South Wales Caving Club Newsletter 126

Front Cover: Gwynne Sanders at the Mini Columns. Photo Peter Harvey.

Top left: Paul Craddy in Twll Tal Draenan, read the report inside this newsletter. Photo Martin Hoff.

Top right: Paul Craddy, Tony Baker and Steve West (left to right) walk back across the Black Mountain during digging week. Photo Martin Hoff

Middle right: Chas's dig during digging week, with (left to right) Ash Burrows, Paul Craddy, Brian Clipstone,Clark Friend and Ian Cardy. Photo Graham Christian.

Bottom: The cave on Burry Holmes as featured inside. Photo Gary Jones.

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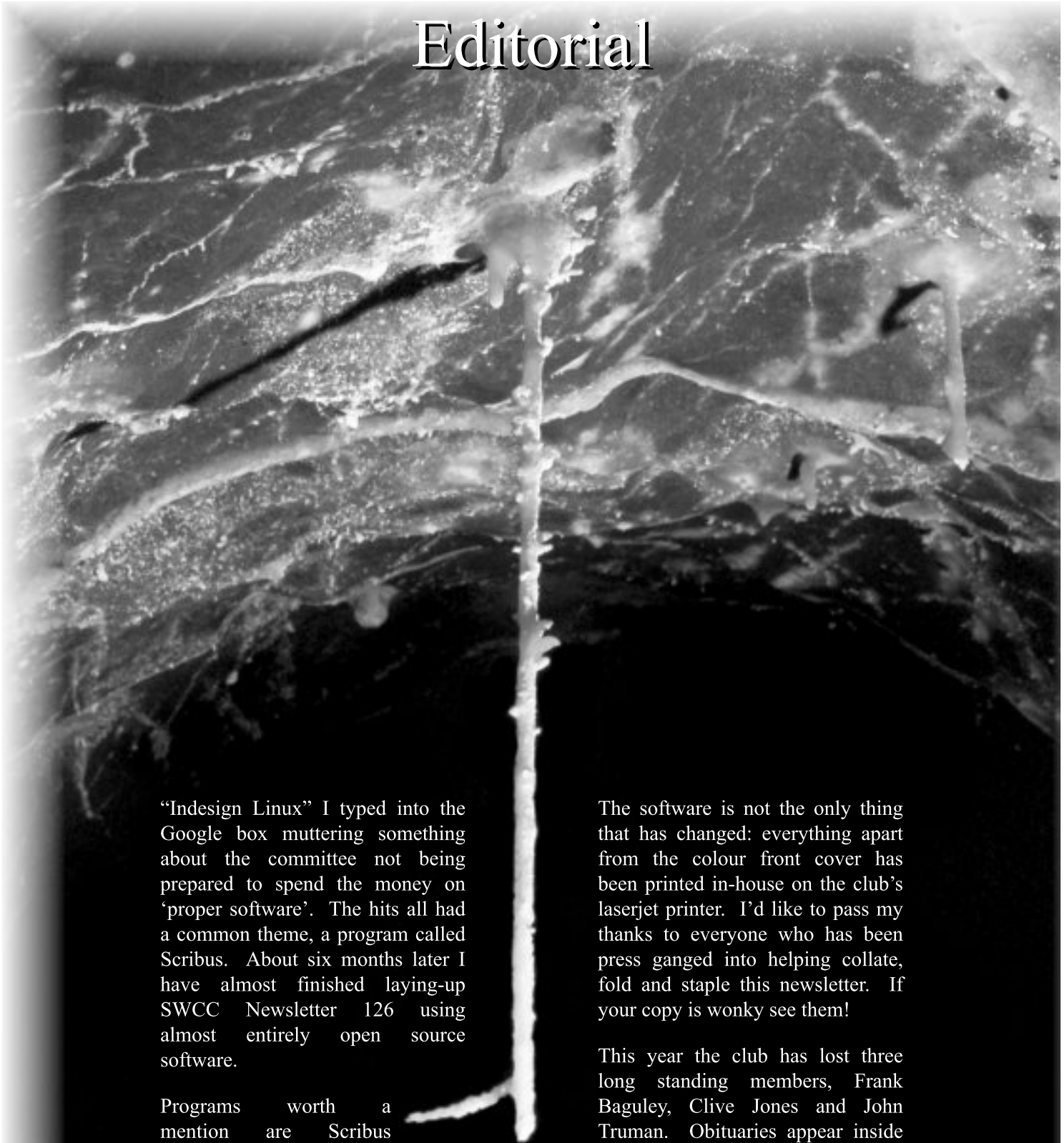
Straw Chamber in OFD. Photo by Jenny Burrows.

Editorial



"Indesign Linux" I typed into the Google box muttering something about the committee not being prepared to spend the money on 'proper software'. The hits all had a common theme, a program called Scribus. About six months later I have almost finished laying-up SWCC Newsletter 126 using almost entirely open source software.

Programs worth a mention are Scribus (desktop publishing), Inkscape (SVG illustration package), GIMP (Graphics and Image Manipulation Package), Multivalent (pdf manipulation) and the Linux Fedora 6 operating system. Best thing is all of them are free!

The software is not the only thing that has changed: everything apart from the colour front cover has been printed in-house on the club's laserjet printer. I'd like to pass my thanks to everyone who has been press ganged into helping collate, fold and staple this newsletter. If your copy is wonky see them!

This year the club has lost three long standing members, Frank Baguley, Clive Jones and John Truman. Obituaries appear inside for Frank and Clive, John's will appear in the next newsletter. On behalf of the club I'd like to extend condolences to the families.

Ben Stevens 30th April 2007

Cave Photography

By Peter I.W. Harvey with a foreword by Jem Rowland. All photos Peter Harvey.

As well as being a founder member of the club and discoverer of Ogof Ffynnon Ddu, both of which he has almost certainly frequented more than anyone else, Peter Harvey was one of the pioneers of modern (pre-digital) cave photography. He began his experimentation in the late 1940s, using flashpowder and a medium-format plate camera, a combination which produced high definition results and an appealing and atmospheric quality to the lighting. The accompanying article documents Peter's early experiences of cave photography. Although in the club library it is bound into a volume labelled 1953, it originally appeared in 1954 in the Transactions of the Cave Research Group of Great Britain (CRG), which merged with the former British Speleological Association in 1973, to become BCRA

Some of the photographs that are reproduced here are the ones that illustrated the original article and others are included to show the quality and range of Peter's photography, over about 40 subsequent years. Over that time he moved from his plate camera to a Rolleiflex and then to a Bronica, and from flashpowder to bulbs. He did not take kindly to electronic flash and has always shunned 35mm 'postage stamp extruders'! All photographs are reproduced from Peter's own digital scans of his original plates, film negatives and transparencies.

A photographic competition was held in conjunction with the club's 60th anniversary dinner in 2005. I was asked to judge the non-digital entries, having been invited to do so presumably because my credentials include the award of an FRPS (Fellow of the Royal Photographic Society) for my own cave photographs. The winning competition entries have been reproduced as posters. I judged one of Peter's entries to be the runner-up in the film category; it is a shot of the late Gwynne Sanders, whom many of us remember with great affection. As I mentioned when I presented the prizes at the dinner, I wanted Peter's place as runner-up, and his contribution to cave photography over the years, to be recognised in the newsletter. The reprint of his fascinating CRG article, its accompanying photographs and his cover shot of Gwynne will, I hope, serve as fitting recognition to add to the national recognition represented by the 'Giles Barker Award' that Peter received at the 2004 BCRA Conference, 'Hidden Earth' for his contributions to cave photography.

Plates I to IV accompanying the article are those that illustrated it originally, with essentially the original captions. The remaining ones, with the exception of the maypoling, Dan yr Ogof and cover shots, were also taken with flashpowder and glass plates.

Jem Rowland

Eileen Davies in Dan yr Ogof.

Peter Harvey's 1954 Article

Introduction:

Quite a number of people, interested in the science and sport of caving, have during their life as a caver turned their hand to the taking of photographs in caves. It is therefore, rather surprising that the standard of underground pictures produced, until recently, has been so poor. Before the last war, most cavers were interested in exploration and exercise, and a camera was taken into a cave usually only as an accessory, on the off-chance that a good picture would result. It is only since the war, that a few people have spent several years going into caves with the sole object of taking cave pictures.

Anyone who aims to become a cave photographer must realise from the beginning, that good results are obtained, not by luck, but by plain, hard work, and that it is essential to pay attention to every detail which may improve the quality of the results. Of course, the photographer has a number of obstacles to overcome: one's valued camera has first to be wrapped up and given protection from the rough treatment it is likely to receive during its journey through the cave to reach the subject of the proposed picture. The camera container will have to be waterproofed in caves where there are lakes, rivers and sumps, and the proofing should withstand complete immersion. On arrival at the site of operations, all the equipment has to be unwrapped without getting any dirt or water on the camera. The ordinary caving light does not give sufficient light to adequately expose the negative, except by a long time exposure, so a suitable light medium has to be taken into the cave: most cavers take flash powder, which will be discussed later. If the first result is not satisfactory, the picture must be retaken on another trip into the cave. My illustration, 'G. B. Main Chamber', Plate I, is one of 33 negatives made from exactly the same spot during 17 different trips into the cave. Some of these negatives were spoilt by the smoke from flashpowder used by cave photographers who had got there before me; others were spoilt by that ailment known as 'model trouble'. The 'Gorge' is so big, that it is not possible to talk to, or see, the models with the result, that on

Plate I: GB Main Chamber on Mendip. A P300 plate was used, developed in D76 developer. The plate was exposed by 2 large flashes [flashpowder] one on each side of and slightly behind the camera, with an aperture of f/10.

my best negative of this great chamber they do not appear at all because they used the wait until the flashpowder went off as an excuse to lie down and rest. On the whole, however, models are fairly good-tempered when one considers some of the positions and situations in which they are placed.

The final place chosen for the models in plate I is none too secure a position; the calcite boss is rather slippery and is on the edge of a drop. Several attempts to persuade models to stand on this in the dark were unsuccessful. Another obstacle to the

Plate II: Crawling in Ogof y Ci. A picture giving a good impression of the joys to be found in Ogof y Ci. A P300 plate was used, developed in DK20 developer. The plate was exposed by one flash [flashpowder] behind the camera, at an aperture of f/16.

taking of pictures, in my opinion, is running a photographic trip with a second photographer. It might be argued that expenses on such things as flashpowder are halved, but in practice, because no two people set about the business in the same way, both try to compromise with the result that neither photographer produces any really worthwhile pictures.

In this paper, I have attempted to state my own experiences in cave photography. It is a subject which can be tackled very differently by various people, so it is to be expected that all will not agree that my ideas and methods are best. For instance, it might be thought that my method of 'guestimating' exposures is rather crude. My experience covers monochrome and Ektachrome, both of which are discussed. A branch of photography in which I am interested, but in which I have no practical experience, is Stereoscopy. Here, the results can be very pleasing, but the difficulties of projecting pictures onto a screen, both practical and financial, have stopped me attempting this photography in depth.

Equipment:

The acquisition of suitable equipment for cave photography is a very important step in the preparations of the beginner. When "I decided to enter into the joys of cave photography", as it is noted in my diary for the 6th May, 1948, I did not possess any photographic equipment - not even a camera. Therefore, the equipment I obtained and the reasons for its acquisition might be a matter of general interest.

The most important item is obviously the camera. Any camera is suitable providing it is capable of focusing a sharp image onto the negative, but the range available is so great that it becomes the most difficult item of the equipment to choose. In my own case, I decided at the onset that one of the objects would be the production of a set of lantern slides in both monochrome and colour. The requirement of colour slides shortened the choice of camera to two types: a 35mm miniature camera or a 3½" x 2½" plate camera. In 1948, colour material could only be obtained in 35mm roll film or 3½" x 2½" cut film. Good miniatures [35mm cameras] are rather expensive, so I decided on the plate camera. My final choice was a very old Zeiss Maxima, 3½" x 2½" plate camera with an f/4.5 Zeiss Preminar lens, Compur shutter,double extension bellows and a rising and sliding front. At full extension, subjects as near as 8 in. can be brought into focus.

Although the plate camera is more bulky and is probably more trouble to operate than a miniature one, it has one or two advantages which even the most ardent miniaturist must admit. One is the fact that most reasonable lenses will have a resolving power which is greater than any known fine-grained emulsion: therefore, since the grain size of the negative material will be the limiting factor, all other things being equal, the larger negative will produce the better quality print. In other words, although considerably more trouble has been expended in


Plate III and IV: Straws in the RAWL Series Ogof Ffynnon Ddu. These two pictures are similar. In each case a single flash [flashpowder] was used at an exposure of f/22 in conjunction with a P300 plate, developed in DK20 developer. The flash was almost at right angles to the object, which necessitated the use of a lens hood.

producing the lens on a miniature camera, it cannot produce better results than a normal sized one because both cameras are limited by the grain size of the emulsion, which will be the same for each, Another advantage of the plate camera is that every exposure can receive, as on might say, individual attention during the development stage. Thus, in the case where two negatives have been exposed, one a close-up of a formation and the other a view of a large chamber, each negative, to get the best result, should receive different treatment during development, even to the extent of using different developers. This is a freedom of processing which is denied the user of a 35 mm, camera.

The main disadvantage of the plate camera is that it is very difficult to keep the plates clean. A roll-film camera, being sealed up, is inherently clean but the dark slides of the plate camera are always being handled with muddy hands, The action of the dark slides themselves tends to spread rust over the negative once they have lost their initial newness. Also, I believe that some boxes of plates, which have been badly cut, have glass dust on them, and that this has contributed to the number of black spots on some of prints.

The next essential piece of equipment is a tripod. I favoured a bulky wooden device which was once used with a ½ plate camera. It had several advantages over its lightweight metal rivals: it did not sink and disappear for ever when dropped in a lake or river; and there was no danger of it rusting or jamming when the joints became filled with grit. Steel tube types of tripods are especially irritating in this respect, also if a tube is bent it is impossible to close up the tripod. The wooden one was easy to repair if it was broken, but one of its greatest attractions was that my grandmother owned one which she was prepared to loan to me! It is my belief that some of the more spindly steel tube or sectional tripods vibrate and are the cause of a number of fuzzy results which have been blamed on reasons such as that of the camera lens fogging, the enlarger being out of focus, and so on. My wooden tripod is certainly more bulky, but I consider it well-worth this small extra inconvenience. I have given it four years of very hard wear and tear and although it now looks a little the worse for wear, it is still perfectly serviceable. I have also a low table-top tripod of aluminium which is useful in low crawls and where space is limited.

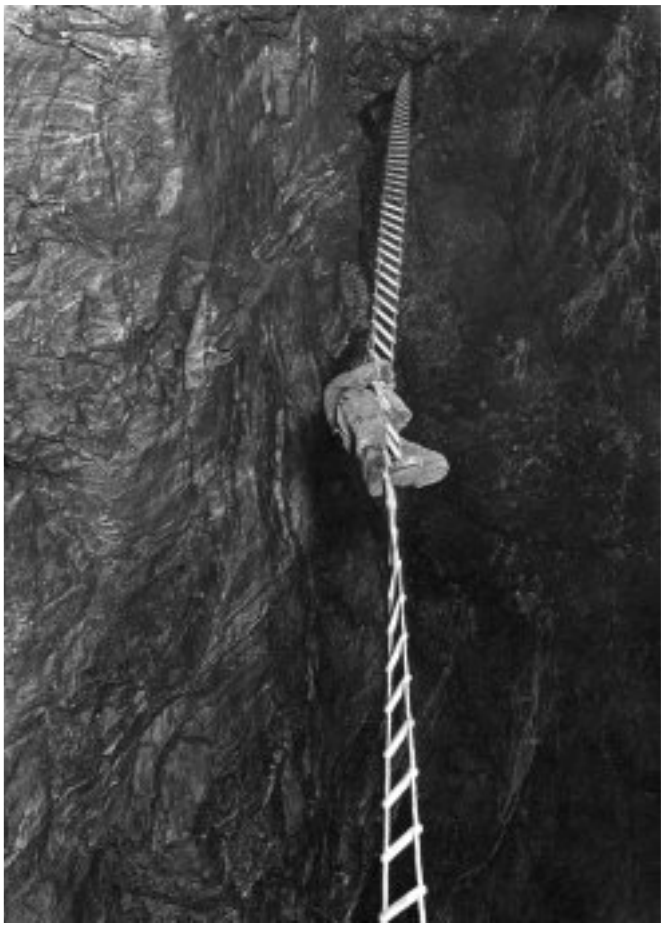
An item of the equipment which is often neglected is the lenshood. I make a habit of always using one. The light sources used in cave photography are usually very brilliant and it is good technique to exclude any reflected light from the lens of the camera, except that from the proposed subject of the picture. In cases where flashpowder is used and the flash is to the side of the camera, or in a confined space, it is essential to use a lens hood.

Illumination of Subject Matter:

Although there appear to be numerous methods of producing enough light in a cave to satisfactorily expose a negative, there is, to my mind, only one

method which can be used in all situations, except under a waterfall, and that is a good, smokeless flashpowder. The term 'smokeless' is purely relative, meaning that there will be rather less smoke than from a flashpowder not labelled 'Smokeless'. I find that in some atmospheres any flashpowder, however smokeless the makers claim it to be will produce a thick fog. Most uninformed people are inclined to blame the poor photographer for this and not the flashpowder. For myself, although I have experimented, from time to time, with other forms of illumination, I have usually used "Johnsons 'Professional' Flashpowder" for the main body of my work. I understand that most people who do a lot of cave photography use some sort of flashpowder, even if it is some fancy mixture of their own: I can only see one advantage for manufacturing one's own mixture and that is that one is sure that the composition is the same all the time, This can make a difference in colour work because makers of flashpowder do not guarantee that the colour value of their product will always be the same.

When watching a cave photographer at work, he is quite likely to give the impression that the actual ignition of the flashpowder is an operation of the utmost difficulty. If he uses the touch-paper supplied with the bottle of powder, it is certainly an operation with a doubtful result, because the touch-paper is quite likely to go out before the powder ignites. I have found that the only sure method of ignition is to substitute thin threads of Cordite for the touch paper. I have used cordite for several years with very few failures. Its purchase is restricted, but it is well-worth the necessary 'Red tape' for its acquisition and a small quantity, say 4 ozs will last a long time.



The 25m pitch in Lamb Leer, on Mendip.

I do not intend to include in this paper the usual exposure table for flashpowder, showing how many grains are to be used at different distances from the subject, for the simple reason that I never use one. I remember meeting two photographers in a cave discussing whether they should use 20 or 25 grains of powder for illuminating the particular picture they were about to take. On the decision that they ought to use 20 grains, one poured out a heap of powder onto a tray and lit the touch-paper. When I asked how he measured 20 grains, he replied that he guessed the quantity. My own method of estimating the quantity of flashpowder is very much the same thing: I visualize something which I call a 'standard scene', which is a normal cave view at about 10 ft. range, then taking a P300 plate at an aperture of f/11, I call the necessary amount of flashpowder a 'standard pile'. This quantity is varied as I think necessary depending upon how the subject differs from the 'standard scene'. The amount of flashpowder I use then becomes a purely visual quantity.

Another method of illumination is the use of flashbulbs. There are a number of varieties of bulbs on the market, but I consider that they all suffer from the same disadvantages. To start with, they form very hard shadows in the picture, sometimes the impression of a 'press photograph'. They all cost between 1/- [one shilling] and 2/- each, so where a lot of light is required and several bulbs have to be used for each picture, they make the operation rather expensive. Finally, being glass they have to be wrapped up carefully and any number take up rather more room than one would like. I personally never use flashbulbs.

On one or two occasions, I have experimented with candle light. One drawback is that exposure time is so long that live models can not be used. I have always been pleased by the quality which this type

Maypoling in Gnome Passage, OFD. It didn't go anywhere!

of illumination gives to the negative but, as yet, my experience is small and I intend to carry out further experiments in the future. One point worth noting is that the subject is seen as it will appear on the print. Also, the candles can be moved about while the exposure is in progress and candles are a very cheap source of light.

Magnesium ribbon falls into the same category as candles in that it lasts some time and can be moved about. The only differences are that the ribbon gives a bit more light and that the light is harder. I have never used magnesium ribbon, so will say no more.

Sometime ago, I was trying to take a photograph in a small tunnel, so I developed a little gadget for lighting the walls without throwing any light in the direction of the camera lens. It consists of two black baffles mounted on a short piece of stick with small electric light bulbs mounted between them as shown in the figure (figure 1). The order of operation is to set up the camera from in front, open the shutter and then, starting with the front baffle nearly touching the lens, switch on the lights and move backwards away from the camera slowly. On reaching the end of the tunnel, direction is changed and one moves forward until the starting position is reached. All that remains to be done is to switch off the lights and close the camera shutter. I have tried this out on the 'Drainpipe' in Goatchurch and it worked very satisfactorily.

Figure 1: Longitudinal section through a tunnel, illustrating the working operation of the lighting gadget described in the article.

Sensitive Materials and Processing:

In the following remarks on sensitive materials and processing techniques I would like to stress that I am only putting forward my own experiences. I have come to the conclusion that the great secret, when it

comes to choosing what type of film to use and how to develop it, is to become conversant with and master of the materials you are already using. In other words do not change the type of film unless you decide the grain is too large or you consider that a change would bring about some definite improvement in results. This is not much help to the beginner but, since he has no experience anyway, a start has to be made somewhere.

A self portrait in the OFD streamway.

When I started off, I used Kodak P.1200 plates – equivalent in speed to Super XX film - and I developed these in "Johnsons Contrasty Developer". As soon as I bought an enlarger, it became obvious that something would have to be done about the size of the grain. I changed the developer and for a considerable time used a Kodak developer, DK61. At that time, my photography was at the stage of photographing cavers climbing rope ladders, wading across lakes and generally illustrating the sport of caving. The P.1200 plate developed in DK 61 satisfied me for this sort of work, because the plate was reasonably fast and the negatives would enlarge quite nicely without the grain becoming too obvious. Later my interest turned to taking close-up pictures of formations and I found that an imrovement in the quality of the negative was necessary, so I changed both the negative and the developer I was using. The new negative was Kodak P.300, a fine grain plate, equivalent to Kodak Pan X film, and this was used in conjunction with DK20, a Kodak fine grain developer. My latest practice is to overexpose the negative and under develop it, depending upon how close the subject is to the lens. I have produced some very nice quality negatives with only 6 mins, developing time at 65ºF. In special cases, such as when a picture of a large chamber is required, I have developed the P.300 plate in D76 fine grain developer of slightly more contrast than DK20. An example of this is the picture of G.B. Main Chamber, Plate I. Developing time was 15 mins at 65ºF.

I have always, used Panchromatic film and have therefore nothing to say for or against Orthochromatic emulsion. I believe Panchromatic plates, since they are more sensitive to red, are slightly more suitable for work in caves. Of course, I should imagine that in cases where formations are rather a disappointing colour in actual fact, Panchromatic emulsion would be more sensitive to light reflected from them than Orthochromatic emulsion - especially if the formations were a dirty mud colour. The resultant print would show the formations to be whiter and so much more attractive than in actual fact.

I expect some people will regard this attitude to record photography as cheating, but I think a bit of cheating can be tolerated in photography where the object is to produce interesting and attractive cave pictures.

Colour Photography:

Colour photography in caves is the most difficult branch of the art that anyone can tackle. I have seen very few coloured results, including my own, in which the colours are anywhere near correct, and I have seen hundreds where the colours are not but are still quite pleasing pictures. When I take pictures in colour, I try to persuade my model to wear a coloured scarf. With this, the skin colour and the fact that white calcite formations should appear white, quite a good idea of the general colour correctness of the result can be obtained.

My own experience in colour work is with Kodak

The Fingers in Lowe's Passage OFD.

Ektachrome type 'B' for artificial light, in 2½ x 3½ in., cut film, therefore I am not competent to make any remarks on any other type of material. Whilst this size is ideal for insertion in 3½ in. square lantern slides, it is also very expensive; each transparency costs about 3/-, excluding the charge for processing which adds another 3/- to the cost regardless of whether the result is successful or not. In this size of negative, colour photography is an expensive hobby.

There are a number of points to be watched when taking pictures in colour. The first one to mention, is out of the control of the photographer: if there is a bright colour in the picture, or even in the vicinity of the camera when the shot is being made, it will be reflected over the whole scene. A good example of this happened to me when I took a picture of an orange dinghy floating on one of the lakes in Dan-yr Ogof. The cave walls at this point are blue-black limestone, but the reflections from the orange dinghy turned them to a deep mauve colour.

Monochrome photography is carried out in two stages: first a negative is made and then a print from the negative. During the second operation, any error in exposure made when exposing the negative can be cancelled out, but unfortunately, most present colour materials, obtainable in this country, are produced in one operation - the actual negative becomes the final print in the form of a transparency, This means that the original exposure has to be correct, and this requirement alone causes a large number of failures.

It is very difficult to guess the right exposure in a cave. I say 'guess', because I know of no method whereby the correct exposure can be measured. In normal circumstances, an exposure meter could be used but the form of illumination usually used in a cave is of too short a duration for an exposure meter. Any other method of determining an exposure must include some guesswork.

Colour negative material is very sensitive to the colour values of the light source, and it is usually essential to use a filter to correct any error. I found when I began that Johnsons Professional Flashpowder was giving a result which was too green. I therefore acquired from Kodak a pink filter, Wratten CC 13, and tried again; the results were too pink, so I cut out some of the filter, as shown in the sketch below:

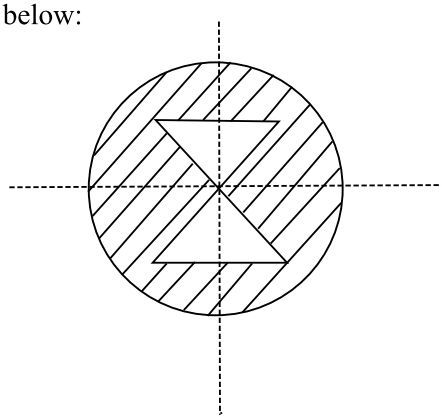


Figure 2: modified gelatine filter.

By cutting out two triangles with their apexes at the centre of the lens, I ensured that a constant percentage of the lens was affected by the filter, whatever the aperture. This modified filter gave quite good results, but Kodak suggested that I used a 'temperature reducing' filter, Wratten CC33. This proved to be the best filter to use with my own combination of materials.

One point worth remembering is that the colour value of flash powder alters if it is kept for any length of time after mixing. I have found that it pays to use freshly mixed powder when taking pictures in colour.

A trip to Burry Holmes

Words and Photos by Gary Jones

Burry Holmes at the far end of Rhossili sands (looking north from Rhossili Downs).

I have often been told that there are caves on the tiny island of Burry Holmes off north Gower. May 2006 was an opportunity for Liz and I to visit and take a look. The place is accessible for a while either side of low water, so technically it is classed as a tidal island. It is made up of carboniferous limestone beds dipping north. There is certainly nothing much to see from the landward side but the bedding is exposed seawards and so the only way to examine the geology is to walk over.

The OS map (Pathfinder 1126) shows the remains of a settlement and ancient ”hall”. Certainly there are the rough outlines of buildings well above the high water mark on the landward side. These are said to be medieval monastic buildings and are built of local limestone block. The island is the site of the cell or cashel of St. Cenydd (or Kenydd) a 6th. Century Celtic Saint. He was a Breton who came to Wales when there were strong tribal links of trade and language between the two regions. He was a contemporary of St David. There is also an iron-age defensive ditch running north-south through the centre of the island, so the place was occupied, probably by Celts or pre-Celts, well before the Saint arrived. The “Spaniard Rocks”, also on the OS map, are where a Spanish treasure galleon (said to be carrying the dowry of Catherine of Braganza) was wrecked. Coins have been washed up here over the years. So the place has an interesting history!

As we walked the length of Rhossili sands towards the island the tide was on its way out, though we still had to wait for it to fall low enough to wade over. There is an easy path up onto dry land (with a notice, which you can see when you get there, saying the tidal rip is dangerous!) We walked a circuit of the island. There is an exposed limestone cliff on the SW side with a cleft in the bedding forming an inlet. This is the only large area of exposed limestone and there is a cave! (see picture on page 2). I scrambled down and went in to have a look.

The dip of the bedding and its general structure look as if the place is the result of mechanical erosion by the sea. Though at first sight it looks substantial, it hardly goes out of sight of daylight. Flotsam wedged in the roof suggests it gets a battering during winter storms. Slightly further west along the same cliff is a large quartz deposit (which initially looked like old eroded calcite). Further west again were several shadowy cracks high in the cliff but these were not promising.

The sound between Burry Holmes and the mainland. The block on the skyline is part of the medieval remains.

Disappointed, we made our way back to the mainland and watched the tide run back in once again. We walked over the dunes towards Bluepool Corner. As we looked back I could see, through binoculars, a very small inlet on the north east side of the island which we’d missed on our walk around. There was exposed limestone! This could be an excuse for another visit! We’ll have to wait until time and tide are right again.

Frank Baguley Obituary

Written by Mick Day

Frank Sydenham Baguley
20/11/15 -10/3/07

After a long illness, Frank Baguley died on Saturday morning, 10th March, 2007 at Ty Mawr Nursing Home in Abercrave. He was ninety one years of age.

He was born in Aberdare, the son of a dentist. It was there that he began his professional career as a school dentist. During the Second World War, he served in the Army Dental Corps, rising to the rank of Major, but perhaps more importantly he met his wife, Ella, while stationed in Scotland. The couple returned to Aberdare where Frank resumed his civilian career as a school dentist and they brought up their son, Douglas. The rear of his large terraced house accommodated a series of rooms and outbuildings equipped as a first class home workshop. Frank was always exceedingly practical and enjoyed the processes of making and mending as much as the benefit of the finished results. On his retirement, all of this was transferred to their new home, the White Lion in Ynys Isaf, a short distance down the Tawe Valley from Abercrave.

Frank was always active and much involved in sport; hill walking, canoeing, swimming, water polo and cycling. He was for a while a competition judge for diving for the Welsh Amateur Swimming Association. In the 1960s he joined South Wales Caving Club and developed a lifetime passion for the underground.

Frank took part in both of the SWCC expeditions to Balinka Pit in Yugoslavia which are well recorded in the Club‘s 25th Anniversary Publication. These expeditions were noteworthy for the eccentric and complex arrangements which were contrived to descend this bottle-shaped, several hundred foot deep, shaft. They cemented SWCC's reputation as the “Clockwork Cave Club”. Frank was responsible for much of the design and construction of the winch equipment used to bottom the shaft. A petrol engine powered an hydraulic winding gear which permitted precise control of distance and speed and used a cable specially spun to include a central telephone cable, enabling the cage occupant(s) to maintain continuous voice contact with the driver.

Balinka was notorious as the site of “executions” of patriots during WW2 by Occupying Forces. Descent of the pit was a priority objective for Yugoslav cavers in order to recover the remains of these national heroes. At this remove, it may be recorded that the pit had probably provided this facility over many decades, and a suitable selection of remains had to be made from the great choice on offer at the base of the terminal boulder slope. Frank‘s expertise came in handy here in examining dental clues to identity. Incidentally, when not driving the winch or sleeping, Frank is reported to have brought free dentistry to a significant number of the Yugoslav population.

In the aftermath of the Aberfan tragedy it also fell to Frank, as the dentist who had most recently examined the pupil victims, to verify identifications from his dental records.

For SWCC, the 1960s were noteworthy for the discovery of massive extensions to Ogof Fynnon Ddu and Dan yr Ogof. The transport of choice for the more affluent Clockwork Caver, including Frank, was the short-wheelbase Land Rover. Levels of recycling of redundant materials far exceeded those of today, and manufacture of electron wire caving ladder and other equipment were commonplace activities. The outbuildings and attics of Powell Street groaned with hoarded riches. All this corporate collecting would have been pointless if no nestbuilding had ensued. Downstairs internal walls were removed to open up the available space, and massive lintels contrived, each from three redundant railway sleepers bolted together. The modern Rescue Depot first found an identity when it received this treatment, with exterior double doors as an additional flourish. A Series I short wheelbase Land Rover was stripped to its essentials, moth- and rustproofed, and reconstructed in its entirety to take place of honour in the new facility. Frank was a leading participant in these activities. He was later to be able to minister to the needs of his own Land Rover in the “garage”, as the depot was known. The lintel of the replaced central wall is conveniently provided with a shackle for lifting equipment. When a piston connecting rod broke through the side of the engine block, Frank removed the engine there and renovated it, the jigsaw pieces of the hole in the block being glued back in place with Araldite.

Frank was enthusiastically generous with time and expertise to those faced by practical problems of the kind he most enjoyed solving. He aided a member faced with the problem of replacing part of the ground floor in his house, largely by using reclaimed timber of similar specification and original quality to that being replaced. When he moved to the White Lion, he passed to me his long-stored stock of Rover P4 parts, no longer needed after he adopted the Land Rover as transport.

When Davy Price‘s Hall in Tunnel Cave was metamorphosing into “Cathedral Cave”, Frank learned during a weekend that a new concrete floor was to be “poured” during the coming week. No provision was being made to preserve the continuity of the original access stream passage, which would have disappeared under ten feet of concrete. He recruited a gang of clockwork carpenters and obtained permission from Ashford Price to enable shuttering to be installed so that a negotiable gated passage would be left in place after the concreting work was complete.

I remember being dragooned by Frank into an interesting animal rescue. The open moorland between the cottages, the Stump and the cattle grid had been occupied by a mare with a new-born foal belonging to the local tenant farmer. One morning, the foal had disappeared. It was eventually located in a newly-created shakehole which conformed to the normal first stage of evolution of such features. That is, a significant collapse had occurred somewhere underground into which the surface layers of boulder clay had subsided, but leaving a domed covering not quite penetrating to the surface. Under the foal‘s weight, the last thin layer had collapsed, leaving a manhole-sized opening camouflaged by the surrounding luxuriant grasses. The foal shivered 15 feet below the surface against the wall of its domed prison, endlessly circling the large rubble cone.

Frank had arranged the construction from scaffolding of a sheerlegs, splayed so far as possible to avoid a direct load on the roof of the dome. Someone would need to descend to get the foal into a harness, so a caving ladder was also suspended from the structure together with a hauling rope. Frank reasoned that the lightest-possible person be encouraged to make the descent to minimise the chance of further collapse, which is how I came to be involved in the process. Unfortunately, in order to restrain a panicking foal, a certain minimum body mass is required, otherwise the foal will merely drag you around the available space whilst you fumble with the lifting sling, half-riding the animal. Frank thus descended as well, and eventually we were able to restrain the foal and so send it back to the surface.

In later life, but quite early in his caving career, an accident in a cave caused him mobility problems, restricting his ability to participate in longer or more awkward excursions underground. Instead, he served on the SWCC committee in a variety of posts. He was particularly active in the area of equipment manufacture and maintenance and the gradual but continuous renovation and improvement of Powell Street.

He instituted, edited, typed, printed, collated, bound and aggressively sold “Yr Ddraig Goch”, an annual publication dedicated to Welsh caving. It was an avenue for the wider dissemination (with permission) of articles by others which Frank believed deserved wider readership than their original publications could provide, combined with a selection of reviews of meetings, lectures and books of his own authorship. When Frank turned up at SWCC or at a Cambrian or NCA meeting with a heavy cardboard box and more than the usual bonhomie, there was no escape; a fiver was the ransom which had to be paid.

He continued to serve caving both as secretary and treasurer of the Cambrian Caving Council, as a contributor to the Cambrian Cave Registry, as both a trustee of and as secretary of the National Caving Association (now British Caving Association) and representative of the caving world to many outside organisations in Wales where he was very well respected. He was presented with an award for his service by the Welsh Sports Council. This reflects his phenomenal commitment and sense of duty; he could always be relied on to complete whatever he undertook. He was extremely methodical and thorough, to some annoyingly so, but it is impossible in this arena to be all things to all men. He took administration very seriously despite deteriorating hearing, and was probably often irked by his suspicion (completely justifiable) that others had not the same respect (or aptitude) for these activities.

His funeral took place on Friday, 16th March at Llwydcoed Crematorium, Aberdare. He is survived by Ella and Douglas, to whom SWCC extends its sympathies.

Clive Jones Obituary

By Ken Maddocks

On behalf of Clive's family, friends, colleagues and all others who were touched by him I would like to share a few words on his life and achievements collated from their contributions.

Clive was born and brought up in Glynneath, living at number 113 High Street.

He was educated at Neath Technical College where he obtained a State Scholarship to Imperial College London. Because of difficult family finances he missed out on that opportunity and instead took a five year apprenticeship at the national oil refinery at Skewen where he qualified as a chemical engineer.

However, industry was prevented from getting the best of his inventive ideas when National Service claimed him.

Clive was commissioned into the army as a Second Lieutenant in the Royal Army Service Corps in 1956.

It came as a great shock to Clive's parents when a neighbour brought the Daily Telegraph around with a report that the by then Captain Clive Jones had been sent to Egypt to prevent damage to oil plants during the Suez crisis.

Clive often talked about his army days and it is clear that these were formative ones for him. They gave him not only his direct approach to problems but also his characteristic self-confidence without arrogance that would see him engage so well with all he worked with, junior staff and captains of industry alike.

He was also posted to Cyprus, where on account of his caving knowledge he was charged with searching caves for Cypriot separatist fighters, and he was decorated for his efforts.

Caving was Clive's abiding passion. As a pivotal member of the South Wales Caving Club, he was always resourceful and practical. In the 1950s club members would call in at Clive's where, thanks to his collier father, he would supply club members with mining helmets for 1shilling and 6 pence.

Adventurous, very determined and hard working,

Clive in Steel Drum Dig.

Clive enjoyed walking and digging under extreme conditions. The entrance passage of Cwm Dwr springs to mind! His tremendous ability to motivate and inspire would rouse people to action, and he was part of the exciting 1960s discoveries of the major South Wales cave systems.

He was on the Club's two expeditions to Balinka Pit in Yugoslavia, a previously uncharted cave. Over a thousand feet down, they recovered the bones of partisans who had been thrown in there by fascists. For this act, Clive was among the Club members awarded the Yugoslav government Order of The Gold Star medal.

Charles George remembers digging with Clive in pre-wet suit days wearing bright orange ex-Naval escape suits known as Goon Suits, Clive always sporting his beloved and smelly pipe.

He could never understand how vile the smell was until walking over the Carmarthan Fan to Llygad Llwchwr he lost his treasured pipe. His anguish was awful. However Charles assured him that as it smelt so potent all they had to do was sit and wait

while Charles' Golden Retriever recovered it. It took half an hour, from a distance of a mile or so, but the pipe really was that smelly and, to Clive's astonishment, the dog returned it to him.

The pipe was, alas, lost forever during the Ffynon Ddu III discovery. Clive, as ever, pipe in mouth, was climbing a waterfall which, not unpredictably, knocked it flying out never to be seen again.

His relentless desire to find large cave systems not only had him digging day after day, but using his scientific discipline to sniff them out, experimenting with resistivity.

Even a year or two ago, he could still be found studying maps and going out on the hills near here with dowsing rods, that captivated fiery glint in his eye.

After discharge from the Army, Clive returned to chemical engineering with Midland Siliconers at Barry.

Amongst other things, during this time he invented and set up a factory for the production of flectalon, an insulating material used worldwide and familiar to us all wrapped around athletes at the end of the London Marathon. The Flectalon filled tomato grow bags will never be forgotten !!

It was never just a day job to him, as his inspired and inventive mind kept on going. With friends, he set up several other business outlets for his ideas, including Ammonite stone jewel and fossil company, and Mentra, an innovative training company.

He took up a post at Cardiff University's Microbiology Department, which led to him setting up the Cardiff University Industry Centre. His talent lay in novel and innovative thinking; bringing together people of very different disciplines to work alongside each other for initially impossible-sounding projects like bacteria that would eat oil spills; waterproofing the desert to make it fertile or feeding the Finnish army a special cake made from surplus freeze dried prawns.

Such pioneering was not just about the project in hand, but also about equipping those involved to go and be bold in future. This approach remained the same when he lectured at Swansea University Innovation centre or in his work with The University of Tromso in Norway- where he was held in high esteem and made many Norwegian friends.

As in industry, leisure and at home, at university Clive's capacity as a great motivator - a man to involve you in ideas, to make you simultaneously be really excited and really think - shone out, and his lectures had record attendance rates.

There was no proper retirement for Clive. That trademark scientific originality was an essential function of his mind. He was drawing up plans and making presentations to industry on flywheels and airships until he died.

Clive's family life began later than many people's, but he quickly made up for lost time. When he and Clare fell for each other she already had a young son, Owain.

He married Clare and she became pregnant with Annwen (although not necessarily in that order). They were later joined by another daughter, Elin.

Clive adored fatherhood and applied his ability to inspire to the full, seeing in the children the same endlessly enthusiastic curiosity and questing that characterised his life.

Never one to go for conventional package holidays, there were epic family journeys in what were then highly unusual destinations, such as America and Sweden.

Clive's practical and innovative approach was as evident in his parenting as much as the rest of his life. He spent many hours in the garage making Owain's go-cart, Annwen's shop and Elin's post office. His friends' children were similarly entranced by him and constantly challenged to think of new projects and ideas.

He built tree houses, with the kids' assistance, at Hendre Bolon, their house at Ystradfellte by the Neath Valley waterfalls. Hendre Bolon was a great joy for the family, and they took any chance to be there; weekends, whole summers and at Christmas.

Clive took great pride in the children as adults, in the way that he and Clare had brought such capable, intelligent, warm and independent people into the world. He was especially thrilled at the recent arrival of his granddaughter, Eira.

In his last proper conversation with Annwen he said that he didn't want caring for him to take over her life. 'That's alright dad, we took over yours for many years,' she replied. 'But that was great,

building treehouses and things. It was great'.

For all his cosmopolitan wanderings, Clive always remained strongly rooted here in the Valleys and a proud Welshman through and through. In seeing that his children got their education in the Welsh language he ensured that they too have a strong sense of pride in their cultural heritage.

We've depicted much of his determination to see a project through, his enthusiasm and his vision, but still it feels a little like we're solemnly listing measurable highlights and facts. The key thing with Clive was that he was emotionally committed. He was an enthusiast. But above all, we cannot portray his constant playful wit. That could only be done by the man himself. Scientist, father, explorer, inventor, teacher, patriot; he was all these things, but he was also nothing if not a joker.

In keeping with his wishes, his last journey will take in many of the facets of his rich and varied life. Clive's ashes will be scattered into the waters of Porth yr Ogof, where they will run through the cave system, out and over the waterfalls beside Hendre Bolon, past his Mam and Dad's house in Glynneath, and onward out to sea.

Rwy'n caru s?n dy nentydd cu
A rhi dy wyllt rhaeadrau.
(Trans:- I love the sound of your beloved streams
And the roar of your wild waterfalls.)

Da was,da a fyddlon,dos di mewn i lawenydd dy Arglwydd.

A Very Wookey Wedding

Ash and Jenny Burrows in Wookey Hole on their wedding day. Photo Peter Collings Wells, www.geopictures.net

Probably a first for the club, a marriage underground. Wookey Hole provided the venue for Ash and Jenny's wedding ceremony. It was slightly surreal to see so many familiar faces underground in such strange attire!

Our very own PCW was presiding cave photographer. Despite looking slightly stressed he has produced some excellent photos and has promised to write an article for budding wedding cave photographers so watch this space!

Digging Week 2006

This event was proposed as a way of celebrating 60 years of the club and in honour of the fact that it was mainly formed as a result of digging into Ogof Ffynnon Ddu. The plan for the week was to run a couple of digging teams to give a choice of location and interest for members.

The next three articles describe the work undertaken by teams at Zach's dig, Chas's Old Dig and across the valley on the Black Mountain.

Whilst the back door into Dan Yr Ogof four, the Pant Mawr mastercave and the OFD's sister system weren't found plenty of tea and beer were consumed, sites were made diggeable again and some members remembered why they love to roll around in the mud.....

Digging East of the Tawe

A digging diary of the Clockwork Caving Club by Graham Christian

For some strange reason I was allocated a role in the "Clockwork" team, that would make major use of mechanical assistance in their digging project. This article focuses only on that part of the events of the week.

Prior to the digging week, a number of members had wandered over to look at the site of one of Chas Jay's old digs. Just beyond the Byfre sink, in an easterly direction, there is a small stream that runs north out of the Nature Reserve onto the Cnewr Estate and sinks in a large shake hole. On the eastern side of the shake hole is an exposure of solid limestone, while the rest of the depression is in boulder clay with a peat floor. The stream has cut down through the peat, leaving a number of limestone blocks exposed, and it sinks in wet weather by the east wall. In drier weather, it either does not run at all, or sinks in stages across the depression. It appears that the shake hole depression formed in the past, then underwent a long period of sustaining a pond or marshy bottom that allowed a considerable deposit of peat to form. At a later stage, water found a more open path through the bottom of the shakehole by the east side, and started washing the in-filling peat away into whatever cavities may lie below.

Messrs Clipstone and Jopling exploring the Chas's dig shakehole at the start of the week. Photo Graham Christian.

Chas was questioned on the history of his digging and what he had found. He claimed that he had found evidence of cave passage, before the dig slumped in. It appears that instability was a feature of this dig, so we resolved to make sure that the shuttering was adequate from the start.

Razorblade Pot. Diggers from left to right are: Ian Cardy, Ash Burrows, Hywel Jopling, Brian Jopling. Photo Graham Christian.

Sunday 27th August

A collection of digging tools was taken from the stores and a good number of people went to assess the site for how we were going to tackle it. The back wall seemed sound enough, so we knew that we had something to which scaffold bars could be bolted. The dip of the rock seemed to be in a south-easterly direction, so we were hopeful that cave passage might possibly head that way too.

Also on the area, a narrow, north-south trending rift was examined. This is also on Cnewr land and is just to the north of Steel Drum Dig. On the old timbers that "protected" the hole was an old rusty razor blade. A working name of Razorblade Pot was coined. Again an assessment was made of what tackle would be needed to get down it and have a thorough examination of its potential.

Monday 28th August

A load of scaffolding poles, attendant clamps, spanners, hammers, drills, bolts, picks, spades, buckets, ropes and all the other tat that a good dig warrants was transported up to the site. Dry ground meant that we could park off the track without causing any damage.

A round of scaffolding was set and the digging was started. Old wire was snipped out, wiggly tin wiggled out and old wood wrenched from the clutches of the slumped peat. The digging buckets were the ones designed for Babysitters' Dig, so could only be partially filled for hauling by hand.

Meanwhile, over at Razorblade Pot, a descent had been made, it was pronounced interesting, and concrete lintels were transported to the site to cover it over in a more secure manner than previously.

A second load of scaffolding poles was transported up to Chas's Old Dig.

Tuesday 29th August

Roof-loads of shuttering timber were the order of the day, as once again the workhorses of Graham's Land Rover and Simon's Range Rover were pressed into use. A zip-wire was installed over the dig and tensioned up to a substantial length of steel channel that was hammered a considerable distance into the ground. We could now haul buckets up from the dig,

The Blondin rig. Photo Ben Stevens

then move them sideways on a pulley to an area where we could unload into a wheelbarrow (fetched from Babysitters' Dig). Big rocks that came out of the deepening hole were dumped in the channel of the stream to make steps and the finer stones, gravel, sand and peat barrowed to the side of the shakehole, well above the stream course.

That evening, over a beer or several, there was much discussion on improving the hauling system.

Wednesday 30th August

More timber was taken up and a bit of time spent on fiddling with the rigging. The digging started and the rigging further refined as the day went on. We used a 2:1 advantaged pulley system and "Blondin" arrangement that allowed the bucket to be hauled straight up out of the dig, the hauling rope to be locked off, then the Blondin rig and bucket traversed sideways to the unloading point by a separate continuous looped rope.

At the end of the day, we were over 2 metres down, with the wooden shuttering being pushed down behind the scaffold poles as we went. We packed up just in time for it to start raining.

Thursday 31st August

It continued to rain, so we spent the morning fettling scaffold clamps in the workshop. As the weather had improved after lunch we were able to put in more scaffolding and planks all round. Only a few bucket loads were hauled out.

Friday 1st September

After the rain, water flowing across the floor of the dig was now a feature for a while. Many buckets of sludge and rock came out of the hole today, necessitating more scaffolding down and round the dig. A good sign was the appearance of a low bedding plane under the back wall at floor level. This seemed to go back over a metre and have a floor of clean-washed pebbles. We had found a void!

Saturday 2nd September

It was wet overnight and continued to pee down all day, so no digging. With this weather as inspiration, the South Wales Clockwork Cavers evolved into the South Wales Computer Club and spent the day working with the rainfall data that had been gathered over the year. Scripts and programs were written to make manipulation of the raw data far easier. Simon and Annie did the honourable thing and took the dog for a walk up to the dig to see what was happening. They reported back that the stream which was now flowing, did not make it to the dig, but was sinking in the middle of the floor of the shakehole.

Chas's Dig in full flow. Onlookers are (clockwise from back left): Simon Amatt, Graham Christian, Clark Friend, Ash Burrows, Dave Dobson, Paul Craddy and Dave Edwards. Digger Unknown! Photo Ben Stevens.

However, it then reappeared in the bottom of the dig, flowed across the floor and disappeared into the bedding plane at the back and showed no sign of backing up at all.

Sunday 3rd September

The bottom of the dig was now clear of peat - all washed through, with a bit of foam clinging to the roof of the bedding plane. Yet more scaffolding was put in and adjusted. Tony Donovan hove into view and sent a quantity of optical brightener on its way to a resurgence. The Nedd and Tawe valleys were both to be monitored over the next week. After a good week's progress – down at least 3 metres – we

The hauling sytem at Chas's dig. Diggers are (left to right): Dave Dobson, Clark Friend, Ben Stevens and Brian Clipstone. Photo Graham Christian.

packed all the gear up and boarded over the hole.

The optical brightener turned up on the following Tuesday at the Ffynnon Ddu resurgence and, surprisingly, the pool opposite Craig-y-Nos Castle. We are unsure of quite what the last bit means, so further tracing is planned.

Saturday 23rd September

A small team was mustered, access permission sought and another fine day was spent on the hill. This time the petrol-engined winch was taken up and rigged into the Blondin system. It worked so well that we were able to prove that just one person could haul the bucket up, traverse it to the unloading point, tip the contents into the wheelbarrow and dump the spoil. By using 2 buckets fully laden each time, we were able to drop the floor by about another metre in this one day.

What was most interesting was that we were able to pull rocks out of the floor and find gaps beyond, from which draughts of cool air were blowing out.

Sunday 24th September

No digging was done today, but even more scaffolding was put into the bottom of the dig. It was quite awkward putting it in, but we want to reduce the chances of a run-in to a minimum. The blondin system is still in need of refinement, but work is already in progress to address our needs.

Acknowledgements

Thanks to Jopo and Tony Baker for "championing" the week and making sure it happened. Thanks to Cnewr Estate for the permission to take vehicles with the heavy stuff onto their land and their tolerance of the club poking about in interesting holes.

Diggers to the east of the Tawe in approximately chronological order:

Brian Jopling, Graham Christian, Sam Moore, Brian Clipstone, Hywel Jopling, Ian Cardy, Ash Burrows, Brendan Marris, Simon Amatt, Annie Amatt, Mick Day, Harvey Lomas, Ian Alderman, Andy Dobson, Dave Dobson, Clark Friend, Paul Craddy, Gareth Davies, Ben Stevens, Chris Grimmett.

Observers and fan club:

Dave Edwards, Dan Sullivan, Pete Francis

Clockwise from top left: The dig with a clean washed bottom; looking into the bedding plane at the bottom of the dig; Bonnie oversees the digging; Andy Dobson emptying buckets.

Digging On The Other Side

Tony Baker

Aside from the work done during digging week at Chas's Old Dig and Zach's/Gents' Dig, described elsewhere in this newsletter, several trips were made to the other side of the Swansea valley.

Rusty Horseshoe Dig (SN 80841 18358)

Tony Donovan, Paul Quill and others have recently started work here again, and two trips were made at the start of digging week. A lack of stacking space had long been the obstacle here but an alternative route to the sharp end has been engineered, making the site a realistic proposition once more. An efficient digging/hauling system was used and a great deal of spoil removed. There is much still to do, although the site holds great promise.

Pwll Porth Ddu (SN 82611 17214)

This site, near Waun Fignen Felen, has been receiving regular attention from Tony Baker, Martin Hoff, Paul Meredith, Ben Stevens and Gary Vaughan over the last couple of years. With most of the team away doing other things only one visit was made during digging week but some valuable progress was made. A planned follow-up later in the week was abandoned due to a lack of personnel and some absolutely foul weather.

Ben Stevens in PPD. Photo Martin Hoff

Twll Tal-Draenan (SN 80658 19060)

Not to be confused with Tony Baker and Martin Hoff's ongoing pet project, the sink at Twyn Tal-Draenan, this is an impressive section of cave that was described by Stuart France in SWCC Newsletter no. 106 (1990, p.25). A fresh investigation of this site was long overdue and a team of five trekked over and, having removed two dead sheep and one (extremely fortunate) live one, began work on an interesting-looking hole in the floor. However, heavy rain before a follow-up trip provided an active stream that served only to prove a connection with the low, unpromising passage lower in the cave and the conclusion was reached that prospects here are not good.

Tony Baker climbing out of TTD. Photo Martin Hoff.

'Harvey's Hole' (SN 83118 16813)

This site, originally dug by Peter Harvey, involves a clamber down from the entrance into a short and very interesting section of cave with two possible ways on. Paul Quill, Tony Baker and Dan Sullivan investigated both options carefully before choosing the right-hand passage. The approach to the 'digging face' was enlarged, and on a follow-up trip in October '06 Tony and Dan moved significant quantities of mud from a low bedding plane, in an attempt to reach a point at which the roof appeared to rise. However, further work by Dan and James Squires in November saw them reach this point only to find that the passage ahead was completely filled with mud, and the depressing conclusion was reached that this site was not a realistic proposition.

Zach's Dig

By Gary Evans

A casual wander on the OFD Reserve with my dog always seemed to result in me taking a closer look at some obscure pile of rocks or previously dug shakehole, but this time there was something different. The end of the big shakehole just East of what was then Gent's Dig was always of some mild interest due to its obvious depth and the fact that it was in fact a widening and deepening valley with nothing at the end. However on this day in October, 1996, Zach the over-energetic Weimaraner was actually digging a hole at the point where water sinks in wet weather. As he isn't in general a hole digger, this warranted further interest, and following a little more enhanced excavation (me, rather than just dog paws), it was clear that he was taking a thin soil/grass surface off from a pile of mud and glacial fill.

Gary Evans at the Dig with Zach on the left and Dave's dog Dilly in front: 1997/98. Photo by Claire Evans

The next step was obvious – a few visits of test digging with help from Toby Dryden revealed the top of the limestone with an obvious edge and significant amounts of sandstone fill. Before getting too carried away, written permission was sought from the CCW to dig there and permission was granted on 20th December 1996.

At this stage, it has to be remembered that Gent's Dig had not been extended and there was no known cave in the vicinity. It was conjectured and later proven that there was a sizable shaft here that had become filled with sandstone rocks and mud and that should this be cleared, then it aught to go somewhere. The OFD survey showed a sizeable blank area here and we figured that there could well be some cave linking into the OFD system.

And so started the usual diggers pattern of activity – evenings, weekends, begging and borrowing shuttering, clamps, people, buckets – you know the story.

My Caving Logbook shows that we visited the dig 70 times between 1996 and 2006.

At first the digging team was really only myself, Dave Wiltshire, Toby and occasional help from a number of local cavers. Rhys Williams helped for a period of time and later Jules Carter and I became the main diggers at the site. The first 2 metres were the hardest, with the shakehole continually trying to slump in and significant shuttering being required to keep the dig viable. There were many days spent up there alone before any depth was reached. I particularly remember some miserable days when Toby and I toiled for hours moving digging material and railway sleepers over there. For a long time, only Toby and I dug there, as it was hard to find any other help.

The initial attempt to dig the whole shaft was clearly going to result in very slow progress, because, although it was only about 1.5 metres wide, it was about 3.5 metres long at the top, requiring too much effort to remove all the spoil. We decided to shutter down the middle of the shaft to reduce the amount of work required and hoped that it would reach a more symmetrical shape further in.

It wasn't long before the installation of the tripod was required and having secured the railway sleeper lid as per CCW instructions, the place was beginning to feel like something. By now, I had

Gary Evans left and Dave Wiltshire centre removing a boulder: 1997/98. Photo Claire Evans.

robbed everyone and everywhere of every piece of wood for shuttering that I could get my hands on – including the obligatory building site at night. Scaffold clamps had also become an issue and SWCC kindly funded more for the project.

We seemed to make slow but sure progress – nearly all digging being done in evenings with 2 or 3 people at a time taking part. A regular theme throughout the life of the dig was the initial frog rescue that took place at the start of each session. On some occasions, we would haul out as many as a dozen small, medium and large frogs, although we were convinced that some of them were returning for re-rescue. A typical evening would see us shift around 50 buckets of spoil, plus a number of large rocks.

The larger sandstone boulders were a challenge throughout, with some being on the limit of what we could haul out. The method was simply to fit a self-tightening sling to the boulder, attach the haul line and then retire up the shaft to help with the haul – adding manpower to the hauling and moving away from a position that would clearly be fatal should the sling slip on the boulder. On one occasion, we had a particularly large boulder ready to haul with the usual 2:1 pulley system and 3 diggers. As we began to move it, the weight began to pull the legs of the tripod down into the ground and we were struggling to get the boulder higher, whilst not wanting to let it return to the bottom of the shaft. Fortune smiled and at that movement, my wife Claire arrived with Zach – out for a walk to see how we were getting on. She was quickly commandeered to hauling (though Zach just looked on, probably thinking 'silly buggers') and we managed to get the rather oversized lump of rock up out of the dig and clumsily landed it on the sleepers.

The next time we were faced with a big boulder, we enlisted the help of Clive Jones who offered to chemically reduce it for us. Unfortunately, the charge misfired and with no spare detonator, we had to resort to Toby hacking at it with a lump hammer for some hours, as there was no room to swing a sledge hammer at the bottom of the dig. The only time we did actually use a charge to reduce the size of a boulder was with help from John Lister.

The shuttering was an ongoing requirement, took up quite some time and resulted in a fair amount of the digging effort. We allowed it to enlarge slightly as we descended to give more room to work and it would regularly scare the living daylights out of us as rocks and spoil moved around behind the shuttering as we undermined it each time for the next course. On one occasion, with only Dave Wiltshire and I there, I was at the top ready for a haul and Dave was fitting shuttering about 10 metres below, when there was an almighty 'crack' followed by a very ominous rumble, followed by the sound of rocks falling, followed by Dave being ejected out of the top of the dig, as though fired from a cannon.

When the nearby Gent's Dig was extended in late

Jules Carter having a rest - 2001. Photo by Gary Evans.

Dave working down the shaft: 1997/98. Photo by Gary Evans.

1996, it was surveyed in 1997 and renamed Ogof y Dynion. It was clear that some of the further reaches came close to the direction that we were heading in. We discussed this with a number of people and although there was clearly a possibility of breaking into this now known cave, there was also the possibility that we could be heading directly underneath Ogof y Dynion and into something new. Also, the huge amount of work that we had already done didn't warrant us giving up, so we stuck with it.

Jules Carter joined the team around 2000 and for much of the time it was just the two of us digging in the evenings. We had one particularly interesting session where as the rain became heavier, with both us at the bottom of the shaft struggling to complete an awkward bit of shuttering, the water pouring in on us threatened to drown us where we worked. A hasty fix and a speedy exit were the order of the day and we left the dig for the night, vowing to wait for better weather before returning.

The point at which the shuttering came to an end and we found ourselves surrounded by the limestone shaft marked a key event in the progress of the dig. As the shaft descended it had become more uniform in shape and the shuttering was finished with at last. The dig then turned a corner and descended diagonally, as opposed to the fully vertical shaft that we had been digging up to this point.

Progress was slow from 2002 onwards as we had little spare time to get back to the dig and each time we returned, there would be a period of removing collapsed spoil to regain the previous depth.

We visited the dig in May 2005 and then a busy 2005/2006 meant that the next visit was 28th August, 2006 during digging week, when we broke through into Ogof y Dynion. This was the first day of digging week and with a Team of newcomers to the dig working with me, Martin Hoff broke through to create a new through trip ! Ironically Martin had joked years earlier that he was looking forward to that through trip. It was good that Jules was there on the day after all the work we had put in over the years to find cave with this dig. It was just a pity that it wasn't new cave.

I was disappointed at first that we didn't find anything new, but also pleased that the site we had chosen to dig did lead to cave passage – all a matter of timing in the end.

Thanks to all those who helped with the project over the years. With a final depth of around 20 metres or so, an impressive shaft and a cave at the bottom, it was well worth the effort and enjoyable along the way (if a little scary at times).

Now, what should we do next ?

The earliest picture I have of the dig - 1996. Photo by Claire Evans.

The Case of the Disappearing Bog

Gareth Jones

Waun y Fignen Felen, a large black peat bog seen easily from the track to Sinc-y-Giedd, is the main source of water for the Great North Road in Dan-yr-ogof. It achieved national significance on the 17th January 2006, when shown on the Country File programme on BBC1, which majored on conservation in the Brecon Beacons National Park (BBNP). Several helicopter shots showed the work in progress on the bog. Allegedly, damage was being done to the show cave by increased turbidity of the water from rapid erosion of the bog. The BBNP had attempted to slow this by placing bales of vegetation in the erosion channels, and pinning down hessian matting over the un-vegetated banks. The word 'felen' means yellow, probably referring to yellow flowers when the bog was much wetter many years ago.

The east side drains almost in its entirety to a 20 metre deep limestone cliff, where much digging, to a depth of 30 metres, took place in the 1960s, having to be abandoned in the midst of a boulder choke. Fluorescein was released here in the stream, and traversed the missing one kilometre to the Far Left Series of Dan-yr-ogof, and proceeded at about walking pace down to where the stream sinks in boulders round about the Rocket Silo. The underground flow is usually clear, as would be guessed from the surface, where most of the peat has been washed away, so that the erosion gullies that are left are floored with silica sand. The flow combines with the unknown Giedd branch at the Washing Machine, and continues to the resurgence. The Giedd water is not popular with cave divers, as it is stained brown from peat, and is turbid from peat particles.

However, the peat bog is in fact convex, and the drainage of the west side seems to sink at several points on the western margin, just below some limestone benches. To the south is Greenstick Sink, which was allegedly tested to the foot of Dali's Delight (Coase & Judson, 1977). Extensive digging and scientific work has been done in this western area, and is reported here.

Roaring Hole

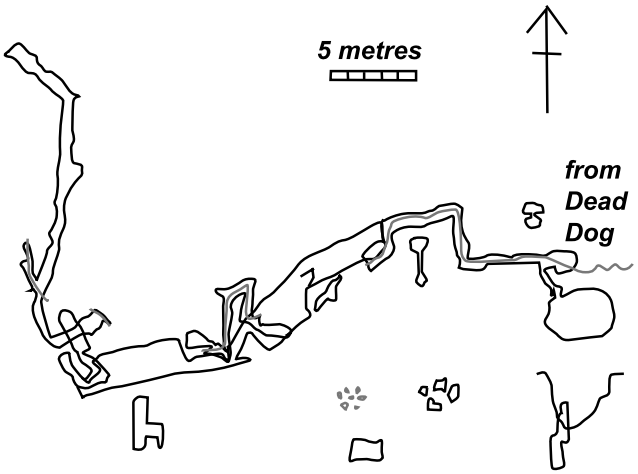
Roaring Hole was discovered simply by walking up at the end of a storm, and listening for water gurgling in the base of the many shake holes. Excavation was started by the late Dr. Jeff Bain and myself, and continued largely by the efforts off Martin Hicks and Martin Laverty. A corkscrew entrance leads to a small chamber with a tight squeeze down to the stream, entered by another tight squeeze. A short hands and knees section leads to a drop, and a sideways squirm. The stream continues into a boulder choke, but a short climb leads up to a walking size passage, whose walls may collapse without warning, hence the name Jericho. Downwards is a low boulder choke into the stream again, followed by a duck into a narrow ending, above which it is possible to climb into some rifts.

As this area became unproductive, an alternative way on was tried, down at the end of Fault Chamber, beyond the remains of an unfortunate fox that must have entered by another shakehole. The stream was eventually regained in a heavily faulted area, which needed much scaffolding. Here, armfuls of peat washed in after each winter flood had to be removed in the ensuing spring. The Garimpeiros website has several pictures of the cave, including the final chamber, which can be seen to continue.

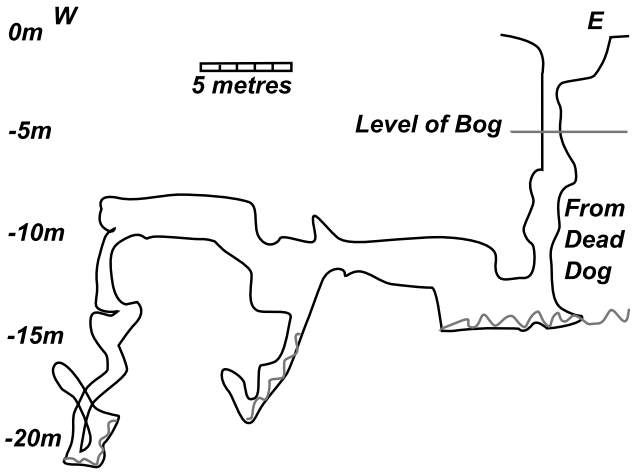
The significance of this small cave is its depth, starting with a 50 foot drop almost immediately to the stream, and from thence going down well below the level of the bog. Extensive signs of flooding show that, following heavy rain, it takes a very large amount of water , and that much peat and silica sand is washed in at this time. Though not dye tested as yet, the water seems to come from the entire West Side of the bog, in particular from Peat sink and Sinc Ddu. It is very probable that it will be joined by the streams from Coral sink and Dai Hunt's Quarry dig to the north.

Dead Dog Cave

Dead Dog Cave is identified by the pile of deads created by excavation in the 1940's, when a dog got stuck down a rift, and it was subsequently dug by Coase, Davies, and Inson in the 1960s (Ibid, p.269). Further digging here in the 90's led to a crawl and a mud wallow, eventually entering a stream. This arrives in the upstream end of Roaring Hole by a



Roaring Hole or Ogof Rhuadwy. Plan view by Martin Laverty



Roaring Hole or Ogof Rhuadwy. Elevation from south by Martin Laverty.

squeeze so tight that it has only been passed once, by Joel Corrigan. Upstream ends in deep water and a sump, close to the downstream end of Rumbling Rift.

Rumbling Rift

Rumbling Rift was discovered by Martin Laverty, who found a draught. A hands and knees crawl enters a rift that can be slithered down, to a stream. Upstream becomes too narrow, heading along a 180 degree rift towards Peat Sink, and downstream ends in a sump. Easy accessibility to the stream makes this ideal for placement of recorders of turbidity and so on.

Bone Yard, Slant Rift, and Vertical Rift

These are a series of flat-out crawls that intercommunicate, and eventually end in Dead Dog Cave. This flat development of about 1000ft, along one bedding plane just a few metres below moorland level, probably occurred at the edge of the bog, when it was a few metres higher than at present.

Sinc Ddu

Sinc Ddu drains most of the west of the bog, and sinks into limestone through narrow rifts. This is an historic sink, recorded in 1977, and can be seen on aerial photographs on http://live.local.com. It is gently graded, and has grass banks on its frequent bends, so that it is fairly well protected from downwards erosion. Some of its source water can be seen draining directly off the bog, whereas the major portion arises at Ebbing and Flowing Well (see opposite).

Peat Sink

Peat Sink must be of recent origin, as it is not recorded on Alan Coase's 1977 surface survey over the Dan-yr-Ogof catchment area. Two metre high walls of peat form a valley with waterfalls, that exposes at its base a 30 cm layer of blue clay, with pebbles of Old Red Sandstone, and lots of silica sand. This is presumably boulder clay, forming a damp-proof membrane underneath the whole of the bog, that maintains the water levels, and allows the sphagnum moss to grow undisturbed into peat. This boulder clay plugging of sinks on the W side of WFF was predicted by Ball and Jones (1999).

The flow of water underground is almost certainly from Sinc Ddu to Peat Sink to Rumbling Rift to Dead Dog Dig to Roaring Hole. The stream seems to follow a joint plane at about 180 degrees, but turns almost due west in Roaring Hole, along a fault. Beyond Roaring Hole, on the surface, are a series of shakeholes following this alignment. Incidentally, there is no sign underground of the N-S fault marked rather optimistically on the geological maps.

The recent origin of Peat Sink is confirmed by an abandoned channel running at a higher level to Sinc Ddu, shown as active on Coase's map. This shows the value of surface mapping over known karst features. Thus the opening of Peat Sink within the last 20 years or so has led to a much steeper gradient of the drainage channels on the west of the bog, with multiple small waterfalls and rapidly down cutting erosion channels. These are almost certainly the origin of the increased turbidity at Dan-yr-Ogof. This consists of two components, brown staining with flecks of peat, and small round grains of what is almost certainly silica sand, appearing at Dan-yr-

Ogof about 4hrs after heavy rain, comparable with the flood pulse time (Farr, 1995 and Stuart France, personal communication).

Surface mapping

This is based on surface surveys by Alan Coase and Martin Laverty. The names of the various sites are recent, and should more or less coincide with the Black Mountain Cave Registry, but are supplemented by various surface features.

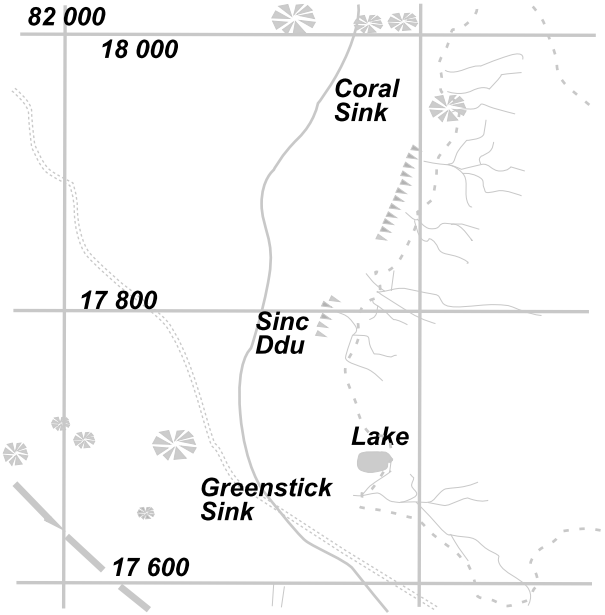
The most interesting site is Ebbing and Flowing Well, whose level goes up and down regularly after disturbance, as with any U-tube. Though large enough for a welly or two, it is too small for a cave diver. Its flow is bigger than that of the surface run off locally, and almost certainly comes from Greenstick Sink, especially as its flow mirrors that of Greenstick Sink in all conditions. An attempt to prove the connection was made with a teaspoonful of fluorescein on 16th April 1994, but it had not reappeared after 4hrs. This was probably a failure on technical grounds, with the dye being adsorbed onto the walls of peat.

Hydrology

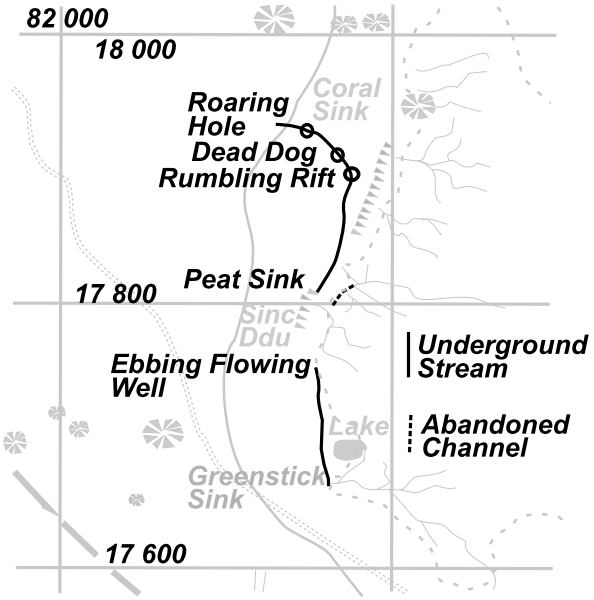
There must be a watershed somewhere, of crucial interest to diggers, between east flowing water that goes down the Great North Road, and westerly flows that enter the unknown Giedd Series, and that could be dug to provide a surface entry.

Bill Gascoine attempted to answer this question by using many different colours of lycopodium spores, but unfortunately there was an unexpected flood that tore his plankton nets, and the data was lost.

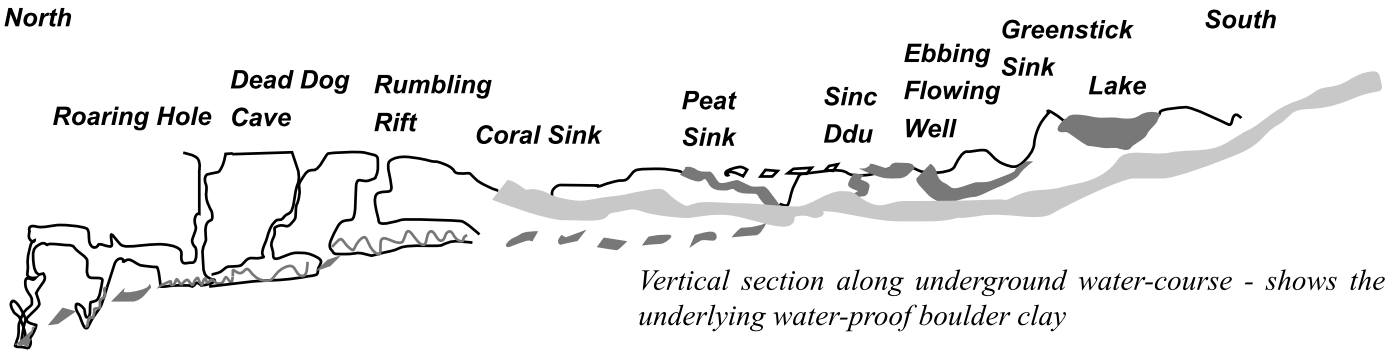
On 6th July 1991 250g of fluorescein was dissolved in the Roaring Hole stream, and tracers were placed at the Washing Machine (combined waters), and at the Rising, on the Great North Road. They were retrieved 72 hours later. The one at the Rising was most definitely negative, and that at the Washing Machine probably positive, though not quite certainly so, due to peat staining. Subject to confirmation by a repeat, then this area does drain to



1977 drainage pattern. After Coase and Judson.



2006 drainage pattern. After Coase and Judson



Vertical section along underground water-course - shows the underlying water-proof boulder clay

the unknown Giedd Series.

Geophysics

Resistivity runs were done with a 75m array at intervals of 3m, which should give some sort of result down to 30m or so. Greenstick Sink was expected to drain south, but there was nothing at all here, fitting nicely with the suggestion that the water does indeed go to Ebbing and Flowing Well.

Three runs along a N-S axis were done to the SW of Roaring Hole, approximately over Clive Jones' abandoned Altar Dig. There was an anomaly of 5m diameter at a depth of 20m, compatible with a southwestwards extension of Roaring Hole.

Summary

Both surface and underground features evolve together, with both influencing one another. Peat bogs are a passing feature of a landscape, as can be seen by the isolated peat hags on higher ground just to the south of Waun-y-Fignen Felen, and also to its north. Today's bog is eroding fast, and the main mechanism seems to be by erosion gullies cutting upstream from sinks into the underlying limestone. The most recent of these, at Peat Sink, is part of this process. The BBNP would be well advised to fill this with bales of vegetation, and to try to stabilise the erosion gullies fanning out from this. It will be interesting to see how far natural processes can be slowed down – this technique has been used with some success on an eroding peat bog in New Zealand. Otherwise, Peat Sink will continue to act as a giant 'black hole', hoovering up the NW segment of the bog, which has left local areas of the peat dry and cracked, so that dust devils may be seen in high wind, as the particles blow away. The abandoned channel to Sinc Ddu already shows a reversed flow in flood, and a few remaining peat towers show where the channel used to be. Further erosion will capture the stream of Sinc Ddu, then Ebbing and Flowing Well, draining the peat sump, and causing a collapse of the bog, with draining of the lake, the only remaining area of sphagnum moss that is creating more peat. Thus the south west segment will go.

The end result of this process can be seen at Coral Sink, where the peat locally has gone, but vegetation has re-established itself on the uneven boulder clay left. Perhaps there will be yellow flowers once more, though not on top of peat.

Cave exploration is a sport in its own right, but the exploration of Roaring Hole has found where the peat is going, and has contributed to an understanding of the surface processes. Access to the Giedd series remains a possibility from around this area, and digging continues.

The local change in the drainage pattern reported here is the second in my lifetime, the first being the beheading of the highest tributaries of the Twrch by the Towy, leaving erosion gullies some 5m in depth (Jones, 1990, and see the latest 1:25,000 maps of the area). This illustrates how active the process of change is, and helps explain why the whole Fforest Fawr region was recently awarded Geopark status, one of only 24 in Europe.

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An Unusual Through Trip

Peter Devlin reports on his trip from Lancaster Hole to Bull Pot of The Witches

Peter in the Bull Pot of The Witches sump on one of the first dives. Photo Toby Speight.

Over the past year a faithful team of Red Rose sherpas and I have been working on a project to dive through from Bull Pot of the Witches to the Wilf Taylor Passage sump in order to survey the sump as part of the Easegill re-survey. This involved what felt like countless carries (8 I think) and equally countless hours of underwater digging a 5m restriction (a bedding plane about a foot from roof to floor) that had been silted up. There was a line laid, but the sump had not been dived through since Clive Westlake had last done it in the mid 80s. On March 31 I managed to dive through and laid my thicker gauge line, so I was now ready to start the survey.

Given that I knew both ends of the trip (ie approaching the sump from BPW or from the Lancs end) I decided it was time to try a solo through-trip. The trip ending up being considerably less smooth than usual, and I believe that with the psychological burden of doing a fairly serious solo trip I was not caving at my best. The mishaps started on the descent into Lancs. Having chucked the rope down, something didn't feel quite right in the hang. I found out halfway down the pitch that the end of the rope had snagged on a ledge 5m above me and would not be freed. As I swapped over to my ascenders I discovered that having tweaked my SRT gear recently and not testing it properly made prusiking with dive gear attached particularly difficult. The rest of the trip to the sump was uneventful, although dragging two bags of dive gear was much harder work than the single bag per caver we normally did. In the sump I found that as I was diving in a new wetsuit I was a little buoyant and I found that surveying while managing my buoyancy I got entangled in the line. I freed myself and returned to the WTP dive base and lifted a kilo from my stash of weights at the sump. Although I had used some air I decided to return to the sump and do the through trip, but decided to ditch the survey.

The dive through took just over 10 minutes and soon I was at the Bull Pot of the Witches end with the dive behind me. A short rest and I was off, this time caving with my bottles in my harness. The caving on the BPW end is harder with gear as the cave is more gnarly, so you can't just drag a bag along behind you as you can on the Lancs end. There is also much more climbing on this end, with 3 pitches and a number of smaller climbs. The technique on the pitches was to climb with my bottles on my harness and a rope attached to me which allowed me to haul the bag up after me. The bottom pitch was fine, but I generally find the second pitch abit difficult. Getting onto the pitch head my first attempt was not successful. Fortunately I was able to step back onto a ledge before making a better attempt. Once off the climb I lay for a minute or two catching my breath considering the undesirability of a 4m fall on a solo trip. On the last pitch I find the first little bit to get off the ground a little tough, but I got up on the fourth attempt. The exit to the cave is via a rifty climb which I generally find a little tight. This time I found that with bottles on my harness there was no way I would make it through, so at the top of the climb I took my bottles off and slung them onto the top of the climb.

I emerged into daylight just 5 hours after having gone underground. I felt that I had been caving slowly carrying the equivalent of two bags, but on reflection the trips take about the same amount of time with a team (albeit carrying bigger bottles and more gear). While I was pleased I had achieved the through trip I had not really enjoyed solo caving and in hindsight I do not believe it was very prudent. Sometimes you learn from your mistakes.

Trans Oz

By Mike Coburn

End of the trip, Rob and Mike at Timor Sea ,Darwin.

This is not a caving trip report but it is a report of a trip by two cavers.
About a year ago we decided to cycle across Australia from south to north, actually it was Robert's idea but I was silly enough to agree. Virgin Blue offered the best deal to Adelaide and they would also take our bikes for free as sporting equipment. We decided to use our old mountain bikes and as the Stuart highway is now sealed for the 3000odd kilometres from Adelaide to Darwin we fitted them with 'Armadillo' kevlar-belted road tyres which proved to be a good investment.

In mid May we flew to Adelaide, bought two one man tents and set off north, this being mid winter the winds were sometimes a little chilly and when we reached the deserts the mornings could be quite cool. Usually we tried to stop at about 5.30 to make camp as there was no twilight and as soon as the sun dropped below the horizon all the flies went to bed and someone turned off the lights and heating, the night skies however were brilliant.

Wind direction seemed to depend on whether a high or a low was moving through the Australian Bight and when coming into Coober Pedy we had three days of strong head winds but we took a R&R day there and after that the winds were mostly from the east or south-east and sometimes gave us a boost. I seemed to run higher gears than Robert and sometimes stood on the pedals going uphill which is probably a bad habit learned in pre-derallieur days as Robert would generally run a lower gear and spin much faster than me and usually got there before me.

In Alice Springs we took two days R&R, the whole town was abuzz with the forthcoming Finke Desert race, with motorbikes and buggies everywhere and even businesses like banks and pharmacies seemed to have displays of off-road motorcycles. We hired a 4WD and went off to investigate the race route and also visited a meteorite impact crater. Alice was our half way point and soon afterwards we crossed the tropic of capricorn, temperatures were rising and with the knowledge that behind us were more miles than in front of us the pedalling seemed to get easier. Perhaps we were also getting fitter as several women wanted to feel our leg muscles, this was a new and not unpleasant experience.

After one more R&R day in Katherine it seemed no time at all before we were riding into Darwin where we had a celebratory beer and dipped our hands in the Timor sea. The next morning we loaded bikes and selves onto the Ghan train which, over two days and two nights took us back to Adelaide and our flight to N.Z.

The trip had taken us 30 cycling days with 4 rest days and the only mechanical problems were a broken spoke on one bike and a broken chain on the other. We had taken 6 spare inner tubes and 45 patches between us and we had not one puncture! Though because of all the thorns in the deserts down South we always unloaded the bikes and carried them to the selected camping spot and parked them upsidedown.

We camped out on 11 nights and slept in roadhouses, backpackers, YHAs and pubs when we could. We carried 2.5 litres of water on each bike and 1.5 litres in our camelbacks. We saw eagles, pelicans, cockatoos, kangaroos, freshwater crocodiles and feral pigs and camels and on two nights we had dingos howling eerilly around the tents. Other road users treated us with courtesy including the roadtrain drivers. We met lots of nice people.

Crossing the Tropic of Capricorn

This trip had been a year in the planning and a month in the cycling and now I feel at a bit of a loose end.

101 Great Caving Trips No. 13 - Return To SVA 37

By Martin Hoff

Sometimes you just get a day when virtually everything possible happens and you deal with it, and have a great time in the process. This was one of those.

Having mopped up all the decent, half-decent and borderline indecent leads on Pico San Vicente in the summer of 2000, the 2001 SWCC trip to Cantabria was based around working on the adjacent, bigger lump of limestone, El Hornijo. This proved to be less of an instant success than we might have hoped, progress was minimal and potential for further work was virtually non-existent.

In the absence of more appealing alternatives, it had occurred to me that we'd given up on one site on San Vicente a bit earlier than we would have done if we had found it later in the trip – at the time it was left, several people had their own particular sites they wanted to push, and since nothing had immediately gone big, we carried on trying to cover as much ground as we could rather than working anything especially hard.

If you look at the cover of SWCC Newsletter 120, you'll see a young Jules Carter rigging the entrance pitch down into SVA37 – he and I were the only two who bottomed the thing as somebody wanted the ropes out sharpish to go off somewhere else, and at the bottom of the impressive entrance shaft we'd found no immediately obvious way on wide open, and left it at that, noting that there was what looked like a continuing shaft in the far wall which might be accessible with the aid of a crowbar and a little brute force.

A couple of years down the line, a continuing shaft requiring a known amount of work seemed a lot more promising than it had at the time; this was after all the bottom of a huge doline, and possibly the most obvious surface cave feature in it at that high a level above the valley. Compared with the blanks that Hornijo was offering, at the very least it was something to definitively tick off and remove from the 'what if?' list.

This is how Andrew Dobson and I came to be repeating that walk up the back of San Vicente, laden down with rope, drill and all manner of impediments. I don't recall the walk up being especially hot, which was a pleasant change, but there was a growing sense of anticipation as we reached the lower lip of the doline. It's a magnificent spot, in the same way the top of Malham Cove is, but significantly less frequently visited.

Our first task was to make our way around the lip of the doline to get down to the point at which we would start rigging. In front of us was the entrance to another site we'd previously marked, and we worked our way across the jagged pinnacle limestone to a point at which we could get across the thinnest part of the surface hole. I stepped down onto a flake of rock that made a foothold in just the right spot for me to reach to the opposite wall, and as I stretched out a leg to step across, the foothold went from under me.

The piece of stone that had formed the less than trusty foothold rattled off down the hole, I tipped backwards and found myself wedged with my back on one side and my feet on the other, and twenty five feet of empty space beneath me. I reversed the move with Andy grabbing the top of my rucksack, just in case, and we reconsidered as I caught my breath. As the only party on that particular hill, losing someone with all the rope in the bag in their back – Andy had the drill, because he's good like that – down a hole (which we had not previously rigged) would have been somewhat careless, and in that situation any sort of injury would probably have rapidly become a little more serious than it might have been elsewhere.

Discretion being the better part of cowardice, we moved off to go the long way and contour round the doline instead. On the grassy slope approaching the ledge where would start to rig, I managed to dislodge a rock that was something like four foot by two foot by a foot, and my adrenaline levels went back up again as it bounced off down the slope further into the doline with a series of crashing noises breaking the silence, rapidly followed by a bout of nervous giggles. Like I said, not a lot of

people go there, so there is plenty of loose rock lying around waiting for a clumsy foot to start it moving.

Finally reaching the place we wanted to be, we then had to deal with the exciting new addition of a dead tree that had fallen across the entrance – it would not have been possible to follow Jules' precise rigging topo particularly closely. Once you get through the cleft into the top of it, the entrance shaft is probably best described as being like a half-height Jingling Pot, a beautiful roomy shaft with plenty of daylight most of the way down.

Having rigged my way around and over the tree, I was enjoying a sedate, sunlit abseil, watching the floor of the shaft come up to meet me. Until the moment I found I had a knot in my hand, and a further three metres or so to go. Back up the shaft I prussiked, taking slack out of the rigging everywhere I could find any before having another go and finding out whether I'd be able to get down. Stepping off onto a small ledge low down on one of the walls, it just reached. I blame the tree, but then I probably would.

While Andy came down to join me, I started on the job of shifting some of the loose rock sat on the top of the pile of big loose rocks obstructing the continuing shaft, and discovered there was one rock in particular sat right on top of everything, that if moved would allow access to the slot where we could see into the space. The rock was about the volume of your average sofa, but perched invitingly. Having found that it was bit more substantial than a crowbar would cope with, and in any case not the sort of thing to be too close to when it moves, discretion again seemed a far better plan.

So we duly whacked a bolt in, tied off the end of a rope, retired to the other side of the chamber and heaved. Unsure of exactly what we expected to happen, the leverage produced by the choice of exactly where to put the bolt was probably more important than we realised. Either that or Andy's even tougher than he looks, as sure enough we managed to haul the rock from its perch onto the floor a few feet below. Down it came with a satisfying crash, and more of those same nervous giggles.

Placing two bolts, I was soon attaching myself to Bob Hall's 9mm washing line and thrutching my way down through the remaining rocks to the pitch proper. It dropped 8m to a choked floor, with a couple of tiny holes in the side but there was nothing going anywhere promising. Getting back up through the slot wasn't quite as epic as it might have been, but still a little interesting knowing how we'd just disturbed the pile of rocks I was working my way up through!

Relaxing in the early evening sunshine after de-rigging, we agreed we could consider the site well and truly ticked off, and with a quick look around the rest of the doline headed back towards the car in the valley below. Satisfied with having achieved something with our day, we made our way back to the camp without further incident. Which was probably just as well, you can have too much of that sort of thing.

Notes for Contributors

Firstly Please, Please, PLEASE write articles for the Newsletter!

Text would ideally be typed up but the editor can take handwritten if required.

Photos should be either be the orginal JPEGs from the camera or TIFFs if manipulated. Please avoid saving more than once as JPEG (the losses in this file format are cumulative). If the originals are from film then please scan from the negatives (much better than from prints) or contact the editor and he or she will be able to help. Please don't embed photos in word documents, Word does terrible things to photos. Scanned photos are best saved as TIFFs or high quality JPEGs.

Diagrams ideally should be in Scaleable Vector Graphics (SVG) format; again contact the editor beforehand, you may be able to save him or her a lot of work!

To repeat the first point again please write articles; even if you ignore all of the above the editor would rather publish your articles than not.

Opposite: 'Order of the Yugoslav Flag with Golden Star'. Photo Ian Alderman.

The 'Order of the Yugoslav Flag with Golden Star' medal awarded to the club in 1966 by President Tito of Yugoslavia for the efforts of club members in recovering partisan's bodies from the depths of the Balinka pit.

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