

The Journal of **York Caving Club** and **North York Moors Caving Club**

Number 2:
2010 - 2013

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The Journal of
York Caving Club
and
North York Moors Caving Club
(Formerly Scarborough Caving Club)

Number 2: 2010 to 2013

Including cave exploration in and around the North York Moors during an exciting three year period. Many new discoveries have been made since our first journal including a large extension to Jenga Pot, pushing the far reaches of Excalibur Pot as well as new exploration at Gundale, Manor Vale, MSG Hole and in the River Dove.

Edited by Matt Ewles and Gary Douthwaite

Cover photo: Chertnobl Chamber, Jenga Pot. Photo by Gary Douthwaite

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Excalibur and Jenga Pot Survey

Bogg Hall (2011) Survey

MSG Hole Survey

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Contributors

North York Moors Caving Club

In 2010 Scarborough Caving Club (SCC) changed their name to the North York Moors Caving Club (NYMCC). In the 20+ years of the club's existence they have had several generations of members many of who enjoy caving throughout Britain and Europe. The club is responsible for a number of discoveries in their home region, which has always been a bit of a caving backwater. Whilst members believed that the change of name was the correct thing to do to represent their predominant focus on North York Moors digging rather than sporting caving, they also recognise the need to maintain an association with the many achievements of the club under their former name.

Although this change happened just prior to the publication of journal one, it was thought that the former name should be kept for that volume as it covered many of the original explorations during the 1980s and 90s when they existed as Scarborough Caving Club.

York Caving Club

Since their formation in 2009, York Caving Club (YCC) has maintained a membership of regular cavers, some of whom take part in digging and some who prefer the more traditional sporting trips. Several members are also still involved with York University Cave and Pothole Club (YUCPC), now nearing its 35th year, and often help out when drivers or experience are required. YCC members are also involved with YUCPC's regular expedition to Durmitor in Montenegro where some huge vertical systems have been found in recent years (find more details at yucpc.org.uk). Closer to home, York Caving Club continues to enjoy regular day and weekend trips to all major UK caving areas.

Cleveland Mining Heritage Society

Since the last journal the digging team has been joined by several members of the Cleveland Mining Heritage Society (CMHS) who have supplied a great deal of knowledge (and man-power) particularly when it has come to the exploration of some old mines on the North York Moors. We have skilfully managed to convert a few of them towards caving and cave digging, and in particular, they have been involved in the recent explorations of Jenga Pot described in this journal.

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Introduction

It doesn't seem like four years since I was writing the opening paragraphs of our first journal. It certainly doesn't seem like seven years since I was sinking a crowbar into Hutton Beck in the North York Moors for the very first time. And it doesn't seem like over five years since York Caving Club was founded. Time passes so quickly, but I don't feel like we have wasted a moment. So much has been achieved!

We have had many magnificent sporting trips over the last four years. There have been unforgettable exchanges including Boxhead to Lost Johns, long exploratory adventures including the Aggie grand circle and Ogof Draenen, some epics (I won't forget that wet Swinsto Hole trip from January 2013 anytime soon) and some superb mine adventures including Nenthead, North Wales and the Parys Mountain copper mines.

Of course, this journal is mostly about our digging. After the discovery of Excalibur Pot in 2007, the major focus of our first journal, we wondered whether this could ever really be topped. We had ambitiously called our first Journal 'number one' which alluded to there being another at some point in the future. But what were we going to put in the next journal? Maybe a few extensions to Excalibur or an extra couple of rifts in Jenga? I was wondering how long we would have to wait. Well, four years on here we are!

It's been a superb four years not only for our club but for cave exploration in the North York Moors. There have been extensions in Excalibur as expected. MSG Hole has been a surprising find which has brought cave discovery in the area back to its windypit roots! Several new surface digs have been started, Bogg Hall has been resurveyed, divers have taken an interest in the area, and we've even done a little bit of science! Of course the Pièce de Résistance is the much awaited breakthroughs in Jenga Pot. Work started here in 2008 and was reported in journal one, but almost five years on from the first spade of soil being dug our efforts have been well rewarded.

The story of all these explorations is told here in this journal. The stories use a combination of retrospective accounts and dig reports written at the time to convey the progress. As with our first journal, we have aspired to make these reports not only factual, but also inspirational reading. Hopefully we have come close to achieving this.

Unlike the neighbouring Yorkshire Dales and the journals of clubs who dig there, you won't find stories here of bottomless pitches or endless river passages or miles of stomping caves. But what you will find here is the story of a bunch of enthusiastic nutters, and good friends, pushing the limits of exploration somewhere previously thinkable.

Writing our second journal seems like a milestone moment. The first journal is no longer a 'one hit wonder' and neither is the North York Moors. So when will we write journal number three? Quite simply when we have done enough to warrant it! I am hopeful this won't be too far away; we already have at least 50m more cave not reported in this journal (one has to draw a line somewhere when writing journals). We have a diving project that seems almost guaranteed to give results. Plus our sights are now set on the Northern Dales where even more discoveries hopefully await.

Matt Ewles, York Caving Club Chairman

Since the production of the first journal some great exploration has taken place on the North York Moors. Whilst we have spent much time exploring and extending many of the existing caves, we have also found and pushed new caves and re-explored some of the areas superb old mines. These achievements are attributed to the growing army of cavers and mine explorers that have been enjoying the 'crack' and dedicating disturbingly large amounts of time to the various projects. Much of this time is spent doing 'homework' and researching and preparing for new projects. As a result the club now possesses a comprehensive library and map set detailing the geology, history, hydrology and all things cave and mine related in the area.

It should be said that not only are many of the successes resultant from the diggers but also through the willingness of the various land owners and game keepers. Perhaps the biggest contribution has been made by The Crown at Hutton who put up with us, often several times a week, yet they never fail to provide us with good beer and a fine platter.

Hopefully the following pages will not only provide the reader with a factual account of the progress that has been made by the clubs, but also offer an insight into some of the often sick and twisted amusement that this has brought the members. Enjoy!!!

Andy Brennan, North York Moors Caving Club Chairman

Acknowledgements

The following are most of the contributors to events reported in this journal, although others are listed where appropriate. Those indicated by * have joined (and in some cases now left) our digging crew since the first journal (we have grown substantially!)

Andy Brennan (NYMCC)
 Laura Bennett (YCC/YUCPC)
 John Dale (MSG/YCC)*
 Gary Douthwaite (YCC)
 Richard Edwards (The Farrier/Sparky, NYMCC)*
 Matt Ewles (YCC)
 Peter Fambely (Peterphile, NYMCC)
 Charles Holder (Chuck, BPC/YCC/YUCPC)*
 Paul Horner (Handshake, NYMCC/YSS)*
 Margot Sayer (YCC)*
 Carl Thomas (Chalky, NYMCC)
 Chris Twigg (Balk, CMHS)*
 Richard Vietch (Bindy, CMHS)*
 Richard Wilsdon (Dickwad, NYMCC)

A big thanks to Brian Schofield (Scoff) and Dave Ryall from the Cave Diving Group for their interest in the area and for pushing our horrid sumps.

Thank you to The Crown in Hutton-le-Hole who have fed and watered us, and tolerated our colourful banter for several years now.

Finally, thank you to the landowners, particularly those of Ravenswick and Spaunton Estates and surrounding areas for allowing much of our work to go ahead.

The North York Moors

Those of you who have read our first journal will know that our main focus for exploration is the North York Moors. The southern few miles of the Moors has a huge block of Jurassic limestone dipping southwards and stretching from Sutton Bank to Scarborough, with numerous sinking rivers. It therefore goes without saying that there is a lot of scope for discovery in this area.

The area between Keldholme and Hutton-le-Hole has always been where the most impressive finds have been made (see map 1 below). Since the discovery of Excalibur Pot in 2007 we have now added several new finds to the gazette of caves in the area and we are slowly building a picture of what the North York Moors limestone hides. The area is not willing to give up its secrets easily! In this journal we report on the tremendous progress that has been made, however, despite this there is still a big blank space between Excalibur, Jenga and their resurgence at Bogg Hall Rising.

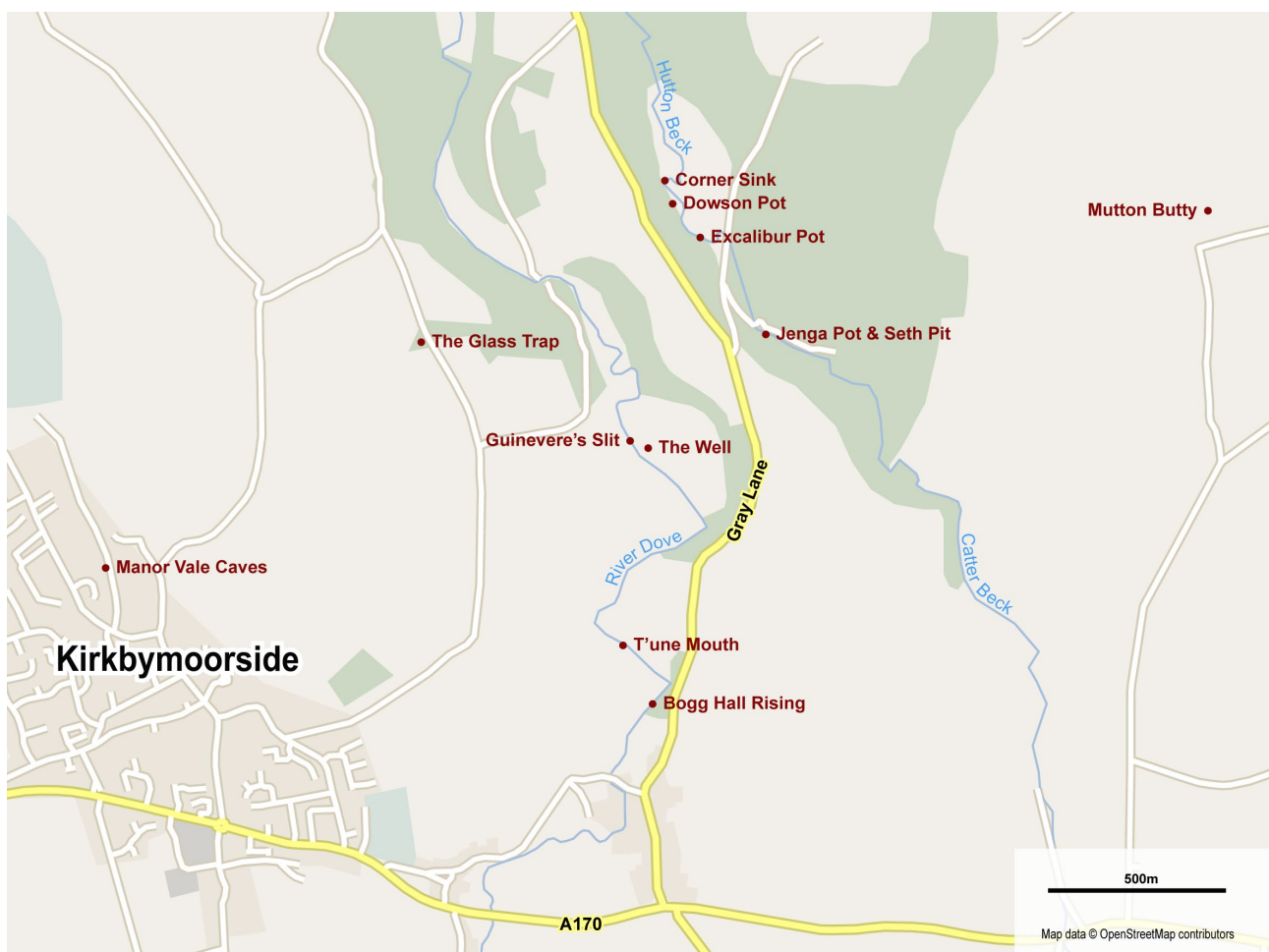
Outside of this area we have made several other finds, many of the 'slip rift' or 'windypit' type (see map, right). The most notable of these is MSG Hole discovered in a field near to the village of Old Byland with some impressive rift passages. In addition, our interest in the old ironstone mines at Rosedale is also reported here.

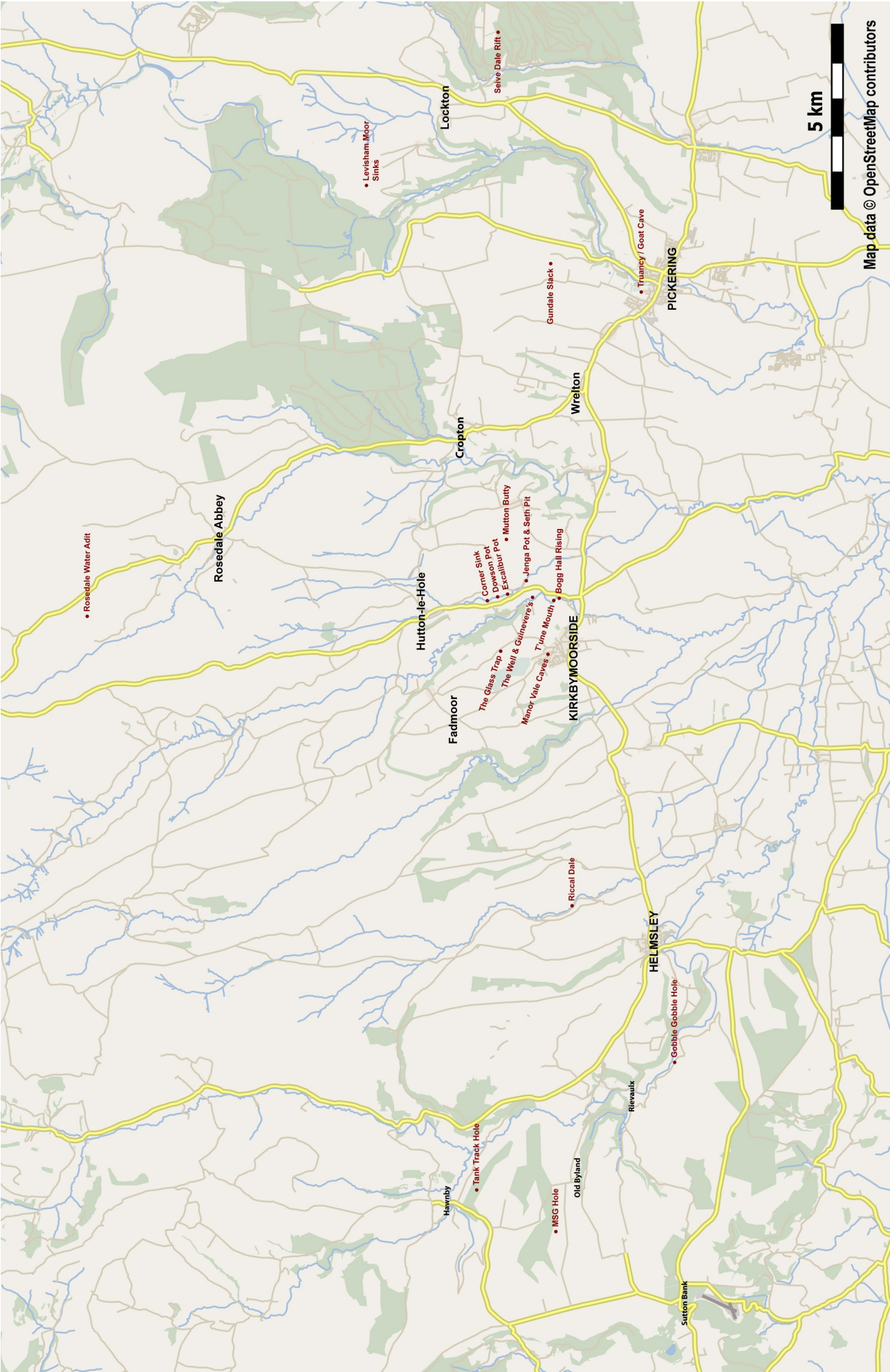
Below:

Map showing cave locations along the River Dove and Hutton Beck and surrounding area.

Right:

Overview map showing the location of all of the caves covered in this journal.





Jenga Pot

Overview

Approximately 400m downstream of Excalibur is the final sink of Hutton Beck. A large quantity of water sinks here in flood, through a large depression on the east side of the river (30m downstream of the bridge with the track to Spaunton Quarry), and through loose ground on the western bank opposite. Digging of this west bank started in spring 2008, only six months after the discovery of Excalibur, to quench our need for another surface dig for the approaching summer. The dig soon became known as Jenga Pot owing to the nature of the stacked blocks in the entrance rift.

The first two years of digging in Jenga are reported in great detail in our first journal, but to set the scene we provide here a very brief overview, before continuing onto a full report of all progress since the end of 2009. Overall, 2010 and 2011 were quiet years at Jenga due to our attentions being distracted by other projects over this period (Manor Vale, Mutton Butty, MSG hole, Excalibur, all reported in this journal). In 2012 we returned to Jenga for what was to be, we hoped, the final push. Had this not yielded results, Jenga might have been abandoned permanently and this journal might be somewhat thinner! Thankfully, our efforts were rewarded in May 2013 with a breakthrough. The exploration, digging and surveying that followed is reported herein.

Entrance to Jenga Pot,
May 2009. Photo by
Gary Douthwaite.



Finally, we leave the story in this journal with Jenga as the second longest cave on the North York Moors, only 37m from connecting to Excalibur Pot via Shit Creek and with several excellent leads to keep us digging well into our next journal.

A Recap of the Jenga Story

2008

The Jenga story was slow to get started. It took four months of surface digging before we broke through a mud and boulder plug to drop into a large cross-rift to a depth of around 10m with no immediate way on. From here we spent a month progressing horizontally along a small but strongly drafting tube (The Windpipe) into another parallel rift. Those with any familiarity for the North York Moors caves will know that north-south cross-rifts are abundant in the local limestone, and Jenga is no exception. A pot-hole in the floor of this rift dropped to a depth of 16m with only a tiny conduit leading off at floor level ('No Way On Bedding') which occupied us for the rest of the year.

2009

As soon as the winter floods were over in we abandoned No Way On Bedding in favour of pushing a higher level mud and rock choked continuation of The Windpipe. After five months we broke through into a short low crawl over the top of yet another parallel rift (now known as Horseshoe Rift). This dropped to even greater depths than the previous pothole, albeit completely choked with mud and rock at the bottom. This was a superb digging project; however, the breakthrough into the Shit Creek extensions in Excalibur occupied us until a return to Jenga in September when we got back to work by building the present day concrete entrance shaft.

Only weeks after the entrance was built, it received the first winter flood. This provided the opportunity to take an exciting trip down in flood (not reported in the first journal) to see where the water was going and thus where we should be digging. The 3rd November 2009 saw a small gathering of mostly wetsuited cavers, and was reported by Matt:

We arrived to find Hutton Beck on a receding flood. The water had been up over the top of the new entrance, but when we arrived, it was only 20cm deep around the walling, with most of the water flowing on downstream. Water could be heard crashing down beneath the new entrance shaft, and Andy and Richard were already on their way down through it when we arrived. They emerged after several minutes, soaked to the skin, and said that we should go down to look for ourselves.

I had no wetsuit but went down nonetheless, followed by Laura and Chuck. Water flowed in over the rock shelves at the top of the entrance rift just below the concrete entrance construct, although not as much as I expected. However, much more water entered further down the rift where it roared in from a gap between two of the beds of limestone. We managed to stay mostly out of the water and descended the rift to the top of the scaffold frame at the bottom. Unfortunately, the way on is a thrutch down through the scaffolding and under a large block to reach The Windpipe, and this was right in the firing line of the deafening torrent of water. Even on full beam with my new Scurion, I couldn't see any further than the top of the scaffolding.

Thankfully, after more than a year of regular digging here, I knew my way blindfolded, so with a deep breath I went down under the cascade, feeling my way down with my feet underneath the large block. This area was pooling with deep water and resulted in complete submersion. Thankfully once under the block I was sheltered from the maelstrom (but still submerged to my neck) and pleased to see the Windpipe ahead out of the water.

Slightly hyperventilating from the cold shock (I was only in a furry suit and it was November so the water was freezing) I scurried along The Windpipe into the second rift. A gentle shower entered through the roof and drained through the blocks on the right. I descended the pot to look at 'No Way On Bedding' while Laura and Chuck headed straight on along the continuing Windpipe to the third rift to see if any water was entering there.

The first pot carried a small amount of water at the top, however a chute two metres down brought in a cascade which went right down my back and caused me to lose control of my breathing again. Regaining composure I continued to the bottom but there was too much water crashing about to be able to see along the bedding, other than to confirm it was definitely taking plenty of water without pooling,

I was becoming rapidly hypothermic so headed out. The trip out was much better now that the cold shock was over! After coming back through The Windpipe I slipped forward into the bath of icy water, held my breath and popped back up through the storm. Laura reported that the third rift was fairly dry with only a decorative spray and a possible way on down through loose boulders and cobbles. An exciting evening!

We concluded from this visit that the third rift (later named Horseshoe Rift) was not the route of the sinking water. We have always believed that following the route of sinking water is the best approach, so we were quite disheartened by this finding. Nonetheless, over the winter of 2009 we continued digging in this rift, making progress down through the mud and rocks. This is where we left the story in our first journal.

The Story Continues...

2010

Digging in Horseshoe Rift continued in earnest in the new year, but unfortunately after a few more metres of downward progress we had failed to find any drafts, voids or any indication of a possible continuation. As spring approached we were becoming pretty disheartened and we started considering other options. It later turned out that had we continued digging here, the big breakthroughs may have come slightly earlier!

After abandoning the Horseshoe Rift dig we became occupied for the summer months with projects elsewhere before returning to Jenga in autumn to pursue a new strategy. At the bottom of the entrance shaft, opposite the drop down towards the start of The Windpipe, a possible route going in the opposite direction (back underneath the streambed) was examined. It only took a few weeks to dig horizontally into yet another large cross rift (soon to become known as the Death Rift). This was spacious, had a cold draft, was clean washed and peppered with organic debris, which seemed encouraging.

Matt reported on one of the early sessions in this rift on 19th October:

We had a good session down Jenga. Initially just Laura and I started work clearing the new rift of debris, of which there is lots! This was hard work, as the hoisting point at the top of the rift can only be approached on your belly therefore it was hard to adopt a good hauling position. After poking the loose blocky, cobbled floor, a few drafting voids started to appear. Chalky arrived and as a team of three we lowered the floor by nearly a metre by pulling blocks out. The potential looks good but I'm not so sure about the stability of the rift walls and roof, which all seem rather loose.

Two months of digging here followed, but despite the drafting voids, the challenges soon became too great. This rift is underneath the streambed, close to the big sink on the opposite embankment, which swallows a huge amount of water in flood. Huge blocks hung over the top of the rift were perched on clean gravel slopes with little mud to glue them together, and the slightest knock caused them to slide further towards the edge. The north wall of the rift was simply a stack of loose boulders! We spent several weeks scaffolding the entire rift, allowing us to dig another few feet down in the floor. Unfortunately, with every flood the boulders seemed to move and further downward progress was likely to involve undermining the already fragile boulder pile that comprised the north wall. The roof and walls threatened collapse at any moment, and to install enough scaffolding to make it safe would make it almost undiggable.

As winter approached excuses were frequently made and people even resorted to returning to digging at old haunts (Manor Vale and T'une Mouth mainly) rather than face the Death Rift in Jenga. We continued to chant our hope that winter floods would dislodge the loose blocks in the rift and we would be able to safely return in spring.

2011

Unfortunately a return in early spring revealed the Death Rift to be in an even more precarious state. We weighed up all the options, but there was little enthusiasm to dig here anymore. We got distracted by projects elsewhere (MSG Hole, Mutton Butty, Shit Creek) and after more than two years of digging, we temporarily abandoned Jenga altogether!

2012

The following spring, with Mutton Butty and other projects abandoned, and MSG Hole now permanently closed, we were beginning to wonder where we should dig next. The digging team had become sporadic, with no real focus, and we were desperately in need of a meaty project. The possibility of returning to Jenga was discussed but was not welcomed by those with memories of the Death Rift. As a compromise, we agreed that we would return to Jenga, abandon the Death Rift, and try one last plan of attack.

We recalled our trip down Jenga in flood (reported earlier), where most of the water entering the second rift was actually flowing down into a tiny fissure on the right (north) as you pop through The Windpipe. On returning to inspect this, the prospect of digging this was daunting. The rift pinched in where the water was going, and a few feet beyond this pinch-point, it closed down with only a two inch-wide fissure in the floor as the route of the water. This did not look like a promising dig (hence why it had been overlooked two years ago), but desperate times now called for desperate measures!

Progress got underway on Tuesday 8th May, as reported by Chalky:

We revisited Jenga after advice from Matt who is as confident as I am that something must be down there and we shouldn't give up on Jenga just yet. Sparkles and Matt worked at the head of the small fissure in the floor at the new dig site. They managed to remove some of the underlying geology allowing better access to the head of the fissure. Progress will no doubt be slow however after honing our mining skills at Manor Vale over the winter there is no challenge too great. Only time will tell!

Work continued the following week (15th May) as reported by Matt:

Good progress last night at Jenga. Sparky and I started to mine down the fissure. This is ridiculously narrow, only a few inches, but it does seem to disappear down about five feet to what looks like a cobbled floor; although we can't tell at the moment whether it goes anywhere. It has clearly taken lots of water, is clean washed and provides a substantial draft which has got us all pretty excited. We needed to widen the top out to allow easier access so that the fissure itself can be enlarged, so this is what we did in the form of five snappers. Meanwhile, as the active face was only a two-person job, Chalky and Andy entertained themselves by digging an uninspiring hole just before the windpipe. Unfortunately this didn't stop their moaning. "CROWBAR CROWBAR" was all we heard, while we were busy trying to do some proper digging! Gary managed to amuse himself by picking up big rocks which also entertained everyone around him.

This was nothing short of a mining project, and was accessible to only two people at a time. The rest of the team just had to wait in hope that a bucket of spoil would pass their way or they would receive the call to evacuate for a snapper. Thankfully it was summer, so nobody seemed to mind taking turns on surface haulage duty (a very undesirable job in winter). The mining operation was hampered by some particularly soft and shock-absorbing bands of limestone, which shrugged off our destructive attempts. It therefore took us until the end of June to enlarge the fissure sufficiently to stand up in. Sparky provided a report from the 3rd July proceedings:

Last night was a good digging session. The fissure was still blowing nicely even though there was lots of rubble down there. Matt was in first and did a marvellous job of removing a big block which took quite a bit of levering out. The down side was that he then dropped it down the rift. I followed next and removed a few large boulders out of the left wall and more shite out of the other. Chalky then finished off the clean-up operation and laid some snappers for the end of the night. Hopefully we're getting into some different limestone which won't crumble as much. Progress is looking good!

The mining operation became much easier once the fissure was large enough to stand up in, meaning we could dig without being hunched up over the top of the opening. Five feet below the floor of the main rift we reached a more solid floor, so we started mining northwards (horizontally) rather than downwards. After just a metre or so, another tiny fissure in the floor forced us to return to mining downwards. We quickly realised that we were actually just mining diagonally down the continuation of the main rift above. This staggered process of mining down and then north continued (creating a fine rift with a

series of gradual steps down) until, after about 15ft progress northwards and a similar distance downwards we broke into another, completely independent new rift full of dangerously stacked blocks and with a good draft coming up through the floor.

Matt reported on this discovery on the 18th September:

It's been an eventful few weeks at Jenga Pot! We have mined a considerable distance down the fissure to continue the main rift beyond The Windpipe, maybe getting about 15 foot down and a similar distance northwards, via three ledges. Last week we reached a loose floor and initially we assumed the way on would be down, but actually, looking straight ahead we seem to have broken into another rift filled with big blocks. We couldn't get into this yet for a proper look (more rocks to remove first) but there are enticing black voids in the blocks, and the draft is actually more of a breeze.

This Tuesday, Chalky, Sparky and I headed down to make an enthusiastic early start. The walls at the entrance to the new rift were well fractured and easily peeled with a crowbar, making space to turn around and manage the impending onslaught of big blocks. After some considerable swearing and grunting we removed some of the largest blocks that were hampering our view into the new block filled rift.

Our first inspection of the new rift was an encouraging yet horrifying sight! There were dozens of dangerously stacked blocks the size of washing machines towering above. But the area was spacious, with darker and less crumbly limestone which was nice. Black voids peeked through from below the block floor, and above us the huge blocks formed a teetering wall disappearing maybe 15 feet up into the roof, dominating the view.

In went the 6ft big green crowbar and I had a nervous jiggle at some of the lower blocks at the back of the rift to get a feel for their stability. It didn't take much before there was a mega crash as several blocks slumped down onto the already block-strewn false floor only inches in front of me. This was then followed by several seconds of evil noises caused by the chain reaction of more blocks higher up violently rearranging themselves and small stones and mud splatters raining down. By now I had retreated half way back up the previous rift with a fresh brown stain in my undersuit.

It took several minutes for the rumbling to settle and every time we thought it was safe, another slithery noise would prompt us to wait for a little longer. Finally, we tentatively climbed back down. Our adrenaline was high, as further wiggling with the big bar prompted more rocky diarrhoea to spill from the overhanging intestines of the cave. Soon my nerves were shot, and Sparky stepped in to take over and, in usual tradition, to end the night with a few well-placed snappers.

The potential looks very good. We are following not only the draft, but also the route of sinking water, and the area we are entering is unique from the other rifts we have seen elsewhere in Jenga. Is this the rift that will provide us with our big breakthrough? Either way, black space awaits us below the boulders and so we need to focus for now on getting these out.

After some discussions in the pub we decided that a new tool was needed. The big green bar was just too heavy and we needed a lighter, long hooked implement for remote manipulation of boulders. A large hook welded onto an aluminium scaffold bar seemed ideal. The new device was named 'hook-a-duck' (along with other less publishable names) and was quickly put to use on the 2nd October, as reported by Andy:

A sterling effort yesterday! Sparky, Chalky and I met at 1pm and after a coffee headed down the cave. We cleared the ample debris from the last session and proceeded to put three snappers into the very large rock at the bottom of the stack. The plan was to pop this and hopefully all the debris on top would also come down before the others arrived. They seemed to go off fine. After another coffee while the fumes cleared we were joined by Paul and Gary and we all headed down. Sparky began tickling the boulders with the all new hook-a-duck and brought some good slabs down as well as dodging some cascades. After he was exhausted I took a turn, and he had kindly left a mega slab wedged against a smaller chock-stone. Some further tickling managed to get it down and Gary took over to remove it once and for all. The rocks were all hauled through The Windpipe and disposed of in the Death Rift, which was finally proving useful!

Work to clear the new rift continued for a few more weeks, and by the 31st October we thought we had eliminated the most threatening hanging blocks. We arrived for digging expecting this to be our first session where we could make some progress down through the floor. We headed down and soon realised something was wrong. The previous week we could see some 15ft up the rift to perched boulders. However, this week we were surprised to find a roof of delicately stacked boulders only a metre or so above us as we entered the rift. There had been a serious collapse!

The new boulder roof, despite appearing to have come to rest in a self-supporting way, was not something we fancied climbing underneath, however, it did form a half decent roof and offered protection from more stuff falling from higher up. Therefore instead of bringing the boulders down, we opted to stabilise them in their new positions. Over the weeks before Christmas we installed an immense scaffold frame to hold back the roof should the boulders decide to move again, and hoped it would hold into the new year. This naturally became known as the Scaffold Rift.

2013

With a strong draft, we returned as quickly as possible in the new year. Matt reported on the first session on 10th January:

The new scaffolding seems to have held well and there doesn't seem to have been any further movements. We started making progress down through the loose bouldery floor of the rift, with satisfying black voids issuing pleasing drafts routinely appearing. Unfortunately as we lowered the floor, loose gravel and debris kept slipping in from behind the scaffolding. This seemed inevitable, however, it caused the large boulders perched on the scaffolding to shuffle slightly and the metal bars creaked and groaned in an uncomfortable way. The scaffolding was now weight-bearing and so yet more was added to beef the structure up and provide greater confidence. Then, with only five of us we set up a gang to pass spoil up to The Windpipe, but

there were very few remaining stacking spaces and we found that we were slowly walling ourselves into the cave. Thankfully, with the arrival of Gary we were able to haul to the surface. With the system in place things went very efficiently and around 40 buckets were hauled in total. By the end of the night we had got rid of all the wet mud and slop that had fallen from behind the scaffolding and were back down to bare blocks, through which black voids and strong drafts once again appeared.

The following week (17th January), Chalky reported on progress:

Ok here's last night's update: Members attending Mr C Thomas and Mr R Edwards, temperature initially -5°C, however, après pub -10°C. Unaffected by the slightly cool evening, we arrived at the top of the hill to find it a ski ramp down towards the digs. After pondering for a while and checking that the snow chains were in the van we continued onward. It was slightly chilly when changing, but after carrying the kit down the lane we soon warmed up. As Sparkles attempted to open the lid, I became aware of something not being quite right as in his usual vocal tones he announced that the 'fucking lock was frozen stuck'. After freeing said lock with a lighter we descended the shaft into the relative warmth of the cave.

Arriving at the face, Sparkles poked away and managed to open up a void where we could hear rocks tumbling down below the bouldery false floor on which we were perched. For a while we became very excited only to have our hopes dashed as another large collapse filled it in again. More work! At one point in the evening while I was at the face, Sparkles barked that he needed a piss desperately, and the next thing I heard was a rustling and ripping of Velcro as his object of little pleasure to the missus had been unleashed and Jenga received a short-lived flood.

Richard 'Sparky' Edwards operating the remarkably effective Jenga winch 'bike', installed Jan 2013, which made hauling buckets faster and easier. Photo by Gary Douthwaite.



I shifted some large blocks from beneath the scaffold frame and there is now a good solid wall there which is nice to see. The nights digging finished by Sparkles adding some more scaffold to the ever increasing spaghetti-like structure while being constantly rained on by more rocks and mud.

The following week started with a little gardening and cleaning, and we finally managed to clear the rift of all the fallen debris without any more coming down to replace it. We now knew for sure that we were stood on a false floor of boulders perched part way up the rift, and when cobbles were pushed down through the holes they could be heard to drop several feet into what looked and sounded like open space. We knew that these blocks were going to have to be removed, however, manpower and stacking space was limited. We needed to get stuff to the surface with only five or six people. To help with this Sparky converted an old pushbike with a winch as a front wheel and mounted it above the entrance. This worked surprisingly well and allowed one person to single handedly hoist buckets and even blocks up the entrance.

Slowly, over the course of February the blocks comprising the false floor in the rift were delicately removed one by one, with no further troubles from the Jenga stack above us. Progress was quick and we soon broke through into an open section of rift and were able to descend ten feet unhindered. It narrowed in slightly at the bottom before landing on a loose mud and cobbled floor (mostly dropped there by us). Finally, after several months of discomfort and near-death experiences, we were now onto some more comfortable, spacious, safer and easier digging with enthusiasm at record levels.

The Breakthrough

Little happened at Jenga during March due to the exceptionally heavy snow which rendered most of the roads impassable and then placed the beck into full flood. Finally, in April we were able to make a return, for a digging session that marked the beginning of the breakthroughs. Matt reported on the session on Saturday 6th April:

Our weekend on Cross Fell was off due to the large amount of snow still overlying much of western England, including 8-10 ft drifts across much of the Dales. Thankfully the east had more or less cleared and Hutton Beck had finished flooding, so a weekend at Jenga seemed a good option.

Signup to the digging was excellent, and we had me, Gary, Laura, Chuck, Sparky, Andy, Richard, Lee Vasey (NYMCC) and Mark Sims (YUCPC). Lee and Andy were the first pair to the bottom of the new rift, where they were confronted with mud and rocks to pull out from the floor and the prospect of quick progress. The bucket hauling went into full production. Mark and I then took over (with Andy and Lee retiring to surface duties) and despite the rift pinching in the lower we went, I was able to lower the floor a couple of feet in very little time. I passed full buckets up to Mark, who was stood on the scaffold shelf which we had erected where the previous false floor of boulders had been. Chuck then hauled them up, passed them up the rift to Sparky and then Richard, then through the windpipe to Gary and Laura and finally to the surface where Lee and Andy emptied them. We had a more or less continuous cycle of buckets going. Mark and I then swapped and Mark continued down until he noticed at floor level what looked like a tube disappearing off! A bit more digging and Mark handed back to me when looked like we had a passage.

Peering along the tube, it was big (big meaning you can fit into it without snapping it first), with a nice clean washed sandy/shingle floor and beautiful water-worn arched roof! This was exciting, the first proper horizontal development in Jenga. Another ten minutes of lowering the floor and it was possible to slither into the small phreatic passage. Once in, it was spacious, and I was able to crawl forward for about two metres to a junction with a smaller tube curving off to the right. I went straight on for another few metres to a small but spacious standing height aven (later named Sian's Aven) with no way on. Returning to the junction, and taking the other route, this was a flat out tight slither leading after only a few metres to a small drop into a small low circular 'chamber' (again, chamber to us is anything big enough to turn around in). The chamber was maybe a metre wide, two foot high and with a standing pool of shallow water. There appeared to be a mud-choked but digable continuation beyond the chamber but to look more

closely would have meant a soaking, which didn't appeal quite so early on in the day. I retired from the new section, only to see upon exiting that the phreatic tube continued on the same bearing on the other side of the main rift, albeit choked with cobbles but drafting nicely. Sparky came down to share the glory and made a go for pushing down the breezing tube, only to find it even more choked only a few metres in.

We set about lowering the floor of the rift, to make access into the passage easier. Chuck and Sparky were now on duty and Mark and I retreated to the surface. I don't know much of what happened after this point, but the buckets kept on coming. We ended having made no more progress along the tubes, but with access to them now much easier. We also ended with the realisation that any further horizontal progress was going to mean lying face down in the small wet chamber digging at whatever gloomy and mud choked passage lay beyond.

Therefore, it had taken us five years but finally we had reached some phreatic horizontal progression in Jenga. The dig now was the mud choked continuation beyond the watery chamber (soon named Pool Chamber). This was going to be a grim, restricted, wet and cold experience, which is thankfully something we are quite accustomed to. A new tool was christened for this job, The Spazzle, essentially a solid rake on the end of a long pole for scraping mud at arms reach from the mud choked passages ahead.



Matt Ewles emerging from Pool Chamber and The Slops into the phreatic passage at the bottom of Scaffold Rift. Photo by Gary Douthwaite.

Andy reported on progress on the 9th April:

We had a good turnout for digging (no surprises there). Kitted in a neo-fleece, we headed down the passage with Sparky and with Chalky's new Spazzle. As the supporting guys were not so aquatically equipped they set up another scaffold ledge back in the main rift and installed it with a one-tonne builders bag jammed into the south end of the rift ready to receive the imminent onslaught of wet mud. I found myself slithering down into the water and then faced with the

choked passage, blocked by what can be best described as a dam of sand dunes. The plan was to form a drag-line back to the bottom of the Scaffold Rift where they would fill sand bags with the slop for haulage up into the one tonne bag. This soon gained momentum and for a while, no sooner had I filled a bucket, an empty one appeared in the passage behind me. I soon found myself lying in quicksand in the tiny chamber, scraping out the choked passage ahead. During my shift we actually managed to make about two metres of horizontal progress to an obvious left bend.

Then without warning the buckets seemed to stop. There is only so long you can sit still in these places before the cold becomes the major focus of your entire existence. I was going out!

A follow-up weekend session on the 13th April was reported by Matt:

We had a productive session on Saturday, just me, Gary, Sparky and Richard. Gary set about installing a metal wire from the end of The Windpipe to the top of the scaffolding, which was tested with a bucket of rocks and found to work very well indeed. One person can now easily haul a bucket up the stepped rift, thus allowing haulage from the active face to the surface with fewer people. Meanwhile, Sparky, Richard and I enlarged the rift where it pinches in at the bottom, widening it all the way down to make bucket hauling and transfer easier. Therefore no progress was made along the passage, but progress should now be more efficient for next time.

The following Tuesday (23rd April) we turned out in hope of making progress along the mud choked passage. We actually got more than we expected! Matt reports:

We had a smaller than usual turnout tonight. However, when I arrived at about 5pm I was surprised to find Gary, Andy, Sparky and Chalky already underground. Sparky and Andy were at the active face, digging in the new mud filled tube beyond Pool Chamber. We had insufficient people for haulage to the surface however they were instead filling sandbags with the wet slop and lining the side of the passage with them, stacking them in the rift, as well as passing some back for emptying into the one tonne bag. Gary was upgrading the metal wire to one of greater thickness. The 4mm one he installed last week was deemed too thin and so some 8mm steel cable was used. This was almost strong enough to slide down ourselves!

I helped Gary for a while by shuttling things up and down the rift, while hearing the occasional progress update from the face relayed via Chalky. However, after some time it went quiet and the diggers relayed the message

Richard Wilsdon in The Slops having just passed the dug connection point.
Photo by Gary Douthwaite.



for the person at the back to go out and light the brazier as they were cold and coming out soon to warm up. I was the person at the back so out I went and got the fire burning. Then I waited, and waited, and after what must have been nearly an hour, as I was about to head down to find out what was going on, I heard Chalky emerging. He told me that there had been a bit of a breakthrough, and Andy, Sparky and Gary had gone through the muddy dig, into black space beyond and out of earshot!

Eventually Andy and Sparky emerged and told us of the discovery, recounting having broken through the mud banks and being able to wriggle on unhindered. They reported passing through more crawls and small rifts into a chamber, followed by another crawl ending at an even larger chamber with several routes leading off into the darkness. They turned around here to wait until all those who have been regularly involved with the Jenga dig from the start (particularly Richard) could be around to share in the glory. While the diggers warmed up, I headed down with Chalky to take a look through the new extensions.

Through Pool Chamber and into the sloppy dig was very unpleasant. The breakthrough point was restricted (not helped by the sandbags lined up along the side of the passage), and I was squeezing on my belly through thick wet mud with my back pressed up against the roof. Thankfully this lasted no more than a few metres until a tiny rift was reached with a one metre drop to the floor where a crawl carried on under a tight rock archway (The Fanny, named for its uncanny anatomical form). Beyond here, several more metres of wet and sloppy wriggling reached a slope up into a larger dry passage bearing left. This continued for maybe 10m over dry mud banks to a steep gravel slope going up through an archway on the right. I had lost vocal contact with Chalky by now who had waited just before Pool Chamber as he didn't have his sleeve to protect his false leg from the sloppy mud. Up the gravel slope I reached the first chamber, which was clean washed and stooping height, maybe 4m long by 2m wide, with an inviting crawl going onwards. I recalled Sparky saying they had got to a chamber and gone no further, and I wrongly assumed this to be here. Not wanting to overstep the limit of exploration I peered into the crawl ahead and turned around. The crawl was a comfortable size (1m x 1m) passage with impressive chert projections all the way along a foot off the floor (this was immediately given the name Chert Alley).

I was pleased to now be heading back as I was alone and felt very isolated indeed. The trip out was a proper workout, and the last few metres towards Pool Chamber were exhausting, dragging my body through the tight passage filled with thick and sticky mud, only to be followed by a lake flushing down my oversuit as I thrashed the last metre through Pool Chamber.

We closed up the cave, called Richard, who was driving and had to pull over into a layby to receive the good news, and promptly retired to the pub for some celebratory drinks and snacks. Next week once Richard was back from his trip was earmarked as the big night for further exploration.

The Exploration of Jenga Pot

Tuesday 30th April was exploring night, as reported by Matt:

We had been waiting patiently to explore the inviting open passage left behind last week. Finally, Tuesday arrived and we met up nice and early at Jenga ready for a night of exploring. Gary was running late but said he'd see us down there, so we (me, Andy, Richard, Handshake, Sparky, and Chalky) made quick progress down to Chert Alley. The Crawl beyond here remained nicely proportioned. A small dead-end side passage was passed on the left (added note - this was to become the new entrance later in the year) and 10m past here we reached a drop down boulders into the large Main Chamber that the others had got to last week. Several tantalising and unexplored routes headed off from here.

The Main Chamber was larger than I'd expected. It was a rift at least twice standing height, and 1.5m wide by 4m long. Across the chamber, a crawl for several metres reached a fork. Handshake took the right hand route, but declared it to be mud choked after only a couple of metres. To make room for him to reverse, I took the left route through a wet U-bend (The Sewer) to emerge into a tiny cross rift. Turning right to face down the rift revealed a crystal clear sump at floor level with perhaps two inches of airspace.

Returning to the Main Chamber, another passage headed off in the other direction. This was roomy crawling for 20m to emerge through blocks into a standing height chamber, yet another large north-south bearing rift. At the far end, the dry sandy floor sloped downwards perhaps a metre under an arch into what looked like low level bedding or an undercut, but this was blocked by sand. We peered in and there was a draft and glimmers of space which suggested good scope for further passage. We had a half-hearted dig to try to make some progress but without any tools this was futile. We named this area The Sandpit (and the passage 'Sandpit Passage') and we decided that this was a great dig for next week.

Andy meanwhile made a solo push of a bedding crawl on the left just before the drop into the Main Chamber. He understandably reversed 15m in when it became quite torturous. Handshake and I then had a go. I went first and thought that the passage looked fine, just the usual awkward gritty bedding, however, I got to the obvious point where Andy had turned around and it was starting to become much more difficult. I was pleased to have Handshake behind me for moral support. Cherty projections started making the crawl quite restricted and chert slithers on the roof kept falling off on my back, some of them quite sizable which was a little upsetting to say the least. I pushed on for maybe 5m beyond where Andy got to and I started to worry how far I was going to have to reverse if the passage suddenly closed down. Then I reached a right turn with what looked like a wider area ahead, but blocking my way was a bulbous chert projection coming down from the ceiling like a pair of testicles. I tried to break it but there was no chance, so instead with one arm (there was not enough room for two arms forward here) I was able to scoop a channel out of the mud floor to give just enough space to squeeze under the chert nubble. This passage



Laura Bennett in
Chert Alley. Photo by
Gary Douthwaite.

and the following chambers were immediately christened as 'Chertnobyl'. I was relieved to be able to turn around in the area beyond, but even more pleased to see the passage open up into spacious cave again.

I crawled ahead to make space for Handshake to follow, and suddenly I heard a voice! Gary! But how could I possibly hear him? He had arrived and had traced our steps to the earlier sump. Following his voice several metres along the new passage lead me to a tiny undercut below the left wall with Gary's light visible only a few metres away reflecting off water across a few inches of airspace. After exchanging some traditional British pleasantries we headed off our separate ways.

Spacious passage headed off both directions. To the north the passage ascended steeply up boulders along yet another, very large, north-south rift, reaching a very high level area where it choked with big blocks. South, the passage continued but as spacious crawling via a 'chamber' with some excellent rounded black chert projections and contrasting white calcite flows (front cover photo). Beyond here the floor and roof immediately took a sudden and concerted downwards dip into a proper and spacious sump! Unfortunately there were no other ways on, and we were feeling quite bruised after our encounter with Chertnobyl so we headed out.

As usual, the journey out was knackered, but were out by a very civilised 8pm and at the pub not too much longer after that. We were feeling slightly sad not to have found a stomping cave (just hundreds of metres of mostly gloomy crawls), but pleased with the progress, with a tempting and drafting dig to return to at The Sandpit over the coming weeks.



Matt ascending blocks in the northern end of Chertnobl. Photo by Gary Douthwaite

The Sandpit Breakthroughs

Within only a couple of weeks, Jenga had gone from being a five year dig on the verge of abandonment, to being a 300m long cave. For the remainder of 2013 we undertook on a number of enthusiastic digs, gaining a considerable amount more passage and making several connections between different parts of the cave.

The first dig to face our crowbars on 7th May was The Sandpit, as reported by Matt:

Five of us (me, Sparky, Richard, Chalky, and Andy) headed down around 5pm. Richard, Sparky and I headed to The Sandpit, while Andy and Chalky looked at other digs around the bottom of the entrance rifts, keen to find an alternative route in avoiding The Slops, as Chalky's false leg was not compatible with the wet mud. Richard and I set to work, easily lowering the floor of The Sandpit slope, a steep sandy slope at the north end of Sandpit Chamber. It slopes down, probably dropping over a metre in height under an arched roof into what looks like an undercut or bedding. This week we had come armed with an entrenching tool, hammer and crowbar. The first task was to reduce the angle of the slope; otherwise whoever goes head first into the bedding to dig gets a sudden rush of blood to the head, and would face great difficulty reversing out up such a steep bank. Secondly we needed to dig out the sand at the bottom of the slope to improve access into the low undercut passage below. This was nice and easy digging!

With these tasks complete, I took the head first plunge down the slope and into the undercut, however, several rolling mud dunes blocked me only a metre in. With just a few minutes of arm flailing I demolished them and I was able to slither on through wet mud perhaps a metre further such that my entire body was now in the undercut. Ahead, more mud banks reached up to within inches of the roof but over the top of these, I could see black space and a good sized chamber, almost certainly large enough to sit up in and turn around. A strong draft blew outwards and across my face.

Initially I thought it might be possible to dig through quite quickly. I started at the mud banks with the entrenching tool, packing the mud tightly to one side. This involves both arms forward to drive the blade into the mud bank and then both hands to turn it out and then pack the mud sod against the wall. Naturally this very quickly took its toll on the strength in my arms, and after maybe 20 minutes I backed out and let Richard have a go. Reversing uphill out of the sticky mud is hard work and Richard had to pull me out by my feet. Richard then went in and moved more mud. We got very close to breaking through but with time ticking on, the pub beckoned.

Sparky had spent his time digging another, previously unnoticed route, up to a passage above Sandpit Chamber. After some rock and mud removal he was able to squirm up a muddy chute maybe two metres and into a clean washed tube with sharp cherty projections. Once Richard and I finished with The Sandpit I followed up to see if Sparky needed any help. The clean washed tube was really tight and with razor blade-like projections. I was hoping not to be needed! Much thrutching and bashing of the hammer later, Sparky had pushed the tiny passage maybe 15m in length and was actually able to establish a vocal connection back to the Main Chamber where Richard was now waiting. He then reversed out with more than his usual complement of swearing. A bit of digging at the Main Chamber revealed the likely point at which this higher passage joined, although there seemed little to gain by pursuing this any further.

We were now totally caked with mud and lacking stamina so we headed out, leaving two entrenching tools and the crowbar at The Sandpit in anticipation of the next visit. After dragging myself out of The Slops, I stopped to investigate Chalky and Andy's dig. They had made a superb job of digging out the tight tube going off in the opposite direction at the

bottom of the Scaffold Rift. I was very surprised that this does continue as a narrow but perfectly rounded wet tube, for maybe 10m around a couple of tight corners to reach a standing height chamber. The tube continued beyond although is totally choked with mud, suggesting water may enter through a few higher up cavities here. We agreed that this is probably heading underneath the Death Rift and the surface sinks, so decided not to push this any further as it would be unlikely to lead to anything and digging this could cause debris to wash into The Slops.

The Sandpit shortly after the breakthrough. Photo by Richard Wilsdon.



On reaching the surface I was reminded that a trip to the far reaches of Jenga Pot, combined with a few hours of hard digging, really is knackered and I collapsed totally whacked. I was pleased to find a roaring fire for a quick warm before heading to the pub for drinks and roast potatoes.

With spirits now high and the temptation of more passage beyond The Sandpit, we returned on Tuesday 21st May and Matt once again reported:

Clearly everyone was keen, as by 4:45pm Andy, Chalky, Sparky, Richard and I had arrived, with Gary and Handshake coming later. Teams were all decided. Sparky and I were to head to The Sandpit. A drag bucket was already down there, and so we took a second and a rope to shuttle it back and forth. Richard, Andy and Chalky were to work towards digging another way into the cave bypassing The Slops, via Sian's Aven, which the recently performed survey showed to make a close approach to the small dead end side passage just off Chert Alley. The plan was that they would join us at The Sandpit after a few hours to take over once we were knackered.

Sparky, keen as always, took the active face at The Sandpit. The mud in the undercut had settled out with a large amount of standing water on top following a midweek flood. Digging involved thrashing about in a confined space in several inches of water, while trying to dig the mud banks ahead. It was not nice, but is something Sparky is particularly good at! The tempting draft and black space ahead provided adequate incentive. The drag bucket was tied mid-way along the rope to allow it to be shuttled between Sparky and I, with me sat on top of the slope in the chamber. The buckets came fast and for maybe an hour, and no sooner had I got my breath back from emptying it, another was ready to pull out again! I then enquired as to progress and offered to take over. Sparky was unoptimistic and said that we probably weren't going to get through tonight, which surprised me as my recollection was that we were very close. Despite this he insisted on retaining his position at the active face and continued to send the buckets out which made me very suspicious. After another 20 minutes he emerged and broke the news that we were going through!

Sparky lead the way. The mud was particularly bad now that it had been churned up, several inches deep and extremely thick. After four metres we reached the breakthrough point, where Sparky had to do some last minute digging with his hands before squeezing up over a mud bank and into the new chamber beyond. I followed, with my usual degree of grunting.

Once through we could stand up in a very spacious bit of passage, several metres tall, and one metre wide, stomping for maybe 8m before suddenly lowering to a dry muddy crawl. This alternated between a flat out thrutch and spacious crawl, passing a junction on the left, which we decided to leave for later. Ahead, a small rift was reached where some dry mud banks necessitated a brief mining operation. Only minutes later we had pushed on another several metres into yet another good sized crawling passage. We reckoned we were now 40m from The Sandpit and we discussed how far we should go without everyone else. As there appeared to be some kind of chamber ahead we decided we would turn around there.

As we approached the chamber the passage enlarged and then opened out. The chamber offered a way on up a large stack of boulders, and also down a three metre deep trench in the floor. Down the trench there was no way on, however a trickling stream was springing up and promptly disappearing again under the wall but nothing that was really digable. We then heard the sound of people clattering along the passage behind us and only seconds later we were joined by an exhausted Gary, Richard and Handshake, who had come to join us at The Sandpit only to find nobody there!

The ascent up boulders looked more promising. This lead up into a massive choke in what was clearly a very spacious area with a large void above and a very strong draft coming out from between the boulders. Despite being able to see open space further up and through the boulders, they were precariously stacked and so nobody fancied taking any further chances. This was probably the most extensive boulder choke we have found!

We started our outward journey, feeling quite pleased with our new passage. On the way out Richard and I stopped to investigate each little nook and cranny. We eventually got to the side passage we had passed (on our left on the journey in) and we could hear Handshake and Sparky's muffled voices along there already so we followed. A slope up over mud and blocks for a few metres dropped back down into a canal in a small, beautifully rounded phreatic tube with a foot of muddy water. It was easy to glide

21 May 2013

The digging team after passing The Sandpit. Left to right: Gary Douthwaite, Andy Brennan, Chalky Thomas, Richard 'Sparky' Edwards (sitting), Matt Ewles, Paul 'Handshake' Horner, Richard 'Dickwad' Wilsdon, Photo by Richard Wilsdon.



through the water for maybe 15m until rising up into a more spacious but dry passage. Handshake and Sparky were still just distant muffled voices ahead and it suddenly occurred that we may have a serious continuation ahead of us! Maybe 20m later the passage really opened out to a beautiful, clean, heavily scalloped phreatic passage, three metres wide and just over one metre high and highly reminiscent of the kinds of fine passages you get in the classic caves in the Yorkshire Dales!

Just after the enlargement we reached a junction with two ways on. On the left the passage closed down after maybe five metres but there was an interesting small hole offering a three metre drop to a muddy floored area (this looked tight and we were concerned that a rope may be needed to assist with the upward journey, so nobody went right down for a proper look). To the right however, the passage lowered to a tight, clean washed cobbled tubular crawl heading off into the distance which we decided to leave for Andy and Chalky to push next time.

We reckon total length of passage discovered tonight is 80m, putting the total length of passage in Jenga now at least at 400m. We have still yet to find any passage that can explain the route of sinking water, such as a main streamway. We suspect that the new passages head north, which could put them very close to the (currently unsurveyed) end of Shit Creek in Excalibur, and so a survey of both sides of the possible connection is needed.

The Sandpit Choke

The drafting boulder choke at the end of Sandpit Passage suddenly became our major dig. We knew that dealing with this wasn't going to be a quick job and would be our next long term project. During June 2013 the choke was examined on several occasions to decide a strategy before any physical work was done. Meanwhile others focussed on other digs, including the much needed bypass to The Slops to facilitate a more efficient entry to the cave. Initially, access to the lower portion of choke was barred by a few non-supporting boulders and so we concluded that snappers were going to be needed. This meant we needed to get geared up for some drilling at the far end of the cave, not an easy undertaking given how strenuous and grotty the route there is. Matt reported on progress from a session on 16th July:

The hot weather meant we weren't too efficient at getting underground. Following some nagging by Sparky we headed down though The Slops with the intention of laying 100m of cable from The Sandpit to the choke in anticipation of some geological manipulations. Gary rolled the hefty reel of cable, while Margot, our newest member of the team, and I worked together to accompanied the famous big green bar through the cave ready for some boulder poking.



17 September 2013

Andy Brennan (right) installing scaffolding in the boulder choke at the end of Sandpit Passage. Photo by Gary Douthwaite.

Once the cable was in place we all stopped to look at the choke. There was a strong and very cold draft coming through the boulders. This was despite it being close to 30°C on the surface, so this is air that has been underground for some time. So we can rule out the idea that the draft is simply coming from the surface through a nearby fissure.

There are two routes into the boulders, one follows up the right hand wall of the chamber into a standing space where an upward squirm would pop you into a spacious and as yet unentered high area. The draft actually appeared to be coming through the boulders on the left before you climb up high, and black space could be seen beyond, although with several fallen and dangerously stacked boulders, neither route was enterable at the moment without a great deal of risk. We decided to focus on the lower route, as it would be possible to poke and drill this without being underneath any part of the choke. I went in and using the big green bar I was able to bring down some of the smaller suspended rocks, but the ones actually blocking the way were far too big. Progress would require snappers!

Our next reported session came on the 14th August:

Sparky and Handshake had an early start and by the time everyone arrived they were already down digging The Slops bypass in the Sian's Aven vicinity. The second team (Richard and Andy) headed to the Chertnobyl sump in wetsuits (these digs are reported separately in the coming pages).

Team three was me, Gary and Laura, armed with the drill in a dry bag and some snappers. Tonight's job was to eliminate some of the blocks which were barring access into the centre of the choke. All went well and after three snappers were drilled we were frozen and soaking wet, so retreated to The Sandpit which was the end of the wire. After verifying the presence of a cairn at the Main Chamber (the signal to confirm Andy and Richard had exited the cave) I shouted the all clear along the passage. Before I knew it, whoosh, Laura whizzed past me followed by a loud pop (the snappers, not Laura), followed soon by Gary. Time to go! Everything seemed fine until we got to the bit just before The Slops when we hit strange smog, probably due to Sparky and Chalky's fags, but we didn't stop to think about it!

The following week we confirmed that the snappers had done well, and destroyed two boulders at bottom of the choke. We could now get our heads in, allowing our best view yet up into the spacious high level overhead area that awaited us. We reckoned we could just make out what may have been a passage continuing, but finding a way up and over the choke would be the only way to reach this. There were now no physical barriers to being able to slide up through the choke, however, the gravity defying blocks which you would have to grapple with on the way up made this an unattractive prospect.

What were the options? This was not going to be a quick job! The blocks all the way up the area where we wanted to climb up were the size of washing machines, microwaves, or other hefty kitchen appliances, and they were stacked very precariously indeed for three metres above us. It was impossible to determine what exactly was holding some of them up! Drilling was not a satisfactory option as it would have meant being directly underneath them, while inducing considerable vibration in the loose blocks!

We concluded that the only safe way would be to scaffold our way up through the choke. After our extensive scaffolding work in the Jenga and Excalibur entrances over the last five years we had good experience in doing this. Therefore, over the following week we collected together all our scaffolding and set a date for a Tuesday evening to transport it all (and three bags of clamps) to the choke at the end of the cave. We had a great turnout, and were able to make a line of people through various sections of the cave and deliver over 50 foot of scaffolding and three bags of clamps to the bottom of the choke.

During the weeks that followed we built a scaffold cube leading into the choke, allowing a safe crawl under the chimney up through the blocks. Scaffolding up this chimney then occupied mostly Gary and Andy right up until the end of the year while everyone else pursued other projects. On our last digging session of the year (11th December) Gary reported that there were only a few more pieces of scaffolding to install before someone would be able to safely climb up through the choke. From what they could see, passage did continue onwards beyond the boulders, and with the survey now up to date we knew there was only 37m between here and the terminal streamway in Shit Creek. This was therefore a particularly exciting way to end the year, and a good point to leave the story for this volume of the journal. The story will certainly continue in volume three!

Other projects and digs in Jenga during 2013

The boulder choke remained our main project throughout autumn and winter, however, this was only a job for a few people as it involved mostly scaffolding. Our digging group by this time had expanded through additional members of both clubs and we were even regularly joined by some folks from the Cleveland Mining Heritage Society. Therefore, we took full advantage of the additional manpower by pushing several other leads in the cave, including digging a bypass to The Slops and also completing the survey.

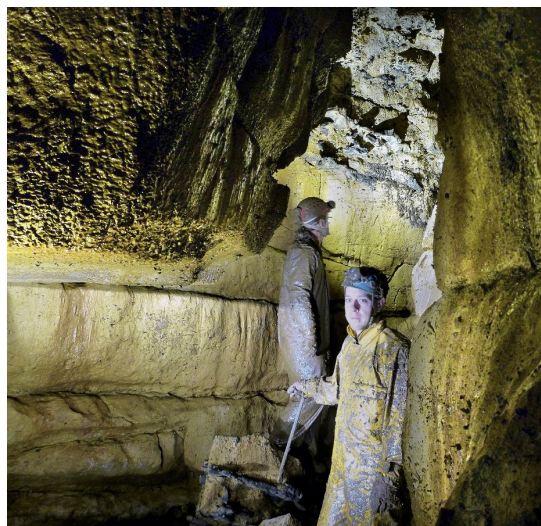
Seth's Inlet

Immediately beyond The Sandpit we dug away some mud banks to gain a new passage. This led into a rift, which was only a few metres long, but heading off at floor level was a tiny tube, barely body size but disappearing off in a straight line for at least 10m. Over a few weeks the floor of this was scraped out, until it was possible to slither along. After several metres a small rift provided a brief enlargement before one last squeeze entered a large chamber, which we named Seth's Inlet.

The chamber was clean washed, with a floor of rounded cobbles and sharp serrated walls with washed-out fossils, indicative that it has received a severe pummelling from the water. Above us, the chamber pinched in after several metres, and tiny water conduits entered all around. This was the largest chamber discovered yet in Jenga and likely a major inlet.

There was no way on, however a choked chute leading off under the east wall appeared to be the usual route of water. The survey shows that this chamber is beneath Hutton Beck, 12m north of the bridge just upstream of the Jenga entrance. This is clearly a major inlet, possibly from the Seth Pit sink (reported elsewhere) which is about 20m south.

Seth's Inlet chamber after breaking into it on 18th June 2013. Photo by Richard Wilsdon.



The chamber was left alone for a little while until the passages beyond The Sandpit had been surveyed. The survey hinted at a likely connection from Seth's Inlet to a drafting rift just beyond The Slops. A team was sent to both ends and a clear vocal connection was made through the choked floor-level chute leading off from the chamber.

Over three weeks we dug from both sides, making excellent progress. From the Seth's Inlet side, this was a matter of simply mining the passage ahead, making a metre of progress each evening. From The Slops side, considerable work was needed to make the cross rift more accessible. On the second week of digging a visual connection was made between both parties with only a few metres separating us via a tube that only needed a few inches enlargement. The third week we got within an hour of making the first trip through the connection but time ran out and we never actually returned to finish the job. The main aim of this connection was to provide a shortcut that would bypass Chert Alley and The Sandpit for easier digging at the boulder choke. However soon after this the new bypass directly into Chert Alley was opened which made the Seth's Inlet connection rather redundant. The connection is nonetheless shown on the survey.

Richard Wilsdon making preliminary investigations of the Chertnobl Sump, and below, a later return trip with diving gear (to be reported in journal volume three). Photos by Richard Wilsdon



The Chertnobl Sump

On the 14th August, Richard and Andy kitted up in wetsuits, took a trip along Chertnobl to visit the sump. The aim was to take an exploratory dip to see whether there was spacious passage below the water level, or whether it might even be a short and free-divable sump with dry passage beyond. Richard, as hydrophilic as always, was able to slip in feet first and feel his way about two metres into the sump with his face poking out of the water in a small fissure in the roof. Beyond this point a temporary dip in the roof meant that further progress required a duck and resurfacing further into the sump.



Richard fearlessly obliged, ducked under and pulled himself further into the sump, successfully resurfacing about three metres into the sump with his head only just visible to Andy along the tiny fissure in the roof. Richard was on his back, feet first and drawing limited air from the narrow roof fissure. He reports that below the water his feet could feel good space, but this was quite far enough without an air bottle. Unfortunately, the journey out was more eventful as he needed to emerge head first on his back and so could not see the right direction to duck under the water. After several unsuccessful efforts to duck out of the sump, resulting in a few bashes to his face due to the failed resurfacings, Richard started to get anxious. Thankfully, Andy was able to reach into the sump and help guide him to safety. Yet another of Richard's nine lives has been lost!

The Chertnobl sump is only a few metres above the water level at Bogg Hall Rising, so we are getting very close to the water table. Nonetheless there remains a good chance that further dry passage could exist beyond here, possibly even the undiscovered Jenga master cave! In the early months of 2014, Richard revisited his nemesis, this time armed with diving gear and confirmed the possibility of a way through. This marks the start of another story of exploration, which will have to wait until journal volume three!

The Slops Bypass - A Direct Route into Chert Alley

The Slops was never an ideal route into Jenga Pot. Firstly it was disgusting! The thick, wet mud would find its way down every orifice and opening in our oversuits. Secondly it meant a wetting for anyone entering the cave, which was not ideally when digging or scaffolding. Thirdly it was arduous to drag ourselves plus drilling or digging equipment through and meant we were half knackered when we arrived at each dig! Fourthly after a trip down the entrance in flood over summer, we knew that The Slops sumped off, initially from Pool Chamber, and eventually, in prolonged flood, from the bottom of Scaffold Rift. As Hutton Beck has been reported to flash flood after sudden cloudbursts, we were not happy with this being the only route in and out of the cave. Finally, as we were soon to find out, The Slops is highly dynamic, and the mud banks we had dug through to gain entry would rebuild themselves during prolonged flooding, meaning frequent digging would be required to sustain this as an entrance to the system.

Although there was a certain sentimentality attached to The Slops (this being the original entrance into the cave) and it having a degree of 'hardcoreness' associated, we were all of the opinion that it was not a sustainable route. A quick examination of the survey revealed that Sian's Aven was only five metres from a small mud-choked side passage half way along Chert Alley. If a connection could be made, this would provide an alternative route in and would bypass not only The Slops but the passages beyond.

Digging at Sian's Aven actually commenced soon after the initial breakthrough, and a number of mud choked tubes were excavated. However, without any direction or strategy this proved fruitless. The main achievement was the mining up a chute in the roof, which gained access into a substantial new cross rift (Handshake Rift). This rift stood several metres tall and headed south for several metres. Unfortunately, a huge stack of blocks prevented all but visual access to the southern portion of the rift, where a small fissure in the floor looked like it might offer some hope for a connection into the cave. There was a gap through the boulders which could be tackled by a sideways thrutch but the stability was questionable. Only Paul 'Handshake' Horner was mad enough to take the risk and returned to report that the fissure looked like it might be digable.

The next target was Horseshoe Rift, the pothole through the second windpipe which we had abandoned a few years previously. The survey showed that this also came close to Chert Alley, and even closer to the anticipated south end of the newly discovered Handshake Rift. Sparky and Chalky worked tirelessly on this project and dug through the floor of Horseshoe Rift where we had left it years before, now with renewed enthusiasm that a breakthrough here was more likely. They also enlarged the second windpipe for easier access and hammered horseshoes into the rift walls to allow an easier descent (hence the name). Within only a few months of digging, while others were working at digs further into the cave, they had lowered the floor a couple of metres and dug a mud choked tube for three metres to break into the southern end of Handshake Rift.

From this side of the rift it was possible to climb on top of the dodgy boulder and identify that they were perfectly stable. Nonetheless we chocked them for added confidence, before slipping through. Thus, the Jenga entrance series acquired a round trip: Through the second windpipe, down the Horseshoe Rift, through Handshake Rift, down to Sian's Aven and back up the Scaffold Rift. A great trip for rift-lovers everywhere!

Numerous digs were pushed over the following month in hope of finding some way of connecting Handshake Rift to the rest of the cave, but with no success. The ferret tracker was employed with someone at both ends of the connection but this was inconclusive.

The incentive to be more successful came in early November when Jenga flooded for several days. Upon returning after the flood was over we found that The Slops had been partially blocked with mud and silt banks and the job of digging it out looked set to take weeks. We knew that this was partially our fault as the spoil at Sian's Aven and Seth's Inlet had washed down into The Slops. Nonetheless, we decided that rather than dig it all back out we would focus all our efforts on digging the much-sought after bypass. A slightly more scientific approach was adopted and we soon achieved our goal.

Work started on Sunday 24th November and was efficiently completed on the 27th. This was reported by Matt:

On Sunday 24th November, we decided to devote all our manpower to engineer another route into the cave and never again have to use The Slops route. We knew that Sian's Aven to Chert Alley was the most likely connection, so rather than dig randomly we looked closely at the survey and determined a reading between the two points, 287 degrees from the centre of Sian's Aven to the back wall of the side passage in Chert Alley, and +1.8m up, and about 5m in horizontal distance. On Sunday we headed down with a compass, and we found, as suspected, this bearing took us directly up into Handshake Rift above Sian's Aven (which eliminated the 1.8m vertical distance too), and from there, continuing the bearing was straight across through the floor directly opposite the climb up from Sian's Aven. We had already done away with a few metres of the horizontal distance, so theoretically we were only three metres from making the connection.

Sparky, as usual, managed to make an almost body-length dig in no time, revealing a totally choked tubular passage with a rounded roof. Progress was made by clawing out the tightly packed mud ahead, and shoving it back to a person sat behind filling buckets. These were passed back up the rift, through the blocks and the slop was packed into sandbags and these were layered on the floor. I took over for the second shift and made the tube above six foot long in total before we called it a day. Getting spoil back to the person in the rift involved the use of your body as an Archimedes Screw, which was surprisingly more effective than reversing out with it. Work continued on Wednesday 27th November. We had to bail the new tube slightly as it had collected water but with that done, Sparky went in and the mud soon started coming out again. We had loads of people so this was quickly bagged up and a very efficient system developed. Finally, a drag bucket could be sent in for Sparky to fill directly, and this was retrieved using the hook-a-duck device, taking great care not to hook-a-Sparky by mistake.

After about an hour, Sparky shouted that he'd lost the spade into a void, and we started to get quite excited. He played this down a little, and then carried on digging, refusing to relinquish his front position, and then went quiet (he even stopped swearing), so we knew something exciting was happening. Shortly after, and only two hours into the session, he shouted that we were through (having found tools from the Chert Alley dig on the other side) and he disappeared into the cave. The team all followed, and we had a celebratory dip in the sloppy mud of Chert Alley for our first visit there without having gone through the nastiness of The Slops.

So we're through, and after only about five hours total work! We broke into the side passage off Chert Alley, exactly where we had expected. This is a victory for digging determination, surveying accuracy and the application of a logical, scientific and measured approach. Without wanting to gloat (ok maybe a little) the survey was bang on accurate to the nearest foot, another endorsement for the accuracy of our surveying skills.

It is now possible to get into Jenga without going anywhere near The Slops, thus staying dry, and we hope, even in flood (we need a wet trip down to investigate)! You can either go via the original route (Scaffold Rift) to the start of The Slops and then pop up at Sian's Aven, or you can take the drier but slightly more strenuous route through Horseshoe Rift, both routes allowing you to be into Chert Alley within only minutes of the entrance. This means we can get back to the Sandpit boulder choke where big discoveries await us. Safe to say I was not expecting to be getting back there quite so soon. Superb work by everyone!

Jenga in Flood

With the new entrance to Jenga directly into Chert Alley now open, we were keen to see if this offered a safe route into the cave in flood. The 19th December provided such an opportunity and Sparky and Richard headed down on a retreating flood.

The following are the observations made during the trip:

1. Horseshoe Rift (as confirmed previously) was mostly dry, however, some water entered at the top of Handshake Rift, giving a small flow through the new connection into Chert Alley. Some simple mining work could probably divert this down into Sian's Aven instead and would probably be worthwhile in the long run.
2. First Chamber, at the north end of Chert Alley contained a small river entering from the fissure to the north, which flowed down the slope towards The Slops.
3. The Slops were sumped a few metres beyond First Chamber.
4. Chert Alley contained a small river due to water entering through the roof just south of First Chamber. The water flowed down Chert Alley and dropped into the Main Chamber. From here some water flowed into The Sewer (which was sumped) and some water flowed up Sandpit passage for a few metres and into the pit in the floor on the right hand side. This pit was full with water to within a foot of the top.

5. The remainder of Sandpit Passage was dry, but The Sandpit itself was sumped. How quickly The Sandpit actually sumps when the river floods is unknown, but for now attention to the weather must continue when working beyond this point.
6. Chertnobl crawl was overall no wetter than usual except for a small river entering near the Chertnobl squeeze. Surprisingly, no water entered through the high roof of Chertnobl chamber but the water was much higher at the Sewer sump connection and at the main Chertnobl sump to the south.
7. On the way out, Sian's Aven was investigated by dropping down from Handshake Rift. The low crawl through to Scaffold Rift was wet with plenty of water gushing through, but surprisingly just about passable. Pool Chamber was sumped. Plenty of water was gushing down Scaffold Rift although it too was passable.
8. The entrance rift, as observed previously is a tad stormy!

Therefore, in conclusion, Jenga is passable through the new route into Chert Alley on a small flood, however, all access to beyond The Sandpit is sumped off, and the southern sumps rise up. It would only take another couple of feet of water to sump much of the rest of the cave. A visit in a more substantial flood is required to investigate this. There is some relief in knowing that if Jenga floods while we are down there now, we would be able to escape from most parts of the cave. Attention to the water levels and weather forecast remains necessary if working beyond The Sandpit however.

The End of the Jenga Story for this Journal...

We leave Jenga at a passage length of 498m with several superb digs, and 37m standing in the way of a connection to Excalibur. At the time of writing these concluding remarks (July 2014) we can reveal that substantial progress has been made at both the north and south ends of the cave, the distance to Excalibur has narrowed, and the story of Excalibur and Jenga Pot continues to get more and more exciting.

Journal volume three will no doubt add significantly to the story!

Major flooding of Hutton Beck in January 2014. Not a good time to visit Jenga!

Left: Looking upstream from the Jenga Entrance.

Right: The bridge just upstream of Jenga. The water is gushing over the track, meaning a total depth of around 2m.

Photos by Andy Brennan.



The Jenga Pot Survey and Navigation Guide

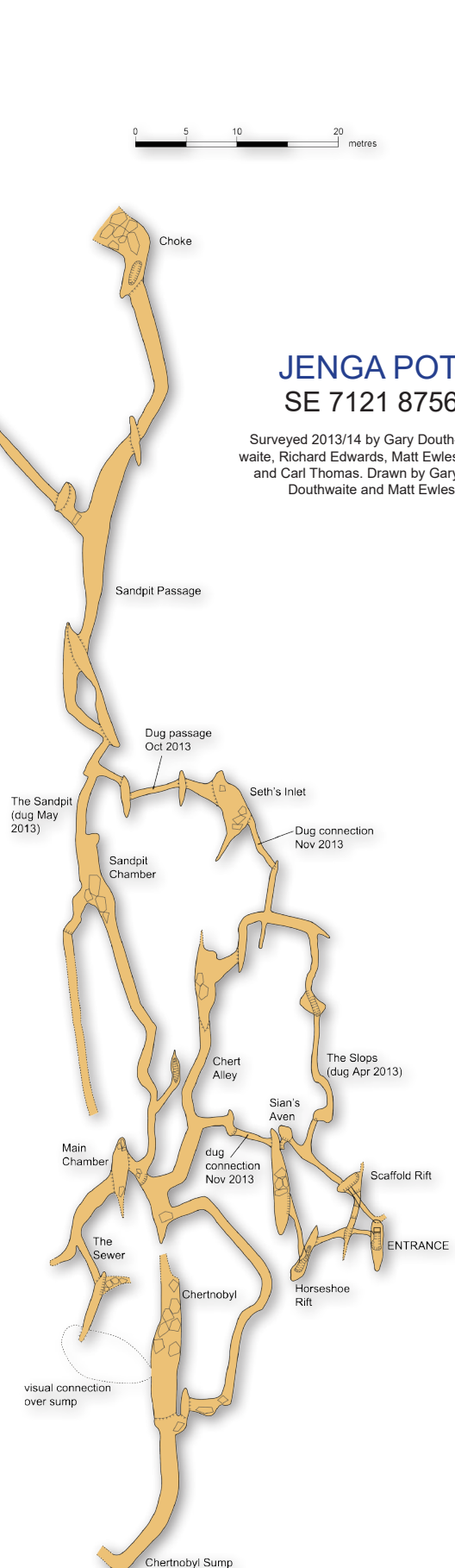
Warning! When the cave starts to flood (i.e. Hutton Beck reaches the entrance), The Slops, The Sandpit and The Sewer all sump and all other parts of the cave become hazardous. During prolonged flood, much of the cave sumps to the roof! A descent must only be made during very settled weather.

The entrance drops 3m down a concrete shaft and then a further 7m down an excavated natural rift into a scaffold frame amongst stacked blocks. Under the blocks, a tube (The Windpipe) reaches a second parallel rift. The original entrance into the cave followed a series of 1m steps down the dug rift on the right to the 6m deep Scaffold Rift, from the bottom of which a low crawl immediately reaches a low junction. Straight on leads into Sian's Aven (originally a dead end) and right leads into The Slops. The Slops commence with a 0.5m drop into the cramped, wet Pool Chamber followed by 20m of gruelling wet passage which may require excavation. Half way along The Slops, a drop down at The Fanny marks the start of the final, wettest section before a ramp up emerges into larger, drier passage. Following this uphill over mud banks reaches a gravel slope up into First Chamber.

Turning left (south) at First Chamber enters Chert Alley, an easy crawl with some fine chert shelves. A low passage on the left is passed (the new entrance, see below) before a wide, low junction is reached. Left marks the start of Chertnoby1 which is entered via a constricted and nasty 25m flat-out crawl, the end of which is marked by a squeeze under a chert projection from the roof. This leads into a large chamber, where on the right (north) are spacious ascending boulders leading up to a choke, and on the left (south) is a crawl decorated with rounded black chert (front cover photo) leading to a sump.

At the end of Chert Alley (opposite the start of Chertnoby1) is a 1.5m drop into the Main Chamber. Across the chamber, a flat out crawl continues to The Sewer, a wet u-bend (which sumps in flood) emerging into a cramped cross rift and a sump with visual connection to Chertnoby1. A route up through blocks from this cross rift has since been connected by digging up into the Chertnoby1 chamber (not shown).

From the Main Chamber, a crawl runs north for 20m to emerge under a block into Sandpit Chamber with a sandy slope leading down into an excavated undercut (The Sandpit) which sumps in flood and is quite unpleasant at all other times!



The Sandpit is only four metres long and slopes back up into a more spacious passage. At the top of this slope a crawl on the right into another cross rift leads to a tight, flat out grovel (Moray Passage) to Seth's Inlet, a spacious chamber and major inlet, with a very tight dug connection back to the region between The Slops and First Chamber.

Continuing north up Sandpit Passage starts as a fine stomping section in a tall cross rift, degenerating into a low wide crawl lined by mud banks. A junction on the left involves a step up boulders and into a 15m long canal, leading to a fine section of clean, beautifully scalloped cave passage terminating at a hole in the floor dropping to mud choked bedding on the left and a very tight tube on the right leading to a choke.

Further north back in Sandpit passage the passage gradually enlarges to a large chamber with a trench in the floor dropping 3m to a tiny (impenetrable) streamway. Above this, an ascent up blocks leads into a massive and unstable terminal boulder choke, which is currently the home of lots of scaffolding!

The new entrance, avoiding The Slops can be found by a dug climb up in Sian's Aven into a large overhead cross rift (Handshake Rift), followed immediately by a dug floor level tube to join Chert Alley. This can also be reached by continuing along the Wind-pipe just below the two entrance rifts, into Horseshoe Rift, which can be descended to a dug tube dropping into the south side of Handshake Rift. A downwards slither through boulders reaches the dug connection to Chert Alley (left) and Sian's Aven (right).

Jenga and Excalibur Pot Survey and Access

At the time of writing there are no established access agreements for Jenga Pot, which lies on a private shooting estate (owned by a different landowner to Excalibur Pot). An agreement will hopefully be established, however until then please contact us directly (via the York Caving Club website) if you have a particular desire to visit Jenga.

Access to Excalibur Pot is made easily possible for BCA-registered caving clubs via an agreement between the landowner and the Council of Northern Caving Clubs (CNCC). Details can be found on the CNCC website (www.cncc.org.uk).

The survey of Excalibur Pot and Jenga Pot has recently been published (replacing the previous two revisions of the Excalibur Pot survey which have omitted Shit Creek and Jenga Pot). This, along with other surveys and the first volume of this journal, can be purchased from the York Caving Club website (www.yorkcavingclub.org.uk).

Up Shit Creek

Overview

For the story of the explorations Shit Creek (Screak in polite company) in Excalibur Pot up to 2010 (including the first two breakthroughs) see volume one of our journal.

Shit Creek is certainly a memorable place! It was one of the first passages to be explored in Excalibur, as a minor bedding passage leading off from the downstream Honey River Streamway, but was blocked by a boulder collapse (The Guillotine) after 40m. The grim nature of the passage up to this point meant that it was subsequently left well alone.

A considerable amount of time then passed before this collapse was successfully tackled (this was the first breakthrough), to reveal a major extension. The passage continued as a small, sharp and gritty crawl for another 40m before meeting an inlet passage on the left, bringing in (we suspect) the water from the Far Honey River Streamway. Downstream of here the passage becomes clean washed, wide, low, cobbled bedding and over the next 15m is joined by the flow from two more minor inlets (the first of which we suspect to be the water from the Honey River Series and possibly the Bedding Extensions).

Following the bedding downstream for 30m reaches a cobbled sink where the water is lost under the wall. Beyond here, the passage rises up into higher level continuation to a mud blockage. Digging over this was the second breakthrough. Beyond here Shit Creek changes character again, and becomes a wet, muddy, flood-responsive and lonely passage terminating after a further 20m at a mud choked chamber with funnel-like holes in the floor and the sound of nearby running water. These are known as the Far Shit Creek Extensions, and are where we left the story in volume one of this journal.

Shit Creek is an unpleasant and daunting place. Nonetheless, the sound of flowing water was proving too enticing for us to resist. Furthermore, the survey showed Shit Creek to be on a journey into the unknown, southeast, away from the more substantial parts of the system (this was all before any of the breakthroughs at Jenga). We knew this mysterious south-eastern area takes the water from the Honey River Series, the Excalibur entrance and whatever the mystery streamway was we have heard at the end of Shit Creek, not to mention the water sinking at the Jenga entrance. The idea of a connection between the two caves and even a second main streamway fuelled our enthusiasm to keep digging.

The explorations described in this volume of the journal cover two further breakthroughs to reach the mystery streamway (The Paddle). This is unfortunately too low, and now marks the end of Shit Creek. The Jenga and Excalibur discoveries reported in this journal narrow the gap between the two caves to only 37m (and discoveries to be reported in the next journal have since reduced this even further).

Andy Brennan in the Far Shit Creek Extensions just before the Welly Sump. Photo: Richard Wilsdon



The Third Breakthrough

The third breakthrough in Shit Creek was achieved by digging through a small hole in the floor at the end of the terminal muddy passage. Sparky, our newest recruit at the time, keen to prove his worth, was the main digger here during summer 2010. We were pleasantly surprised that it only took a few sessions. The outcome was a tight, muddy u-bend which pops back up into a parallel passage. This has since been named the Welly Sump, as it holds water after flood, and requires bailing with a welly! The passage beyond continued as before (small and muddy) for another 10m before the next obstruction was reached. This time the blockage took the form of a 2m long section of calcited bedding floor with only a 20cm gap over the top, too narrow to squeeze through. The sound of the mystery streamway was very loud and sounded close, and the bedding passage continued beyond to a right hand bend where it appeared to return to passable proportions on clean washed cobbles. Therefore, we were once again back to digging.

The first assault of this constriction was made on the 19th October 2010 using nothing more than simple and traditional hand tools. This was reported by Richard:

There was some debate about the weather and the imminence of a flood but after a visit to Hutton to confirm that the water levels were quite low, we (Andy, Sparky, me, and a reluctant Chalky) set off again for the far digging front of Shit Creek. Lower Honey River was a mere trickle but Shit Creek was as always a dire muddy slither. We hadn't gone far before we reached the CBP (Chalky Bottling Point) from where just three of us continued. We were looking for evidence of the last flood and there were freshly laid silt deposits and in places froth that confirmed it had flooded up since our last visit. We reached the YHBNF (Yorkies Have Been No Further) point that Sparky had dug out on our last trip and found this much the same but with squelchier mud and squeezing through it was tight and unpleasant. Andy was first into the calcited constriction, wielding a tool best described as a pizza paddle. This did some good at serving up mud pie but the calcite floor was resistant to this and even the hammer. The space over the top is too tight. After a bit more digging it was decided that the slab was not going to yield and the drill would be the best tool for making further progress.

We then left Shit Creek alone for several months, deterred by the prospect of dragging the drill down there. We returned on the 14th June 2011 as reported by Matt:

Last night Sparky, Andy and I headed down Shit Creek armed with a drill to attack the calcited constriction. It's been a while since we've been down, and I personally had yet to see this new dig so was looking forward to it.

The first section of Shit Creek was drier than usual and it was possible to keep our upper bodies out of most of the wetness. We shared the drill carrying, making steady progress and arrived at the Far Shit Creek Extensions after about 35 minutes of the usual gruelling progress and then from there it was only five minutes through the previously dug connection to the new constriction. The mystery streamway was actively roaring nearby. Obviously acoustics can be misleading, but it was clearly a substantial flow!

The gap over the calcite floor was so close to being passable, and I tried it out for size, but as I was padded out with a neofleece and several layers of thermals there was no chance. Therefore the efforts began at drilling the floor. This was thwarted from the start by Sparky's can of Red Bull which had burst in the dry bag and got the drill wet. But it still worked, and the passage acquired a stimulating smell.

Sparky unsheathed the drill and commenced his assault at the calcite floor. It was hard to drill at a productive angle due to the confined nature of the passage just before the constriction, but after much swearing and whinging, two caps were popped, but these achieved almost nothing. Andy and I were freezing by this point, and Sparky couldn't see anything due to all the mud on his glasses. The restricted tube we were sat in was also misting up with water vapour and fumes, which limited visibility to only a couple of metres. This did not bode well for the air circulation and so as we were also freezing cold we packed away and started out before asphyxiation commenced. It was an arduous trip out dragging the drill and I was totally exhausted when we arrived back at the Honey River.

This trip was disheartening, and with no immediate breakthrough likely, Shit Creek was once again left alone for a considerable time. A trend was now emerging and it appeared to take eight months between each visit for people to forget how horrible Shit Creek is and to muster the enthusiasm for a return trip. As was fitting to this timescale, a return was not made until the 27th March 2012, which was reported by Matt:

Andy and I, accompanied by the drill, had quite an enjoyable trip down Shit Creek to tackle the calcited constriction at the end. When we arrived at the dig, interestingly we could not hear any water, contrary to the two previous visits where a good roar was heard. Despite this, the main passage before the Shit Creek sink was flowing well, so the mystery streamway must be independent of this.

Andy set about getting ready for drilling, however on inspection he said he reckoned he could get through there with some digging down one side. Andy has always been the NYMCC's 'thin man' so is used to fitting where nobody else ever could! He set about clearing away the mud and cobbles that were overlying the calcite floor and peeled a few layers of thick mud from the roof, thus gaining a critical few extra centimetres of clearance. We were also wearing fewer underlayers than last time (just a thermal and undersuit) and so we were physically thinner. After everything possible had been done, Andy decided he was going for it. He went in and squeezed over the calcite floor, using every millimetre of space until his chest popped through and back onto classic Shit Creek cobbled bedding. However, no sooner had his chest popped through than the way ahead was blocked by a bank of large cobbles cemented together with mud.

With some difficulty he reversed out and I headed in. There was no space to bring arms up from one's side at the dig point, so I had to go in one arm forward and one arm back to pull cobbles out from the bedding, and throw them to one side. We dug like this in alternating ten minute shifts but failed to get through before we were both completely knackered.

The way ahead looks good. There's a few more metres of cobbles to clear out, currently with 8-10 inches gap over the top, but this could easily become 15 inches when the big cobbles have been removed, which should be easy going with a trowel and shorter crowbar (we only had a 4ft bar) and should take only an hour. There's plenty of stacking space on either side as the passage is nice and wide here. Beyond, the passage is clean washed and crawling height for two metres before it turns to the right and we can't see round the corner. We'll have to dig to find out!

The squeeze itself remains exceptionally tight. The calcite floor is pressed firmly against your chest and groin and your back is up against the roof. Those in excessive clothing or with excessive body mass will be excluded!

This time, with a breakthrough seeming imminent, we broke the eight month cycle and were back down on the 22nd May 2012 for the final breakthrough, reported by Matt:

Armed with a trowel and a healthy dose of enthusiasm, Sparky and I headed down Excalibur to Shit Creek with the intention of pushing the passage at the end, beyond which flowing water has been heard. Richard arrived at the car park as we were about to head off and said he would follow us

Margot Saher exiting the fourth breakthrough (the calcite constriction) towards the Welly Sump in the Far Shit Creek Extensions.
Photo: Richard Wilsdon



down. Shit Creek was wetter than usual after the extremely heavy rains of April and May, but it has been dry for several days now so we were surprised to find so much flow in the bedding leading to the Shit Creek sink. Into the far extensions it was horrendous diarrhoea indeed, and the dug-out u-bend was sumped with a standing pool of brown water and impassable. This was the worst we have ever seen this and I thought we would have to abandon the trip. I started flicking water out with a trowel, which soon proved to be futile, and then Sparky suggested a welly. Unfortunately this suggestion was not followed by the offer of his welly, so off mine came, and within several minutes we had drained the pool, pouring the water behind us and building a mud dam to hold it back. A few inches of sloppy

water remained in the u-bend, which actually helped to lubricate us while squeezing though. This shall now be known as the Welly Sump.

I went in first, through the calcite constriction and onto the cobble-choked bedding beyond. The trowel made peeling cobbles out from the mud much easier. We had only a few feet to go and we would be through to the more spacious bedding, and the tantalising roar - and I mean ROAR of water - that could be heard. Sparky then took over and made excellent progress. Meanwhile, a shuffling from back down the passage could be heard, which we assumed to be Richard, so I quickly headed back to alert the clumsy git not to demolish the mud dam that was holding the water back. Digging at the face was hard work and once Sparky was knackered I took over again. It was looking uncertain whether we'd get through as a dip in the ceiling forced us to mine around to the left, but adrenaline was high and about 20 minutes later, I slipped through and into the bedding beyond.

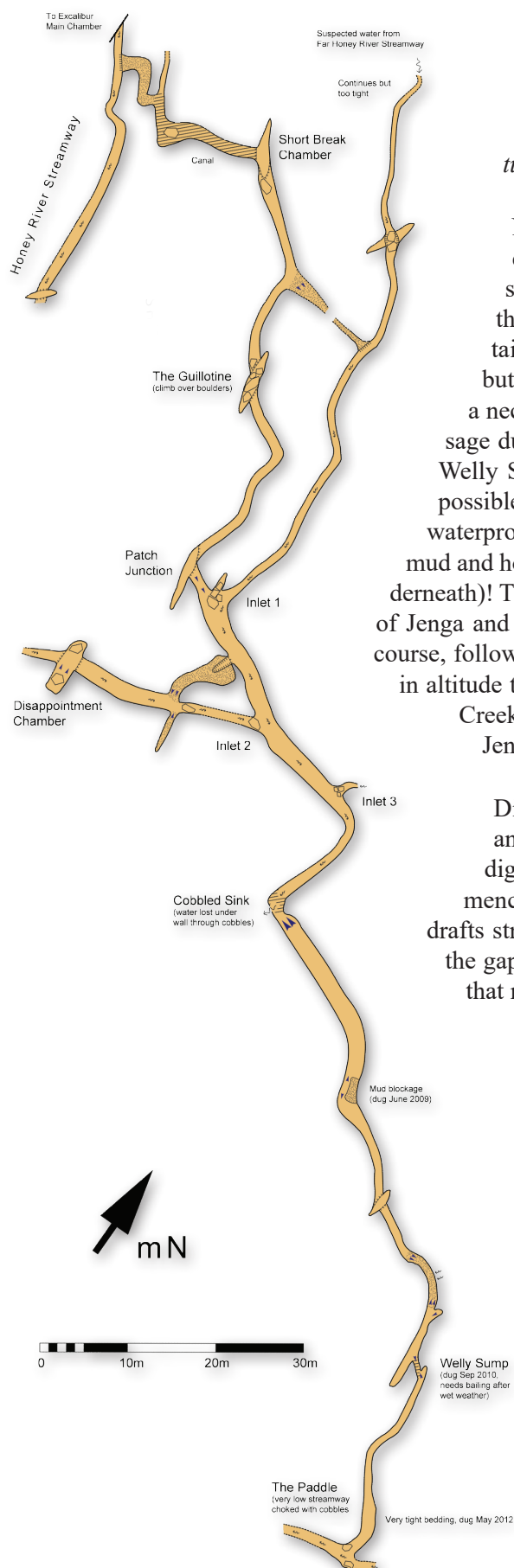
I headed on and beckoned Sparky to follow. About three metres on, along slightly more spacious bedding strewn with large rounded clean cobbles, the passage turned maybe 50 degrees to the right, and immediately met the streamway we have been hearing for the last few years! The good news was that it carried a substantial amount of water, maybe half the amount normally in the Excalibur main streamway, but the bad news was that the passage taking the flow was only about 8 inches high. Water enters from a small cascading inlet on the left blocked by cherty outcrops. Downstream (right), the water flowed away down a wide (4-5 foot) but low bedding over small pebbles. What was most exciting was the roar coming from downstream that could have been the water dropping down a cascade.

Having assessed the potential, I turned around to find a cursing Sparky thoroughly jammed in the constriction. After some rather frantic digging from both sides, he popped through and went for a look at the streamway, while I headed back, pleased to find that the return journey is nowhere near as bad as the inward squeeze. Richard didn't fancy the squeeze much and waited patiently to hear the story. All back on the exit side of the squeeze, we were now cold so we made our retreat. We were out at about 8:40pm, total time underground a very enjoyable and productive 2.5 hours.

While not exactly the big breakthrough we had hoped for, this new streamway does add to the story. Certainly the water we discovered today, plus the flow from the Shit Creek passage (the water lost down the Shit Creek sink) combine to make up a very substantial flow indeed. Add onto this the water that sinks at the Excalibur entrance, which drains down the bedding extensions in the direction of Shit Creek, and you have a potential flow in flood comparable to the main streamway! Add onto this the water sinking at Jenga, and you have a ridiculous amount of water all disappearing into the apparently empty area of limestone in this vicinity. There is something big going on in this area of the cave that has yet to reveal itself!

The sound of water roaring downstream suggests a drop, which would only need to be half a foot to make the passage big enough to pass. Unfortunately, given the cramped and unpleasant conditions, digging this streamway from the Shit Creek side (and keeping it open) is an almost unachievable

Right: The survey of Shit Creek in Excalibur Pot (the full survey can be purchased from the York Caving Club website: www.yorkcavingclub.org.uk).



task. There is no room to dig, no room to stack spoil and little motivation to go there week after week for a long digging project. We had previously thought that Shit Creek might provide a back door into the Jenga system, but perhaps we are going to have to turn attention back to Jenga for answers after all.

No further work has since been done at Shit Creek, other than surveying of the Far Shit Creek Extensions. The survey in volume one was only as far as the second break-through, and was only a line survey without any passage detail. We put off surveying the extensions as long as possible, but after the 2013 breakthroughs at Jenga, it became more of a necessity. It took over three hours to survey only 50m of passage during which the surveyors (Matt and Gary) had to bail the Welly Sump, and read the DistoX and write notes despite every possible surface being coated with sticky mud (writing onto the waterproof notepaper involved pushing the pencil through a layer of mud and hoping it was making some kind of imprint on the paper underneath)! The efforts were nonetheless worthwhile. The boulder choke of Jenga and the end of Shit Creek are 37m apart and on an intercept course, following Hutton Beck along the valley. Jenga is slightly higher in altitude than Shit Creek, which raises the question of whether Shit Creek is actually the upstream end of the (as yet undiscovered) Jenga main drain.

Digging over the next few years is likely to throw up more answers. At the time of finalising this journal, a new surface dig almost directly above the third inlet of Shit Creek has commenced, at a sink which had not been previously spotted. This drafts strongly, and may help us in the new Holy Grail: To bridge the gap between the two caves, or to find out where all the water that mysteriously vanishes into this area of limestone is going.

Primal Scream

At the downstream reaches of Excalibur is a boulder collapse, with a dry side passage leading to a muddy breakdown chamber called Laura's Demise. In 2009 (reported in journal volume one) we found a route down through the blocks to regain the water of the main streamway, which was now flowing only through low bedding. A thrash in the water across this low streamway reached a climb back up into another dry chamber, quite separate from Laura's Demise, smaller, but similar in character, choked with thick dry mud-plastered blocks. This new lonely chamber was named Primal Scream.

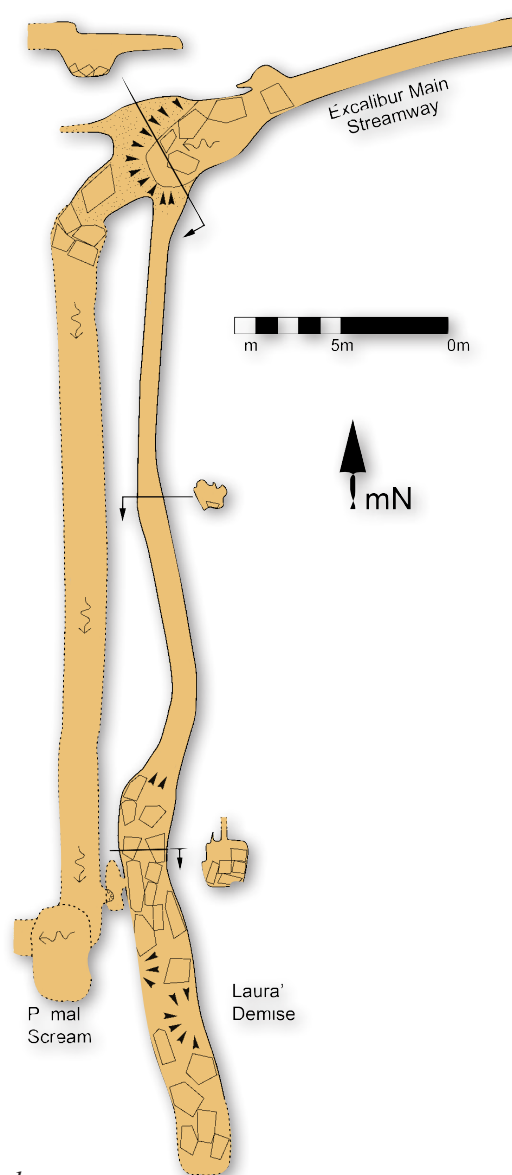
Dropping down to stream level in a rift in the corner of Primal Scream chamber, the water could be seen disappearing into tight gravel choked bedding, no more than 40cm high and half filled with the fast flowing water. This prohibited entry and our hopes of any continuation did not look good. Even in dry conditions, the water level was too high to enter this bedding, so there always remained a nagging doubt as to whether the true end had been reached.

Several higher level dry digs in Laura's Demise and Primal Scream chambers failed to yield any hope of a continuation without committing to a protracted digging project. The only thing that remained was to revisit Primal Scream during time of extreme drought, when it is known that the Excalibur main streamway is reduced to barely more than a vigorous trickle, and when the water in the bedding beyond Primal Scream could potentially be reduced to just a few inches. Under these conditions, it might be possible to push through and see for sure that there was no viable way onwards.

On the 30th July 2013, a keen team of wetsuited cavers ventured down to Primal Scream during one such period of prolonged dry weather. While most of us just waited and listened to the relayed commentary from the relative comfort of Primal Scream, Andy Brennan and Richard Wilsdon were able to push further down the watery bedding than expected and managed to slightly extend Excalibur's south-western boundary by several more metres. Richard reported on the event of the evening:

Andy was up to face his nemesis in Primal Scream. Looking through the window into the stream bedding (coming down from Laura's Demise) we could see that the water was really low and just the shingle floor was visible where you slide in. Straight across the bedding, the water was taking a route under the Primal Scream rift. Andy went up and through Primal Scream to drop back into the water, and after some chert bashing I was able to get through under Primal Scream chamber at water level to join him.

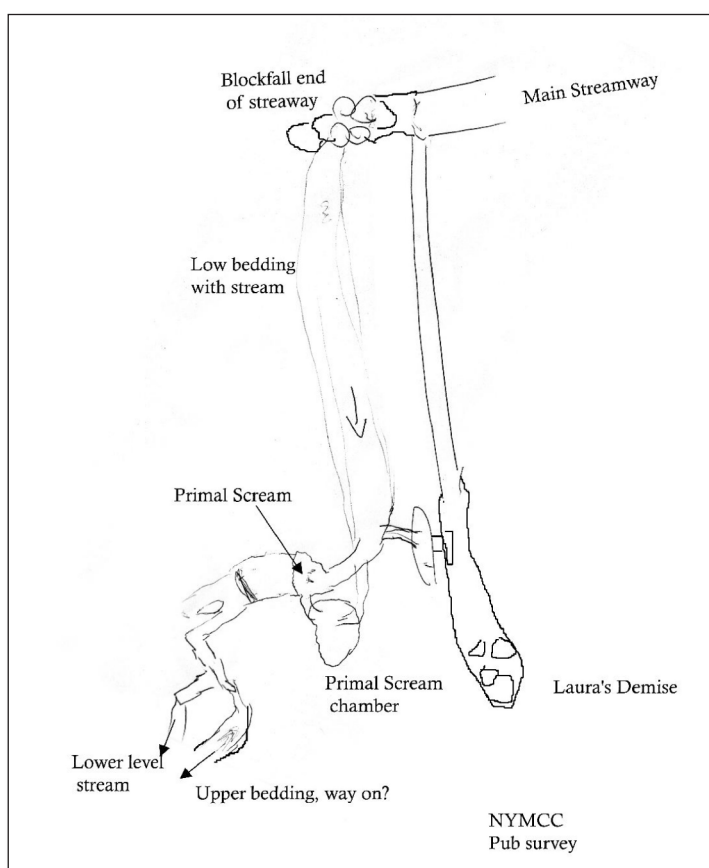
The Laura's Demise and Primal Scream area of Excalibur Pot, as shown on the 2009 survey. Note that Primal Scream is only approximate.



With his body properly into the watery bedding beyond the confines of Primal Scream chamber, he could actually see a way on. It was all flat out crawling over a shingle floor in the full flow. The roof is rough with fossils and knobby bits which snag. He reached a blind cross rift where he could lean upwards and then resumed the flat out crawling choosing a silt bank at one side where the roof was slightly higher, to join a rift running left which had a little more headroom. The flow then turned right into another low and watery bedding crawl. I had a bit of a go there before handing the lead back to Andy who went through this to yet another rift. At the stream level the water flowed into impenetrable bedding but leaning up he saw a higher muddy tube above the water level with a possible open way on.

By now it was 9pm so despite the fact that this may be the last of the dry spell and we may be talking about this all through next winter, we headed back find the others. What was noticeable on the way out was the draft going into Primal Scream. No doubt the flowing of the main streamway water creates this draft, but where does it go?

At the pub a very rough beer-mat survey of the extensions was made:



Therefore, Primal Scream is not the very end of Excalibur, and there remains some hope of finding further cave south or west of this point, albeit only accessible for a handful of days each year! What is clear is that exceptionally low water levels will be required to continue to push this further so we should make the most of such opportunities.

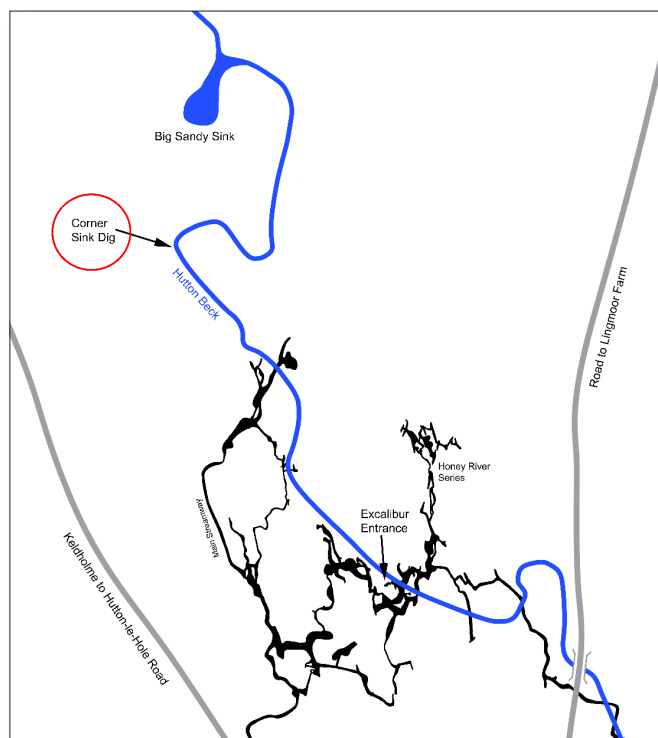
Corner Sink

Corner sink is a minor sink of Hutton Beck, roughly half way between the top sinks and Excalibur, where the river turns to cut across the field:

As mentioned briefly in volume one, Corner Sink received some digging attention in early 2010 after the discovery that Fossil Chamber at the far upstream end of Excalibur lies under the streambed only 40m downstream of Corner Sink. The strong draft we encountered only a metre below the surface implied that Corner Sink might provide a top entrance to the main streamway.

Digging continued during the summer of 2010 and we reached large blocks at a depth of around 3m. It was clear at this point that much more scaffolding was going to be needed to allow further progress. Although we never doubted whether digging here would be successful and would yield, eventually, a top entrance to Excalibur and perhaps a few dozen metres of new passage, up until now it had only been a pleasant, half-hearted and easy dig that didn't require any particular commitment. However, further progress would now require a large investment of time, money and resources (including a proper entrance and lots more scaffolding) so we found ourselves thinking hard about whether Corner Sink was really worth pursuing.

With so many other projects on the go, the decision was made to abandon Corner Sink. In September 2010 we removed all scaffolding except for a few bars around the top and covered the hole with boards and rocks. It continued to take water for a while in flood, but soon silted up and returned to it's pre-digging state. Corner Sink was temporarily reopened in 2013 after the Jenga Pot breakthrough to help buy some time in the event of an unexpected flash flood. This turned out not to be needed after the opening of the new route bypassing The Slops, and so Corner Sink has now been filled in by the winter floods. No doubt at some point in future it will be reopened once again!



Digging at Corner Sink.
Photos by Gary Douthwaite



Dowson Pot and 'Operation Dowson Wash'

Several metres up the cliff face on the west side of Hutton Beck, about 50m upstream of the Excalibur entrance lies Dowson Pot, a small fissure in the cliff face which reaches after a two metre crawl a pothole dropping about five metres to a mud and rock choked spacious chamber (actually, there are two potholes side by side but you don't notice the first one as it is filled with glass bottles and rusty cans and is completely choked).

Scarborough Caving Club dug extensively in Dowson Pot during the 1990s as it was considered a potential route into the (at the time) hypothetical Hutton Beck cave system. Furthermore, as it was well above the riverbed it could be dug in all weather. They made good progress down several small fissures and extended the pothole down a good few metres, but without any major breakthroughs.

Coming back to the present day, we now know Dowson Pot to be almost directly above Ernie's Inlet (a tight but extensive trickling inlet passage joining the main streamway) and only 15m north of the end of Parallel Passages in Excalibur Pot. The survey shows that the bottom of Dowson Pot is still 15m above Ernie's Inlet, which is a long way to dig, although we know that cross rifts and avens can span these kinds of distances and are commonplace. Dowson Pot therefore became a popular winter dig for us, particularly when Hutton Beck was in flood which flushed us out from Jenga and Excalibur.

Digging at the bottom of Dowson Pot continued (sporadically) over 2009-2012, during which the main pothole was dug to a total depth of around 8m, and a scaffold frame was installed all the way down the shaft to stabilise it and also to create a few 'viewing platforms' for people to stand and supervise the proceedings. Chalky frequently claimed these, unsuccessfully citing his gammy (absent) leg as his reason for taking priority.

Dowson Pot would usually make for a pleasant evening, although over winter people on the surface who were emptying buckets got the raw deal, often standing around in the freezing cold waiting for a bucket of spoil to provide the occasional excitement. Better amusement came in the form of lobbing twigs, leaves and nettles down the hole at the unsuspecting diggers. After Chalky carelessly left his lighter on display, this soon turned into lobbing flaming wood and smouldering leaves down the hole, a game known as flaming autumn. This had a particularly desirable effect as it would result in the sudden evacuation of the diggers from a smoke filled pot meaning a chance for the frozen bucket haulers to finally get a shot at the active face.

Throughout this digging we became more curious about exactly what role Dowson Pot once played in the development of the Excalibur system. It may have been a sink from a previous era when the valley floor was higher, but of course no water has sunk here in recent history. Discussions commenced in the pub about how nice it would be to pump water into Dowson's and see whether it fills up or still actively sinks water, and if so, does it come into Excalibur? At first this idea seemed more of a fantasy than a potential reality, but, on 18th July 2011 Chalky announced that he had acquired a 600 litre/min pump and 45m of fireman hose which would probably do the trick.



Left: Andy Brennan and Chalky Thomas trying out the new pump in the field below Dowson Pot. Photo by Richard Edwards

Below: The huge length of pipe required to reach the nearest water. Photo by Chalky Thomas



The team turned up while the river was in flood and much arsing around identified that our idea might actually work! We pumped water from the river just beneath Dowson's into the entrance for the entire evening. It happy sank away with no sign of any water backing up, which successfully answered our first question.

To answer the second question, it was necessary for someone to be down Excalibur while the pumping was going on to see where water was coming in. This meant that the river couldn't be in flood (Excalibur is passable in flood, however, water comes in from everywhere so it would be hard to tell which inlet if any was from Dowson). Unfortunately, with the river not flooding, the nearest supply of water was the top sinks, 200m away up the field, rather further than the hose would reach. This meant more hose was needed. This was soon acquired and more arsing about found that a single pump didn't have the umph to push the water 200m across the field and up the embankment into Dowson. To overcome this, a reservoir and a second pump was needed.

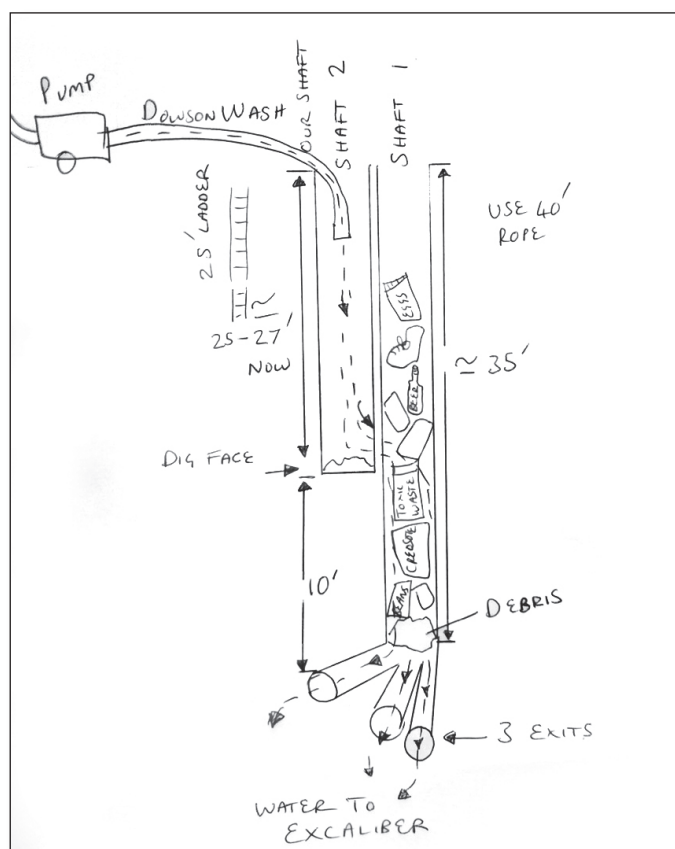
This was now becoming a rather elaborate operation, and it was not until early March 2012 that the first proper attempt with this system was made, as reported by Chalky:

When we first got there surprise, surprise there was no water running into the big sandy sink and after being told by Richard we might as well give up, we took the pump higher up the field to the top sinks. Suddenly Richard shouted 'Look there's the Water Board!' 'Ooh bollocks' we thought as a stranger casually walked over the field. It was actually a bloody Moldy-warp come to steal our glory. After becoming acquainted with Monsieur John Dale, soon to become our newest digging recruit, he agreed to help in our efforts. We rolled all the pipes out and to our surprise they actually reached from top sink to the bottom of the slope below Dowson Pot.

Next I thought it would be a good idea to clean some cobbles out of the river bed and help channel the water towards the pool from which we were pumping. Obviously this was incorrect and Richard as usual ranted on 'No you don't want to do it like that, think of the hydraulic head blah blah'. I had only turned my back for a minute and then realised that the river had suddenly stopped flowing altogether. 'Mmmm, that's strange' I thought and turned round to see Richard looking a little guilty. I'm sure he was actually trying to help, but the git had pulled a large boulder out of the river bed and allowed almost all the water to start sinking several metres further upstream, out of reach of the hose. The saboteur then quickly tried to cover his tracks and started throwing gravel about all over the place. After spending another half hour filling the hole back in and regaining flow we tried again. Next the pump wouldn't suck up any water, so we generally messed about which took another hour and I got drenched in the process.

Finally, with the flow sorted and the pump primed we started it all up and watched as water was pushed 230m across the field towards a large plastic bathtub we had set in place at the foot of the embankment beneath Dowsons. Ok, with the tub now filled the next pump was started and water flew up the pipe into Dowsons with such force that it pushed the end of the hose back out of the mouth of the pothole and soaked everyone! With the pipe replaced (and firmly held in place this time) we started both pumps back up and settled down to a late lunch. Water flowed down the hole at several hundred litres per minute for around three hours, easily enough to fill the entire pothole several times over, but we could actually see water flowing directly down the middle of the shaft and then down a slot in the floor, without any backing up or pooling. So the water is certainly going somewhere!

'Beer mat' survey of
Operation Dowson Wash.



We had established that we could pump from the top sink into Dowson Pot, which happily sank all the water we threw at it. Next we needed to repeat the experiment with someone in Excalibur. This came on 12th March 2012 as reported by Matt:

We had a good digging session last night, without any actual digging and courtesy of Dowson Pot, 250m of 3 inch diameter tubing and two petrol pumps! After the successful trial of the pumping last week, tonight we would repeat it with people down Excalibur to see where it comes in!

Chalky and Sparky arrived very early and set up all the equipment. This was the first time I had seen the setup and I was highly sceptical, but everything worked well, and we got a good torrent going down, which appeared to filter away into several slots in the floor. Ok, time to see if this was coming into Excalibur somewhere.

Andy, John and I then kitted up and headed down Excalibur. As we know exactly what Excalibur is like, we should be able to spot any small changes in the flow. Our first sign of something unusual was in the bedding just before Breakaway Chamber. This always carries a trickle of water, coming from near Parallel Passages, but today it was a gentle stream.

We continued onwards, the bedding now being much wetter and more unpleasant than usual. Upon arrival at Parallel Passages we were greeted by the crashing of water from somewhere! But where? We assumed up one of the two Parallel Passages which head north and terminate close to Dowson's, but it actually seemed to be coming from the passage leading to the main streamway. A gentle flow came from the trench in the floor at Parallel Passages, which fed the bedding, but not as much as we expected.

Stooping along the passage towards the Main Streamway, the crashing of water got louder and louder, which was very exciting! About 10m before where this passage pops out into the big passage before Holy Grail Junction, there it was, a gushing chute of water pouring off a narrow and previously inconspicuous bedding shelf on the right. You couldn't see more than a few metres up this as it was extremely narrow and muddy, so no obvious passage, but water was gushing in like no tomorrow. This small bedding shelf is shown as a protrusion of the passage on the Excalibur survey, so we have noted it previously but never thought it could be (or at least could once have been) a major inlet into the system.

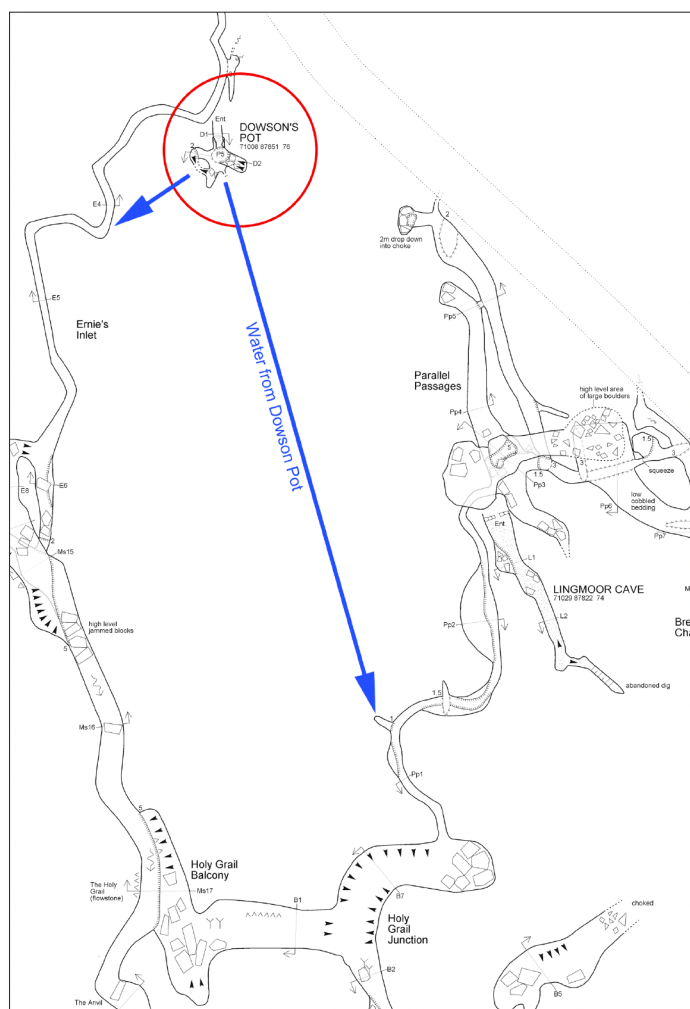
Left: Andy Brennan watching as the water enters Excalibur from Dowson Pot at the inlet shelf between Parallel Passages and the Main Streamway

Below: Andy in the Main Streamway as the water enters from above.

Photos by John Dale.



It was strange seeing a section of the cave we have only ever known to be fossil, now active again, and as John pointed out, the water looked totally at home as it flowed rapidly down the water-worn channels in the floor. The water flowed along, past Holy Grail Junction and cascaded down the climb to the streamway in spectacular fashion to rejoin the main river.



Survey showing route of water from Dowson Pot into Excalibur Pot.

We then went upstream to Ernie's Inlet. A small stream was coming down here, more than the usual trickle, though probably only a fraction of the amount of water coming in at the previous new inlet. We hastily pushed up here, to find the whole of the passage to be far wetter and drippy than usual. The first dripping came in on a shelf only a few metres into the main inlet passage. Then, 5m before the cross rift which is nearly under Dowsons, a heavy shower covered the passage. In the cross rift itself, further water ran down the walls and trickled in through the roof. We went to the top of the inlet but found no further water entering. Therefore, the entry point for most of the water in Ernie's Inlet is around where the survey shows to be directly underneath Dowson Pot. This is the result we had expected. We continued upstream to finish the tour, but everything else seemed to be as normal.

This is a good boost to our understanding of the hydrology of the system. To our surprise, most of the water flow about 40m south before joining the known passages of Excalibur Pot. Only a tiny amount comes in at Parallel Passages, and the remainder into Ernie's Inlet passage.

Digging at Dowson Pot continues, sporadically, to the present day. Nobody can truly give a good reason as to why we are digging it (there seems little to be gained) and at the rate we are going we might have broken through to Excalibur by the end of the century! Nonetheless it keeps us busy and works up a thirst when all else is flooded.

The Seth Pit

A summary of the Seth Pit story by Andy Brennan

As it stands the Seth Pit comprises an oil drum shaft protruding from the centre of Hut-ton Beck. This cave can be bottomed in less than a minute and largely involves scampering down a rift half filled with scaffolding. I can hear your thoughts now, ‘pretty boring and insignificant... yet another overly keen North York Moors digger!’

Maybe... but the fact is this little hole has quite a story to tell!

The day started when my wife who was bedridden in hospital with the imminent arrival of our first born child suggested that I went caving. I managed to convince Chalky to do something but Sparky was supposed to be washing his wife so he wouldn't be around. The plan was to head down Jenga for a spot of mining.

On my arrival at the parking area the sky was blue and cloudless. Then from nowhere the heavens opened. It was like a monsoon. Then just as quickly as it started, it stopped! Shortly after, Chalky arrived stating that he had checked and water was still not reaching the Excalibur sink so we were fine for digging. Then from the steamy haze like a mirage appeared Sparky carrying his caving kit. Suddenly it was like a Tuesday night digging session and we all headed straight down Jenga.

Soon after, the drill suddenly burnt out so we emerged for a breath of fresh air. Chalky noticed a small trickle of water from the earlier monsoon flowing from the track above into the streambed and sinking barely a metre downstream of the bridge, just 20m upstream from the Jenga entrance. We scratched around with our bare hands as all the tools were still down the cave. After scraping a bit of gravel and pulling two or three small rocks out from where the water was sinking, a small hole appeared with an incredible draft. A little bit more scratching and suddenly the ground gave way and a much larger hole dramatically opened up, with surrounding objects crashing down.

Water sinking at the Seth Pit shortly after it opened.
Photo by Gary Douthwaite.

What can only be described as giddiness came across us! We chucked dinner plate size slabs down trying to gauge the depth and came to the conclusion of about sixty feet (later found to be a serious overestimate). The top 4m was comprised of a series of interconnected slabs of bed-rock but below was what appeared to be solid rift walls disappearing downwards into the darkness.

We suddenly became aware that we might have spent four years digging at Jenga only for a handy entrance to open up right before our eyes!



We quickly became aware that if we weren't careful we were going to create an enormous hole that we would not be able to stabilise. We backed off and discussed what we should do. To leave a hole of this size and depth open is just dangerous. We laid a wooden ladder and some scaffold boards over as a temporary measure.

The dilemma was that in order to explore it tonight we would have to enlarge the top, probably beyond a size we could easily cover over. We decided that the hole was likely to be spotted by someone in the next day or two and we would get blamed. So we called Dickwad, then the Yorkies suggesting they came down hoping we could pass the blame.

Whilst waiting for the others we decided to ring the landowner and confess. Somehow Sparky (NYMCC Landowner Liaison Officer) quickly got hold of a number and proceeded to dial. After announcing himself as the bloke who shoes some random blokes horse he established a conversation describing what had just happened. As he did, monsoon number two arrived, which hampered the conversation somewhat. The landowner was told that we would leave it as safe as possible and we would email him explaining what had happened and how we could proceed from there.

As the call ended the rain stopped and we walked back to the hole when what can only be described as a wall of water in the beck approached. We sat for half an hour watching our new prize drink the entirety of the flooding beck. After a while it was almost full and large pools started to develop around the hole from which bubbles emanated from the air being forced out from the chasm below. The beck soon spilled over and continued on down to Jenga, leaving a massive whirlpool present where the new hole was. As this happened the others all turned up. Their scepticism soon waned and to try and prove the depth of this thing I plumbed it with an old horseshoe tied to a rope.

We decided to retire to the pub in hope that the flood pulse would soon pass so that we could make it safe tonight. After a couple of pints and a fine selection of famous pickles, we headed back down. The river was still in flood and that was that!

I think a few people found faith that night after the 'what-ifs' had been discussed. What if we'd gone straight back down Jenga? Would we have ever found this? Would we have drowned in Jenga? Perhaps if we hadn't stopped to ring the landowner would we have descended the new hole and drown? Had my son 'Seth' been born a few days earlier we most probably wouldn't have found it at all! Hence, the new hole was christened.

That was in July 2012. Since then an oil drum entrance has been installed and some half hearted digging has been done. The hole was soon abandoned though and allowed to partially fill with flood debris, however it has proven to be a valuable asset for water tracing tests in Jenga. We know that the water that flows down the Seth Pit enters Jenga in a several places, suggesting that any progress at the bottom would be through fractured fissures rather than a single passage. Therefore, the prospect of furthering this dig is unlikely, hence why we abandoned it. The general consensus is to fill in the hole completely with rubble and permanently cap the entrance to avoid any further collapses in the streambed, particularly so close to the bridge!

Lately I was telling an unnamed gamekeeper about this hole. He told me a story of when he was pinching some sand out of the dried-up beck around the location using a JCB. He recounted how a large hole appeared in the beck which he hastily covered over with large rocks! So as it transpires we weren't the first discoverers of this hole after all!

Digging in The Seth Pit

The following week (10th July) Matt Ewles reported on the first dig in The Seth Pit:

Following the opening of the new hole last week (rather by accident and water than by skill), and the hurried, and rather superb efforts of several NYMCC folk over the weekend to build a temporary entrance, we were very keen that tonight would be the first descent! I arrived early and took a walk down to find the beck dry, and to take a look at the hole without water going down for the first time. I was impressed by the temporary entrance, a rubble chute section resting on a boulder a metre below the surface, and held in by giant blocks and chunks of wood. A carpet had then been placed across the entire area and weighted with blocks to prevent the surrounding area from getting washed away. Peering down the chute into the darkness, the hole looked inviting and spacious!

With the crew assembled (me, Gary, Sparky and Chalky, but Andy being occupied by his newly born son Seth) we headed to the hole armed with a 10m ladder, belay line and all the usual digging gear. The ladder was quickly rigged, taking a more or less free-hang below the plastic chute. A belay was tied loosely around my waist (which immediately slipped up to around my neck, incentivising me not to fall), and I started the descent.

I don't know if you know what I'm talking about when I say a rubble chute from a building site? If not then it is timely to remind the reader that they are very narrow indeed, 1m long and only about 40cm diameter towards the bottom where it pinches in, which made the initial descent into the top of the hole a constricted and blind affair. It was nice when my flailing feet found a solid ledge below to allow me to duck down and properly get out of the chute and to be able to look around the new hole.

Just below the chute the rift is a very classic Jenga type water-worn rift. It is pleasantly spacious, maybe 4ft wide, but with no real north-south extension, it simply pinches in only a metre or two in both directions. The eastern wall is the main true, solid wall of the rift, dropping perfectly straight down, via several shelves for approximately 8m to what appeared to be the bottom. The west, north and south side of the rift were stacked with various piles and ledges of jammed blocks, although from where I stood nothing appeared to cause imminent danger.

At the bottom, the rift remains pleasantly spacious, with room to stand up and turn around. In the floor, two small, impenetrable funnels went down through the cobbles continuing for another metre at least, but filled with silt and green leaves freshly washed in from the recent floods.

After a brief recce I headed out and Sparky took a turn down. He pulled some rocks out from the bottom of the rift. I returned for another poke, but by now it was lashing down with rain and a puddle on the track outside was overflowing down into the hole. We made a prompt exit to the pub, arriving in time to see some of their classier early evening customers who soon left after our stinking pickled gherkins came out.



Digging at the Seth Pit via the temporary rubble chute entrance. Photo by Gary Douthwaite.

Therefore there was slight disappointment that there is no walk-in passage at the bottom. However, this is not at all unexpected. In fact, the hole is exactly what I expected. Firstly, it is less than half of the 60ft that Chalky said (as usual). But it is a good, deep and spacious rift. The floor at the bottom is mostly washed-in debris and so it is hard to tell what lies beneath. The next course of action is to get a proper pipe entrance installed, and pull up the loose floor. I suspect it wouldn't take much to see what we're really dealing with down there and if this is a worthwhile project.

The following week we returned for the next night at The Seth Pit:

Andy and Sparky arrived very early and by the time I arrived at 5pm they had pulled the rubble chute out and excavated a large crater around the mouth of the hole. Chalky and Sparky had spent a good amount of time during the last week sourcing two oil drums and welding them together to form a pipe, with a built-in ladder, and this was to be the new entrance.

Immediately after arriving, I was asked to help carry the new pipe around to the bridge ready for deployment. I happily trotted around to collect it and grabbed hold of the edge. Bollocks! The edges were razor sharp and I was left with two badly bleeding cuts requiring attention from Andy's first aid box. Sparky and Andy took delight in mocking my apparent stupidity. However, only minutes later as Andy grappled with the drums to position them over the hole, he let out a yelp. The edge had sliced through his glove and deep into his little finger. It was a proper spurter for a while! Once the emergency was over I felt an overwhelming sense of smugness.

Lacerations dealt with, Sparky used his angle grinder to remove the razor blade edges from the oil drums, making them rather safer to deal with (and climb into). The new entrance was soon levered into position in the hole, half under the stream level and half above to provide protection from flood. Chalky's finest Axminster carpet was rolled into sausages and packed around the bottom of the hole against the drums to provide a tight and semi water-resistant fit and then the depression around the new entrance was filled with rocks. The result was superb, and the drums were held tightly in place. A nice little ladder built into the edge of the drums allowed an easy climb down the otherwise rather slippery (and still oily) new entrance.

Andy, Chalky and Sparky headed down to stabilise the new rift ahead of the extensive digging project we were anticipating... but it was clear that we were going to need some scaffolding, so Gary and I headed down Jenga with the dangerous job of removing all the scaffolding from the Death Rift.

This job took quite a while as much of the scaffold was seized in place or holding back debris, however, by 9:30pm we had removed it all, about 16 poles, much more than we expected. Chalky had periodically popped down to collect it, soon having it re-deployed down The Seth Pit.

Therefore the rift is almost stable. Next week will involve a little bit more scaffolding, but hopefully we can start digging in search of this mythical 60ft shaft that Chalky still insists is present!

Over the weeks that followed, digging at the bottom of The Seth Pit revealed that there was no easy way on and that the water disappeared by various small fissures. Of course, this would be an excellent long term project for those with ample time and resources. However, we already had a long term dig only 20m away in Jenga, where we were making good progress down the drafting rift that was to eventually lead to the breakthrough. We decided that one project was quite enough. The Seth Pit was abandoned, and has since filled up naturally with silt. At some point, it will be filled completely and then we will remove the eyesore entrance and reinstate the streambed to its original condition, now rather more stable than it was before. The Seth Pit will cease to exist but the story will live on in the form of young Seth Brennan, who one day will no doubt read of these exploits with pride!



Sparky in the temporary Seth Pit rubble chute entrance. Photo by Gary Douthwaite.



Sparky with the Seth Pit oil drum entrance prior to installation. Photo by Chalky Thomas.

Bogg Hall

Bogg Hall Cave was discovered in 1981 when Richard Wilsdon and his diving partner Neil Hanan passed two sumps at Bogg Hall Rising in the River Dove near Keldholme. This was, and for about 26 years remained the only active cave known in the North York Moors. Today however, we know it as the resurgence for Excalibur Pot and Jenga Pot (both proven by water tracing experiments), as well as the water sinking from the River Dove including at Guinevere's Slit and the sinks just south of the Yoadwath fish farm. Bogg Hall is a short, superb and slightly formidable trip for cavers with a wetsuit and is an underground experience you're unlikely to forget!

For anyone fancying a trip, a full navigation guide is available via the York Caving Club website or by contacting us (www.yorkcavingclub.org.uk).

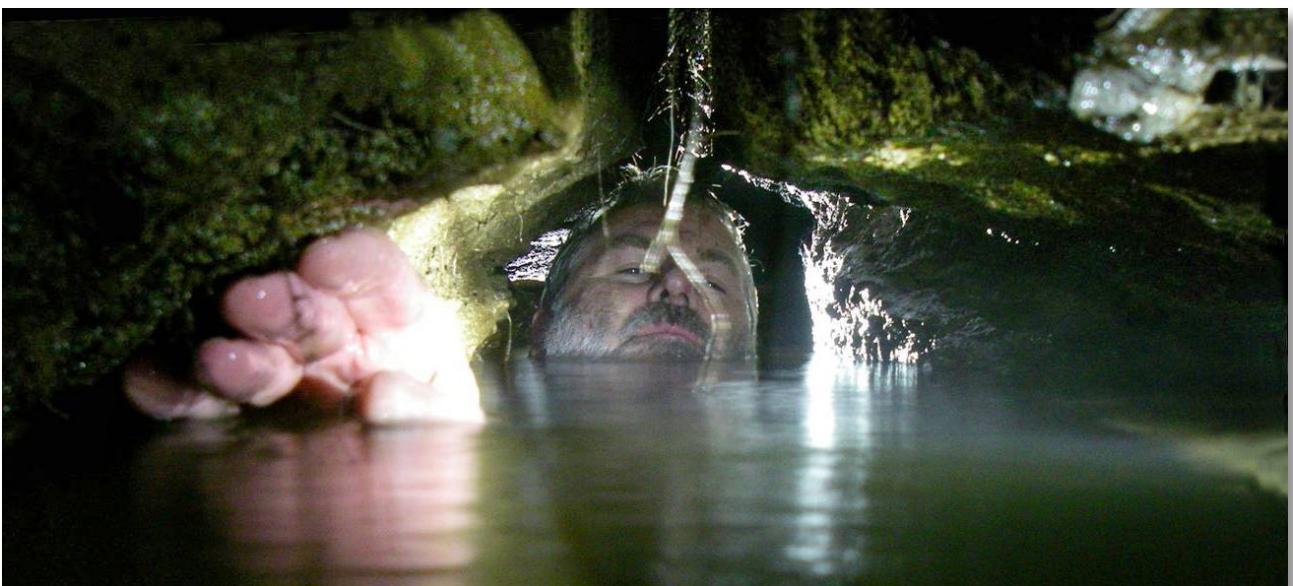
The history of exploration at Bogg Hall was described in volume one, including the digging of the dry entrance and all subsequent diving attempts at the terminal sump 'The Font' where all the water rises up from a depth of at least 18m. Since then there have been a few additional pieces of work that have brought closure to the story.

Resurveying of Bogg Hall

The original 1981 survey shown in volume one lacked sufficient detail for it to meet the BCRA Grade 5d standard to which Excalibur (and now Jenga) have been surveyed. Furthermore, with the raw data now lost it was impossible to plot Bogg Hall onto the master survey showing all the caves in the area. Finally, one of the original surveyors admitted he was not convinced as to how accurate the survey had actually been!

The new survey took three sessions to complete. The first session covered the surface all the way to the start of The Drain, a pleasant warm-up for what was to come. Surveying The Drain then took an entire session (helped greatly by Nick Warburton who, undaunted by the water, free dived all over the place to establish underwater connections and assist us to survey the tiny routes we would otherwise have omitted). Using an electronic

Richard Wilsdon in 'The Drain' in Bogg Hall Cave. Photo (impressively) taken by himself!



survey device was an unforgettable experience (most of it is neck deep with little airspace, so keeping the device dry was tricky). The final session was lovely, surveying the spacious, clean river passage leading to The Font.

A couple of observations were made from the new survey:

Firstly, the main stretch of river passage beyond The Drain, passing Big Blocks actually runs underneath and alongside the road, beneath the left hand verge as you head north. Anyone doing extensive deep road repairs here in the future may wish to tie themselves onto a rope!

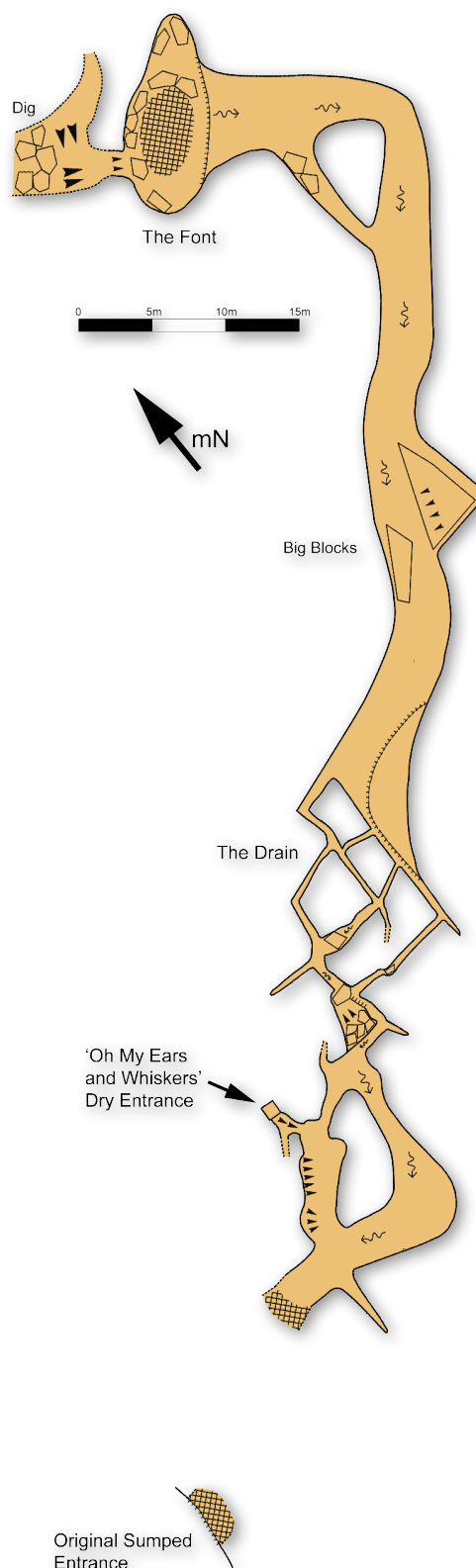
Secondly, just before The Font, the passage turns left, away from the roadside and towards the River Dove just north of where the river itself turns west. The Font is situated under the descending slope of this embankment and must be very close indeed to the surface. See the map on the next page.

Surface Locating The Font

Beyond The Font are some short muddy digs which ascend up through boulders about three metres above water level (at the highest point) and extend approximately five metres west of the centre of The Font pool. The survey shows this must be getting extremely close to the surface!

The best way to find out was with the age-old tradition of a Ferret Tracker, so we sent a team down with the transmitter part and told them to go up to the highest point in the boulders beyond The Font. They also took a walkie talkie just in case the connection was very close. We gave them half an hour to get there (and were unsuccessful in tracking their progress up the river passage under the roadside) and then started combing the hillside with the receiver at the rough point the survey suggested they might be. It didn't take long before we got a good signal.

We quickly honed in on the signal and found it to lie directly under the fence, about six metres up the embankment and several metres north of the north east bank of The Dove on the corner where it turns sharply to the west. The tracker was reading a distance of about three metres down, not much at all (and usually exaggerated when rock is present). On went the walkie talkies and low and behold we had a chat with the underground team. They could even hear us beating the ground with a crowbar! There is probably no more than six foot of mud and rocks between the surface and the highest point in the digs beyond The Font.

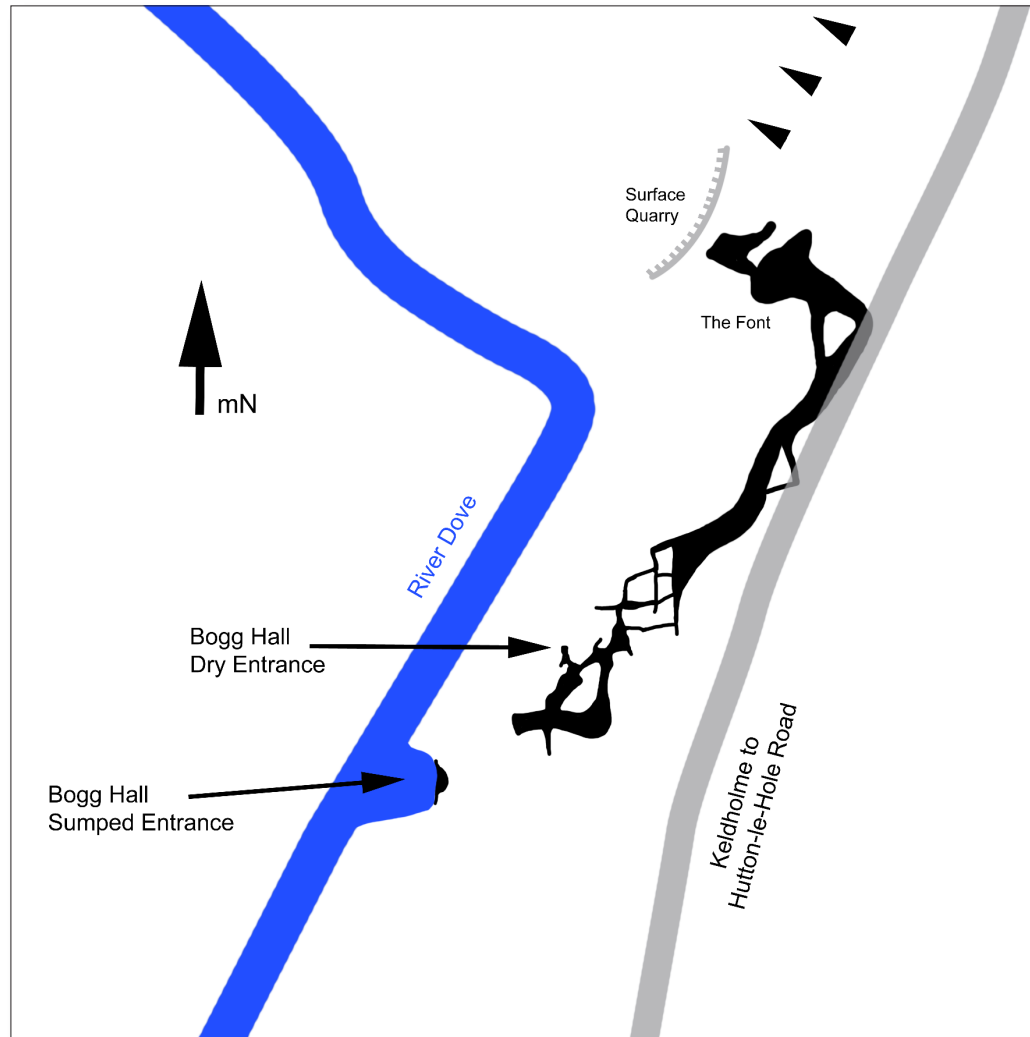


BOGG HALL RISING
SE 70994 86540

Surveyed 2011 by Gary Douthwaite, Matt Ewles and Nick Warburton. Drawn by Gary Douthwaite and Matt Ewles.

Map showing the proximity of the passages of Bogg Hall Cave to the River Dove and the road.

Scale is approximate.



We all agreed that while this had been an interesting project, there would be little to achieve by opening up a connection other than to spoil a perfectly good caving trip. One conclusion we can draw is that there is definitely no more passage past the muddy digs (something that has been pondered for years), as any further passage heading west would undoubtedly pop out of the hillside! The Font is the true end of Bogg Hall, and any further exploration will require diving gear and a very skinny diver!

Explorations in the River Dove

In 2009 we discovered Guinevere's Slit, a small sink in the River Dove (just 50m from The Well, see volume one), which dropped 3m into a river passage carrying a large flow, and sumped in both directions. It is generally known that the River Dove takes a lengthy subterranean course from its upper sinks (just south of the Fish Farm at Yoadwath) to the resurgence at Bogg Hall Rising, although the exact route of this water (and where it is joined by the Excalibur Pot and Jenga Pot water) is not known. Experiments detailed in this journal suggest a merger south of The Well, but are not totally conclusive.

The discovery of this new sink provided an opportunity to explore this sumped system. Dry passage seemed unlikely, as unlike Excalibur and Jenga in the neighbouring valley, vertical range between the sink and resurgence was absent. Nonetheless, previous diving attempts at The Well during the 1990s hinted that large sumped passages might exist. The Well is an old stone-lined shaft in the field dropping into a flooded rift above the main river passage. The rift is tight and was far from an ideal entry point with diving gear, but Guinevere's would be easier.

A few years passed until in 2011 we gave a presentation at the annual Hidden Earth caving conference about all the recent work on the North York Moors, including a very brief mention of Guinevere's Slit. The talk was the first one of the Sunday morning session, after night of rather heavy drinking, so attendance was slightly low. Thankfully, Brian Schofield (Schoff) and Dave Ryall of the Cave Diving Group were up early and in the audience. As they were familiar with the background to Bogg Hall and The Well, they agreed to come and have a look.

Diving at Guinevere's Slit

A report by Schoff, CDG Northern Section

I seemed to have had brief contacts with YCC and the NYMCC before, and remember (vaguely) a quick discussion with Matt Ewles outside a lecture theatre at the Otley Hidden Earth (2008) about Bogg Hall Rising following their talk on the discovery of Excalibur Pot.

An invitation to dive Bogg Hall meant excitement quickly turned to disappointment when their claim that "it's only been looked at once, years ago" (which must have been Paul Whybro's dive in 1989) was amended

Top: The opening of Guinevere's Slit in the River Dove (Chalky Thomas pictured)

Bottom: Looking down Guinevere's Slit to see Andy Brennan in the small section of river passage below.





Dave Ryall making the first dive into Guinevere's Slit.

by Richard Wilsdon's mention of "...apart from Phil Murphy and Adrian Hall" (who dived in 2000). This was the death knell for us. Knowing of Adrian's ability to pass some intimidating squeezes in Malham and such like, well, if he said Bogg Hall got too tight, it most definitely was too tight!

Then came mention of The Well and a message passed via Duncan Price (who had heard of Dave Ryall and me diving Carisbrooke Castle Well on the Isle of Wight). Of course that was a proper well inside the walls of the keep of a medieval castle, and not some stone lined, loose, cattle watering hole in the middle of a field. Then we were told of instability and uncertain ownership and this meant we should leave it for now.

So things had gone quiet for a while, when out of the blue Dave and I heard at Hidden Earth in 2011 that a new hole that had been opened up in the bed of the River Dove and some proper cave divers were needed to explore it. Of course we had followed the news of the YCC and NYMCC's exciting finds in Excalibur, and chuckled along at the Hidden Earth lectures which featured more innuendos and double entendres than any thirteen year old schoolboy could come up with (Mr Sparkler's Glory Hole for example). So we were not surprised the new hole had the name Guinevere's Slit Sink.

Our first visit saw us arriving in Keldholme to be met by an army of YCC and NYMCC members and mates. Gear was quickly whisked down into the valley, and an expectant hush descended as folk waited to hear our opinion of this entrance to the new Promised Land. Maximum diplomacy was required on both sides as we looked at this rather modest and tight-looking hole (thinking - but trying not to say disparagingly "is that it?!"). Meanwhile they looked at the size of the entrance and then at my beer belly and thought (but didn't say out loud) "Fat chance!"

The events of that afternoon were recorded for posterity (and my lasting embarrassment) on Gary Douthwaite's video and subsequently posted on YouTube for the entire world to see (cheers mate).

So there is no need to relate here all that happened that afternoon. Suffice to say that I got stuck in the entrance (yeah, twice!) and that Dave heroically dived the sump a short distance and came out enthusing about it being wide open with one of the strongest currents/flows he had experienced anywhere in a sump. The fact that an SRT rope was used

to ensure his safe return against the flow says it all really. The other amusing incident was Dave's exit to the water surface. He got his helmet and eyes up in the rift, clear of water, when he spat out his regulator mouthpiece. He had failed to realise that his nose and mouth were still underwater. With no room to move his head, he was in grave danger of drowning at the water surface. Oh how we chortled at his demise...

A retreat to the pub was made where some fine ale and some good banter was had before we

went our separate ways, with promises of digging work to enlarge the entrance to more sensible proportions ringing in our ears.



Top: the group waiting for Scoff to get in (or out) of the entrance.

Left : Scoff getting well and truly wedged.

Photos by Gary Douthwaite.

And so the return match was planned. Indeed the entrance had been enlarged and this time it was agreed I'd dive first and lay a proper dive line. This I did, though the high flow and concerns of how I would be getting back out caused me to pause for one or two thoughtful moments before pushing on. Belays for the line were found and a roomier 'cross rift' chamber felt rather than seen before reaching a breakdown area where no way through could be found. I surveyed the passage on the way out and Dave also went in and confirmed there was no way through without extensive underwater digging. Without being able to see what was above in the roof, this was considered too dangerous, especially in view of the concentrated flow going through small gaps between rocks, stirring things up and knocking the diver about.

Richard also had a short dive but, sensibly, decided he didn't want to drop himself in it by biting off more than he could chew (or by 'she who must be obeyed' finding out...)

A further visit to the pub resulted in the survey being sketched (in traditional fashion, on the back of a beer mat), and discussions about the locals revisiting The Well to make it roomier and more stable for fat old divers who should know better. Of course since this work was carried out, we seem to have been beset by constant Biblical floods.

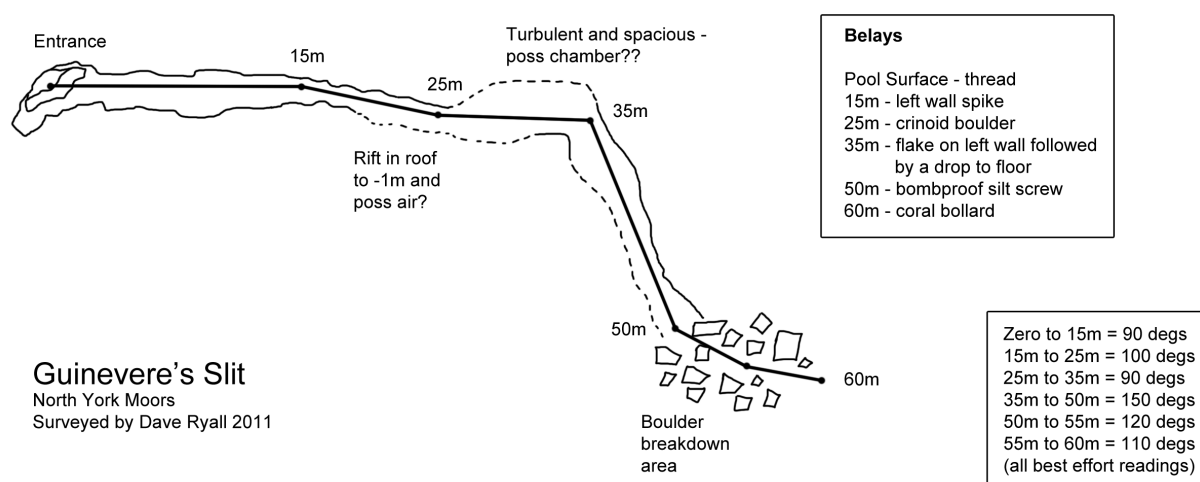
Ever the optimists, an invitation for us to head over one weekend saw a string of emails between the cowardly cave divers. It was reported things looked good for a dive. As confirmation, a photo of the River Dove running clear across the width of the river bed by Guinevere's was provided. Me and Dave both thought: "Hang on! When the entrance was dry and the water was low, we deemed it dangerously close to the limit of diving and returning safely. It now has three or four metres of water running above that really iffy level. How can that possibly be thought of as safe?"

So we bottled it, but only for the time being.

In our opinion, this underwater system holds huge promise. It's flow is greater than either of us have experienced in a sump anywhere in the UK. The reported flow-through times for water tests from Excalibur to Bogg Hall (about three hours to cover one mile) show there is massive potential for significant amounts of dry passage to be found. Nothing would give me greater pleasure than to access the passage connecting these two caves and finding a route into air. Although it would be hard to resist exploring the way on upstream towards Excalibur, the right thing to do would be to return with radio locating gear so that a potential dry way in could be found. This would enable our chums in the YCC and NYMCC to reap the harvest of their labours in this fabulous area.

All we need now is some extended dry weather, a little bit of luck and me to avoid eating too many pies! The even harder bit could then be the guys finding a suitably smutty name for the new find. But then, they are the sort of folk who would go out, get two double entendres, and then give me one....

Scoff, February 2014



A surface-dwellers report on the proceedings, by Matt Ewles:

We were impressed by the diver's enthusiasm! Only several weeks after hearing about it at Hidden Earth, on the 12th November 2011, we met up with Dave and Scoff in Keldholme for their first attempt at diving Guinevere's Slit. No sooner was the gear down at the dry riverbed we quickly realised that the size of the hole was remarkable similar to the size of the divers. It had been quite large enough for us, but we had not attempted it while kitted up with drysuits and diving gear.

Scoff's efforts were remarkable; involving him jammed in it up to his waist, unable to move up or down for a considerable amount of time before the bar was called for to prise him free. We were almost about to give up on any diving attempts for the day when Dave took one final push and was just able to slip down the hole and kit up below and go for a preliminary dive. He reported that the going looked good, but understandably didn't push too far (only about 10-15m) without his diving buddy able to join him.

A return trip was promised in lower flow and after we had enlarged the entrance. Only a few weeks passed before both parties fulfilled their side of the deal and on 27th November 2011 we had a great day of diving.

Scoff and Dave arrived at 11am and we made our way down to the Slit, pleased to find that the water level in the river passage was low. Scoff was first to dive and descended the enlarged slit with rather greater ease than the previous week. After a brief kitting up while down there he disappeared underwater at midday, carrying with him the transmitter for the ferret tracker tucked somewhere about his person.

We waited patiently, attempting with no success to track him, though the sight of several grown men wandering randomly around the riverbed with a beeping orange receiver box was adequately entertaining. After exactly 20 minutes we began to feel anxious about the unexpectedly long duration of this dive, but were pleased to hear bubbles returning only minutes later as Scoff reappeared at the bottom of the hole.

Scoff reported passing the previous limit at around 10-15m set by Dave a few weeks ago (installing a new line on the way). Between 15-25m he reported a narrowing where the flow was exceptionally high and he had initially hesitated to go on. Thankfully he did go on, and after about 50m total dive he reached a wide chamber with no obvious way on, where he tied off and turned around, surveying the passage during his return.

Dave then kitted up and prepared to dive. This time the ferret tracker worked perfectly (now that we had the receiver on his front away from the diving bottles). He made extremely quick progress, and we tracked him as he whizzed eastwards diagonally under the streambed. We tracked him as he went under the fence (near the large tree in the east bank) and into the field where he seemed to pause for several minutes.

Suddenly, he was off again, having changed bearing and continued on a further 10m, in a perfectly straight line towards The Well, before pausing again and turning around. We tracked him successfully all the way! At his furthest point we estimate that he was only 30m from The Well entrance, and heading in a perfectly straight line towards it.

Dave reports that the terminal chamber is filled with large blocks with the water rushing inbetween them. Given the unstable nature of these boulders and the strength of the flow, pushing any further here would not be wise, and he made the right decision to call it a day at this point. It is certain from these dives that Guinevere's Slit is the immediate upstream of The Well. We know that there is spacious passage beyond there from Jerry Gibb's dive reports of the 1990s. Therefore, The Well must be our future dive site and Guinevere's has been covered over with large slabs and laid to rest for now.

Work to enlarge the narrow rift at the bottom of The Well and stabilise the loose upper brick lining has since been undertaken and return visits by the divers are ongoing as we write this during the summer of 2014. A full report will appear in the next journal.



Above: Jerry Gibbs in The Well with others working to stabilise the shaft (2013).

Right: Jerry Gibbs in the narrow rift at the top of The Well (above where it drops into the main river passage) working to enlarge the constriction (2013)



Water Tracing Experiments at Guinevere's Slit

Water testing experiments (on two separate occasions) have provided strong evidence that water sinking into Excalibur Pot resurges at Bogg Hall Rising without passing via The Well or Guinevere's Slit. Unfortunately such conclusions rely on the absence of a signal at each site, and there are other possible explanations for a negative result. Still, the evidence is slowly stacking up to suggest that all the exciting discoveries, including the merger between the two streamways (The Dove and Hutton Beck) lie downstream of The Well. There could be exciting times ahead here!

Mr Sparkler's Glory Hole

(Commonly known as MSG Hole)

The start of spring 2011 saw spirits amongst the North York Moors diggers at an all-time low. We had concluded (or more specifically, bottled out of) work at the Death Rift in Jenga. We were actually on the verge of packing in digging at Jenga altogether! None of our other digs seemed to offer much potential for any big breakthroughs. Therefore, the discovery of a fine new slip-rift near Old Byland in March provided a very welcome break, a chance to revisit classical North York Moors windypit territory, and to remind people that the North York Moors deserves it's place on the speleological map. What followed was the discovery and exploration of one of the most extensive and sporting slip rifts on the North York Moors. The tales of the exploration, the survey, and the story of the subsequent closure of the entrance are reported here.

First Trip: 6th March 2011, by Chalky Thomas

Members present: The Farrier, Richard, Chalky, Andy, Peterphile

While shoeing a horse for a client, The Farrier (NYMCC Landowner Relations Officer) was told that a neighbouring farmer had nearly lost a tractor down a hole while feeding his sheep (these poor creatures will play an important role later on in the ramblings). After enjoying a mug of tea at Peterphile's we set off to look for the hole in the field. It was easily recognisable by the sheep hurdles marking the spot.

Peter, Andy and Chalky
at the entrance. Photo
by Richard Wilsdon.





Looking up to the surface from the bottom of the entrance climb. Photo by Chalky Thomas.

Andy eagerly peered in and emerged excitedly within seconds, glasses covered in steam from the warm draft emerging from the void below. After kitting up, a ladder was quickly rigged and The Farrier gingerly climbed down into the entrance, landing some two metres down onto what once was part of the field, with a scree slope of boulders and rubble descending steeply down into the darkness. To our great amusement we could hear large boulders rolling down the slope as he progressed cursing and grumbling loudly to himself. He retorted "I was amazed and also crapping it at the same time, I had never been in a windypit before and the thing was a mass of bloody boulders". Richard was the next one down, always a need to worry! In usual fashion, the clumsy old git released several rock showers onto his quivering counterpart below.

Descending the slope quickly opened out into an enormous (by North York Moors standards) entrance chamber (6m x 12m) composed of wedged blocks, from microwave sized up to those resembling a family saloon sized. At the bottom of the slope on the right hand side of the chamber was a deep pothole dropping several metres. Those descending the slope too hastily may come to a horribly sticky end here! The left side of the chamber was a false floor of jammed blocks with a few holes down through them. At the far side of the chamber a

tall rift, a couple of metres wide continued far into the distance. Unfortunately, the floor of this was several metres below the false floor we were currently stood on, meaning we had encountered our second pitch (the entrance being considered the first).

The entrance ladder was deemed merely a luxury in it's current position. It was therefore replaced with a handline and brought down to the second pitch, where it was belayed to a large block and dropped down a 5m pitch to the floor of the ongoing rift. Again The Farrier was bullied down first. We had all been in windypits before and were more than aware of their instability, so best a dispensable member was sent first, like the new guy on Star Trek who only appears in only one episode. Surprisingly he landed on a stable boulder strewn floor in the ongoing rift with no imminent danger of death!

The rift headed backwards underneath the false floor of the entrance chamber, terminating beneath the large pothole at the bottom of the entrance slope. Continuing forward in the rift however, a traverse several metres along a spacious section arrived at a wall of boulders blocking the way on. A large area of black space invited us up and over the top, but a more obvious wriggle under the boulders appealed more. What followed was an interesting and indescribable section of nerve-wracking slithering and thrutching up and down through an extensive boulder ruckle interspersed with small standing height cavities. This was classic windypit territory and a strong nerve and trust in the strength of

the geology is required! After 20m of three dimensional bouldery labyrinth we emerged onto a scree balcony leading down to the head of a cavernous pitch. This looked to be of considerable depth, with the rift continuing far into the distance. Unfortunately more rigging was now needed, which we were lacking, as our only ladder was providing our escape route up the second pitch. The trip was therefore ended and it was agreed that we should tell the Yorkies of our find and return with a drill, bolting kit and more ladders.

Back at the entrance we were greeted by the local farmer and the driver of the tractor Mike (formerly christened Mark) Almond who had come to see what we were up to (no shotgun, praise the Lord) and seemed fairly interested. Time was ticking on, so we decided to go and look at another hole he mentioned to see if we could bag two finds in one day. The result of this was the discovery of Tank Track Hole (see later).

Second trip: 20th March 2011, by Matt Ewles

Members present: The Farrier, Richard, Lee Vasey, Chalky, Gary, Matt, Ernie Shields, Peterphile, Andy, the local farmer and missus and a Bulgarian called Vasco (Roscoe P Coultraine/Uncle Bulgaria/Womble) picked up by Chalky from Hull University.

Having heard about the initial discovery trip from The Farrier and company a couple of weeks ago, Gary and I were keen to see the new windypit. We had seen the photos and it looked quite spacious (we generally require photographic proof of such things rather than just Chalky's word of mouth which is usually bollocks) and whispers of an undescended pitch were very tempting. Seeing as the NYMCC folk had left this undescended, we knew this must mean it needed bolting and SRT kits! The expertise of York Caving Club would clearly be necessary here! Windypits have always been at the heart of North York Moors caving, and so it was exciting to have the chance to be part of the exploration of what, by all reports, sounded like it might be a biggie!

We drove over from The Dales to meet everyone near Old Byland at 11am, armed with ladders, rope, bolting kit and surveying gear. It was a good turnout and it was nice to see Ernie Shields there too, one of the founding fathers of windypit exploration in the area and a member of the appropriately named Moldywarps Speleological Group (MSG).

The fenced enclosure isn't actually visible from the road, but is only a short walk across the field. We placed a large scaffold pole across the opening and threw a handline down. I went down first for what was to become an exciting four hours underground.

The hole drops less than 2m onto a heap of rubble, presumably the collapse from where the tractor wheel broke through. From there, a steeply descending rubble slope with a deep and deadly pit at the bottom meant that use of the handline was compulsory!

Beyond the pit it became obvious that we were actually stood on a stable, but false floor in a much taller rift, and the pit is actually just the first route down into the lower area. A few metres after the pit however, the rift narrows slightly, and continuation at high level ends, and the only way on is down. Neither the pit or the narrow bit of the rift were safely free-climbable, however a ladder could be rigged from a sling around a block in the narrow part of the rift to allow for a good descent. This was no good for SRT though, so while I belayed Peter, Lee, Uncle Bulgaria and others down the ladder Gary started looking for a convenient place to install some anchors. There are few solid walls round here, and many of the blocks are not the kind of thing you would want to hang off, and

so no good anchor point around the pit, or the main pitch where the ladder hung could be found. However, a drop down through the blocks of the false floor a few metres back from the main pitch reached a stable ledge with an excellent hang down the rift, and so Gary set about putting anchors in.

While Gary was doing this, I headed down the ladder to join the others, who were already down there, including Andy, Peter, Womble, Sparky, Lee and the local farmer!

The pitch drops to the bottom of a boulder-strewn rift continuing eastwards away from the entrance. Following this reached a tall chamber-like enlargement in the rift, where two possible ways on presented themselves. One route involved climbing approximately 5m up into a higher area. This looked slippery, muddy and unstable, so we opted to avoid this. The other route was the interesting slither underneath blocks which was navigated on the previous visit. Peter, Lee and Womble had already started through, kindly taking the surveying kit and ladders with them.

This whole area is clearly a collapse in the rift, and the first of two major boulder ruckles we would encounter today. The route over the top may be possible; however, the route through below the blocks seemed fairly stable. This started as a short downwards slither reaching a step up into another spacious short section of open rift. This was not the end of the ruckle however, and it immediately returned to slithering through blocks for several metres more. We wormed our way up and down in a more-or-less straight line before emerging into a cavernous continuation of the main rift at a huge balcony overlooking the undescended pitch.

Gary drilling anchors at the top of the Big Rift Balcony pitch. Photo by Chalky Thomas.



I was totally amazed! The rift opened right out here, over 2-3m wide, and continuing with these proportions for at least 30m into the distance, but with a 10+m drop disappearing below us. It was difficult to judge the depth of this new pitch as it passed an overhang part way down, nonetheless it wasn't the kind of thing you wanted to fall down, and there was no way this was climbable! I sussed out a couple of good points for some anchors, and returned to the first pitch to find Gary and bring him through. Lee and Peter headed out with me, and Womble and Sparky waited for us on the ledge. By the time we got back to the first pitch, Gary had nearly finished the bolting and he and Chalky were soon on their way down, and Lee and Peter on their way out. Gary, Chalky and I headed back through the boulders.

Gary got quickly to work anchoring what is now known as the Big Rift Balcony pitch. One bolt was installed at the top of the balcony on the left hand wall to provide a handline down to a false floor of boulders a few metres below. A second anchor installed here allowed a reasonable hang, about 12m to the floor, although with some rub against the overhang, and more

concerningly, the edge of the false floor (a second anchor on the opposite wall was later installed, providing a deviation to avoid this, another first for the North York Moors)! With the anchors installed the glory of the first descent (and testing the bolts) went to the prime discoverer, The Farrier, who quickly SRT-ed down to the floor while we lowered a ladder to allow non-SRT wearers to descend.

The Farrier and Chalky went exploring, while Gary poked around below the pitch, took a few photos and then returned up the ladder. We measured the pitch and found the ladder dropped a total of 13m from the balcony, which is a massive pitch by North York Moors standards! The landing point was equally spacious, 2m wide and continuing away to the east (to the west it went back under the false floor of the balcony but soon choked up). This rift started to ascend up blocks (from where the photo was taken), with some fine calcite and gypsum crystals, until choking again at a wall of boulders, with a tiny triangular slither underneath producing the echoed sounds of Chalky and The Farrier who had vanished underneath.

At this point I was thinking what a superb windypit this was, while assuming the game must surely now be nearly over. Few windypits are this extensive! I started slithering through the blocks that comprised this second major boulder ruckle (trying to avoid looking at the fact there was very little holding them up) following the sound of Chalky rustling in the distance. I was amazed to once again pop up into another spacious section of rift passage, 2m wide and 20+m tall! Several metres along here reached a blank wall, but a 3m drop down into a cross-rift at 90 degrees to the main rift on the right, soon turned back to the east and entered yet another large tall chamber. This windypit just seemed to keep on going!

From this chamber, the only way on was up, into huge spacious area at roof level. Getting up there however would involve a slippery 5m climb up muddy smooth blocks. One slip and bang goes your spine! We decided not to take any further risks for today and that we would return with a scaling pole of some kind instead.

Third trip: 3rd April 2011 by The Farrier

Members present: The Farrier, Richard, Lee, Matt, Gary, Chalky, Andy, Vasco, Laura.

Matt brought scones and clotted cream as promised, quite different to danish pastries but excellent unless you're a cripple that can't eat them 'cos you're allergic! We began at the possible high-level continuation where we had left off last time, now armed with a new telescopic ladder to help us get up there. After an arduous trip carrying the ladder down, it was erected, but was not quite long enough so I had to climb the last few feet to a good size ledge. This was quite spacious and ascended several metres via another climb to a big shelf. The way on was still up, but once again this was a smooth climb of about 3m with little chance of safely free-climbing. The telescopic ladder was tied to some rope, dragged up and propped against the wall. Andy went first and I followed up to a big chamber with ample calcite formations and straws (Straw Chamber). A drop down beyond here was left until next time. The return route was hairy to say the least and we returned to the surface and onto the pub for the usual pints, crisps and chat.



Chalky on the Big Rift
Balcony pitch. Photo
by Gary Douthwaite



Above: Richard Wilsdon below the final climb into Straw Chamber. Photo by Gary Douthwaite

Above right: Some of the formations in Straw Chamber (very unusual for a Windypit). Photo by Gary Douthwaite



Finishing off at MSG

More work over the next few weeks focussed on placing an anchor in the first upward pitch requiring the telescopic ladder, so a rope could be permanently left in place here. The telescopic ladder was then tethered at the final

climb up into Straw Chamber. Straw Chamber itself is one of the highest accessible points in the windypit, and is sat atop a huge pile of boulders. Beyond here, a descent back down to the floor was made on a rope tied around a big rock, where the rift continued, but this time it was finally game-over, as the rift ascended into a terminal choke. A route underneath Straw Chamber was engineered for a quicker return trip, via a slippery climb to emerge at the bottom of the ladder.

MSG Hole is little more than an east-west slip rift with only one main passage. However, it certainly ranks with some of the best! Throughout, this rift is approximately 30m deep, although false floors and two major boulder ruckles give the impression of much greater complexity, meaning several

itches are necessary to reach the end. The rift is reminiscent of Old Fat and Past it Pot in Dalby Forest, but of slightly greater length and complexity. A trip to Straw Chamber is a two hour return trip, involving four rope pitches and a telescopic ladder climb, and a fascinating mixture of spacious rifts and dodgy boulders. A truly memorable trip!

Alas, the glory of MSG Hole was soon to come crashing down!

Sheep Rescues and Closure of MSG Hole

On the morning of Saturday 24th September 2011, Chalky was woken by a call from The Farrier to say that several sheep had fallen into MSG Hole the day before. The fencing surrounding the hole which had kept the sheep out until now had, we believe, been blown down or damaged by a night of gale-force winds. As many as 20-30 sheep had blindly followed each other in, tumbling various distances into the hole. The farmer had retrieved as many sheep as he could, but was still struggling, given his lack of kit and fear of falling down the big hole at the bottom of the entrance slope.

We were to go up and recover the rest. When Chalky and The Farrier arrived there were bleating sounds coming from the abyss. After ringing Richard and Peter for assistance they stopped in Helmsley to get some sustenance (pies, tea and fags). Luckily the Scarborough Mountain Rescue was having some sort of event in the market place, so Richard asked if they would be willing to help.

The remainder of the day was spent with Chalky, The Farrier, Richard, Peter and the Scarborough Mountain Rescue helping to haul a number of sheep out of the hole, although many were not so lucky and had perished, having fallen their way a significant distance into the windypit. After the incident, the farmer, keen to avoid a recurrence (or the accidental loss of any vehicles due to the thin veneer of soil standing between the entrance chamber roof and the field), laid an enormous metal plate over the entrance. With a number of carcasses still down there, it will be a while before anyone would want to return! The irony is that this was all happening while Matt and Gary were busy at Hidden Earth in Monmouth giving a lecture on the discovery!

Therefore, MSG Hole was discovered, bolted, explored, surveyed and sealed in a fleeting six month period. It is saddening to have lost access to one of the finest trips in the North York Moors, but is maybe one to consider revisiting in the distant future.

After all, it isn't going anywhere!

Top: The Scarborough Mountain Rescue assisting to remove the sheep.

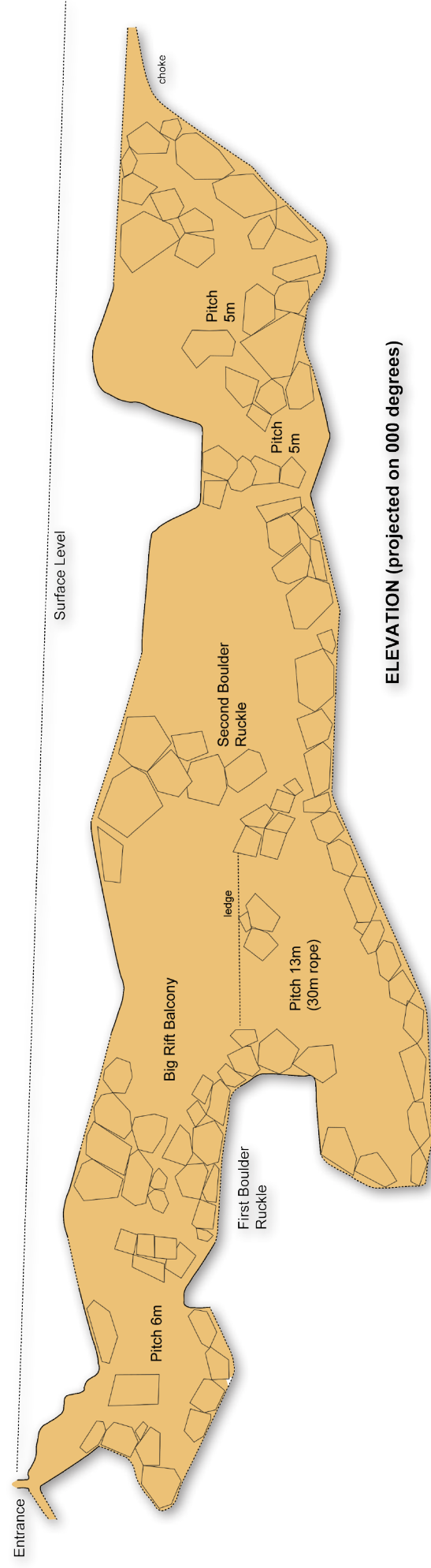
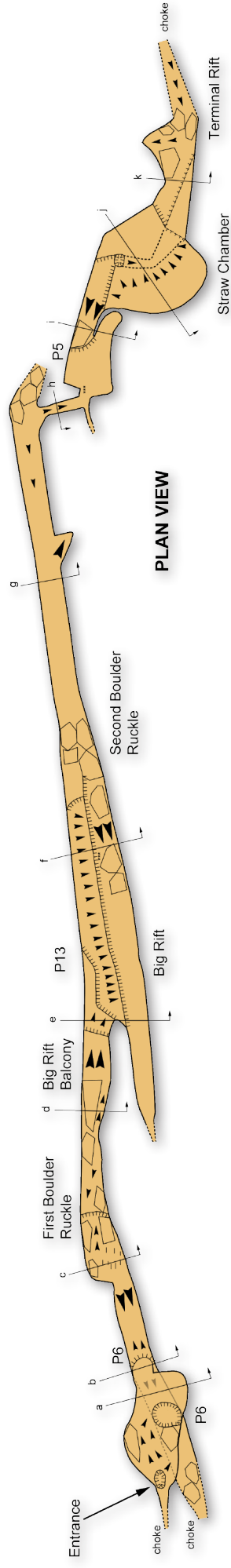
Bottom left: Sparky with one of the survivors.

Bottom right: Placing the steel cap over the hole.

Photos by Richard Wilsdon



Surveyed 2011 by Gary Douthwaite, Matt Ewles and Laura Bennett. Drawn by Gary Douthwaite and Matt Ewles.



Mutton Butty

Towards the end of summer 2011, with exploration and surveying at MSG Hole all finished, another project was needed. Several of the team were particularly keen to avoid returning just yet to the Jenga Death Rift. A welcomed distraction came in the form of a depression between two fields just west of Appleton-le-Moors, overlooking the valley of Hutton Beck (and Excalibur and Jenga).

What follows is our record of how this dig started, progressed and finally came to an inconclusive end. Mutton Butty, as it came to be known, was never a big project and there was a fair amount of scepticism as to the worthiness of spending our time here. The dig remained, for its duration, merely a hole of considerable depth but with little horizontal progression. However, as you will see from the reports it provided much amusement for the remaining warm evenings of the year and perhaps, had Mutton Butty not quenched our thirst for a break from Jenga, we might never have returned there and the discoveries reported in this journal might never have happened!

We hope these reports make for entertaining reading!

6th August 2011: The great depression

Surprisingly enough whilst shoeing a horse, the NYMCC farmer relations officer (and registered Farrier) Mr 'Sparky/Sparkler' Edwards was advised of a depression located within a gap in a hedge between two fields, less than a kilometre west of the village of Appleton-le-Moors. Lost caves were suspected to exist in this area (including some referenced by the famous Raymond Hayes, also mentioned in Moorland Caver) and Excalibur/Jenga lay just over a kilometre further west down the hillside in the next valley. Therefore we thought we might be onto a cracker here!

According to the local farmer, the depression had appeared over the last year or so and was growing in size. Sparky had already been up for a sneaky dig and had declared this to be a worthwhile reason not to return to digging at Jenga just yet. The first couple of week digging here were spent removing the standard issue North York Moors glacial debris from the shakehole until solid rock walls were found and followed down. Rapid progress was made! Sandwiched between the upper layers of sediments were several sheep skeletons (hence the name of the hole).

25th August 2011: Rapid progress

Modified from original report by Matt Ewles:

I was impressed by the size of the dig, which had started simply as a shallow depression. I had missed the first few sessions, but had heard reports; although Chalky's estimation of size is usually grossly exaggerated (ladies take note). Much to my surprise however the NYMCC guys had actually made good progress, and when I arrived the hole was approximately 4m deep and several feet wide. About 2m below the surface the shaft becomes water-eroded limestone, and the floor was loose mud and rock, which made for easy and pleasurable digging.



Mutton Butty entrance
not long after the dig
began. August 2011.

Photo by Gary Douthwaite.

We started digging down, soon encountering a void under the wall, which sloped downwards to a natural cavity into which debris tumbled for a couple of feet. What was particularly impressive was the number of sheep bones coming out. This indicates that either this shaft was once open (and we are actually digging an ancient mass burial ground of sheep), or that the bones have made their way down there through a series of collapses or have been washed in if this was once some kind of sink. There is good vertical range here, with the shaft being at the top of the valley, and in the Malton Oolite which overlays the Hambleton Oolite in which Excalibur and Jenga are formed.

Digging down revealed a solid limestone floor completely capping the bottom of the shaft, however, across the entire western edge was a sloping cavity, just large enough to get a leg into. This looks quite promising, but requires lots more digging and opening the shaft out in order to gain proper access for our bunch of crippled, geriatric and otherwise unagile diggers.

We ended the session by boarding over the shaft, as falling into it would be quite serious! This also helps to stop debris crumbling in from people walking around on the surface, and it looks lovely and neat and tidy. It's good digging, a great autumn project and offers some good potential for finding a slip-rift or potentially even some kind of fossil system.

26th August 2011: Boredom!

A fine scaffold A-frame was erected over the hole. In digging circles, this is equivalent to scent-marking! It also facilitates haulage from the bottom of the ever deepening pot-hole. Thankfully the farmer seemed interested in our cause and unphased by the mountain of spoil that was slowly being created between his two fields.

Downwards digging was a pleasant task requiring far fewer people than what were turning out to enjoy the warm late summer evenings. Various ways were found to amuse ourselves while those at the active face and hauling buckets did all the hard work.

A wooden ladder was tethered via an old towline to the A-frame and hung, suspended in the middle of the ever-growing shaft. It provided an interesting descent to the dig face! Upon lowering oneself onto the first rung the bloody thing would swing round and round, forwards and backwards and as a bonus clouted the lucky user on the head whilst disembarking. It was commonly used as a method of torture by those hauling buckets above and would be lifted out at will if the digger below wishing to exit was deemed not to have pulled their weight! Digging can be inherently boring, especially for those waiting for buckets at the surface. During these harsh times boredom may be eliminated by the generation of other simple parlour games. 'Hang the digger' was, and remains a classic: A noose is dropped down onto the unsuspecting man/woman/Wilsdon; winners are gauged by their stealth in securing a noose around the victim's neck.



Mutton Butty entrance in late August 2011 when the A-frame and hauling platform were installed. Photo by Gary Douthwaite.

Nettle-fetish is equally enjoyable. A bucket returning back down the shaft has nettles pushed through the multiple drainage holes. Quietly, and without laughing, the bucket is slowly lowered until it nears bare flesh; cheeks, ears and builder's views are the most successful target areas. Once nettle to flesh contact has been made, the bucket is rapidly spun or plunged up and down, thus tormenting the victim. This is how we lost our only female visitor to Mutton Butty, who after a good tickling, decided that we were horrible people and that she would not return. Flaming autumn is another game, but one which we shall return to in the saga of Dowson Pot.

Occasionally these games go a little too far. Once whilst waiting for a bucket to be returned from the surface, I was very surprised to see a large burning log being bunged down the shaft towards me. It landed next to me at the bottom of the shaft, glowed for a while then filled the entire pot with smoke and forced two of us to retreat as it had eliminated most of the air and our eyes were weeping profusely. On another occasion after passing a bucket through a horizontal section it was emptied and immediately fired back, hitting me on the nose and causing an instant rush of claret from my nasal region.

This is all part of the fun of surface digging.

Digging pets

At some point in the dig we noted vermin running round and round the shaft whilst we dug, and after several sessions this animal became somewhat tame and seemed undeterred by our actions. Over the following weeks this pet was regularly fed small morsels of food, bits of sandwich, pies and fag ends. However events were soon going to change and our friend was to become absent from proceedings. One evening Sparky decided it was looking out of sorts and in need of fattening up, so it was immediately 'nourished' with red berries from a neighbouring bush. After eating a good portion of these a narcotic effect appeared to take hold of the little beast, it suddenly began to dance wildly and run up and down and in and out of the various holes dotted around the dig. Strangely the following week it was absent from the dig site.

30th August 2011: Saturday digathon

Report written at the time by Matt:

We spent eight hours (the NYMCC guys spent ten hours) digging down at the bottom of the Mutton Butty shaft. The day started with the shaft being measured as 5m deep. Digging was very easy indeed, with two people at the bottom at once, using a combination of a pick-axe and spade to claw mud from the floor. The mud is thick and clay like and comes out in easy to manage 'sods' and peels nicely away from the rock walls ready to be passed to the surface in a bucket.

With one person picking/digging and another filling bucket, a person hauling at the top using a pulley and the A-frame, and two people on bucket emptying duty we progressed downwards at around 1 ft every hour, taking time to ensure we were digging down evenly across the bottom of the shaft. Around the middle of the day things started to become clearer. What we appeared to actually be digging down was a T-shaped section of 'passage' or cross rift. However, the rock is very water worn and characteristically phreatic in nature, with curved scalloped outcrops and fluting. This hole has clearly been worn by a great deal of water at some point in history.

As the floor level lowered we uncovered a 6 inch high fissure at floor level going off a few feet through the wall like a letterbox. This seemed to produce a considerable draft, and sticking our heads into it, we could see space beyond and very water-worn and clean washed limestone and cobbles. Very exciting! This provided the motivation we needed for the rest of the day. The letterbox was solid rock however, and so we concluded that we should instead continue downwards before we consider calling for the chemistry set.

Thick mud continued to come from the bottom of the hole, and by the end of the Saturday digathon we had gained a total of 2m further depth, putting the hole in excess of 20ft. What a great day!

6th September 2011: Tuesday night digging

Reported again by Matt:

We started with further progress downwards, gaining another foot in the first hour or so. Around 8pm while Gary and I were digging at the bottom we finally hit the apparent end of the 'passage' where the rock walls pinched in, and only just below this a fissure appeared, heavily drafting and water worn and going down several feet. It was only a narrow crack, maybe a couple of inches wide at most, but appeared as if it might open out further below. By the end of the night this had been excavated further but with no significant progress.

Chalky and Matt waiting for the next bucket. Photo by Gary Douthwaite.



14th September 2011: Tuesday night digging

Drivel written by Chalky:

Cripes a very poor turnout. Dickwad (the hypertension time bomb) made his usual excuses, Matt got lost somewhere near Sutton bank in a traffic diversion and bugged off home instead and Andy was cleaning his wedding tackle. Sparkles, Gazza and I however made progress, probably 4-5ft. The base of the shaft is now tight and digging is slower, but there are more pebbles coming out, also more bones. We have made an archaeological heap and at some point I'd like to sift it and bag a few up. I reckon next dig we will have an idea whether it's gonna go or not.

28th September 2011: The beginning of the end

Reported at the time by Matt:

First class evening of digging!

From the bottom of the descending rift, Chalky and Sparky started work with the breaker hooked up to a generator, which seemed to chisel away small nobbles but was relatively useless against larger rock outcrops. So the going soon turned back to good old fashioned digging. Chalky was digging straight downwards in this constricted rift (a testimony to his agility), and a dozen or so buckets came out over the course of the first hour or so after Chuck and I arrived. Shift change, and then Chuck and I were down the hole, initially with me at the active face. Not being bendy enough to dig in the floor, and enticed by a void straight ahead, I dug straight on, where a slope of sticky mud lead up to a small natural cavity.

It took about an hour of clawing mud with the hook end of a crowbar, and a dozen or so buckets worth, but soon an enticing void started to appear, a 4-inch wide slit in the rock wall at the back of the rift. As soon as this was cleared of mud, the draft started, and this stayed with us all night. Chuck took over and clawed our more mud, and then Sparky, unable to resist a drafting void, appeared, and after a quick recap of several positions of the Kama Sutra in the narrow, and now very slippery rift, he took over. There was now enough room to claw mud out with the pick axe. By 8:30pm enough mud had been cleared to allow me to go head first along the rift ahead to peer down the drafting slot.

Through this slot, the floor and roof sloped down at 45 degrees for a meter into a clean washed cobbled bedding - nothing huge but blowing a great draft upward, I could feel it on my face. The walls are clean washed, fluted, exactly as per the limestone in the Excalibur entrance, and a bone was jammed in the wall. A piece of glass was found deep in the mud which is interesting.

Looking down into the Mutton Butty shaft we see Chalky and Sparky working hard at the face. Photo by Gary Douthwaite.



It is now looking more likely that we are dealing with a fossil sink. It has also clearly become silted up in recent history hence the glass and bones deep within the mud fill, possibly due to the farming activity. Where is the draft coming from? Will there be cave passage once we get past the mud fill? At the moment I see no reason to be sceptical.

It's going to be fairly pleasant and straightforward digging next week. We ended the night with Sparky doing some capping to open the rift out, which seemed to work well. The pops took a good several inches off the walls and it should now be quite easy to get closer to the drafting fissure to pull out more mud and rocks. This means we can open it out more and see what we're really dealing with. The next session could be quite exciting!

A talk at Hidden Earth quoted a rule made by some famous cave digging dude, who said that if something doesn't go after 30 foot down, give it up! Well, we're at around 30 foot depth now, so hopefully something exciting is going to happen soon or I suspect we shall be heeding said advice.

9th October 2011: Continuing down

Reported by Andy:

A fair day outing, not too many buckets, but four snappers and half a dozen caps were released. The way on ahead through the rift has apparently closed down so we are continuing straight down the shaft. We have devised a great fume extraction system though. I nicked the missus battery powered fan from the car and used a rope to plunge it up and down in the shaft.

20th Oct 2011: Injury time

Sparky had his leg broken by a nasty horsey and was stuffed to do anything useful for six bloody weeks. Useless!

21st Oct 2011: All good things come to an end

Around this time, Andy reported that:

It's going but it's slow and hard work. We are continuing down in a round tube about 2 foot diameter, which we have been enlarging so we can reach the bottom to pull out the mud. Around this time we gave up and went to do other stuff, folks became uninterested and uninspired by Mutton Butty, most gave it up as a bad job.

Progress in 2012: Game over for Mutton Butty

After being abandoned over winter, we started to consider what to do with Mutton Butty in the new year. In spring, the entrance needed some attention as Sparky had reported that it had partially collapsed! One uneventful Saturday when boredom had set in, Andy, Chalky and Sparky went up to assess the damage and secure the hole. On arriving they found that debris had slumped and virtually covered the surface boards.

After clearing the surface crap and removing the boards it was clear something even more damaging had occurred down the shaft. The southern wall, that we had somewhat undercut during early digging activities had collapsed and several tonnes of fill now blocked the way down, sealing the bottom three metres of the shaft and the potential way on. They could do little more than a brief tidy of the site.

After some further optimistic discussion, Sparky and Chalky decided that all was not lost and that it was not yet time to give up. The geology was good (Mutton Butty being in the Malton Oolite) and hydrology modelling (Chalky's speciality) suggested that flow accumulations were high in the area. Plus there had been a draft and the shaft definitely resembled an archaic stream sink.

Chalky and Sparky therefore returned to dig on their own; the first session comprised of rebuilding the A-frame into an alternative structure to allow a secure reattachment of the ladder. They dug out the previously drafting 'letterbox' that was clearly water worn and that had been abandoned whilst following the direct route of the shaft downwards. The application of a couple of snappers to the letterbox removed the overlying rock and after further persuasion Sparky managed to force his head in.

The final session gained body sized access into another section of the shaft which does appear to drop several feet and turns a sharp left corner. Further work will either kill or cure any hopes of continuing here. The Butty awaits those with the ability and enthusiasm to haul several tonnes of glacial remains back up the shaft and continue where we left off last year, from a total depth of about eight metres.

But for now it was game over for Mutton Butty and back to Jenga!

Gundale Slack

Searching for new caves in Gundale, north of Pickering, June/July 2012

YCC members involved: Gary Douthwaite, Matt Ewles. NYMCC members involved: Andy Brennan, Richard Edwards, Peter Fambely, Chalky Thomas, Richard Wilsdon.

Background

Since the discovery of Excalibur, we have been searching for other possible locations (outside of the Hutton Beck and River Dove area) where active cave system might exist. It is an interesting, and so far unanswered question, from a scientific and exploratory viewpoint, whether the Excalibur/Jenga/Bogg Hall cave system is unique to the North York Moors, or whether other similar active caves might exist elsewhere.

The requirements for such a cave to form are considered to be:

(A) A surface stream sinking as it passes over the limestone

(Excalibur and Jenga are in the deeper Hambleton oolite and Bogg Hall is in the upper Malton oolite, both of which are predominantly limestone).

(B) Some significant (>10-15m) vertical range between the sinks and the resurgence.

(This is absent for the sinks of Hodge Beck, The Rye, Riccal and Dove, which all flow only a short distance below the surface via sumped beddings, but is of course present at Hutton Beck which sinks nearly 30m higher in altitude to Bogg Hall Rising).

One particular location however had always attracted our attention. The small and flood responsive stream that flows down Gundale, north of Pickering sinks close to the northern boundary of the Hambleton oolite. We have been informed by a local hydrologist that the sinking water resurges at Keld Head in Pickering, a small lake next to the A170 road about one mile north west of Pickering town centre. A substantial river flows away from Keld Head, yet no water appears to enter it! In fact, all this water rises up into the lake from subterranean sources.

Resurgence lakes such as this are not uncommon at the bottom of a glacial valley, where debris has buried a more typical resurgence entrance such as that seen at Bogg Hall Rising. Instead the water must rise up through the glacial spoil, giving rise to a lake. In fact, Keld Head may be what The Font in Bogg Hall will look like should the embankment overlying it get eroded away in the distant future.

Dry passage beneath Keld Head seems unlikely, but the sinks which feed it are of more interest. Keld Head is 30m lower in altitude than a small sink of Gundale Beck (grid reference SE 802868). We therefore believed that this area held potential for a well-developed, but as yet undiscovered active cave. We proposed that a small, discrete surface excavation would allow us to identify whether this may be true.

Permission

Permission to perform the work was obtained, thanks to the Council of Northern Caving Clubs, from the Duchy of Lancaster, and three weekends were arranged for us to attend the site (23rd June, 14th July and 21st July 2012). The sink at SE 802868 was confirmed to be outside of the nearby area designated an SSSI. Permission was also obtained from the tenants of the nearby farm (who kindly let us park on their land).

Investigations

To investigate whether Gundale might have a cave system, we performed minor excavations at SE 802868. This site was chosen as it is one of the few locations in the valley where we have observed a significant quantity of water to sink at one place. This only occurs during flood, because most of the year Gundale Beck is merely a trickling stream which slowly permeates through the valley floor 100-300m north of this sink.

This sink is in a circular depression in the stream bed approximately 4-5m diameter and 50-60cm deep. We commenced work by excavating a hole, approximately 1m in diameter in the southern edge of the depression at the exact point where water had been seen to sink previously. Only 50cm below the surface of the depression we encountered a layer of solid limestone bedrock (in contrast to our work at Hutton Beck, where solid bedrock was never encountered during our excavations).

The hole was expanded to 2m x 1m, to expose more of the bedrock. We found that at the western edge of the hole, this layer of bedrock was absent, and we were able to continue to dig a further 90cm down to a final depth of about 1.40m. Here, yet another limestone bedrock was reached with no fractures or fissures anywhere to be seen.

The dig in Gundale Beck after the first couple of hours. Photo by Gary Douthwaite.



The bottom of the hole was expanded outward in search of an edge to this lower bedrock, but none was found – it was seemingly solid and uninterrupted. However, what was particularly interesting was a layer of softer rock that seemed to overlay this bedrock in which were tiny solution conduits, approximately 4-5cm diameter, formed where water has forged a path to allow it to flow across the impenetrable lower bedrock.

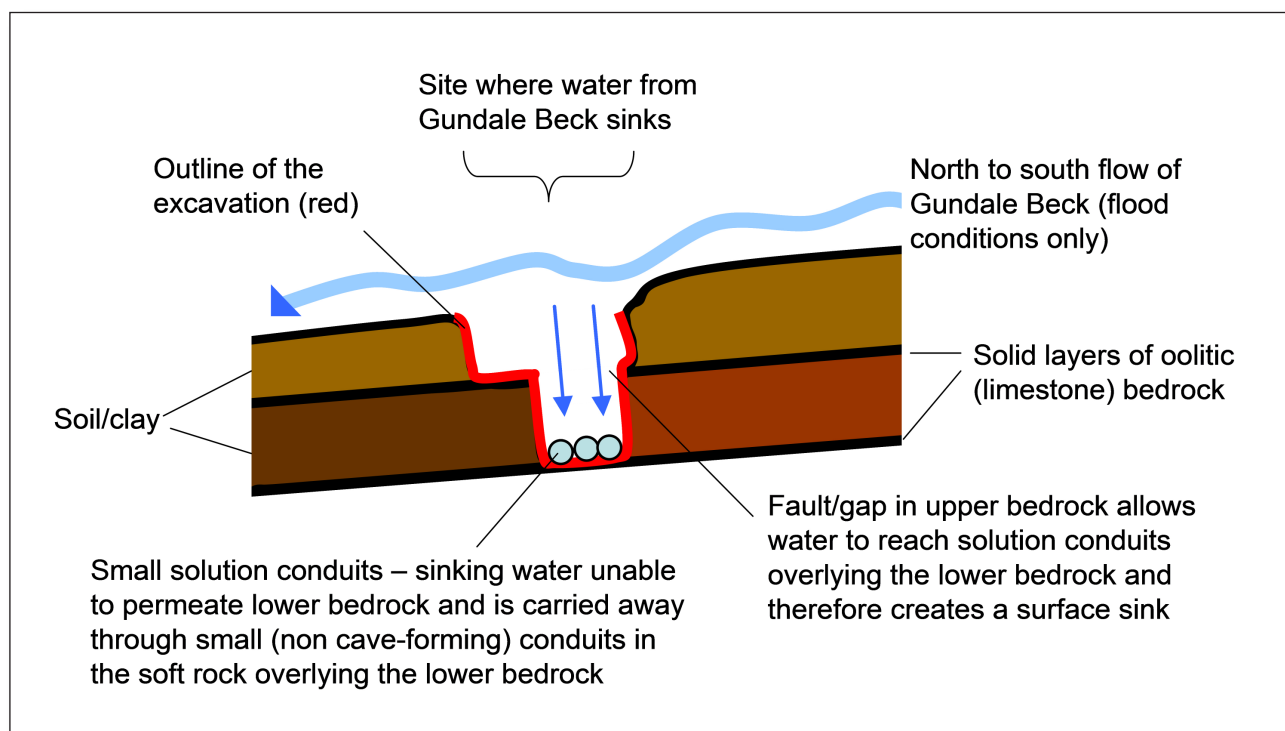
We concluded that this sink was present due to the obvious gap in the upper layer of bedrock, permitting water to gain easy access to the network of conduits in the soft rock that overlies the lower layer of bedrock. There was no evidence that this sink could, as had been hoped, be caused by the presence of a substantial cave system beneath.

A summary of our findings is shown in the diagram below.

On the weekend of 14th July we returned to Gundale, this time to investigate the various upstream sinks. Slightly more water was flowing, following a week of heavy rain, and at the northern edge of the woods, Gundale Beck carried a significant flow, the beck being approximately 80cm wide and 30-40cm deep, and flowing at an estimated 50-100 litres per minute. However, upon inspection it was clear that, rather than sinking at one particular location, the water was instead gradually seeping into the ground over a 200m stretch of the valley south of the current treeline, terminating completely approximately 50m north of our excavation.

A metal bar was used to test the stream at numerous points. On every occasion, a solid, seemingly unbroken layer of bedrock was hit only 40-80cm below the surface. This is consistent with the upper bedrock encountered at our excavation.

Representation of our observations and theory at Gundale. The sink has formed due to a gap in the upper bedrock thus allowing water access to the small solution conduits overlying the lower bedrock.



Conclusions

There appears to be no major speleological development immediately beneath Gundale Beck. The water sinks gradually across the length of the valley by permeating through soil and an upper limestone bedrock, to then be carried away through tiny solution conduits overlaying a lower bedrock.

The prominent sink at SE 802868, which had been previously observed to swallow several litres of water per second in flood, may exist due to a gap in the upper layer of bedrock only around 50cm below the streambed. At this gap, the water appears to have found an easy route down to the lower layer of bedrock, where several small solution conduits in the overlying softer rock and clay enable the water to flow away without needing to penetrate the lower bedrock.

The upper layer of bedrock is ubiquitous throughout the valley, and may explain why, rather than being channelled to one specific sink, Gundale Beck instead sinks by gradual permeation across the full length of the streambed.

These conduits which overlie the lower layer of bedrock may conduct the water towards a cave system in the nearby vicinity; however, we cannot be sure and a substantial amount more work would be needed to test this theory.

These conclusions are disappointing, as Gundale represented our highest hope to date of finding another hydrologically active cave system. For now it must remain an open question of whether the Excalibur/Jenga/Bogg Hall system is unique to the North York Moors, or whether there are others that await discovery.

An interesting viewpoint on the situation

It is interesting to note a letter in Descent 203 from Nigel Graham in response to our publication in Descent 202 of the discovery of Excalibur Pot. He comments on how the Jurassic outcrop across much of England has undergone little speleogenesis as it lacks an impermeable surface cover (such as the impermeable caps of the Yorkshire Three Peaks) to help concentrate drainage into swallets. Because of this, the water seeps away through the limestone joints with little effect. This fits with observations at Gundale. Excalibur is a rare example of a major swallet on the Jurassic limestone. This author suggests that nearby relatives of Excalibur Pot are likely to be percolation water collectors rather than being fed by distinct surface swallets, as is the case with the Honey River Series in Excalibur (which trickles all year round and does not react to the surface river). This may be the case in Gundale, and the conduits we see may be collecting and channelling water towards a more substantial, phreatic cave. These active percolation formed caves may be abundant across The North York Moors (in fact, given the abundance of limestone it would be astonishing if they were not), but without any swallets to pinpoint their location, or to erode fissures near the surface, finding these caves with finite resources may prove almost impossible!



Richard Wilsdon demonstrating how the water flows through the small conduits. Photo by Gary Douthwaite.

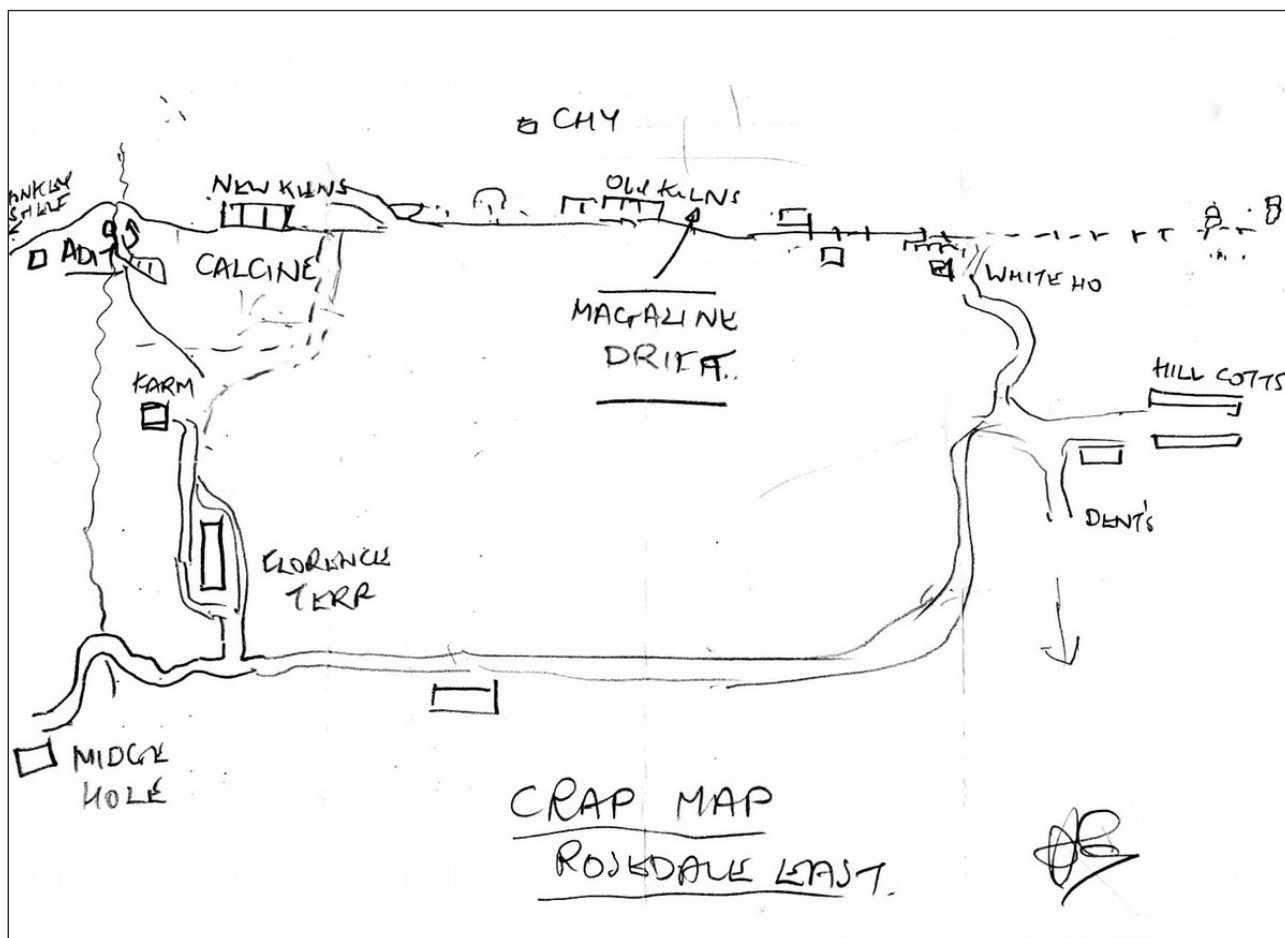
Rosedale: Shafts, Drifts and Water Levels

A history of proceedings at Rosedale to date, by Chalky Thomas:

The Rosedale ironstone mines (east and west mines, both circa 1855-1926) were, at their peak, amongst the largest mines in Europe, with multiple levels of passages circling the entire Rosedale valley, and Sheriff's Pit, a 270 foot deep shaft being the main route out for ironstone from the west mine. Sheriff's Pit is now surrounded by a fence and the remnants of the original buildings and is barely 50 foot deep before domestic waste is encountered (it having been used as a rubbish tip for years). Nearly all the original adits and water levels were collapsed or have collapsed naturally, depriving access to this immense mine complex for the best part of a century now.

Initial ramblings about reopening of the old Rosedale mines involving Jerry Gibbs, Lee Vasey and I took place in the early days of the 1980s when all but a few of the present North York Moors digging team were still in nappies. These were the early days before meeting Ernie Shields of the Moldywarps Speleo Group (who drove the fastest milk cart in the west), and before becoming members of Scarborough Caving Club or meeting the hazardous Mr Richard Wilsdon. We spent hours looking at and poking airshafts and we abseiled down Sheriff's Pit to the traditional welcome of a rotting carcass or two. We contemplated ways of throwing ropes over the old chimney on the east side so that we could dig at it's centre (which may be still a valid option). Over the weeks we would molest for information as many of the old locals as possible when in the pub (old people are usually easy to molest as they can only move slowly) in the hope that they knew of a way into the mines that was still open. Stories as always were told about ways in at Thorgill or certain airshafts, but try as we might, nothing ever turned up. As always I lived in hope, for which I was and am usually slated and psychologically tortured. Jerry and I spent many an hour in the reading room at Scarborough library looking at endless microfilms and books on the subject but to no avail.

Fast forward to early 2007 and armed with a mine plan which had been photocopied from the Northallerton archives, a GPS and some sarnies, a group of us (Andy, Richard, Peterphile and Jerry Gibbs) went searching once again for a way into the mines. Finally, 20 years after we were told of it, we located the collapsed adit at Thorgill, and all the other entrances at the west side of Rosedale valley below Sheriff's Pit. After bugging about (not literally) and sticking our heads down every orifice we could find, we settled on one particular location. The best spot to dig at this point appeared to be an old airshaft above Medds Farm, so after some discussion Andy and I compiled a lengthy report to the local landowner in an attempt to gain permission for the dig. As with many digs other things turned up and even though we did finally get the permission nothing was ever done at the site. Other similar attempts were made on the east side of the valley and all airshafts were located and marked with GPS. We did actually manage to find an opening to one of the drifts above the calcining kilns however this was put on hold due to the unpleasant nature of the dig, namely a large pile of unstable boulders which may only lead to one's wake (it may be a good excuse for a beer though). At some point during this time a strange phenomenon appears to have occurred; one of us was given a map of the mines! Quite who received it and who drew it remains a mystery.



The 'map' which was acquired in 2007, drawn by an unknown artist, showing the previously unexplored adit at the top left.

This treasure map shows a previously unknown adit above a farm, up a track from Florence Terrace, near the kilns. The map itself is made of leather parchment that was rolled on the soft thighs of a virgin and is marked with blood (oops sorry got carried away - it is actually a scan but where it originally came from remains a mystery at this point).

The next attempt was in 2010. After doing some more homework and looking at some historic maps I managed to locate what was shown as an old shaft above Chimney Bank. After convincing the newest member of the North York Moors digging fraternity that it was a good idea to follow my homework, Sparky and I went to take a peek at the location. The site of the shaft is located in a depression above Hollins Farm and after following standard protocol (shoving our heads down the orifice) we found a strong draft blowing out! After discussing the find, Andy Brennan agreed to go up with Sparky and post a drain camera down the slot in order to try and see further. After the usual discussions and negativity from Mr Wilsdon, they both agreed it was and probably still is a good place to try to gain entry into the mines at some point in the future.

Forward another few years to 2012 and a chance encounter with a Moldywarps (John Dale) one Saturday afternoon whilst setting up the pumps for a Dowson Pot pumping ceremony. We discussed caving, mining strategies, digs and the like and told him of our efforts at Rosedale. John put us in contact with one of the Cleveland Mining Heritage Society gents who have spent many years studying Rosedale. There then followed numerous emails with this chap, Simon Chapman (unlike caving, the mine exploration scene appears to have a very hierarchical structure, with Simon being the Big Daddy). He thought some of the sites may be worth an attempt but felt it may be more appropri-



The evening of 3rd April 2012: As the team arrived, the snow worsened! Photo by Gary Douthwaite.

ate to go and have a look at the water levels on the East side which may also be a way in. Sparky, Andy, Gary and I walked up to have a look at the site and in no time found the location of the most promising water level (it's not really difficult to find a massive slump with a large beck running out of it). We must have passed it many times on our previous searches! The water level itself was covered with grass but sticking out was a chunk of wood around four feet long with a gap beneath. Peering through the gap revealed a mine passage disappearing off into the distance, albeit filled with water due to the collapses at the entrance having formed a barrier. There was still a foot or two of airspace and it would be possible to slither in without any digging or lowering of the water. Wetsuits would be essential here so a date was set for the following week.

The exploration of this open water level turned out to be rather more epic than we anticipated, as reported by Matt:

Well here we go, the epic adventure that was 3rd April 2012. The cast in no particular order: Sparkler, Chalky, Andy, Richard, Me, Gary with a guest appearance by Peterphile at The Crown afterwards.

The weather forecast was for snow to higher ground - unusual after the warmest week in March for 80 years last week, so we didn't expect anything particularly disruptive. It had been raining all day, and as we arrived at Hutton-le-Hole to meet in the pub car park at 5:30pm the rain turned to sleet and heavy winds. A gathering in Andy's van lead to a change into our wetsuits so we were kitted and ready to go and we didn't have to change on the bleak moor. Gary's arrival signalled that it was time to go and we jumped into Andy and Sparky's van and headed up to Rosedale. We took the road up past Blakey Ridge. I quickly decided to hunt down Andy's seat-belt as the sleet became heavier and turned to proper snow, which was quickly settling on the roads and reducing traction and visibility. This is not the sort of weather to be setting off up onto the moors in! We realised

that tonight could be a little more of an adventure than we bargained for. We parked up about 100m north of the cattle grid on Knott Road (roughly a mile or so north of Bell End Farm (tee-hee), at a very high and exposed point indeed. We were glad to already be in our gear as the weather was now pretty nasty and had become a blizzard with icy arctic winds! The cold quickly started to set in so we made quick progress.

Thankfully we had our back to the wind for the walk down the hillside to the mine entrance, only about a 15 minute amble. The entrance was a small crawling height hole going into orange water, with a considerable stream coming out and down the hill. Richard was unusually enthusiastic and headed straight in, posting himself over the collapse and into the mine, dropping immediately into a stooping passage chest deep in icy water, soon followed by Sparkler and then Andy. Chalky and I stayed at the entrance with an emergency spade to safeguard against any collapses which might cause the water to back up. Thankfully there was no need to use this!

Once we were confident the entrance wouldn't collapse, I headed in. Initially a 3m crawl over the collapsed stuff at the entrance soon lead into the stooping passage, chest deep in icy orange water. The forward progress was quite easy, with a pipe under the water level down the middle of the passage to pull yourself along by, although lots of fallen props underwater to trip you up. The ceiling did not appear to be dependent on the extremely ropey looking wooden props across the passage, although some bits were worse than others. Still, we took our time to help make sure not to knock anything, as a collapse would undoubtedly be fatal for those ahead. Bobbing along the passage was eerie, at some points with the water deepening to neck deep and only a foot of airspace. The slopping of the water against the walls make a gentle rhythmic booming noise. Ultimately we knew we were going where nobody had gone for the best part of a century, in a passage that was clearly never intended to last so long. The limited airspace, the icy cold water, the crumbling walls and the occasional creak and groan of the wooden props above our heads kept our heart rates up!

Andy was about 50m in and I soon arrived to meet him. Richard and Sparky were 40m further on, where the roof became much dodgier with the knackered wooden props seeming to be holding up massive stacks of boulders, and Richard reporting that his breathing had become heavier, even though the oxygen meter was saying 19% oxygen (this did not measure carbon dioxide). This was quite enough excitement

Top: Entering the water adit as the snow piled up around us. Photo by Gary Douthwaite.

Bottom: The water level in the first section of the adit. Photo by Richard Wilsdon.





Top: Entrance to the pipe showing the stacked baulks above. Photo by Richard Wilsdon.



Bottom: The lid initially covering the pipe which would once have been fixed into place. Photo by Gary Douthwaite.

for Andy and I so we turned around without joining Richard and Sparky further along the passage. They weren't far behind though, having reached a wall of stacked blocks with a large metal pipe through it with only inches of airspace!

All out of the mine, the weather had worsened and it was now an arctic storm, with probably 70mph winds pummeling us with shards of hail and snow (very painful on the face). Visibility was maybe no more than 20m and a good half foot of snow had already settled and this was quickly rising. The walk back up the dark moor was a killer, against the blizzard and uphill in a heavy, wet wetsuit, a proper hard slog, and we felt a bit like the explorers in the arctic! After about 25 minutes of struggling against the blizzard, we arrived very red in the face back at the vans, and opted to change into dry clothes once we got back to Hutton-le-Hole where it would be more sheltered.

This is where the night took an unpleasant turn. Andy's van couldn't move! The snow was now several inches deep across the road. We pushed him out into the middle of the road and got him going down-

hill towards the cattle grid where the plan was to turn around and head back via the Blakey road. Unfortunately we had no grip at all, and the van was sliding back and forward all over the road. We probably spent about 30 minutes trying to manoeuvre the van around and get it going but there was no hope. In wet wetsuits, in far sub-zero conditions, in a blizzard, it was impossible to spend more than a few minutes out of the van before fingers were numb and hypothermia started proving a real risk. The decision was then made to abandon Andy's van, so we jumped out and made one last push into the verge, while Sparky fitted snow chains to his van. All the time, the weather continued to worsen and visibility decreased due to the wall of snow coming down.

With Sparkler's snow chains fitted we grabbed our essentials and abandoned Andy's van, taking a 20m dash up the road to pile into the back of Sparkler's van on top of all his farrier gear (I was sat on top of an anvil, which would have made for a painful if not slightly amusing demise had the van come off the road)! A very slow drive back down to Hutton ensued,

with at least a couple of near misses and probably a foot of snow having now settled. Andy performed a mid-journey change out of his wetsuit which was surprisingly acrobatic, although resulted in too much flesh on show. As we came down towards Hutton the weather broke, and the snow subsided – in fact little more than a dusting was settled across the roads here – it's amazing what a difference a few hundred metres in altitude and the shelter of a valley makes! Our arrival at Hutton was very welcome, and a film crew from the BBC were even out to report on the weather for the 10:30pm Look North bulletin. They had apparently been reporting up at Blakey Ridge but had retreated down to Hutton. Thank you to the pub for allowing us to change in their toilets and sorry about the orange stains!

A superb night out! Very extreme, very epic! It was looking for a while like we were going to be spending a night on the moors in Andy's van, so it was a great relief to get back to my own bed safe. The night wouldn't have been the same had we done it in better weather!

Right top: The mine passage immediately beyond the pipe. Photo by Richard Wilsdon.

Right bottom: More mine passage further past the pipe. Photo by Gary Douthwaite.

So at the end of the passage, the floor increased in height, thankfully taking the water level up to waist height only, but the way on was blocked by a wall with a large pipe installed at ground level. Next to the pipe, propped against the wall was, what looked like a loose capping end, with a smaller hole in the middle. There were several arguments as to why there would be a solid sealing wall with a large pipe fitted in it only 100m into this water level, however, the clues were there! Situated along the left wall of the water level was a six inch diameter, cast pipe terminating at a valve and more buried pipework heading off over the field. After some discussions we decided that the sealing ring with the smaller hole was designed to connect the large bore pipe to the smaller bore pipe. It was concluded that the wall with the pipe were retrospectively added to deliberately hold back water and flood the inner passages. The high pressure water could be tapped off via the smaller bore pipe and used for some form of hydro-power system located further down the valley. After discussing the situation with the tenant farmer he confirmed that this once fed a hydroelectric turbine (probably a Pelton wheel) at Stable Farm.

The pipe was passable, although with only five inches of airspace it would be an intimidating journey. A return trip a few weeks later saw a small party of aquatically fearless explorers tackle it. This was reported by Richard Wilsdon:

Chris Twigg, our new resident mine expert, reckoned the passage looked pretty sound. As it has turned out, the timbers only serve for decoration. They do look good though! His gas detector showed that the oxygen declined towards the wall and hit a low of 18% when held in the pipe that comes through the wall at water level. This was enough to trigger the alarm so the beep-beep-beeping was good mood music for Sparky and I to float through. This was comparable to The Drain in Bogg Hall - it is a little low but floating on your back and with your hat off, nothing to worry about.

The passage the other side looks fantastic; a bit larger, square cut, no pit props and you can see 30 or so metres on. There is a bit of a draught going through the pipe (from inside the mine). This might eventually improve the air but Chris says 18% is fine. At the moment it is a Disney World experience. Only alligators, treasure and a Princess could make it better. With low oxygen, this was quite far enough for today however.



A later return trip with an oxygen meter found that only 40-50 metres beyond the pipe, with the passage remaining spacious and only knee deep in water, the oxygen levels in the mine did decline to dangerously low levels (16% and lower). Collapsing here would be bad, so further exploration of the water level will require extensive work to lower the water to allow greater air circulation through the pipe, or even the re-opening of an old air shaft, of which several are marked nearby on the old maps.

So far, we have only explored the mine as it was when we found it. To lower the water would require digging out of the collapse at the entrance, which would unleash lots of orange water down the hillside. We decided it would be a good idea to seek permission first from those in charge and so we wrote an enormous report to the North York Moors National Parks Authority to seek their approval and also obtained permission from the landowner. We thought we must now be on our way to using at least a crowbar. Discussions with National Parks were good, and they were keen to allow our work, the only two requisites were 1. We need to have an Industrial Archaeologist on site at all times (no problem thanks to our new contacts in the Cleveland Mining Heritage Society) and 2. We will require permission from Natural England. The Natural England thing will be much more time consuming, and as usual, this got put on the back burner.

Therefore, Rosedale remains a project-in-waiting!

Manor Vale Caves

Manor Vale Caves in Kirkbymoorside lie in a disused council yard about a five minute walk from the town centre, up the lane towards the golf course, in a cutting between two limestone cliffs. Each cliff has an obvious cave entrance (Manor Vale West and East).

In our first journal we described work focussing on Manor Vale East, behind a council building, where a slope down into a gaping cave mouth leads into fine stooping passage. This continues for several metres before reducing to crawling and reaching a terminal



Entrance to Manor Vale West, located in the council yard and walled up. Photo by Gary Douthwaite.

cross rift with a promising dig. A route dug out by Scarborough Caving Club near the entrance leads to another much smaller cross rift, where body-sized passage can be seen beyond an extensive constriction formed by a calcite coating on the floor. Digging (unsuccessfully) at this in 2007 marked the entry of York Caving Club into the local digging scene!

A brief return to look at this since was greeted by an unhappy badger which did not consent to sharing its cave with a human intruder. Nobody has been back since for fear of being badgered!

The west cave however is another matter. This has two entrances, one being a large wall with a caver-sized letterbox, and another higher entrance, both easily visible from the main track running up Manor Vale during its life as a council yard and grit-salt stash. Neither cave came to much, with the upper cave pinching in at boulders after only a few metres, with a vocal connection down to the lower cave, and the lower walled-up cave reaching an end at dodgy blocks only several metres along a crawling passage. Several of us were therefore surprised to see that in December 2011, a post appeared on our club forum by Andy and Chalky saying that they had, in boredom, revisited Manor Vale West on the 10th December and made some reasonable progress at digging there:

A good night out, worthy of a beer mat survey! In the absence of anyone else Chalky and I decided to return for another look at Manor Vale West. It turned out alright. We ignored the boulder choke at the end and instead we dug out a tube at floor level on the left only a few metres inside the entrance to which we had never paid any attention before. The tube was choked with all manner of rubbish and also diesel stained mud.

After an hour or so clearing out the passage we made three metres of progress in a small round tube which ended at a blank wall and dodgy rift full of hanging death. We removed the worst offenders which allowed us to peer down a narrow rift in the floor running perpendicular to the tube. This was only a couple of inches wide but throwing pebbles down we heard them tumble a fairly long way, maybe 20 feet. What's more, this rift sounded like it opened out to something larger, as the pebbles could be heard

knocking much larger rocks down. It also drafts which is a first for Manor Vale! It's not a quick fix to get down though as we need to shore up the roof with acrow props and then begin mining down the rift to see what might be down there. Hardly a walk-in job but an excellent winter dig!

Digging at Manor Vale was an intensive project which occupied our attention over the winter of 2011 and into early spring 2012. Over this time we mined down the new rift which just kept going down and down but barely getting any wider, so it was a hard slog. By the 27th February we had mined down about 12-15ft below the tube, with the rift showing no signs of bottoming (but also no signs of getting any wider). This depth meant the rift was deep enough to accommodate three diggers, one at the bottom, one halfway up and one at the top standing on an acrow prop passing buckets through the mined tube back to the main Manor Vale passage where spoil was stacked anywhere and everywhere. The lower parts of the rift had a thick calcite coating. Apparently quite a lot of water flows down here from a land-drain pipe from the council yard when it rains, so there were encouraging signs that there could be something down there, and although it was hard to tell, we reckoned we could feel a draft now and again.

Digging continued until we reckoned we could see the bottom of the rift at an approximate depth of about 6m. However, with no natural enlargement in sight and no obvious ways off, we started to lose hope. By May 2012 all interest in digging here had been lost and we returned to Jenga, for a final (and ultimately very successful) push.

Therefore Manor Vale West remains a short cave. Beyond the walled-up lower entrance the passage immediately bends right. Ahead is the old passage, terminating at blocks after only several more metres, but at floor level on the left is the dug crawl. This reaches after two metres the excavated rift, dropping six metres to the present limit. Not a lot of progress for three months work it might seem, but it passed the winter nicely!

Manor Vale: Looking from the new rift back along the tube towards the main passage. Photo by Gary Douthwaite.





Manor Vale: Looking down the enlarged rift. Photo by Gary Douthwaite.

Soon after we terminated digging at Manor Vale, we received the news that Manor Vale itself (the council yard) had been sold off for housing and over the year that followed it slowly started to become a building site. It appears likely that once the new houses have been built, access to the caves will be lost forever into someones back garden! Given how Manor Vale is prone to severe flooding after heavy rain we hope the new houses are aquatically equipped! Whether Manor Vale caves ever held any secrets remains to be seen, although given that they are on the southern fringes of the limestone, the answers to their possibly once larger system may lie further up the valley at the golf course. I'm sure the owners would like some new holes adding to their fairway!

There's a local myth we have been asked about many times: about a chicken/turkey/duck/goose (the actual species varies) that once went into Kirkdale Cave and came out at Manor Vale days later. The two caves are in the same band of limestone, but are hundreds of metres apart, so unless this plucky avian explorer knew something we don't, or happened to live in the area prior to the last ice age, before the caves became dormant and choked with glacial mud, then we can safely assume that this is little more than a myth,

Levisham Moor Sinks and Fishing for Mines

By Chalky Thomas

After being told by some members of the Moldywarps about some sinks and reading about a 600ft deep mine shaft in the Levisham Moor area, we thought a tour would be appropriate. I had discussed the depth with Andy and we concluded that we needed some means of plumbing the depths of such a deep structure before any abseiling. He returned with a child's fishing rod, acquired from a skip and a huge reel of line marked with what appeared to be flags every 10m. It was a good turn-out on the day, due to the potential of accessing the deepest shaft known for miles!

There were indeed several substantial depressions and sinks situated along the top of the limestone plateau (grid reference SE 820 918). We inspected some and decided that a return trip with digging equipment was definitely required (again we never did). The day was drawing on so we turned our attention to mines and continued on to the head of the forested area where the mine entrance was located. As this was a dodgy sort of thing to do on a Sunday afternoon and not wanting to draw attention to ourselves we took an off-piste approach, down a steep bank and through the woodland.

On the way we passed an old quarry with an enormous boulder containing a series of interconnecting holes. A challenge was set and various bodies were twisted and contorted in attempts to wriggle inside this natural mammoth structure. People (Sparky) got



bored and grumpy and after a blast of foul language we were forced to continue on our route. Continuing down the bank we noticed a small group of walkers heading down a track on the opposite side of the woodland and we decided to keep quiet and avoid notice. Upon arriving at the shaft and readying the fishing rod we were suddenly aware that the cylindrical brick walled shaft (rough grid reference SE 824 929) must have a cap of some sort, and for around an hour we continued to remove large stone slabs and rubble in an attempt to find a way through. The group had now spilt up, some digging and some looking for more evidence of mine buildings in the woods. Suddenly we heard voices coming from back up the forestry; the returning group had doubled in size and was now filled with even more odd-bods than in the original



Above: One of the depressions on the moor near Levisham.

Below left: Fun during the walk to the mine

Photos by Gary Douthwaite.



The capped mine entrance was rather less exciting than anticipated. Photo by Gary Douthwaite.

party. Avoidance was now impossible so introductions were needed. As it turns out, these were seasoned mine enthusiasts from neighbouring County Cleveland (John Butler *et al*) who, as we understand is customary for mine explorers, had been sneaking about burying children and reading porn mags in the woodland.

It soon became apparent that they knew much more about local mines than a bunch of simple cavers like us. They crowded around the bodies chucking rocks out of the ever deepening hole and questioned our need for the fishing rod. With somewhat of a smirk one of the members soon explained the situation here. The bloody chimney and all mine buildings had been demolished

and shoved down the shaft in the 1970s. The 600ft shaft was no doubt full of crap and capped. This was the end of our dig, but this was certainly not the last time we would cross paths with members of the Cleveland Mining Historical Society.

Tank Track Hole

By Chalky Thomas

Sunday 6th March 2011. Members present: Mr Sparkler Edwards (Sparky), Dickwad Wilsdon, Chalky Thomas, Andy Brennan and Peterphile (Peter Fambely).

As we had some spare time in the afternoon after discovering MSG Hole we decided to follow a further lead given to us by Richard Fairburn, a local gamekeeper. Our hope was to piss the Yorkies off by finding two caves in one day. The gamekeeper had advised us that a hole had opened up at the side of a forestry track near Ristbrow Farm which was frequented by horsey girls. Double bonus! Apparently the crack had been filled with up-ended tree branches and was located near an obvious old abandoned diesel tank in the middle of the woods. Such an obvious site eluded our gaze, even Sparky with his jam jar bottomed glasses managed to miss it! After hours searching, we finally found the hole (at SE 5466 8871), just before seeing the remnants of the enormous juggernaut!

The hole was the barely the size of a football and was, as promised, filled with up-ended trees. Dickwad and I immediately started to enlarge it while everyone else arrived. Lumps of tree trunk and rocks were rapidly removed and lobbed down into the woods. Around 1.5m down there appeared to be a choke, but after a little gentle persuasion with the big bar, rocks started to tumble down what sounded like a very deep rift. Andy was then forced in and commanded to start clearing the rest of the loose crap lying around. He was now standing on what was evidently a dodgy looking rock bridge poised above the void. It was decided that a rope might be a good idea given his upcoming wedding and that a bollocking from his angry Teesside missus was definitely a thing to be avoided.

Peterphile was bullied into going down the hole next, but after being unsuccessful in his head first approach he soon gave up. A new belay technique was employed in the interests of safety and the lucky Sparky was the first to try the method. This novel technique is called the 'Walking the Dog' approach (see pictures opposite).

On attempting to exit the hole the victim (Sparky) soon realised that he was physically too small to get out and had not only dug well over his own depth but had also removed all footholds from the shaft. After a customary slating he was pulled out, four of us grabbing hold of both hands. The resultant forces launched him outwards at speed, and he was flung upwards like a cork out of a bottle, to the great amusement of all present.

Sparky and Andy at the entrance to Tank Track Hole. Photo by Chalky Thomas.



Finally and somewhat surprisingly, a sensible option was taken and a ladder was lowered down the hole. The discoveries ended with further pushes by Richard and Andy who concluded that the rift measured around 10m long and 10m deep. Over the months that followed, the exploration and surveying of MSG Hole took higher priority and, like so many good leads, we never went back to Tank Track!!!

The “Walking the Dog” Belay Technique

1. The Dog, victim with rope attached loosely around waist.
2. Walker, belayer loosely holding the rope in an effeminate manner.
3. Tree used only for psychological support.



Gundale Well

By Chalky Thomas

Whilst studying the borehole data for the area (see borehole viewer, British Geological Survey) in an attempt to construct the subsurface geology of the North York Moors, I regularly came across logs taken from local wells. This gave me the idea that some of the wells might intersect natural passage. Some logs clearly indicated cavities, fractures and fissures so it seemed a plausible approach and worth a poke about.

NYMCC farmer relations officer (Sparky) was set on the case and within days came up with two wells located in upper Gundale. Our attempt near Yatts Farm quickly located the first, which was now a depression filled with pig netting and the remnants of several bushes that had been chucked in by the farmer. The standard approach was taken and attempts were made to remove the shrubs and bounce on the middle of the shaft, potential depth 180 ft. As always Dickwad poo-pooed the idea and thought it was a total waste of time and effort, and after putting us off we left for the pub.

Undaunted by the pessimistic old git and after speaking to the farmer for a second time, Sparkles was told we were looking at the wrong well, and that the one we should go and look at was half a kilometre down the valley. We both returned, this time with a 200m rope that I had acquired several years earlier and standard issue crowbar and hammer. It didn't take long to find the concrete cap hidden in bushes just off the path. Luckily there was a small gap alongside the concrete lintels, so within five minutes we had opened up a hole big enough to throw rocks down. After lobbing the first one and waiting for three or four seconds there was a loud booming sound. The well was obviously bloody deep! Further rubbish was removed allowing us to gaze into the depths, and we couldn't see the bottom! The rope was rigged to a tree and our rusty SRT kits were donned.

Luckily I managed to encourage Sparkles in first, as the bloody thing was giving me the willies and I was getting an odd sensation in my testicles. I assured him that if there was a problem I would be down like a shot to help (more like run to the car and call for assistance from The Yorkies)! I watched as he descended for around 35m onto the remains of a small car and some scrap metal stuck in the bottom, but there was no sign of water. He returned to the surface 20 minutes later after taking various photos and uttering slatings as to 'why the f*&k I wasn't coming down'.

A grand day out as always!

Looking up from the bottom of Gundale Well. Photo by Richard Edwards.



T'une Mouth

By Gary Douthwaite

T'une mouth, or 'The Gob' as it was to become known, is a small cave in the cliff face 4m above the River Dove in the next field downstream of The Well/Guinevere's Slit (at SE 7075 8670). It has been known about in the area for many years and received a very short entry in *Moorland Caver* (Gibbs & Stewart, 2003), stating that it is a den for various animals including Badgers. The authors give it an entertainment value of II but only if the den is occupied which apparently can be a "trouser soiling experience".



Location of T'une Mouth.
Photo by Andy Brennan.

During the winter of 2010, we had been forced to stop digging at Jenga due to the bad weather and a general lack of motivation caused by the Death Rift. We were looking for digs to amuse us during the dark and wet winter months, and our attention was drawn to T'une mouth to see if any extension could be made to this short fossil phreatic cave.

The cave itself has quite a large entrance, about a metre high and the same wide and continues lowering over several metres to a mud filled bedding. At the start of November in 2010, Chalky Thomas and Sparky Edwards made a start digging at what they thought was the entrance. Two hours later they were joined by Richard Wilsdon and Andy Brennan only to be told that they were digging in the wrong place! Unwittingly, work had actually

started on a new entrance 5m upstream of the real one! Claiming they hadn't seen the very obvious correct entrance only metres along the cliff face, they then moved on to the proper location. It was decided that there was less chance of meeting an angry badger if they dug a mud-choked side passage just inside the mouth of the cave. This was totally filled with pre-glacial mud, however quick progress was made and a good size crawling height passage continued to a right hand bend where more cave could be seen.

Later in November we returned. Richard Wilsdon reported:

Good progress was made, easy digging in the earth-like fill i.e. not glacial mud (and not Martian). It was surprisingly dry considering the muddy field just metres above us. We are getting to the point where the logistics of spoil removal have become a hot topic of debate. We need a line of pullers and pushers to shuttle the tubs back and forth.

There have been no sign of archaeological remains - i.e. unlike Kirkdale it has not been a Hyena's den in the past. The only bones look like they were from small mammals - rabbits. We also found a gin trap a long way in, and assume the victim dragged it in and expired (or it could have been a fox that dragged in a rabbit with the trap attached).

Chalky and The Farrier gave up some beer time to keep pushing and reckon the passage is descending and still looking good. They dumped their spoil in our nice clean passage rather than drag it out and I am sure they will be in there to clean it up before we next dig.

The cave's proximity to a cliff has the advantage that the spoil can be tipped over the edge onto the riverbank below. Much of the mud was dry, however the upper layers are a rather rancid mix of straw and animal waste from the previous occupants and which may have seeped through from the field above. In true Moors style, the dig soon turned to squalor.

We were obviously put off by the degenerating conditions along the new passage. As soon as other more promising projects came up, no more work was done, and T'une Mouth was abandoned. Sparky returned in April 2012 for a solo assault on the main passage, enlarging it to almost walking height (for reasons we have yet to understand). Very quick progress was made in doing this, with plenty of room to swing a pick axe being created and easy spoil disposal over the cliff face to add to the growing mound on the riverbank below.

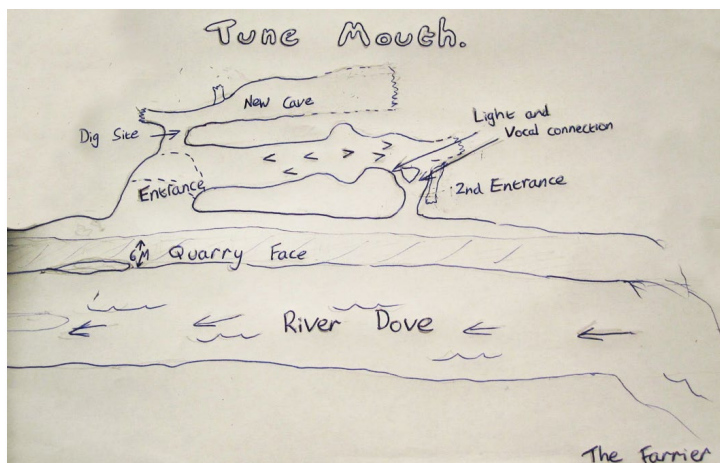
Sparky reported on his solo digging efforts:

The old passage of T'une Mouth was a flat out crawl over pre-glacial fill to the end with no idea of where it goes or what happens to the passage. This has always kept me interested, as under the mud floor it seems to have a decent total passage height of about 5ft, which I planned to dig out at some point. Seeing as nobody else was keen, today was the day.

I started to dig the edge of the ledge of the main entrance. It wasn't as deep with soil as I thought but it was hard digging with all the roots in it.

Once this was done I focused on digging the passageway. It too was shallow with soil, about 1ft deep at first but got progressively deeper as I got in. It was about 4ft deep at the point I finished for the day. The digging was fairly easy with the pick but it was back-breaking carrying the barrels out by myself as I couldn't fully stand with the passage being only 5ft tall.

The passage looked quite impressive when I left. I had taken a photo looking out of the cave: I don't think there's another cave entrance like it in the area. I dug about 3-4 metres into the cave from the ledge, so that the main passage up to that point is now about 4.5-5ft high and the same wide.



Top: One of our famous 'beer mat' surveys of the new left hand passage of T'une Mouth. Drawn by Sparky Edwards.

Bottom: The left hand passage turning to squalor. Photo by Gary Douthwaite.

The cave makes a good wet weather (or boredom) alternative to our other digs and we returned several times throughout 2012 and 2013 extending the cave considerably. The size remains good, stooping height at first then hands and knees crawling.

Chalky Thomas reported on progress on 1st May 2012:

Short but sweet. Andy and myself were ordered by his Highness The Sparkler to dig at The Gob. Bugger!! There was no chance of getting out of it either, as the rest of the crew were either 'working late' or injured internally. Richard had as usual made some excuse and Peterphile was uninspired.

Over the phone His Highness shouted commands to meet him there. With no inspiration and as slow as we could, Andy and I trudged over the fields towards the dig. As we looked over the edge of the cliff we were greeted by the sight of the enormous mountain of spoil. We dropped down the rope to the ledge at the entrance and were immediately slagged off for being late. The entrance to The Gob had changed significantly since our last visit and was indeed 5ft high and wide and now resembled a mine. Looking towards the end we could see digging tools and a bloody wheel barrow! Progress at the face was swift, we took turns in filling the barrow and passing it to His Lordship who lobbed the contents down onto the mound.

After several rounds of 'fun' we sat and had a natter, Sparkles discussing his dreams of renting out the field and turning it into a campsite and using The Gob as a recreation ground for kids. It was during this conversation that Sparkles constructed a classic sentence. I'm sure he actually meant to say "we could blow open the back of Bogg Hall so that people can see the lamprey in the font" however his actual words were "the tourists can enter

Left: The cave entrance with the growing mound of earth at the bottom.
Photo by Chris Twigg.

Right: The main passage after much enlargement.
Photo by Paul Horner.



through the rear entrance and swim with the aphids". By eck did we laugh, and I still have the stain on my underpants to prove it! After wiping away the tears we continued to dig and by pub time had added another couple of tons to the heap and made further progress enlarging the passage.

Continued mining along the main passage finally reached the second entrance, opened originally by accident in 2010 further along the cliff face. Just after the connection with the second entrance, the passage turns left and heads under the field. Unfortunately there is no sign of gaining any further depth, meaning that the passage simply continues only a couple of meters below the surface. Progress has been easy and we have until now stayed optimistic that something exciting would happen. But now this is starting to look less likely. Continued mining under the field would create a tractor-trap, and so no more work was done at T'une Mouth and the cave was written off as a worthwhile dig.

The final job was to tidy the mound of spoil. This was achieved by packing it up against the cliff face above the riverbank beneath the cave. This gave the much-desired natural look, and you'd be hard pushed to tell anything had ever happened there.

If nothing else, T'une Mouth is a good example of an ancient fossil phreatic cave, much like Manor Vale, Kirkdale and others. Like all our abandoned digs, it occupied us over winter while the weather was prohibitory to digging at our more usual haunts in Hutton Beck. No doubt we'll return should we ever get bored... Just not anytime soon!

Minor Digs and Discoveries

This chapter is a collection of the more minor digs and discoveries that we have visited over the past few years. Most proved to be of little excitement, however some do warrant a more prolonged investigation when the more promising leads have dried up.

Gobble Gobble Hole *By Chalky Thomas*

Being friendly with most of the local gamekeepers always helps when acquiring new digs. Sparky as usual was the first to learn of a new hole situated east of the gamekeeper's house on the Duncombe Park estate (approximately SE 5780 8330). We arrived on 19th



Sparky and Vasco at Gobble Gobble Hole on 19th March 2011. Photo by Gary Douthwaite.

March 2011 seeking permission to go and have a gander and were pointed in the rough direction of a hole on the hillside which had been opened up by forestry contractors. Whilst passing the gamekeeper's house we noted two large turkeys in a pen, no doubt fattening for the Christmas meal. Immediately Andy started to make special noises, attempting to communicate with the avian pair. His dialect must have been somewhere near the mark as they returned with some cries of their own. Vasco (a Bulgarian student at university with Chalky, who seemed to enjoy coming along) suddenly burst into what can only be described as the best turkey noises we have ever heard. Unfortunately these went on for the rest of the afternoon randomly and without warning and hence the name of this new windypit.

Anyway, after a fine ride through the dirt tracks of Duncombe Park in a 4x4 we eventually found the small hole, only 20m down a shallow embankment from the track, next to a rowan tree. It was little more than a tiny fissure dropping about three metres to a rubble floored cavity, and some work was required to open it out and allow a squeeze down. Once inside we found a reasonably spacious (8ft long and 3ft wide) slip rift with dodgy blocks everywhere. Work began in the usual instinctive fashion and rocks were hauled out and stacked around the hole to form a wall. The warm draft, a trademark of windypits, was noted to be excellent using standard measurement methodologies (Sparky's jam jar bottom glasses regularly misting over).

After an hour or so a tiny impenetrable slot down to a slightly lower section of the rift was gained, and it was noted that considerably more work might allow further progress along and down the rift. Unfortunately, we never returned (partly due to access issues in Duncombe Park, it is very hard to get permission for any kind of dig there). Gobble Gobble Hole can be recorded for now as a minor slip rift, maybe 4m deep with some potential. The other caves of Duncombe Park, including Bucklands, Antofts and Slip Gill windypits are nearby and are hundreds of metres long and 20-30m deep, so there is good precedent in this area. There must be literally hundreds of these all over Duncombe Park just waiting for their surface to collapse in and it is surely only a matter of time before we are up there again staring into another recently opened hole.

Truancy/Goat Cave, Pickering *By Chalky Thomas*

Whilst hiding in a quarry and perving at young ladies, the farmer relations officer noted a small hole in a cliff face. Actually, no, he had been told about the 'cave' in the quarry by an elderly local but this is far less of an interesting way to start the story. A trip to the site (SE 79533 84560) noted that the ground was littered with multiple cans of glue, tins of thinners, polythene bags and coke cans, likely used by the local kids for homework activities, probably gluing twigs and leaves onto paper to make collages in their spare time. The crack/fissure in the quarry was dug over a couple of weeks. What appeared to be a goat skull was removed and eventually access was gained to a tiny water-worn chamber barely out of daylight with another unpromising dig under dodgy rocks going off to the south west. This was the limit of our investigations. As always, nothing further was done at this site and we moved onto more promising prospects elsewhere.

Nunnington (Railway Cutting) Cave *By Chalky Thomas*

A cave containing a pitch and the sound of running water was reportedly found during construction of the railway cutting near SE 64900 78800. Unfortunately this is thought to have been subsequently quarried away (see Moorland Caver) for references.

Initial visits to the area were made in the 1990s by members of the Scarborough Caving Club (Myself, Richard Wilsdon, Jerry Gibbs, Andy Brennan, Peter Fambely) after reading a historical article sent by Richard whilst in one of his more optimistic moods. We noted numerous fissures within the railway cutting during our visit, some of which were indeed water worn. However, after having a good recce we concluded that if there was a cave there it had either been filled in by the local hunt or had naturally collapsed, and nothing obvious was found on this occasion.

In 2011 and after finally reading the book Jerry had written (Moorland Caver) Sparky decided he would go and look for himself and followed the grid reference as dictated. Surprisingly the grid reference was accurate, and located around 20ft up in the face of an old quarry (Coral Rag, upper Malton block for those geology lovers) there was indeed a cavelet. He initially had a quick poke with a bar and dragged out a few rocks and gave me a bell concluding that the site looked interesting and that further works were required. On the second trip after climbing down onto a dodgy ledge we proceeded to remove further debris, shotgun cases, general rubbish, plastic bags (doing our bit for the environment) and the like. The site contains two fissures as described in the historic article and what appears to be a small chamber can be seen through a crack in the left hand fissure. Unfortunately, access to this would only be negotiated by the use of force and given that our access privileges did not extend to anything other than this initial recce, we decided to leave this alone for now.

Poking at the right hand fissure proved interesting and low bedding has been pushed for around 5m beyond which it was too tight. Down on the left access to the same chamber can be seen through a slot only a couple of feet away. Further works, if we are able to establish permission, will no doubt prove/disprove whether the chamber leads to further passage and the running water that was described by the Victorian discovers!

The Glass Trap *By Chalky Thomas*

In early spring 2013, I was driven by an over-excited farrier to what initially appeared to be either a bomb hole or a quarry north west of Ravenswick Hall (SE 70300 87500). The sizable depression is found over a fence on the left hand side of Swineherd Lane, heading north out of Kirkbymoorside, opposite a public footpath on the right.

The deep circular depression (circa 15m in diameter) takes runoff water from the surrounding area via a drainage network and in high flows fills to form a large pond. After the obligatory poke with a bar Sparky and I managed to cause inflowing waters to disappear down a small slot. A week or so later I was again driven to said hole only to find shards of glass and broken bottles littering the site from where Sparky had been digging holes in his spare time, apparently in between shoeing horses and pissing off his dear wife. Again, water was entering the dig, which occasionally blocked with debris and would then rapidly begin to fill up! Sparky occasionally removed the blockage by ramming in a handy piece of scaffold and would then continue to dig downwards once the pooling water had disappeared. After further progress through several courses of champagne bottles, the dig began to fill up again and so I took over to remove the blockage. Ramming the scaffold tube down the slot was great fun but did little to lower the ever ascending water table this time, and it was clear that a more fruitful continuation of this dig would have to wait until drier weather.

Our third visit during drier conditions was more successful, as no water was entering the hole. Several feet were gained digging down through various sheets of metal and again multiple courses of champagne bottles. By now the shaft had become more interesting (lined with jutting out pieces of old glassware, rusty tins, and broken crockery) and was increasingly difficult to get out of, and not the sort of thing you would like to fall into!

Perhaps I am not painting the most delightful picture of this water-swallowing depression/rubbish dump? We spent several more sessions pleasantly pulling spoil from an ever growing hole, only to abandon it a few weeks later when we struggled to find any hints of cavernous goings-on, and our work at Jenga started to get more exciting. Still, what we have here is a water swallowing depression sat atop the limestone overlooking the River Dove valley. It might be abandoned for now but it is certainly not forgotten, and a return to The Glass Trap seems inevitable at some point in the near future.

Snainton Pothole *By Chalky Thomas*

Sparky, the NYMCC landowner relations officer and local farrier, was disabled after his incident with an angry horsey, after it had launched him over a field and broke his ankle. Undeterred by this event and still keen to follow up on some caving homework, Andy and I were invited to the Farrier residence and promptly instructed to lift his quad bike into the van. We were whisked away, and upon arriving at Snainton village he mounted said steed and ferried us both up to a quarry at speed (grid reference SE 92350 83150). Unfortunately, there was nothing there!

We returned to the van, meeting a local dog walker on the way who told us, as usual, we were looking in the wrong place. Apparently there was indeed a pothole that was seventy feet deep that had been used as the local tip until the early 1970s! The gent even recalled lobbing his mother's fire grate down the shaft and hearing a large clang at the bottom. We asked for the location and were told that it was situated in a back garden of a guy

who lived near a quarry, just north of the Peacock pub in Snainton (SE 92140 82450). After knocking at the door it was apparent that no-one was in, or that the residents were avoiding the oddities at the door. Instead we peered over the wall to see if there was any sign of any gaping chasms, but nothing of interest was observed. Further explorations following a return visit to charm this local gentleman is a must for the future.

Snainton has a large resurgence spring located at the southern end of Welldale at Welldale Farm. We have tried to get permission to access the spring but this has been denied to date. The main street at Snainton is also known to have drainage problems particularly in high flows. It therefore seems highly likely some subterranean watercourse exists within the area, given other such large nearby springs at Ebberston, Allerston and Brompton. Brompton in particular is home to several substantial springs, all unfortunately very small and in locations where digging would never be authorised. Of course, also worthy of mention here is the substantial resurgence at Keld Head in Pickering with an entire river welling up through cobbles into a large pond. It would be a dream of any North York Moors digger to be allowed unrestricted access to Keld Head, but the reality is that this is never likely to happen!

Clearly Hutton Beck and the River Dove are not the only subterranean watercourses in the area. However, the feeders of the main springs at Brompton, Snainton, Allerston and Ebberston are a mystery as sinking rivers are absent, and any caves may be collectors of percolation water. Whether this means they may yield explorable caves, or just tiny fissures, joints or gaps between the layers of bedrock remains to be seen.

Seive Dale Rift *By Gary Douthwaite*

Although we explored this some time ago it has never been reported before. Back in the early days of York Caving Club's involvement in North York Moors digging, we were tipped off by a contact at the Forestry Commission about this hole that had opened up in Dalby Forest (SE 85815 88468). We thought it was worthy of investigation.

On the 25th November 2007 we headed up to Dalby Forest and took an off-piste route up towards the hole so as not to shock the tourists with our big metal bar. The hole is helpfully marked by a small fenced-off area on the north edge of Seive Dale and was pretty easy to find, just off the mountain bike track at the top of the bank. The Forestry Commission are particularly good at fencing off holes, which comes in extremely useful when you're a caver trying to find it in a forest the size of a city! Within the fenced enclosure was the tiny hole, measuring about 60cm in diameter and visibly dropping about 1m to a sandy mound within a rift about 75cm wide. The familiar slip-rift style was immediately apparent, and the rift continued in both directions (east-west). It even appeared to drop down a reasonable distance at the far east end, however this was too tight without some extensive digging activities

This was soon after the discovery of Excalibur Pot and, with dozens of other (more promising) digs to attend to, we never returned to Seive Dale Rift. One day it would certainly be worth a revisit.

Matt Ewles at Seive Dale Rift, 25th November 2007.
Photo by Gary Douthwaite.



Gurtof Pot *By Gary Douthwaite*

This was another tip-off from the Forestry Commission a couple of months earlier than Seive Dale, but this time in Boltby Forest. However, with all the excitement at Excalibur it was the 27th December before we had the first opportunity to visit. Armed with a convenient key to the forestry gate, we headed up to Boltby Forest. After an entertaining drive we got as far as our vehicle was likely to carry us and then headed off on foot. The pot had been opened up by a tractor wheel and is located in a deep wheel rut on one of the forest tracks running through Gurtof Wood in quite a remote area of Boltby Forest (SE 48176 87511). It took us a little while to find! We soon realised that this is another slip-rift as it has the classic location, just on the edge of a steep bank, with good vertical range.



Matt Ewles at Gurtof Pot, 27 December 2007 with the metal bar named 'Excalibur'. Photo by Gary Douthwaite.

The timing of our visit might not have been the best, as there had recently been heavy rain and the wheel rut was full of water! Undeterred (and not in caving gear), Matt pulled aside the logs over the hole and made his descent. The hole dropped onto a pile of boulders only 5ft down, from where he could see several metres along a narrow rift heading under the track, with a substantial drop down of approximately 4-5m along the entire length of the rift.

The prospects looked very good, with open rift ready for the taking, but due to the foul conditions and loose rock at the entrance which needed to be removed, we decided to leave any further exploration until drier weather, and until we could be sure that this track was no longer required by the foresters!

With all the excitement elsewhere, it was not until May 2010 that we returned, however we found that the track was now very overgrown. The deep wheel ruts had been filled in and there was no sign of the entrance to Gurtof Pot. This is probably worth another, more determined visit as the sizable rift may well hold some potential.

Riccal Dale *By Gary Douthwaite*

The River Riccal runs along Riccal Dale and crosses the A170 about half way between Helmsley and Beadlam. The southern sections (around 2km north from the A170) have been known for many years to stop flowing so we thought it would be worthy of some further investigations.

Poking the sinks of the River Riccal. Photo by Gary Douthwaite.



On the 1st May 2011, we parked up on the A170 and followed the public footpath as far as Rea Garth Farm, near to which we encountered sinking water. Upstream of this was quite a substantial volume of water, at least that of Hutton Beck and it was all sinking at one point. With a little crowbar work, it was easy to make the water sink into the true right hand side of the riverbed so we dug a couple of exploratory holes there to see if any information could be gained. Unfortunately we soon encountered big blocks which we didn't have the equipment to shift.

This area is definitely worthy of more work. The only issue will be that, unlike Hutton Beck to the east, there is almost no height difference along the 2km of the river between the sinks and the southern boundaries of the limestone where the water resurges (they are both around 70m alt.) so the hope of finding substantial dry cave is small. The only possibility would be if it is found to run into the hillside which rises quickly to 120m.

Fadmoor *By Gary Douthwaite*

In November 2013 we spent a day looking at some areas around Fadmoor, a village a few miles west of Hutton-le-Hole, close to the northern boundary of the limestone. This area is already known to support caves (Fadmoor Caves at SE 6740 8960). We had done some homework and identified what might be an ancient river bed or water-course running through Fadmoor village. On inspection, this appears to head along Bitterdale and Wattlemoor Slack. There was no sign of any water having flowed for a long time.

Quarries were visited at SE 67904 88688 (along the line of the apparent river bed), SE 66794 88589 and SE 66699 88778. Unfortunately, apart from a few rock shelters and surface calcite, there was nothing noteworthy to report.

Fadmoor Caves have been of interest for some time having been investigated in 1941 by Raymond Hayes and again by the M.S.G. in 1971. Further work is needed here with a digable clay floor offering a continuation; however, the landowner has proved reluctant to let us into his garden. So until that situation is resolved, the secrets remain hidden.

Memoirs of a Margot

In 2013 we were joined by a new member – this time not a former York student, in fact, a newbie to Yorkshire altogether! Margot (the ‘t’ is silent to all except Yorkshire cavers) burst into the club with an astonishing degree of enthusiasm. As well as managing to fulfil as many Dutch stereotypes in her first few months as possible (Dutch pancakes, gouda cheese, an astonishing affinity for her bicycle, but sadly no wooden shoes), she was also pretty damn good at caving – not usually a speciality of the Dutch due to their somewhat flat country! It was with sadness that we waved farewell to Margot for pastures new this year after a fleeting one year visit, although she hasn’t gone far and I’m sure we’ll be hearing her call of ‘Hello Dears’ again soon. We were keen to include a ‘new member’ memoirs section in this journal, and Margot kindly obliged.

I thought I knew caves. I thought I knew dirty. I thought I had the kit. Turns out I didn’t. Yorkshire had to teach me that. But how did I get to underground Yorkshire in the first place? This is the story of how a southwestified Dutch mud-trudger ended up deep down and dirty in Yorkshire caves.

I was born in an unremarkable town in the middle of the Netherlands. I spent my childhood in the library, the garden and on my bicycle. When I was 17 I yearned for a more exciting life, and went to Amsterdam. That was great - stuff happens there! But after 14 years the urban walls came closing in on me. I wanted more green, more space, fewer people and more wilderness. And my wishes were granted; I was offered a job in Arctic Norway. And heck did that have space, wilderness and a lack of people! I indulged in climbing, skiing, sea kayaking, hiking. It was great! But before I knew it my contract ran out. I didn’t find another one in Norway but then I was offered a job in Plymouth. I cried when I had to leave, and wasn’t ashamed of it.



Shortly after I arrived in Plymouth, the research group was completed by a PhD student; he also liked the great outdoors. He had just come from Wales. We were both wondering how we could satisfy our sporty desires in a place like Plymouth. Sea kayaking? Not with the British health and safety obsession. Skiing? Forget it. Climbing? Maybe a bit on Dartmoor. Surely not caving, he said, that was for awful people. Scary, weird, incestuous, beardy folk! Caving? I let the word roll around in my head. I like holes in the ground! I like dark and ominous! My friends already thought I’m a Tolkien dwarf as I am very short (by Dutch standards; it’s nice to be normal in this country), and have a geology degree; and when I once spent a weekend underground (in Belgium, of course; the Netherlands don’t really accommodate such frivolities) I, quite unlike them, didn’t seem to miss the daylight, which sealed my reputation. And we were only underground because it’s atmospheric; it had never occurred to me you can seek out the underground realm for real - If you’re in a country that has

an underground realm to start with, of course. Forget the Dutch delta. Forget the ancient, metamorphic rocks of Arctic Norway. Now I was in the southwest of the UK... caving... it sounded enticing. The PhD student saw me think, and panicked; he really tried to convince me this was an awful idea but it was too late!

I got home that day and Googled “caving” and “Plymouth”. Lo and behold, the website of the Plymouth Caving Group came up. I sent the chairman a message; did they take on new members? They did! A few weeks later I traipsed around in an abandoned uranium mine and loved it. I was hooked! I became a regular. Then a combined trip with the Cornwall Mine Explorers Club came up. Soon I joined them too. And then the local cave rescue team. In a few years I clocked up visits to some 15 caves and some 70 mines. I got me the kit, I learned SRT, I learned to rig, I even did a bit of bolting and I thought I knew it all. I spent many a day with a fake tan up to the waist, due to the sloshing through ochrous mine adits. I made a mess of my apartment. Mud everywhere!

Then my job moved to York. I had heard that the caving there was good! So I made sure I lined up a caving club; the YCC seemed the obvious choice. I did the same thing as the previous time; just sent a message to the chairman. Worked a treat! I was immediately welcomed by Matt, who sent me a comprehensive list of what the YCC would get up to. Less than a week after moving up I met them in a pub. It was culture shock already; this club’s average age and BMI were about half that of the PCG. And they were very welcoming! Only two days later they took me almost back to where I had come from; there was a trip scheduled to Agen Allwedd in South Wales. This turned out to be an eight hour round trip, and that was without doodling or pottering or faffing. Eight hours, with little respite! I needed lots of small breaks to change batteries in my lamp, though; it can go for about an hour giving sufficient light, and if you don’t mind not really seeing where you’re going you can manage two hours. Enough for PCG trips, but clearly not enough for what the YCC routinely get up to. I decided I needed an upgrade... And soon after we came out I needed to learn how to stand up again after having sat down. The scene was set. Yorkshire caving was something else, even if performed in Wales.

Some weeks later I joined the Jenga dig. I was going to also team up with the NYMCC, or the awesome and highly respected NYMCC as it seems to be colloquially known. It sounded fun - and exhausting! I decided not to wear too much; South Wales caves tend to be rather warm, and if you’re hauling buckets of slop around you get warm easily. But I hadn’t counted on the deep, cold mud, the icy draft, and the hanging around. I froze my ass off! And when I came out after all the belly-crawling involved, I realised I had not known what dirty was. Now I did. I needed more upgrades. I bought the thickest of furry suits and a balaclava. And within weeks I was obliterating rock in a narrow aven, without ear protection (thanks Sparky!). And I had suffered another culture shock; I had only just become accustomed to the PhD-in-chemistry discourse of the YCC, and now I had to suddenly cope with the @%\$&#£!! And #*%&£@#@!!! which is most of the conversation in the NYMCC. Compared to this bunch, every other club I’d been underground with were a collection of mysophobic Stephen Fry’s.

In the coming months I did a lot more rolling around in sticky Jenga slop, and also lots of trips away; the YCC took me to the Forest of Dean, the Lake District, and North Wales. But I still hadn’t done proper Yorkshire caving. That was until they dragged me to Lost John’s/Boxhead Pot. We would do an exchange with some chaps from the YUCPC, the local university club. It started with a 70m pitch. And on a stop, that is already tiring enough! I was glad we would come out on the other side; going up that endless rope didn’t appeal too much. We almost had to anyway; when we came to the

meeting point at Lyle Caverns no student was to be discerned. Luckily, Gary and John D going ahead found them and we could proceed with the original plan. I would have needed hours for that 70m pitch! I already was rather awful on the shorter pitches the other way; I was still using my chest harness, which you can't adjust once you wear it, so in a cave system like this one you are bound to have it so loose on the pitches up you hang way too horizontally and wear yourself out, while when walking it is way too tight and gives you pain in your back. Clearly, I needed upgrade #3 in order to be YCC-fähig! Every time these chaps took me somewhere I had to step up my game.

I never did another proper Yorkshire cave with the YCC. My contract would run about a year after I'd arrived in town; I didn't want to await unemployment so I was applying for jobs elsewhere from the start. And one of these applications was successful. Only ten months after coming to York I would leave it! This time for the mine mecca of North Wales.

I wrote this article in Menai Bridge; only some 30 minutes away from, say, Cwmorthin slate mines. I have found another bunch of people to do daft things with underground. And things are back into a lower gear; the venues here are clean (by Jenga standards), and the pitches are short and few! And the banter is civilised. From this leisurely position I can look back on my short time in Yorkshire. I miss it! The muddy tenacity of the Jenga digs, the banter festooned with Black Sheep ale and a noisy dog in the pub afterwards, the demanding clammers through endless caves, the caring instincts of Matt, the relentless moaning of Gary, the inter-club banter. But I can't complain; Wales has an endless supply of mines, and spiffing people to explore them with. And my relative toughness here is a lot higher! I can wallow in self-admiration until a YCC weekend somewhere not too far from here, at a convenient time, comes up. Maybe there'll even be a trip to North Wales. I would recommend that; Welsh beer is surprisingly good, and it goes well with a game of Jenga! Especially the genital-emblazoned version...

Margot Saher

Hydrology Testing at Hutton Beck and River Dove

Report 1: Moderate Flow Measurements

A report on initial hydrological flow modelling and sink dynamic studies on two rivers in the upper Derwent catchment: The Rivers Dove and Hutton Beck.

Chalky Thomas, Andy Brennan, Richard Wilsdon, Peter Fambely.

Abstract

Flow recordings (L/s) were conducted on 18th November 2012 at five locations on the Rivers Dove (Yoadwath, just upstream of Bogg Hall and at Bogg Hall Rising itself) and Hutton Beck (Hutton village and just upstream of the known sinks). Results show the total water sinking in the River Dove and Hutton Beck combined is comparable to that resurging at Bogg Hall Rising (680.64 L/s sinking versus 750.48 L/s resurging). These values are within 10% of each other indicating that most of the water resurging at Bogg Hall is that from the River Dove and Hutton Beck, and there are no other large (>100 L/s) inlets that have yet to be accounted for. The small increase may be explained by minor inlets, in particular, percolation water feeders such as the Honey River/Shit Creek system, which will not have been accounted for in these measurements, or other similar percolation inlets not yet identified.

Methodology

Multiple flow recordings were undertaken using a Valeport 801 electromagnetic flow meter, flow calculations were made in MS Excel using standard velocity area methods. Conditions on the day were stable with no rain. The River Dove was flowing past Bogg Hall Rising but Hutton Beck was sinking entirely at the upper sinks.

Results

No	Location	Recordings	Intervals	Average Flow
1	Hutton Beck at Hutton village	6	0.5m	137.81 L/s
2	Hutton Beck just upstream of known sinks	10	0.6m	121.46 L/s
Loss of water between Hutton village and first known sink: (1)-(2) = 16.35 L/s (approximately 12%). Explanation: Experimental error, ground seepage, undiscovered sink, or other sub-surface flow.				
3	River Dove at Yoadwath (upstream of all known sinks)	14	1m	752.49 L/s
4	River Dove just upstream of Bogg Hall Rising (measuring River Dove flow excluding water resurging at Bogg Hall)	6	0.5m	209.66 L/s
5	Bogg Hall Rising (measuring only water exiting at Bogg Hall Rising)	14	0.5m	750.48 L/s

- Loss of water from River Dove between Yoadwath and Bogg Hall Rising: $(3)-(4) = 542.83 \text{ L/s}$ presumed to be entirely due to sinking.
- Total flow expected at Bogg Hall Rising based on total volume lost from Hutton Beck and amount lost from River Dove $= (1) + 542.83 \text{ L/s} = 680.64 \text{ L/s}$
- Actual flow observed exiting Bogg Hall Rising $= 750.48 \text{ L/s}$
- Overall discrepancy $= 750.48 \text{ L/s} - 680.64 \text{ L/s} = 69.84 \text{ L/s}$ (approximately 10% discrepancy, with more water resurging than sinking)

Discussion

The water resurging at Bogg Hall Rising is only 10% greater than the combined water sinking from Hutton Beck and the River Dove. These values are in excellent agreement, and confirm that there are no other large rivers entering the system (e.g. from adjacent valleys) which have yet to be accounted for.

It is known that there are other resurgences at a few locations in Keldholme (all small, we estimate cumulatively less than 50 L/s). Therefore the volume resurging may exceed the amount measured. Given that experimental error is estimated at only 5% how can we account for the >10% additional water resurging, compared to the volumes sinking from the two major rivers?

We have already identified two streamways in Excalibur Pot which are not believed to be linked to water sinking from either river. Firstly, Honey River, including the main Honey River streamway and the far Honey River streamway are both believed to unite in Shit Creek, and disappear into the sink with a combined flow of 5-10 L/s (depending on land saturation). Secondly, the streamway at the furthest reaches of Shit Creek ('The Paddle') has been observed to carry a substantial flow at times, possibly as much as 40 L/s has been estimated by Matt Ewles. Both of these flows are believed to be formed from the collection and channelling of percolation water rather than a sinking river. Their contribution to the volume of the system is not included in the measurements.

Furthermore, in the Excalibur main streamway there are a number of inlet shelves on the west side of the passage near Oxbow Hall and Cascade Canyon, bringing in a combined flow of several L/s, which may or may not be derived from percolation water.

The water levels must have been reasonably high at the time of this experiment (Hutton Beck was not exceeding the top sinks, however, The Dove was exceeding its sinks and flowing on to Bogg Hall, which is not the case in dry conditions). Therefore, it is reasonable to assume that percolation water inlets would be quite active. Given the one-mile journey the subterranean water takes to reach Bogg Hall, it seems very likely that it will acquire a substantial amount of percolation water from other sources.

This gives hope to there being other percolation water inlets of reasonable proportion yet to find in the region between Jenga Pot and Bogg Hall Rising.

Further analysis needs to be undertaken in very low flow, dry conditions to see whether the measurements of sinking and resurging water are closer when percolation water feeders would be expected to contribute a much smaller proportion to the total flow.

Acknowledgements

Thanks to both Mr Brennan and Wilsdon for their efforts in recordings in cold wet conditions and to Mr Fambely who turned up for half an hour or so, with the excuse he was fitting light bulbs, then followed us to the pub for a beer before finally buggering off to feed his missus.

Report 2: Low Flow Measurements

Secondary low flow hydrological modelling and sink dynamic studies on the Rivers Dove, Hutton Beck and Bogg Hall Rising, in the upper Derwent catchment.

Chalky Thomas, Richard Wilsdon, Peter Fambely

Abstract

Low flow (dry weather) recordings (L/s) were conducted on 19th July 2013 at three locations on the Rivers Dove: Yoadwath, Bogg Hall Rising, and above the sinks of Hutton Beck. This was in dry conditions when both rivers were sinking entirely at their upper sinks. It was found that again the values were quite consistent, and on this occasion the volume resurging was only 4.7% greater than the volume sinking. This is a reduced discrepancy than measurements taken during higher flow, thus supporting the theory that the discrepancy may be due to the input of percolation water into the system.

Results

No	Location	Recordings	Intervals	Average Flow
1	River Dove at Yoadwath	15	1m	222.76 L/s
2	Hutton Beck (500m above sinks)	12	0.2m	22.49 L/s
3	Bogg Hall Rising (water resurging only, River Dove dry upstream of here)	13	0.5m	256.77 L/s

- Total flow expected at Bogg Hall Rising based on combined volume lost from Hutton Beck and River Dove = (1) + (2) = 245.25 L/s
- Actual flow observed exiting Bogg Hall Rising = 256.77 L/s
- Overall discrepancy = 256.77 L/s – 245.25 L/s = 11.52 L/s (approximately 4.7% discrepancy, note that this is within the anticipated experimental error range)

Discussion

An estimation of the known percolation water feeders (mainly Honey River via Shit Creek) would account for most of this discrepancy, showing that under dry conditions there is very little water exiting the system that cannot be accounted for by the known sinks and percolation inlets. This helps to prove that the discrepancy in the higher-flow experiment (approx 10%) was due to undiscovered percolation water inlets which contribute proportionally less to the total flow in drier conditions.

Acknowledgements

Thanks to both Mr Fambely and Mr Wilsdon for their efforts in recordings and for the free beer and chip butty in the pub, post data acquisition. Mr Fambely actually got his feet wet this time and his stinking wet socks remain in my vehicle and are likely to do so for the next few months. I have also acquired some shiny new wellington boots and a free mobile phone courtesy of Mr Wilsdon. Dr Sparky Edwards was unavailable at this time due to his alcohol dependency and Mr Brennan had buggered off for the weekend, supposedly molesting crayfish in Malham, so were no help whatsoever.

Water Tracing Tests

Various experiments have been performed to attempt to determine the route of sinking water at Hutton Beck and the River Dove and prove it resurges at Bogg Hall Rising.

Thus far the following conclusions have been drawn:

1. The water sinking at the Excalibur top sinks in low flow conditions enters the Excalibur main streamway, taking 20 minutes to reach the Holy Grail flowstone and between 2.5hr and 3hr to resurge at Bogg Hall Rising approx one mile south.
2. The water sinking at the big sink opposite Jenga (conducted when Hutton Beck was in partial flood, terminating at this sink) resurges at Bogg Hall Rising between 5hr and 5.5hr later. The signal was significantly weaker than the above experiment (but was nonetheless very convincing) due to greater dilution in the flooding system, and the flow through time was slower presumably for the same reason.
3. Water from the Excalibur streamway gave no positive results at either Guinevere's Slit or The Well, thus suggesting the merger between the subterranean Hutton Beck and River Dove lies downstream of this point. Due to experimental issues, the lack of positive signal is by no means totally conclusive on this matter, but should only be considered suggestive of this conclusion.



Art by Paul "Handshake" Horner