with another fossil slightly larger and one which I didn't recognise. Back down this slope and further to the North, another climb, this time a little bit more difficult and over loose boulders led to a choked end to the passage, with the ceiling breaking down and collapsed with rock and loose soil infill ahead.

Back in the main entrance rift, we found dog-tooth crystal pockets and another vein we hadn't seen before. The final task was to head South. This closes down quickly only a few metres away from the bottom of the ladder, but there is a rabbit trap pit here and at least five sets of their bones at what appears to be the lowest point of the enterable passage. There are a lot of deads here, mining spoil, behind which there could be a further way on. Thoroughly impressed with this discovery, I started to realise that I'd seen a similar shaped mine survey like this before. This was *Charnel Shaft!*

We decided to head out to tell the others about it, but not before finding a mobile phone on the debris pile. Clearly someone wanted a good photo down the shaft but didn't have *quite* as good a grip as they needed.

Miranda Litchfield at the base of the enrance shaft- note the small crawl-through to the Northern extent of the exposed passageway. Photo: Tom Harrison.

The fossils on this part of the roof are somewhat obscured with flowstone deposits, making identificaton more difficult. Photo: Tom Harrison.

As soon as I was out and we were derigging, Mike said what I'd been thinking: we'd rediscovered Charnel! Back at the cottage Mike figured-out that we were 350m away from the grid reference. We are a good distance South of South Passage in Upper Flood and nowhere near UF's Charnel Passage and Inlet. We took a good look at Tony's survey of the shaft (*below*), drawn from his 1963 recollections and published for the 1st time in the 1982 journal. We also looked up the original log entry.

Sunday 7th April, we returned with a bigger party. Mike Moxon wanted to descend to see the find, and Andrew Horeckyj, Tim Francis, Peat Bennet and Bill Chadwick joined us underground, with Brian Snell on the surface - along to see its location, having searched for it in the past.

I was last to descend this time and noticed a higher-level part of the rift heading South, that appeared to go on past the blockage at a lower level. Pete, Bill, Mike and Tim had already gone off to check out the Northern part of the rift, so while Andrew set-up the camera for some pictures, I clawed at the debris cone. I wanted to find the downward continuation of the shaft which was marked on the survey I'd studied on Friday night. It was there, heading under the footwall but will need digging to see if it continues for any length.

A fence post also impedes easy progress here, perhaps one of the posts used to close the shaft back in 1963.

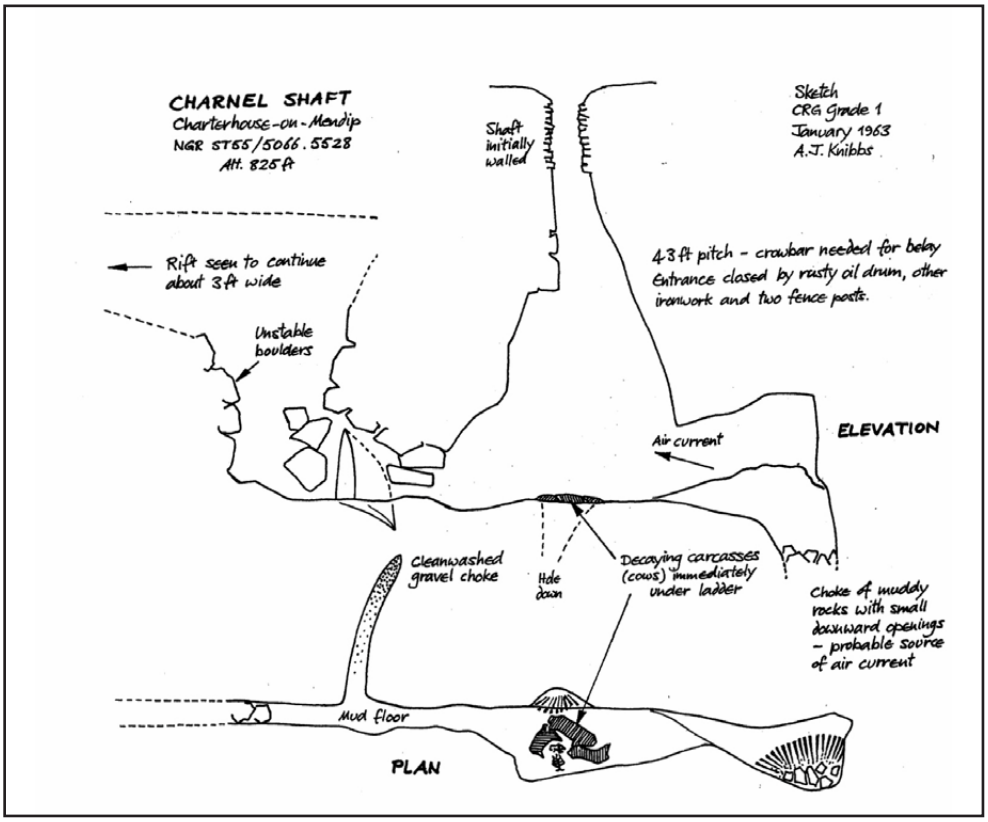
I then went South again and climbed up higher this time to find a way on and another few metres that are not on the original survey. A small gap between a very large boulder and the wall was a little too snug for me at the 1st attempt, so Tim was employed to carry-on through this gap and on under another boulder. He could see the Eastern rift wall here, but progress would be dangerous without engineering, and a bit of digging, so it will wait for another day.

The others agreed that there wasn't a noticeable draft south of shaft but that there was in the side passage off from the northern part of the rift. Magic smoke sprayed near the hole here seemed to be sucked-away. Shot-holes line the wall of this passage, which suggests that it was one of the later 18th or 19th Century mines, at least in its later life.

More photos were taken and most importantly we all agreed that this is the lost Charnel Shaft. A proper survey will be drawn up shortly and - with permission, we might look to undertake a few digs here to see if we can locate the air current noticed by Tony and Geoff, and to follow the draught in the cross rift.

It's only taken 56 years to find it again!

To quote Mike Moxon, *"hidden in plain sight this whole time!"*



Tony Knibbs 1982-published survey of Charnel Shaft.

Tom Harrison emerges from the narrow crawl at the Northern end of the main rift, after investigating air movements with a can of 'magic smoke'. Photo: Andrew Horeckyj.

Miranda Litchfield (right) points-out a coarsely-crystalline mineralised vein. Photo: Tom Harrison.

Bill Chadwick (above) atop the "detritus of decades"- note the oil drums in the foreground and the darker nature of this organic debris when compared to the brown mining material. The pit -with fence post and unknown extent (mid-right) that will wait for further investigation.

This small pit (lower right), floored- with rocks, will also warrant further visits- reckoned to be the probable source of draughting air in Tony Knibbs' original survey. Here Peat Bennett is framed in the opening, after clambering up a short rift. (Photos: Andrew Horeckyj.)

The Cheddar Catchment Survey (and Upper Flood Swallet)

How to access, download, and compile the Cheddar Catchment survey, for beginners.

Ben Cooper has written this short history and introductory guide, to allow anyone to access the wealth of survey information on the caves of the Cheddar Catchment.

An Eventful few years

The breakthrough in Upper Flood Swallet happened on Sunday 10th September 2006 when Tim Francis and Julie Hesketh broke into the Departure Lounge and found what proved to be nearly 4km of big open passage. This discovery of big passage in the Cheddar catchment area inspired other clubs to revisit old digs and in 2009, the Wessex made a similarly big discovery in Charterhouse Cave. The Charterhouse surveyors were keen to understand how the unfolding cave related to the caves around and over the Christmas holidays of 2010, Andrew Atkinson (UBSS and CUCC) pulled together a number of different surveys in and around Charterhouse to answer that question. He reached out to me and Mike Richardson in January 2011 to explain his idea and invite us to contribute our emerging survey of Upper Flood Swallet to the project.

Andrew wrote: "*The MCG was also working hard in Upper Flood and, like us, was very willing to share data.*"

A critical aspect of the project was our willingness to publish the original survey data. Historically this has been a contentious issue across the UK; cave surveyors have been very happy to publish (or even sell) paper (or more recently PDF) copies of drawn-up surveys, but underlying survey data was rarely ever published, or has been jealously guarded as some big secret. This behaviour is to some extent understandable: surveying caves is an arduous and time consuming business both in the cave taking the measurements and on the surface processing the data and drawing the maps. The data is indeed a treasure, revealing the secrets of dig sites and possible connections that would otherwise never be discovered.

In this modern world of digital data and information sharing, the old behaviours are giving way to new attitudes. As a surveyor in the 21st century, I have been frustrated by the lack of available published data of old caves. As new discoveries are made, there is no baseline to add them onto, leaving the current generation of explorers faced with the daunting task of resurveying large existing systems. So a critical success factor that Andrew addressed in the Cheddar Catchment project was to persuade everyone to publish their data using a Creative Commons Attribution Non-Commercial Share Alike licence. This means that the data is available for you to use. Provided you comply with the terms of the licence, you do not need to seek further permission from the original authors to use the data.

What is available in the Cheddar Catchment survey?

The Cheddar Catchment survey is available on the Cave Registry website [1]. The main output of the Cheddar Catchment project is a three-dimensional model that can be viewed on a computer using Survex, which I will describe below. A Therion Loch version is also available. The Survex model displays a three-dimensional centreline; the Loch model displays a three-dimensional "solid" cave outline. This outline is indicative of the wall positions captured in the survey data, and while this is not high resolution like a laser scan, it does give some idea of the relative sizes of different passages and how passages relate to each other. Links to both models can be found on the Cheddar Catchment website.

More interesting for surveyors, the underlying dataset is also available, comprising over 6000 files and 250 Mbytes of data. It is publicly accessible and can be viewed on the website or downloaded in its entirety. Once downloaded, the entire catchment or the individual cave surveys can be recompiled, not only in Survex or Loch format, but depending on what has been made available by the surveyors, also as two-dimensional map or elevation drawings – the traditional surveys that most of us are used to. It is certainly true for Upper Flood Swallet, and I think also true of Charterhouse Cave and indeed most of the modern surveys available there, that the Cheddar Catchment is in fact the "master" repository for each cave's survey: every data file, every piece of survey data, is available on the Cheddar Catchment repository.

How to download and view the models

To view the Survex or Loch models you must first download and install Survex and/or Therion. The installation process is very straightforward; just follow the on-screen prompts. Download Therion from its website [2], and install it; then download Survex from its website [3] and install it. The programs should be automatically associated with the data files, so once the software is installed, you should be able to view the models downloaded from the Cave Registry just by clicking on the files.

How to download and compile the surveys

You do not need to be a computer wizard or an expert in cave surveying software to download the entire Cheddar Catchment dataset and compile the surveys yourself; the steps to do it are relatively straightforward and are explained below. The data is available for download by anyone and no credentials are required.

The files are actually stored in what IT professionals call a code repository. This is a management system designed for software developers to manage computer source code, and it is well suited to holding the text files containing survey data. The repository used is *Apache SVN*. To download all (or some of) the files, you must first install an SVN client. There are a number of SVN clients available; personally I use *TortoiseSVN*, which is very easy to use.

To use TortoiseSVN, download and install the software from the TortoiseSVN website [4]. Since I use Windows, I will explain how to use SVN on Windows computers. Once it is installed, open the Windows file Explorer, and create a new directory called CheddarCatchment (you may call it whatever you like). Right click the new folder, and notice that you now have a new command called "SVN Checkout…" in the mouse menu. Click on "SVNChekout…", which will open a dialogue inviting you to enter a URL. Type in (or cut and paste) the following:

http://cave-registry.org.uk/svn/CheddarCatchment/.

Click on OK, and SVN should immediately start to download the entire project. There are 6000 files totalling about 250 MB, so this may take a little while to complete depending on your Internet speed.

If you haven't already done so, you will need to install both Therion and Survex, as described above.

To run Therion, open Start Menu->All Programs->Therion->Xtherion. It is the program with a "bat" icon that looks a little bit like a scary "W". By default, XTherion opens into its compiler window, but if not, you can navigate to this window by pressing "F3". From here you need to open the file "thconfig" that sits under the Cheddar Catchment folder you have just created above. Select File->Open, browse to your CheddarCatchment folder, type "thconfig" (or click on it in the file browser), and click Open. The file contents should appear in the window.

Now, this is where things may be slightly unpredictable. The thconfig file is often edited to make changes to which caves are selected, or which type of output is produced. I have now set this to compile the whole catchment and produce a 3d file, but I can't guarantee that it will remain like that by the time you read this article. My update is revision 389, which you can download explicitly from File Explorer, by highlighting the thconfig file, right mouse click->TortoiseSVN-> Update to revision…->Revision->389->OK. Alternatively you can edit the file to add or remove comments ("#" characters) to disable or enable each line, and indeed this is how you would select specific caves to be included in the output if you wanted to compile only a subset.

Go back to Xtherion, re-open the thconfig file as above if required, and press F9 to start the compiler.

Almost immediately the compilation will fail. Read the message carefully: it will identify that a particular "3d" file is missing. From memory I think it will be GB. Using the File Explorer, navigate to the sub-folder indicated, and look for a file ending with the suffix ".svx". Double click this; because you have installed Survex, it should automatically compile the survex file to produce a 3d file together with an err file, which should both appear in your File Explorer window.

Go back to Xtherion and press F9 again. Once again you may find that it fails quickly, complaining that another 3d file is missing. Repeat the process for the missing file. You may need to repeat this process a further two times. I think in total you need to create 3d files for GB, RRIFT and ManorFarm. Once these are done, pressing F9 in Xtherion should result in a much longer compilation time, the end of which should result in an amber "WARNING" message displayed at the right of the Xtherion screen. Congratulations, you have just compiled the Cheddar Catchment survey!

To view the fruits of you labour, using your file explorer, navigate to … and double click the file called …3d. It will open the survey 'cavern' file and display the 3d model on your screen.

What is a cave survey?

I was asked the other day what is a cave survey, and I realised that those of you new to caving may wonder how caves are surveyed and how cave maps are produced. The purpose of this article is not to provide guidance on conducting a cave survey, but to provide some background to help understand what a cave survey is.

Cave surveys are what are called traverse surveys, created using a compass, a clinometer and a tape measure. A traverse survey is basically a linear survey where each leg of the survey extends from the end of the previous leg. Each measurement is effectively a three-dimensional relative polar co-ordinate, comprising a length, a horizontal angle, and a vertical angle. In contrast, triangulation, which was traditionally used in large-scale surface mapping projects, is based on accurately measuring the angles of triangles against a known baseline length. Traverse surveys can be inaccurate because any error in the measurements is compounded and increases with each additional leg. However, because cave surveys are measured against two static references (the Earth's magnetic field and gravity), they have the slightly intriguing property that they can become more accurate as more legs are recorded! Further accuracy can be achieved by measuring each leg in both directions (called "back sighting"), and where possible by "closing loops", which is usually where a circular route exists in the cave. When surveying around the circular route, you of course end up back where you started.
Because of the error in the survey, the survey shows the end

of the loop in a slightly different place to its start, which is clearly an error; this difference is known as the loop closure error. The loop closure error is expressed as a percentage, and is the ratio of the closure distance over the linear length of the loop traverse. Modern surveys can achieve loop closure errors of 0.5% (0.5m in 100m) or better though 3% is not uncommon if the conditions are tough. Usually the error is distributed across the whole loop using a mathematical technique called least squares, and luckily for all of us, the number-crunching is all done by the software. In a linear passage without circular routes, it is possible to create a loop by surveying first down and then back up the passage. This is rarely done as it is very time consuming and usually we are not too worried about the exact location of the end of the cave. Alternatively, if we have access to historical data sets, we can compare multiple surveys of the same passage using the same 'loop closure' techniques to produce what is hopefully a more accurate result than any single survey on its own.

Up until very recent years (2009), all cave surveys were produced using a magnetic sighting compass, sighting clinometer, and fibreglass tape measure. The loop closure error produced by this approach is about 1% in good conditions (eg see my article in CP26 [5]) though I have heard credible claims of 0.5% achieved in Ogof Draenen [6]. However, in steep caves, where it is very hard to measure the horizontal angle as the cave is dipping very steeply up or down, or in constricted passages where it can be difficult to properly sight the compass and clinometer, the error can be much worse; 5% to 10% is not unusual.

Then, in 2009, the first fully electronic cave surveying instruments became widely available, thanks to Lancashire GP and electronic hobbyist Phil Underwood [7]. Usefully, these incorporate a laser pointer making "sighting" the instrument significantly easier, especially in constricted passages. The latest incarnation is the Disto X2 [8] by the Swiss Beat Heeb, which incorporates electronic compass, clino, laser range finder, non-volatile memory, and Bluetooth connectivity, all in a single package. Because of the physical ease of taking measurements, the accuracy of the Disto X2 is significantly improved compared to sighting instruments, and unlike the sighting compass, its accuracy remains constant irrespective of the dip. Data is collected directly to a PDA within the cave via Bluetooth, where the Surveyor accurately sketches the cave over the scaled survey line, which further improves accuracy of the drawn map, as well as helping the surveyor to spot mistakes straightaway which can then be rectified while still in the cave. A further technique used with the Disto is to take each measurement three times (rotating the Disto between each one), which further helps to improve accuracy (the measurement used is the average of all three), as well as to detect errors (the three measurements are repeated until the difference between them is in within an acceptable range, typically 1-degree). Back on the surface, the cave is carefully drawn over the sketch using the software package called Therion. There are other cave drawing packages available, but Therion is the dominant one in Europe, and has the unique capability of being able to morph the drawn survey to accommodate changes in the centreline (usually improvements in its accuracy) resulting from additional survey data and closing previously unclosed loops. Therion retains all the numeric survey data in easy to access text files. Even the drawings are saved as vector graphic data in numerical text files, hopefully addressing the issue of longevity of electronic file formats. To create the three-dimensional model or two-dimensional maps from the data, these text files are processed (compiled) by the Therion software as described above. These can be output in a variety of formats for viewing and printing or processing in other applications.
The raw survey data is held in the files with the suffix ".th", the vector graphic drawings in files with suffix ".th2". Conversely, the (usually older) data held in Survex format files has a suffix ".svx". Although the .th files and the .svx files have a slightly different layout, they actually hold the same type of data, and indeed, Therion even uses Survex to process the data to produce the 3d output file.

To learn more about cave surveying, the BCRA has published its introductory book Cave Surveying [9] by Anthony Day in its cave studies series. The BCRA's Cave Surveying Group [10] also occasionally run training courses, especially focussing on modern electronic cave surveying techniques.

[1] The Cheddar Catchment project http://cave-registry.org.uk/cheddarcatchment

[2] Therion download https://therion.speleo.sk/download.php

[3] Survex download http://survex.com/download.html

[4] Tortoise SVN download https://tortoisesvn.net/downloads.html

[5] Cooper, B, Assessment of Aggregated Survey Error, Compass Points 26 CSG Spring Field Meet, Compass Trial, and Cooper, B, Addenda – Estimating Instrument Errors from the "Blundered Loops Graph" http://www.chaos.org.uk/survex/cp/CP26/CP26.doc

[6] John Stevens, Ogof Draenen Grade 5 survey, unpublished.

[7] Phil Underwood, Shetland Attack Pony http://www.shetlandattackpony.co.uk/

[8] Beat Heeb, Disto X2 https://paperless.bheeb.ch/

[9] Anthony Day, BCRA Cave Study Series #11, Cave Surveying http://bcra.org.uk/pub/cs/index.html?j=11

[10] Cave Surveying Group http://bcra.org.uk/sig/index.html#csg and http://cavesurveying.org.uk/

Digging Round-Up

The MCG membership is active in a number of digs - in the first (*of what the editor hopes to be a regular column*), we hear from a few projects that are hoping to be...going-places.

Pearls of Wisdom

Pearl mine update March 2019 - Tom Harrison

Sandford Hill continues to interest MCG members and work carries on to explore and try to find more passages and maybe even the connection between the top and bottom of the hill via Sandford Levvy.

At the March members weekend some of the usual suspects, Mike Moxon, Martin Cross, Bill Chadwick, Mike Richardson and myself, convened to head to the hill to continue with work on clearing the main shaft. Russ Porter and Lisa Gibson were at the cottage looking for a trip and were talked into joining the digging team so that they could be shown around the delights and wonders of Pearl Mine.

We all met up at the ski centre where we proceeded to the top of the hill to change and devise a plan for the day. Although, some of our time has been spent at different points of interest on Sandford, such as destroying the boulder blocking Fern mine and also starting work on clearing the 120 foot shaft in Savile Row, the major focus is still very much Pearl Mine. Work is prioritised on clearing the main shaft of its contents. Last year this plug of mud, rock and detritus dropped and slumped down, to block the connection between Pearl lower east and Pearl lower west. This has revealed a Ginged shaft walling, of a few metres height, before the now lowered blockage.

After, rigging the ladder and lifeline, I descended, followed by Lisa, Russ, Bill and Mike R, with the intention to return to the shaft after a quick tour, to start the days hauling. We entered The Unexpected level via pension pot (as this is the only way into the rest of pearl West at this time) and gave the new visitors tour of this wonderful find. Russ and Lisa seemed particularly impressed with Biff's rift and enjoyed the challenge of fingers traverse (*image below, left*).

While here in Biff's rift, we decided to check out the digging potential for a way on from this open passage. The first point we looked at was the breakdown, blocked, most western Point in Pearl. Here it appears the miners stopped with the passage meeting a cross rift, and little sign of mining activity. It seems to be all, or at least mostly, natural passage at this point. We had with us a scaffold pole, with the intention of poking at the blockage from a distance, but this far fetched idea was abandoned on realising that this would still be a difficult/ dangerous undertaking, due to the position the 'poker' would have to take up. Someone with a different method of defeating obstructions may well be required.

Instead we had a furtle to the south where a cross rift can be followed, under a dangerous looking boulder for 2/3 m before it closes down, with admittedly hard to dig, potential, turning right and to the west at this point. We also poked around to the North in the cross rift, where a small, possible shot hole can be seen. All of this needs coming back to when the main shaft clearance work is completed.

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Lisa Gibson negotiating 'Fingers Traverse' (left) and Mike Richardson climbing up a scaffold pole to try to get a better view of passageways (below). Photos: Tom Harrison.

Back into Biff's rift we looked at the different shafts in here that go up into the roof. Mike R re-employed the scaffold bar to use to climb up to get a better look at these shafts but the point he climbed offered no better a vantage point and he couldn't progress higher. (*image on previous page*).

One thing that is visible from the floor of the rift, are what appear to be candle smoke marks on the ceiling, at an estimated 7-10 m up. (*image right-below*). It will be interesting to get this area climbed to take a closer look and see if there is a way on here, that isn't a blocked shaft to the surface.

From here the explorers, headed back to Pension Pot, where we left Mike R and continued the tour. Dropping down the slope, which gives access to lower West, we took a look where the connection between East and West used to be. (*image right-top)* This connection is completely impossible now. We took a quick look at the pearls then returned up pension pot back to the laddered main shaft. The four of us descended the ladder where it is just about possible, with care, to enter lower east past the slumped blockage.

We headed along lower East and Bill took Lisa and Russ to Broadside, to admire the dried crystal pool and stal.

I stopped at one of the lower points in Lower East, where there are signs that the miners were digging at a lower level. At this point there is a large shot hole with a flat circular plate sized shape on one wall, cut or worn into the rock. This appears to be a hauling point. In Upper East where another of these potential hauling points can be seen, there is a drop of at least a few metres, so it would be worth investigating further here, when the other jobs are complete.

Bill Chadwick indicating the slumped slurry of material blocking access between East and West levels (above) and apparent soot-marks on the ceiling of a yet-to-be explored region. (below) Photos: Tom Harrison

Lisa, Russ and Bill returned and we went back to the main shaft. During all this time, Mike and Martin had been to look at Fern, deciding a ladder was needed to safely look, and everyone decided to exit instead of starting a late hauling session. No new passage, no buckets hauled, but a fun exploratory trip instead!

Martin & Mike moved the fencing material across from Pearl to Fern Mine (this still needs erecting to expand the size of the enclosure) & noted one side of the ginging there has survived. We also provided tea to all those emerging from the depths after deciding the skips would be better having hosepipe protection added to the hauling ropes before use (scraping against the side of the shaft had too quickly worn through the lines last time).

Tom Harrison.

Looking down the main shaft at Pearl Mine. Photo: Tom Harrison.

Glorious Grebe

Exploration continues in the Perdition dig of Grebe Swallet.

The narrow rift at the end of the most recent open-passage breakthrough was made wider and excavated down into what became *The Pit of Despair* and this in turn gave-way to a short horizontal tube of some 3-4 metres - *A New Hope.* This seems to be opening-out into a rift parallel to the original but at a slight lateral-displacement from it, although it is early days yet in terms of proving its extent or direction.

Chris Binding and the editor are joined for a digging session by Miranda Litchfield and guests Ian Pammenter and Keith Biner from Cambridge Caving and Climbing Club, who were staying at the MCG and whose efforts helped to clear A New Hope.

It is interesting to reflect on the time-frame over which progress is made in this dig...it is slooow-going!

The Pit of Despair - August 3rd 2018.
Back in August 2018, the *Pit of Despair* looked like this- narrow rift/joints filled with sediment and semi-cemented re-deposited calcite material and a suggestion of wall...or is it a large collapsed roof-block wedge ahead? The cracks do converge on a sediment (*and persuasion-debris*) strewn floor...but it doesn't exactly scream 'promising'. But- we decide to dig the floor fill, to see what happens at this confluence of rifts.

Chris digging in The Pit- 10th September 2018 and the removed fill seems to be revealing a narrow tube, which we would eventually dig-down and prove to a solid limestone floor.

A New Hope - 26th November 2018
The tube was dug-out to a solid floor and extended some 3-4 metres before encountering an apparent rift parallel to the main Perdition heading- which is entirely consistent with a fault-controlled system...a series of parallel joints/cracks, slightly displaced from each other. The fill at the end (where the filming light is placed), was extracted to reveal a narrow filled-rift, with pendant roof blocks or wedges of rock, separated by clay-filled cracks. It was decided to investigate here in the hope of finding clear passageway. The spoil was allowed to back-fill *A New Hope* in this process, but no real success was made and navigation was restricted due to the spoil build-up.

The decision was taken that the spoil bank needed to be cleared completely, in order to visually observe the cross-section of the entire passage in order to assess its likely development and from that plan how we might proceed. This removal of the fill is the main rate-determining step of the whole dig- the material needs to be dragged in kibbles (cut-down 5-gallon plastic containers), all the way back to Sidcot chamber, which is quite a long way and an arduous either hands and knees or flat-out crawl, with an up-and-over 'table-top' jump...and a couple of pools, one of which has nearly sumped completely in a moderately wet period.

Looking up into the roof at the end of A New Hope- a mixture of blocks and filled-joints, with narrowing walls either side. The tools sit on a bank of fill in the passage. March 24th 2019.

The effort is made worse by the poor air quality- the Perdition branch has no perceptible fresh-air circulation, so a slightly raised CO_2 level is standard for the dig.

After clearing the spoil bank to the end of *A New Hope*, the lower portion of the rift ahead was investigated- this revealed a wall with re-deposited calcite fluting- with overhangs and a cut-back of nearly a foot, further fluting with an overhanging cut-back and a right-side wall that shelves-off and descends.

The editor in the exploratory pit at the endo f A New Hope, that was dug in a couple of sessions in order to define the width of the naturally sediment-filled passage. March 24th 2019.

All-in it seems to be a little under a metre wide and filled with un-cemented sediment. It just means that in order to explore it further, the bank of fill with the tools resting on it in the images above, will all need to come-out, in order to make it safe as a roof- we can't just burrow under it and hope that gravity elects to ignore it.

And that will be the ongoing effort for the near future.

Words and pictures, Andrew Horeckyj.

Lovely Ubley

Ubley Warren, a short walk from the cottage – Tim Francis

This little-known cave has been receiving a lot of attention from a small band of MCG diggers in the last few years. Normally, despite being remarkably close to Nordrach Cottage and a rather charming cave, it's one of those esoteric sites that lots of people never visit. We have actually been rummaging around in the drafting chokes of Ubley and Nettle since the early 1990s but the delights of more glamourous sites meant that digging here was always a very cursory affair despite a few small finds.

This year's AGM was enough to prompt nearly the entire committee to throw themselves down a concrete pipe- the tackle master is already down...and the editor would shortly follow. Photo: Andrew Horeckyj.

Renewed interest restarted in April 2009 when we were looking for something quick to do after the AGM and for several years the dig continued to be a post AGM project.

Plan A: The Little Girl's Room

In the furthest reaches of the choke a tiny trickle of water sinks in the floor of what became known as the Little Girl's Room in the 90s. But rather than in the floor our interest was focused on a flowstone lined tube in the roof which seemed to offer the prospect of a bypass over the top. Sporadic digging between 2009 and 2016 gradually widened the tube but it was hard going and extremely dispiriting.

The rock is really tough and brutal sessions of Hilti-ing didn't get us much further than a couple of body lengths. In May 2016 we pushed a GoPro down the tube on the end of some plastic rods. On reviewing the footage, we could clearly see that the tube stays small and goes on and on. So, from here it was obvious that a long project was in prospect and more persuasive methods were required.

A clutch of formations in a pretty little chamber that few folk ever venture to see. Photo: Andrew Horeckyj.

Plan B: Follow the draught

One of the intriguing things about Ubley Warren is the ever-present draught, clearly evidenced by the dry patches of wall all the way from the entrance, along Crinoid Crawl and into the choke. As enthusiasm for The Little Girl's Room waned we started to re-evaluate other possibilities. At the end of Crinoid Crawl is an area that was known to have taken a large amount of flood water in 1968. So that seemed a reasonable area to investigate. From May 2016 we began widening a rift which seemed to draught. A desperately tight squeeze was passed but the way on seemed to peter out in the choke. At the end of this wriggle a hole was connected to a tight crawl in the floor to create a mini round-trip. The water did seem to sink in the floor but digging under boulders was no fun and the draft took us back into a very nasty looking section. Eventually we decided that the crawl in the floor was the way to go so over several trips we cleared the whole thing out to its full dimensions. We then had a new face to go at. It did seem to draught but the ancient fill became harder and harder to dig as we progressed forward. So yet again we were starting to run out of options.

Plan C: Follow the water

In February 2018 Peat and I were striving to dig the impregnable end of *Plan B* when the cave started to get extremely drippy. Water started to pour in from the left and the dig started to flood. This was the first time I had ever seen anything that one could describe as a proper stream in Ubley Warren so it must have been quite a thunderstorm on top. The actual dig face remained dry but I was resorting to floating skips along the crawl to be hauled out. Not fun. On a chocolate break we went back upslope to see where the water was coming from. To our surprise a torrent of water was flowing away freely into a hole in the floor just a little further up the passage. In April 2018 we started to open up the hole where the water had sunk.

Tim Francis consigns another bucket-load to the spoil heap, from the 6-person chain of post-AGM diggers.
Photo: Andrew Horeckyj.

After many trips a nice chimney was excavated down through boulders and in most parts with one solid wall. Things got a bit sketchy when one large slab - which we had undermined – decided to lower itself down into the hole. So, we lost a few weekends putting in a decent amount of cement and stone walling to stabilise things. Surprisingly from this point the dig has followed a tube away from the main rift in the cave and it's gradually gaining depth. Oddly the tube is heading back towards the entrance area rather than continuing down rift. The good news is that we know that the water must have sunk somewhere in this area and the air remains incredibly fresh. The latter proved its worth on the post AGM trip of April 2019 when we had a record of eight diggers heaving out the spoil. Despite many hours of digging on this trip there was no sign of the air going stale. The sediment in the dig is generally dark in colour and layered which indicates that we are digging out stuff that has washed in from the surface rather than cave mud which has been deposited over eons like elsewhere. At present this tube is about five metres in length and reasonably roomy although its dimensions seem to be shrinking right at the end. We have other options back in the chimney and rift if the tube pinches out – that water must have gone somewhere.

Main protagonists: Peat Bennett, Ben Cooper, Tim Francis.

My Second (and Third) Through Trips on Mendip

An exploration on the *wilder side* of Wild Wookey, by Michael Perryman.

As I crossed Mendip to meet up with Chris Binding at Wookey Hole yesterday, I reviewed the innumerable benefits of being a regular member of his small digging team in Grebe Swallet, where a muddy, awkward passage named Perdition is inching towards, err, the unknown.

Chris, as many readers here will know, has been caves manager at Wookey Hole Caves for a couple of years, and early in 2017 kicked off their `Wild Wookey' experience, billed as an opportunity to `explore Wookey like never before', and as a `3 hour caving experience with professional instructors', featuring `abseiling, climbing, and crawling'.

As part of the Perdition `payback', Chris and Wild Wookey's lead instructor Becca Burne invited me over back in May 2017 to trial the adventure circuit. Leaving daylight along a simple bolted traverse which gives an opportunity for the party to practice their self-protection techniques under the watchful eye of the instructor, the route navigates a low and entertaining crawl and walking passage before emerging at the first stunning view point, a ledge 10 metres above Chamber 1. This provides a commanding view of this large cavern, and with the River Axe forming a wide lake subtly illuminated far below. The abseil down into Chamber 1, partly down the wall, is the first of a number of interesting technical challenges. Becca directed and checked my rigging, talked me through the process as if I were a total novice, and provided a top safety line on me as I descended.

The 1974 blasted Kilmersdon Tunnel leads (past maturing cheeses!) through Chambers 7 and 8 and into Chamber 9, where the next piece of technical manoeuvring awaits: a delicate circuit traverse around the walls a metre or more above the river, making use of ironwork stemples for the feet, and a carefully bolted and protected rope traverse line at shoulder level. For anyone on their first trip underground, it's a fine location.

My favourite bit came next. In one of the lateral rift-like recesses of Chamber 9, a via ferrata-style ascent rises vertically for 25 metres. The foot bars are frequent, well placed, and rock solid, there is a back wall to rest against on the ascent as needed, and a guide rope provides the necessary self-protection. It's an airy ascent, and when I did it last year found it difficult to figure who had the most surprising vista - me looking down at a tour guide group being talked through Chamber 9 far below, or the tour group treated to the sight of precariously-poised cavers high above. At the top of the climb, a slightly awkward slither leads to a low crawl, before popping out on a metal gantry perched the better part of 30 metres above the river level in Chamber 9.

The impressive drop into such a large chamber, illuminated by the show cave lights far below, and with an audience of hushed and suitably-awed tourists, was a memorable experience.

Exiting via the tourist route, this was the extent of the Wild Wookey experience until earlier this year, when Chris successfully pulled off a protracted and largely solo digging effort to provide a more sporting exit to the Wild Wookey experience, and yielding Mendip's latest through trip. Of these, I am aware of only two others: Bath—Rods, and the Priddy Green circuit in Swildons.

Returning to the first chamber, the Wild Wookey party now gets to cross the subterranean River Axe on that iconic boat seen in so many images of Wookey Hole. From the mud banks on the far side, a short passage enters the high rift of Charon's Chamber, which has marked the end of this part of the cave since its discovery by MNRC back in 1934. However, with this rift passage trending in the general direction of the surface feature known as Troup's Rift, 10m above the sluice gate feeding the Paper Mill, Chris started pursuing a possible connection earlier this year. A link between the two was originally predicted by Barrington and Stanton in 1977 in their book Mendip: The Complete Caves, which records that "Troup's Rift was first 'scratched at' by R.D.R. Troup in 1908." The first through trip was made on 21 May of this year.

The rift passage is enjoyable with no specific technical challenge, and quickly emerges into daylight high on the eastern side of the Wookey Hole ravine. But the adventure is not yet over, and I guess I should issue a spoiler alert… the exiting party is confronted by an alcove in the vertical cliff face, and an unobtrusive 60m zip-wire, which Becca double clipped me on to, checked my harness, and launched me down into the valley below. I suspect that this was the first and only time that I have exited a cave chuckling with glee, surprise, and excitement.

When I first did the Wild Wookey experience last year, I left the cave, into bright sunshine, a little lost for words. It's an audacious circuit. It is certainly not a `tame experience' simply dressed-up as adventure caving. I could see it being tremendously popular with adventurous adults, groups of friends, sporty couples, even school or adventure groups, if the organiser has some reasonable confidence in the suitability of the individuals. It is not a trip for the timid, the seriously faint-hearted, or those petrified of heights.

Other than that, even for a seasoned sports lover, it is also a superb insight into arguably one of Mendip's most important cave systems. I feel I had a privileged take on what could well become a nationwide adventure experience classic.

The new exit route provides a more satisfying end to the updated Wild Wookey experience. The zip-wire is, as the

younger generation might say, "wicked". It's not at all cheesy. And if I found it fun, at my somewhat jaded age, I am sure that it will be enormously well received by the majority who try it.

Standing outside, Chris mentioned that there is, in fact, another through trip in Wookey Hole and, bats permitting, would I care to do it? So back in we go through the Kilmersdon Tunnel to the big chamber of Wookey 9, ascend the stempled rift to the gantry platform at the head of the 30m abseil pitch, but this time heading higher up and away from the chamber below. A series of fine ascents, with fixed ropes, up steep and impressive flowstone and past some spectacular stals a little reminiscent of some of the white crystal stuff in Neverland, and passages with evidence of ice fracture, leads eventually to a one-way steel trap door exit onto the pastures high above Wookey, with a lovely view of Glastonbury Tor framed through the trees in the far distance. This stretch of passage will never be part of the Wild Wookey experience, due to its far-too-fragile calcite formations, but is a satisfying circuit for the more experienced caver.

Hats off to Chris for his efforts with these latest Mendip through trips, and to Becca who has now led more than 1000 adventurous souls on this fine sporting circuit.

Michael Perryman,
September 21st 2018

AGM and Dinner

The annual general meeting was held on Saturday 6th April, at the Hunters' Lodge. Reports were heard from the officers of the committee and from Steve Porter on the status and likely progress to the proposed changes to the MCG's constitution.

In the evening, the annual dinner was held at the Burrington Inn in Burrington Combe. The MCG's Tony Jarratt Annual Digging Award was given to Graham Price, for 'moving the most amount of rock in the shortest time and training others in the *persuasive arts*.' The award is a decorative titanium nail bar on a wooden mount. The inaugural Tony Knibbs award for Literary Achievement was won by Dave Lossl, for his outstanding work on the new club website. A presentation was made to Jackie Bishop - the outgoing social secretary, for her enthusiastic contributions in that role.

The after-dinner speaker was the multiple Emmy and BAFTA-Award winning photographer and cinematographer Doug Allan (*image-right*). Doug has worked on many BBC filming projects: *Life in the Freezer*, *The Blue Planet*, *Planet Earth* and *Frozen Planet*. His beautifully illustrated and entertaining talk on his filming challenges in Polar environments- both above and below water, was very warmly received by the audience.

Photos: Andrew Horeckyj.

To You,To Me Squeezeboxes - Denise Poote
(*inspired by the MCG's Upper Flood squeeze box*)

The MCG was approached by a group of artists, from a number of colleges and institutions, that were embarking on a project to create works inspired by caves and cave-like spaces.

MCG members took the artists to experience a number of caves on Mendip in order to get a feel for an environment that- as cavers, we feel is familiar, yet for them could be seen afresh and bring creative inspiration.

The exhibition entitled **Hollow Chambers** was installed at The Crypt Gallery, St. Pancras, London in March.

The MCG's Tim Francis presented the Story of the Upper Flood discovery, as part of the multi-disciplinary installation.

The group made a generous donation to the MCG for its efforts in supporting the endeavour.

The images reproduced here are all by Charlie Allison, who attended the exhibition.

Reactive Light Sculpture- Jylle Navarro

Illuminated Darkness - Nimmi

The exhibition is now closed, but images of the artists' work and notes on their thoughts and intentions can be found at the following websites...

The Hollow Chambers Project can be found at:

https://hollowchambersproject.wordpress.com

https://www.instagram.com/
hollow.chambers.exhibition